

SECTION 4.0 ARCHAEOLOGICAL FIELDWORK AND RESULTS

The following sections present the results of the Phase I archaeological survey. Section 4.1 provides the Phase IA archaeological sensitivity assessment for prehistoric and historic archaeological resources and the division of the APE into 15 areas based on that assessment, Section 4.2 describes the survey methodology, Section 4.3 summarizes the results of the Phase IB archaeological survey, and Sections 4.4 to 4.16 detail the specific results of the Phase IB archaeological survey in Areas 1-15.

4.1 Assessment of Archaeological Resource Sensitivity

The assessment of archaeological resources sensitivity for this project is based on background research, existing regional and local predictive models, the environmental setting, a geomorphological investigation (see Appendix J), and a field reconnaissance. The background research synthesis was presented in Section 3.0. The APE partial chain-of-title was constructed based on primary deed research (see Tables 3.4 to 3.12). Historic maps and atlases, primary historical accounts (e.g., Smith 1608; 1612; Dankaerts 2007), secondary historic sources, archaeological data syntheses, documented historic and prehistoric archaeological resources, and prior cultural resources surveys in the vicinity of the APE were examined. Consultation was undertaken with archaeologists and the APE's tenant farmer and owner.

As detailed in Section 3.4, historic and prehistoric archaeological sensitivity models developed for the U.S. Route 301 corridor (A.D. Marble & Company 2006a, 2006b; Kellogg 1992; Siders 1993a) and similar settings elsewhere in the Mid Peninsular Drainage Divide and Delmarva Peninsula were studied for this survey (Bachman et al. 1987, 1989; Custer et al. 1986a; Custer 1989; De Cunzo and Catts 1990; Kavanagh 1979; Lothrop et al. 1987; Lowery 2002, 2003; Petraglia et al. 1998, 2002). Based on these models, prehistoric sensitivity was generally considered highest in undisturbed, level, well-drained upland settings within 150 meters (500 feet) of wetlands or streams, and in proximity to critical resources, moderate between 150 and 250 meters (500-800 feet) of wetlands or streams, and low, further from water or in poorly drained, wetland, or disturbed areas.

The Phase IA pedestrian reconnaissance was conducted on October 17, November 11, and November 14, 2008 by the Principal Investigator, Ilene Grossman-Bailey (Plates 4.1-4.8). The APE consisted of an agricultural field ringed with deciduous woodlands and divided by a farm lane that extended from U.S. Route 301 to the western end of the APE (see Plates 4.1, 4.2, and 4.3).



Plate 4.1:

Overview of the APE and the farm lane that crosses it from the Rumsey Farm near U.S. Route 301.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: November 11, 2008



Plate 4.2:

Overview of the APE from the farm lane crossroads.

Photo view: Northeast

Photographer: Ilene Grossman-Bailey

Date: November 11, 2008



Plate 4.3:

Overview of the APE from the western end of the farm lane.

Photo view: Southeast

Photographer: Ilene Grossman-Bailey

Date: November 11, 2008



Plate 4.4:

Overview of the northern portion of the APE.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: November 11, 2008



Plate 4.5:

Overview of the northern portion APE.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: November 11, 2008



Plate 4.6:

Overview of the southwestern agricultural portion of the APE.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: November 11, 2008



Plate 4.7:

Overview of the northeastern agricultural portion of the APE from the north-south farm lane.

Photo view: Southeast

Photographer: Ilene Grossman-Bailey

Date: November 11, 2008



Plate 4.8:

Northern end of the farm lane at the tributary to Sandy Branch.

Photo view: Northeast

Photographer: Ilene Grossman-Bailey

Date: November 11, 2008

The north-south farm lane is located at the eastern end of the APE. It extends northeast from a crossroads containing ornamental Osage-orange trees, through a forested area (see Plate 4.8) and terminates at the tributary of Sandy Branch. The wooded portions of the APE to the northeast are set on wooded bluffs ranging from five to 30 feet in elevation adjacent to wetlands and floodplains of a tributary to Sandy Branch. Aside from agricultural uses and the farm lanes, the APE appeared undisturbed. Artifacts noted on the surface of the unplowed fields included small amounts of brick, ceramics, and glass. These were not collected.

A geomorphological investigation conducted by Daniel Hayes in December 2008, involved examination of the APE and representative test borings (Plates 4.9-4.11, Hayes 2009, see Appendix J). The investigation concluded that portions of the APE are located on shallow deflated uplands with minimal surface variation (see Plate 4.9). Filled in swales and low elevated knolls were observed at the northern and southern boundaries of the APE. The upland portions of the APE were considered to have high potential for prehistoric resources in areas that are close to water sources. Due to erosion, artifacts and prehistoric site potential were considered most likely within the A-horizon (topsoil) and upper portions of the B-horizon (subsoil) within the upper 60 centimeters and unlikely to be found lower in the soil column. Outfall locations in the northern (see Plate 4.10) and southern (see Plate 4.11) end of the APE fall within floodplains of the tributaries of Sandy Branch to the north and south. These floodplains contain recent alluvial deposits and were incised by the meandering streams during the Holocene. The floodplains were considered to have very low potential for prehistoric resources. During the geomorphological investigation, a quartz biface was located in the upland portion of the APE adjacent to a monitoring well near the farm lane and was retained (see Appendix G).

Prehistoric Resource Sensitivity

The majority of prehistoric sites in the vicinity of the APE consist of ephemeral lithic scatters or short-term seasonal procurement sites close to water (see Table 3.1). It is likely that sites within the APE will be of this type. Larger sites such as Bohemia Mills or Hack Point, tend to be located closer to the confluences of high order streams. Based on the presence of known sites nearby, the topographic setting, proximity to watercourses, and general lack of disturbance, the APE has areas of moderate to high sensitivity for prehistoric resources, particularly for small seasonal procurement sites (Figure 4.1). If sites contain datable components, they are most likely to date to the Woodland I period.



Plate 4.9:

Geomorphological investigation in the APE.

Photo view: Southwest

Photographer: Ilene Grossman-Bailey

Date: December 3, 2008



Plate 4.10:

Geomorphological investigation in the APE, testing near a tributary to Sandy Branch to the north.

Photo view: Northeast

Photographer: Ilene Grossman-Bailey

Date: December 3, 2008



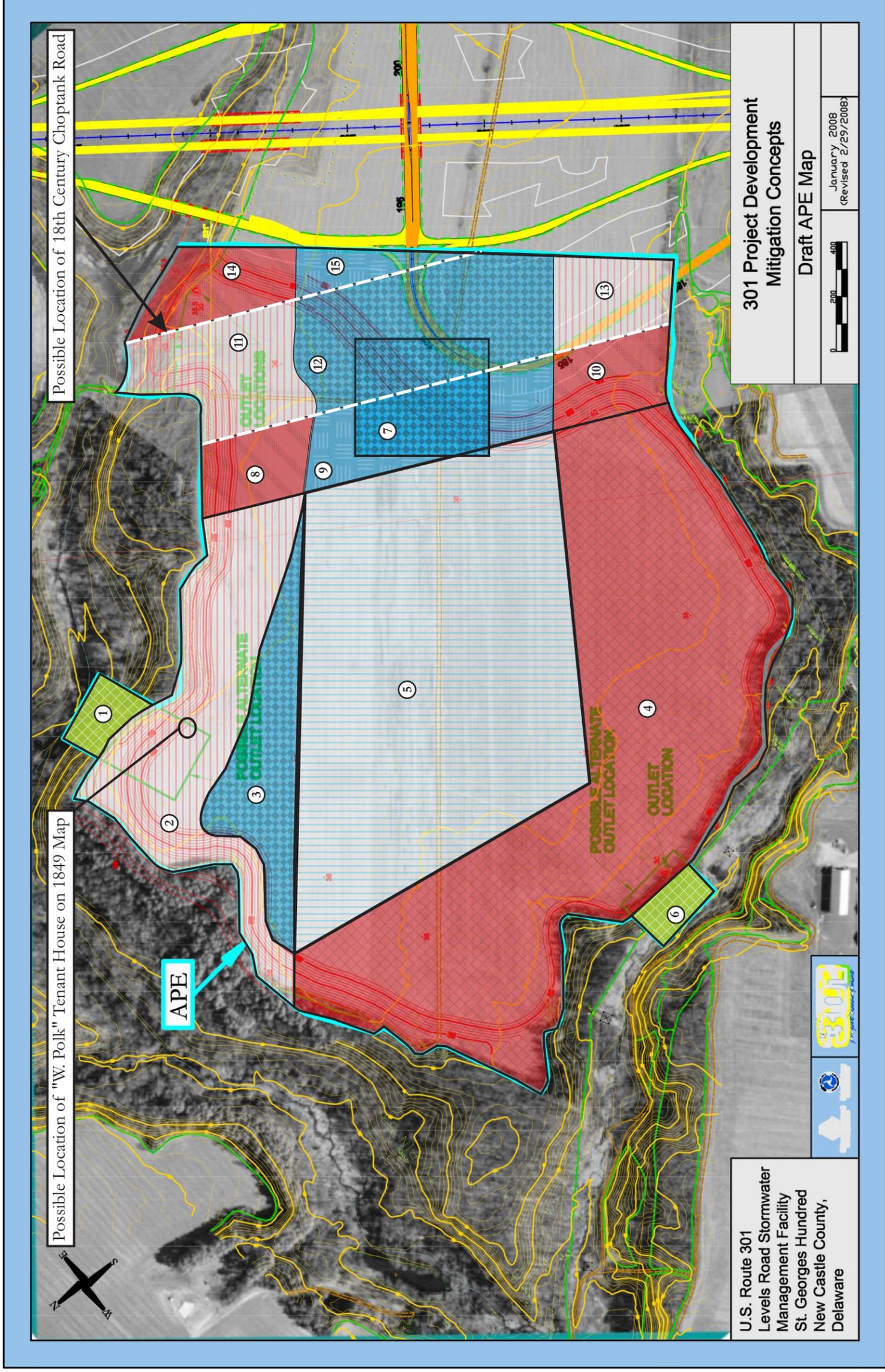
Plate 4.11:

Geomorphological investigation in the APE, testing near a tributary to Sandy Branch to the south.

Photo view: Southwest

Photographer: Ilene Grossman-Bailey

Date: December 3, 2008



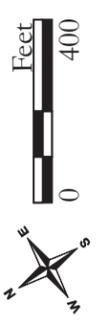
- High Prehistoric/High Historic
- High Prehistoric/Moderate Historic
- High Prehistoric/Low Historic
- Moderate Prehistoric/High Historic
- Moderate Prehistoric/Moderate Historic
- Moderate Prehistoric/Low Historic
- Low Prehistoric/High Historic
- Low Prehistoric/Moderate Historic
- Low Prehistoric/Low Historic

→ Numbered areas are defined in text and Tables 4.1 and 4.2.



Figure 4.1:

Map of Existing Conditions showing the prehistoric and historic archaeological potential for U. S. Route 301 Levels Road Mitigation Site and Areas 1-15.



Site settings varied over time. Paleo-Indian site settings are associated with upland knolls or sand ridges adjacent to poorly drained areas such as swamps and bogs, as well as bay/basin features and proximity to high quality lithic sources including cobble sources. Deeply buried sites may be present on floodplains and upland settings where extensive aeolian or alluvial deposits are present. No Paleo-Indian sites have been recorded in the APE, its vicinity, or the Bohemia River drainage, but the flat grassy area of the “Levels” and abundant cobble resources may have been attractive to Paleo-Indian groups (Jay Custer, personal communication December 18, 2008). Upland settings near small headwater streams and wetlands are present in the APE, but no apparent sand ridges, dunes, bay/basin features, or deeply buried alluvial or aeolian settings are believed to be present. In summary, the potential for Paleo-Indian sites is low.

Archaic site settings are associated with freshwater swamps, intensive use of bay/basin features, and floodplains. One possible Archaic period site is present within two miles of the APE (Bohemia Mills) and findspots of diagnostic bifurcate points have been documented in headwaters of the Bohemia River drainage, although none of the settings described above as important for Archaic settlement are present within the APE. This suggests that there is moderate potential for Archaic sites in the APE.

Woodland I settlement included large intensively occupied macro-band camps found in resource rich floodplain and estuarine settings and smaller micro-band to procurement sites found in drainage divides, near low order streams, in headwaters, near bay/basin features, and uplands. The lengthy Woodland I period is generally represented by the greatest number of sites in the region, including two in the vicinity of the APE (Bohemia Mills and Wilson Farm). A wide variety of settings were occupied during this period and the potential for a Woodland I period site within the APE is considered high.

Woodland II settlement was increasingly sedentary. Macro-band sites are located along major streams, but the use of varied environmental settings continued during this period. No Woodland II period sites have been identified for the APE or its vicinity, but are present elsewhere in the Bohemia drainage. The potential for Woodland II period sites is considered moderate. Contact period or early colonial period Native American sites are known to exist in the Bohemia drainage (e.g., Bohemia Mills) but such sites are rare. The presence of historic Native American trails through the area (e.g., the “Delaware Path”) does raise the potential for Contact period or early colonial period Native American sites within the APE. The potential for encountering such a site in the APE is moderate.

The northern and southern upland portions of the APE within 150 meters of the tributaries of Sandy Branch are considered to have high sensitivity for prehistoric archaeological resources. The central upland portions of the APE between 150-250 meters from the tributaries are considered to have moderate sensitivity (Figure 4.1). Based on the geomorphological study, recent alluvial floodplains at the northern and southern end of the APE are considered to have very low sensitivity.

Table 4.1 provides a tabular description and numerical breakdown of the various archaeologically sensitive areas of the APE shown on Figure 4.1.

Table 4.1: Levels Road Mitigation Site Archaeological Potential and Phase IB Archaeological Survey Field Strategy.

Area ⁵	Acreage	Archaeological potential of numbered area	Proposed Phase IB Research Methods
1	1.06	Very low (Recent alluvial floodplain)	None
2 ⁶	11.98	High potential prehistoric and historic. Possible location of 1849 W. Polk tenant house will be a focus of the survey efforts	100% Pedestrian survey, metal detector survey, STPs (50) and EUs (2) as needed
3	5.54	Moderate potential prehistoric/high potential historic. Possible location of 1849 W. Polk tenant house and an area with a stand of trees shown on historic maps will be the focus of survey efforts	100% Pedestrian survey, metal detector survey, STPs (50) and EUs (2), as needed
4	39.84	High potential prehistoric/low potential historic	100% Pedestrian survey STPs @ 15 meter intervals along the wooded perimeter of the field and in wooded areas along five relict drainages, and EUs (4) as needed
5	31.75	Moderate potential prehistoric/low potential historic	Surface reconnaissance, discretionary STPs (50) and EUs (2) as needed
6	0.96	Very low (Recent alluvial floodplain)	None
7	4.66	Moderate potential prehistoric/high potential historic, historic farm lane crossroads	100 % Pedestrian survey, STPs along existing farm lane and crossroads @ 7.5 meter intervals (34), and EUs (1) as needed
8	2.51	High potential prehistoric/moderate potential historic	100 % Pedestrian survey, STPs as needed and in the wooded area @ 15 meter intervals (18)
9	1.45	Moderate potential prehistoric and historic	100% Pedestrian survey STPs and EUs as needed
10	4.17	High potential prehistoric/moderate potential historic	100 % Pedestrian survey, STPs as needed and in the wooded area @ 15 meter intervals (12)
11	4.99	High potential prehistoric and historic ⁷	100% Pedestrian survey, metal detector survey, STPs and EUs as needed
12	5.88	Moderate potential prehistoric/high potential historic	100 % Pedestrian survey, STPs and EUs as needed

⁵ see Figure 4.1 for locations

⁶ Areas 2 and 3 were combined during the Phase IB archaeological survey

⁷ During the initial Phase IA historic research, several lines of evidence indicated that the possible location of the former eighteenth century Choptank Road was within Areas 11-13. Subsequent research suggested the road was located to the east of the APE.

Table 4.1; cont.

Area ⁸	Acreage	Archaeological potential of numbered area	Proposed Phase IB Research Methods
13	3.90	High potential prehistoric and historic	100% Pedestrian survey, metal detector survey, STPs and EUs as needed
14	3.15	High potential prehistoric/moderate potential historic	100 % Pedestrian survey, STPs in the wooded area @ 15 meter intervals (18 per acre) (24), STPs and EUs as needed
15	1.38	Moderate potential prehistoric and historic	100% Pedestrian survey, STPs and EUs as needed
Totals	Estimated total acreage of APE: 123.21		

Historic Resource Sensitivity

The APE and its vicinity have been occupied since the seventeenth century, and portions are within original seventeenth and eighteenth century patents, such as Adjuncture and Booker’s Uppermost (see Figures 3.26, 3.32). Land use in the vicinity of the APE has been consistently rural and agricultural as can be seen on mid-nineteenth to twenty-first century maps and aerial photos (see Figures 1.3, 2.1-2.5, 3.12-3.25). In addition, the APE may contain undocumented resources related to pre-nineteenth century settlement, tenant farms and farmhouses, and enslaved and free African Americans.

The assessment of the potential for historic archaeological resources draws from an analysis of historic sources and historic cartographic materials. High potential for historic archaeological resources is based on the presence of documented pre-1940 farms, mills, houses and other structures. In addition, the presence of extant or documented historic roads and railroads is an important indicator for historic sites. Navigable waterways and early roads as well as historic accounts of early settlers may be important indicators for sites that pre-date the eighteenth century, but such sites are difficult to adequately predict and archaeologists are concerned that early sites may be missed (Charles Fithian, personal communication December 18, 2008; Lu Ann De Cunzo, personal communication January 21, 2009, see Appendix D).

The sensitivity for historic archaeological resources within the APE is high within 200 feet of the documented 1849 “W. Polk” structure and within 200 feet of the farm lane crossroads (see Figure 4.1, see Table 4.1). Areas of moderate potential are within 500 feet of these documented resources. During the Phase IA research, it was hypothesized that a non-extant portion of Choptank Road had possibly bisected a portion of the eastern part of the APE, but further research and an examination of the circa 1735 Rumsey Manuscript map (see Figure 3.5) led to the conclusion that the road was located to the east of the APE. Historic archaeological resources, if present, could contribute to the

⁸ see Figure 4.1 for locations

significance of the existing National Register-listed Rumsey Farm (NR 3/30/78, CRS # N00113) to the east of the APE (see Figure 3.1).

4.2 Phase IB Archaeological Survey Methodology

The methodology for the Phase IB archaeological survey was defined in the August 5, 2009 SOW for the project (see Appendix B). Methods included a pedestrian survey and surface collection, a metal detector survey, preliminary spatial analyses of surface collections from each area, the excavation of STPs and EUs within identified archaeological sites and loci, artifact and feature analyses, and report production.

A geomorphological investigation of the APE was completed as part of the Phase IA archaeological survey in December 2008 (Hayes 2009, see Appendix J). The investigation included an examination of map resources and previously conducted geotechnical studies of the APE, a site visit, hand-extraction of cores in select locations, and examination of cut bank exposures. Profiles were mapped according to both natural sedimentology, as well as post-depositional soil formation (pedology).

Based on the geomorphological investigation, portions of the two outfall areas (Areas 1 and 6) that fell within the floodplain of the tributaries to Sandy Branch were determined to contain recent alluvium with very low potential for archaeological resources (Hayes 2009, see Appendix J) and were not subjected to Phase IB archaeological testing. Portions of Areas 12, 13 and 15 fell within the APE for U.S. Route 301 Section 3 (Study Area 3) and were surface collected as part of the archaeological survey for that project (Richard Grubb & Associates, Inc. 2011).

The pedestrian survey was conducted within agricultural portions of the APE in areas of moderate to high potential for prehistoric and historic resources in Areas 2/3, 4, 7, 8, 9, 10, 11, 12, 14 and 15. Plowed, disked, and rain-washed fields were examined by a team of archaeologists walking at three-meter intervals apart. The survey team examined each area twice; the second pass was made at right angles to the first. Area 5 was considered to have moderate potential for prehistoric resources, and was examined by the Principal Investigator. Dennis and Michael Clay, who have farmed the APE for several years, were interviewed about their knowledge of artifacts and sites within the APE (see Appendix D). Neither had recovered any artifacts or was aware of any sites within the APE.

During the pedestrian survey, historic and prehistoric artifact locations were marked with colored pin flags. Each prehistoric artifact was assigned a number and bagged individually. Prehistoric artifacts were designated P and numbered consecutively (e.g., P001, P002, etc.). Historic artifacts

were assigned a number with an H designation, and also numbered consecutively (e.g., H001, H002, etc.). Artifacts were collected immediately and bagged in re-sealable plastic bags and tagged with a bag tag indicating the date of their collection, field identification, and provenience number. Modern debris, such as recent bottle glass, aluminum cans, foil, paper or plastic food wrappers, modern plastic, and cigarette parts, and heating by-products, such as coal and coal ash were not retained. Brick fragments smaller than one-inch in diameter were not retained. Artifact locations, locational stakes, and landmarks were recorded using an electronic Nikon DTM-362 total station and Garmin Oregon 400T Global Positioning System (GPS). The artifact locational data were downloaded and imported into AutoCAD Map 3D 2010.

A metal detector survey was performed by BRAVO and consisted of a pedestrian survey by BRAVO's experienced volunteers who employed several models of electronic metal detectors in Areas 2/3, 7, 11, 12, 13, and a small portion of Area 15. Metal artifacts were located in the upper 10-20 cm of the plowzone and removed with hand-trowels. Locations of pre-twentieth century metal artifacts were recorded using a total station and their locations indicated on project maps. Modern metal debris, such as aluminum cans, foil, bottle caps, modern tractor and automobile parts, and a cell phone, were discarded. Retained artifacts were cleaned (dry-brushed) and catalogued by BRAVO and RGA (See Appendix H). BRAVO's report is appended (see Appendix I).

Shovel test pits (STPs) were excavated in wooded areas, near the farm lane cross roads, and in other locations described below and in consultation with DeDOT. Shovel test pits were excavated at 15-meter intervals on a grid in the wooded portions of Areas 11 and 14. They were placed at 7.5-meter linear intervals along the farm lane and crossroads in Area 7. In Area 2/3, STPs were placed at 7.5 meter intervals at the outside limits of a concentration of prehistoric and historic artifacts. Areas 4 and 5 were sampled by linear STPs placed in settings with topographic variation. Radial STPs were placed at cardinal directions three meters from selected surface finds or STPs positive for selected prehistoric and historic artifacts. Shovel test pits measured 50 centimeters (cm) in diameter and were excavated using round-bladed shovels into the upper portions of subsoil below the level of cultural materials (sterile levels or at least 60 cm below ground surface [BGS]). Soils removed from the STPs were excavated by stratum and each stratum screened separately for artifacts through quarter-inch mesh hardware cloth. Shovel test pit locations were plotted on a map of existing conditions. Descriptions of each stratum, including Munsell color, texture, soil designation (i.e., loam, clay, sand), and presence or absence of cultural material, was recorded on standardized forms (see Appendix F). Shovel test pits were immediately backfilled upon completion to restore the ground to its natural contours. Representative digital photographs of field activities were taken.

Excavation units (one meter square) were placed in artifact concentrations and feature locations in consultation with DeDOT. The EUs were excavated using square and round bladed shovels into the upper portions of the subsoil (sterile levels or at least 60 cm BGS). The plowzone or topsoil (Ap-horizon) was excavated as one level, and the subsoil (B-horizon) strata was excavated in 10 cm arbitrary levels. Soils removed from EUs were separated by level and/or stratum and screened for artifacts through quarter-inch mesh hardware cloth. Descriptions of each stratum, as described above, were recorded on standardized forms. Cultural features were explored within the confines of EUs and exposed portions of the features recorded (i.e. plan and profile drawings). The features were covered with tarps and backfilled. Other EUs were documented and backfilled upon completion. Excavation unit locations were plotted on a map of existing conditions.

Artifacts were processed in the RGA laboratory in Cranbury, New Jersey. Artifacts were logged, washed in plain tap water, air-dried, and rebagged in new 4 mil resealable polyethylene bags with their tags included. After processing, the artifacts were cataloged on standard forms that minimally included their provenience information, count, category and type of artifact, and description. Standard artifact references were consulted to aid in identifying and dating cultural materials (see Appendices G and H). Upon acceptance of this report, artifacts will be labeled, packaged, and curated as required by DESHPO.

Maps with surface finds, STPs, EUs, and archaeological loci were created in AutoCAD Map 3D 2010 and artifact distribution maps were created in ESRI ArcGIS 9 ArcMap Version 9.3.

4.3 Summary of Phase IB Archaeological Survey Results

The Phase IB archaeological fieldwork within Study Areas 2/3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, and 15 included a pedestrian survey of 82.29 acres of plowed and disked agricultural fields, a metal detector survey of 34.61 acres, and excavation of 291 STPs and seven EUs. A total of 160 prehistoric artifacts and 2,090 historic artifacts was recovered and six archaeological sites were identified. The results of the survey are summarized in Table 4.2 (Figures 4.2 and 4.3). Areas 1 and 6 were considered to have very low archaeological potential and were not tested during the Phase IB portion of the survey.

4.4 Areas 1 and 6

Outfall locations are proposed for these two areas that comprise approximately two acres (see Figures 4.1 and 4.2). Area 1 is located in the northwestern portion of the APE (see Plate 4.10) and

Area 6 is at the southern end (see Plate 4.11). These areas fall in the floodplains of tributaries of Sandy Branch at a lower elevation than most of the APE. As previously indicated, these areas were examined during the Phase IA portion of the archaeological survey, which included a geomorphological investigation (see Appendix J). The latter investigation concluded that Areas 1 and 6 are located on recent alluvial floodplains of that are frequently scoured and have very low potential for archaeological resources (see Table 4.1) No Phase IB archaeological fieldwork was conducted in Areas 1 and 6.

Table 4.2: Results of the Phase IB archaeological survey.

Study Area	Total Acreage	Acres of Pedestrian Survey	Acres of Metal Detector Survey	STPs	Units	Prehistoric Artifacts Recovered	Historic Artifacts Recovered	Sites Located
1	1.06	NA	NA	NA	NA	NA	NA	NA
2/3	17.52	17.52	17.52	84	4	74	1,413	Rumsey/Polk Tenant/Prehistoric site (CRS # N14492, Site # 7NC-F-112), Levels Road Area 2/3 Prehistoric site (CRS # N14493, Site # 7NC-F-113)
4	39.84	39.84	0	78	1	51	43	Levels Road Area 4 Prehistoric site 1 (CRS # N14494, Site # 7NC-F-114), Levels Road Area 4 Prehistoric site 2 (CRS # N14495, Site # 7NC-F-115)
5	31.75	Unplowed field examination by Principal Investigator	0	53	1	1	21	None
6	0.96	NA	NA	NA	NA	NA	NA	NA
7	4.66	4.66	4.66	36	1	6	214	Area 7/12 Brick Locus (part of Rumsey Site # 7NC-F-121, CRS # N14501)
8	2.51	2.51	0	7	0	0	55	None
9	1.45	1.45	0	0	0	0	11	None
10	4.17	4.17	0	0	0	5	17	None

Table 4.2; cont.

Study Area	Total Acreage	Acres of Pedestrian Survey	Acres of Metal Detector Survey	STPs	Units	Prehistoric Artifacts Recovered	Historic Artifacts Recovered	Sites Located
11	4.99	2.54	2.54	22	0	8	39	Levels Road Area 11/14 Prehistoric site (CRS # N14496, Site # 7NC-F-116)
12	5.88	4.38	5.88	4	0	4	204	Area 7/12 Brick Locus (part of Rumsey site; Site # 7NC-F-121, CRS # N14501)
13	3.9	1.4	3.9	0	0	0	3	None
14	3.15	2.54	0	7	0	11	45	Levels Road Area 11/14 Prehistoric site (CRS # N14496, Site # 7NC-F-116)
15	1.38	1.28	0.1	0	0	0	23	None
Totals	123.21	82.29	34.61	291	7	160	2,090	

4.5 Area 2/3

The combined area is located at the northern end in an agricultural portion of the APE adjacent to a wooded bluff to the north and east overlooking the floodplain and tributary of the Sandy Branch (Figure 4.4a and 4.4b, see Plates 4.4 and 4.5, see Figures 4.1-4.3). Area 2 measures 11.98 acres and Area 3 measures 5.54 acres. Areas 2 and 3 (a total of 17.52 acres) were grouped together during the Phase IB portion of the archaeological survey since they were adjacent and slated for the same testing strategies (see Tables 4.1 and 4.2). The Phase IA portion of the archeological survey concluded that Area 2 had high potential for both historic and prehistoric resources and Area 3 had high potential for historic and moderate potential for prehistoric resources (see Table 4.1). The determination of high potential for historic resources was based on historical background research and cartographic evidence of prior settlement. This included the location of the former "W. Polk" structure on the 1849 Samuel M. Rea and Jacob Price Map of New Castle County. The determination of high potential for prehistoric resources in Area 2 was based on environmental factors, including proximity to the tributary of Sandy Branch north of the APE and the results of the geomorphological investigation.

Phase IB archaeological fieldwork in Area 2/3 (Table 4.3, see Table 4.2) consisted of the pedestrian survey, surface collection, and metal detector survey of 17.52 acres; spatial analyses of artifacts and delineation of site boundaries; excavation of 84 STPs and four EUs within archaeological site loci;

and artifact processing and cataloging. A total of 74 prehistoric artifacts and 1,413 historic artifacts was recovered and two historic features were identified. Two sites were identified that contain both prehistoric and historic assemblages. These are the Rumsey/Polk Tenant/Prehistoric site (CRS # N14492, Site # 7NC-F-112) and the Levels Road Area 2/3 Prehistoric site (CRS # N14493, Site # 7NC-F-113).

Table 4.3: Results of the Archaeological field survey in Area 2/3.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/ Surface Collection	930	71
Metal detector Survey	98	0
84 STPs	67	3
4 EUs:	317	0
EU 2A	1	0
EU 2B	78	0
EU 2C	147	0
EU 2D	91	0
Totals	1,413	74

Pedestrian Survey/Surface Collection and Metal Detector Survey

A pedestrian survey of 17.52 acres in Area 2/3 (Plates 4.12-4.16) resulted in the collection of 73 prehistoric artifacts and 930 historic artifacts. The metal detector survey in Area 2/3 (Plates 4.17 and 4.18) identified 98 historic artifacts for a total of 1,028 historic artifacts (Figures 4.5-4.7). An analysis of the distribution of prehistoric and historic artifacts was undertaken to determine if potentially significant sites were present and to identify locations for subsurface archaeological testing.

Prehistoric artifacts included tools, debitage, cores, and thermally altered or fire cracked rock, also known as FCR or TAR (Figure 4.8, Table 4.4, see Appendix G). Tools located in Area 2/3 consist of six bifaces and biface fragments and a unifacial scraper. Bifaces classified as formal projectile points include two with contracting stems, a broken unfinished stemmed point fragment, and a Woodland I (Late/Terminal Archaic) Koens-Crispin point (Figure 4.9, see Appendix G, Custer 1996, 2001). The other three bifaces are fragments of unidentified tools. A unifacial scraper was also located. These artifacts represent a range of site activities in Area 2/3 including cooking, hide and food processing, tool manufacture, and tool maintenance.

Table 4.4: Prehistoric artifacts from surface collection in Area 2/3.

Artifact type	Count
Bifaces and Scraper	7
Debitage	23
Cores	4
FCR	37
Total	71



Plate 4.12:

Pedestrian survey in Area 2/3.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: November 10, 2009



Plate 4.13:

Pedestrian survey in Area 2/3.

Photo view: West

Photographer: Ilene Grossman-Bailey

Date: November 18 2009



Plate 4.14:

Concentration of prehistoric and historic artifacts in the Rumsey/Polk Tenant/Prehistoric site in Area 2/3.

Photo view: West

Photographer: Ilene Grossman-Bailey

Date: November 10, 2009



Plate 4.15:

Pedestrian survey in Area 2/3.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: November 6, 2009



Plate 4.16:

Pedestrian survey in the eastern portion of Area 2/3.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: November 6, 2009



Plate 4.17:

Metal detector survey in the Rumsey/Polk Tenant/Prehistoric site concentration of prehistoric and historic artifacts in Area 2/3.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: November 21, 2009



Plate 4.18:

Metal detector survey in the Rumsey/Polk Tenant/Prehistoric site in Area 2/3.

Photo view: North

Photographer: Tara Bini

Date: November 21, 2009



Figure 4.9:

Sample of prehistoric bifaces and tools from Study Area 2/3.

Left to right: Quartz biface (Cat. # 1), Quartz point (Cat. # 48),
Woodland I Koens-Crispin-like quartz point (Cat. # 63),
Chert scraper (Cat. # 50), Quartz scraper (Cat. # 94).



An assortment of lithic materials is represented in this assemblage (Figure 4.10, Table 4.5). Quartz and quartzite are the most frequent material types represented. Quartz was most commonly used for tools as well as for cores and debitage, while quartzite and sandstone were more commonly used in heating (FCR). The FCR may represent the remains of hearths. Bifaces (see Figure 4.9) were made of quartz (4), chert (1), and chalcedony (1). Chert and quartz cores and argillite, chert, jasper, and quartzite debitage represent tool manufacturing or maintenance by the site occupants. Cortex (or the outer pebble or cobble crust) on 18 artifacts is an indication that exploitation of locally available cobbles occurred. In addition to the FCR, one chert and one jasper artifact show signs of heating, such as cracking, discoloration, or potlids.

Table 4.5: Prehistoric artifacts by lithic type from surface collection in Area 2/3.

Lithic type	Count	Cortex present
Argillite	1	0
Chalcedony	1	1
Chert	9	8
Jasper	1	1
Quartz	23	4
Quartzite	23	3
Rhyolite	0	0
Sandstone	13	1
Total	71	18

An examination of the horizontal distribution of prehistoric artifacts concluded there are three loci of prehistoric artifacts in Area 2/3 (see Figure 4.8). In the northeastern portion of the study area, a concentration of nine artifacts including two pieces of debitage, two cores, and five FCR was located in an area measuring approximately 80 by 40 meters (0.32 hectare/0.79 acre). This concentration was considered potentially significant and named the Levels Road Area 2/3 Prehistoric site (CRS # N14493, Site # 7NC-F-113).

Two prehistoric loci are in the western portion of Area 2/3. One is in the center of Area 2/3 and measures approximately 140 by 140 meters (1.96 hectares/4.8 acres). Thirty seven prehistoric artifacts were found in this area, including five bifaces (including the Koens-Crispin point, see Figure 4.9), two cores, debitage, and FCR (Figure 4.11, see Figure 4.8). A second smaller locus is at the northern end of Area 2/3 on a peninsular terrace adjacent to a bluff on the east. It measures approximately 120 by 80 m (0.96 hectare/2.3 acre) and contains one biface, a core, debitage, and FCR (see Figure 4.8). These two loci were separated by approximately 60 meters in which four artifacts were found including two bifaces (see Figure 4.8). Both are considered part of the Rumsey/Polk Tenant/Prehistoric site (CRS # N14492, Site # 7NC-F-112) in consultation with

DelDOT/DESHPO. The site measures 220 by 120 meters (2.64 hectares/6.5 acres) and includes an historic artifact assemblage, discussed below.

Historic artifacts collected in Area 2/3 during the pedestrian and metal detector portions of the survey include 265 architectural items and 676 domestic artifacts, along with minor quantities of other artifact types (Figure 4.12, Table 4.6, see Figures 4.5 and 4.6, see Appendix H).

Table 4.6: Historic Artifacts by Group from Area 2/3 surface collection.

Artifact Group	Count
Agricultural	3
Architecture	265
Arms	4
Faunal	2
Domestic	676
Hardware	9
Industrial	2
Miscellaneous	26
Personal	37
Tobacco	4
Total	1,028

Analysis of the distribution of historic artifacts indicates more than half (1,028) of all 1,625 historic artifacts recovered during the pedestrian and metal detector surveys were recovered from Area 2/3 (see Figures 4.5 and 4.6, see Appendix H). Of these, 880 historic artifacts of all groups represented, or about 200 per acre (see Figure 4.12), constitute one of two historic loci of the Rumsey/Polk Tenant/Prehistoric site (Locus 1). Locus 1 is in the southern part of the site and measures approximately 140 by 140 meters (1.96 hectares/4.8 acres). The dense distribution of artifacts includes architectural debris (Figure 4.13) and domestic artifacts (Figures 4.14 and 4.15) (Figures 4.16-4.21, see Appendix I). The second historic artifact locus (Locus 2) identified within the Rumsey/Polk Tenant/Prehistoric site lies at the northern end of Area 2/3 (approximately 0.96 hectare/2.3 acre) and contains 20 historic artifacts including a brick fragment, nails, and historic ceramics (see Figures 4.12-4.14).

The horizontal patterning of architectural items from the two historic loci was examined to identify potential locations of former structures (Table 4.6, see Figure 4.13). The analysis concluded that approximately 200 architectural items including brick fragments, nails, window glass, house hardware and slate roofing tiles (see Table 4.7) are concentrated in Locus 1 of the Rumsey/Polk Tenant/Prehistoric site. Locus 2 is a low density historic artifact scatter with no concentrated architectural debris. In Locus 1, the concentration of architectural artifacts is considered evidence of



Figure 4.15:

Ceramics and Wine Glass Stem from Area 2/3.

Top row, left to right: Scratch blue decorated base fragments (Cat. # 284 and 293), Red earthenware fragment (Cat. # 442), Red earthenware spout fragment (Cat. # 614), Sliptrail decorated red earthenware (Cat. # 614).

Middle row, left to right: Staffordshire (Cat. # 562), Porcelain (Cat. # 603), Creamware (Cat. # 2028), Red earthenware (Cat. # 2028).

Bottom row, left to right: Wineglass stem (Cat. # 2033), Red earthenware base (Cat. # 2033), Red earthenware handle (Cat. # 2033).



a possible former structure in the Rumsey/Polk Tenant/Prehistoric site. Beyond the limits of the site, linear brick scatters were also identified across the northeastern end of Area 2/3. Other architectural or domestic items were not found in association with these brick scatters and their origin or function is unknown. They are not considered to mark a former structure location or historic site, but may represent secondary deposition or translocation of brick as a result of agricultural practices.

Table 4.7: Architectural artifacts from surface collection and metal detector survey in Area 2/3.

Artifact Type	Count
Brick	218
Window glass	13
Door knobs and house hardware	3
Tiles	6
Hand-forged nails	13
Cut nails	4
Wire nails	0
Unidentified nails	2
Spikes	5
Building stone	1
Total	265

Agricultural and armament artifacts in the Rumsey/Polk Tenant/Prehistoric site include copper buckles, a hand-forged iron ring, an English gunflint, an eighteenth century brass flintlock "pocket" pistol barrel, a musket ball, and a modern shotgun shell (see Figures 4.16 and 4.17, see Appendices H and I). The copper buckles may be elements of horse tack or other types of harnesses used in the context of animal husbandry. The gunflint, musket ball, and pistol barrel may be related to farming or recreational activities during the eighteenth century.

Domestic, personal, and tobacco-related artifacts recovered in the Rumsey/Polk Tenant/Prehistoric site resulted from eighteenth through twentieth-century occupation. Historic ceramics comprise over 90 percent (623 of 676) of the domestic artifacts. Identified ceramic types with manufacturing date ranges are summarized in Table 4.6 (see Appendix H). The horizontal distribution of eighteenth through nineteenth century ceramics indicates the densest concentration occurs (approximately 590) in Locus 1 of the Rumsey/Polk Tenant/Prehistoric site (see Figures 4.14 and 4.15). Scattered historic ceramics are found elsewhere including the northern locus of the Rumsey/Polk Tenant/Prehistoric site. The ceramics, along with other artifacts from the eighteenth through nineteenth centuries, reflect domestic occupation during those periods (Figures 4.22-4.25).



Figure 4.17:

Pistol barrel and gun flint from Area 2/3.

Left to right: English Gun Flint (Cat. # 389),
Brass Flint-lock Pistol Barrel (Cat. # 1216).





Figure 4.18:

English copper halfpenny coins.

Top row: Worn George III (1760-1820) halfpenny (Cat. # 1207).

Bottom row: 1739 George II halfpenny (Cat. # 1213).





Figure 4.20:

Metal buttons from Area 2/3.

Top Row, left to right: (Cat. # 460, 1160, 1174, and 1178).
Middle Row, left to right: (Cat. # 1186, 1208, 1209, and 1227).
Bottom Row, left to right: (Cat. # 1242 and 1245)



Figure 4.21:

Pipe stems, a thimble, and shoe buckle from Area 2/3.

Top row, left to right: Pipe stem (Cat. # 389), Pipe stem (Cat. # 730).
Bottom row, left to right: Thimble (Cat. # 1219), Buckle fragment (Cat. # 1181),
Shoe buckle fragment (Cat. # 1239).



Although there are relatively few eighteenth century artifacts, they are located within the Rumsey/Polk Tenant/Prehistoric site loci and their presence is strongly indicative of an undocumented eighteenth century archaeological site since those artifacts are unlikely to be the result of manuring or agricultural practices of the nineteenth century (e.g., Roberts and Barrett 1984, see Figure 4.22). Numerous artifacts with extended periods of manufacture spanning the seventeenth to nineteenth centuries were also recovered (see Figures 4.23-4.25).

Table 4.8: Historic Ceramics in Area 2/3 from surface collection.

Period of Manufacture	Ceramic Type	Count
<i>17th-19th century</i>	Red earthenware	218
	Chinese export porcelain	1
	Brown stoneware	1
	Gray stoneware	10
	Total	230
<i>18th century</i>	Staffordshire slipware	1
	scratch blue white salt-glazed stoneware	2
	white salt-glazed stoneware	2
	tin-enameled ware	1
	Red earthenware (cogged)	1
	Astbury	1
	Gray stoneware (Westerwald like)	2
	Soft paste porcelain	1
	Total	11
<i>18th-19th century</i>	Annular	1
	Creamware	135
	Gray or black stoneware	2
	Hard red bodied	15
	Pearlware	52
	Porcelain	1
	Red earthenware	27
	Total	233
<i>19th century</i>	Flow blue	1
	Mocha	1
	Red earthenware (manganese interior/exterior)	1
	Stoneware ink bottle	1
	Whiteware	117
	Yellowware	1
	Total	122
<i>19th-20th century</i>	White granite	3
	Porcelain	1
	Total	4
	<i>Total ceramics with date ranges</i>	<i>600</i>

In addition to ceramic artifacts, other domestic items were made of glass, iron, and copper. Fifty-one fragments of bottle, vessel, and table glass were collected. Most of these artifacts have extended

periods of manufacture, however one lead glass tumbler fragment may date to the eighteenth century. Two iron kettle fragments that could date to the eighteenth or nineteenth centuries and a nineteenth to twentieth century copper alloy Queen Anne style flatware spoon fragment were also found within the Rumsey/Polk Tenant/Prehistoric site.

Personal items recovered from the site include 22 buttons, eight of which were manufactured during the eighteenth century (see Figures 4.19 and 4.20). Five coins were recovered, including a 1739 George II halfpenny, a 1760-1820 George III halfpenny, a possible George I coin, and two nineteenth century U.S. cents (see Figure 4.18). Other artifacts include five shoe buckles (see Figure 4.21), a thimble (see Figure 4.21), and two porcelain marbles (see Appendix H).

In summary, spatial analyses of the total artifact assemblage resulting from the Area 2/3 surface collection and metal detector survey resulted in the identification of two multi-component archaeological sites. Locus 1 of the Rumsey/Polk Tenant/Prehistoric site is a dense locus of prehistoric, eighteenth century, and nineteenth century artifacts in the central portion of Area 2/3 adjacent to a swale or drainage. Domestic, architectural, and personal artifacts include a wide variety of ceramic types, an eighteenth century pistol barrel, and eighteenth and nineteenth century coins and buttons. The site is believed to be related to the former W. Polk (tenant) farmstead shown on the 1849 Rea and Price map. Locus 2, a smaller locus of prehistoric and historic artifacts is located to the north and may also have formed as a result of the W. Polk tenant occupation. This smaller locus is also considered part of the Rumsey/Polk Tenant/Prehistoric site (CRS # N14492, Site # 7NC-F-112). Because a proportion of both loci include eighteenth century artifacts, the initial historic settlement of this general area was suspected to pre-date the W. Polk farmstead. An additional small concentration of prehistoric artifacts, is located at the eastern end of Area 2/3 east of a swale or drainage, and is referred to as the Levels Road Area 2/3 Prehistoric site (CRS # N14493, Site # 7NC-F-113). In addition to the two archaeological sites, brick scatters found to the northeast of the Rumsey/Polk Tenant/Prehistoric site boundaries were evaluated and considered unrelated to the historic archaeological site.

Shovel Test Pits

A total of 94 STPs was excavated in Area 2/3 (see Figures 4.4a and 4.4b). Sixty-nine STPs sampled the Rumsey/Polk Tenant site, 12 STPs sampled the Levels Road Area 2/3 prehistoric site, and 13 STPs sampled brick scatters in the eastern portion of the area. Three prehistoric and 67 historic artifacts were recovered from the STPs (see Table 4.3, see Appendices G and H).

Typical soils in Area 2/3 STPs consisted of a dark grayish to dark yellowish brown sandy silt or silt loam Ap-horizon (topsoil) approximately 20-30 cm thick overlying a yellowish brown sandy clay loam B-horizon (subsoil). Quartz cobbles were noted in the subsoil and ranged from approximately 10 to 30 percent of the soil matrix (see Appendix E).

The Rumsey/Polk Tenant/Prehistoric Site

Twelve STP's (STP 2-1 to 2-12) and eight STPs bracketing surface finds H00293/H00294 (a fragment each of white salt glazed and scratch blue ceramics) were placed in the northern portion of Area 2/3 to investigate Locus 2 of the Rumsey/Polk Tenant/Prehistoric site (see Figure 4.4a). A fragment of quartz debitage was located in STP 2-5. Five historic artifacts were also recovered from these STPs. Included were two sherds of red earthenware in STPs 2-5 and 2-6, a fragment of whiteware in STP H0293/H0294, and two fragments of a 1750-1780 Whieldon creamware teapot in STP H0293/ H0294W (see Figure 4.15). A possible historic post feature, Feature 1, was located in STP H0293/H0294E.

Between the two loci of Rumsey/Polk Tenant/Prehistoric site, twelve STPs were placed to bracket surface finds P0063, P0033, and H0284 (four STPs around each) (see Figure 4.4a). One STP, P0063S, contained a fragment of creamware and the rest were sterile.

Thirty-three STPs (see Appendix E, see Figure 4.4a) were placed on grid coordinates surrounding Locus 1 of Rumsey/Polk Tenant/Prehistoric site. In addition, four STPs bracketed a biface found on the surface (P0043). Grid STP N5825/E4150 contained a prehistoric quartz core. Fourteen of the grid STPs contained 39nineteenth century artifacts identified as whiteware, red earthenware, yellowware, pearlware, stoneware, brick, window glass, and a hand-forged nail. No historic artifact concentrations or features were located. Three STPs (P0043 N, S, and W) bracketing surface find P0043 contained 10 historic artifacts, including fragments of whiteware, red earthenware, hard red bodied ware, creamware, vessel glass, and a corroded possible hand-forged nail.

Levels Road Area 2/3 Prehistoric Site

Twelve STPs were placed near prehistoric artifact surface finds in the Levels Road Area 2/3 Prehistoric Site (see Figure 4.4b; see Appendices E, G and H). Soils were similar to those described above. No prehistoric artifacts and 17 historic artifacts were located in five of these tests. These consisted of one fragment of brick from STP 2-22, four fragments of brick and a fragment of coal in STP 2-24, four fragments of brick and a fragment of coal in STP 2-30, four fragments of brick and a fragment of granite in STP 2-31, and a sherd of whiteware from STP 2-32.

Non-Site Areas

Thirteen STPs were placed in four low density clusters of brick and prehistoric artifacts located to the east (see Figure 4.4b; see Appendices E, G and H). Only one prehistoric artifact, a fragment of quartz debitage was located in STP 2-14. No historic artifacts were found.

Although some of the STPs fell within the boundaries of Area 8, sampling of the brick clusters was included as part of the survey in Area 2/3. A low number of brick and other artifacts were located but no evidence of a historic site. The brick clusters are considered to have formed as a result of plowing and are not considered indicative of a potentially significant historic site.

Excavation Units

Four EUs (2A-2D) were completed in Area 2/3 to provide more information about the Rumsey/Polk Tenant/Prehistoric site (see Figure 4.4a; see Table 4.3). The EU soil profiles were similar to those recorded in STPs. The Ap-horizon soils consisted of a brown silt loam ranging from 19 to 30 cm in depth. The B-horizon consisted of a yellowish brown clay loam excavated to 60 cm in depth.

Excavation Unit 2A was placed in Locus 2 of the Rumsey/Polk Tenant/Prehistoric site with STP H0293/H0294E centered in the EU (Plate 4.19). The Ap-horizon of this EU contained one fragment of white salt-glazed stoneware and flecks of brick and charcoal. Feature 1, previously identified in STP H0293/H0294E, was exposed in plan at the base of the Ap as a rectangular, brown silt loam soil stain measuring 45.7 cm by 15.2 cm. It was interpreted as a historic post feature and was not excavated. The EU 2A excavation was terminated and the feature covered and EU backfilled. No artifacts were recovered from the surface of the feature or B-horizon.

Excavation Units 2B, 2C, and 2D were excavated in Locus 1 of the Rumsey/Polk Tenant/Prehistoric site. The Ap-horizon in EU 2B contained 77 historic artifacts, including fragments of creamware, pearlware, whiteware, hard red bodied earthenware, red earthenware, a hand-forged nail, and the stem of a wine glass manufactured from 1755-1785 (see Figure 4.15). Feature 3 in EU 2B was identified in plan at the A-B interface as a 30-cm diameter circular, mottled and charcoal-flecked soil stain containing red earthenware sherds (Plate 4.20). It was interpreted as the truncated base of a pit feature and was not excavated. Artifacts from the surface of the feature were not collected. No artifacts were located in the B-horizon. The EU 2B excavation was terminated and the feature covered and EU backfilled.



Plate 4.19:

Excavation Unit 2-A with Feature 1 (not excavated).

Photo view: North

Photographer: David Strohmeier

Date: December 17, 2009



Plate 4.20:

Excavation Unit 2-B with Feature 3 (not excavated).

Photo view: Northwest

Photographer: David Strohmeier

Date: December 18, 2009

The Ap-horizons of EU 2C and 2D contained 145 and 92 historic artifacts, respectively, including a horseshoe, a cut nail, a hand-forged nail, a white ball clay pipe stem fragment with a 5/64th inch bore, fragments of creamware, pearlware, whiteware, hard red bodied earthenware, porcelain, red earthenware, gray salt-glazed stoneware, bottle and window glass, and marine shell and bone. The ceramic assemblage included several types of teaware reflecting domestic occupation from the late-eighteenth through the nineteenth centuries. No features were identified and no artifacts were found in the B-horizon.

Conclusion

The pedestrian survey and surface collection, metal detector survey, and excavation of 84 STPs and four EUs in Area 2/3 resulted in an assemblage of 74 prehistoric artifacts and 1,413 historic artifacts. Two features, a post and a pit feature, were identified, and covered for future excavation in a further phase of investigation. Spatial analyses of the distribution of cultural material across Area 2/3 resulted in the identification of two archaeological sites. The Rumsey/Polk Tenant/Prehistoric site (CRS # N14492, Site # 7NC-F-112) consists of two prehistoric and t historic artifact loci measuring approximately 2.64 hectares/6.5 acres (see Figure 4.4a). This site is interpreted as the location of a former tenant house or farmstead shown as owned by "W. Polk" on the 1849 Rea and Price map, but not surveyed on the 1868 Beers Atlas. The site was part of a tract owned by William Rumsey Sr. and the Rumsey family from 1742 until 1836, when it was purchased by William Polk. It was then owned by Polk, his daughter Eliza Polk Cochran, and the Cochran family during the nineteenth century as part of the "Rumsey" Farm. The estimated location of the structure and surrounding land was included within an area of high historic resource potential in the U.S. Route 301 predictive model (A.D. Marble & Company 2006a).

The Levels Road Area 2/3 Prehistoric site (CRS # N14493, Site # 7NC-F-113) is a low density prehistoric site that includes 10 artifacts in an area of approximately 0.32 hectare/0.79 acre located at the eastern end of Area 2/3 (see Figure 4.4b).

The low density brick scatters in the northeastern end of Area 2/3 and outside the boundaries of the Rumsey/Polk Tenant/Prehistoric site are not indicative of a potentially significant historic archaeological site, but are the result of nineteenth and twentieth century agricultural manuring (see Roberts and Barrett 1984) and plowing that displaced the brick from other locations.

4.6 Area 4

Area 4 is located at the southern end in an agricultural portion of the APE adjacent to a wooded upland or low bluff (approximately five feet high) overlooking the floodplain and tributary of the Sandy Branch (Figures 4.26a, 4.26b, and 4.26c, see Plates 4.3 and 4.6, see Figures 4.1-4.3). The Phase IA portion of the archeological survey concluded that Area 4 had high potential for prehistoric resources and low potential for historic resources (see Table 4.1). High potential for prehistoric resources was based on environmental factors, including proximity to the tributary of Sandy Branch south of the APE, the presence of several small drainages or tributaries within the Area, and the results of the geomorphological investigation. Area 4 had greater topographic variation than Area 2/3 with gently rounded and sloping upland knolls divided by a lower-lying swale or filled drainage areas. Low potential for historic resources was based on the lack of any documented historic resources, roads, and structures in Area 4.

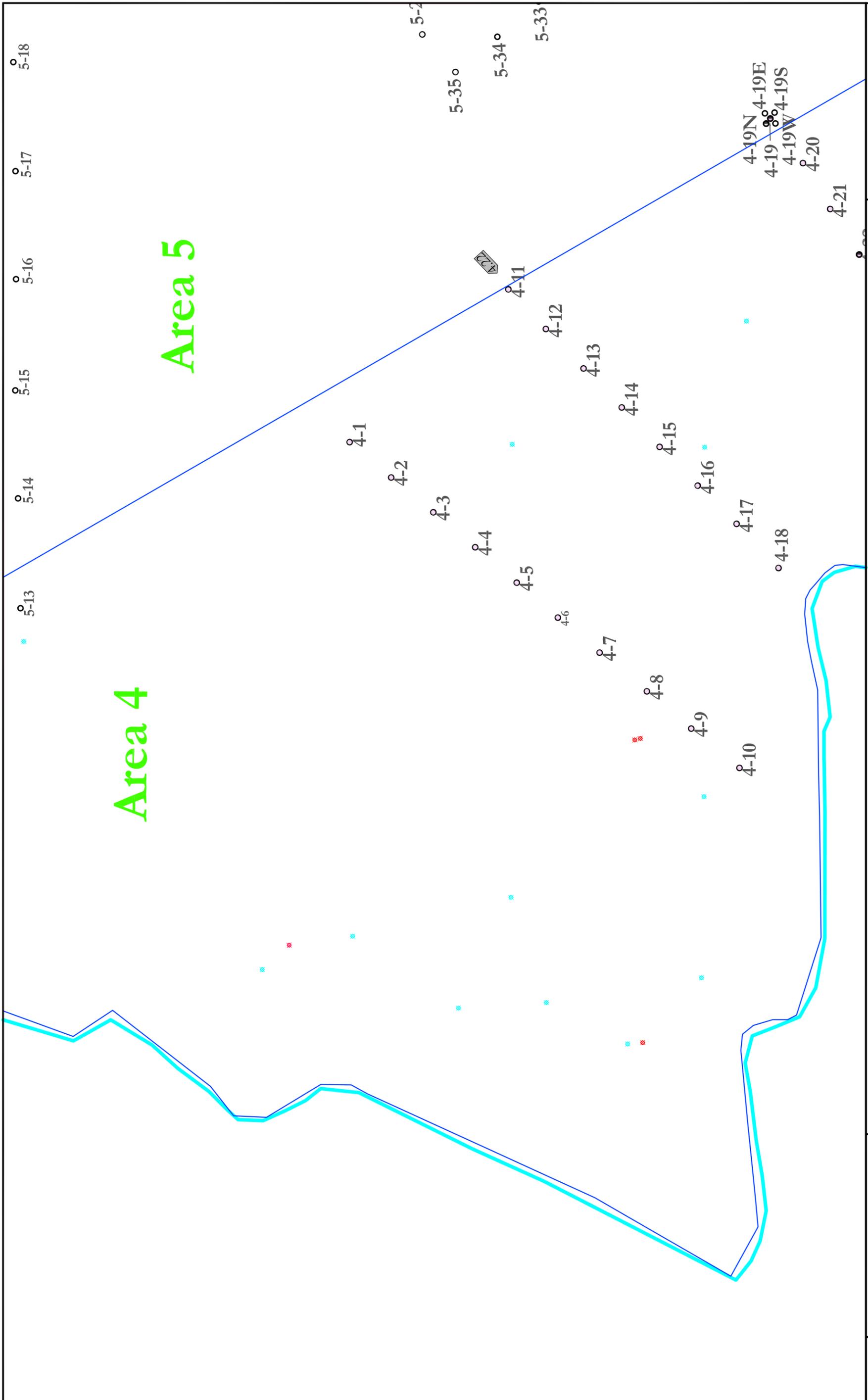
Phase IB archaeological fieldwork in Area 4 (Table 4.9; see Table 4.2) consisted of the pedestrian survey and surface collection of 39.84 acres; spatial analyses of artifacts and delineation of site and loci boundaries; excavation of 78 STPs and one EU; and artifact processing and cataloging. A total of 51 prehistoric artifacts and 43 historic artifacts were recovered. The investigation resulted in the identification of the Levels Road Area 4 Prehistoric site 1 (CRS # N14494, Site # 7NC-F-114) and Levels Road Area 4 Prehistoric site 2 (CRS # N14495, Site # 7NC-F-115).

Table 4.9: Results of the Archaeological field survey in Area 4.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/Surface Collection	42	37
78 STPs	1	11
1 EU	0	3
Totals	43	51

Pedestrian Survey/Surface Collection

Pedestrian survey and surface collection of 39.84 acres in Area 4 located 42 historic artifacts and 37 prehistoric artifacts (Plate 4.21, see Figures 4.3, 4.5, 4.6, 4.7, 4.8, 4.10, 4.13, 4.14, 4.23, 4.24, 4.25, 4.26a, 4.26b, and 4.26c). The cultural material assemblage recovered and mapped during the pedestrian survey of Study Area 4 was analyzed for evidence of spatial patterning, in order to justify the delineation of possible archaeological sites or cultural loci and guide subsurface testing in consultation with DelDOT.



Area 4

Area 5



- Key:
- Phase I Unit
 - ⊠ Photo Plate Location
 - ⊠ Prehistoric Surface Find
 - ⊠ Historic Surface Find
 - ⊠ STP - Historic Cultural Material
 - ⊠ STP - Prehistoric Cultural Material
 - ⊠ STP - Prehistoric and Historic Cultural Material
 - ⊠ STP - No Cultural Material

Figure 4.26a:

Map of Area 4 showing surface finds, STPs, and photo locations.

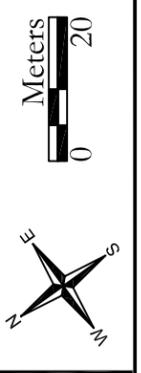




Plate 4.21:

Pedestrian survey in Area 4.
Photo view: West
Photographer: David Strohmeier
Date: December 28, 2009

Prehistoric artifacts recovered include tools and debitage (Figures 4.27, 4.28, Table 4.10, see Appendix G). Chipped stone tools include four projectile points bearing morphological attributes consistent with Susquehanna (chert), Poplar Island (jasper and quartz), and Bare Island (quartz) types considered diagnostic of the Woodland I period (see Figure 4.28, see Appendix G, Custer 1996, 2001; Ritchie 1989). In addition to these, unclassified projectile point fragments recovered from Area 4 include a quartz contracting stemmed point fragment, a rhyolite side notched point, and two quartz point. Other tools identified in the assemblage are two quartzite hammerstones, a quartz chopper, three quartz scrapers, and a jasper unifacial flake tool fragment. These artifacts represent a potential range of activities that may have taken place within Area 4 including tool preparation and maintenance, skinning and hide preparation, butchering, cutting of plant matter, incising of wood, leather, or bone, woodworking, and artwork.

Table 4.10: Prehistoric artifacts from surface collection in Area 4.

Artifact type	Count
Tools	15
Debitage	22
Total	37

An assortment of locally available lithic materials is represented in this assemblage (see Figure 4.11, Table 4.11). Quartz is dominant in the assemblage and is represented by tools, cores, and debitage. (see Figure 4.9). Hammerstones and debitage of chert, ferruginous quartzite, jasper, quartz, and quartzite are evidence that tool manufacture or maintenance took place. As in Area 2/3, the presence of cortex on 13 artifacts is an indication that expedient use of locally available cobbles occurred. Evidence of heating was noted on seven items, including jasper, chert, rhyolite, and quartzite tools in the form of discoloration or change in surface texture.

Table 4.11: Prehistoric artifacts by lithic type from surface collection in Area 4.

Lithic type	Count	Cortex present
Chert	4	2
Ferruginous Quartzite	1	0
Jasper	4	4
Quartz	22	3
Quartzite	3	2
Rhyolite	1	0
Siltstone	2	2
Total	37	13

The horizontal distribution of prehistoric artifacts was diffuse (less than one per acre) with no clear patterning (see Figures 4.26a, 4.26b, 4.26c, and 4.27), although it was observed that prehistoric artifacts tended to be located on the tops and side slopes of the gently rolling uplands and along the



Figure 4.28:

Sample of prehistoric tools and bifaces from Area 4.

Top row, left to right: Quartz chopper (Cat. # 72), Susquehanna-like chert biface (Cat. # 75), side notched rhyolite biface (Cat. # 76), Jasper Poplar Island biface (Cat. # 79).

Bottom row, left to right: Quartz Bare Island biface (Cat. # 82), Quartz Poplar Island biface (Cat. # 84), Hammerstone (Cat. # 91).



southern edge of the area adjacent to the tributary of Sandy Branch (see Figures 4.8 and 4.27). As a result two prehistoric sites were delineated in this area in consultation with DESHPO. The sites were registered with DESHPO as the Levels Road Area 4 Prehistoric site 1 (CRS # N14494, Site # 7NC-F-114) and Levels Road Area 4 Prehistoric site 2 (CRS # N14495, Site # 7NC-F-115), divided by a drainage swale or dry tributary rather than distinctive artifact patterning.

The Levels Road Area 4 Prehistoric site 1 (CRS # N14494, Site # 7NC-F-114) is located west of the swale in the southwestern portion of Area 4 and measures 140 by 120 meters (1.68 hectares/4.15 acres). Seven prehistoric artifacts were surface collected within this site, including the Susquehanna-like projectile point, the untyped rhyolite point, and a quartz biface fragment (see Figure 4.28).

The Levels Road Area 4 Prehistoric site 2 (CRS # N14495, Site # 7NC-F-115) is located east of the swale in the southeastern portion of Area 4 and measures approximately 400 by 120 meters (4.8 hectares/11.86 acres). Approximately 24 prehistoric artifacts were surface collected within this site, including the Poplar Island and Bare Island projectile points, a quartz biface fragment (see Figures 4.27 and 4.28), a quartzite hammerstone, and two quartz scrapers.

In addition to the two prehistoric archaeological sites, forty-two historic artifacts identified as either domestic or architectural were recovered from surface collection in widely separated locations in Area 4 (Table 4.12, see Figures 4.6, 4.13, and 4.14, 4.26a, and 4.26b). Identified historic artifacts with known dates of manufacture are nineteenth century ceramic wares, or are general ceramic types that were produced over more than a century (Figure 4.29, see Figures 4.14 and 4.23). Historic artifact density increased slightly near a twentieth century farm lane as a result of agricultural activities. No eighteenth-century artifacts were found in Area 4.

Table 4.12: Historic Artifacts by Group from Area 4 surface collection.

Artifact Group	Count	Artifact type	Count
Architecture	12	Brick	11
		Window glass	1
Domestic	30	Bottle glass	7
		Vessel glass	2
		Gray/tan stoneware	2
		(Late) Creamware	1
		Porcelain	3
		Red earthenware	3
		Vitreous china	1
		White granite	1
		Whiteware	10
Total	42		42



Figure 4.29:

Sample of historic artifacts from Area 4.

Left to right: Gray stoneware handle (Cat. # 815), Porcelain fragment (Cat. # 817),
Opaque glass (Cat. # 821), Porcelain fragment (Cat. # 825),
Vitreous china (Cat. # 831).



Shovel Test Pits

Seventy-eight STPs were excavated in Area 4 (Plate 4.22; see Figures 4.26a, 4.26b, and 4.26c). These STPs were used to collect additional data from the Levels Road Area 4 Prehistoric Site 1 (28 STPs), the Levels Road Area 4 Prehistoric Site 2 (18 STPs), four STPs bracketed a non-site artifact, and 28 STPs were placed in consultation with DelDOT archaeologists.

Soils in Area 4 differed from Area 2/3 in terms of thickness of the Ap-horizon (topsoil), which ranged from 14 to 40 cm in thickness, increased clay in the subsoils, and overall subsoil hue. A few STPs contained a second Ap stratum. A line of STPs placed in a filled in swale or drainage excavated in the southwest portion of the area (STPs 4-12 to 4-18) contained a 40-45 cm thick Ap-horizon or two Ap-horizons (see Appendix E). These STPs were extended approximately 60 to 75 cm into the silty clay loam subsoil. None of these deep STPs contained artifacts.

Levels Road Area 4 Prehistoric Site 1

Twenty-eight STPs bracketed seven surface finds in Site 1, including three bifaces, a tool, and debitage (see Figure 4.26b). These STPs did not contain any artifacts.

Levels Road Area 4 Prehistoric Site 2

Twelve STPs bracketed three surface finds in Site 2, including two bifaces and adjacent surface finds of debitage. Subsequently six additional STPs bracketed positive bracket STPs in a concentrated locus near surface finds P0103 and P0104 (see Figure 4.26c, see Appendix E). Shovel test pit P0103/104WWW, a bracket of positive STPs adjacent to surface finds P0103/ P0104, yielded a fragment of colorless glass (see Figure 4.26c, Appendix H).

Six STPs in a small locus near adjacent surface finds P0103/P0104 (STPs P0103/P0104, P0103/P0104WW, P0103/P0104WWN, P0103/P0104 WWN, P0103/P0104WWS, and P0103/P0104WWW) contained a total of seven fragments of quartz, jasper, quartzite, and siltstone debitage (see Figure 4.26c, see Appendix G).

Levels Road Area 4 Non-Site STPs

Twenty-eight STPs (4-1 to 4-28) were placed within upland and low-lying topographical settings in the southwestern portion of the area in the location of the largest drainage in consultation with DelDOT archaeologists (see Figure 4.26a). Four additional STPs were placed at 3 meter intervals in cardinal directions from STP 4-19, which contained a fragment of chert debitage (see Figure 4.26a). One fragment each of quartz, jasper, and chert debitage were found in STP 4-19, its northern bracket STP 4-19N, and STP 4-22 (see Figure 4.26b, see Appendix G).



Plate 4.22:

Shovel testing in Area 4.

Photo view: West

Photographer: David Strohmeier

Date: December 28, 2009

Excavation Unit

EU 4A was excavated within the Levels Road Area 4 Prehistoric Site 2 in a small prehistoric locus near surface finds P0103/104 and its positive bracket STPs (Plate 4.23, see Figure 4.26c, see Appendix G). The Ap-horizon of this EU contained three fragments of quartz and jasper debitage. No artifacts were recovered from the B-horizon.

Conclusion

In summary, a total of 42 historic artifacts and 51 prehistoric artifacts were recovered from the Area 4 surface collection, STPs, and EU (see Figures 4.26a and 4.26b). Two prehistoric sites were defined in consultation with DeIDOT and DESHPO. These are the Levels Road Area 4 Prehistoric site 1 (CRS # N14494, Site # 7NC-F-114) and Levels Road Area 4 Prehistoric site 2 (CRS # N14495, Site # 7NC-F-115). Diagnostic projectile points were discovered within both sites that place the associated activities broadly within the Late Archaic Period (insert date range). Within Site 2, a small concentrated locus containing 7 pieces of chipping debris in a 2m by 2m area was identified near surface finds P0103/ P0104 (see Figure 4.26c Inset). No historic archaeological sites were discovered.

4.7 Area 5

Area 5 is located in the center of the agricultural portion of the APE (Figures 4.30a and 4.30b, see Figures 4.1-4.2, see Plate 4.9). Phase IB archaeological fieldwork in Area 5 (Table 4.13, see Table 4.2) consisted of a pedestrian survey of the 31.75 acres of unplowed fields by the Principal Investigator; the excavation of 53 STPs and one EU; artifact processing and cataloging; and an analysis of artifact distribution. One prehistoric artifact and 21 historic artifacts were recovered.

Area 5 was considered to have moderate potential for prehistoric resources and low potential for historic resources (see Table 4.1). Prehistoric sensitivity was based on its favorable setting on a drainage divide, proximity to Sandy Branch tributaries north and south of the APE, and the results of the geomorphological investigation. Area 5 is in the upland center of the peninsular landform and has topographic variation with gently rounded and sloping upland knolls divided by gently sloped lower-lying areas. Low potential for historic resources was based on the absence of documented historic cultural resources, roads, and structures in Area 5.

Table 4.13: Results of the Archaeological field survey in Area 5.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Site examination	1	1
53 STPs	18	0
1 EU	2	0
Totals	21	1



Plate 4.23:

Excavation of EU 4-A in the locus surrounding surface finds P0103 and P0104.

Photo view: West

Photographer: David Strohmeier

Date: January 6, 2010

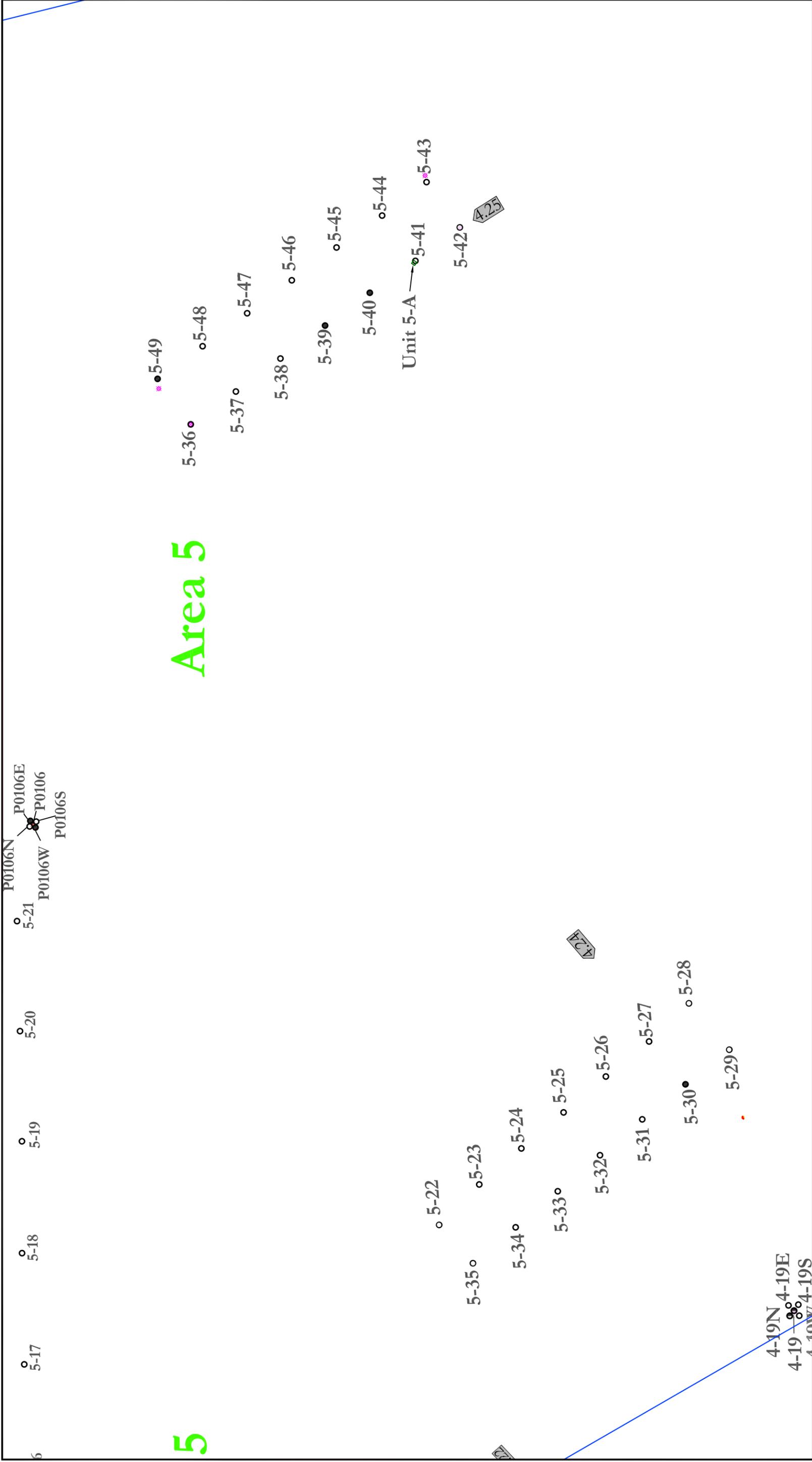


Figure 4.30b:

Map of Area 5 showing STPs, EU 5-A, and photo locations.

Pedestrian Survey

Area 5 was not plowed in advance of the survey, but was examined in detail by the Principal Investigator. It had been planted in a recently harvested corn crop that resulted in approximately 40-50 surface surface visibility. Area 5 is bisected by the main east/west farm lane, which provided access to a variety of locations and settings. A chert biface fragment (Figure 4.31, see Appendix G) and a fragment of a colorless glass bottle were found during the walkover. A systematic surface collection was not completed in Area 5.

The biface fragment (see Figure 4.31) was examined by DelDOT archaeologists, Delaware archaeologist Daniel Griffith (Personal communication, May 8, 2010), and archaeologist and regional lithic expert Jack Cresson (Personal Communication, December 16, 2010). It was then compared to Ohio Flint Ridge chert source material in the RGA lithic type collection by Dr. Sharon White of RGA's staff. The expert analysts concluded the biface is made from Ohio Flint Ridge chert, a distinct, fine-grained waxy lithic that occurs in bed formations in east-central in Ohio and therefore is considered an exotic material type in Delaware prehistoric assemblages. The biface was classified as an untyped, stemmed projectile point.

Shovel Test Pits

Fifty-three STPs sampled the upland and sloped landform settings of Area 5 (Plate 4.24 and 4.25, see Figures 4.30a and 4.30b). Twelve STPs were placed at 25 meter intervals south of the dense prehistoric/historic artifact cluster in Area 2/3 (STPs 5-1 to 5-12), four were placed three meters from the biface located during the walkover at cardinal directions (STPs P0106N, S, E, and W), and STPs 5-13 to 5-49 were placed in lines at 30 meter intervals to sample upland and lower lying settings (see Figures 4.30a and 4.30b). Soils in the STPs were similar to those in Area 2/3 (see Appendix E).

No prehistoric artifacts were recovered as a result of the STP sampling in Area 5. However, 20 historic artifacts were found in eight STPs (Figure 4.32, Table 4.14, see Figures 4.30a and 4.30b, see Appendix H). STPs P0106E and P0106W placed near the exotic point fragment contained a fragment each of brick and STP P0106E contained a fragment of lime. Shovel test pit 5-8 was placed at the northern end of Area 5 near the Rumsey/Polk Tenant/Prehistoric site and contained two fragments of brick, a fragment of coal, and a fragment of coal ash. Nearby STP 5-9 contained a fragment of brick and a fragment of whiteware. Historic artifacts were recovered from STPs 5-30 (sherd of whiteware), 5-39 (fragment of glass and fragment of coal), 5-40 (sherd of red earthenware), and 5-49 (sherd of porcelain). In STP 5-41 placed 20 meters south of the farm lane, a circular soil



Figure 4.31:

Ohio Flint Ridge chert biface from Area 5
(Cat. # 106).



Plate 4.24:

Excavation of STPs in Area 5.
Photo view: Northwest
Photographer: David Strohmeier
Date: December 14, 2009



Plate 4.25:

Excavation of EU 5-A with Feature 2 (found in STP 5-41) Area 5.

Photo view: North

Photographer: David Strohmeier

Date: December 17, 2009



Figure 4.32:

Sample of historic artifacts from Area 5.

Left to right: Red earthenware fragment (Cat. # 2052),
Porcelain fragment (Cat. # 2053), Solarized glass (Cat. # 2056).



anomaly was identified as Feature 2. The STP was devoid of cultural material. The feature was investigated with the excavation of a larger unit as described below.

Table 4.14: Historic Artifacts by Group from Area 5 STPs and surface collection.

Artifact Group	Count
Architecture	7
Domestic	7
Fuel	1
Total	21

Excavation Unit

Feature 2 was further examined by the excavation of EU 5-A (Plate 4.26). The Ap stratum in EU 5A yielded a fragment of glass and a fragment of coal. The feature consisted of a yellowish brown silt loam with charcoal flecking at the surface of the subsoil. In plan it was approximately 8.0 cm larger than the diameter of the STP on the east side and had been truncated and mostly removed during the excavation of the STP. It did not contain any artifacts and was interpreted as a possible modern/historic fence post. Given the low number of artifacts in the EU, the lack of artifacts in either Feature 2 or STP 5-41, and low numbers of artifacts found in nearby STPs, the feature was not considered indicative of a historic site.

Conclusion

A total of 21 historic artifacts and one prehistoric artifact was recovered in Area 5 as a result of the pedestrian walkover survey, 53 STPs and one EU. Feature 2 was determined to be a modern post mold and not indicative of an historic archaeological site. Historic artifacts in the STPs and the EU were found in low numbers and were scattered throughout the sampled areas. They are considered evidence for agricultural field practices rather than a historic archaeological. The exotic chert projectile point fragment recovered from Area 5 is unusual for the project, and the material type is rare in Delaware and Middle Atlantic prehistoric archaeological assemblages. Close interval testing around the find resulted in the conclusion that it is an isolated find.

4.8 Area 7

Area 7 is located in the eastern portion of the APE surrounding the north/south and east/west farm lane crossroads. The area is agricultural, although the east/west farm lane and the farm lane crossroads are lined with ornamental Osage-orange trees and marked by fence posts (Figure 4.33, see Plate 4.2, see Figures 4.1-4.3).



Plate 4.26:

Pedestrian Survey in Area 7.

Photo view: West

Photographer: David Strohmeier

Date: December 3, 2009

The Phase IA portion of the archeological survey concluded that Area 7 had high potential for historic resources and moderate potential for prehistoric resources. The high potential for historic resources was based on a hypothesis that the north-south farm lane was part of nonextant continuation of Choptank Road. This is now considered incorrect based on the circa 1735 Rumsey manuscript map previously discussed in Sections 3.3 and 4.1 (see Figure 4.1, see Richard Grubb & Associates, Inc. 2009: 3-13 to 3-19). The moderate potential for prehistoric resources was based on the distance from tributaries.

Phase IB archaeological fieldwork in Area 7 (Table 4.15, see Table 4.2) consisted of the pedestrian survey, surface collection, and metal detector surveys of 4.66 acres, analysis of artifact distribution and delineation of potential site and loci boundaries, excavation of 36 STPs and one EU, and artifact processing and cataloging. The survey resulted in the identification of the Area 7/12 Brick Locus. In consultation with DelDOT and DESHPO, the locus is considered part of the Rumsey Historic/Prehistoric site (CRS # N14501, Site # 7NC-F-121).

Table 4.15: Results of the Archaeological field survey in Area 7.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/Surface Collection	158	6
Metal Detector Survey	21	0
36 STPs	20	0
EU	15	0
Totals	214	6

Pedestrian Survey/Surface Collection and Metal Detector Survey

Area 7 was plowed and disked and its 4.66 acres of agricultural land was surveyed by the archaeological team. Surface collecting in Area 7 located six prehistoric artifacts and 158 historic artifacts (Plates 4.26 and 4.27, see Figures 4.13 and 4.14). A metal detector survey conducted by BRAVO in Area 7 (along with Areas 11, 12, and 13) identified 21 historic artifacts (Plate 4.28, see Figure 4.16) for a total of 179 historic artifacts from these two methods.

Prehistoric artifacts were identified as a quartz stemmed or side-notched biface, a chert side-notched convex-based biface, a quartzite celt, a sandstone hammerstone, and two fragments of sandstone FCR⁹ (Figure 4.34, see Figures 4.7, 4.8, and 4.10, see Appendix G). These artifacts reflect limited prehistoric utilization of Area 7. Since they are distant from one another (see Figures 4.7 and 4.8) and found in low numbers, the six prehistoric artifacts in Study Area 7 are not considered a prehistoric site.

⁹ The two fragments of sandstone FCR were originally classified as historic artifacts (brick) and are not depicted in Figures 4.7 and 4.8.



Plate 4.27:

Pedestrian Survey in Area 7.

Photo view: Southeast

Photographer: David Strohmeier

Date: December 3, 2009



Plate 4.28:

Metal detector survey in Areas 7 and 12.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: November 22, 2009



Figure 4.34:

Bifaces from Area 7.

Left to right: Quartz biface (Cat. # 86), Chert side-notched biface (Cat. # 112).



Historic artifacts include 102 architectural items and 55 domestic artifacts, along with a small number of other artifact categories (Figure 4.35, Table 4.16, see Figures 4.6 and 4.12, see Appendix H).

Table 4.16: Historic Artifacts by Group from Area 7 surface collection and metal detector survey.

Artifact Group	Count
Agricultural	2
Architecture	102
Domestic	55
Fuel	1
Hardware	4
Industrial	4
Miscellaneous	6
Personal	3
Total	179

More than half (102) of the recovered 177 historic artifacts fell in the architectural group (see Figures 4.6 and 4.13, see Appendix H). A linear scatter of brick fragments and few other artifacts extended east of the farm lane crossroads into Study Area 12 approximately 20 meters north of the east-west farm lane (see Figures 4.13 and 4.33).

The horizontal distribution of architectural items was examined to determine if patterning could indicate the presence of former, historic structures (Table 4.17, see Figure 4.13). The brick sample included burned, overfired, glazed, vitrified and waster fragments (Figure 4.36). Based on the variation in brick types, it was hypothesized that the linear distribution of brick fragments might indicate a brick clamp (informal brick kiln for local and farm use) in this area or the remains of a burned structure (see Figures 4.13, 4.33, see Appendix H). Slag found in Area 7, the byproduct of coal heating or other processes, might also be connected with a brick clamp. The brick concentration and potential brick clamp extended 80 meters into Area 12, measured 120 by 120 meters in area (0.24 hectare/0.59 acre), and was identified as the Area 7/12 Brick Locus.

Table 4.17: Architectural artifacts from surface collection and metal detector survey in Area 7.

Artifact type	Count
Brick	91
Terra cotta tile	1
Window glass	4
Hand-forged nails	2
Cut nails	1
Wire nails	0
Unidentified nails	2
Total	102



Figure 4.35:

Sample of historic artifacts from Area 7.

Top row, left to right: Vitreous china fragment (Cat. # 787), Yellowware fragment (Cat. # 855), Vitreous china fragment (Cat. # 880), Bottle fragment (Cat. # 874), Glass fragments (Cat. # 1126), (Cat. # 2058), Bottle fragment (Cat. # 2063).

Bottom row, left to right: Cast iron weight (Cat. # 1264), Hand forged peg (Cat. # 1266), Copper alloy gilt button (Cat. # 1268), Pad lock hasp (Cat. # 1270), Copper alloy spoon bowl fragment (Cat. # 1259).





Figure 4.36:

Sample of brick from Area 7.

Top row, left to right: Brick fragments (Cat. # 881), (Cat. # 891),
Glazed brick fragment (Cat. # 1110).

Bottom row, left to right: Brick fragments (Cat. # 1111), (Cat. # 921).



Agricultural, hardware, and miscellaneous artifacts in Area 7 included a horseshoe and a hame (horse collar) fragment, hand-forged pegs, a heart shaped brass weight, a copper padlock hasp, a hand-forged staple and a hand-forged rivet (see Figures 4.16 and 4.35, see Appendices H and I). Metal artifacts were generally found close to the farm lanes. These artifacts are horse tack or carriage hardware and agricultural activities during the eighteenth to twentieth centuries.

Domestic and personal artifacts recovered in Area 7 are limited and range in manufacturing dates from the nineteenth through twentieth centuries (Table 4.18, see Figures 4.14, 4.22-4.25, 4.35, see Appendix H). No artifacts definitively pre-dating the nineteenth century were found. In addition to the 24 historic ceramics presented in Table 4.18, other domestic and personal artifacts include 32 fragments of bottle and vessel glass from the late nineteenth and twentieth centuries, a silver plated spoon-bowl fragment and a gilt copper alloy button (see Figure 4.35).

Table 4.18: Historic Ceramics in Area 7 from surface collection.

Period of use	Ceramic Type	Count
17th-19th century	Red earthenware	1
18th-19th century	Late Creamware	4
19th century	Porcelain (doll head)	1
	Vitreous china	1
	Whiteware	12
	Yellowware	1
19th-20th century	White granite	4
	Total	24

These artifacts may be the result of agricultural manuring practices or secondary deposition along the farm lane rather than a domestic site.

Shovel Test Pits

Forty STPs were excavated in Area 7 (see Figure 4.33). Thirty-two STPs were placed at 7.5 meter intervals along both sides of the crossroads (STPs 7-1 to 7-32) and eight in the portion of the brick cluster that extended into Area 12 (STPs 7-33 to 7-36)¹⁰. Soils in the STPs were similar to those in other areas of the agricultural field (see Appendix E) and consisted of a dark grayish to yellowish brown silt or clay loam Ap-horizon approximately 25-30 cm thick overlying a yellowish brown sandy or silty clay loam B-horizon.

No prehistoric artifacts were located in these STPs. Thirteen STPs yielded historic artifacts (see Appendix H). In the crossroads area, nine STPs yielded 13 artifacts, including three fragments of

¹⁰ STPs 7-37 to 7-40 were located in Area 12 where the brick cluster extended east.

whiteware, one fragment of burned brick, and fragments of window, vessel and bottle glass (see Figure 4.33). These artifacts were dated from the mid-to late nineteenth and twentieth centuries.

The eight STPs placed in the Area 7/12 Brick Locus (STPs 7-33 to 7-40) yielded seven burned and vitrified brick fragments, two fragments of vessel glass, and a sherd of early nineteenth century brown transfer printed creamware.

Excavation Unit

Excavation Unit 7-A was placed within a concentrated portion of the Area 7/12 Brick Locus south of STP 7-33 (see Figure 7.33). The Ap-horizon of this EU yielded eight fragments of burned and vitrified brick and six burned or heated rocks as well as a broken iron rod (see Appendix H). No artifacts were recovered from the B-horizon. Although no features were located, the presence of additional deposits of burned brick and rock in the EU suggested that the Area 7/12 Brick Locus may contain archaeological evidence of a brick clamp or burned structure.

Conclusion

As a result of the Phase IB archaeological fieldwork in Area 7, six prehistoric artifacts, and 214 historic artifacts were recovered. A concentration of burned brick that extends from Area 7 into Area 12 is called Area 7/12 Brick Locus and was considered a portion of the Rumsey Historic/prehistoric site (CRS # N14501/Site # 7NC-F-121) in consultation with DeIDOT/DESHPO. Artifacts found in the vicinity of the farm lane crossroads were interpreted as the result of agricultural uses during the nineteenth and twentieth centuries, however there was no evidence of domestic occupation, structures, or activities that pre-date the nineteenth century.

4.9 Area 8

Area 8 is located at the northeastern portion of APE in the agricultural field adjacent to a wooded bluff overlooking the floodplain and tributary of the Sandy Branch to the north (Figure 4.37, see Figures 4.1-4.3).

Area 8 was determined to have high potential for prehistoric resources and moderate potential for historic resources (see Table 4.1). The high potential for prehistoric resources was based on environmental factors, including proximity to the tributary of Sandy Branch north of the APE and the results of the geomorphological investigation (see Hayes 2009). Moderate potential for historic resources was based on proximity to the farm lane.

Phase IB archaeological fieldwork in Area 8 (Table 4.19, see Table 4.2) consisted of the pedestrian survey and surface collection of 2.51 acres, spatial analyses of artifacts and delineation of potential site areas, the excavation of seven STPs (previously discussed in Section 4.5, Area 2/3), and artifact processing and cataloging. A total of 55 historic artifacts was recovered.

Table 4.19: Results of the archaeological field survey in Area 8.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/Surface Collection	55	0
7 STPs (see Section 4.5)	0	0
Totals	55	0

Pedestrian Survey/Surface Collection

Pedestrian survey and surface collection of Area 8 (Plate 4.29) yielded 55 historic artifacts (Figure 4.38, see Figures 4.3, 4.6, 4.13, in a few diffuse scatters. The artifacts consisted of 49 fragments of burned and overfired brick along with a fragment of red earthenware, two fragments of vessel glass, two terra cotta floor tile fragments, and a fragment of coal (Table 4.20, see Figure 4.38, see Appendix H). Analysis of the distribution of historic artifacts was undertaken to determine if potentially significant sites were present and to identify locations for subsurface archaeological testing. Low density brick scatters were identified. Three of the scatters extended from Area 2/3 and were shovel tested.

Table 4.20: Historic Artifacts by Group from Area 8 surface collection.

Artifact Group	Count
Architecture	51
Domestic	3
Fuel	1
Total	55

Shovel Test Pits

As previously discussed in the Section 4.5 Area 2/3 summary, surface collected brick scatters identified in Area 2/3 extended into Area 8 and were explored by the placement of seven STPs. The STPs (2-28, 2-29, 2-33, 2-34, 2-36, 2-37, and 2-38) were a continuation of a set of STPs originally plotted during the investigation of Area 2/3 that continued into Area 8 (see Appendix E, see Figures 4.13 and 4.37). Due to the low density distribution of brick scatters in other portions of Area 8, no additional STPs or EUs were completed. None of the STPs contained cultural material.



Plate 4.29:

Shovel testing in Area 7.
Photo view: West
Photographer: David Strohmeier
Date: December 28, 2009



Figure 4.38:

Sample of historic artifacts from Area 8.

Top row, left to right: Brick fragment (Cat. # 6), Glazed brick fragment (Cat. # 23).
Bottom row, left to right: fragments of olive bottle glass (Cat. # 9),
red earthenware (Cat. # 16), solarized glass bottle (Cat. # 18).



Conclusion

Fifty-five historic artifacts recovered during the pedestrian survey and surface collection in Area 8 were evaluated as field debris distributed across the agricultural field through long term plowing. Sampling of non-site contiguous brick scatters identified in Area 2/3 extended into Area 8 but did not recover additional cultural material or evidence of an historic archaeological site.

4.10 Area 9

Area 9 consisted of two sections north and south of Area 7 and the farm lane crossroads (Figure 4.39, see Figures 4.1-4.3). Background research suggested that Area 9 had moderate potential for both prehistoric and historic resources. Moderate potential for prehistoric resources was based on environmental factors, including distance to the tributaries of Sandy Branch north and south of the APE. Moderate potential for historic resources had been based on background research that suggested a nonextant continuation of Choptank Road now believed to have been outside of the APE extended through the APE (see Figure 4.1).

Phase IB archaeological fieldwork in Area 9 (Table 4.21, see Table 4.2) consisted of a pedestrian survey and surface collection of 1.45 acres, spatial analyses of artifacts, and artifact processing and cataloging. No subsurface testing was conducted within Area 9.

Table 4.21: Results of the Archaeological field survey in Area 9.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/Surface Collection	11	0

Pedestrian Survey/Surface Collection

Surface collecting in Area 9 located 11 historic artifacts (Plate 4.30; Figure 4.40; Table 4.22; see Figures 4.3, 4.6, and 4.39). Included are three fragments of overfired brick, three fragments of whiteware, a fragment of white granite tea ware, an unglazed possible flower pot fragment, a fragment of a glass canning jar lid, and two fragments of bottle glass (see Figure 4.40; Appendix H). The low density of miscellaneous nineteenth and twentieth century debris is un-patterned and evaluated as the result of long term plowing. No subsurface testing was completed in Area 9.

Table 4.22: Historic Artifacts by Group from Area 9 surface collection.

Artifact Group	Count
Architecture	3
Domestic	8
Total	11



Plate 4.30:

Pedestrian survey in Area 8.
Photo view: Southwest
Photographer: Ilene Grossman-Bailey
Date: November 6, 2009



Figure 4.40:

Sample of historic artifacts from Area 9.

Left to right: Fragments of brick (Cat. # 5), Mason jar liner (Cat. # 15), colorless glass bottle (Cat. # 791), White granite (Cat. # 792).



Conclusion

Phase IB archaeological survey in Area 9 resulted in the surface recovery of 11 historic artifacts dispersed across the 1.45-acre agricultural field. No evidence of an historic archaeological site was identified.

4.11 Area 10

Area 10 is located at the southeastern end of the APE in agricultural fields north of a tributary to Sandy Branch (Figure 4.41; see Figures 4.1-4.3). Background research indicated that Area 10 had high potential for prehistoric resources and moderate potential for historic resources. High potential for prehistoric resources was based on the proximity of the Sandy Branch tributary south of the APE. Moderate potential for historic resources was based on its proximity to the north-south farm lane originally suspected to be an abandoned segment of the historic Choptank Road. Subsequent historic research did not support this hypothesis.

Phase IB archaeological fieldwork in Area 10 (Table 4.23; see Table 4.2) consisted of the pedestrian survey and surface collection of 4.17 acres, spatial analyses of artifacts, and artifact processing and cataloging.

Table 4.23: Results of the Archaeological field survey in Area 10.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/ Surface Collection	17	5

Pedestrian Survey/Surface Collection

The surface collecting in Area 10 yielded five prehistoric artifacts and 17 historic artifacts. Prehistoric artifacts consisted of four fragments of quartz debitage and a quartz multi-directional core (Figure 4.42, see Figures 4.7, 4.8, and 4.10, see Appendix G). Three of the debitage fragments and the core are considered part of the diffuse Levels Road Area 4 Prehistoric Site 2 (CRS # N14495, Site # 7NC-F-115). The site and its dimensions are discussed in Section 4.6. One fragment of quartz debitage fell outside of the site and is considered an isolated find.

The horizontal distribution of nineteenth and twentieth century historic artifacts did not seem to indicate the presence of a historic archaeological site (Figure 4.43, Table 4.24, see Figures 4.13, 4.14, 4.25, and 4.41). The architectural artifacts (see Figure 4.13) are five fragments of brick, including one stamped “Paxton.” The stamped brick may be from the Paxton Brick Company, a twentieth century brick company formerly located in Snyder County in central Pennsylvania (Gurcke 1978). The 11



Figure 4.42:

Sample of prehistoric artifacts from Area 10.

Left to right: Quartz chopper (Cat. # 85), Quartz flake (Cat. # 88).





Figure 4.43:

Sample of historic artifacts from Area 10.

Left to right: Bottle fragment (Cat. # 783), Bottle fragment (Cat. # 784),
Creamware handle (Cat. # 788), Red earthenware (Cat. # 807),
Yellowware (Cat. # 808).



domestic artifacts include one fragment each of vitreous china, late creamware teaware, whiteware, red earthenware, yellowware, and porcelain (see Figure 4.14); and five fragments of vessel glass (see Appendix H). The miscellaneous group artifact is a fragment of lime. The low density of miscellaneous nineteenth and twentieth century debris is un-patterned and evaluated as the result of long term plowing. No subsurface testing was completed in Area 10.

Table 4.24: Historic Artifacts by Group from Area 10 surface collection.

Artifact Group	Count
Architecture	5
Domestic	11
Miscellaneous	1
Total	17

Conclusion

Five prehistoric artifacts and 17 historic artifacts were collected during the pedestrian survey in Area 10. Four prehistoric artifacts located in the western part of Area 10 are considered part of the Levels Road Area 4 Prehistoric Site 2 (CRS # N14495, Site # 7NC-F-115). One fragment of prehistoric debitage found in another part of Area 10 is evaluated as an isolated find. The spatial distribution of the 17 historic artifacts across the surface of the 4.17-acre agricultural field is un-patterned as a result of long-term agricultural activities. No evidence of an historic archaeological site was identified.

4.12 Area 11

Area 11 is located at the northeastern portion of APE at the northern end of the north-south farm lane. It includes a 2.45-acre wooded bluff overlooking the floodplain and tributary of the Sandy Branch to the north, an unplowed grassy low-lying swale or drainage, and a 2.54-acre portion of the agricultural field (Figure 4.44, see Plate 4.7, see Figures 4.1-4.3). Area 11 was considered to have high potential for both historic and prehistoric resources (see Table 4.1). The determination of high potential for historic resources was based on the presence of the north-south farm lane formerly considered a possible location of Choptank Road. The determination of high potential for prehistoric resources was based on the proximity of the tributary of Sandy Branch and background research including the geomorphological survey. During the Phase IA fieldwork, a quartz biface was located in Area 11 near a monitoring well west of the farm lane, supporting the determination of high potential for prehistoric resources (see Appendix G).

Phase IB archaeological fieldwork in Area 11 (Table 4.25, see Table 4.2) consisted of the pedestrian survey, surface collection, and metal detector survey of 2.54 acres of agricultural land, the excavation

of 29 STPs within the 2.45 wooded and unplowed, grassy area, artifact processing and cataloging, and spatial analysis of recovered artifacts (see Plates 4.33). The Levels Road Area 11/14 Prehistoric site (CRS # N14496, Site # 7NC-F-116) was identified.

Table 4.25: Results of the Archaeological field survey in Area 11.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Phase IA field examination	0	1
Pedestrian Survey/Surface Collection	21	6
Metal Detector survey	11	0
22 STPs	7	1
Totals	39	8

Pedestrian Survey/Surface Collection and Metal Detector Survey

The pedestrian and metal detector surveys of approximately 2.54 acres resulted in the collection of 32 historic artifacts and six prehistoric artifacts (see Figures 4.3, 4.5, 4.6, and 4.7). Prehistoric artifacts collected from the surface include a chert triangle point, a chert point tip, a rhyolite projectile point base, two fragments of quartz debitage, and a fragment of FCR (Figures 4.45 and Figure 4.46, see Figures 4.8 and 4.10). Of these, the rhyolite point fragment, chert point tip, and two fragments of quartz debitage came from the eastern end of Area 11 and are considered part of the Levels Road Area 11/14 Prehistoric site (CRS # N14496, Site # 7NC-F-116) along with prehistoric artifacts found in Area 14. The total site dimensions are approximately 140 by 100 meters (1.4 hectares/3.46 acres) and the portion within Area 11 is approximately 110 by 20 meters (0.22-hectare/0.54-acre). A variety of activities such as hunting, tool manufacture, and cooking are represented by the functional classifications of items in the assemblage (see Figure 4.46). The chert triangle point, fragment of FCR, and a quartz biface found during the Phase IA survey, are spatially unrelated and considered isolated artifacts rather than a site. No subsurface testing was conducted within the portion of the Levels Road Area 11/14 Prehistoric site identified in Area 11.

Surface collecting in Area 11 resulted in the collection of 21 historic artifacts (Table 4.26, Figure 4.47, see Figures 4.6, 4.13, 4.14, and 4.44), while the metal detector survey collected 11 historic metal artifacts (see Figure 4.16). Many of these artifacts were found close to the farm lane but not in notable concentrations. Domestic artifacts include a kettle fragment, a hard red bodied ware vessel fragment, and a fragment of red earthenware each with the potential to have eighteenth century origins. In addition, nineteenth century whiteware, late creamware, and white granite ware ceramics, and late nineteenth and twentieth century bottle and vessel glass was found (see Figures 4.23-4.25, 4.47, see Appendix H). Seven brick fragments and two corroded nails were found dispersed across the field.



Figure 4.45:

Sample of prehistoric artifacts from Area 11.

Left to right: Chert triangle biface fragment (Cat. # 113), Rhyolite biface (Cat. # 125).





Figure 4.47:

Sample of historic artifacts from Area 11.

Top row, left to right: White granite fragment (Cat. # 32), Decorative horse brass harness pin (Cat. 1259, BRAVO # 10-585), Worn undated copper coin (Cat. 1259, BRAVO # 10-590),

Pierced silver plated star-shaped button (Cat. 1259, BRAVO # 10-592).

Bottom row: Copper alloy candlestick (Cat. 1259, BRAVO # 10-591).



Table 4.26: Historic Artifacts by Group and Type from Area 11 surface collection and metal detector survey.

Artifact Group	Count	Artifact type	Count
Agricultural	2	Decorative horse brass pin	1
		Horseshoe fragment	1
Architecture	9	Brick	7
		Nails (untyped)	2
Domestic	16	Bottle glass	1
		Vessel glass	6
		Hard red bodied	1
		(Late) Creamware	1
		Red earthenware	1
		White granite	2
		Whiteware	1
		Iron kettle fragment	1
Personal	2	Brass candlestick	1
		Copper coin	1
Hardware, Misc.	4	Silver plated star-shaped button	1
		Hand forged iron rods and fragments	4
Total	32		32

Shovel Test Pits

The wooded and unplowed portions of Area 11 were tested by the excavation of 18 STPs at 15 meter intervals (STPs 11-1 to 11-14, 11-22 to 11-25), and four bracket STPs at 3 meter intervals in cardinal directions from STP 11-23¹¹ (Plates 4.31-4.33, see Figure 4.44, see Appendix E). Soils in the STPs in this area varied more than in other areas. Those excavated in the grassy swale were sandier than in the plowed agricultural field and consisted of a yellowish brown silt or sandy loam Ap-horizon (topsoil) approximately 18-30 cm thick, overlying a yellowish brown sandy clay loam B-horizon (subsoil). Those excavated in the wooded portion had a dark yellowish brown sandy loam A-horizon of variable thickness overlying a yellowish brown loamy sand or sandy clay loam B-horizon. A thin mottled fill layer was present above the A-horizon in a few STPs near the farm lane. Shovel Test Pit 11-23 placed in a wooded portion of Area 11 near the tributary of Sandy Branch yielded a siltstone flake in the plow zone and was bracketed by four STPs (see Figure 4.44, see Appendices E and G). These STPs did not contain any artifacts. The flake is considered an isolated find.

¹¹ STPs 11-16 to 11-21 were located in Area 14.



Plate 4.31:

Pedestrian survey in Area 9. Areas 7 and 12 are also shown in this photograph.

Photo view: Northwest

Photographer: David Strohmeier

Date: December 28, 2009



Plate 4.32:

Shovel testing in unplowed portion of Area 11.

Photo view: East

Photographer: David Strohmeier

Date: December 16, 2009



Plate 4.33:

Shovel testing in wooded portion of Area 11.

Photo view: East

Photographer: David Strohmeier

Date: December 16, 2009

Three STPs (see Figure 4.44, see Appendices E and H) contained a total of seven historic artifacts, including two fragments of vessel glass, four fragments of brick, and a rifle cartridge casing. The historic artifacts are not considered evidence of a historic archaeological site.

Conclusion

The archaeological survey in Area 11 yielded 39 historic and eight prehistoric artifacts. Four of the prehistoric artifacts were clustered near Area 14 and considered part of the Levels Road Area 11/14 Prehistoric site (CRS # N14496, Site # 7NC-F-116). The site is discussed in more detail in Area 14.

4.13 Area 12

Area 12 includes 5.88 acres located in the eastern portion of APE, east, north, and south of Area 7 and the farm lane crossroads (Figure 4.48, see Figures 4.1-4.3). Based on the background research, Area 12 was determined to have high potential for historic resources and moderate potential for prehistoric resources (see Table 4.1). The potential for prehistoric resources was based on proximity to the tributaries of Sandy Branch north and south of the APE. The potential for historic resources was based on the hypothesized proximity to the former Choptank Road discussed previously in this report.

Phase IB archaeological fieldwork in Area 12 (Table 4.27, see Table 4.2) consisted of the pedestrian survey, surface collection, and metal detector survey of 4.38 acres, spatial analyses of artifacts and delineation of site boundaries, excavation of four STPs (previously discussing in Section 4.8), and artifact processing and cataloging. As discussed in Section 4.8, a portion of the Area 7/12 Brick Locus extended into Area 12 and is considered part of the Rumsey Historic/Prehistoric site (CRS # N14501, Site # 7NC-F-121). Approximately one-fourth (approximately 1.5 acres) of Area 12's 5.88 acres fell within the APE for the U.S. 301 Mainline Section 3 archaeological survey and was surface collected as part of that survey (see Richard Grubb & Associates, Inc. 2011). No additional survey was conducted within the 1.5 acres of Area 12 during this study.

Table 4.27: Results of the Archaeological field survey in Area 12.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/ Surface Collection	171	4
Metal Detector survey	32	0
4 STPs	1	0
Total	204	4

Pedestrian Survey/Surface Collection and Metal Detector Survey

The pedestrian and metal detector surveys of approximately 4.38 acres resulted in the collection of 204 historic artifacts and four prehistoric artifacts (see Figures 4.3, 4.5, 4.6, and 4.7; Plate 4.34). Prehistoric artifacts from the surface collection include a quartz scraper, a fragment each of quartz and rhyolite debitage, and a fragment of FCR (Figure 4.49, see Figures 4.8 and 4.10). These artifacts were far apart from one another and are considered isolated artifacts rather than a site (see Figure 4.8).

Surface collecting in Area 12 resulted in the collection of 171 historic artifacts (Table 4.28, Figure 4.50; see Figures 4.6, 4.13, 4.14, 4.24, 4.25, and 4.48) and the metal detector survey resulted in the collection of 32 historic artifacts (see Figure 4.16). Linear brick scatters as described in Sections 4.4 and 4.8 continued from Area 7 into Area 12. Over half of the artifacts were architectural including burned and overfired brick. This suggests the possibility that remains of structures or the remains of brick manufacture activities may be present. Three pieces of coal or industrial slag were also recovered in Area 12 suggesting that coal hearing or industrial processes were carried out in the vicinity of Area 12.

Table 4.28: Historic Artifacts by Group and Type from Area 12 surface collection and metal detector survey.

Artifact Group	Count	Artifact type	Count
Agricultural/ Arms/ Hardware	11	Hand forged iron ring and hook, D-handle, and peg made of rose headed nail	5
		Horseshoe fragment	1
		Musket ball	1
		Modern slug	1
		Axe and hatchet	2
		Pole base	1
Architecture	129	Brick	120
		Nails (cut)	2
		Window glass	6
		Door hinge	1
Domestic	43	Bottle glass	15
		Vessel, canning jar glass	9
		Hard red bodied	1
		Chinese export porcelain	2
		Porcelain	3
		Red earthenware	4
		White granite	2
		Whiteware	5
Brass candlestick	1		
Personal	12	Coins (1902, 1870s U.S. nickel), 1903 U.S. dime	3
		Pewter button	1
		Harmonica reed	1
		Modern chrome plated pocket watch parts	6
		Cast iron clothing flatiron	1



Plate 4.34:

Pedestrian Survey in Area 12. Areas 7, 13, and 15 can also be seen.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: December 8, 2009



CM



Figure 4.49:

Quartz flake from Area 12
(Cat. # 114).



Figure 4.50:

Sample of historic artifacts from Area 12.

Far left: Candlestick (Cat. 1259, BRAVO # 10-605).

Top row, left to right: Porcelain fragment (Cat. # 854), Red earthenware fragment (Cat. # 854), Cast iron weight (Cat. 1259, BRAVO # 10-615), Cut nail (Cat. 1259, BRAVO # 10-594), chrome plated twentieth century pocket watch (Cat. 1259, BRAVO # 10-604).

Bottom row, left to right: Copper alloy flower (Cat. 1259, BRAVO # 10-617), U.S. “_87_” nickel (Cat. 1259, BRAVO # 10-619), pewter button (Cat. 1259, BRAVO # 10-597); Musket ball (Cat. 1259, BRAVO # 10-598), U.S. 1903 dime (Cat. 1259, BRAVO # 10-602), U.S. 1902 nickel (Cat. 1259, BRAVO # 10-603).



Table 4.28; cont.

Artifact Group	Count	Artifact type	Count
Misc., fuel, Industrial	9	Decorative cast copper flower trim	2
		Copper weight	1
		Copper handle	1
		Lead cap	1
		Slag	3
Total	204		204

Artifacts with manufacturing date ranges that begin in the eighteenth century included hand-forged iron objects, a musket ball, and ceramics such as Chinese export porcelain. Nineteenth century whiteware and white granite ware ceramics, and late nineteenth and twentieth century bottle and vessel glass were also found (see Figures 4.23-4.25, 4.50, see Appendix H). Whiteware, white granite, and porcelain teaware and an eighteenth through nineteenth century “Philadelphia-style” red earthenware bowl represent household refuse. Nine items, including a hatchet, axe, hand-forged hook, and a flat (clothing) iron, were found in proximity to one another during the metal detector survey close to the eastern end of the brick locus near Area 15. These items along with coins, a button, and other objects hint at a variety of activities but were evaluated as an accumulation of sheet refuse influenced by the long-term effects of plowing.

Shovel Test Pits

STPs 7-37 to 7-40 were excavated in Area 12 within the linear brick concentration also identified in Area 7 as the Area 7/12 Brick Locus and part of the Rumsey Historic/Prehistoric site (CRS # N14501, Site # 7NC-F-121). A fragment of brick was recovered from STP 7-39, however no other cultural material was recovered, and no structural features potentially associated with a former structure or brick-making facility was found.

Conclusion

As a result of the Phase IB archaeological fieldwork in Area 12, four prehistoric artifacts, and 204 historic artifacts were located. A concentration of burned brick that extends from Area 7 into Area 12 is called the Area 7/12 Brick Locus and considered part of the Rumsey Historic/Prehistoric site (CRS # N14501/Site # 7NC-F-121) in consultation with DelDOT/DESHPO. Other artifacts found elsewhere across the plowed field of Area 12 were spatially un-patterned and evaluated as non-site.

4.14 Area 13

Area 13 is located at the southeastern end of the APE in agricultural fields north of a tributary to Sandy Branch (Figure 4.51, see Figures 4.1-4.3). Background research suggested that Area 13 had high potential for both prehistoric and historic resources. High potential for prehistoric resources was based on environmental factors, including the proximity of the tributary of Sandy Branch south of the APE. As previously discussed, high potential for historic resources was based on the hypothesized continuation of Choptank Road now believed outside of the APE.

Phase IB archaeological fieldwork in Area 13 (Table 4.29, see Table 4.2) consisted of the pedestrian survey and surface collection of 1.4 acres, a metal detector survey of 3.9 acres, and artifact processing and cataloging. Approximately two-thirds of Area 13 (approximately 2.5 acres) fell within the APE for U.S. 301 Mainline Section 3 archaeological survey and this area was surface collected as part of that survey (Richard Grubb & Associates, Inc. 2011).

Table 4.29: Results of the Archaeological field survey in Area 13.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/ Surface Collection	0	0
Metal detector survey	3	0
Total	3	0

Pedestrian Survey/Surface Collection and metal detector survey

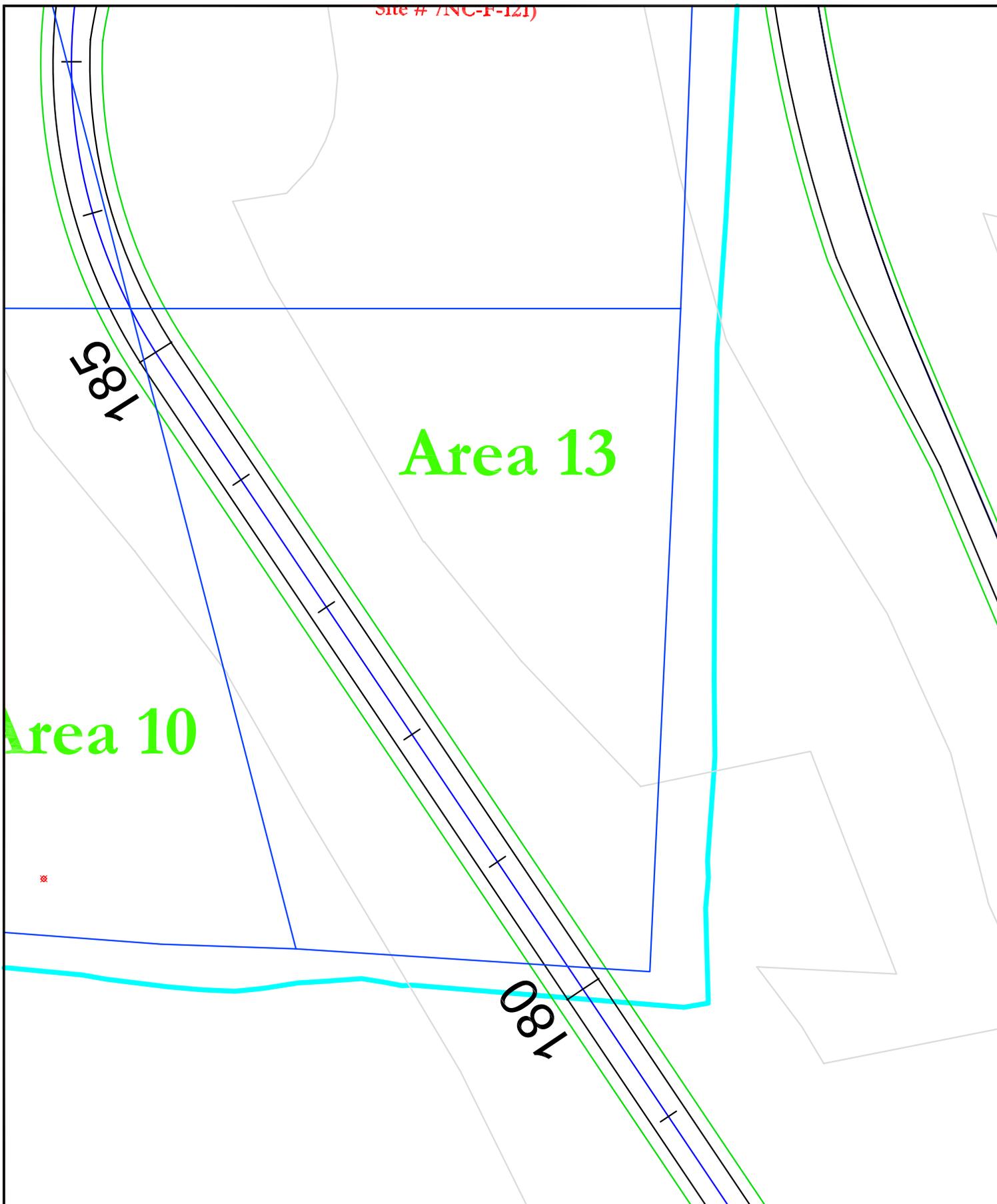
No artifacts were recovered from surface collecting in Area 13. Three nineteenth and twentieth century artifacts were located during the metal detector survey, including a nineteenth century button, a 1910 or 1918 U.S. cent, and a brass key fragment (Figure 4.52, see Figure 4.16). Due to the absence of cultural materials, no subsurface testing was completed in Area 13.

Conclusion

Phase IB archaeological survey in Area 13 yielded three historic artifacts. The historic artifacts were found in dispersed locations and are not considered part of a locus or site.

4.15 Area 14

Area 14 is located at the northeastern portion of APE adjacent to the low lying drainage or swale in Area 11 adjacent to the tributary of Sandy Branch (Figure 4.53, see Figures 4.1-4.3). Area 14 measured a total of 3.15 acres in area with an approximately 2.41 acres in the agricultural field.



Area 13

Area 10

180

180



- Key:
- Phase I Unit
 - ⊗ Photo Plate Location
 - ⊗ Prehistoric Surface Find
 - ⊗ Historic Surface Find
 - STP - Historic Cultural Material
 - STP - Prehistoric Cultural Material
 - STP - Prehistoric and Historic Cultural Material
 - STP - No Cultural Material

Figure 4.51:
 Map of Area 13 (see Figure 4.16 for locations of artifacts from the metal detector survey).

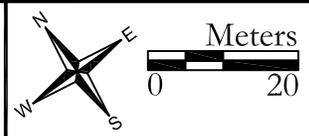




Figure 4.52:

Metal artifacts from Area 13.

Left to right: Plain flat front copper alloy button (Cat. 1259, BRAVO # 10-621),
Brass key fragment (Cat. 1259, BRAVO # 10-623).



The approximately 0.74-acre wooded portion of Area 14 is situated on an upland knoll or bluff overlooking the floodplain and tributary of the Sandy Branch to the north.

Archaeological Sensitivity Assessment

Area 14 was determined to have high potential for prehistoric resources and moderate potential for historic resources (see Table 4.1). The determination of high potential for prehistoric resources was based on the environmental setting and proximity of the tributary of Sandy Branch. The determination of moderate potential for historic resources was based on its proximity to the north-south farm lane and the nineteenth century Rumsey Farmstead to the east of the APE.

Phase IB archaeological fieldwork in Area 14 (Table 4.30, see Table 4.2) consisted of the pedestrian survey and surface collection of 2.41 acres of agricultural land, spatial analyses of artifacts and delineation of site boundaries, excavation of seven STPs within the 0.74-acre wooded area, and artifact processing and cataloging. The Levels Road Area 11/14 Prehistoric site (CRS # N14496, Site # 7NC-F-116) was identified in Areas 11 and 14.

Table 4.30: Results of the Archaeological field survey in Area 14.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/ Surface Collection	29	11
7 STPs	16	0
Totals	45	11

Pedestrian Survey/Surface Collection

The pedestrian and metal detector surveys of approximately 2.41 acres resulted in the collection of 28 historic artifacts and 11 prehistoric artifacts (see Figures 4.3, 4.5, 4.6, and 4.7). Prehistoric artifacts include three biface fragments (one of rhyolite and two of quartz), two cores (one chert and one quartz), five pieces of debitage, and a fragment of FCR (Figure 4.54, see Figures 4.8, 4.10, and 4.46). The debitage material types are quartz, quartzite, limonite, and chert. Along with the four prehistoric artifacts found in Area 11, these 11 artifacts (a total of 15) are considered part of the Levels Road Area 11/14 Prehistoric site (CRS # N14496, Site # 7NC-F-116). The total site dimensions are approximately 140 by 100 meters (1.4 hectares/3.46 acres) and the portion within Area 14 is approximately 140 by 80 meters (1.18-hectares/2.92 acres). A variety of activities such as hunting, tool manufacture, and cooking is represented by the functional classifications of the site assemblage (see Figure 4.46).

Surface collecting in Area 14 resulted in the collection of 29 historic artifacts (Table 4.31, Figure 4.55, see Figures 4.6, 4.13, 4.14, 4.24, 4.25, and 4.53). The artifacts were predominantly brick in



Figure 4.54:

Bifaces from Area 14.

Left to right: Quartz biface (Cat. # 117), Chert biface fragment (Cat. # 118).





Figure 4.55:

Sample of historic artifacts from Area 14.

Left to right: Whiteware fragment (Cat. # 1015), Bottle glass (Cat. # 1017), Olive bottle glass fragment (Cat. # 1047).



dispersed locations and in two small linear scatters of approximately 13 brick fragments at the northern end of the field with very few other artifacts (see Figures 4.13). The manufacturing date ranges for the five domestic artifacts dispersed across the Area 14 field span more than two centuries. Taken together, the historic artifact assemblage is characteristic of field refuse and not indicative of an historic archaeological site. No subsurface testing was carried out in the Area 14 cultivated field.

Table 4.31: Historic Artifacts by Group and Type from Area 14 surface collection and metal detector survey.

Artifact Group	Count	Artifact type	Count
Architecture	23	Brick	23
Domestic	5	Bottle glass	2
		Red Earthenware	2
		Whiteware	1
Industrial	1	Slag	1
Total	29		29

Shovel Test Pits

The wooded portion of Area 14 was tested by the excavation of eight STPs (11-15 to 11-21) at 15 meter intervals (see Figure 4.53, see Appendix E). Soils in the STPs were similar to those encountered in Area 11 and described in Section 4.12. Shovel Test Pits 11-17 and 11-21 contained 16 fragments of modern steel wire interpreted as probable fencing.

Conclusion

The archaeological survey in Area 14 yielded 29 historic artifacts and 11 prehistoric artifacts. Prehistoric artifacts combined with artifacts found in Area 11 are included in the Levels Road Area 11/14 Prehistoric site (CRS # N14496, Site # 7NC-F-116). Historic cultural material found during surface collection in the cultivated portion of Area 14 included a small but dispersed brick scatter and low density isolated fragments of other artifact types. Testing in the wooded portion of Area 14 resulted in the identification of a modern wire fencing disposal area. No evidence of an historic archaeological site was discovered in Area 14.

4.16 Area 15

Area 15 is located at the eastern end of the APE in agricultural fields (Figure 4.56, Plate 4.35, see Figures 4.1-4.3). Area 15 was considered to have moderate potential for both historic and prehistoric resources. The potential for prehistoric resources was based on proximity to tributaries of Sandy



Plate 4.35:

Pedestrian Survey in Area 15. Areas 7, 11, 12 and 14 can also be seen in this photograph.

Photo view: North

Photographer: David Strohmeier

Date: December 28, 2009

Branch north and south of the APE. The determination of moderate potential for historic resources was based on proximity to the north-south farm lane and the nineteenth century Rumsey Farmstead to the east of the APE.

Phase IB archaeological fieldwork in Area 15 (Table 4.32, see Table 4.2) consisted of the pedestrian survey and surface collection of 1.28 acres, metal detector survey of approximately 0.1-acre near Area 12, spatial analyses of artifacts, and artifact processing and cataloging. Approximately one-tenth of Area 15 (approximately 0.13 acre) fell within the APE for the U.S. 301 Mainline Section 3 archaeological survey and this portion of Area 15 was surface collected as part of that survey (Richard Grubb & Associates, Inc. 2011).

Table 4.32: Results of the Archaeological field survey in Area 15.

Survey Methods	Historic Artifacts	Prehistoric Artifacts
Pedestrian Survey/ Surface Collection	22	0
Metal detector survey	1	0
Total	23	0

Pedestrian Survey/Surface Collection and metal detector survey

The surface collection yielded 22 historic artifacts (Figure 4.57, Table 4.31, see Figures 4.5, 4.13, 4.14, 4.16, 4.24, and 4.25). The metal detector survey that was initiated in Area 12 extended into a 0.1-acre portion of Area 15 (see Figure 4.16). A broken, metal barrel spigot characteristic of nineteenth through twentieth century farm plumbing components was recovered through the survey. The surface collection assemblage includes three fragments of brick from the southeastern limit of the Area 7/12 Brick Locus. The remaining brick fragments, window glass, and domestic artifacts were dispersed and not considered to represent an archaeological site. No prehistoric artifacts were found, and no subsurface testing was conducted in Area 15.

Table 4.33: Historic Artifacts by Group and Type from Area 15 surface collection and metal detector survey.

Artifact Group	Count	Artifact type	Count
Architecture	9	Brick	8
		Window glass	1
Domestic	13	Bottle glass	5
		Late Creamware	1
		Hard red bodied ware	1
		Porcelain	1
		Whiteware	5
Miscellaneous	1	Copper alloy spigot	1
Total	23		23



Figure 4.57:

Sample of historic artifacts from Area 15.

Top row, left to right: Whiteware fragments (Cat. # 1032), (Cat. # 1033), Bottle fragments (Cat. # 1037), (Cat. # 1058), (Cat. # 1088).

Bottom row, left to right: Bottle neck fragment (Cat. # 1089), Spigot (Cat. 1259, BRAVO # 10-667).



Conclusion

Phase IB archaeological survey in Area 15 yielded 23 historic artifacts. Included are one copper plumbing element found during the metal detector survey, and 22 architectural and domestic items collected from the surface of the plowed field. Three surface-collected brick fragments are within the boundaries of the Area 7/12 Brick Locus identified in the adjacent Areas. The remaining historic artifacts are unpatterned and typical of nineteenth through twentieth century field refuse found across other areas of the APE. No subsurface testing was conducted in Area 15, and no archaeological sites were identified.

4.17 Summary

A Phase IB archaeological survey consisting of a pedestrian survey and surface collection of approximately 82.29 acres of plowed and disked agricultural fields, an Electronic Metal Detector Survey of approximately 34.61 acres (see Appendix J), and the excavation of 291 STPs and seven EUs, was completed in the U.S. Route 301 Levels Road Mitigation Site APE. The Phase IB archaeological survey yielded 160 prehistoric artifacts and 2,090 historic artifacts. Five archaeological sites and one historic locus were identified within the APE (see Appendices E, F, G, H, and K).