Contract Publication Series 16-560

# AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED MAJOR WIDENING OF KY 1297 (CLEVELAND AVENUE) FROM DONNELLY DRIVE TO U.S. 31E (S.L. ROGER WELLS BOULEVARD) AND WIDENING OF DONNELLY DRIVE IN GLASGOW, BARREN COUNTY, KENTUCKY (ITEM NO. 3-8821.00)


*by*
*Alexandra Bybee, RPA*

*Prepared for*

KENTUCKY TRANSPORTATION CABINET

*Prepared by*

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cultural resource analysts, inc

Kentucky | West Virginia | Ohio
Indiana | Louisiana | Tennessee | Virginia

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# ABSTRACT

Between December 5 and 7, 2016, and on January 17, 2017, Cultural Resource Analysts, Inc., personnel conducted an archaeological survey of proposed major widening of KY 1297 (Cleveland Avenue) from Donnelly Drive to U.S. 31E (S.L. Rogers Wells Boulevard) and widening of Donnelly Drive in Glasgow, Barren County, Kentucky (Item No. 3-8821.00). The project was conducted at the request of David Waldner of the Kentucky Transportation Cabinet, Division of Environmental Analysis. The project area totaled 9.6 ha (23.6 acres), the majority of which were investigated through pedestrian survey supplemented with screened shovel testing and bucket augering. One small area in the western portion of the project area had been surveyed previously and was subjected only to visual inspection to confirm disturbance.

Prior to the fieldwork, a records review was conducted at the Office of State Archaeology. The review indicated that 19 previous professional archaeological surveys and 3 National Register of Historic Places evaluations had been conducted within a 2 km (1.2 mi) radius of the project area, and that 19 archaeological sites had also been recorded in the search area. A portion of 1 of the surveys and 1 of the archaeological sites (15Bn121) were located within the current project boundaries. The Site 15Bn121 location had been completely disturbed through construction of athletic fields.

The current survey resulted in the identification of three archaeological sites (15Bn186–15Bn188). Site 15Bn186 was a multicomponent historic farmstead and prehistoric open habitation without mounds, and Sites 15Bn187 and 15Bn188 were historic farmsteads. The prehistoric component of Site 15Bn186 was represented by two undiagnostic lithic flakes, and there was no evidence for the presence of intact prehistoric deposits, midden, or features. The prehistoric component of Site 15Bn186 is recommended as not eligible for the National Register of Historic Places. The historic component of Site 15Bn186 dated from the nineteenth through twentieth centuries, and it may have begun as a residential area for slaves, followed by purchase of the land by a former slave in 1866. The property appeared to have been occupied by at least one extended African-American family until the mid-twentieth century. Site 15Bn186 exhibited sub-plow zone cultural deposits in three areas, and a possible foundation remnant was identified. The National Register of Historic Places eligibility of Site 15Bn186 could not be assessed and further archaeological work is recommended. Site 15Bn187 was similar to Site 15Bn186 in that the land was purchased by a former slave in 1866, and by the late nineteenth century, it contained a residence that was occupied by African-American families until at least the mid-twentieth century. However, Site 15Bn187 lacked integrity and had little potential to contain intact, sub-plow zone features, midden, or cultural deposits. No further work is recommended for Site 15Bn187. Site 15Bn188 was a historic farmstead that was occupied throughout the twentieth century. Site 15Bn188 lacked integrity and had little potential to contain intact, sub-plow zone features, midden, or cultural deposits. No further work is recommended for Site 15Bn188.

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# I. INTRODUCTION

Between December 5 and 7, 2016, and on January 17, 2017, Cultural Resource Analysts, Inc. (CRA), personnel conducted an archaeological survey of proposed major widening of KY 1297 (Cleveland Avenue) from Donnelly Drive to U.S. 31E (S.L. Rogers Wells Boulevard) and widening of Donnelly Drive in Glasgow, Barren County, Kentucky (Figure 1). The survey was conducted at the request of David Waldner of the Kentucky Transportation Cabinet (KYTC), Division of Environmental Analysis (Item No. 3-8821.00). The project area was located to the west of the city of Glasgow (Figure 2). Fieldwork was conducted by Alexandra Bybee, Julia Gruhot, and Thomas McAlpine, and required approximately 100 work hours to complete. Office of State Archaeology (OSA) Geographic Information Systems (GIS) data requested by CRA on November 21, 2016, was returned on November 28, 2016. The results were researched by Heather Barras of CRA at the OSA on November 29, 2016. The OSA project registration number is FY17_9024.

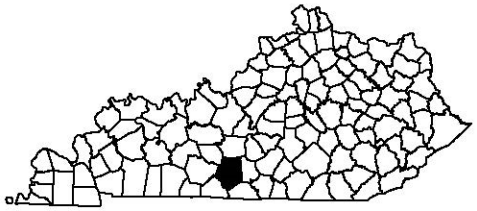

Figure 1. Map of Kentucky showing the location of Barren County.

## Project Description

The project area was located primarily along KY 1297 (Cleveland Avenue), beginning at the intersection with U.S. 31E (S.L. Roger Wells Boulevard) and extending to the west just past Donnelly Drive (Figure 3). Small portions of other intersecting roads were also within the project area (see Figure 3). The project area totaled approximately 9.6 ha (23.6 acres), the majority of which were investigated through pedestrian survey supplemented with screened shovel testing and bucket augering. One small area in the western portion of the project area had been surveyed previously and was subjected only to visual inspection to confirm disturbance. The project area consisted of undissected uplands, sideslopes, and small alluvial landforms.

## Purpose of Study

This study was conducted to comply with Section 106 of the National Historic Preservation Act. This transportation project is federally funded, and is, therefore, considered an undertaking subject to Section 106 review. Any state, county, or municipal lands in the project area were surveyed under OSA Kentucky Antiquities Act Permit Number 2016-46 pursuant to Kentucky Revised Statute (KRS) 164.720.

The purpose of this assessment was to locate, describe, evaluate, and make appropriate recommendations for the future treatment of any historic properties or sites that may be affected by the project. For the purposes of this assessment, a site was defined as "any location where human behavior has resulted in the deposition of artifacts, or other evidence of purposive behavior at least 50 years of age" (Sanders 2006:2).

A description of the project area, the field methods used, and the results of this investigation follow. The investigation is intended to conform to the Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports (Sanders 2006).

## Summary of Findings

Prior to the fieldwork, a records review was conducted at the OSA. The review indicated that 19 previous professional archaeological surveys and 3 National Register of Historic Places (NRHP) evaluations had been conducted within a 2 km (1.2 mi) radius of the project area, and that 19 archaeological sites had also been recorded in the search area. A portion of 1 of the surveys and 1 of the archaeological sites (15Bn121) were located within the current project boundaries. The Site 15Bn121 location had been completely disturbed through construction of athletic fields.

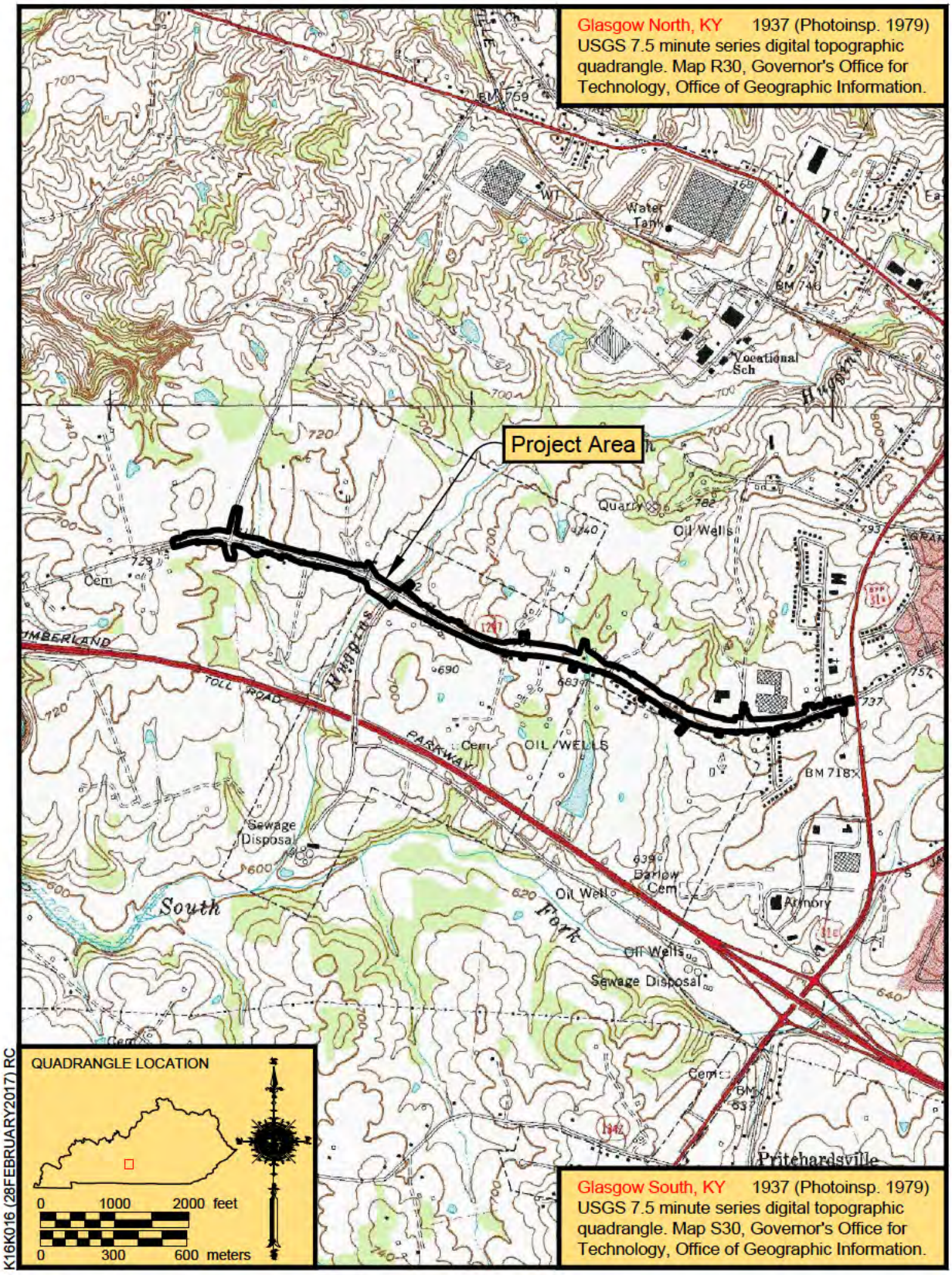


**Figure 2. Location of project area on topographic quadrangle.**

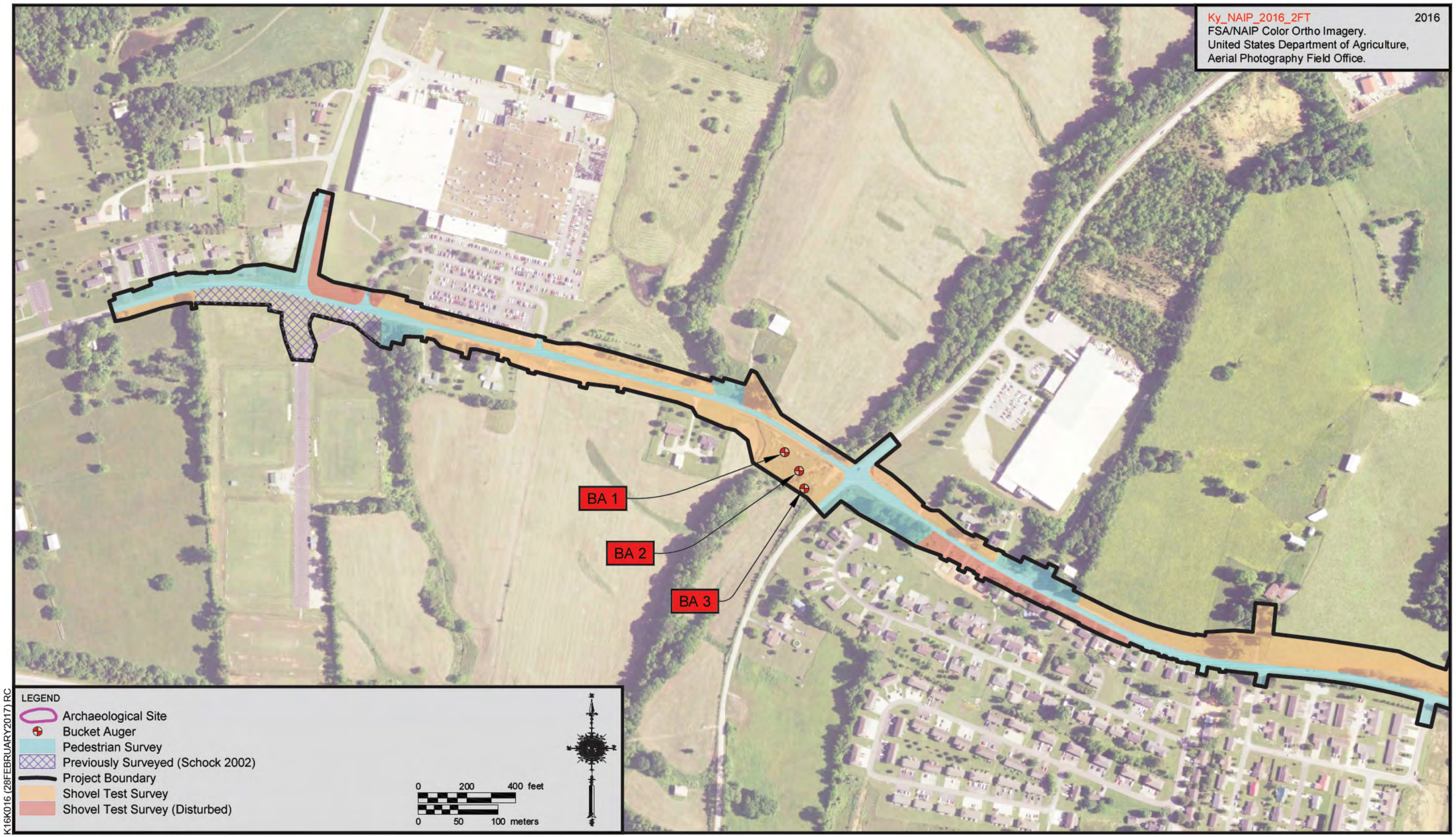


**Figure 3a. Project area plan map.**

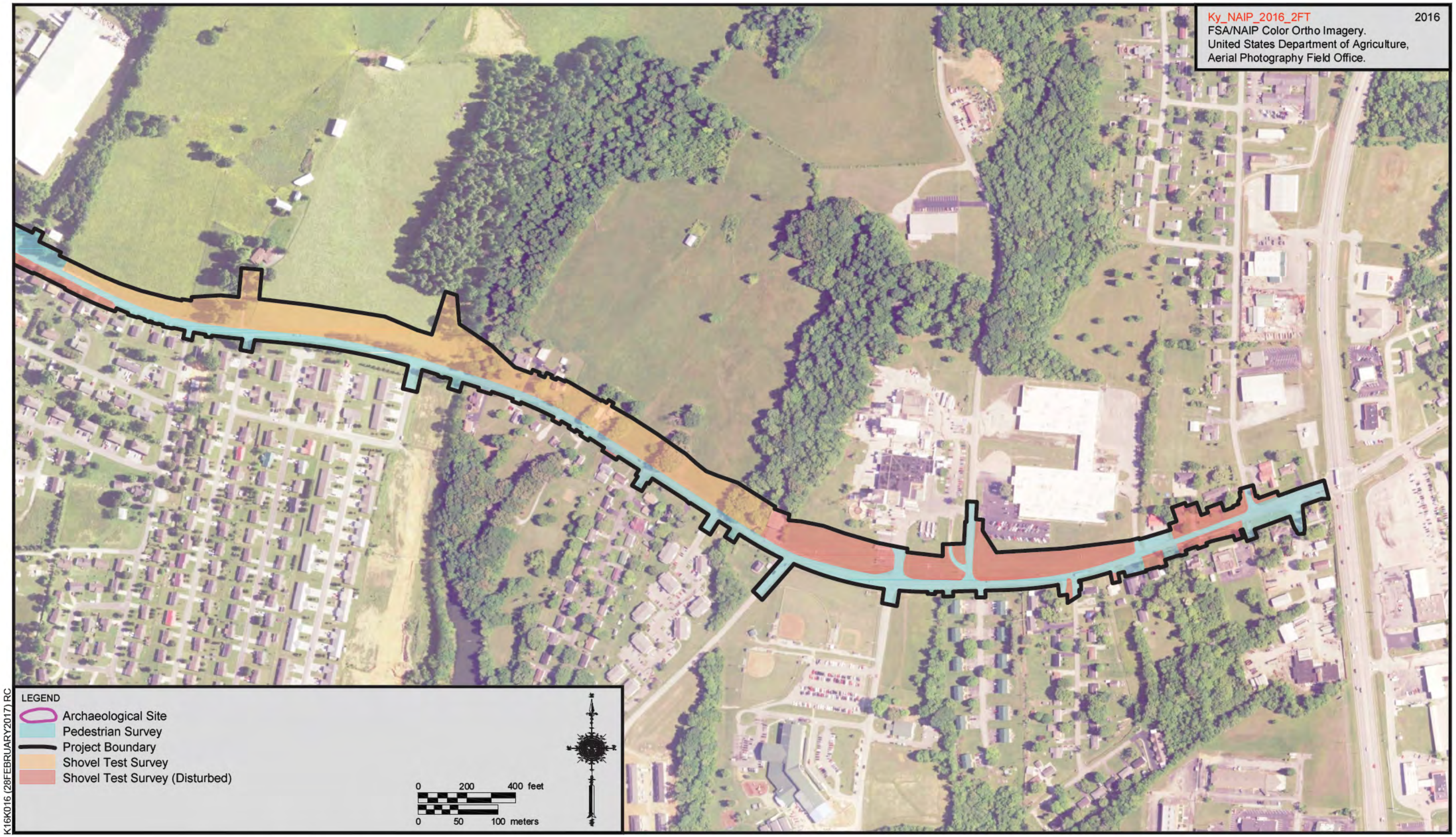


**Figure 3b. Project area plan map.**

The current survey resulted in the identification of three archaeological sites (15Bn186–15Bn188). Site 15Bn186 was a multicomponent historic farmstead and prehistoric open habitation without mounds, and Sites 15Bn187 and 15Bn188 were historic farmsteads. The prehistoric component of Site 15Bn186 consisted of two undiagnostic lithic flakes, and there was no evidence for the presence of intact prehistoric deposits, midden, or features. The prehistoric component of Site 15Bn186 is recommended as not eligible for the NRHP. The historic component of Site 15Bn186 dated from the nineteenth through twentieth centuries, and it may have begun as a residential area for slaves, followed by purchase of the land by a former slave in 1866. The property appeared to have been occupied by at least one extended African-American family until the mid-twentieth century. Site 15Bn186 exhibited sub-plow zone cultural deposits in three areas, and a possible foundation remnant was identified. The NRHP eligibility of Site 15Bn186 could not be assessed and further archaeological work is recommended. Site 15Bn187 was similar to Site 15Bn186 in that the land was purchased by a former slave in 1866, and by the late nineteenth century it contained a residence that was occupied by African-American families until at least the mid-twentieth century. However, Site 15Bn187 lacked integrity and had little potential to contain intact, sub-plow zone features, midden, or cultural deposits. No further work is recommended for Site 15Bn187. Site 15Bn188 was a historic farmstead that was occupied throughout the twentieth century. Site 15Bn188 lacked integrity and had little potential to contain intact, sub-plow zone features, midden, or cultural deposits. No further work is recommended for Site 15Bn188.

# II. ENVIRONMENTAL SETTING

This section of the report provides a description of the modern and prehistoric environment and considers those aspects of the environment that may have influenced the settlement choices of past peoples. Attributes of the physical environment also often guide the methods used to discover archaeological sites. Topography, bedrock geology, vegetation, hydrology, soils, lithic resources, and climate for the region where the project is located are discussed below.

The Mississippian Plateaus region (Figure 4) is separated from the Inner and Outer Bluegrass subregions by the Knobs subregion and borders every other physiographic region in Kentucky (Sauer 1927). It is bordered to the north by the Muldraughs Hill escarpment and the Ohio River valley, to the east by the Pottsville or Cumberland Escarpment, to the west by the Western Kentucky Coal Field region and the Tennessee and Ohio River valleys, and to the south by the Tennessee state line. A triangular-shaped wedge of the Mississippian Plateaus region in northeastern Kentucky is bordered by the Knobs subregion to the west and by the Eastern Kentucky Coal Field region to the east. The valley of the Cumberland River in the southeast portion of the region contains broad bottomlands, cliffs, gorges, and knobs situated around meander bends (Newell 2001). Much of the area was known as barrens, which was a pioneer term for grassland prairies, prior to historic agricultural uses (Newell 2001).

The counties located completely within the Mississippian Plateaus region consist of Adair, Allen, Barren, Cumberland, Green, Hardin, Larue, Livingston, Lyon, Meade, Metcalfe, Monroe, Russell, Simpson, Taylor, and Trigg. The following counties encompass portions of the Mississippian Plateaus and Western Kentucky Coal Field regions: Breckinridge, Caldwell, Christian, Crittenden, Edmondson, Grayson, Hart, Logan, Todd, and Warren. There are portions of Lewis and Rowan Counties in the Knobs, portions in a triangular-shaped wedge of Mississippian Plateaus, and portions in the Eastern Kentucky Coal Field region in northeastern Kentucky. Casey County encompasses portions of the Mississippian Plateaus region and the Knobs subregion in the south-central portion of the commonwealth. In the same general area, Lincoln and Marion Counties have small areas situated within the Mississippian Plateaus region, and they extend into the Knobs and Outer Bluegrass subregions. Rockcastle County is situated partially within the Mississippian Plateaus region, partially within the Knobs subregion, and partially within the

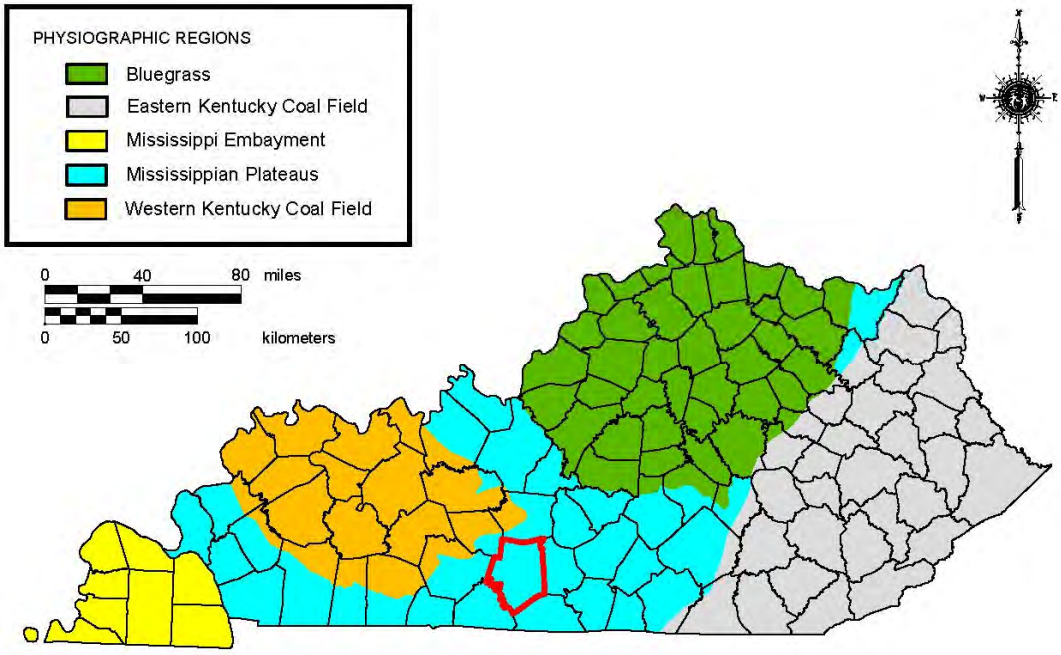


Figure 4. The Mississippian Plateaus region.

Eastern Kentucky Coal Field region. Finally, portions of Clinton, Pulaski, and Wayne Counties are situated within the Mississippian Plateaus, and portions are within the Eastern Kentucky Coal Field.

The Mississippian Plateaus region has strongly developed karst topography, as evidenced by a prevalence of erosional features, including caves, glades, sinkholes, and springs (Pollack 2008a:15). The part of the region spanning south and central Kentucky is strongly dissected by deep valleys underlain by Mississippian-age limestone and dolomite. Devonian to Mississippian-age shale, siltstone, and dolomite underlie the triangular-shaped wedge of Mississippian Plateaus region in northeastern Kentucky.

The Cumberland, Green, and Tradewater Rivers and their tributaries, depending on geographical location, drain the majority of the Mississippian Plateaus region, and the northern and western edges of the region are drained by the Ohio and Tennessee Rivers, respectively (Figure 5). Mammoth Cave occurs along the Green River and is part of the most extensive cave development in Kentucky (Newell 2001).

The Mississippian Plateaus area of Kentucky is located within the Western Mesophytic Forest region, as defined by Braun (2001:122–161). This forest region offers a mosaic pattern of climax vegetation types that are often less luxuriant than those observed for the Mixed Mesophytic Forest region to the east (Braun 2001:122–123). The Western Mesophytic region is considered a transition zone in which the effects of local environments allow different climax types to exist in proximity. Braun states that the modern pattern of forest distribution is the result of past and present environmental influences, with changes in climate, topography, or soil bringing about changes in vegetation (Braun 2001:529).

Beech is the dominant forest in the modern dissected and hilly areas of the eastern Mississippian Plateaus region, whereas oak, oak-hickory, and oak-chestnut occupy drier slopes and ridges. The western plateau area is dominated by oak forest in topographically rolling areas, while oak-hickory forest is dominant on isolated

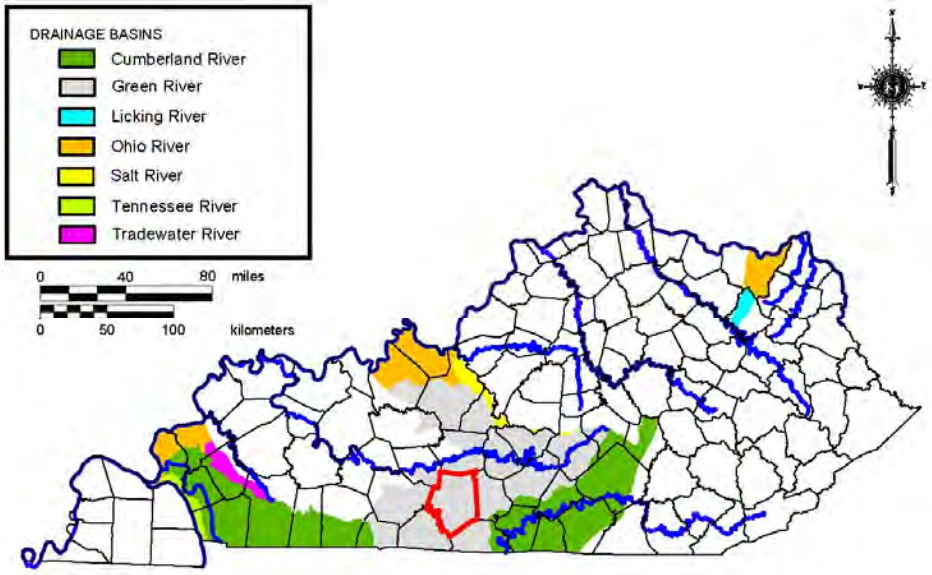


Figure 5. Rivers that drain the Mississippian Plateaus region.

hills. Prairie or barren areas are also present in the western plateau, where cedars dominate drier slopes, and swamp forests of herbaceous vegetation and shrub communities are dominant in low-lying areas (Braun 2001:151–152).

## Soils of the Mississippian Plateaus

The Mississippian Plateaus region is predominately mapped as the Alfisols order of soils. Alfisols developed on Late Pleistocene or older surfaces or on erosional surfaces of similar age. They have a thin, dark A-horizon rich in organic matter and nutrients and a clay-enriched subsoil, and they are relatively fertile due to being only moderately leached (Soil Survey Staff 1999:163–165). Alfisols may contain intact archaeological deposits very near or on the ground surface, depending upon the landform on which they formed (e.g., sideslope vs. ridgetop).

The Alfisols order is predominately mapped as the Udalfs suborder of soils, which are the more or less freely-drained Alfisols in areas with well-distributed rainfall and seasonally varying soil temperatures. Some of the Udalfs are underlain by limestone or other calcareous sediments. Udalfs are thought to have developed under forest vegetation, and depending on temperature regime, they supported either a deciduous forest (mesic or warmer) or a mixed coniferous and deciduous forest (frigid). Many Udalfs have been cleared of trees and are intensively farmed. As a result of erosion, many now have only a clay-enriched or iron and aluminum oxide-enriched horizon below an Ap-horizon that is mostly material once part of the subsoil. Udalfs on stable surfaces retain most of their weathered or leached eluvial horizons above the subsoil. A few Udalfs have a natric, or clay and sodium-enriched, horizon, and others have a compacted zone, such as a fragipan, in or below the subsoil (Soil Survey Staff 1999).

Portions of the Mississippian Plateaus region that are predominately mapped as the Inceptisol soil order occur to a lesser extent. Inceptisols developed in silty, acid alluvium during the Late Pleistocene or Holocene time periods on nearly level to steep surfaces. Inceptisols may have deeply buried and intact archaeological deposits, depending upon the landform on which they formed (e.g., sideslope vs. alluvial terrace). Inceptisols exhibit a thick, dark colored surface horizon rich in organic matter and a weakly developed subsurface horizon with evidence of weathering and sometimes of gleying (Soil Survey Staff 1999:489–493).

These portions of the region are predominately mapped as the Udepts suborder of soils, which are mainly the more or less freely-drained Inceptisols in areas with well-distributed to excessive rainfall. In the areas with excessive rainfall, the soils formed in older deposits. Most of the soils are thought to have developed under forest vegetation, but some supported shrubs or grasses. The majority of the soils have either a thinner, or a thicker but leached, surface horizon and a weakly developed subsoil or B-horizon. Some also have a sulfuric acid–enhanced horizon that is commonly the result of artificial drainage or surface mining or other earthmoving activities. Some also exhibit a subsurface cemented zone, such as a duripan, or a compacted zone, such as a fragipan (Soil Survey Staff 1999).

Finally, there are small areas along the Ohio River predominately mapped as the Mollisols soil order. They are grassland soils, and because of the long-term addition of organic material to the soil from plant roots, the surface horizon is thick, dark, and fertile. They can exhibit clay, sodium and/or carbonate enriched, or even leached subsoil horizons. These soils formed on level to sloping ground in Late Pleistocene to Holocene or even earlier deposits and generally under grassland that could have been previously forested. They have the potential to contain deeply buried and intact archaeological deposits on level floodplain or terrace landforms (Soil Survey Staff 1999:555–557).

These areas are predominately mapped as the Udoll suborder of soils, which are mainly the more or less freely-drained Mollisols of humid climates in areas with well-distributed rainfall. They formed mainly in Late Pleistocene or Holocene deposits or on surfaces of comparable ages (Soil Survey Staff 1999).

## Lithic Resources

The Mississippian Plateaus region displays very diverse and abundant sources of lithic raw material that could have been exploited by prehistoric inhabitants. There are rings of different geologic strata underlying the Mississippian Plateaus region and expanding out from the Western Kentucky Coal Field region that have been exposed by erosion through down cutting. The various members occur at different elevations and are mostly of Mississippian age. Areas of Vienna and Menard cherts are found within the Vienna and Menard Formations on the outer edges of the Western Kentucky Coal Field region (United States Geological Survey [USGS] 2017). A more continuous and wider ring of Mississippian-age limestone formations containing Haney, Girkin, and Paoli cherts surrounds the Vienna and Menard Formations. A large ring of Muldraugh chert-bearing limestone of the Muldraugh Formation then covers much of the rest of the western portion of the region. In the eastern third of the region, Mississippian-age limestone and dolomite strata of the Ste. Genevieve and St. Louis Formations contain Ste. Genevieve and St. Louis cherts. Mississippian-age Fort Payne chert is found in underlying limestone and sandstone outcrops in some of the dissected areas in the eastern third of the region. The more dissected areas of the eastern third expose Devonian to Mississippian-age shale, siltstone, limestone, and dolomite, as does the triangular-shaped wedge of the Mississippian Plateaus region in northeastern Kentucky. These areas can contain predominately Boyle and Brassfield cherts. In northeastern Kentucky, along the eastern edge of the triangular-shaped wedge of the Mississippian Plateaus region, Mississippian-age Newman Limestone containing Newman chert is found. Some areas of Pennsylvanian-age shale, siltstone, and sandstone deposits are preserved above the Mississippian deposits. They contain Breathitt chert primarily outcropping in the southeastern corner of the region.

The upland areas in the Land Between the Lakes region are underlain by Tertiary to Quaternary-age Continental deposits of loess, sand, and gravel. Within these deposits in this region, Mounds Gravel is the predominate chert and is found on river and stream terraces and, secondarily, on gravel bars. It consists of chert pebbles and cobbles found in the redeposited Pliocene/Pleistocene gravels.

# Prehistoric and Historic Climate

Climatic conditions during the period of human occupation in the region (Late Pleistocene and Holocene ages) can be described as a series of transitions in temperature, rainfall, and seasonal patterns that created a wide range of ecological variation, altering the survival strategies of human populations (Anderson 2001; Niquette and Donham 1985:6–8; Shane et al. 2001). The landscape during the Pleistocene was quite different from that of today. Much of the mid-continent consisted of periglacial tundra dominated by boreal conifer and jack-pine forests. Eastern North America was populated by a variety of faunal species, including megafaunal taxa such as mastodon, mammoth, saber-toothed tiger, and Pleistocene horse, as well as by modern taxa such as white-tailed deer, raccoon, and rabbit.

The Wisconsinan glacial maximum occurred approximately 21,400 years B.P. (Anderson 2001; Delcourt and Delcourt 1987). By 15,000 B.P., following the Wisconsinan glacial maximum, a general warming trend and concomitant glacial retreat had set in (Anderson 2001; Shane 1994). Towards the end of the Pleistocene and after 14,000 B.P., the boreal forest gave way to a mixed conifer/northern hardwoods forest complex. In the Early Holocene and by 10,000 B.P., southern Indiana was probably on the northern fringes of expanding deciduous forests (Delcourt and Delcourt 1987:92–98). Pollen records from the Gallipolis Lock and Dam on the Ohio River near Putnam County, West Virginia, reveal that all the important arboreal taxa of mixed mesophytic forest had arrived in the region by 9000–8500 B.P. (Fredlund 1989:23). Similarly, Reidhead (1984:421) indicates that the generalized hardwood forests were well established in southeastern Indiana and southwest Ohio by circa 8200 B.P.

Prior to approximately 13,450 B.P., climatic conditions were harsh but capable of supporting human populations (Adovasio et al. 1998; McAvoy and McAvoy 1997). Populations were probably small, scattered, and not reproductively viable (Anderson 2001). The Inter-Allerød Cold Period, circa 13,450–12,900 B.P, brought about the dispersal of Native Americans across the continent. This period was followed by the rapid onset of a cooling event known as the Younger Dryas (circa 12,900–11,600 B.P.) during which megafauna species became extinct, vegetation changed dramatically, and temperature fluctuated markedly.

In a recent review, Meeks and Anderson (2012:111) described the Pleistocene/Holocene transition as "a period of tremendous environmental dynamism coincident with the Younger Dryas event." The Younger Dryas (circa 12,900 to 11,600 cal. B.P.) represents one of the largest abrupt climate changes that has occurred within the past 100,000 years. The onset of the Younger Dryas appears to have been a relatively rapid event that may have been driven by a freshwater influx into the North Atlantic as a result of catastrophic outbursts of glacial lakes. "The net effect of these outbursts of freshwater was a reduction in sea surface salinity, which altered the thermohaline conveyor belt; effectively slowing ocean circulation of warmer water (heat) to the north and bringing cold conditions" (Meeks and Anderson 2012:111; though see Meltzer and Bar-Yosef 2012:251–252 for a critique of this view). This resulted in significantly lower temperatures during this time. The Younger Dryas ended approximately 1,300 years later over a several decade period. The onset of the Younger Dryas coincides with the end of Clovis and the advent of more geographically circumscribed cultural traditions.

Pollen records for the Younger Dryas indicate that vegetation shifts were sometimes abrupt and characterized by oscillations. These shifts were not uniform over the entire southeast and indicate that a variety of factors were at play. At Jackson Pond in Kentucky (Wilkins et al. 1991), for example, several pronounced reciprocal oscillations occurred in a large number of spruce and oak. According to Meeks and Anderson, "these oscillations reflect shifts between boreal/deciduous forest ecotones associated with cool/wet and cool/dry conditions, respectively" (2012:113).

Meeks and Anderson (2012:126–130) define five population events for the Paleoindian–Early Holocene transition. Population Event 1 (circa 15,000–13,800 cal. B.P.) is a pre-Clovis occupation that exhibits a slow rise in population. This event may represent the initial colonization of the southeast region and may represent the basis of later Clovis occupation or a failed migration (Meeks and Anderson 2012:129). Population Event 2 represents an apparent 600 year gap between Events 1 and 3. Population Event 3 (circa 13,200–12,800 cal. B.P.) occurred just prior to, and extended into, the Younger Dryas event. This event represents the "first unequivocal evidence for widespread human occupation across the southeastern United States" (Meeks and Anderson 2012:129). Event 3 coincided with the Clovis occupation in the region. A marked decline in the population is posited for Population Event 4 (12,800–11,900 cal. B.P.). This equates with the early to middle Younger Dryas and relates to a post-Clovis occupation of the region. Meeks and Anderson (2012:129) see a fragmentation of the regional Clovis culture at this time along with "the development of geographically circumscribed subregional, cultural traditions in the southeastern United States." A marked increase in population density is posited between 11,900 and 11,200 cal. B.P. This coincides with the late portion of the Younger Dryas and the early portion of the Holocene. Population Event 5 is represented by this time frame. Early Side Notched and Dalton are seen during this time.

During the Early Holocene, rapid increases in boreal plant species occurred on the Allegheny Plateau in response to the retreat of the Laurentide ice sheet from the continental United States (Maxwell and Davis 1972:517–519; Whitehead 1973:624). At lower elevations, deciduous species were returning after having migrated to southern Mississippi Valley refugia during the Wisconsinan advances (Delcourt and Delcourt 1981:147). The climate during the Early Holocene was still considerably cooler than the modern climate, and based on species extant at that time in upper altitude zones of the Allegheny Plateau, conditions would have been similar to the Canadian boreal forest region of today (Maxwell and Davis 1972:515–516). Conditions at lower elevations were less severe and favored the transition from boreal to mixed mesophytic species. At Cheek Bend Cave in the Nashville Basin, an assemblage of small animals from the Late Pleistocene confirms the environmental changes that took place during the Pleistocene to Holocene transition and the resulting extinction of Pleistocene megafauna and establishment of modern fauna in this area (Klippel and Parmalee 1982).

Traditionally, Middle Holocene (circa 8000–5000 B.P., also referred to as the Hypsithermal) climate conditions were thought to be consistently dryer and warmer than the present (Delcourt 1979:271; Klippel and Parmalee 1982; Wright 1968). The influx of westerly winds contributed to periods of severe moisture stress in the Prairie Peninsula and to an eastward advance of prairie vegetation (Wright 1968). More recent research (Anderson 2001; Shane et al. 2001:32–33) suggests that the Middle Holocene was marked by considerable local climatic variability. Paleoclimatic data indicate that the period was marked by more pronounced seasonality characterized by warmer summers and cooler winters.

The earliest distinguishable Late Holocene climatic episode began circa 5000 B.P. and ended around 2800 B.P. This Sub-Boreal episode is associated with the establishment of essentially modern deciduous forest communities in the southern highlands and increased precipitation across most of the mid-continental United States (Delcourt 1979:271; Maxwell and Davis 1972:517–519; Shane et al. 2001; Warren and O'Brien 1982:73). Changes in local and extra-local forests after approximately 4800 B.P. may also have been the result of anthropogenic influences. Fredlund (1989:23) reports that the Gallipolis pollen record showed increasing local disturbance of the vegetation from circa 4800 B.P. to the present, a disturbance that may have been associated with the development and expansion of horticultural activity. Based on a study of pollen and wood charcoal from the Cliff Palace Pond in Jackson County, Kentucky, Delcourt and Delcourt (1997:35–36) recorded the replacement of a red cedar–dominated forest with a forest dominated by fire-tolerant taxa (oaks and chestnuts) around 3000 B.P. The change is

associated with increased local wildfires (both natural and culturally augmented) and coincided with increases in cultural utilization of upland (mountain) forests.

Beginning around 2800 B.P., generally warm conditions, probably similar to those of the twentieth century, prevailed during the Sub-Atlantic and Post–Sub-Atlantic climatic episodes, with the exception of the Neo-Boreal sub-episode, or Little Ice Age (circa 700–100 B.P.), which was coldest from circa 400 until its end. Despite the prevailing trend, brief temperature and moisture variations occurred during this period. Some of these fluctuations have been associated with adaptive shifts in Midwestern prehistoric subsistence and settlement systems (Baerreis et al. 1976; Griffin 1961; Struever and Vickery 1973; Warren and O'Brien 1982).

Studies of historic weather patterns and tree-ring data by Fritts et al. (1979) indicate that twentieth-century climatological averages were "unusually mild" when compared to seventeenth- to nineteenth-century trends (the time period used for comparison represents the coldest period of the Neo-Boreal [400–100 B.P.], or the Little Ice Age) (Fritts et al. 1979:18). The study suggested that winters were generally colder, weather anomalies were more common, and unusually severe winters were more frequent between A.D. 1602 and A.D. 1900 than after A.D. 1900. The effects of the Neo-Boreal sub-episode, which ended during the mid- to late nineteenth century, have not been studied in detail for this region. It appears that the area experienced smaller temperature decreases during the late Neo-Boreal than did the upper Midwest and northern Plains (Fritts et al. 1979), so it follows that related changes in extant vegetation would be more difficult to detect.

## Modern Climate

The modern climate of Kentucky is moderate in character and temperature, and precipitation levels fluctuate widely. The prevailing winds are westerly, and most storms cross the state in a west to east pattern. Low pressure storms that originate in the Gulf of Mexico and move in a northeasterly direction across Kentucky contribute the majority of the precipitation received by the state. Warm, moist, tropical air masses from the Gulf predominate during the summer months and contribute to the high humidity levels experienced throughout the state. As storms move through the state, occasional hot and cold periods of short duration may be experienced. During the spring and fall, storm systems tend to be less severe and less frequent, resulting in less radical extremes in temperature and rainfall (Anderson 1975).

## Description of the Project Area

The project area consisted of several land parcels that were to the north and south of KY 1297 (Cleveland Avenue), and along several intersecting roads, consisting of Donnelly Drive, Glen Garry Road, Childress Road, Waterford Lane, Britthaven Drive, Forrester Road, Lakeview Boulevard, Lovers Lane, Parkview Drive, Sorenson Drive, Embark Court, Dawn Street, Westwood Street, and Springdale Drive (see Figures 2 and 3). The landforms consisted primarily of undissected uplands and sideslopes, along with a few small alluvial landforms. Elevations in the project area ranged between 207 and 220 m (680 and 720 ft) above mean sea level (AMSL). Vegetation varied by land use, with residential areas and commercial properties generally exhibiting short grass, ornamental plants, shrubs, and trees. Agricultural properties consisted of fallow fields and pastures with short and tall grass and weeds. Athletic fields also contained short grass. Ground surface visibility was typically obscured by vegetation throughout the project area.

The majority of the land parcels were residential lots, many of which held modern structures that were outside the project corridor (Figure 6). The project corridor along several of these lots consisted only of small areas between the existing roads and the facades of the houses, or between the existing roads and the sidewalks (Figure 7). The majority of the residential yard areas had been disturbed through road construction or the installation of below ground utilities. Athletic fields also exhibited disturbance through land leveling (see Section 6, Site

15Bn121). Other areas were used for industrial and commercial purposes, and the portions of the project area in these areas typically exhibited disturbed sediments (Figure 8). The remaining areas consisted of agricultural fields and pastures, all of which had been disturbed through agricultural uses (i.e., plowing) (Figure 9).

Eight soil series have been defined in the project area: Baxter, Dickson, Garmon, Mountview, Pembroke, Robinson, Sango, and Talbott. The soil series are classified by the amount of time it has taken them to form and the landscape position they are found on (Birkeland 1984; Soil Survey Staff 1999). This information can provide a relative age of the soils and can express the potential for buried archaeological deposits within them (Stafford 2004). The soil order and group classifications for each soil series are used to assist with determining this potential.

Baxter series soils (Typic Paleudalfs) are located on hillsides and ridgetops, and they are very deep, well drained, and formed in fine-textured residuum of cherty limestone. The typical soil profile consists of an Ap horizon of brown (10YR 4/3) gravelly silt loam to 23 cm (9 in) below ground surface (bgs) followed by a Bt1 horizon of strong brown (7.5YR 5.6) gravelly silty clay loam to 41 cm (16 in) bgs. These are underlain by Bt2 and Bt3 horizons of red (2.5YR 4/6) gravelly silty clay and gravelly clay to 81 and 122 cm (32 and 48 in) bgs, respectively. These are underlain by Bt3 and C horizons of mottled red (2.5YR 4/6) very gravelly clay to 191 and 252 cm (75 and 99 in) bgs, respectively (Soil Survey Staff 2017).

Dickson series soils (Glossic Fragiudults) are located on nearly level to sloping uplands, and they are very deep, moderately well drained, and formed in a silty mantle and the underlying residuum of limestone. The typical soil profile consists of an Ap horizon of brown (10YR 5/3) silt loam to 25 cm (10 in) bgs, followed by Bw and E horizons of yellowish brown (10YR 5/6) and pale brown (10YR 6/3) silt loam to 51 and 61 cm (20 and 24 in) bgs, respectively. These are underlain by Btx1 and Btx2 horizons of yellowish brown silt loam to 81 and 109 cm (32 and 43 in) bgs, respectively, and then by 2Bt2 and 3Cr horizons of mottled red (2.5YR 4/8) clay and mottled olive yellow (2.5Y 6/8) siltstone to 185 and 206 cm (73 and 81 in) bgs, respectively (Soil Survey Staff 2017).


**Figure 6. Residential lots along KY 1297 (Cleveland Avenue), looking west.**

Figure 7. Sidewalk along KY 1297 (Cleveland Avenue), looking east.


Figure 8. Commercial property in the project area, looking east.

**Figure 9. Agricultural field in project area, looking west.**

Garmon series soils (Dystric Eutrudepts) are located along shoulder slopes and hillsides, and they are moderately deep, well drained, and formed in residuum of calcareous shale, siltstone, and limestone. The typical soil profile consists of an A horizon of brown (10YR 5/3) silt loam to 5 cm (2 in) bgs, followed by Bw1 and Bw2 horizons of light yellowish brown (10YR 6/4) and yellowish brown (10YR 5/4) silt loam to 31 and 66 cm (12 and 26 in) bgs, respectively. These are followed by siltstone bedrock (Soil Survey Staff 2017).

Mountview series soils (Oxyaquic Paleudults) are located on ridgetops, and they are very deep, well drained and moderately well drained, and formed in a silty mantle and underlying residuum of limestone and old alluvium. The typical soil profile consists of an Ap horizon of brown (10YR 5/3) silt loam to 20 cm (8 in) bgs, followed by Bt1 and Bt2 horizons of yellowish brown (10YR 5/6) and strong brown (7.5YR 5/6) silt loam to 31 and 64 cm (12 and 25 in) bgs, respectively. These are underlain by E/B and B/E horizons of light yellowish brown (10YR 6/4) and strong brown (7.5YR 5/6) silt loam to 71 and 84 cm (28 and 33 in) bgs, respectively, followed by 2Bt3 and 2Bt4 horizons of yellowish red (5YR 5/6 and 5YR 4/6) gravelly clay to 117 and 168 cm (46 and 66 in) bgs, respectively (Soil Survey Staff 2017).

Pembroke series soils (Mollic Paleudalfs) are located on nearly level uplands, and they are very deep, well drained, and formed in a thin mantle of loess underlain by older alluvium or residuum of limestone, or both. The typical soil profile consists of an Ap horizon of dark brown (7.5YR 3/3) silt loam to 23 cm (9 in) bgs, followed by a Bt1 horizon of reddish brown (5YR 4/4) silt loam to 46 cm (18 in) bgs. These are underlain by Bt2–Bt5 horizons of yellowish red (5YR 4/6), red (2.5YR 4/6), and dark red (2.5YR 3/6) silty clay loam to 71, 89, 158, and 203 cm (28, 35, 62, and 80 in) bgs, respectively (Soil Survey Staff 2017).

Robinsonville series soils (Typic Udifluvents) are found on floodplains, and they are very deep, well drained, and formed in loamy alluvium. The typical soil profile consists of an A horizon of dark grayish brown (10YR 4/2) very fine sandy loam to 18 cm (7 in) bgs. This is underlain by C1–C3 horizons of brown (10YR 5/3 and 10YR 4/3) fine sandy loam and loamy very fine sand to 51, 61, and 117 cm (20, 24, and 46 in) bgs, respectively. These are underlain by a C4 horizon of dark grayish brown (10YR 4/2) loamy very fine sand to 178 cm (70 in) bgs (Soil Survey Staff 2017).

Sango series soils (Glossic Fragiudults) are located on upland flats and in depressions, and they are moderately well drained and formed in a silty mantle and the underlying residuum from weathered limestone or old alluvium. The typical soil profile in agricultural fields consists of an Ap horizon of dark yellowish brown (10YR 3/6) silt loam to 28 cm (11 in) bgs followed by a Bw horizon of yellowish brown (10YR 5/6) silt loam to 69 cm (27 in) bgs. This is underlain by Bx to Bt horizons of light olive brown (2.5Y 5/4) silt loam to 168 cm (66 in) bgs, followed by a 2Bt2 horizon of brownish yellow (10YR 6/6) gravelly clay to 203 cm (80 in) bgs. These are underlain by a 2C horizon of red (2.5YR 5/6) gravelly clay (Soil Survey Staff 2017).

Talbott series soils (Typic Hapludalfs) are typically found on upland slopes, and they are moderately deep, well drained, and formed in clayey residuum weathered from limestone. The typical soil profile consists of an Ap horizon of brown (10YR 4/3) silt loam to 15 cm (6 in) bgs, followed by Bt1–Bt3 horizons of yellowish red (5YR 4/6) clay to 25, 51, and 64 cm (10, 20, and 25 in) bgs, respectively. These are underlain by a Bt4 horizon of yellowish brown (10YR 5/6) clay to 78 cm (31 in) bgs and a C horizon of light olive brown (2.5Y 5/4) clay to 94 cm (37 in) bgs. This is underlain by limestone bedrock (Soil Survey Staff 2017).

Garmon and Robinsonville series soils are Inceptisols that are found on landforms that formed during the late Pleistocene or Holocene time periods (Soil Survey Staff 1999). These may have deeply buried and intact archaeological deposits, depending upon the landform on which they formed (e.g., sideslope vs. alluvial terrace). Garmon series soils were mapped along sideslopes that were subjected only to pedestrian survey. Robinsonville series soils were mapped for the single small floodplain that was located within the project corridor. This area exhibited very sandy soils and no archaeological sites were recorded in the area mapped as Robinsonville soils.

Baxter, Mountview, Pembroke, and Talbott series soils are Alfisols, which are found on landforms that formed during the late Pleistocene or earlier (Soil Survey Staff 1999:163–167). Archaeological deposits would only be found on or very near the ground surface on landforms mapped with these soils. Baxter series soils were mapped for sloped areas that were subjected only to pedestrian survey. Mountview series soils were mapped for the western-most uplands in the project area. Pembroke series soils were mapped for a few small ridges in the western-most portion of the project area. Talbott series soils were mapped for gently sloped areas, including Site 15Bn188.

Dickson and Sango series soils are Ultisols, which may have deeply buried and intact archaeological deposits, depending upon the landform on which they formed (e.g., sideslope vs. alluvial terrace) (Soil Survey Staff 1999). Dickson series soils were mapped for several of the level to gently sloping upland areas, and were mapped for a portion of Site 15Bn186. Sango series soils were mapped for numerous uplands in the project area, including a portion of Site 15Bn186 and all of Site 15Bn187.

Sediments observed during shovel testing along the uplands typically conformed to the Dickson and Sango series descriptions. The soil profiles generally consisted of an Ap horizon of brown to dark yellowish brown (10YR 5/3 to 20YR 3/6) silt loam to silty clay loam to between 15 and 30 cm (6 to 12 in) bgs, followed by a subsoil of yellowish brown (10YR 5/6) silt loam to silty clay loam. Specific information about sediments observed at Sites 15Bn186–15Bn188 is provided in Section 6.

Limited bucket augering was conducted along a small floodplain within the project area (Figure 10; see Figure 3). Three bucket augers (BA1–BA3) were excavated to between 100 and 120 cm (40 and 47 in) bgs. The soil profiles in each typically consisted of an A horizon of dark grayish brown (10YR 4/2) sandy loam to 20 cm (8 in) bgs, followed by a fairly consistent C horizon of brown (10YR 4/3) sandy loam that transitioned to fine sand with depth, ending between 100 and 120 cm (40 and 47 in) bgs. At these depths, water began to seep into each bucket auger. The soil profile indicated a high energy depositional environment, which would not contain intact, buried archaeological deposits.

**Figure 10. Floodplain in project area, looking east.**

# III. RESULTS OF THE FILE AND RECORDS SEARCH AND SURVEY PREDICTIONS

## Previous Research in Barren County

Prior to the field investigation, a search of records maintained by the NRHP (available online at: ) and the OSA (FY17_9024) was conducted to: 1) determine if the project area had been previously surveyed for archaeological resources; 2) identify any previously recorded archaeological sites that were situated within the project area; 3) provide information concerning what archaeological resources could be expected within the project area; and 4) provide a context for any archaeological resources recovered within the project area. A search of the NRHP records indicated that no cultural resources listed in the NRHP were situated within the current project area or within a 2 km radius of the project area. The OSA file search was conducted on November 28 and 29, 2016. The work at OSA consisted of a review of professional survey reports and records of archaeological sites for an area encompassing a 2 km radius around the project footprint. To further characterize the archaeological resources in the general area, the OSA archaeological site database for the county was reviewed and synthesized. The review of professional survey reports and archaeological site data in the county provided basic information on the types of archaeological resources that were likely to occur within the project area and the landforms that were most likely to contain these resources. The results are discussed below.

OSA records revealed that 19 previous professional archaeological surveys and 3 NRHP evaluations had been conducted within a 2 km radius of the project area. Nineteen archaeological sites had also been recorded in this area. A portion of 1 of the surveys and a portion of 1 of the archaeological sites (15Bn121) were located within the current project area.

The records search revealed that 2 of the 19 sites in the file search area (15Bn121 and 15Bn124) were historic farms/residences. One site (15Bn48) was a historic military site. Thirteen of the sites (15Bn57, 15Bn62, 15Bn63, 15Bn77, 15Bn126, 15Bn166–15Bn170, 15Bn172, 15Bn174, and 15Bn175) were prehistoric open habitations without mounds. The remaining three sites (15Bn125, 15Bn127, and 15Bn171) were multicomponent with historic and prehistoric sites. The 2 km radius included areas within the Glasgow South, Kentucky (USGS 1979a) and Glasgow North, Kentucky (USGS 1979b) quadrangles.

# Previous Archaeological Investigations

*Heather D. Barras*

In 1977 and 1978, Western Kentucky University personnel conducted an archaeological survey in an effort to provide a more accurate reconstruction of portions of Fort Williams (15Bn48) in Glasgow, Barren County, Kentucky (Schock 1978a). An area of unspecified size was subjected to test unit excavation at the request of the City of Glasgow. The survey resulted in the identification of a magazine location. Recommendations were not made and NRHP eligibility was not assessed at the time. Site 15Bn48 was located within 2 km of the current project area.

In July of 1978, Western Kentucky University personnel conducted archaeological work at Fort Williams (15Bn48) in an attempt to obtain a vertical profile of the military magazine they had previously identified and to identify or clarify what had appeared to be the entranceway to the magazine (Schock 1978b). At the request of the Committee for Restoration of Fort Williams, an area of unspecified size was investigated with trench excavation and test unit excavation. The entrance to the magazine and the magazine drainage ditch were profiled during the investigations. No recommendations were made and the NRHP eligibility was not assessed at the time.

On August 15, 1979, Arrow Enterprises personnel completed an archaeological survey of a proposed lift station site and force main easement in the city of Glasgow, Kentucky (Schock 1979). The survey was conducted at the request of Dick George of Will Linder & Associates in Calvert City, Kentucky, on the behalf of the City of Glasgow. An area of unspecified size was investigated with pedestrian survey. No archaeological sites were encountered and project clearance was recommended.

During August and September of 1985, Arrow Enterprises personnel conducted an archaeological survey of approximately 36 ha (88 acres) for a proposed industrial park in Barren County, Kentucky (Schock 1985a). The survey was conducted at the request of Freddie Travis of Ideal Hardware Company in Glasgow, Kentucky. Field methods consisted of pedestrian survey, shovel testing, and backhoe trenching. One archaeological site (15Bn57) was documented during the investigation. Site 15Bn57, which is located within the 2 km radius of the current project area, was a prehistoric open habitation without mounds of indeterminate temporal affiliation. Backhoe trenching failed to reveal any features or sub-plow zone deposits. The site was recommended as not eligible for the NRHP and no further work was recommended (Schock 1985a).

In September 1985, Arrow Enterprises personnel conducted an archaeological survey of the proposed Dellwood Apartments in Glasgow, Kentucky (Schock 1985b). Approximately 1.4 ha (3.4 acres) were investigated at the request of Arvil Dobson of Landmark Enterprises through pedestrian survey and shovel testing. No archaeological sites were identified and no further work was recommended.

In September 1991, the University of Kentucky's Program for Cultural Resource Assessment conducted an archaeological survey of a proposed landfill extension between Beaver Creek, the South Fork of Beaver Creek, and the Cumberland Parkway in Barren County, Kentucky (Rossen and Tune 1991). The survey was conducted at the request of the City of Glasgow. The project area measured 30 ha (75 acres) and fieldwork consisted of pedestrian survey of disked strips supplemented with shovel testing. Two archaeological sites, 15Bn62 and

15Bn63, were identified, both of which were located within 2 km of the current project area. Site 15Bn62 was a large Early Archaic to Middle Archaic open habitation without mounds covering at least 19 ha (48 acres), but it had a low density of materials. Site 15Bn63 was a small lithic scatter of indeterminate temporal affiliation that had been almost completely destroyed by previous landfill activities. The sites were recommended as not eligible for the NRHP and no further work was recommended (Rossen and Tune 1991).

On October 20, 1992, Archaeology Resources Consultant Services, Inc., personnel completed an archaeological survey for the proposed relocation of an existing pipeline to allow for construction of the Monsanto Chemical Company's New Manufacturing Facility in Barren County, Kentucky (Evans 1992). Approximately 1.1 ha (2.8 acres) were investigated at the request of the Texas Gas Transmission Corporation. Field methods consisted of pedestrian survey supplemented with screened shovel testing. No archaeological sites were identified and project clearance was recommended.

Between June 8 and 26, 1995, Cultural Horizons, Inc., personnel conducted an archaeological survey at the request of American Engineers for the proposed construction of a bypass around the City of Glasgow, Barren County, Kentucky (Stallings and Ross-Stallings 1996). The entire length of Alternate A, 9.9 km (6.2 mi) with a 90 m (300 ft) wide corridor, was surveyed. Only high probability areas along Alternate B were surveyed. Field methods consisted of pedestrian survey supplemented with screened shovel testing. Twenty-one archaeological sites (15Bn77–15Bn97) were documented, only one of which was located within the 2 km radius of the current project area (15Bn77). Site 15Bn77 was a prehistoric open habitation of indeterminate temporal affiliation consisting of a low density lithic scatter. No evidence of intact sub-plow zone deposits or midden was observed. The site was recommended as not eligible for the NRHP and no further work was recommended.

On November 27 and 28, 1996, Arrow Enterprises conducted an archaeological survey for the proposed Glasgow Homebuyer Project in Glasgow, Kentucky (Schock 1996). Approximately 59 ha (147 acres) were investigated by pedestrian survey supplemented with shovel testing at the request of Melanie Nueber of the Barren River Area Development District. No archaeological sites were identified and project clearance was recommended.

On March 11, 1997, Arrow Enterprises completed an archaeological survey of the proposed Horse Cave State Bank in Glasgow, Barren County, Kentucky (Schock 1997). At the request of Dennis Smith of DDS Engineering in Bowling Green, Kentucky, 1.1 ha (2.7 acres) were investigated through pedestrian survey supplemented with shovel testing. No archaeological sites were documented and no further work was recommended.

On January 27, 1998, Cultural Horizons, Inc., personnel conducted an archaeological survey of the proposed construction of an electrical power substation in north-central Barren County, Kentucky (Holland and Rogers 1998). The survey was conducted at the request of the East Kentucky Power Cooperative (EKPC), Winchester, Kentucky. Approximately .4 ha (1.0 acre) was investigated by pedestrian survey supplemented with shovel testing. No archaeological sites were identified and no further work was recommended.

Between September 1998 and February 1999, Arrow Enterprises conducted an archaeological survey of a proposed industrial park in Barren County, Kentucky (Schock 1999). At the request of Ernie Myers of the Glasgow/Barren County Industrial Development Authority, approximately 81 ha (200 acres) were investigated through pedestrian survey of the plowed project area. Four archaeological sites (15Bn110–15Bn113) and one historic cemetery (no site number was assigned) were encountered during the survey. None of the sites are located within the 2 km radius of the current project area.

On August 7, 2001, Arrow Enterprises conducted an archaeological survey of a proposed county park in Barren County, Kentucky (Schock 2001a). The survey was conducted at the request

of Freddie Travis, Judge/Executive of Barren County, Kentucky. The project area totaled of 10 ha (25 acres) and fieldwork consisted of pedestrian survey of plowed strips, supplemented by screened shovel testing. No archaeological sites were documented and no additional work was recommended.

On December 9, 2001, Arrow Enterprises completed an archaeological survey for the proposed Highlands at Glasgow Apartments in Glasgow, Barren County, Kentucky (Schock 2001b). At the request of Richard Pierce of PDC Companies, 1.4 ha (3.5 acres) were investigated by pedestrian survey supplemented with screened shovel testing. No archaeological sites were identified and no further work was recommended.

In January, March, and April, 2002, Arrow Enterprises conducted an archaeological survey of 10 ha (25 acres) for a proposed soccer complex in Barren County, Kentucky (Schock 2002). The survey was conducted at the request of Freddie Travis, Judge/Executive of Barren County, Kentucky. Field methods consisted of pedestrian survey of plowed strips and screened shovel testing. A portion of the project area was within the current project area. One site, 15Bn121, was identified during the survey, and this site was located partially within the current project boundaries. Site 15Bn121 was a mid-twentieth-century rural house site. The site was heavily disturbed and was recommended as not eligible for the NRHP. No further work was recommended. The site has been completely disturbed through construction activities associated with athletic fields (see Section 6, Site 15Bn121).

Between October 16 and 21, 2002, AMEC Earth & Environmental, Inc., personnel conducted an archaeological survey of the proposed construction of the Glasgow Outer Loop in Barren County, Kentucky (King 2003). The survey was conducted at the request of Doug Lambert of Palmer Engineering in Winchester, Kentucky, on behalf of KYTC (Item Number 3-7000.00). Approximately 543 ha (1,343 acres) were investigated by pedestrian survey supplemented with screened shovel testing. Four sites (15Bn124–15Bn127) and six isolated finds were identified, and all of the sites were located within 2 km of the current project area.

Site 15Bn124 consisted of a partially standing residence that was constructed during the late nineteenth to early twentieth centuries. No associated structures, privies, wells, or cisterns were observed in its vicinity, and no cultural materials were recovered. The structure was occupied until the 1920s and was in poor condition. The site was recommended as not eligible for the NRHP and no further work was recommended (King 2003). Site 15Bn125 was a multi-component prehistoric open habitation without mounds and historic farm/residence. No diagnostic materials were recovered. Due to a lack of artifact diversity, low artifact density, and the recovery of all artifacts from the plow zone, the site was recommended as not eligible for the NRHP and no further work was recommended (King 2003). Site 15Bn126 was a prehistoric open habitation without mounds of unknown cultural affiliation. All artifacts were recovered from the plow zone and exhibited a lack of diversity. The site was recommended as not eligible for the NRHP and no further work was recommended (King 2003). Site 15Bn127 was a historic farm/residence with a prehistoric isolated find. The site exhibited a lack of artifact diversity and all artifacts were recovered from the plow zone. The site was recommended as not eligible for the NRHP and no further work was recommended (King 2003).

In 2007, the Kentucky Archaeological Survey completed an archaeological survey of various National Guard armories in Kentucky (Schlarb and Winter 2007). The survey was requested by the Department of Military Affairs. An area of unspecified size was investigated by pedestrian survey and screened shovel tests. Five new sites (15Bl116, 15Jf712, 15Lo228, 15Ml453, and 15Ne93) and five isolated finds were identified. None of the sites were within 2 km of the current project area. None of the sites were recommended as eligible for the NRHP and no further work was recommended.

Between 2009 and 2011, John Milner Associates, Inc., personnel conducted an archaeological survey within the drawdown zone at Barren River Lake in Allen and Barren

Counties, Kentucky, at the request of the United States Army Corps of Engineers, St. Louis District (Stevens et al. 2011). Approximately 2,141 ha (5,290 acres) were investigated through pedestrian survey supplemented with screened shovel testing. Ten new archaeological sites or site components were recorded and 197 out of the 230 previously recorded archaeological site areas within the project area were resurveyed, of which 75 could not be relocated. None of the sites were located within the 2 km radius of the current project.

Between August 24 and September 6, 2012, CRA personnel conducted an archaeological survey of a proposed soil borrow area at the landfill operated by the City of Glasgow in Barren County, Kentucky (Quick 2012). The survey was conducted at the request of Jim Wade of Nesbitt Engineering on behalf of the City of Glasgow. The project area consisted of approximately 24.1 ha (59.6 acres) and was subjected to a pedestrian survey of strip plows supplemented with screened shovel testing. Eight archaeological sites were identified (15Bn166–15Bn173), seven of which were located within a 2 km radius of the current project area (15Bn166–15Bn172).

Site 15Bn168 was an Early Archaic open habitation without mounds. Site 15Bn170 was a Late Archaic to Early Woodland open habitation without mounds. Sites 15Bn166, 15Bn167, 15Bn169, and 15Bn172 were open habitations without mounds of indeterminate cultural affiliation. Site 15Bn171 was a multicomponent open habitation without mounds of indeterminate temporal affiliation and historic artifact scatter dating from the late nineteenth to early twentieth centuries. None of the sites exhibited evidence of intact subsurface cultural features. All of the sites were recommended as not eligible for the NRHP and no further work was recommended (Quick 2012). However, agency reviewers required additional work to be conducted at Sites 15Bn168 and 15Bn170.

From May 13–24, 2013, CRA personnel conducted NRHP evaluations of Sites 15Bn168 and 15Bn170 and additional archaeological survey for a proposed soil borrow area at the landfill operated by the City of Glasgow in Barren County, Kentucky (Quick 2013). At the request of Jim Wade of Nesbitt Engineering on behalf of Mayor Rhonda Trautman of the City of Glasgow, Sites 15Bn168 and 15Bn170 were investigated with geophysical survey, controlled surface collection, shovel testing, auger probes, the hand excavation of test units, and the mechanical removal of portions of the Ap horizon. The initial survey of Site 15Bn168 recovered diagnostic material associated with the Early Archaic period. During the NRHP evaluation, only five undiagnostic flakes were recovered. The artifacts were confined to the plow zone and there was no evidence of intact subsurface cultural features. The site was recommended as not eligible for the NRHP and no further work was recommended. A moderate density of lithics was identified during the NRHP evaluation of Site 15Bn170, including artifacts dating from the Middle Archaic to Early Woodland periods. However, the cultural materials were confined to the plow zone and there was no evidence of intact subsurface cultural features. Site 15Bn170 was recommended as not eligible for the NRHP and no further work was recommended (Quick 2013).

During the NRHP evaluation of Site 15Bn170, the floodplain to the west of the site was investigated to determine whether the site extended onto the floodplain. The floodplain was strip plowed and subjected to intensive pedestrian survey supplemented with screened shovel testing and auger probing. Two new archaeological sites were identified (15Bn174 and 15Bn175), both of which were within 2 km of the current project area. Site 15Bn174 was a prehistoric open habitation without mounds of indeterminate temporal affiliation. Site 15Bn175 was a Late Archaic open habitation without mounds with a moderate density of cultural materials. Sites 15Bn174 and 15Bn175 lacked integrity and did not contain evidence of intact subsurface cultural features. Both sites were recommended as not eligible for the NRHP and no further work was recommended (Quick 2013).

Between May 27 and 29, 2013, CRA personnel conducted an archaeological survey of the proposed Fox Hollow–Parkway transmission line project in Barren County, Kentucky (Herndon 2013). The survey was conducted at the

request of Josh Young of the East Kentucky Power Cooperative (EKPC). Approximately 14 ha (35 acres) were investigated by pedestrian survey supplemented with screened shovel testing. Two prehistoric isolated finds were identified, but no archaeological sites were recorded. Project clearance was recommended.

On January 2, 2014, CRA personnel completed an archaeological survey of the proposed Glasgow Landfill Gas to Electric Facility located near Glasgow, Barren County, Kentucky (Curran 2014). At the request of Josh Young of EKPC, approximately .4 ha (.9 acres) were investigated by systematic screened shovel testing. No archaeological sites were documented and no further work was recommended.

# Archaeological Site Data

OSA records show that prior to this survey, 291 archaeological sites had been recorded in Barren County (Table 1). The most common site types recorded for Barren County were prehistoric open habitations without mounds (n = 126; 43.3 percent). Other site types included historic farms and residences (n = 23; 7.9 percent), caves (n = 16; 5.5 percent), rockshelters (n = 4; 1.4 percent), and one or two sites of the following types: industrial, isolated finds, military, mound complexes, non-mound earthworks, open habitations with mounds, other/other special activity areas, quarries, and workshops (n = 14; 4.8 percent). The remaining sites were of undetermined types (n = 108; 37.1 percent).

Temporal periods represented by sites in Barren County consisted of Archaic (n = 36; 9.9 percent), Woodland (n = 33; 9.0 percent), Late Prehistoric (n = 27; 7.4 percent), and Historic (n = 39; 10.7 percent). The majority were indeterminate prehistoric (n = 223; 61.1 percent), and others were of unspecified temporal periods (n = 7; 1.9 percent).

Barren County sites were fairly evenly distributed across upland and alluvial landforms. Most were on terraces (n = 78; 26.8 percent) and floodplains (n = 72; 24.7 percent), followed by dissected uplands (n = 56; 19.2 percent) and undissected uplands (n = 37; 12.7 percent). Other landforms that contained sites included hillsides (n = 37; 12.7 percent), other landforms types (n = 1; .3 percent), and unspecified landforms (n = 3.4 percent).

Table 1. Summary of Selected Information for Previously Recorded Archaeological Sites in Barren County, Kentucky. Data Obtained from OSA and May Contain Coding Errors.

| Site Type: | N | % |
|---|---|---|
| Cave | 16 | 5.5 |
| Historic Farm/Residence | 23 | 7.9 |
| Industrial | 1 | 0.34 |
| Isolated Find | 2 | 0.69 |
| Military | 1 | 0.34 |
| Mound Complex | 2 | 0.69 |
| Non-mound Earthwork | 2 | 0.69 |
| Open Habitation with Mounds | 1 | 0.34 |
| Open Habitation without Mounds | 126 | 43.3 |
| Other | 1 | 0.34 |
| Other Special Activity Area | 1 | 0.34 |
| Quarry | 2 | 0.69 |
| Rockshelter | 4 | 1.37 |
| Undetermined | 108 | 37.11 |
| Workshop | 1 | 0.34 |
| Total | 291 | 100 |
| Time Periods Represented | N | % |
| Archaic | 36 | 9.86 |
| Woodland | 33 | 9.04 |
| Late Prehistoric | 27 | 7.4 |
| Indeterminate Prehistoric | 223 | 61.1 |
| Historic | 39 | 10.68 |
| Unspecified | 7 | 1.92 |
| Total | 365* | 100 |
| Landform | N | % |
| Dissected Uplands | 56 | 19.24 |
| Floodplain | 72 | 24.74 |
| Hillside | 37 | 12.71 |
| Other | 1 | 0.34 |
| Terrace | 78 | 26.8 |
| Undissected Uplands | 37 | 12.71 |
| Unspecified | 10 | 3.44 |
| Total | 291 | 100 |

**One site may represent more than one time period.*

# Map Data

In addition to the file search, a review of available maps was initiated to help identify potential historic properties (structures) or historic archaeological site locations in the proposed project area. The following maps were reviewed:

1879 Map of Barren County, Kentucky (Beers and Lanagan);

1937 General Highway Map of Barren County, Kentucky (Kentucky Department of Highways [KDOH]);

1953 Glasgow South, Kentucky, 7.5-minute series topographic quadrangle (USGS); and

1955 General Highway Map of Barren County, Kentucky (KDOH 1955).

The 1879 map (Beers and Lanagan 1879) showed six map structures (MS) within or very near the project corridor. The 1879 map depicted MS 1 as being occupied by "Jno. Lewis," MS 2 as being a "Private S H" (private school house), and MS 3 as being occupied by "W.E. Huggins." MS 4 was occupied by "W. Childress," MS 5 was occupied by "W.W. Smith," and MS 6 was occupied as "H. Evritt" (Figure 11). The 1937 and 1955 maps (KDOH 1937, 1955) showed structures that may have been within the project boundaries, but the scales of the maps were inaccurate.

The 1953 map (USGS 1953) showed 22 structures within or near the project boundaries (Figure 12). By the time the 1953 map was created, the structures at MS 1–MS 3 and MS 5 were no longer standing. The structure at MS 4 was still standing in 1953, whereas the structure at MS 6 may have been standing, but there were several additional structures shown in its vicinity, and it could not be identified specifically on the 1953 map. The structures first shown on the 1953 map consisted of MS 7–27, and these were located primarily in the eastern portion of the project area (see Figure 12). Some of the structures were no longer standing when the modern (1979) topographic map was created (see Figure 2). Site 15Bn186 was at the MS 4 location, Site 15Bn187 was at the general MS 17–19 location, and Site 15Bn188 was at the MS 20 location.

Many of the map structure locations had been heavily modified by the time the current survey was conducted, and no evidence of structures was found within the project boundaries. Extant historic structures dating from the early to mid-twentieth century were identified at the MS 13–16 location (Figure 13), MS 17–19 location (Figures 14 and 15), MS 20 location (see Section VI, Site 15Bn188), and the MS 22–26 locations. Of the standing historic structures, only the houses associated with MS 17 and MS 19 were within the project boundaries, and no cultural materials associated with these structures were recovered; all other standing structures were outside the project boundaries, with only small portions of the front yard areas within the project corridor. The map structures and the maps on which they were or were not depicted are detailed in Table 2.

# Survey Predictions

Considering the known distribution of sites in the county, the available information on site types recorded, and the nature of the present project area, certain predictions were possible regarding the kinds of sites that might be encountered in the project area. Prehistoric open habitations without mounds were the primary site type expected, but historic farms/residences and cemeteries were also considered a possibility, based on historic maps.

# Cultural Overview

## Early Human Occupation (Before 11,500 B.C.)

The timing and actual entry point of the first humans into North America are still topics for debate. The general consensus remains that humans entered North America from Asia via the Bering Strait. Waters and Stafford (2013:557) summarized the currently available data and conclude that the First Americans originated in Central Asia and started entering the New World circa 16,000 B.P. Clovis developed later and was a New World construct.

Several sites in the southeastern United States have been suggested as pre-Clovis candidates. Among these are the Cactus Hill site in southeast Virginia (McAvoy and McAvoy 1997; Wagner and McAvoy 2004), the Topper site in South Carolina (Chandler 2001; Goodyear 1999; Goodyear and Steffy 2003), and the Debra L. Friedkin site in Texas (Waters et al. 2011). Despite the evidence of pre-Clovis occupations in many areas, to date, no definitive pre-Clovis occupations or materials have been found in Kentucky (Maggard and Stackelbeck 2008:114).


**Figure 11. 1879 map of the project area (Beers and Lanagan 1879).**

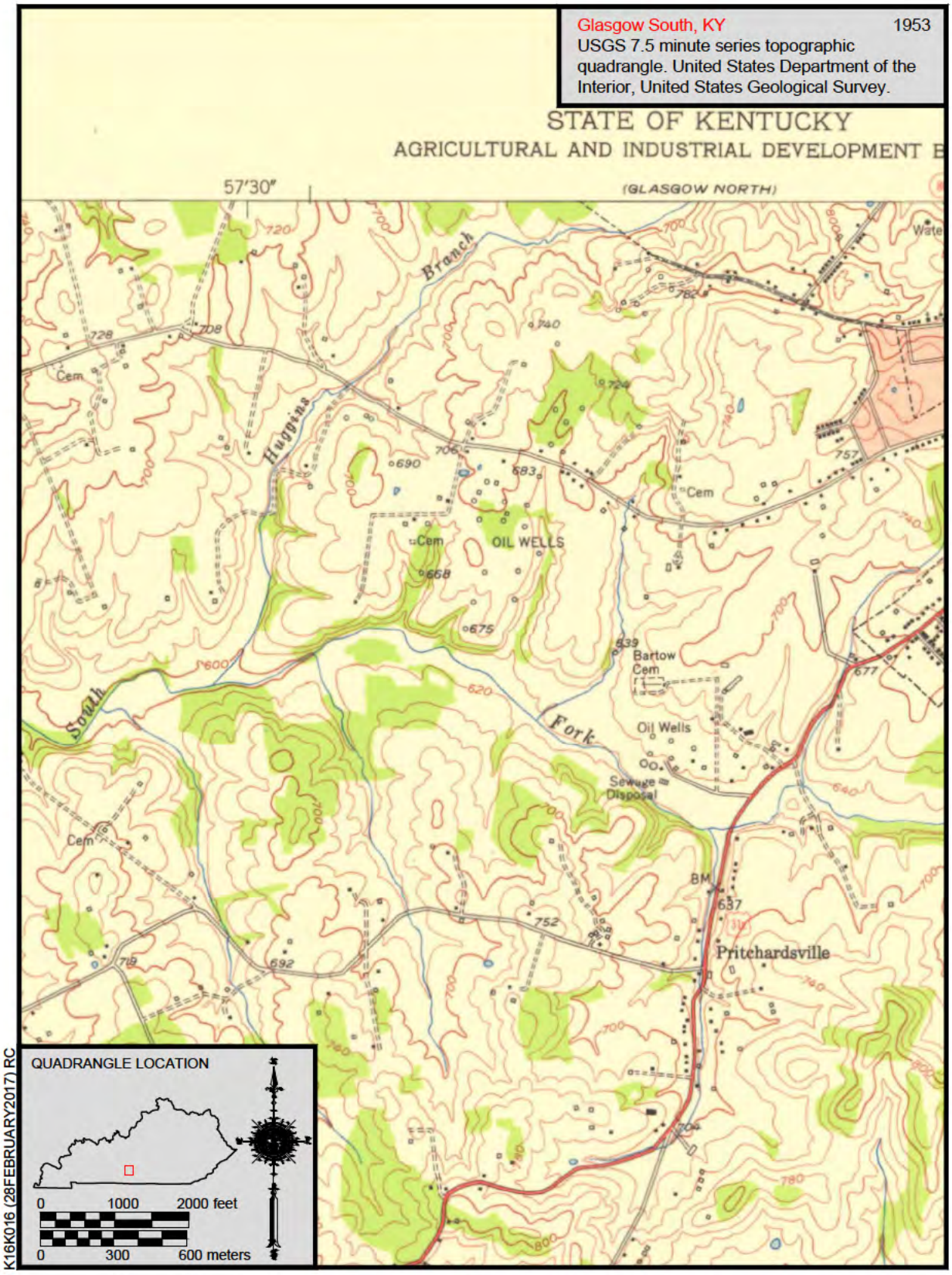


**Figure 12. 1953 map of the project area (USGS 1953).**

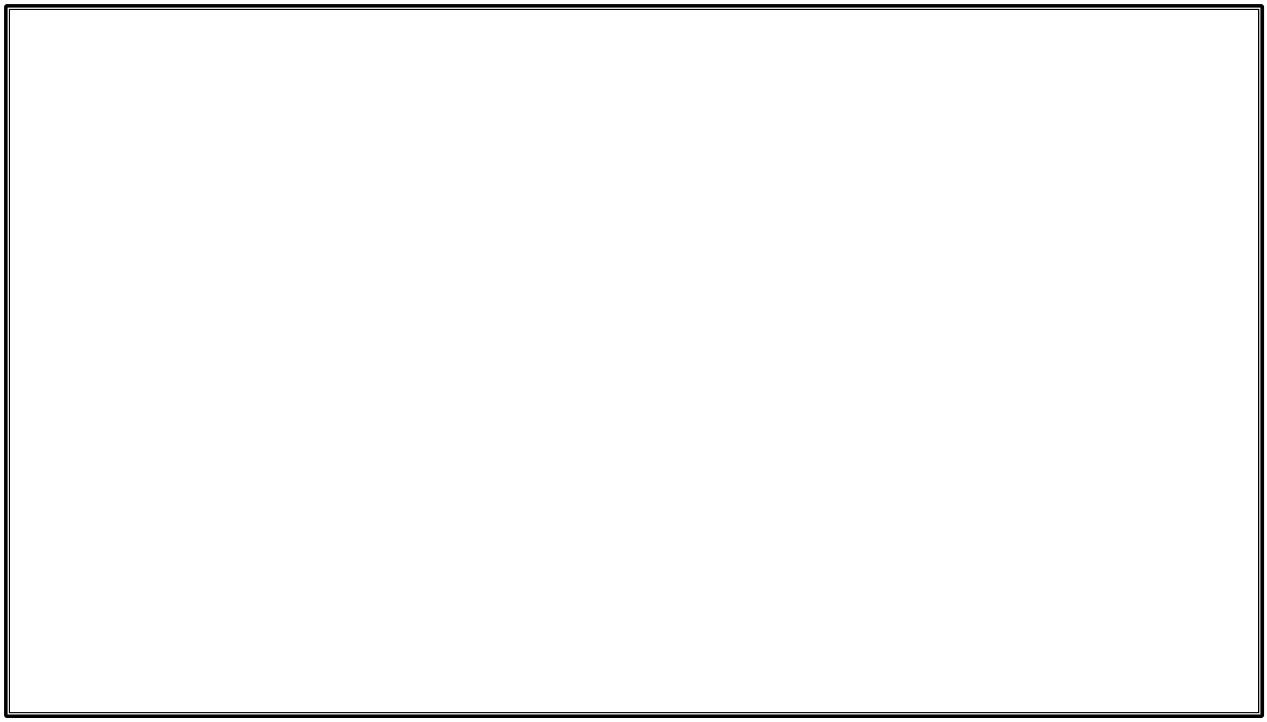

Figure 13. Three of the historic residences associated with MS 13–16, looking southwest.

Figure 14. Historic residence at MS 17, looking northeast.

Figure 15. Historic residence at MS 19, looking north.

Table 2. Map Structures.

| Map Structure | 1879 | 1953 | 1979 | Archaeological Site |
|---|---|---|---|---|
| 1 | X | | | |
| 2 | X | | | |
| 3 | X | | | |
| 4 | X | X | X | 15Bn186 |
| 5 | X | | | |
| 6 | X | ? | ? | |
| 7 | | X | X | |
| 8 | | X | | |
| 9 | | X | X | |
| 10 | | X | X | |
| 11 | | X | | |
| 12 | | X | X | |
| 13 | | X | X | |
| 14 | | X | X | |
| 15 | | X | X | |
| 16 | | X | X | |
| 17 | | X | X | |
| 18 | | X | | 15Bn187 |
| 19 | | X | X | |
| 20 | | X | X | 15Bn188 |
| 21 | | X | X | |
| 22 | | X | X | |
| 23 | | X | X | |
| 24 | | X | X | |
| 25 | | X | X | |
| 26 | | X | X | |
| 27 | | X | X | |

## The Paleoindian Period (11,500–8000 B.C.)

The Paleoindian period is the earliest cultural period conclusively documented in Kentucky. The arrival of humans in the region was probably linked to the movements of the Pleistocene glaciers. During the Paleoindian period, the last of these glacial advances and retreats, called the Greatlakean Stadial (post-9900 B.C.), occurred.

Distinctive lanceolate, often fluted, hafted bifaces called "Clovis" are the hallmark of the early part of the Paleoindian period (Maggard and Stackelbeck 2008). Unifacially and bifacially chipped tools, such as knives, scrapers, spokeshaves, drills, gravers, and endscrapers with spurs, have also been recovered. Archaeologists infer that artifacts and tools of wood, bone, and shell were also used, although they were rarely preserved. While a number of archaeologists have argued that Paleoindians were predominately big game hunters (e.g., Bonnichsen et al. 1987; Kelly and Todd 1988; Stoltman and Baerreis 1983), more recent review of the topic (Meltzer 1993) concluded that there is no widespread evidence for the specialized hunting of big game species (i.e., megafauna). Several authors (e.g., Davis 1993; Dincauze 1993; Meltzer 1993) now argue that the Paleoindian diet was more generalized and relied on a number of faunal and floral species. Megafauna would have been taken when encountered, but not to the exclusion of other species. Such indications of exploitation of megafauna in Kentucky are present at the Adams mastodon site in Harrison County, Kentucky. Here, the remains of a single mastodon with cut marks on the bones were found in association with large limestone slabs. The configuration of the skeletal remains, in addition to the above evidence, has been interpreted as representative of a possible butchering site (Duffield and Boisvert 1983; Walters 1988).

According to Freeman et al. (1996:402), most Paleoindian sites in Kentucky "represent short, ephemeral occupations that occur in shallow, deflated, or severely disturbed deposits" and larger sites are in "areas that provide high-quality lithic raw material, or topographic features or resources that would have attracted and concentrated game." Away from lithic source areas, for example, larger sites often "occur in association with ponded or slow-moving water, at stream confluences and fords, along major game trails, and at mineral springs" (Freeman et al. 1996:402).

With the retreat of the glaciers, the Transitional Paleoindian/Early Archaic sites of the Dalton culture are slightly more numerous than the earlier Paleoindian sites. Sites dating to this period show many resemblances to those with Paleoindian material (i.e., lanceolate projectile point knives, uniface tools) and those reflecting Early Archaic lifeways (i.e., more diverse subsistence, the introduction of many bifacial tool forms, and several types of sites). Morse (1973) has described two basic kinds of Dalton sites: base settlements and butchering camps. In addition, the first systematic use of rockshelters is seen during the Dalton period (Walthall 1998). Hunting remained important; however, there is evidence for the use of wild plants (fruits and nuts) as a dietary supplement during Dalton times.

## The Archaic Period (8000–1000 B.C.)

The Archaic period includes a long span of time during which important cultural changes took place. These manifestations probably occurred in response to environmental changes that took place at the close of the Pleistocene epoch (Anderson 2001). The Archaic period is customarily divided into three subperiods: Early (8000–6000 B.C.), Middle (6000–4000 B.C.), and Late (4000–1000 B.C.).

### *Early Archaic (8000–6000 B.C.)*

Except for the adoption of new hafted biface styles, Early Archaic tool kits are nearly identical to Paleoindian. The fact that these hafted biface styles are found over a very large area suggests that little regional subsistence diversity occurred during the Early Archaic subperiod. Subsistence strategies are thought to have been similar to those employed by Paleoindian peoples, although a greater variety of game was hunted. The scarcity of tools associated with the preparation

of plant foods and fishing in the early part of the Archaic period indicates that hunting was probably still the major subsistence activity (Dragoo 1976:11). Archaeological investigations at a number of deeply buried sites in the Southeast, such as the Longworth-Gick site near Louisville, Kentucky (Collins 1979), have provided important information about Archaic lifeways and their changes through time.

## *Middle Archaic (6000–4000 B.C.)*

The climate during the Middle Archaic subperiod was dryer and warmer than the modern environment. Increasing regionalization of artifact assemblages, with the addition of new artifact classes and hafted biface styles, implies the development of extensive resource exploitation strategies. The Middle Archaic is marked by the introduction of groundstone artifacts manufactured through pecking, grinding, and polishing. A number of these groundstone tools (e.g., manos, mortars and pestles, and nutting stones) are interpreted as plant food processing artifacts and indicate an increasing utilization of plant foods during the Middle Archaic subperiod (Jefferies 2008:203–206).

New hafted biface styles appeared during this subperiod. Stemmed, side-notched, and corner-notched points and a variety of bone tools, including antler hafted bifaces, fishhooks, and gouges, suggest an improved efficiency in exploiting local resources. Middle Archaic sites tend to contain larger accumulations of materials than those of earlier periods, "suggesting increasing group size and either increased sedentism or carefully scheduled seasonal reoccupation of selected locations" (Cohen 1977:191). Chapman (1975) has suggested that hafted bifaces were probably used in conjunction with the atlatl, a device that increases the distance and accuracy of a spear throw. The recovery in Middle Archaic contexts of bone and groundstone objects (bannerstones) interpreted as atlatl weights tends to support his suggestion (cf., Neuman 1967:36–53). Certain classes of chipped stone tool artifacts, such as scrapers, unifaces, drills, and gouges, indicate a continuation of their importance from the Paleoindian period.

## *Late Archaic (4000–1000 B.C.)*

The Late Archaic subperiod was a time of continued cultural expansion and growing complexity. Dragoo (1976:12–15) has discussed several Late Archaic traditions for the Eastern Woodlands. Their distinctiveness stems from varied regional responses reflected in material culture. Straight-stemmed, basal-notched, or contracted-base hafted bifaces characterize the Late Archaic subperiod. Judging from the greater number of Late Archaic sites that have been recorded, an increase in population can be postulated. In some cases, evidence of longer and more intensive site occupation suggests extended habitation within an area.

Population increase and, in some parts of Kentucky, evidence of an increase in mortuary ceremonialism have led some to suggest that a more complex social organization was developing in some areas of the eastern United States. Along the Green River in west-central Kentucky, large shell-mound sites, such as Chiggerville (Webb and Haag 1939), Indian Knoll (Webb 1946), and Carlston Annis (Webb 1950), contain hundreds of human burials and evidence of complex mortuary practices and a rich ceremonial life. The development of interregional trading networks is indicated by the recovery of copper, marine shell, and other nonlocal artifacts from Late Archaic burials (Winters 1968), which testify to the growing complexity of burial ritual and the interaction of many groups (Dragoo 1976:17).

The appearance of cultigens in Late Archaic contexts has been interpreted as evidence of early plant domestication and of use of these plants as subsistence resources. Early cultigens have been documented at such sites as Koster in central Illinois (Brown 1977:168), the Carlston Annis and Bowles sites along the Green River in west-central Kentucky (Marquardt and Watson 1976:17), and Cloudsplitter shelter in Menifee County (Cowan et al. 1981). Two plant complexes were domesticated towards the end of the Archaic: non-native plants (e.g., squash and gourd) and native plants (e.g., chenopodium, marsh elder, sunflower) (Struever and Vickery 1973). Watson (1985) views these plants as two different groups of cultigens—the East Mexican

Agricultural Complex and the Eastern United States Agricultural Complex. The first includes squash (Cucurbita pepo), bottle gourd (Legenaria siceraria), and maize (Zea mays). The latter includes sunflower (Helianthus annus), sumpweed (Iva annua), chenopod (Chenopodium sp.), maygrass (Phalaris sp.), and knotweed (Polygonum sp.). Watson, like Struever and Vickery (1973), suggests that corn, squash, and bottle gourd were domesticated in Mexico and imported into the eastern United States by way of the Gulf of Mexico before being transported up the Mississippi River and its tributaries. Cowan et al. (1981:71), however, suggest that squash may "have evolved in situ from some distinctive North American stock" (Cowan et al. 1981:71). This interpretation seems to be substantiated by more recent investigations conducted throughout the Southeast and Midwest.

A number of hafted biface styles are considered terminal Late Archaic and appear in the Early Woodland subperiod (i.e., from approximately 2000 to 500 B.C.). They usually have been found in contexts without Woodland pottery, a situation that leads archaeologists to place them in the Late Archaic rather than the Early Woodland subperiod, which may not be the case.

## The Woodland Period (1000 B.C.–A.D. 1000)

Over the two millennia of the Woodland period, cultures in the region sharply diverged from their Archaic beginnings. Kentucky shared in this development, which produced in burial mounds and earthwork enclosures some of the more notable prehistoric monuments in the area. Alongside this development came the intensification of plant domestication, the introduction and spread of pottery—first used as specialized containers and later used more widely—and the intensification of trade with distant regions of the Midwest for exotic materials used in personal life, including burial offerings (Applegate 2008).

The Woodland period, like the preceding Archaic period, is divided into three subperiods: Early Woodland (1000–300 B.C.), Middle Woodland (300 B.C.–A.D. 400), and Late Woodland (A.D. 400–1000) (Applegate 2008). Overall, and despite its distinctive features, the period witnessed a continuation and elaboration of many technologies and cultural practices that had begun during the Late Archaic subperiod. Woodland peoples became increasingly dependent on the cultivation of native plant foods, which allowed for a more sedentary lifestyle. Yet, with the exception of the latter part of the Late Woodland subperiod, subsistence practices remained similar to those of the Archaic period (i.e., a combination of hunting, plant food gathering, and fishing in a seasonal round exploitation pattern). But it is within the Woodland period that highly visible site types, such as mounds and enclosures, were constructed (Applegate 2008).

### *Early Woodland (1000–300 B.C.)*

The Early Woodland subperiod is taxonomically separated from the preceding Late Archaic subperiod by the presence of pottery. Pottery vessels possibly first appear in central and eastern Kentucky around 1000–800 B.C. (Creasman 1995; Creasman et al. 1996) and certainly by circa 600 B.C. (Creasman 1995; Creasman et al. 1996; Niquette 1989:124). Ceramic trends in this region of Kentucky generally follow the patterns of technological evolution and elaboration observed elsewhere in the Midwest and Northeast. Most sherds recovered from Early Woodland sites in the region are small and fragmentary. These are generally thick and coarsely tempered. Cordmarked, plain, and fabric impressed surface treatments are common (Applegate 2008:343). In contrast, Kerr (1995) recovered a relatively thin and well-made Early Woodland ceramic from the Main site in Bell County, Kentucky. The pottery is densely tempered with crushed quartzite, and the exterior surface is either plain or cordmarked. Early Woodland sites are most easily recognized by a collection of related stemmed hafted biface types. Plant domestication is evident, with squash, gourd, sunflower, maygrass, sumpweed, and giant ragweed being recovered from Early Woodland sites (Cowan 1985), although their use and cultivation had intensified from the Late Archaic subperiod.

Separate ritual (individual burials, earthen enclosures, and burial mounds) and domestic sites, each with distinctive, possibly regional, characteristics, also appear during this time (Clay 1991, 1998, 2002). Widely scattered domestic sites have been identified on the floodplains along all the major watercourses across Kentucky (Cole et al. 1951; Creasman 1995; Creasman et al. 1996) and in the adjacent uplands (Adovasio 1982; Mocas 1988; Stokes and Shields 1999). Characteristic features of the sites are deep, probable storage pits. There is some evidence for the presence of both permanent and temporary domestic structures (Cole et al. 1951:Plate XXa; Creasman 1995).

In the mountainous region of Kentucky, a rise in the use of natural rockshelters as habitation sites is noticed and may reflect the growing importance of plant cultivation during Early Woodland times. Caves were also extensively used for domestic, extractive (mining of gypsum, mirabilite, and epsomite), and ritualistic (burial and art) purposes during this subperiod, just as they were during the previous Late Archaic subperiod.

## *Middle Woodland (300 B.C.–A.D. 400)*

The Middle Woodland subperiod is known by its burial mounds, except along the lower Ohio River and in the interior Mississippi Embayment. Major mound excavations have given archaeologists a detailed picture of burial customs during this period (Clay 1986, 1998). Although we have considerable excavated evidence for burial customs, the settlement system is not well understood (Clay 1998:13–19). Those responsible for the mounds may have been widely dispersed throughout the region in relatively small groups. Seen in this light, the elaborate burial sites (the burial mounds) offered essential foci for scattered groups to meet and interact. There were also small, circular enclosures, called ceremonial circles, and hilltop enclosures. Still, daily domestic sites are very poorly understood, although examples dating to the time period have been found (Kerr and Creasman 1995) and off-mound domestic areas have been identified adjacent to the mounds (Clay 1983). Small open-air domestic sites are increasingly being discovered and investigated (Kerr and Creasman 1995; Niquette and Boedy 1986; Niquette et al. 1987). Although hunting was important in the Middle Woodland subperiod, finds from rockshelters suggest that manipulation of native plants, by this time domesticated, intensified. Despite this change, the additional food supply did not create significant changes in the way people lived (Railey 1996).

For the most part, early Middle Woodland ceramics tend to have plain exterior surfaces, except in the Mississippi Embayment, where fabric marking persists, and the hafted bifaces consist of Adena and other similar stemmed forms (Applegate 2008; Niquette 1989). Late Middle Woodland pots are commonly cordmarked or plain, but small numbers of Hopewellian style simple stamped or checked stamped sherds from this period are also known (Webb 1942). Crosshatched rims and cord-impressed decoration were added to the earlier fabric-impressed surfaces. Late Middle Woodland hafted bifaces are weakly shouldered, expanded, or shallow side-notched forms. Alongside these other changes, a decline in the building of burial mounds was seen during the Middle Woodland (Applegate 2008).

Middle Woodland peoples continued the technologies developed in the Archaic and Early Woodland subperiods; however, there were changes as well. A chert bladelet industry developed exclusively during the Middle Woodland period. It produced small and sharp chert tools that were used in fine work. In addition, exotic materials—copper, mica, and on rare occasions, obsidian—were obtained through trade from distant sources. These artifacts are typically known from mortuary sites in Kentucky (Applegate 2008:352).

## *Late Woodland (A.D. 400–1000)*

After circa A.D. 400, earthen burial mounds went out of style in the region. The construction and use of earthen or stone enclosures also ceases by approximately A.D. 500. Simpler communal burial sites, generally involving stone constructions or coverings, became widespread, perhaps as a replacement for the mounds (Brown 1981; Clay 1984). The nature of human settlement also changed. Evidence from sites of

the subperiod indicates that Native-American groups often returned repeatedly to the same location or congregated in larger groups. However, the possible lack of permanent shelter at these sites suggests that the use of these places was sporadic, possibly seasonal, perhaps still related to certain group ceremonies (Clay 2002:174–182). Rockshelters continued to be used during this subperiod as short-term habitations or temporary hunting locales.

The economy continued to emphasize hunting, gathering, and the utilization of a variety of locally domesticated plants. While maize (i.e., corn) was introduced in the region during the Middle Woodland period, it did not become an important part of the diet until around A.D. 800. The importance of maize is more pronounced in the western portions of Kentucky at this time.

Like the Middle Woodland subperiod, the Late Woodland subperiod is often divided into early and late subdivisions. Early Late Woodland ceramic assemblages are generally cordmarked and are similar to late Middle Woodland assemblages; however, there is usually a lack of Hopewellian style decorated ceramics. Ceramics consist mainly of subconical and subglobular cordmarked jars (Applegate 2008:345–346). Early Late Woodland hafted bifaces are typically expanding stem or crude side-notched forms.

The late Late Woodland subperiod saw increased regional variability in ceramic styles, subsistence strategies, and social organization (Applegate 2008), although there are distinct continuities expressed in settlement organization (Clay 2002). Ceramics exhibit cordmarked and now some plain surface treatments; some vessels have angular shoulders; and rims display special treatments, like collars, carinations, and castellations. In the lower Ohio River valley and far western Kentucky, necks of vessels exhibit zoned, incised, geometric designs; pan-shaped vessels are present; and red slipping occurs, but only rarely. Late Late Woodland projectile point forms include corner-notched, side-notched, and large triangular forms. Small triangular projectile points appear in artifact assemblages by A.D. 800 and may represent the first appearance of the bow and arrow.

## Late Prehistoric Period (A.D. 1000–1650)

In addition to an increase in cultural integration and cultural complexity, the Late Prehistoric period witnessed a rapidly growing dependence upon horticulture in the subsistence activities of native populations. Cultural materials assigned to the Late Prehistoric period include pottery that incorporated mussel shell as tempering material and small triangular projectile points. Some of the pottery is also much more elaborately decorated, has special attributes such as the addition of handles, and increasingly new vessels forms are introduced.

The Late Prehistoric period in far western Kentucky has been associated with Mississippian cultures easily recognized in the Mississippi and Illinois River valleys, although Mississippian influences were seen in a much larger geographic area (Pollack 2008b). The Mississippian period was characterized by chiefdoms and intensive agriculture. Maize (Zea mays), beans (Phaseolus vulgaris), and squash (Cucurbita sp.) were the principal crops. Nevertheless, hunting and gathering continued to be important (Smith 1978).

Settlements were arranged in a hierarchical manner, were fortified, contained substructure mounds that were either for ceremonial purposes or dwellings for the elite, and were occupied year-round. Mississippian structures were built using wattle and daub construction, and the wall posts were set in trenches. Although there were continuously occupied villages in the settlement system, much of the Mississippian population lived in smaller hamlets and farmsteads scattered up and down the major rivers and secondary streams (Smith 1978). The Upper Cumberland region contains several Mississippian mound centers and smaller hamlets or farmsteads (Pollack 2008b:684–694).

In the middle Ohio River area, a culture with a similar level of development has been called Fort Ancient (Henderson 2008). Subsistence practices of this culture also focused on the cultivation of maize, beans, and squash. This was supplemented with hunting, fishing, and wild plant collecting. Many Fort Ancient villages were

circular or elliptical and "exhibit[ed] distinct activity areas that encircle a central plaza: domestic/habitation, storage/trash disposal, and mortuary" (Henderson 2008:745). Some, but not all, of these circular villages were surrounded by a palisade. Unlike Mississippian sites, however, Fort Ancient sites lack large ceremonial centers and earthworks, although some had burial mounds. Large village sites are usually situated in valley bottoms along the main stems of the region's larger drainages. On the other hand, smaller sites tend to be located throughout tributary drainages and are thought to represent seasonal camps and resource procurement activity stations. Again, rockshelters continued to be used as short-term habitation sites during this subperiod, or at least as temporary hunting locales.

## Protohistoric and Historic Period (A.D. 1650–1800s)

At the beginning of the seventeenth century A.D., Kentucky was populated by several sedentary Native-American cultural groups (Schwartz 1967). However, the Beaver Wars of the mid-seventeenth century had almost completely disrupted and uprooted these groups by about 1680 (Hunt 1940). Even prior to the Beaver Wars, Native-American residential populations were affected by European diseases and technology through indirect contact with Europeans from the eastern seaboard. Afterwards, the area was used primarily as hunting land, and later the use of the region was reshaped in the wake of shifting fur trade patterns. Resident aboriginal groups were increasingly being displaced by newly arriving Native-American groups as a result of this shifting pattern (Hunter 1978:588).

In the early eighteenth century, Native-American tribes, who we can identify as the Shawnee, were present in most areas of Kentucky, having been pushed westward from the east (i.e., from the Susquehanna drainage of Pennsylvania) by the expansion of European settlement (McConnell 1992:21). Other established tribes in Kentucky at the time include the Cherokee in the Upper Cumberland River valley area and the Chickasaw in the Lower Tennessee and Cumberland River valleys and far western Kentucky. Conflicts between these and other groups in the region lasted through the War of 1812. They were a part of the conflict between the French and British and later the British and the new American colonies (Hammack 1992:928–929; McBride and McBride 2008; O'Donnell 1992:815).

The first Europeans to visit Kentucky included explorers, trappers, traders, and surveyors. It was in the 1750s, when the English Crown attempted to colonize the Ohio Valley, that the first organized attempt to settle Kentucky occurred. This attempt stimulated the formation of land companies that sent surveyors into the area (McBride and McBride 2008:909). One of these, the Ohio Land Company, sent a surveyor into Kentucky in 1751. The French and Indian War that erupted in 1754 disrupted this early exploration (Talbert 1992:689).

In 1763, England's King George III set aside the land west of the Appalachians for Indians and English fur traders and closed the area to permanent settlement. His decree was ignored, however, and further colonial exploration and development could not be stopped. One man who took advantage of the commercial expansion westward was Daniel Boone. Boone first explored Kentucky in 1767, and by 1769, he had explored much of the Red and Kentucky River valleys. Harrodsburg was established soon after in 1774, followed by Boonesboro in 1775. The western movement of the American frontier pushed the Native Americans further and further west, and Kentucky was one of the places where they decided to take a stand. In response, Governor Dunmore (of Virginia) waged two large campaigns in the Ohio Valley (later known as Dunmore's War), and the Native Americans were defeated. Dunmore's War opened Kentucky for settlement, although some hostilities continued after this time (Nickell 1992:96–98; Stone 1992:571).

## Historical Overview of Barren County, Kentucky

The Kentucky General Assembly created Barren County on December 20, 1798, from portions of Warren and Green Counties. In 1776, the Virginia General Assembly had created Kentucky County from its western lands, which would exist approximately in the same boundaries as the current state. This county was divided in 1780 into three counties (Fayette, Lincoln, and Jefferson), which would collectively become the District of Kentucky in 1783 (Hammon 1992:495; Kleber 1992a:267). The Kentucky District would in 1792 disappear in favor of the Commonwealth of Kentucky, and the counties that then comprised this district would, over the years, be divided and subdivided into the 120 counties that presently make up Kentucky.

Barren County, the thirty-seventh county in order of formation, is located in the Pennyrile Cultural landscape and covers 1,248 sq km (482 sq mi). It is bounded on the north by Hart County, on the east by Metcalfe County, on the south by Monroe and Allen Counties, and to the west by Warren and Edmonson Counties. The county was named for the meadowlands that cover the northern third of the county called the barrens. Glasgow is the county seat (Goode 1992:54; Kleber 1992b:376; Rennick 1987).

The first settlers in Barren County were Revolutionary War veterans who received land grants. Other early settlers in the county included English, Scottish, Welsh, and Irish descendants (Goode 1992:54). Barren County's era of settlement was considerably later than other parts of Kentucky. Settlers may have been discouraged by the large meadows that had very little flowing surface water. Many were convinced the land could not support agriculture. In 1798, only four families lived in the modern boundaries of the county, and they were concentrated in the area that is now Glasgow. John Gorin, who lived in a log house along Beaver Creek, donated the land for the town, which was later recognized as the seat of government for the new county (Gorin 1929). Other early towns in the county included Cave City, Park City, and Hiseville (Goode 1992:54).

Glasgow soon developed into the manufacturing and commercial center of Barren County. It quickly grew into a social, economic, and cultural center of activity for surrounding counties as well. The commercial district included gristmills, sawmills, shoemakers, tailors, blacksmiths, wagon makers, and distillers (Kleber 1992b:376). The total population of Barren County in 1800 was 4,784. The enslaved African-American population at this time was 505. By 1820, the total population was 10,328 and the enslaved African-American population was 1,724. Due to the growth of agriculture, by 1850, the total population had increased by nearly 50 percent to 20,240. The enslaved African-American population also increased to 4,584. The total population in 1860 had decreased to 16,665, and the total enslaved African-American population had decreased to 4,078 (United States Bureau of the Census [USBC], 1800–1860, Washington, D.C.).

Although Glasgow was driving Barren County's industrial economy, the county largely was an agricultural community throughout the antebellum period. In 1850, the county contained 1,833 farms, which was the highest number amongst the 35 Pennyrile counties, and they covered 130,376 ha (322,168 acres). The regional per county average was 79,033 ha (195,295 acres). The total value of farms in Barren County in 1850 was $1,322,506, which was 45.7 percent more than the regional average of $907,509, but 14.7 percent less than the state average of $1,550,212. Farmers owned $89,689 worth of machinery, which exceeded the regional and state averages by more than 70 percent. Their livestock herd was worth $517,656, which exceeded the regional average value of $267,828 by 93.3 percent and the state average of $296,614 by 74.5 percent (Martin 1988).

A cholera epidemic entered the town of Glasgow in the mid-1850s. This disease, suspected of being brought in by a traveling circus, forced many residents to immediately flee. Seventy-five percent of the remaining residents were killed by this disease (Kleber 1992b:376).

In 1851, the Louisville and Nashville Railroad started surveying a route connecting the two cities at the terminus of its proposed line. The

railroad opted to run its main line through Bowling Green rather than Glasgow. Since railroads were essential to the economic development of towns, the town of Glasgow built its own spur line in 1870. The spur line connected the Louisville and Nashville line at Glasgow Junction (Kleber 1992b):376.

After the Civil War, which had little direct impact on the county, agriculture continued to drive Barren County's economy. In 1870, the county contained 2,086 farms (third in Pennyrile region) covering 112,316 ha (277,539 acres). The average farm size was 54 ha (133 acres), nearly 40 ha (100 acres) less than the 1850 figure. Farms included 54,882 ha (135,618 acres), of improved land making up 48.8 percent of the total. The cash value of farms was $3,045,915, which was 12.5 percent higher than the state per county average. The average Barren County farm was worth $1,460, which was 44.4 percent lower than the state average of $2,628. Total farm production was $1,249,486 in 1870 (Martin 1988).

By 1880, the number of farms in the county had increased to 2,602, and average farm size had dropped to 44 ha (110 acres). Farms covered 116,150 ha (287,015 acres), of which 64,708 ha (159,898 acres) (55.7 percent) were improved. The value of all farms in the county reached $3,277,120, which was 28.1 percent higher than the state per county average of $2,558,108. Barren County farmers owned $157,934 worth of implements and $666,284 worth of livestock. Both figures exceeded the state average in 1880. Farm production totaled $826,831 in 1879, the production year enumerated by the census (United States Department of the Interior 1883).

Although agriculture fueled the county's economy in the second half of the nineteenth century, manufacturing was an important part of Barren County's economic production. In 1890, it had 24 manufacturing establishments with $84,498 worth of invested capital. They used $45,765 worth of machinery and equipment, which ranked fifteenth among the 38 Pennyrile counties. They employed 88 people and paid $25,297. Manufacturers produced $190,273 worth of goods in 1889 (Martin 1988).

Barren County experienced fluctuation in the population throughout the last decades of the nineteenth century. In 1870, the population was 17,780, and over the next decade the number increased over 25 percent to 22,321. However, by 1890, the population had dropped slightly to 21,490. During the next decade, population growth returned to the county, increasing 7.9 percent to 23,197 by the turn of the twentieth century (USBC 1870–1900).

Although only a very small portion of Mammoth Cave National Park is in Barren County, it had a major impact on the county during the twentieth century. The federal government authorized the establishment of the park in 1926, and in 1928, the Commonwealth of Kentucky established the Kentucky National Park Commission to expedite the purchase of over 28,327 ha (70,000 acres) in Edmonson, Hart, and Barren Counties. Congress established Mammoth Cave as a national park in 1941, and after World War II, it became an internationally popular tourist destination. Tourism spurred increased development of the two railroad towns of Cave City and Park City, formerly known as Glasgow Junction (Kleber 1992c:605–606).

Barren County continued to be an important agricultural producer in south-central Kentucky throughout the twentieth century. In 1982, the county contained 2,461 farms covering 100,823 ha (249,141 acres), of which 33,175 ha (81,978 acres) (33 percent) were cropland. By 1997, the number of farms had dropped to 2,000, which was the highest county total in the state, covering 101,043 ha (249,683 acres). The average farm size was 50 ha (124 acres), which was 23.3 percent more than the 1982 average of 40 ha (101.2 acres). In 1999, the county's farmers harvested 11.87 million lbs of burley tobacco and 124,320 tons of hay. Both totals ranked first in the state's production total. It ranked eleventh statewide with over $68 million worth of production, and in 2000, Barren ranked first in cattle production with over 35,000 animals (Kentucky Agricultural Statistics Service 2001).

Throughout the first three decades of the twentieth century, Barren County's population was stable. In 1910, it was 25,293, and in 1930, it was 25,844. Over the next decade the county's population grew slightly, reaching 27,559 by 1940. In the three decades following World War

II, its population stabilized, reaching only 28,677 in 1970. During the 1970s, the population jumped 18.5 percent and was 34,009 by 1980, and by 1990, the population had dropped by only eight people to 34,001. By the year 2000, the total population had increased to 38,033. The population continued to grow through 2006 to 40,737 (USBC 1900–2006).

# IV. METHODS

This section describes the methods used during the survey. Site-specific field methods are discussed in further detail in the Site Description section of this report. General laboratory methods are described below, whereas methods specific to the analysis of recovered prehistoric and historic cultural materials are discussed in Section 5, Materials Recovered.

## Field Methods

The project area was determined by maps provided by the client and by an iPad Mini tablet coupled with a Garmin GLO Bluetooth global positioning system receiver capable of real-time 2–3 m (7–10 ft) horizontal accuracy in the field (see Figure 3). Field methods consisted of pedestrian survey supplemented with screened shovel testing and bucket augering. Pedestrian survey transects were spaced 20 m (66 ft) apart, and shovel tests were excavated at 20 m intervals. Only pedestrian survey was conducted in areas that were obviously disturbed (i.e., the existing ROW, heavily modified landforms containing commercial and industrial buildings, and areas marked with below-ground utilities). The previously surveyed portion of the project area, which contained Site 15Bn121, was subjected to visual inspection to confirm disturbance.

Each shovel test measured no less than 35 cm (14 in) in diameter and was excavated well into subsoil. All sediments were screened through .64 cm (.25 in) mesh cloth. When cultural materials were recovered from shovel tests, the interval between shovel tests was reduced to 10 m (33 ft) until at least two negative shovel tests were excavated in a row or the project boundary was reached. All cultural materials observed in shovel tests were collected.

Bucket augering was also conducted for this project, but not as a site discovery method. The main goal was to determine the depositional characteristics of the sediments in an area, in order to determine the potential for buried archaeological materials to be present. The examination of buried deposits for archaeological sites is best conducted with a deep testing program, consisting of close interval (5–10 m [16–33 ft]) systematic bucket augering, systematic backhoe trenching, or both. Subsurface investigation of complex depositional environments should be done in consultation with a geomorphologist or geoarchaeologist. Such investigation was beyond the scope of the current project.

A total of three bucket auger (BA) tests were excavated during the current survey in areas known to contain alluvial soils in order to determine the possibility of buried cultural deposits (see Figure 3). A hand-operated bucket auger with a 10 cm (4 in) opening was used, and sediments were removed in approximately 10 cm levels. All sediments were screened through .25 inch mesh hardware cloth. General soil characteristics (e.g., texture, Munsell colors) were recorded by individual level (no artifacts were recovered during bucket augering).

## Laboratory Methods

All cultural material recovered during the fieldwork was transported to CRA for processing and analysis. Initial processing of the recovered materials involved washing all artifacts and assigning catalog numbers. Catalog numbers consisted of the site number and a unique number for each provenience lot.

The methods, specifics, and results of the subsequent analysis of the recovered materials are discussed in the Materials Recovered section of this report. All cultural materials, field notes, records, and site photographs will be curated at the William S. Webb Museum of Anthropology at the University of Kentucky.

# V. MATERIALS RECOVERED

Prehistoric cultural materials were recovered from a single archaeological site (15Bn186) and historic cultural materials were recovered from three archaeological sites (15Bn186–15Bn188) during the current investigation. The artifact assemblages are described below.

## Lithic Analysis

*Justin P. Williams*

Lithic remains recovered from Site 15Bn186 consisted of two pieces (1.3 g) of flake debris (Table 3). The analysis of flake debris involved the recording of several attributes, including flake size, weight, raw material type, presence of cortex, and probable stage of lithic reduction during which the flake was produced. Reduction stage follows Magne's (1985) definitions and was determined by the number of facets on the platform or the number of flake scars on the dorsal surface. Early stage reduction is defined as core reduction, middle stage as the first half of tool production, and late stage as the second half of tool production and subsequent maintenance. For flakes that retain platforms, zero to one facet on the platform indicates early stage, two facets indicate middle stage, and three or more facets indicate late stage. Biface thinning is a specialized form of late stage reduction. A biface thinning flake is defined as a flake with a lipped platform having three or more facets. For non-platform bearing flakes, dorsal flake scars were counted instead of platform facets; zero to one dorsal flake scars indicate early stage, two scars middle stage, and three or more flake scars late stage. Stage of reduction was not determined for blocky debris or flakes smaller than .25 inch.

Material type was determined by comparison with a sample collection housed at CRA. Both artifacts from Site 15Bn186 were made of Harrodsburg chert. Harrodsburg chert is a low quality fossiliferous chert that occurs naturally in Western Kentucky (Ray 2000:101); but is not known to occur within the Glasgow North quadrangle (Haynes 1964).

The flakes recovered from Site 15Bn186 were from the early stage of lithic reduction. This suggests that the occupants of the site were conducting core reduction or the earliest stages of tool production. With such a small assemblage, however, it is difficult to ascertain what lithic related activities were occurring at the site.

Lithic artifacts recovered from Site 15Bn186 appeared to be the result of at least one short-term occupation. Flakes were the result of at least one tool production and/or maintenance episode. The small number of items and lack of variety suggest short-term or specialized use of the site. There is nothing in the small lithic assemblage to suggest when the occupation(s) took place. Little more can be inferred from the small sample.

## Historic Materials

*Tanya A. Faberson*

### Methods

The historic assemblage includes artifacts classified and grouped according to a scheme originally developed by Stanley South (1977). South believed that his classification scheme would present patterns in historic site artifact assemblages that would provide cultural insights. Questions of historic site function, the cultural background of a site's occupants, and regional behavior patterns were topics to be addressed using this system.

Table 3. Prehistoric Artifacts from Site 15Bn186.

| Site | STP# | Zone | Depth | Grid N | Grid E | Count | Weight (g) | Size | Material | Stage | Therm Alt | Cortex |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15Bn186 | 1 | I | 0–23 cm bgs | 1000.00 | 1000.00 | 1 | 0.2 | 2 | Harrodsburg | 1 | none | none |
| 15Bn186 | 6 | I | 0–27 cm bgs | 1000.00 | 1050.00 | 1 | 1.1 | 2 | Harrodsburg | 1 | none | none |
| Total | | | | | | 2 | 1.3 | | | | | |

South's system was widely accepted and adopted by historical archaeologists. However, some have criticized South's model on theoretical and organizational grounds (Orser 1988; Wesler 1984). One criticism is that the organization of artifacts is too simplistic. Swann (2002) observed that South's groups have the potential to be insufficiently detailed. She suggested the use of sub-groups to distinguish between, for example, candleholders used for religious purposes and those used for general lighting. Others, such as Sprague (1981), have criticized South's classification scheme for its limited usefulness on late nineteenth- and early-twentieth-century sites, sites which include an array of material culture—such as automobile parts—not considered by South. Despite its shortcomings, most archaeologists recognize the usefulness of South's classification system to present data.

Stewart-Abernathy (1986), Orser (1988), and Wagner and McCorvie (1992) have subsequently revised this classification scheme. For the purposes of this assessment, artifacts are grouped into the following categories: domestic, architecture, arms, furnishings, clothing, personal, communication and education, maintenance and subsistence, biological, and unidentified. The artifacts recovered during this project are summarized in Table 4.

Grouping artifacts into these specific categories makes it more efficient to associate artifact assemblages with historic activities or site types. One primary change associated with the refinement of these categories is reassigning artifacts associated with the "Miscellaneous and Activities" under South's (1977) original system. Considering the potential variety of historic dwellings and outbuildings within the project area, a refinement of the artifact groupings was considered important to perhaps observe whether the distribution of specific artifact groups would produce interpretable patterns related to activity areas or structure types. Each one of these groups and associated artifacts is discussed in turn.

Information on the age of artifacts as described in the artifact tables is derived from a variety of sources cited in the discussion of the materials recovered. The beginning and ending dates cited need some clarification. Usually, an artifact has specific attributes that represent a technological change, an invention in the manufacturing process, or simple stylistic changes in decoration. These attribute changes usually have associated dates derived from historical and archaeological research. For example, bottles may have seams that indicate a specific manufacturing process patented in a certain year. The bottle then can be assigned a "beginning," or incept, date for the same year of the patent. New technology may eliminate the need for the same patent and the bottle would no longer be produced. The "ending," or terminal, date will be the approximate time when the new technology took hold and the older manufacturing processes are no longer in use.

Specific styles in ceramic decorations are also known to have changed. Archaeological and archival researchers have defined time periods when specific ceramic decorations were manufactured and subsequently went out of favor (e.g., Lofstrom et al. 1982; Majewski and O'Brien 1987). South's (1977) mean ceramic dating technique uses this information. The dates presented here should not be considered absolute; but rather the best estimates of an artifact's age available at this time. A blank space indicates that the artifact could not be dated or, alternately, that the period of manufacture was so prolonged that the artifact was being manufactured before North

Table 4. Historic Artifacts Recovered According to Functional Group.

| Group | 15Bn186 | 15Bn187 | 15Bn188 | Total | Percent |
|---|---|---|---|---|---|
| Architecture | 22 | 34 | 4 | 60 | 33.71 |
| Arms | 0 | 1 | 0 | 1 | 0.56 |
| Domestic | 32 | 31 | 11 | 74 | 41.57 |
| Furnishings | 5 | 3 | 0 | 8 | 4.49 |
| Maintenance/Subsistence | 5 | 5 | 0 | 10 | 5.62 |
| Transportation | 3 | 0 | 0 | 3 | 1.69 |
| Unidentified | 20 | 1 | 1 | 22 | 12.36 |
| Totals | 87 | 75 | 16 | 178 | 100 |

America was colonized. An open-ended terminal date was assigned for artifacts that may be acquired today. The rationale for presenting dates for the artifacts recovered is to allow a more precise estimate of the time span the site was occupied, rather than the mean occupation date of a site.

A summary of the artifacts recovered follows. A complete inventory of the historic artifacts can be found in Appendix A.

## Materials Recovered by Functional Group

There were 178 historic artifacts recovered during the current survey. The following provides a descriptive discussion of the types and ages of artifacts recovered from Sites 15Bn186–15Bn188.

### *Architecture Group (N = 60)*

The architecture group is comprised of artifacts directly related to buildings, as well as those artifacts used to enhance the interior or exterior of buildings. These artifacts typically consist of window glass, plate glass, nails, and construction materials, such as brick and mortar. The architecture group items are discussed below.

#### Construction Materials (n = 8)

Construction materials refer to all elements of building construction. For this project, the building materials collected included bricks, hollow clay tile, and plaster (Table 5). When possible, bricks (n = 3) were separated into hand-made (n = 1), machine-made (n = 1), and indeterminate brick fragments (n = 1). The brickmaking industry was one of the most localized of all nineteenth-century industries (Walters 1982:125). It was far less expensive to produce bricks on site than to pay to ship the bricks from another location. In fact, a brickmaker could transport everything needed to produce enough bricks for a large building in two wagons. Although brickmaking was present in the United States by the late eighteenth century, this industry did not become popular until circa 1800. Hand-made bricks manufactured at the construction site continued to be popular as late as the 1880s (Walters 1982:126–128).

Hand-made bricks were typically 5:1 bricks because five sides were identical and the sixth side exhibited distinctly different markings. Linear marks were usually found on the sixth side and were caused by the brickmaker when excessive clay was removed from the top of the mold. The remaining five sides of hand-made bricks usually exhibit a gritty/sandy texture from the sand-coated mold (Walters 1982:128). The paste of hand-made bricks is usually more porous than machine-made bricks. Most hand-made bricks manufactured in the nineteenth century were close in size to the standard adopted by the National Brickmakers Association. However, some irregularity did occur accidentally (Walters 1982:130).

Table 5. Summary of Architecture and Arms Group Items.

| Class | Type | 15Bn186 | 15Bn187 | 15Bn188 | Total |
|---|---|---|---|---|---|
| *Construction material* | | | | | |
| | Brick | 2 | 1 | 0 | 3 |
| | Hollow clay tile | 4 | 0 | 0 | 4 |
| | Plaster | 1 | 0 | 0 | 1 |
| *Flat glass* | | | | | |
| | Window glass | 6 | 4 | 0 | 10 |
| | Plate glass | 1 | 0 | 0 | 1 |
| | Tempered glass | 0 | 0 | 1 | 1 |
| *Nails* | | | | | |
| | Late fully machine-cut | 1 | 4 | 0 | 5 |
| | Unspecified cut | 0 | 2 | 0 | 2 |
| | Wire | 6 | 8 | 3 | 17 |
| | Indeterminate | 1 | 15 | 0 | 16 |
| *Projectile* | | | | | |
| | Center-fire cartridge | 0 | 1 | 0 | 1 |
| | Totals | 22 | 35 | 4 | 61 |

The shift from hand-made bricks to machine-made bricks occurred circa 1880. Although machine-made bricks were produced in factories in most major cities in the United States by the mid-nineteenth century, this process was not standardized or popularized until the last two decades of the nineteenth century (Holley 2009:97). The creation of the National Brick Manufacturers Association in 1886 allowed for an industry-wide discussion of standardization. This push came mostly from architects and building contractors who needed a better standard for quantity and project cost estimations (Holley 2009:97). Machine-made bricks will often have marks in the clay related to the machine manufacturing process (Greene 1992; Gurcke 1987). This brick type is typically more uniform in shape, and the paste is more consistent throughout.

It should also be noted that firebricks and molded ornamental bricks became largely popular in the late nineteenth century. Large fires destroyed huge portions of major American cities throughout the latter half of the nineteenth century. This prompted many cities to develop building ordinances that required fireproof brick construction. Ornamental bricks became largely popular between the 1893 and 1904 world's fairs. Unfortunately, the production of these types of bricks declined after 1904 when the extruded method of brick production became more popular than the dry-press method (Broeksmit and Sullivan 2006). Paving bricks typically are heavier and larger than the other bricks described above, and they were manufactured to construct roadways. Hence, they needed to be manufactured to withstand the weight and wear of daily traffic. Brick paving became popular in the 1890s (Hockensmith 1997:158).

In addition to the brick fragments recovered, a total of four hollow clay tile fragments also were collected. Also commonly called hollow clay masonry, these tiles were invented in the mid-nineteenth century, but they did not become highly popular for use in the interiors and exteriors of buildings until 1910–1950. During World War II, hollow tiles were used extensively in the construction of mobilization structures, war housing, defense plants, and administration buildings due to wood shortages, but by the 1950s, cheaper building materials, such as concrete blocks supplanted much of the hollow clay masonry that had been in use (Wells 2007:31). Today, hollow clay tiles are most commonly utilized for public corridors, restrooms, institutional kitchens, locker and shower rooms, and industrial plants (Wells 2007:44).

The remaining material in this class was identified as plaster. The single piece recovered exhibited blue-green paint on one side. It was not assigned a specific date.

### Flat Glass (n = 12)

Cylinder glass was developed in the late eighteenth century to enable the inexpensive production of window glass. With this method, glass was blown into a cylinder and then cut flat (Roenke 1978:7). This method of producing window glass replaced that of crown glass production, which dates back to the Medieval period and was capable of fabricating only very small, usually diamond-shaped, panes (Roenke 1978:5). Cylinder glass was the primary method of window glass production from the late eighteenth century through the early twentieth century, at which time cylinder glass windows were slowly replaced by plate glass windows. Plate glass window production became mechanized after 1900, but did not become a commercial success in the United States until around 1917 (Roenke 1978:11).

Cylinder window glass has been shown to gradually increase in thickness through time and can be a useful tool for dating historic sites. Several dating schemes and formulas have been devised that use average glass thickness to calculate building construction or modification dates. These include Ball (1984), Roenke (1978), and Chance and Chance (1976) to name a few. Like previously derived formulas, Moir (1987) developed a window glass dating formula to estimate the initial construction dates for structures built primarily during the nineteenth century. Although Moir (1987:80) warns that analysis on structures built prior to 1810 or later than 1915 have shown poor results, most research in this area shows the regression line extending back beyond 1810 (Moir 1977; Roenke 1978). Hence, dates calculated back to 1785 were

considered plausible. Sample size is also a consideration when using the Moir window glass regression formula. According to Moir (1987:78), sample sizes also need to be "reasonable and not collected from a point or two" in order to accurately date the construction of a building. Moir (1987:80) indicates sample sizes as small as 15 sherds are acceptable, but recommends larger sample sizes for better accuracy, and we agree with his assessment. For the purposes of this assessment, a "reasonable" sample size is considered 25 window glass sherds. It should be noted that for window glass assemblages with less than 25 sherds, however, "tentative" dates based on measurements are still presented for the purpose of reporting and providing additional information regarding the material collected. Individual sherd/small assemblage measurements/dates are not presented as "absolute" dates for sites, and as a general principle, any window glass dates derived using the Moir (1987) method should be contextualized utilizing other artifact dating methods whenever possible.

Each fragment of flat glass was measured for thickness and recorded to the nearest hundredth of a millimeter using digital calipers. The differences between cylinder window glass and plate glass were in part determined by the thickness and wear of each flat glass fragment. Although Moir (1987:80) states that dating window glass after 1915 is not as reliable for dating sites, for our purposes, window glass that measured 2.41 mm (dating to 1916) was included in the calculations because according to Roenke (1978:11), plate glass does not become widely or successfully produced in the United States until 1917. There were a total of 12 flat glass sherds recovered during the current project (see Table 5). A total of 10 sherds were identified as window glass, and Moir's window glass technique was used to date the sherds, which ranged from 1831 to 1915. A tentative mean date of 1886 was established. One sherd was plate glass and dates from 1917 to the present. One thin piece of tempered glass also was recovered. It did not appear to be automobile glass. It was not assigned a specific date.

### Nails (n = 40)

There are three stages recognized in the technological chronology of nails: wrought nails, cut nails, and wire-drawn nails. Wrought nails were handmade and were the primary type of construction fastener in the eighteenth and early nineteenth centuries. Their use ended around 1810 with the widespread use of square cut or machine-cut nails (Nelson 1968:8).

The cut nail, introduced in approximately 1800, originally had a machine-cut body with a hand-made head. Around 1815, crude machine-made heads replaced hand-made heads on cut nails, and overall, cut nails replaced wrought nails in the construction industry. Early fully machine-cut nails exhibit a "rounded shank under the head," and therefore, often appear pinched below the head of the nail (Nelson 1968:8). By the late 1830s, these "early" fully machine-cut nails were replaced with "late" fully, or modern, machine-cut nails.

The first wire-drawn nails were introduced into the United States from Europe by the mid-nineteenth century. These early wire nails were primarily used for box construction and were not well adapted for the building industry until the 1870s. Although the cut nail can still be purchased today, the wire nail nearly universally replaced it by the turn of the twentieth century (Nelson 1968:8).

A total of 40 nails were recovered from the project area (see Table 5). Of the nails recovered, 5 were late fully machine-cut (Figure 16a), 2 were unspecified cut, 17 were wire-drawn (Figure 16b), and 16 were indeterminate. Pennyweights of the complete late fully machine-cut nails included 5d (n = 1) and 8d (n = 1). Both were unaltered. The unspecified cut nail was fragmentary. Eleven of the wire nails were fragmentary, but 6 were complete, and they measured in pennyweight from 6d to 9d. All were pulled except one, which was unaltered. The indeterminate nail was fragmentary. In general, smaller pennyweight nails are utilized for roofing, lathing, moulding, and finishing (2d–5d), while 6d nails are commonly used for light framing. Pennyweights of 7d–9d commonly are utilized for siding, and flooring and interior fittings, and nails with pennyweights of 10d and

above are most often utilized for flooring, boarding, wooden studding, rafters, and heavy framing (Faulkner 2000).

## *Arms Group (N = 1)*

The arms group includes artifacts generally associated with civilian and military weaponry. Examples of arms include gun parts, bullets or projectiles, cartridge cases, and gunflints. The artifact recovered in this group was reflective of civilian firearms use. One .38 caliber Peters S&W L brass center-fire cartridge was recovered (Figure 16c). It dates from 1887 to 1937 (Steinhauer 2017).

## *Domestic Group (N = 74)*

Artifacts included in the domestic group consisted of ceramics (n = 21), container glass (n = 49), glass tableware (n = 1), and container closures (n = 3) (Table 6).

The ceramic inventory consisted of a variety of refined and utilitarian wares dating from the late eighteenth century through the twentieth century. A full description of ceramic types recovered from the project area is listed below, followed by descriptions of other domestic group artifacts.

### Ceramics (n = 21)

The ceramics recovered were grouped into five major ware types: whiteware (n = 15), ironstone (n = 1), coarse redware (n = 3), stoneware (n = 1), and unrefined earthenware (n = 1). Ceramics within each of these ware groups were separated into decorative types that have temporal significance. Each of these ware groups is reviewed below, followed by discussions of associated decorative types.

#### *Whiteware (n = 15)*

As a ware type, whiteware includes all refined earthenware that possesses a relatively non-vitreous, white to grayish-white clay body. Undecorated areas on dishes exhibit a white finish under clear glaze. This glaze is usually a variant combination of feldspar, borax, sand, nitre, soda, and china clay (Wetherbee 1980:32). Small amounts of cobalt were added to some glazes, particularly during the period of transition from pearlware to whiteware and during early ironstone manufacture. Some areas of thick glaze on whiteware may, therefore, exhibit bluish or greenish-blue tinting. Weathered paste surfaces are often buff or off-white and vary considerably in color from freshly exposed paste (Majewski and O'Brien 1987).

Most whiteware produced before 1840 had some type of colored decoration. These decorations are often used to designate ware groups (i.e., edgeware, polychrome, and colored

Table 6. Summary of Domestic Group Items.

| Class | Type | 15Bn186 | 15Bn187 | 15Bn188 | Total |
|---|---|---|---|---|---|
| *Ceramics* | | | | | |
| | Whiteware | 5 | 6 | 4 | 15 |
| | Ironstone | 0 | 1 | 0 | 1 |
| | Coarse redware | 3 | 0 | 0 | 3 |
| | Stoneware | 0 | 0 | 1 | 1 |
| | Unrefined earthenware | 1 | 0 | 0 | 1 |
| *Container glass* | | | | | |
| | BIM | 3 | 7 | 0 | 10 |
| | ABM | 18 | 14 | 3 | 35 |
| | Undiagnostic container | 1 | 2 | 1 | 4 |
| *Container closures* | | | | | |
| | Home canning | 0 | 1 | 1 | 2 |
| | Commercial | 0 | 0 | 1 | 1 |
| *Glass tableware* | | | | | |
| | Press-molded | 1 | 0 | 0 | 1 |
| | Totals | 32 | 31 | 11 | 74 |


**Figure 16. Architecture and arms artifacts recovered: (a) 8d unaltered late fully machine-cut nail from Site 15Bn187 STP 9, Zone I; (b) 9d pulled wire nail from Site 15Bn188 STP 1, Zone I; and (c) .38 caliber Peters S&W L brass center-fire cartridge from Site 15Bn187 STP 9, Zone I.**

transfer print). Most of the decorative types are not, however, confined to whiteware. Therefore, decoration alone is not a particularly accurate temporal indicator or actual ware group designator (Price 1981).

The most frequently used name for undecorated whiteware is the generic "ironstone," which derives from "Ironstone China" patented by Charles Mason in 1813 (Mankowitz and Haggar 1957). For purposes of clarification, ironstone will not be used when referring to whiteware. Ironstone is theoretically harder and denser than whiteware produced prior to circa 1840. Manufacturer variability is, however, considerable and precludes using paste as a definite ironstone identifier or as a temporal indicator. Consequently, without independent temporal control, whiteware that is not ironstone is difficult to identify, as is early vs. later ironstone. For this analysis, the primary determining factor in classification of a sherd as whiteware was the hardness and porosity of the ceramic paste. Decorative types observed on the whiteware sherds in our assemblage are summarized and defined in the following discussions (see Table 6).

PLAIN/UNDECORATED (N = 11)

This decorative type includes vessels with no decoration. While some researchers such as Lofstrom et al. (1982:10) and Wetherbee (1980) include molded designs with "plain" whiteware, this report agrees with Majewski and O'Brien (1987:153) that molded vessels should be grouped on their own. Plain whiteware vessels became very popular following the Civil War and continued in popularity throughout the late nineteenth and early twentieth centuries (Faulkner 2000). Bacteriological research emerged after the Civil War, and it was not long before it became widely known in the medical community that there was a link between bacteria and disease (Duffy 1978:395). Bacteria could not be seen with the naked eye, however, and in spite of efforts by health officials to educate the public with regard to the connection between illness and bacteria, most people still held to the filth and miasmic theories of disease (Rogers 1997:550). As the public became more educated on the subject, these ideas merged, and it became commonly thought that plain, undecorated wares were best suited for maintaining and serving bacteria-free food. That is, the public equated the simple, "clean" appearance of undecorated wares with the purity (i.e., bacteria-free) and cleanliness of what they were eating. The ceramic manufacturing industry followed suit in this line of thinking and met market demands, producing primarily plain wares, which resulted in increased competition between whiteware and ironstone manufacturers.

Purity crusades also indirectly helped increase the popularity of plain, white vessels in the late nineteenth and early twentieth centuries as social reformers—many of whom were white and middle class—focused on cleaning up city streets, improving sanitation, and ridding cities of disease epidemics. Part of this crusade was the public promotion of purity at the dinner table. Unfortunately, many of these white public health reformers were also motivated by Social Darwinist ideas, and sanitation problems and disease epidemics were often blamed on African Americans and East-European immigrants who were stereotyped as being the harbingers of disease and social decay (Friedman 1970:123).

Eleven undecorated and/or plain whiteware sherds were recovered during the current project (Figure 17a). Four of these sherds were large enough to appear to have been plain vessels without decoration, and they were assigned dates of 1860–1930 (Majewski and O'Brien 1987:119). The other seven sherds were too small to determine whether they were from plain vessels or whether they were undecorated parts of decorated vessels. These sherds were assigned a general date range of 1830 to the present (Majewski and O'Brien 1987:119). Identifiable vessel forms among the undecorated whiteware sherds included a saucer (n = 1), plates (n = 3), and teacups (n = 3).

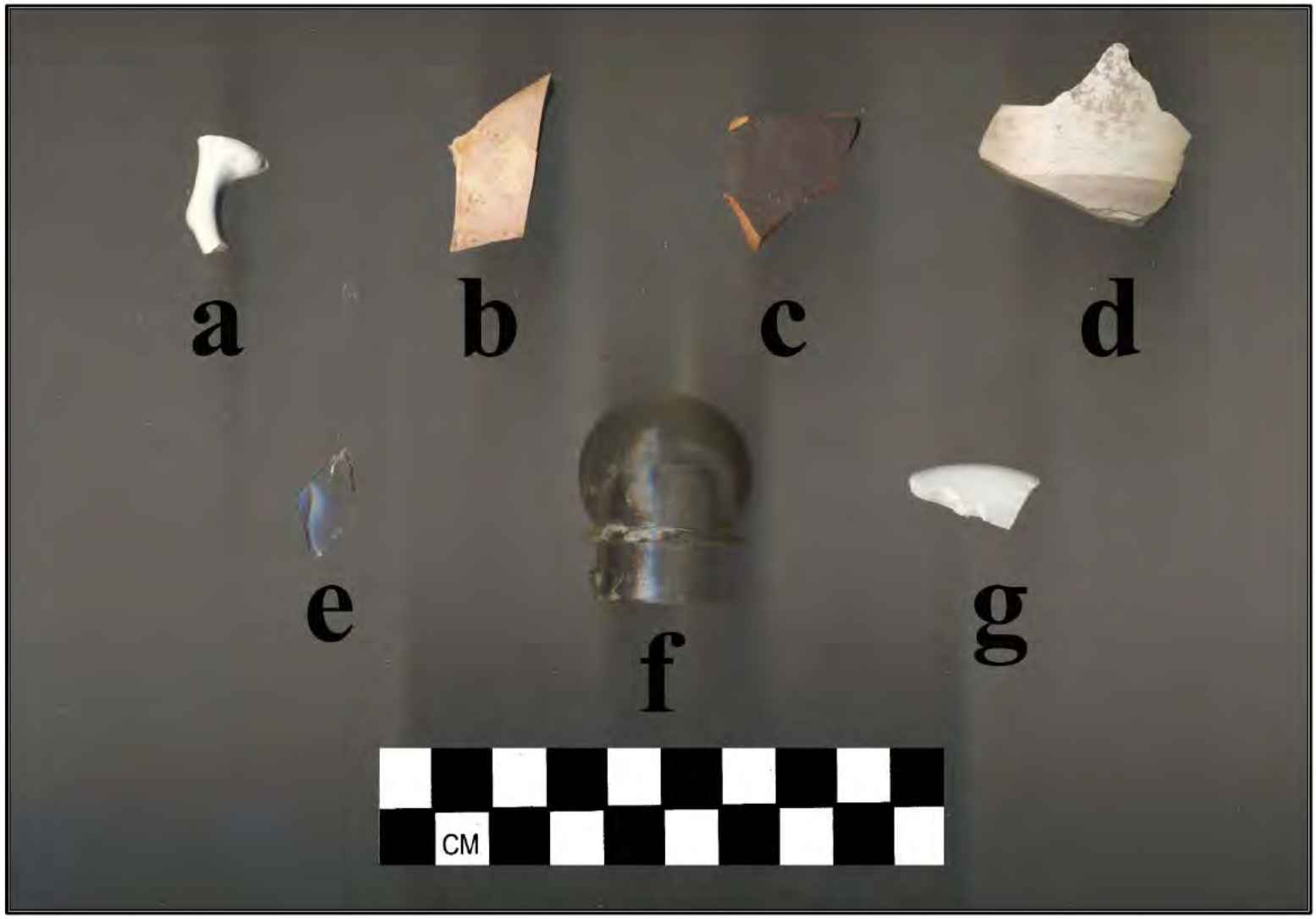


**Figure 17. Domestic group artifacts recovered: (a) undecorated whiteware teacup handle from Site 15Bn186 STP 7, Zone I; (b) pink chromatic-glazed whiteware teacup body sherd (burned) from Site 15Bn188 STP 3, Zone I; (c) brown slipped coarse redware body sherd from Site 15Bn186 STP 2, Zone I; (d) Bristol slipped stoneware body sherd from Site 15Bn187 STP 9, Zone I; (e) embossed clear ABM soda bottle sherd from Site 15Bn187 STP 9, Zone I; (f) press-molded clear glass decanter stopper from Site 15Bn186 STP 13, Zone I; and (g) milk glass canning jar lid liner from Site 15Bn188 STP 1, Zone I.**

### CHROMATIC GLAZE (N = 4)

Solid colored, or chromatic, glazed ceramics became popular during the second quarter of the twentieth century (Majewski and O'Brien 1987:164). As chain stores dealing in five- and ten-cent merchandise, groceries, drugs, and clothing sought to provide an increased array of cheap merchandise for consumers, pottery companies expanded their production efforts with the use of tunnel kilns. These kilns, which contained continuous flow ovens, allowed pottery manufacturers to significantly increase the output of cheap dishes available to chain stores, and ultimately, consumers (Blaszczyk 2000:120–121).

One of the first well known and popular styles to be produced in the 1920s had a yellow or ivory glaze, with or without decals (Blaszczyk 2000:121). By the 1930s, other chromatic glazes in colors such as red, cobalt blue, and green also became popular, as exemplified by the excitement surrounding Homer-Laughlin's introduction of Fiesta tableware to the consumer market in 1936 (Gonzalez 2000). Over time, other colors were added to the chromatic glazed tablewares available to consumers, and although chromatic-glazed vessels are still available today, the height of their popularity was seen between the 1920s and 1960s. It should be noted that sherds identified as having solid color glazing can date to the nineteenth century. However, these sherds are usually undecorated fragments from dip-glazed vessels (such as annular and mocha-decorated wares) and should be noted as such.

Four sherds were recovered with a solid-colored glaze. One yellow and three pink glazed sherds dating from 1920 to 1970 were recovered (Figure 17b) (Blaszczyk 2000:121). The pink sherds displayed evidence of burning and had been part of a teacup at one time.

#### *Ironstone (n = 1)*

Ironstone is a white or gray-bodied, refined stoneware with a clear glaze. It is often indistinguishable from whiteware. Ironstone differs from whiteware in that the body is more vitreous and dense. In addition, a bluish tinge or a pale blue-gray cast often covers the body. In some cases, a fine crackle can be seen in the glaze; however, this condition is not as common as it is in whiteware (Denker and Denker 1982:138).

Confusion in the classification of white-bodied wares is further compounded by the use of the term as a ware type or trade name in advertising of the nineteenth century. Both ironstones and whitewares were marketed with names such as "Patent Stone China," "Pearl Stone China," "White English Stone," "Royal Ironstone," "Imperial Ironstone," "Genuine Ironstone," "White Granite," and "Granite Ware" (Cameron 1986:170; Gates and Ormerod 1982:8). These names do not imply that true ironstone was being manufactured. Some investigators avoid the distinctions entirely by including ironstones as a variety of whiteware. Others, however, such as Wetherbee (1980), refer to all nineteenth-century white-bodied earthenwares as ironstone. For this analysis, the primary determining factor in classification of a sherd as ironstone was the hardness and porosity of the ceramic paste. Sherds with a hard vitreous paste were classified as ironstone.

Charles James Mason is usually credited with the introduction of ironstone (referred to as Mason's Ironstone China) in 1813 (Dodd 1964:176). Others, including the Turners and Josiah Spode, produced similar wares as early as 1800 (Godden 1964). As a competitive response to the highly popular oriental porcelain, British potters initiated this early phase of ironstone production. The ironstone of this early phase bears a faint blue-gray tint and oriental motifs, much like Chinese porcelain. A second phase of ironstone began after 1850 in response to the popularity of hard paste porcelains produced in France. This variety of ironstone had a harder paste and reflected the gray-white color of French porcelains.

While some ironstones continued to use oriental design motifs after 1850, the general trend was toward undecorated or molded ironstones (Collard 1967:125–130; Lofstrom et al. 1982:10). Ironstone continued to be produced in England, and after 1870, it was also manufactured by numerous American companies. For many years, classic ironstone—the heavy, often undecorated ware—had been

frequently advertised as being affordable and suitable for "country trade" (Majewski and O'Brien 1987:121). By the late 1800s, these thick, heavy ironstones began losing popularity and were often equated with lower socio economic status (Collard 1967:13). At the same time, ironstone manufacturers began shifting to thinner, lighter weight ironstones. As a result, this type of ironstone became popular tableware in American homes during most of the twentieth century (Majewski and O'Brien 1987:124–125). In spite of the shift towards thinner and lighter ironstones, heavy ironstone remained on the market and continues to be popular in hotel/restaurant service (hence, this heavy, twentieth-century ironstone is sometimes called "hotelware"). However, its production for home use all but ceased by the second decade of the twentieth century (Lehner 1980:11).

One ironstone sherd was recovered during the current survey (see Table 6). It was undecorated and dates after 1830 (Majewski and O'Brien 1987:122).

### *Coarse Redware (n = 3)*

This ceramic type was regularly used as a utilitarian ware in Kentucky from approximately 1780 up until 1860, when its popularity was supplanted by stoneware (Ketchum 1971:4–34; O'Malley 1997). Redware was generally manufactured from rather unrefined clays and fired at relatively low temperatures, and if glaze was used, then it was almost always lead-based. Most redware was made into hollowware vessels thrown on a wheel (O'Malley 1997), and since redware bodies tend to be quite porous, interior glazing was common on those vessels intended to hold liquids (Ramsay 1947:128). Decorative types may take the form of colored slips, colored glazes, and incising.

Three coarse redware sherds were recovered during the current project (see Table 6). All three displayed a brown slip on the exterior and were unglazed on the interior (Figure 17c). They date between 1780 and 1860. The vessel forms were unknown.

### *Stoneware (n = 1)*

Stoneware served as the "daily use" pottery of America, particularly rural America, after its introduction during the last decade of the eighteenth century. By 1850, this ware generally replaced coarse redware as the primary utilitarian ware used in American households. Stoneware is a semi-vitreous ware manufactured of a naturally fine, but dense, clay. The pottery was fired longer and to a higher temperature than earthenwares; a kiln temperature of at least 1,200 to 1,250 degrees Celsius had to be obtained (Cameron 1986:319; Dodd 1964:274–275). As a result, stoneware generally exhibits a hard body and a very homogeneous texture. The paste may vary from gray to brown, depending on the clay source, and length and intensity of the firing.

Because this ware is fired at such high temperatures, its body is nonporous and well suited to liquid storage. Stoneware, as mentioned, was not typically manufactured as a refined ware (such as its cousin, ironstone, or eighteenth-century refined white salt-glazed stoneware), and hence, it was, for the most part, utilized for utilitarian activities associated with jars, churns, crocks, tubs, jugs, mugs, pans, and pots. These vessels were typically glazed, with salt glazing and slip glazing most common.

Although refined salt glazing was practiced in England during the eighteenth century, by 1780, the production of English salt-glazed tableware had been virtually supplanted by the manufacture of cream colored earthenwares (Lewis 1950:29). The salt-glazing technique continued to be utilized for utilitarian vessels, however, and was eventually introduced to the United States in the early nineteenth century. Salt glazing was accomplished by introducing sodium chloride into the kiln during the firing process, at which point the salt quickly volatilized. The vapor reacted with the clay to form a sodium aluminum silicate glaze (see Billington 1962:210; Dodd 1964:239). The surface of the glaze is typically pitted, having what is commonly known as an "orange peel" effect.

Stoneware may also be coated with a colored slip (a suspension of fine clay and pigment). The Albany slip—named after the rich brown clay found near Albany, New York—first appeared in the 1820s. Initially, it was mainly used for the interior of stoneware vessels. However, by the 1850s, it was also used as an exterior glaze.

Bristol slip, an opaque white slip, was introduced late in the nineteenth century. When used in combination with Albany slip, Bristol-slipped stoneware vessels have a general date range of 1880–1925 (Ketchum 1983:19; Raycraft and Raycraft 1990:5).

A third glaze often used on stoneware is the alkaline glaze. Like the Albany slip, it was developed in the 1820s. The basic alkaline glaze is made up of wood ash, clay, and sand. Other additions may be slaked lime, ground glass, iron foundry cinders, or salt. These additions affected the color and texture of the glaze. Colors vary from olive to brown to a gray-green or yellowish hue, depending on adjustments in proportion of ingredients (Ketchum 1991:9). Although not as prevalent, alkaline glazing has been used in combination with salt glazing. This causes the stoneware vessel to exhibit the colors of alkaline glazing with the pitted texture of a salt glaze.

One stoneware sherd was recovered (see Table 6). It was Bristol slipped on the exterior and Albany slipped on the interior (Figure 17d). It dates between 1880 and 1925. The vessel form is unknown.

#### *Unrefined Earthenware (n = 1)*

One pink chromatic glazed unrefined earthenware mixing bowl sherd was recovered (see Table 6). It was assigned a date range of 1920–1970.

### Container Glass (n = 49)

A variety of container glass was recovered during the current survey, and research by Baugher-Perlin (1982), Jones and Sullivan (1985), Lindsey (2015), and Toulouse (1972) was used to date the assemblage. Glass color was the only attribute that could be used for dating those fragments that were not identifiable as to type of manufacture.

The approximate date of manufacture for bottles and bottle fragments recovered from the project area was established by determining the manufacturing process associated with the bottle (i.e., creation of the base and lip of the container) and using any patent or company manufacturing dates embossed on the bottle.

When examining glass vessels, bottle lips can be informative. A lipping tool, patented in the United States in 1856, smoothes and shapes the glass rim into a more uniform edge than a hand-smoothed lip or "laid-on ring." Certain types or styles of lips were associated with specific contents; for example, medicines were often contained in bottles with prescription lips (Jones and Sullivan 1985). A "sheared," or unfinished, bottle lip typically dates before 1880.

Lipping tools were used throughout the middle and end of the nineteenth century until the advent of the fully automatic bottle machine (ABM) in 1903. It should be noted, however, that as automated bottle manufacture became available after the turn of the twentieth century (see below), tooled finishes continued to be produced—albeit in steadily decreasing numbers. That is, there is a lag time between tooled finishes and ABM finishes, and although ABM glass is given an incept date of 1903, most tooled-glass vessel sherds will be given a terminal date around the 1920s due to this lag time, unless other diagnostic characteristics are observed enabling one to give it an earlier terminal date.

Color also is an important aspect of container glass identification, and oftentimes it is used to date vessels/sherds in conjunction with other diagnostic characteristics. In the event that no other manufacturing characteristics are observable, glass color alone can be used to date container glass. Jones and Sullivan (1985) observed that chemicals color glass, either as natural inclusions or additions by the manufacturer. "Black glass" is one of the earliest glass colors, possibly dating back to mid-seventeenth-century Europe. It was not actually black, but more of a very dark olive green or olive amber. The coloring of the glass was usually the result of high iron concentrations as well as carbon, copper with iron, and/or magnesia (Jones and Sullivan 1985). "Black glass" protected contents from the effects of direct light and was strong and resilient. Typically, black glass was utilized for liquor, wine, and ale/beer, and was mass produced for ale and beer between 1840 and the 1880s (Lindsey 2015; Wilson and Wilson 1968). According to McKearin and Wilson (1978:229–232), black glass container sherds are not typically found on sites dating after 1880.

According to Lockhart (2006), amethyst glass began to be manufactured around 1870, when manganese was being added to the glass recipe. Although initially colorless, the glass will turn a distinctive purplish color when exposed to sunlight over time. It was previously thought that amethyst glass production ceased by 1914 due to a shortage of manganese from Germany during World War I; however, the change was actually a result of technological advancements in the glass industry, mainly the conversion to automatic bottle machines (Lockhart 2006:53). Although manganese was more difficult to obtain after World War I, and selenium was often less expensive, the improvement in technology was the major reason for the change. The use of selenium proved to be an inexpensive decolorant in glass production and ultimately displaced manganese as a decolorizer by 1920 (Lockhart 2006:53). Amber glass had a general application in the mid-nineteenth century, but was not widely used until after 1860. Cobalt glass is produced with the addition of the coloring agent cobalt oxide to the glass batch (Lindsey 2015). The introduction of what Lindsey (2015) calls "true blue" glass began in 1840 with the production of soda, mineral water, and ink bottles.

With the growing public desire to see the contents of the bottles, clear glass came into demand and was popular beginning in the 1860s with the burgeoning public health movements following the Civil War (Baugher-Perlin 1982:261; Wiebe 1967). However, it should be noted that clear glass was available to a limited degree before this time, especially colorless leaded glass, which dates between 1827 and 1875 (Jones 2000:149, 161; Miller and Sullivan 1984). Opaque white, or "milk," glass has been manufactured as long as glass has been made, but milk glass became common in the late nineteenth and twentieth centuries as it became frequently used in "containers, tablewares, and lighting devices" (Jones and Sullivan 1985:14). Aqua and olive colored glass were also used for many different containers, but they generally are not assigned specific dates due to their long period of use over the last several centuries. In some cases, however, aqua glass BIM sherds with no other diagnostic characteristics are assigned a date range of 1800–1920, and olive green sherds are given a date range of 1780–1920.

The manufacturing process can be roughly divided into three basic groups including free blown, blown in mold (BIM), and automatic bottle machine manufactured (ABM) vessels (Baugher-Perlin 1982:262–265). BIM and ABM glass were recovered from the current project. Several undiagnostic container glass sherds also were recovered. Each process is discussed separately below.

### *Blown in Mold (BIM) (n = 10)*

Most molded bottles are constructed in pieces and have distinctive seams. The dip mold was used from the late seventeenth through the mid-nineteenth century (Baugher-Perlin 1982:262). It leaves no seams, unless glass adhered to the edges of the bottle mold as it was attached to the free blown shoulder and bottle neck. The key mold, on the other hand, was a type of two-piece mold that was used from about 1750 to 1880 (Jones and Sullivan 1985:27). Key mold seams cross the base and are concealed in the corners of a flat-sided body.

The turn paste mold was used from circa 1870 to the early twentieth century and does not contain seams because the glass is blown into a container that is spun. The glass conforms to the mold from the centrifugal force produced. Vessels formed from this process usually have faint horizontal lines from the spinning process. The three-part mold has seams running around the shoulder of the vessel and partially up the neck of the vessel. This style of mold lost popularity around 1870. The blow back mold was another mold type, and this was used in the manufacture of jars such as the distinctive Mason jar, which was patented in 1858.

Embossing on container glass vessels was made possible by engraving the mold the glass was blown into. This was first conducted in the mid-eighteenth century and continued into the twentieth century. The panel bottle came into popular existence around 1860, and the shape of this vessel was useful because the name of the commodity or the manufacturing company could be changed on the bottle form by substituting a different "slug-plate" into the mold. This process

can be identified through the distinctive seams, since they follow the rectangular shape of the nameplate. The date of the manufacturer's patent on the bottle and the name of the company, when present, can often be utilized to determine a date of manufacture for the container.

The finish is the top part of the neck of a bottle or jar made to fit the cork or other closure used to seal the vessel. The finish is often simply referred to as either the lip or rim. Glass factories in the late nineteenth and early twentieth centuries produced a wide variety of finishes for their containers (Jones and Sullivan 1985:78). Finishes were formed by manipulating the glass at the end of the bottle neck, by shaping glass added to the end of the neck, by the lipping tool, or by being blown into a mold (Jones and Sullivan 1985:79). The term "finish" originated with the mouth-blown bottle manufacturing process where the last step in the completion of a finished bottle was to "finish the lip."

Mouth-blown bottles were removed from the blowpipe by two primary methods: either through the cracking-off process or by shearing the neck off of the blowpipe. Once this was completed the bottle was reheated in a furnace to smooth out the sharp edges where the blowpipe was detached (Lindsey 2015). This method, referred to as fire polishing, was completed even if no specific finish was to be formed. Once this method was complete a finish could be either added or formed on the top of the bottle neck. These finish types included a laid-on ring, a rolled finish, a flared or flanged finish, an applied finish, and a tooled finish. The most commonly found finish types are the applied finish and the tooled finish. An applied finish was created when applied hot glass is added at the point where the blowpipe was removed. This applied hot glass was manipulated with various tools in order to form a wide variety of finish styles (Lindsey 2015). A tooled finish was created by reheating the severed end of the bottle near the neck. Once reheating or refiring the end of the neck was accomplished, a lipping tool was inserted into the neck of the bottle and rotated while squeezing the jaws to form the finish desired.

Ten BIM glass sherds were recovered during the current survey (see Table 6). All were body sherds and only could be classified according to color. These colors included amethyst (n = 3), aqua (n = 5), and clear (n = 2). Identifiable vessel forms included canning jars (n = 4) and miscellaneous bottles (n = 4).

### *Automatic Bottle Machine (ABM) (n = 35)*

The Owens automatic bottle-making machine was patented in 1903 and creates suction scars and distinctive seams that run up the length of the bottle neck and onto the lip. Bottles were being manufactured regularly with this machine by 1905, and by 1907, it was utilized to produce significant quantities of container glass vessels (Lindsey 2015; Miller and McNichol 2002). Hence, the ABM mold provides a firm manufacturing date at the beginning of the twentieth century. Another automatic bottle machine called the Individual Section was also used in the commercial production of bottles. This machine was widely used starting in 1925 and by 1940 became the most widely used bottle manufacturing device (Jones and Sullivan 1985:39). This bottle machine was more cost effective than the Owens machine, which was no longer used after 1955.

There were 35 glass fragments assigned to the ABM category during the current project (see Table 6). Two cup bottom mold vessels were identified. Both were clear and were classified as miscellaneous bottle fragments. Two ABM sherds were embossed. Both were clear. One had an embossed "8," and the other had an unknown embossed texture (Figure 17e). Both had been parts of soda bottles at one time. One clear ABM jar sherd had an external thread finish. One jar sherd also had an indeterminate lip. The remaining ABM body sherds totaled 29, and consisted of a variety of colors. These included amber (n = 3), amethyst (n = 1), aqua (n = 1), clear (n = 21), and green (n = 3). Unless otherwise noted, glass assigned to the ABM category dates from 1903 to the present.

### *Undiagnostic Container Glass (n = 4)*

A small portion of the container glass sherds (n = 4) were not diagnostic. Four colors were represented including opaque white (n = 1), clear (n = 1), amber (n = 1), and aqua (n = 1) (see Table 6).

## Glass Tableware (n = 1)

Press molding was first used (although on a very small scale) in England in the late seventeenth century to make small solid glass objects, such as watch faces and imitation precious stones (Buckley 1934). By the end of the eighteenth century, decanter stoppers and glass feet for objects were also being produced (Jones and Sullivan 1985). The production of complete hollowware glass objects did not become possible until there were innovations in press-molded techniques in the United States during the late 1820s (Watkins 1930). Mass production of press-molded glassware was well established by the 1830s (Watkins 1930).

Earlier press-molded glass objects were predominately made of colorless lead glass (Jones and Sullivan 1985). William Leighton of the Hobbs-Brockunier Glass Works in Wheeling, West Virginia, invented lime glass. This type of glass looked like lead glass, had superior pressing attributes, and was much more inexpensive than lead glass (Revi 1964). Advancements in mold technology in the 1860s and 1870s led to the application of steam-powered mold operation. This in turn led to increased production and reduced costs (Revi 1964). Modern press molding is conducted entirely by machine (Jones and Sullivan 1985).

Press-molded table glass was made by dropping hot pieces of glass into a mold. A plunger was then forced into the mold, pressing the hot glass against it. The outer surface of the glass took on the form of the mold, while the inner surface of the glass was shaped by the plunger. The plunger was withdrawn and the glass object was removed from the mold. The surface of the glass was often fire polished to restore the brilliance of the glass surface that was disturbed by its contact with the mold (Jones and Sullivan 1985).

Press-molded glass may be recognized by several characteristics. Usually, the glass object must be open-topped in order for the plunger to be withdrawn from the mold. Narrow mouthed vessels were produced, but additional manipulation of the glass was necessary after the plunger was removed from the mold. Evidence of this manipulation should be present on the vessel (Jones and Sullivan 1985). There is no relationship between the exterior shape and design of a press-molded vessel to the interior shape and design because the plunger shapes the interior of the object most often leaving behind a smooth surface. This differs from earlier glass vessel production techniques like blown glassware, where interior shape was related to the exterior shape and design (Jones and Sullivan 1985).

Another characteristic of press-molded containers was that mold seams were generally present. The seams were sharp and distinct, unless steps had been taken to deliberately remove them. The texture of the glass surface of press-molded glass was disturbed and often disguised by an all-over stipple design. The edges of the designs on press-molded glass had a predisposition toward rounded edges. The bases of press-molded objects were usually polished. The quality of the designs on press-molded glassware was precise and the design motifs were numerous (Jones and Sullivan 1985).

In contrast to press-molded glass, cut glass generally had a polished, smooth, and glossy surface texture. The design edges were sharp and distinct. Cut glass designs consisted mostly of panels, flutes, and miters. The designs were often slightly uneven and asymmetrical. Mold seams were usually absent; they were polished off prior to cutting (Jones and Sullivan 1985). Contact-molded glass also differs from press-molded glass in that the exterior and interior of the vessel will portray parallel patterns. The interior of the vessel is also generally much more diffuse towards the base.

One piece of glass tableware was recovered (see Table 6). It was press-molded and consisted of a clear decanter stopper (Figure 17f). It was assigned a date of 1903 to the present due to its modern appearance.

## Closures (n = 3)

Bottle closures serve both to prevent the spilling of a bottle's contents and to protect a bottle's contents from contamination and evaporation (Berge 1980). Closures have been used almost as long as animal skins and bottles have been employed to contain liquids. Closures

range from a utilitarian piece of paper or cloth stuffed into the mouth of a bottle to a delicately crafted crystal stopper for a decanter. There are three primary closure types: caps, stoppers, and seals (Berge 1980).

Caps are secured to a bottle by overlapping the outside edge of the finish or mouth. Common cap types include external screw, lugs, crown, and snap-on. External screw caps were first introduced in the mid-nineteenth century (Jones and Sullivan 1985; Toulouse 1977). External thread caps were attached to bottles by means of grooves in the cap that screwed down on continuous glass threads on the finished exterior of a bottle. External thread caps were first produced using metal in 1858 (Jones and Sullivan 1985; Toulouse 1977). Advances in technology led to the introduction of a Bakelite external thread cap around 1922 (Berge 1980; Meikle 1995), an aluminum shell roll-on cap in 1924 (Berge 1980; Rock 1980), and modern plastic caps in the mid-1930s (Meikle 1995). Examples of the external thread cap include canning jar, mayonnaise jar, and pickle jar lids.

The crown cap was patented on February 2, 1892, by William Painter of Baltimore, Maryland (Rock 1980). The crown cap was placed over the finish, and then crimped around a lip or groove in the finish to seal the container. This closure was lined with cork from 1892 until circa 1965 (IMACS 1992; Riley 1958; Rock 1980). Crown caps with composition liners appeared in 1912, and both cork and composition liners were gradually phased out following the introduction of the plastic liner in 1955 (IMACS 1992; Riley 1958). The majority of commercially produced glass soda bottles have crown cap closures.

Stoppers, the second major closure type, are secured to the finish interior of bottles, usually by forcing a portion of the stopper into the bore of the finish. Stopper types include cork, glass, inside screw, porcelain-top, Hutchinson Spring, Electric, Pittsburgh, and Lightning. Cork stoppers were the most common historic closure type. Most glass stoppers use ground or roughened tapered stems along with a roughened finish inside to seal bottles. The "modern" ground and tapered glass stopper was developed in Europe around 1725 (Holscher 1965). Glass stoppers came in many shapes, sizes, and styles and were used as closures in many different types of bottles. As with the cork stopper, the glass stopper was phased out in the 1920s with the advent of the crown cap closure (Berge 1980; Jones and Sullivan 1985).

Seal closures utilized the vacuum on the interior of the glass container. The heating and then cooling of the bottle's contents created the vacuum. Seal closures, although dating back to 1810, did not become popular until the mid-twentieth century. These closures were most often used in food jars (Berge 1980). There were several types of seal closures including Phoenix, Sure Seal, Giles, spring seal, and disc seal.

The disc seal was used as early as 1810 by Nicholas Appert (Berge 1980). John L. Mason used this type of closure on his patented fruit jar in 1858 (Berge 1980). Mason's closure was made of zinc and was held in place with an exterior screw cap ring. Unfortunately, the zinc reacted with the contents of the jars, giving the contents an unpleasant metal taste (Jones and Sullivan 1985). Glass liners were then developed and added to the disc around 1869 by Lewis R. Boyd (Toulouse 1969, 1977). These liners prevented the zinc from reacting with the contents of the jar. To aid in opening, Boyd added a handle to the disc circa 1900 (Toulouse 1977). Both of these disc seal types were used until around 1950 (Jones and Sullivan 1985; Toulouse 1969, 1977). In 1865, the Kerr two-piece seal was patented. This system utilized a metal seal disc held in place by an exterior screw cap with no center. This seal and cap type system is still in use today.

The closure artifacts recovered from the project areas date from the 1860s to last half of the twentieth century (see Table 6). The closures were divided into two specific categories. The first was the commercial closures category which included a crown cap with plastic liner (n = 1). It dates after 1955 (IMACS 1992:472). The second category consisted of home canning jar closures. They were two milk glass canning jar lid liners (Figure 17g).

## *Furnishings Group (N = 8)*

The furnishings category includes artifacts usually associated with the home or building, but that are not elements of the actual construction. Examples of furnishings include decorative elements, furniture, heating, lighting, wall decorations, flooring, and appliances. Artifacts were collected from several of the above categories (Table 7). One decorative element item was recovered. It consisted of an unrefined earthenware vase fragment (Figure 18a). It exhibited a blue and white glaze. It was given an estimated date of 1900 to the present. One flooring item was recovered. It was a piece of red textured linoleum and dates between 1863 and 1970 (Figure 18b) (Powell 2003:9). The lighting items consisted of three lamp chimney glass sherds dating from 1854 to 1940, and a frosted manufactured lightbulb fragment dating after 1925 (Bellis 2006a; Faulkner 2008:100; Husfloen 1992:163; Pullin 1986:357). The wall decoration category consisted of a sage green ceramic tile. It was not assigned a specific date. The appliance category was represented by a rotary fan switch (Figure 18c). It had been manufactured by the Hart & Hegeman Manufacturing Company and dates between 1895 and 1927 (McAuley 2017).

## *Maintenance and Subsistence Group (N = 10)*

The maintenance and subsistence group contains artifacts grouped into classes containing non-food containers, electrical, farming and gardening, hunting and fishing, stable and barn activities, general hardware, general tools, transportation, and fuel-related items such as coal. Several of these classes were represented in the historic assemblage recovered during the current project (see Table 7).

Table 7. Summary of Furnishings, Maintenance and Subsistence, Transportation, and Unidentified Group Items.

| Class | Type | 15Bn186 | 15Bn187 | 15Bn188 | Total |
|---|---|---|---|---|---|
| *Decorative elements* | | | | | |
| | Vase | 1 | 0 | 0 | 1 |
| *Floors* | | | | | |
| | Linoleum | 1 | 0 | 0 | 1 |
| *Lighting* | | | | | |
| | Lamp chimney | 1 | 2 | 0 | 3 |
| | Light bulb | 1 | 0 | 0 | 1 |
| *Walls* | | | | | |
| | Ceramic tile | 0 | 1 | 0 | 1 |
| *Appliances* | | | | | |
| | Fan switch | 1 | 0 | 0 | 1 |
| *Cans* | | | | | |
| | Paint can fragments | 2 | 0 | 0 | 2 |
| *Farming & Gardening* | | | | | |
| | Common clay flower pot | 0 | 3 | 0 | 3 |
| *General hardware* | | | | | |
| | Fencing | 2 | 1 | 0 | 3 |
| | Staple | 1 | 1 | 0 | 2 |
| *Motorized vehicles* | | | | | |
| | Windshield glass | 3 | 0 | 0 | 3 |
| *Metal* | | | | | |
| | Iron/steel | 7 | 1 | 0 | 8 |
| | Tin | 2 | 0 | 0 | 2 |
| *Plastic* | | | | | |
| | Modern item/part | 9 | 0 | 1 | 10 |
| | Cellophane | 1 | 0 | 0 | 1 |
| *Multiple materials* | | | | | |
| | Tin & paper | 1 | 0 | 0 | 1 |
| | Totals | 33 | 9 | 1 | 43 |


**Figure 18. Furnishings, and Maintenance and Subsistence Group items recovered: (a) blue and white glazed and embossed unrefined earthenware vase fragment from Site 15Bn186 STP 10, Zone I; (b) red textured linoleum flooring fragment from Site 15Bn186 STP 13, Zone III; (c) Hart & Hegeman rotary fan switch from Site 15Bn186 STP 10, Zone I; and (d) fence staple from Site 15Bn186 STP4, Zone I.**

### Non-Food Cans (n = 2)

This class of artifacts contains items related to cans that are not used for food. This group includes, but is not limited to, cans such as paint cans, oil cans, turpentine cans, and aerosol spray paint cans. Two paint can fragments dating after 1906 were recovered during the current survey (Berge 1980:261–262).

### Farming and Gardening (n = 3)

This class includes artifacts associated with gardening activities. Three common clay pot fragments were recovered. These items were not assigned specific dates.

### General Hardware (n = 5)

This class of artifacts includes a wide variety of hardware fasteners and items used for multiple purposes. Objects within this category were identified as a fence staple (n = 1) (Figure 18d), a construction staple (n = 1), barbed wire fencing (n = 1), indeterminate fencing (n = 2) The barbed wire dates after 1874 (Turner 1971). The remaining items could have been manufactured throughout the late nineteenth and into the twentieth century.

## *Transportation Group (N = 3)*

This class of artifacts includes various parts associated with engines, automobiles, railroads, wagons, carriages, and other modes of transportation. Three automobile tempered windshield glass fragments were recovered (see Table 7). They were not assigned specific dates.

## *Unidentified (N = 22)*

This category contains artifacts that could not be identified beyond the material from which the artifact was made. There were three material classes included within this group. These material classes included metal (n =10), plastic (n = 11), and multiple materials (n = 1) (see Table 7).

The unidentified metal consisted of iron/steel (n = 8) and tin (n = 2). Ten of the plastic items were modern and date from 1930 to the present (Meikle 1995). The other plastic was a piece of cellophane dating after 1927 (Bellis 2006b). The item made of multiple materials consisted of a tin and paper possible wrapper fragment. It was not assigned a specific date.

## *Discussion*

There were 178 historic artifacts recovered during the current survey. The average date range of the entire historic assemblage is 1882–1938, and the mean date is 1910. The material collected is discussed in detail above, and summarized below in the individual site discussions.

Site 15Bn186: A total of 87 historic artifacts were recovered from Site 15Bn186. Approximately 25 percent of the site assemblage consisted of architectural artifacts (n = 22). Construction materials included hand-made brick (n = 1), machine-made brick (n = 1), hollow clay tile (n = 4), and painted plaster (n = 1). Seven flat glass sherds also were recovered. Six of these were window glass, and they ranged in thickness with corresponding dates from 1831 to 1915. The tentative mean window glass date is 1894. One piece of plate glass dating after 1917 also was recovered. Nails in the assemblage included late fully machine-cut (n = 1), wire (n = 6), and indeterminate (n = 1) nails. The late fully machine-cut nail was fragmentary. Three of the wire nails were complete and pennyweights included 6d, 7d, and 8d. Two of these nails were pulled, while the one was unaltered. The indeterminate nail was fragmentary. The pennyweights of the complete wire nails indicate the fastening light framing, siding, and interior fittings.

Roughly 37 percent of the site assemblage were domestic in function (n = 32). These items included ceramics (n = 9), container glass (n = 22), and glass tableware (n = 1). The ceramic inventory consisted of whiteware (n = 5), coarse redware (n = 3), and unrefined earthenware (n = 1). Four of the whiteware sherds were plain/undecorated and the other exhibited a yellow chromatic glaze that dates between 1920 and 1970. A saucer, plate, and a teacup sherd were identified among the plain/undecorated whiteware sherds. The coarse redware sherds had a brown slip on the exterior, and they date between 1780 and 1860. The unrefined earthenware had a pink chromatic glaze and had been part of a mixing bowl at one time. It was given an estimated incept date of 1900.

Twenty-two pieces of container glass were recovered from the site during the current project. Three of these were BIM, 18 were ABM, and 1 was undiagnostic. The BIM consisted of aqua (n = 2) and clear (n = 1) body sherds. One of the aqua sherds was identified as a canning jar sherd. Concerning the ABM glass, 1 clear sherd displayed evidence of having a cup bottom mold, 1 clear sherd had come from an external thread finish jar, and another clear jar sherd had an indeterminate lip. The remaining ABM sherds could only be classified according to color. These colors included amber (n = 2), amethyst (n = 1), clear (n = 9), and green (n = 3). Vessel forms included a beer bottle (n = 1), a soda bottle (n = 2), and a miscellaneous bottle (n = 1). The undiagnostic container glass sherd was opaque white (n = 1). The glass tableware item was a press molded clear glass decanter stopper and likely dates to the twentieth century.

Five furnishing group artifacts were recovered from Site 15Bn186. One item consisted of a Hart & Hegeman rotary fan switch dating between 1895 and 1927. Another item consisted of a blue and white embossed unrefined earthenware vase fragment. Linoleum flooring dating between 1863 and 1970 also was recovered, as was one piece of lamp chimney glass and a piece of a frosted manufactured light bulb. The lamp chimney glass dates between 1854 and 1940, and the light bulb dates after 1925.

Maintenance and subsistence group artifacts consisted of two metal paint can fragments, two indeterminate pieces of metal fencing, and a fence staple. Three pieces of tempered windshield glass also were recovered. The unidentified items included metal (n = 9), modern plastic (n = 9), cellophane (n = 1), and a possible tin and paper wrapper fragment.

The historic artifacts recovered from Site 15Bn186 had an average date range of 1889–1938, and the mean is 1913. The dominance of the architectural and domestic group artifacts supports the known use of the site as a domestic farmstead/residence. Based on available historic maps and archival research, which are detailed in the site description in Section 6, the first known owners of the property containing the site were slave owners during the first half of the nineteenth century. The property changed hands several times between white slave-owning families, but by 1866, the property had been sold to an African-American man named Nelson Tompkins. Based on the materials recovered, it appears that a residence had been constructed on or near the site by this time, but it is possible that there already had been slave quarters there by the mid-nineteenth century. Ownership of the property was transferred over the late nineteenth century through various family members of Nelson Tompkins, one of which, W. Childress, is shown as the resident on an 1879 map. By 1916, the property had been sold to a white family who did not occupy the site. Instead, it is likely that the site continued to be occupied by African Americans who resided there as tenants.

The earliest materials appear to have been concentrated at the west end of the site near Shovel Tests 1 and 2. While a few twentieth-century materials were recovered from Shovel Test 2, these two shovel tests included items such as late fully machine-cut nails, container glass, and coarse redware that could date to the antebellum period, or at least by the time Nelson Tompkins purchased the property. The remaining shovel tests located in the central and eastern portions of the site primarily had a mix of late-nineteenth and early- to mid-twentieth-century artifacts. The architectural materials, such as window glass and nails, generally dated to the late nineteenth and early twentieth centuries. The small assemblage of ceramics suggest that the site occupants used both refined and utilitarian vessels, and they purchased container glass vessels at a greater rate in the twentieth century than in the late nineteenth century. Glass tableware also was purchased. Various furnishing items were recovered indicating that the residents used oil lamps and electric lightbulbs over time, and the Hart & Hegeman fan switch indicates that electricity had been installed sometime between circa 1895 and 1927. Overall, the site assemblage is consistent with an occupation dating from the late nineteenth century into the early to mid-twentieth century with some items, especially on the west end, suggesting an earlier occupation in the mid-nineteenth century. Further research would need to be conducted to more closely

define the occupation period, as well as interpret the lifeways of the former site occupants.

Site 15Bn187: A total of 75 historic artifacts were recovered from this site. These included 34 architecture group items, as well as arms (n = 1), domestic (n = 31), furnishings (n = 3), maintenance and subsistence (n = 5), and unidentified (n = 1) group artifacts.

The construction materials in the architecture group consisted of 1 indeterminate brick fragment. Four pieces of flat glass also were recovered, and these tentatively ranged in date from 1864 to 1908. Most of the architecture group artifacts were nails (n = 29). Four were late fully machine-cut, 2 were unspecified cut, 8 were wire-drawn, and 15 were indeterminate nail fragments. Two of the late fully machine-cut nails were complete and had pennyweights of 5d and 8d. Both were unaltered. The other two late fully machine-cut nails were fragmentary, as were the unspecified cut nails. The 2 complete wire nails had pennyweights of 8d and 9d. Both were pulled. The other 6 wire nails were fragmentary. The nail sizes suggest the fastening of moulding, light framing, and interior fittings.

One .38 caliber center-fire Peters S&W L brass shell was the only arms artifact recovered from the site. It dates between 1887 and 1934.

The domestic artifacts consisted of ceramics (n = 7), container glass (n = 23), and container closures (n = 1). The ceramics included 6 whiteware sherds and 1 ironstone sherd. All were plain/undecorated. Plate (n = 2) and teacup (n = 2) sherds were the only identifiable vessel forms.

The container glass recovered from this site included BIM (n = 7), ABM (n = 14), and undiagnostic container glass (n = 2). All of the BIM glass fragments could only be classified according to color. These included aqua (n = 2), amethyst (n = 3), and clear (n = 1). The aqua sherds had been parts of canning jars at one time. The remaining BIM sherds had come from bottles. One cup bottom mold sherd was identified among the ABM glass. It was clear. Two clear soda bottle sherds were embossed; one with an "8," and the other an unknown texture. The remaining ABM glass could only be classified according to color including amber (n = 1), aqua (n = 1), and clear (n = 9). Identifiable vessel forms included a miscellaneous jar (n = 1), a canning jar (n = 1), and a beer bottle (n = 1). The undiagnostic container glass sherds were clear (n = 1) and aqua (n = 1). One milk glass canning jar lid liner comprised the container closures category. All of the ABM sherds date after 1903.

The furnishings group items recovered from this site included a sage green ceramic tile and two pieces of lamp chimney glass dating between 1854 and 1940. The maintenance and subsistence items consisted of three common clay flower pot fragments, a piece of barbed wire fencing dating after 1874, and a construction staple. The unidentified group item was a flat/thick piece of iron/steel (n = 1).

The Site 15Bn187 artifact assemblage had an average date range of 1868–1939, and the mean date is 1903. Most of the historic materials were architectural and domestic in function, supporting the known use of the site as a domestic farmstead/residence. According to historic maps and archival research (see Section 6), the property was part of the land purchased by Nelson Tompkins in 1866 (see Site 15Bn186). No structures are shown in the location of the site in 1879, but there were structures nearby to the west that could account for some of the late nineteenth-century items recovered from Site 15Bn187. It appears that a residence was built at Site 15Bn187 in the 1880s or 1890s, and at least some, if not most, of items recovered from the site were associated with the occupation of this building. Wesley and Fannie Childress, who were African American, lived there by the 1890s, if not earlier, and the property remained in the family until 1942. It is unknown when the structure was demolished. Both the architectural and domestic materials, as well as the furnishing items, are consistent with an occupation dating from the late nineteenth century into the first half of the twentieth century. Hence, the materials recovered appear to be associated primarily with the Childress family and their extended family's occupation of the site from the late nineteenth century into the 1940s, with some items possibly associated with the occupation of earlier standing structures outside of the site boundary to the west. In general, the site occupants used refined

ceramics and purchased a variety of late-nineteenth- and early- to mid-twentieth-century glass vessels. Food preservation in the form of canning appears to have taken place on-site. They used oil lamps for lighting, but they likely had electricity installed by at least the early twentieth century. Little more can be interpreted regarding the lifeways of the former site occupants based solely on the cultural materials.

**Site 15Bn188**: There were 16 historic artifacts recovered from Site 15Bn188. The architecture items consisted of 1 piece of tempered glass, a 9d pulled wire nail, and 2 wire nail fragments. The domestic group items consisted of ceramics (n = 5), container glass (n = 4), and container closures (n = 2). The ceramics were identified as 1 piece of undecorated whiteware, 3 pink chromatic-glazed burned whiteware teacup sherds, and 1 piece of Bristol/Albany slipped stoneware. The container glass consisted of 3 pieces of clear ABM glass and 1 piece of an amber undiagnostic container glass. A meat jar fragment was identified among the ABM sherds, and the undiagnostic amber sherd had come from a beer bottle. The container closures consisted of a milk glass canning jar lid liner dating between 1869 and 1950, and a crown cap with a plastic liner dating after 1955. The single unidentified group item was a piece of modern plastic dating after 1930.

The average date range of the historic artifacts recovered from this site was 1896–1959, and the mean was 1927. The assemblage represented primarily a light scatter of mostly domestic and architectural artifacts, and the presence of these items is consistent with a domestic farmstead/residence. Based on the artifact types and manufacture dates of the items, this site appears to date to the early decades of the twentieth century, likely with a house being constructed there by at least the 1910s or 1920s. However, archival information suggested the property was occupied by African-American Christopher C. Scrivener by the late nineteenth century (probably during the 1890s). A house is shown on an available 1953 map, and it appears that by the 1960s, a mobile home was located there that may have replaced the earlier structure associated with most of the site materials. Because only a small assemblage of artifacts was recovered from this site, few insights could be gained into the lifeways of the former site occupants, except that they purchased both refined and utilitarian ceramics, and purchased beer and canned meat at some time. They also likely canned food on-site. Little more can be interpreted based solely on the cultural materials.

# VI. RESULTS

One multicomponent and two historic archaeological sites were identified during the current survey (15Bn186–15Bn188). The sites are described below and their locations are depicted on Figures 2 and 3. Historic farmstead Site 15Bn121 was also located partially within the project area, but no additional data regarding the site was recorded because it had been destroyed during construction of athletic fields. Site 15Bn121 is discussed at the end of this section.

## 15Bn186

**Component(s)**: Historic, nineteenth through twentieth centuries; prehistoric, indeterminate temporal affiliation
**Site type(s)**: historic farm and residence and open habitation without mounds
**Size**: 2,200 sq m (23,681 sq ft)
**Elevation**: 213 m (700 ft) AMSL
**Distance to nearest water**: 10 m (33 ft)
**Direction to nearest water**: east
**Type and extent of previous disturbance**: agricultural use; disturbance extent unknown
**Topography**: undissected upland
**Vegetation**: short grass and weeds (pasture)
**Ground surface visibility**: 0 percent
**Aspect**: flat
**Recommended NRHP status**: not assessed

### Site Description

Site 15Bn186 was a multicomponent historic farm and residence and prehistoric open habitation. The prehistoric component was of an indeterminate temporal affiliation and the historic component dated from the nineteenth through twentieth centuries.

The site was in a pasture that was covered in short to tall grass and weeds, and ground surface visibility was obscured by vegetation (Figure 19). The only disturbances identified at the site consisted of previous agricultural plowing. The site was identified by the presence of historic artifacts in shovel tests, but the presence of the site was anticipated based on historic maps. Site boundaries were defined by the lack of cultural materials to the east and west, by the project boundary to the north, and by KY 1297 to the south. The site measured approximately 20 m (66 ft) north to south by 110 m (361 ft) east to west, covering 2,200 sq m (23,681 sq ft). The site may extend outside the project boundaries to the north (Figure 20).

## Investigation Methods

Field methods consisted of screened shovel testing on a 20 m (66 ft) grid across the ridge within the project boundaries. When cultural materials were identified, the shovel test interval was decreased to 10 m (33 ft) until at least two negative shovel tests were excavated in a row (east and west) or the project boundary or KY 1297 was reached (north and south, respectively). Twenty-two shovel tests were excavated within the site boundaries, 15 of which contained cultural materials. The fill from all shovel tests was screened and soil profiles were recorded for each of the positive shovel tests.

## Depositional Context

Sango and Dickson series soils were mapped for the site. The Sango series was mapped for the western portion (slightly higher elevation) and the Dickson series was mapped for the eastern portion (slightly lower elevation, near an intermittent stream). Typical soil profiles in the area mapped as Sango series consisted of a plow zone of dark yellowish brown (10YR 3/6) silt loam to between 23 and 27 cm (9 and 11 in) bgs, followed by a subsoil of yellowish brown (10YR 5/6) silt loam and silty clay loam. The soil profiles in areas mapped as the Dickson series typically consisted of a plow zone of dark brown (10YR 4/3) silt loam to between 20 and 26 cm (8 and 10 in) bgs followed by a subsoil of yellowish brown (10YR 5/6) silt loam to silty clay loam (Figure 21). The soil profiles differed in some areas, possibly due to the presence of features (see Features below).

**Figure 19. Overview of Site 15Bn186, looking west.**

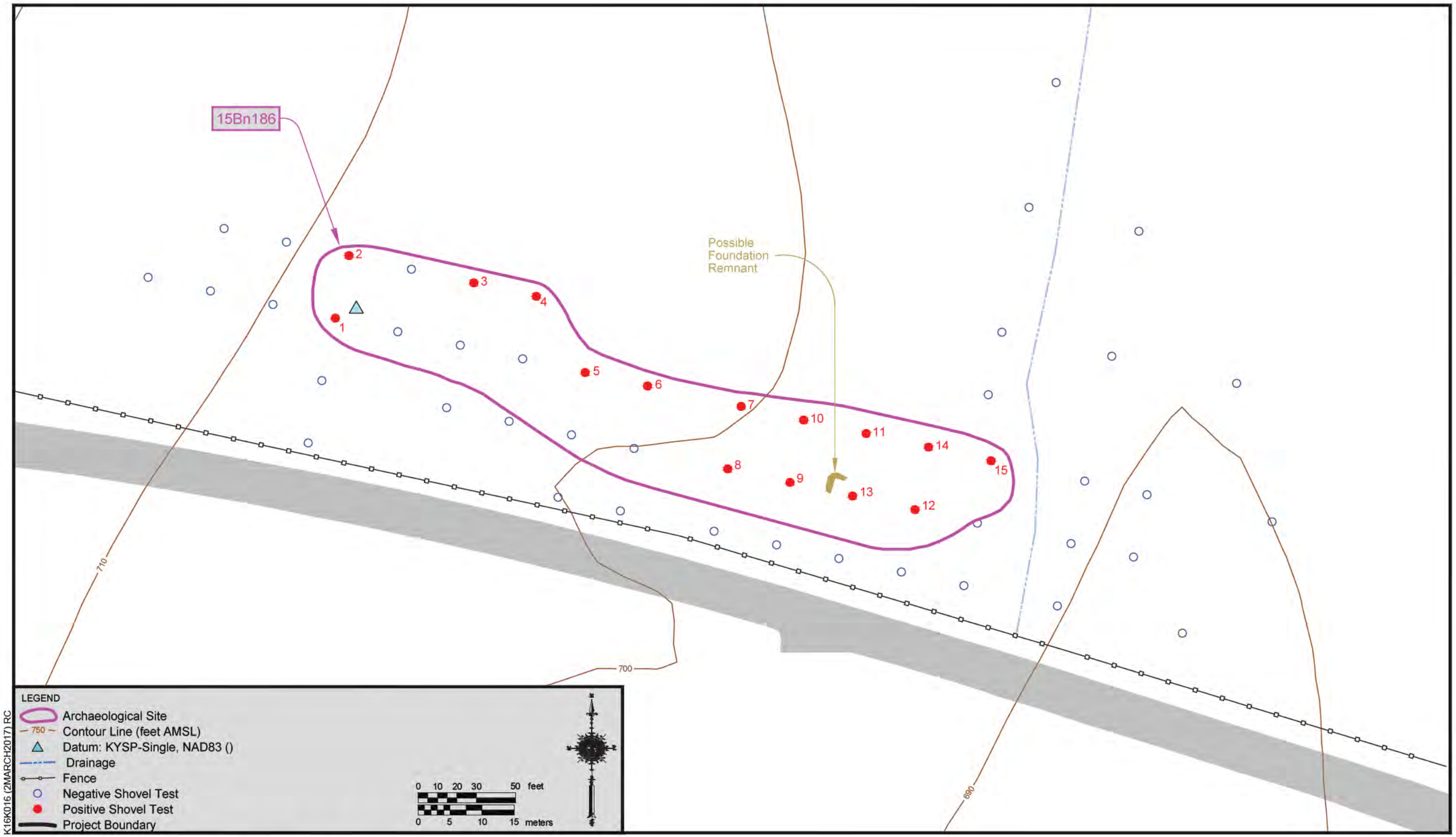


**Figure 20. Schematic plan map of Site 15Bn186.**

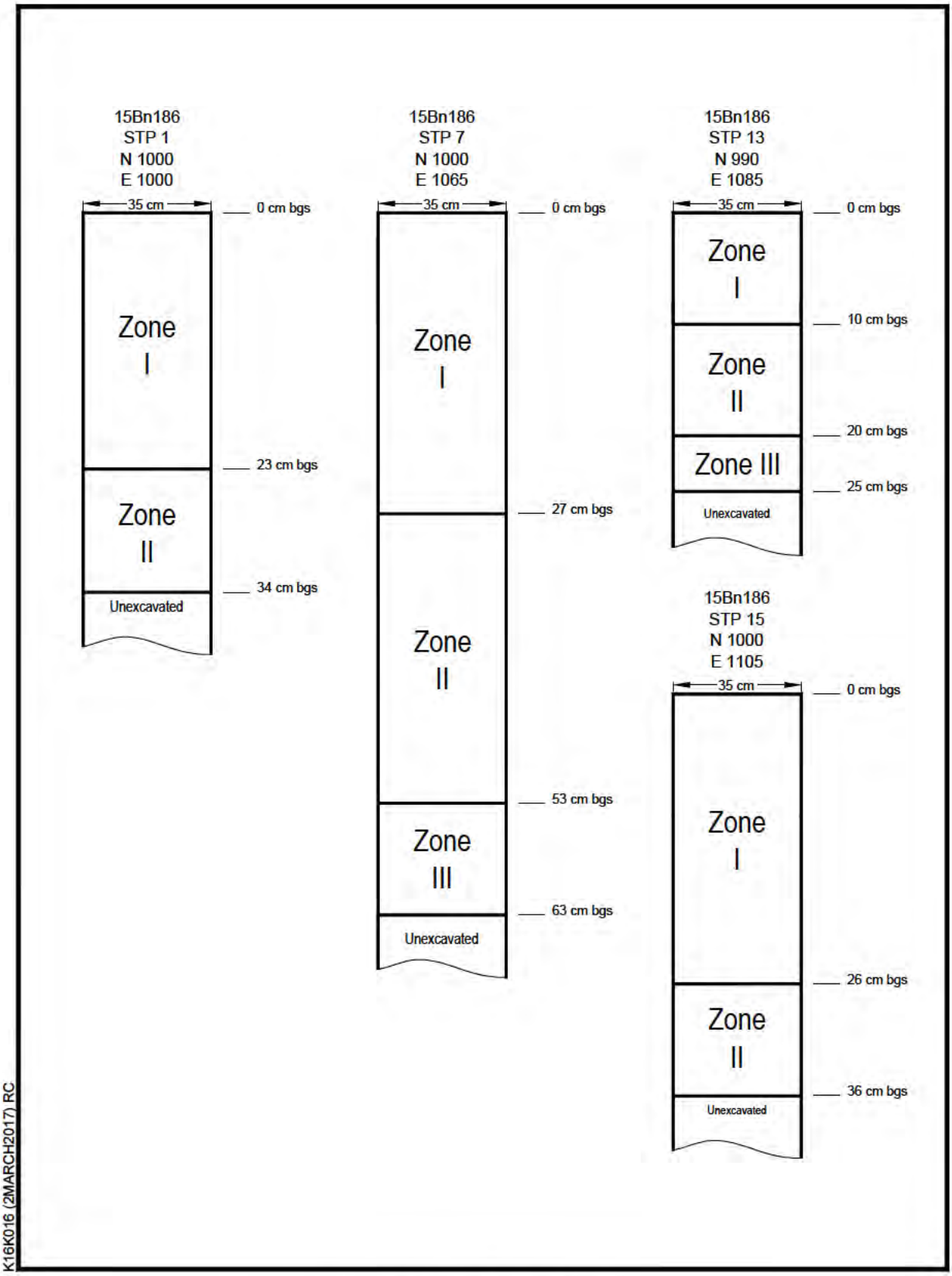


**Figure 21. Soil profiles for Site 15Bn186.**

## Artifacts

Artifacts were recovered primarily from the Ap horizon in shovel tests, but materials were also collected from sub-plow zone deposits. Prehistoric materials were confined to the plow zone and consisted of two pieces of undiagnostic lithic debitage. The debitage was made from Harrodsburg chert and both flakes were from the early stage of reduction. The prehistoric materials suggested that at least one episode of lithic reduction occurred at the site, but no further interpretations could be made.

Eighty-seven historic artifacts were recovered from Site 15Bn186 during the current survey, and these consisted of architectural, domestic, furnishings, maintenance and subsistence, transportation, and unidentified items (Table 8). Architectural materials consisted of hand-made brick fragments (1800–1880), machine made brick fragments (post–1880), hollow tile (1910–1950), plaster (unknown dates), cut nails (1830 – 1890), wire nails (post–1880), nail fragments (unknown dates), window glass (1831–1915), and plate glass (post–1917).

Domestic artifacts consisted of ceramics, container glass, and glass tableware. Ceramics included coarse redware (1780–1860), unrefined earthenware (1920–1970), and whiteware that was plain (1860–1930), undecorated (post–1830), and with a chromatic glaze (1920–1970). The ceramic vessels identified from this assemblage included a saucer, cup, plates, and a mixing bowl. BIM container glass consisted of aqua (1800–1920) and clear (1864–1920) body fragments, one of which was from a canning jar. ABM container glass consisted of amber, amethyst, clear, and green fragments, all of which were manufactured after 1903. Identified vessels included miscellaneous bottles and jars, a soda/mineral water bottle, and a beer bottle. One opaque white glass fragment of indeterminate manufacture was also recovered (1870–1960). The glass tableware was a single fragment of a clear, unleaded glass decanter stopper that was manufactured after 1903.

Furnishings items consisted of lamp chimney glass (1854–1940), a light bulb fragment (post–1925), an appliance fan switch (1895–1927), a decorative vase fragment (post–1900), and a red linoleum flooring fragment (1863–1970). Other items in the assemblage consisted of a fence staple and fencing material (unknown dates), paint can fragments (post–1906), tempered motorized vehicle glass (unknown dates), unidentified metal (tin and iron/steel; unknown dates), and unidentified plastic that consisted of cellophane (post–1927) and modern items (post–1930).

The average date range of the historic artifacts from Site 15Bn186 was 1889–1938, with a mean of 1913. The presence of architectural and domestic artifacts supports the inference that the site was a domestic farm/residence.

The earliest materials (i.e., possibly antebellum), including redware, BIM container glass, handmade brick, and a cut nail, were concentrated in the western portion of the site. The remaining shovel tests contained a mixture of materials that dated from the late nineteenth through twentieth centuries. Overall, the site assemblage is consistent with an occupation dating from the late nineteenth century into the early to mid-twentieth century, with some items, especially in the western portion of the site, suggesting an earlier occupation from the mid-nineteenth century.

## Features

No charcoal, burned earth, or fire-cracked rock were identified, and there was no evidence for the presence of intact, sub-plow zone prehistoric features, midden, or cultural deposits. Three possible historic features were identified in shovel tests at Site 15Bn186. These were represented by historic cultural materials found in sub-plow zone contexts.

One of the shovel tests was near the center of the site and it contained whiteware in the sub-plow zone deposit (see Figure 21). The soil profile consisted of an Ap horizon of dark yellowish brown (10YR 3/6) silt loam to 27 cm (11 in) bgs (Zone I) followed by a dark yellowish brown (10YR 4/4) silty clay loam mottled with dark brown (10YR 3/3) silt loam that contained one whiteware sherd (Zone II). This was followed by a subsoil of yellowish brown (10YR 5/6) silty clay loam (Zone III).

Table 8. Historic Artifacts from Site 15Bn186.

| Unit | Zone | Depth | Group | Class/Type | N = |
|---|---|---|---|---|---|
| STP 1 | I | 0–23 cm bgs | Architecture | Nail | 1 |
| STP 1 | I | 0–23 cm bgs | Domestic | Undiag container glass | 1 |
| STP 2 | I | 0–25 cm bgs | Domestic | Ceramics, ABM | 5 |
| STP 3 | I | 0–25 cm bgs | Domestic | ABM | 1 |
| STP 4 | I | 0–23 cm bgs | Architecture | Nail | 1 |
| STP 4 | I | 0–23 cm bgs | Maint/sub | Staple | 1 |
| STP 5 | I | 0–26 cm bgs | Architecture | Brick | 1 |
| STP 5 | I | 0–26 cm bgs | Domestic | Ceramic, BIM | 2 |
| STP 7 | I | 0–27 cm bgs | Architecture | Window glass | 2 |
| STP 7 | I | 0–27 cm bgs | Domestic | Ceramics, BIM | 4 |
| STP 7 | I | 0–27 cm bgs | Furnishings | Lamp chimney glass | 1 |
| STP 7 | II | 27–53 cm bgs | Domestic | Ceramic | 1 |
| STP 8 | I | 0–26 cm bgs | Maint/sub | Fencing | 2 |
| STP 8 | I | 0–26 cm bgs | Unidentified | Metal | 1 |
| STP 9 | I | 0–18 cm bgs | Architecture | Nail | 1 |
| STP 10 | I | 0–21 cm bgs | Architecture | Window glass, nails | 3 |
| STP 10 | I | 0–21 cm bgs | Domestic | ABM | 5 |
| STP 10 | I | 0–21 cm bgs | Furnishings | Vase, fan switch | 2 |
| STP 10 | I | 0–21 cm bgs | Unidentified | Plastic | 3 |
| STP 10 | II | 21–39 cm bgs | Architecture | Plate glass, nail | 2 |
| STP 10 | II | 21–39 cm bgs | Domestic | Ceramic, ABM | 3 |
| STP 11 | I | 0–16 cm bgs | Architecture | Hollow clay tile, nail | 2 |
| STP 11 | I | 0–16 cm bgs | Domestic | ABM | 3 |
| STP 11 | I | 0–16 cm bgs | Maint/sub | Paint can fragments | 1 |
| STP 11 | I | 0–16 cm bgs | Transportation | Windshield glass | 2 |
| STP 11 | I | 0–16 cm bgs | Unidentified | Metal, plastic | 6 |
| STP 12 | I | 0–12 cm bgs | Architecture | Nail | 1 |
| STP 12 | I | 0–12 cm bgs | Furnishings | Light bulb fragment | 1 |
| STP 12 | I | 0–12 cm bgs | Unidentified | Tin/paper wrapper, plastic | 3 |
| STP 13 | I | 0–10 cm bgs | Architecture | Window glass | 1 |
| STP 13 | I | 0–10 cm bgs | Domestic | ABM, glass tableware | 2 |
| STP 13 | I | 0–10 cm bgs | Transportation | Windshield glass | 1 |
| STP 13 | I | 0–10 cm bgs | Unidentified | Plastic | 2 |
| STP 13 | II | 10–20 cm bgs | Architecture | Brick, hollow clay tile, window glass | 6 |
| STP 13 | II | 10–20 cm bgs | Unidentified | Metal | 1 |
| STP 13 | III | 20–25 cm bgs | Furnishings | Linoleum flooring | 1 |
| STP 13 | III | 20–25 cm bgs | Maint/sub | Paint can fragment | 1 |
| STP 13 | III | 20–25 cm bgs | Unidentified | Metal | 2 |
| STP 14 | I | 0–11 cm bgs | Architecture | Plaster | 1 |
| STP 14 | I | 0–11 cm bgs | Domestic | ABM | 4 |
| STP 14 | I | 0–11 cm bgs | Unidentified | Plastic | 2 |
| STP 15 | I | 0–26 cm bgs | Domestic | Ceramic | 1 |
| | | | | Total | 87 |

Shovel Test 10 was in the northeastern portion of the site, and it exhibited an Ap horizon of dark yellowish brown (10YR 4/4) silt loam to 21 cm (8 in) bgs (Zone I), followed by a possible fill zone of dark yellowish brown (10YR 4/4) mottled with yellowish brown (10YR 5/6) silty clay loam and limestone fragments (Zone II). Zone II contained a wire nail, ABM container glass, whiteware with a chromatic glaze, and plate glass. Zone II was underlain by subsoil of yellowish brown (10YR 5/6) silty clay loam (Zone III).

Shovel Test 13 was near a possible foundation remnant (see below) in the eastern portion of the site. The soil profile consisted of an Ap horizon of dark brown (10YR 4/3) silt loam to 10 cm (4 in) bgs (Zone I), followed by a possible fill zone of dark yellowish brown (10YR 4/6) silty clay loam with limestone fragments to 20 cm (4 in) bgs (Zone II). Zone II contained machine made brick, hollow clay pipe fragments, window glass, and unidentified metal. This was underlain by another artifact-bearing zone (Zone III) that consisted of a dark yellowish brown (10YR 4/4) silty clay loam to 25 cm (10 in) bgs. Artifacts in Zone III consisted of linoleum flooring, paint can fragments, and unidentified metal. Excavation of Shovel Test 13 was halted

at 25 cm (10 in) bgs due to the presence of impenetrable rock (see Figure 21).

In addition to the shovel tests with possible intact, sub-plow zone cultural deposits, a depression was identified in the eastern portion of the site and it appeared to represent the outline of a foundation remnant. The possible foundation remnant was L-shaped and measured approximately 1.5 m (4.9 ft) on each side (see Figure 20).

## Archival Research

The early history of the property containing Site 15Bn186 was very complicated. It may originally have been part of a military survey made in the name of Richard Barren (or Barron). Richard Barren received a land grant of 809 ha (2,000 acres) in Barren County, Kentucky, which was surveyed on March 14, 1825 (Office of the Kentucky Secretary of State n.d.) The precise location of this land grant is unknown, but two early deeds that may have included the property containing Site 15Bn186 indicated that they were part of the Military Survey made in the name of Richard Barren (deceased) (Barren County Deed Book [BCDB] R:348; T:81). These deeds were associated with two 41-ha (100-acre) properties that were transferred from Robert Hord and Sarah Davis, et al., to David C. Smith in 1844 and 1846, respectively. It is unclear which of these two properties was associated with Site 15Bn186. Robert Hord was not found in the censuses for Barren County.

In the 1840 census for Barren County, David C. Smith was the head of a household that included seven individuals (all were listed as free white persons): one male and one female between 30 and 39 years old, one male between 10 and 14 years old, three males between 5 and 9 years old, and one male under 5 years old (USBC 1840). In the 1850 census for Division 1 of Barren County, David C. Smith was listed as a 40-year-old farmer who was born in Kentucky. Residing in his household was his 40-year-old wife, Susan, and three of their children: 17-year-old son, Joseph W.; 15-year-old son, John L.; and 11-year-old son, Jeremiah. It is unclear where the family was residing. In the 1850 slave schedule, David C. Smith owned one 9-year-old female slave.

David C. Smith transferred a 39-ha (97-acre) tract to William R. Wilson on January 12, 1856. The property was described as being on the waters of the south fork of Beaver Creek and along the Bowling Green Road (BCDB X:310). William R. and Elizabeth M. Wilson only owned the property for a short time, as it was transferred to Charles W. Terry on April 12, 1857. The property was described as a 39-ha (97-acre) tract along Bowling Green Road (BCDB Y:273).

Charles W. Terry owned the portion of the land that contained Site 15Bn186 for just under one year, and he appeared to have divided the property, and the Site 15Bn186 portion was transferred to Hardin Depp on April 8, 1858 (BCDB Z:42). The transfer consisted of 13 ha (33 acres), which was sold for $581.74. In the 1850 census for Glasgow, Elizabeth Depp was listed as a 55-year-old head of household who owned $3,700 in property. Residing in her household were her 32-year-old son, William (a saddler), her 22-year-old son, Clement (a saddler), and her 20-year-old son, Hardin, who was a druggist, along with his 17-year-old wife, Sarah (USBC 1850). Also in the household was 60-year-old William Montague, who was Elizabeth (nee Montague) Depp's brother. Elizabeth Depp owned three slaves in the 1850 slave schedules, and these consisted of a 27-year-old male, a 24-year-old female, and a 13-year-old female. By the time the 1860 census was recorded, Hardin and Sarah Depp had established their own household. In the 1860 census for District 1 of Barren County, Kentucky, Hardin Depp was listed as a 30-year-old trader who was born in Kentucky. Residing in his household was his 24-year-old wife, Sarah, and their 4-year-old daughter, Eller (USBC 1860). Harden Depp was not listed as a slave owner in the 1860 slave schedules. It is possible that Hardin Depp and his family had moved to the property containing Site 15Bn186 after its purchase in 1858.

At some point between 1858 and 1864, the property was transferred to Richard Heather. In the 1850 census of Division 1 of Barren County, Richard Heather was listed as a 59-year-old salt maker, and residing in his household was his 60-year-old wife, Jane, and their 30-year-old daughter-in-law, Hoseana (Hose Ann) (nee Murphy) Heather. Hoseana Heather's three

children were also in the household: 11-year-old son, Richard B.; 7-year-old daughter, Sarah S.; and 5-year-old daughter, Pernella A (USBC 1850). Hoseana Murphy had married Richard and Jane Heather's son, J. Augustus Heather, probably circa 1839, but it is unclear when he died (it was sometime after 1844). The 1850 slave schedules indicated that Richard Heather owned eight slaves: three females aged between 1 and 25 years old, and five males aged between 7 and 50 years old. When the 1860 census was recorded, Richard Heather was residing in Glasgow with his family. He was listed as a 70-year-old merchant who owned $2,000 in real estate and $200 in personal property. Residing in his household was his 71-year-old wife, Jane, their daughter-in-law, Hoseana, and two of her children; 20-year-old Richard (a hack driver) and 16-year-old Pernella (USBC 1860). The 1860 slave schedules indicated that Richard Heather owned one 12-year-old female slave. The family was residing in Glasgow when the census was recorded, and it is unclear if they ever resided on the property that contained Site 15Bn186.

Richard and Jane Heather probably died before 1864. On November 14, 1864, a commissioner's sale of property owned by Richard Heather, et al., was conducted. In that sale, a .6-ha (1.5-acre) tract in Glasgow and a 4-ha (10-acre) tract in Barren County were transferred by Sheriff's Deed to Preston H. Leslie for $80. The sale was conducted as part of a judgement against Richard Heather, possibly to settle debts following his death.

Preston H. Leslie served as a member of the Kentucky House of Representatives between 1844 and 1850, he was a member of the Kentucky Senate from 1850 to 1855, the Governor of Kentucky from 1871 to 1875, and the Territorial Governor of Montana from 1887 to 1889. In the 1860 census, Preston H. Leslie was residing in District 1 of Barren County. He was listed as a 41-year-old attorney, and residing with him was his 27-year-old wife, Mary A., and nine children. Seven of the children were from Preston Leslie's first marriage to Louisa Black, who died in 1858, and two were from Mary (nee Maupin, then Kuykendall) Leslie's first marriage to James Kuykendall, who died circa 1857. Preston Leslie's children from his first marriage consisted of: 18-year-old daughter, Martha; 17-year-old son, Bedford; 16-year-old daughter, Sarah; 12-year-old son, Jo Henry; 10-year-old daughter, Ann; 6-year-old son, Jerry; and 4-year-old son, Evans. Mary Leslie's children from her first marriage were 8-year-old son, Millard Kuykendall, and 4-year-old son Jas J. Kuykendall (both were born in Missouri). An 18-year-old school teacher named Sophia Morozey from Tennessee was also residing in their home (USBC 1860). The slave schedule of 1860 indicated that Preston H. Leslie owned 24 slaves, consisting of 12 males between 4 and 68 years old and 12 females between 2 and 68 years old.

It is unclear when the 4-ha (10-acre) property that contained Site 15Bn186 was transferred to William S. and Laura A. Evans, but it was between November 14, 1864, and September 25, 1866. It is unlikely that the Leslie family resided on the property, as Preston H. Leslie was an attorney and the family more likely lived in the city of Glasgow. It is possible however, that Leslie's slaves were residing on the property, which was probably used for agricultural purposes. It is also unclear where William T. and Laura A. Evans were residing between 1864 and 1866. Laura A. (nee Moffit) Evans was born in Illinois, and she married William T. Evans in Illinois in 1866 (it is unclear where he was residing when the 1860 census was recorded; he was not in the home of his parents, William F. and Dorinda Evans, in Barren County). In the 1870 census for Glasgow, William T. Evans was listed as a 32-year-old farmer who owned $3,000 in real estate and $500 in personal property. He was living in the household of his brother, Robert B. Evans, who was listed as a 34-year-old farmer who owned $4,000 in real estate and $300 in personal property. William Evans' 19-year-old wife, Laura A. Evans, was in the household, and she owned $10,000 in real estate and $100 in personal property. William and Laura Evans had two children: 3-year-old son, Edwin, and 1-year-old son, Henry; both children were born in Kentucky. William Evan's 64-year-old mother was also in the household, and she owned $5,000 in real estate and $1,000 in personal property (USBC 1870). William T. Evans' father, William F. Evans, died in 1865, and the property containing Site 15Bn186 was probably

transferred to his son (and possibly other heirs) after his death. Records of these possible transfers were not found. William F. Evans owned one 40-year-old female slave when the 1860 census was recorded.

William S. and Laura A. Evans transferred the 4-ha (10-acre) property to Nelson Tompkins on September 25, 1866. It was noted in the deed that the property was a 4-ha (10-acre) tract near Glasgow, and it was sold for $100. It was also noted in the deed that Nelson Tompkins was African American (BCDB 4:602). The grantee index for Barren County listed this single land purchase for Nelson Tompkins, and he was one of the first African Americans in the county to purchase land after the Civil War.

Nelson Tompkins (also spelled Thompkins and Tomkins) was born circa 1795 in Virginia and he died circa December 5, 1873, in Barren County. It is unclear when Nelson Tompkins came to Barren County, but he may have arrived as a slave with the family of Humphrey (also spelled Umphrey) Tompkins or his brother, Christopher Tompkins. In the 1810 census, Humphrey Tompkins was the only head of a household with this surname in Barren County, and the household included two slaves (the sex and age of slaves were not recorded). In the 1820 census for Barren County, only one household was headed by a person with the surname Tompkins. This was Cristopher Thompkins, whose household was comprised of 15 individuals, including 6 slaves (1 male and 1 female under 14 years old, 1 female between 15 and 25 years old, and 2 males and 1 female between 26 and 44 years old). Nelson Tompkins may have been a male slave between 26 and 44 years old.

When the 1830 census for Barren County was recorded, the household of Christopher Tompkins was comprised of 17 individuals, including 10 slaves. The slaves consisted of 1 male and 1 female between 24 and 35 years old, 1 female between 10 and 23 years old, and 4 males and 3 females under 10 years old. Nelson Tompkins may have been the male slave between 24 and 35 years old. In the 1840 census for Barren County, Christopher Tompkins was the head of a household that was comprised of 15 individuals, including 7 slaves. The slaves consisted of 1 male and 1 female between 36 and 54 years old, 1 male and 2 females between 10 and 23 years old, and 2 males under 10 years old. Nelson Tompkins may have been the male slave between 36 and 54 years old.

Christopher Tompkins was listed as a 70-year-old lawyer when the 1850 census for Glasgow was recorded. Residing in his household was his widowed, 41-year-old daughter, Sarah A. Garnett, and her 13-year-old daughter, Theodosia Garnett (USBC 1850). In the 1850 slave schedules, Christopher Tompkins was listed as the owner of five slaves, including two males aged 58 and 17 years old and three females aged 55, 15, and 14 years old. The 58 year-old male and 15 year-old female were listed as mulatto and the others were listed as black. It is possible that Nelson Tompkins was the 58-year-old mulatto slave owned by Christopher Tompkins. Christopher Tompkins was the only head of household with this surname who owned slaves in the 1850 census. Christopher Tompkins reportedly established his original home circa 1810 in Barren County along Boyd's Creek, which was south of Glasgow; circa 1816, he built a brick house in Glasgow (Gorin 1929).

Christopher Tompkins died in 1858, and his last will and testament directed that various slaves go to certain family members, consisting of his four living daughters: Sarah Ann Garnett, Eugenia Garnett, Davidella Crutcher, and Theodosia Hall. Regarding his slave Nelson, it was stated that "my negro man Nelson shall choose his mistress among my children; & I devise him to the one he shall select free of charge relying that he will be cared for and provided with suitable comforts, if he should happen to outlive his usefulness." It is unclear which of his children the slave named Nelson was transferred to, if any, and none of his children owned slaves in the 1860 census that would have fit the description of Nelson Tompkins (i.e., around 65 years old). It is possible that Nelson Tompkins was freed after the death of Christopher Tompkins, or that he was sold outside the family.

Nelson Tompkins and Betsey (nee unknown) Tompkins were officially married in Barren County, Kentucky, on December 25, 1866. It was

noted in the "Declaration of Marriage of Negroes and Mulattoes" that they had lived together as husband and wife for the past 27 years (since circa 1839). Betsey Tompkins was probably born a slave circa 1810, possibly in Virginia, and she was owned by Bennett Watts of Barren County. The Watts farm was approximately 1.5 miles southeast of Glasgow, Kentucky, which was in the general vicinity of the Boyd's Creek farm that was established by Christopher Tompkins circa 1810, and on which Nelson Tompkins probably lived.

Bennett S. Watts was listed as the owner of 12 slaves in the 1850 slave schedule for Division 2 of Barren County. These consisted of 8 females between 1 and 36 years old and 4 males between 1 and 10 years old (USBC 1850). The female slave aged 36 years old may have been Betsey Tompkins. The 1860 slave schedule for Barren County, Kentucky, did not include entries for Bennett S. Watts, and it is unclear if he owned slaves at that time, and it is unclear where Betsey Tompkins was residing.

Nelson Tompkins purchased the 4-ha (10-acre) tract that contained Site 15Bn186 from William S. and Laura A. Evans for $100 on September 25, 1866 (BCDB 4:602). In the 1870 census for Glasgow, Nelson Tompkins was listed as a 75-year-old gardener who was born in Kentucky and who owned $100 in real estate and $150 in personal property. He and his wife, 60-year-old Betty Tompkins, were residing in the home of 65-year-old Virginia-born Dasha Everett, who owned $480 in real estate and $200 in personal property. Two of her children lived with her: 40-year-old wash woman, Phoeba Everett, and 26-year-old farm hand, Lewis Everett. A 55-year-old farm hand named Henry Moss was also in the household. All members of the household were listed as black (USBC 1870). It is likely that this residence was on the overall property that contained Site 15Bn186, but was to the northeast (see Everett household on Figure 11). Nelson Tompkins died circa December 5, 1873, and he was reportedly interred in the Watts Family Cemetery on the farm of Bennett S. Watts.

Betty (nee probably Watts) Tompkins was known to have had at least one child who lived to adulthood: Amanda (nee Watts) Childress; it is unclear if Nelson Tompkins was her father. Amanda Watts was married to Reese Childress.

In the 1870 census for Glasgow, Reese Childress was listed as a 48-year-old blacksmith who owned $250 in real estate and $400 in personal property. He was born in Virginia. Residing in his household was his 39-year-old wife Amanda (probably nee Watts) Childress (keeping house), and six of their children: 19-year-old son, William (a farm hand); 17-year-old son, Wesley (a blacksmith); 13-year-old son, Lee R. (a blacksmith); 7-year-old son, Charles A.; 5-year-old son, Chris F.; and 2-year-old son, U.S. Grant. Also in the household were two children of unknown relation: an 8-year-old girl named Sarah F. Childress, and a 5-year-old girl named Lucy M.P.H. Childress (USBC 1870).

In the 1880 census for Glasgow Junction, Betty Tompkins (Bettie Thompson) was listed as a 72-year-old mother-in-law of the head of the household, but she was more likely the grandmother of him. The head of the household was 31-year-old William Childress, who was listed as a farmer who was born in Kentucky (his parents were born in Virginia). Also in the household was his 25-year-old wife, Nasis, who was born in Kentucky and whose parents were born in Kentucky. Their four children were in the household, consisting of: 8-year-old daughter, Mattie; 6-year-old daughter, Annie; 4-year-old daughter, Adla; and 2-year-old son, William or Julian. Betty Tompkins was listed as a widow. All individuals in the household were listed as mulatto. Betty Tompkins would have been the grandmother of the elder William Childress, as William was the son of Reece and Amanda Childress (nee Watts; daughter of Betty Watts Tompkins). Reece Childress was married to Amanda J. Childress (appears to be Childock in the marriage record) on December 25, 1866. The Declaration of Marriage of Negroes and Mulattoes indicated they had lived together as husband and wife for the past 26 years (since circa 1840). It is unclear if Reece Childress was a slave, but he was probably owned by one of the Childress families listed in the 1850 and 1860 slave schedules for Barren County.

It appears that the original 4-ha (10-acre) tract purchased by Nelson Tompkins from W. S. Evans was split into at least three tracts after his death. On December 16, 1873, a 2-ha (5-acre) tract was transferred from Elizabeth Tompkins, the only heir-in-law of Nelson Tompkins (deceased) to Reese Childress (Elizabeth Tompkins' son-in-law) for $50 (BCDB 10:17). It was described as half of the Nelson Tompkins tract that was previously from W. S. Evans. Another transfer was made from William and Narcissa Childress (son and daughter-in-law of Reese Childress) and Betsy (Elizabeth) Tompkins to George Scrivener for $80 on January 26, 1883 (BCDB 26:360). This transfer listed the property as being 2.4 km (1.5 miles) west of Glasgow, and mentioned that .8 ha (2.0 acres) were excepted because it had already been conveyed to Wesley Childress; also excepted were a school house and lot of ground that was owned by the school district (BCDB 26:360). The size of the tract was not listed, but it may have totaled .4 ha (1.0 acre). On March 13, 1878, Reese and Amanda Childress transferred to William Childress, for love and affection of their son, a .8-ha (2.0-acre) tract on the northeast side of Old Bowling Green Road located 3.2 km (2.0 miles) west of Glasgow, which was noted as being part of the original tract transferred to Nelson Tompkins by W. S. Evans (BCDB 18:117). Also in the area, William Childress received from W. W. and M. A. Smith a 3.6-ha (9.0-acre) tract on December 16, 1873 (BCDB 10:131).

A map dating to 1879 showed the area in the vicinity of Site 15Bn186 as containing five structures (see Figure 11). A residence occupied by W. Childress was closest to Site 15Bn186, whereas a nearby (to the east) residence was occupied by W. W. Smith. To the northeast of the Childress residence were two structures occupied by G. Scrivener and J. Everett. A structure labeled "S. H." (school house) was to the northeast of the W. W. Smith residence. William Childress, George Scrivener, and Joseph Everett were African American, whereas William W. Smith was of European ancestry. It appears that this area grew after the Civil War to become a small community in which several African-American families resided, which included a school.

The property containing Site 15Bn186 was owned by William and Narcissus (nee Strange) Childress when the 1879 map was produced, and they were probably residing in the home labeled "W. Childress" at Site 15Bn186. As noted previously, William's grandmother, Betty Tompkins, whose husband was the original owner of the tract, was residing in their household in 1880. Nearby homes were occupied by other African-American families, including the surnames Crenshaw, Everett, Lee, Lewis, Marshall, and Scrivener. William W. Smith, who was shown as an occupant of a home to the east of the residence of William Childress, was listed as being near William Childress in the census records (USBC 1880). George Scrivener's home was listed in the census, as were two homes that included several Everett family members. There were no adults with a given name that began with "J" in these Everett households, but Dasha Everett and her daughter, Phoeba, were in one of the Everett households; they may have been residing in the same home as they were when the 1870 census was recorded.

Elizabeth (nee Watts) Tompkins died on April 6, 1888, at the age of approximately 80 years old. She was interred in the Watts Family Cemetery, where Nelson Tompkins was interred in 1873. That cemetery was reportedly relocated to the Glasgow Municipal Cemetery prior to construction of the Louie B. Nunn Parkway (Cumberland Parkway). At the time of her death, Elizabeth Tompkins owned no real estate, and she was probably residing in the home of her grandson, William Childress.

In the 1900 census for Glasgow, William Childress (spelled Childers) was listed as a 55-year-old farmer who owned his farm. Residing in his household was his 45-year-old wife of 29 years, Narcissus, and five of their children: 17-year-old son, Macksey; 14-year-old son, Eligie; 12-year-old son, Thomas; 10-year-old daughter, Elnorah; and 7-year-old daughter, Barrienna (USBC 1900). Narcissus Childress was listed as having had nine children, eight of which were still living.

The property containing site 15Bn186 was sold by William and Narcissus Childress to William S. Smith for $15 on August 7, 1902

(BCDB 44:603). William S. Smith was the son of William W. and Martha Ann Smith. The property totaled .4 ha (1 acre) and was described as being along "the creek bluff with the line between said Smith." It is not clear if William and Narcissus Childress moved from the property at that time, but they were not found in the 1910 census for Barren County. They were, however, still residing in Barren County when the 1920 census was recorded. William Childress was listed as a 76-year-old farmer who owned his farm, and residing with him was his 63-year-old wife, Narcissus. Two of their sons, 40-year-old William Childress, Jr., and 32-year-old Thomas Childress, were residing on the adjacent properties.

William S. and Bathenia Smith owned the property containing Site 15Bn186 for just over one year. They sold it to Haiden T. Myers for $125 on January 16, 1903 (BCDB 47:248). The property was listed as being just over .9 ha (2.0 acres), which suggests two properties were combined (the previous deed was for .4 ha [1.0 acre]).

Haiden Trigg Myers was born circa 1881 in Kentucky. His mother was May Campbell, and his father's name was unknown. In the 1900 census for Glasgow, Haiden Myers was residing in his stepmother's home. She was listed as 52-year-old widow and wash woman Fannie Childress, who had one child (living) and who owned her home. Haiden Myers was listed as her 18-year-old stepson and he was a day laborer. Also in the household was a 54-year-old boarder named William Barlow (USBC 1900). It is more likely that Fannie Childress was Haiden T. Myers' aunt, based on a will and other information (see Archival Research for Site 15Bn187 below). George Scrivener was listed as a neighbor in the census, and it is likely that the Childress home was in the vicinity of Site 15Bn186, possibly being at the site location, but more likely at Site 15Bn187. Haiden T. Myers married Ida Bell (nee Dillon) Bush in 1906 in Barren County.

By the time the 1910 census was recorded, Haiden Myers had established his own household, and he was probably residing at Site 15Bn186. Haiden Myers was listed as a 30-year-old African-American laborer who owned his farm. Residing with him was his 34-year-old wife of three years, Ida (nee Dillon, then nee Bush) Myers (this was her second marriage). Ida Myers was listed as a laundress and she had given birth to three children, but only one was living. The living child resided with Haiden and Ida Myers and she was Haiden's stepdaughter: 7-year-old, Johnnie Bell Bush (USBC 1910).

Haiden and Ida Myers sold the property containing Site 15Bn186 to L.W. Preston on November 7, 1916, for $1.00 and other considerations. The property totaled .8 ha (2.0 acres) and was located 3.2 km (2.0 miles) from Glasgow on the north side of Bowling Green Road (BCDB 67:260). It is possible that the Myers family remained on the property containing Site 15Bn186 following its transfer, but this could not be confirmed. It is also possible that Haiden T. and Ida Myers had moved to the residence at Site 15Bn187. In the 1920 census, Haiden Myers was listed as a 39-year-old with no occupation who owned his farm, and residing with him was his 43-year-old wife, Ida B., and 17-year-old daughter, Johnnie B. In the 1930 census, Haiden Myers was listed as a 50-year-old grocery store merchant and residing with him was his 54-year-old wife, Ida. They were listed as residing along Bowling Green Road, suggesting that they may still have been living at or near Site 15Bn186 (or possibly at Site 15Bn187). Ida Myers died between 1930 and 1940 (her burial location is unknown), and Haiden T. Myers died in 1942 and he was interred in the African-American Barlow-Mansfield Cemetery near Glasgow.

L.W. Preston was either Lucian Washington Preston or his son, Leonard W. Preston. This individual purchased the land containing Site 15Bn186 from Haiden and Ida Myers on November 17, 1916. L.W. Preston only owned the property until October 19, 1918, when it was sold, along with six other tracts (the Site 15Bn186 tract was Tract 7). Stanley Warder (also spelled Worder) and Norris Warder (brothers) purchased the seven tracts for $6,000 and other valuable considerations, and the total of the combined tracts was just under 58 ha (144 acres). It was noted in the deed that Tract 7 was previously from Haiden and Ira Myers on November 7, 1916

(BCDB 72:620). In the 1910 census, the Preston family resided in the city of Glasgow on North Race Street. By the time the 1920 census was recorded, the family had moved to Bowling Green, Kentucky. The Preston family probably never resided at Site 15Bn186.

The Warder family owned the property from 1918 until 1927. Norris and Stanley Warder were the sons of Francis M. and Mary A. Warder. In the 1900 census for Barren County, Francis Warder was listed as a 60-year-old farmer, and residing with him was his 49-year-old wife, Mary A., and four of their sons: 24-year-old Norris, 22-year-old Laurence; 20-year-old Earnest; and 18-year-old Henry S. (Stanley) (USBC 1900). The family was of European ancestry. The location of their home is unknown. In the 1910 census for Barren County, Alice Warder was listed as the 59-year-old widowed head of household, and residing with her were three of her sons, all of which worked with tobacco: 34-year-old Norris; 30-year-old Earnest; and 28-year-old Stanley (USBC 1910). The family was living on East Main Street in Glasgow.

Norris Warder married a woman named Bertha (nee unknown), and in the 1920 census, Norris and Bertha Warder were residing on Leslie Avenue in Glasgow, and Norris Warder was listed as a tobacco dealer. Norris Warder was listed as owning his farm. In the 1920 census for Barren County, Henry Stanley Warder was listed as a 38-year-old tobacco dealer, and residing with him was his 69-year-old widowed mother, Mary A. Warder (USBC 1920). Stanley Warder and his mother appeared to have been residing in a rural area, rather than in Glasgow, and it is possible they were living at Site 15Bn186. Mary Alice Warder died in 1927.

Stanley Warder and Norris Warder, and Norris Warder's wife, Bertha Warder, transferred the seven tracts to C. E. Hall on February 15, 1927, for approximately $8,300 (BCDB 84:276). In the 1920 census for Glasgow, Elmore (C.E.) Hall was listed as a white 37-year-old mail carrier, and residing with him was his 38-year-old wife, Cora. Also in the household were their four children: 9-year-old Elmer, 8-year-old Gracy; 5-year-old Eva; and 3-year-old Corine. The family was listed as residing on a farm that was owned and not rented, but it is unclear where the farm was located. By the time the 1930 census was recorded, the Hall family had moved to Lower Bowling Green Road and was probably residing on the property that contained Site 15Bn186. Charles E. Hall was listed as a 47-year-old mail carrier, and residing with him was his 46-year-old wife, Cora, and two of their daughters: 16-year-old Eva, and 13-year-old Corine (USBC 1930). William Childress and his wife, Bettie, were residing on the adjacent property. Both Hall and Childress were listed as owning their property.

Charles Elmore and Cora M. Hall transferred the seven-tract property to their daughter and son-in-law, Grace (nee Hall) Ford and George Ford on May 18, 1932, for $1,000 and the remainder owed by them to Glasgow Building and Loan Association (BCDB 91:491). It appears that Charles and Cora Hall built a residence on the property, and transferred the property to their newlywed daughter and son-in-law, who assumed payments on the residence. George and Grace (nee Hall) Ford were living in Lake County, Indiana, when the 1930 census was recorded. He was listed as a 20-year-old garage mechanic, and she was 18 years old.

Charles Elmore and Cora Hall were still residing along Old Bowling Green Road when the 1940 census was recorded. Their farm was owned and Charles E. Hall was listed as a 58-year-old mail carrier. Residing in his household was his 58-year-old wife, Cora M., and their 22-year-old daughter, Corrine. They may have been residing at Site 15Bn186, and it was noted in the census that they were living in the same location they had been residing in 1935. By 1940, 39-year-old George Ford and his 28-year-old wife, Grace Ford, along with their children (9-year-old son, George, and 2-year-old daughter, Elizabeth), were residing on East Cherry Street in Glasgow. George Ford was listed as the owner and manager of a gasoline station (he and his wife would later own and operate a jewelry store in Glasgow). The 1940 census indicated that in 1935, the family was residing in Lake County, Indiana. George and Grace Ford had transferred the property containing Site 15Bn186 to Otto Lutzow on May 10, 1939, and it is likely that George and Grace Ford never resided on the property; rather, Grace's parents may have stayed on the property after they sold the property to their daughter and son-in-law.

Otto Lutzow was born in Wisconsin in 1903, and he was residing there when the 1910, 1920, and 1930 censuses were recorded. His wife, Birdie Wells (also Bertie and Annie B.) was born in Barren County, Kentucky, circa 1911, and she was residing with her parents in the Temple Hill area of Barren County when the 1920 census was recorded. In the 1930 census, she was residing in the home of an uncle along Edmonton Road in Barren County. It is unclear when and where she was married to Otto Lutzow.

In the 1940 census for Barren County, William Otto Lutzow was listed as a 37-year-old, Wisconsin-born, factory cutter. Residing with him was his 29-year-old, Kentucky-born wife, Bertie, who was listed as a telephone operator (USBC 1940). They owned their home and were living on a farm. William Childress was listed as a neighbor. It is likely that the Lutzow family resided at Site 15Bn186.

In summary, the property containing Site 15Bn186 was owned by several different families during the antebellum period, and it was sold to a former slave, Nelson Tompkins, in 1866. It is possible that the overall property was originally used for housing slaves, followed by occupation by several different African-American families in the reconstruction period. The property containing Site 15Bn186 was owned by the extended family of Nelson Tompkins until 1916, but it may have been occupied by African-American tenants until at least the 1920s. Later occupations may also have been by other tenants.

## Summary and NRHP Evaluation

Site 15Bn186 was a multicomponent historic farm/residence and prehistoric open habitation. The prehistoric component was represented by two undiagnostic lithic flakes that were recovered from the plow zone. There was no evidence for the presence of intact prehistoric sub-plow zone features, midden, or cultural deposits. The prehistoric component is recommended as not eligible for the NRHP.

The historic component was represented by an artifact assemblage that spanned the nineteenth through twentieth centuries. The property may have been occupied by slaves prior to its purchase by an African-American man in 1866, with continual occupation by African-American families through at least circa 1920. Shovel tests revealed three locations where sub-plow zone deposits with cultural materials were present, and a possible foundation remnant was identified. Site 15Bn186 has the potential to contain intact, sub-plow zone features, midden, cultural deposits, and structural remains. The NRHP eligibility of the historic component of Site 15Bn186 cannot be assessed with the data derived from the current survey, and additional archaeological work is recommended if the site cannot be avoided

## Project Impacts

Site 15Bn186 was located along an undissected upland north of KY 1297. The portion of the site within the project area exhibited three areas in which possible intact, sub-plow zone cultural deposits were identified. One possible structural foundation remnant was also identified. Additional archaeological work is recommended if the site cannot be avoided.

# 15Bn187

Component(s): Historic, late nineteenth through twentieth centuries
Site type(s): historic farm and residence
Size: 1,200 sq m (12,917 sq ft)
Elevation: 213 m (700 ft) AMSL
Distance to nearest water: 140 m (459 ft)
Direction to nearest water: west
Type and extent of previous disturbance: agricultural use; disturbance extent unknown
Topography: undissected upland
Vegetation: tall grass and weeds
Ground surface visibility: 0 percent
Aspect: flat
Recommended NRHP status: not eligible

## Site Description

Site 15Bn187 was a late nineteenth through twentieth century farm and residence. The site was located 225 m (738 ft) northwest of the intersection of KY 1297 and Lakeview Boulevard, and 125 m (410 ft) northwest of the intersection of KY 1297 and Forester Road. It was identified along an undissected upland ridge at an elevation of 213 m (700 ft) AMSL. The site was in a fallow field between two residential structures (Figure 22). Vegetation consisted of tall grass and weeds, and ground surface visibility was obscured by vegetation. The only disturbances identified consisted of previous agricultural plowing. The site was identified by the presence of historic artifacts in shovel tests, but the presence of the site was anticipated based on historic maps. Site boundaries were defined by the lack of cultural materials to the east and west, by the project boundary to the north, and by KY 1297 to the south. The site measured approximately 30 m (98 ft) north to south by 40 m (131 ft) east to west, covering 1,200 sq m (12,917 sq ft). The site may extend outside the project boundaries to the north (Figure 23).

## Investigation Methods

Field methods consisted of screened shovel testing on a 20 m (66 ft) grid across the ridge within the project boundaries. When cultural materials were identified, the shovel test interval was decreased to 10 m (33 ft) until at least two negative shovel tests were excavated in a row (east and west) or the project boundary or KY 1297 was reached (north and south, respectively). Eighteen shovel tests were excavated within the site boundaries, 14 of which contained cultural materials. The fill from all shovel tests was screened and soil profiles were recorded for each of the positive shovel tests.

Figure 22. Overview of Site 15Bn187, looking northeast.

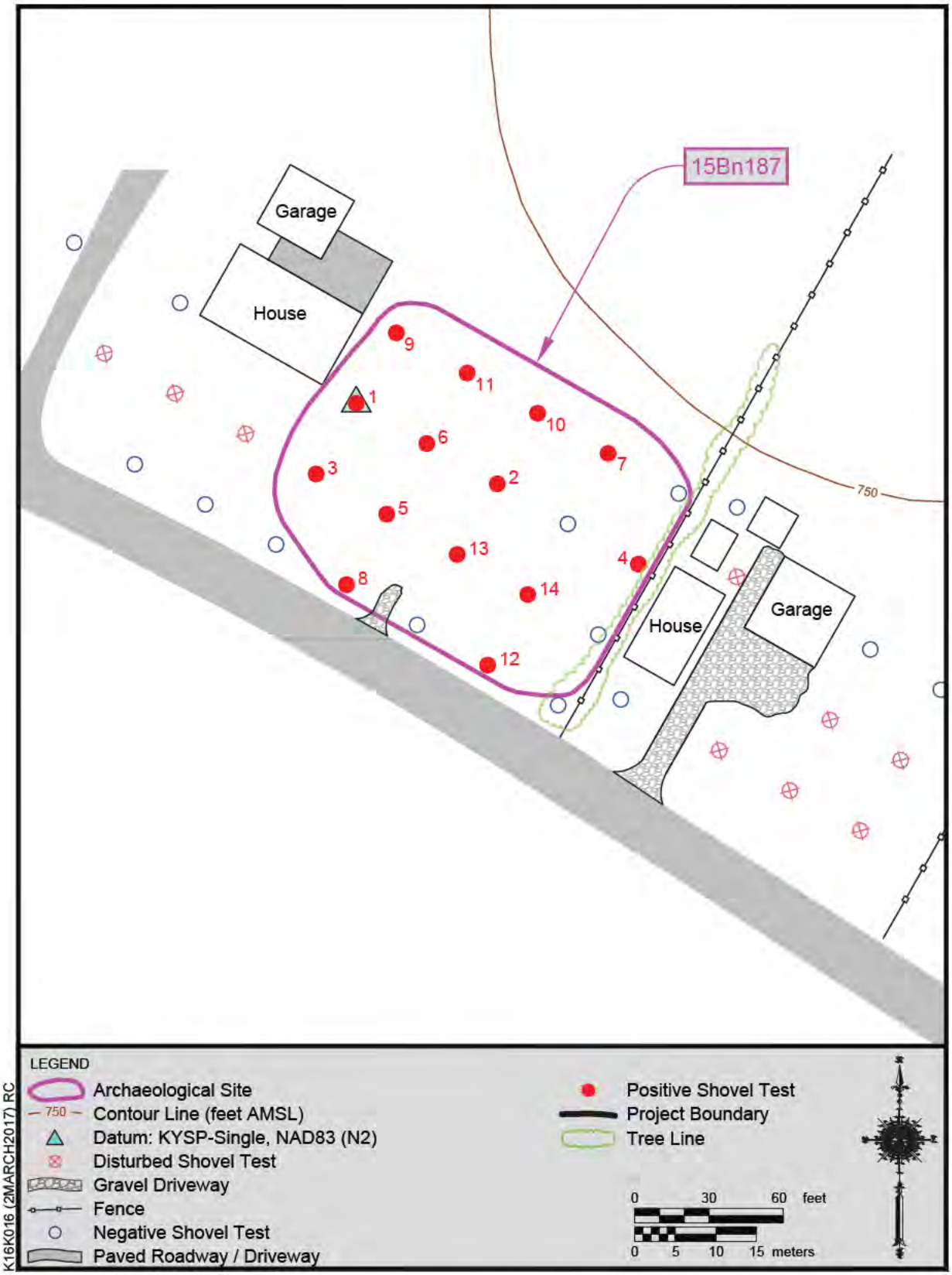


**Figure 23. Schematic plan map of Site 15Bn187.**

## Depositional Context

Sango series soils were mapped for the site. Typical soil profiles consisted of a dark yellowish brown (10YR 3/6) silt loam to between 9 and 30 cm (4 and 12 in) bgs (Zone I), followed by a subsoil of yellowish brown (10YR 5/6) silty clay loam (Zone II) (Figure 24). One shovel test contained cultural materials in a sub-plow zone deposit. The profile of Shovel Test 12 consisted of an Ap horizon of dark yellowish brown (10YR 4/6) silt loam to 9 cm (4 in) bgs (Zone I), followed by a yellowish brown (10YR 5/6) silty clay loam mottled with dark yellowish brown (10YR 3/6) silt loam to 20 cm (8 in) bgs (Zone II). This was underlain by a subsoil of yellowish brown (10YR 5/6) silty clay loam (Zone III) (see Figure 24).

## Artifacts

Artifacts were recovered primarily from the Ap horizon in shovel tests, but one historic artifact was collected from a sub-plow zone deposit (Table 9). Architectural materials recovered from Site 15Bn187 consisted of cut nails (1830–1890), wire nails (post–1880), window glass (1857–1908), and a brick fragment that was of indeterminate manufacture (unknown dates). Domestic materials consisted of ceramics, container glass, and container closures. Ceramics consisted of undecorated ironstone (post–1830), undecorated whiteware (post–1830), and plain whiteware (1860–1930). Identified ceramic vessels consisted of cups and plates. Container glass was BIM (1850–1920), ABM (post–1903), and indeterminate (unknown dates). A single container closure was recovered and it was the liner for a Mason jar (1869–1950). Vessels identified in the container glass assemblage consisted of canning jars, miscellaneous jars and bottles, a beer bottle, and soda/mineral water bottles.

Table 9. Historic Artifacts from Site 15Bn187.

| Unit | Zone | Depth | Group | Class/Type | N = |
|---|---|---|---|---|---|
| STP 1 | I | 0–23 cm bgs | Architecture | Nail | 1 |
| STP 1 | I | 0–23 cm bgs | Domestic | BIM, ABM | 5 |
| STP 1 | I | 0–23 cm bgs | Maint/sub | Fencing | 1 |
| STP 2 | I | 0–20 cm bgs | Domestic | Undiag container glass | 1 |
| STP 3 | I | 0–20 cm bgs | Domestic | Ceramic, ABM | 2 |
| STP 4 | I | 0–23 cm bgs | Architecture | Nails | 2 |
| STP 4 | I | 0–23 cm bgs | Domestic | ABM | 2 |
| STP 4 | I | 0–23 cm bgs | Furnishings | Lamp chimney glass | 1 |
| STP 5 | I | 0–28 cm bgs | Architecture | Window glass, nails | 5 |
| STP 5 | I | 0–28 cm bgs | Furnishings | Ceramic tile | 1 |
| STP 5 | I | 0–28 cm bgs | Unidentified | Metal | 1 |
| STP 6 | I | 0–25 cm bgs | Architecture | Window glass, nail | 2 |
| STP 6 | I | 0–25 cm bgs | Domestic | BIM | 3 |
| STP 7 | I | 0–30 cm bgs | Domestic | BIM, ABM, canning jar lid liner | 4 |
| STP 8 | I | 0–27 cm bgs | Architecture | Window glass, wire nail | 2 |
| STP 8 | I | 0–27 cm bgs | Domestic | Ceramics | 2 |
| STP 8 | I | 0–27 cm bgs | Maint/sub | Staple | 1 |
| STP 9 | I | 0–26 cm bgs | Architecture | Nails | 6 |
| STP 9 | I | 0–26 cm bgs | Domestic | Ceramics, ABM | 2 |
| STP 9 | I | 0–26 cm bgs | Maint/sub | Common clay flower pot | 3 |
| STP 9 | I | 0–26 cm bgs | Arms | .38 caliber centerfire cartridge | 1 |
| STP 10 | I | 0–26 cm bgs | Domestic | Ceramic | 1 |
| STP 11 | I | 0–32 cm bgs | Architecture | Window glass, nails | 15 |
| STP 11 | I | 0–32 cm bgs | Domestic | Ceramics, ABM | 4 |
| STP 11 | I | 0–32 cm bgs | Furnishings | Lamp chimney glass | 1 |
| STP 12 | I | 0–9 cm bgs | Domestic | ABM | 2 |
| STP 13 | I | 0–27 cm bgs | Architecture | Brick | 1 |
| STP 13 | I | 0–27 cm bgs | Domestic | Undiag container glass | 1 |
| STP 14 | I | 0–22 cm bgs | Domestic | ABM | 2 |
| | | | | Total | 75 |

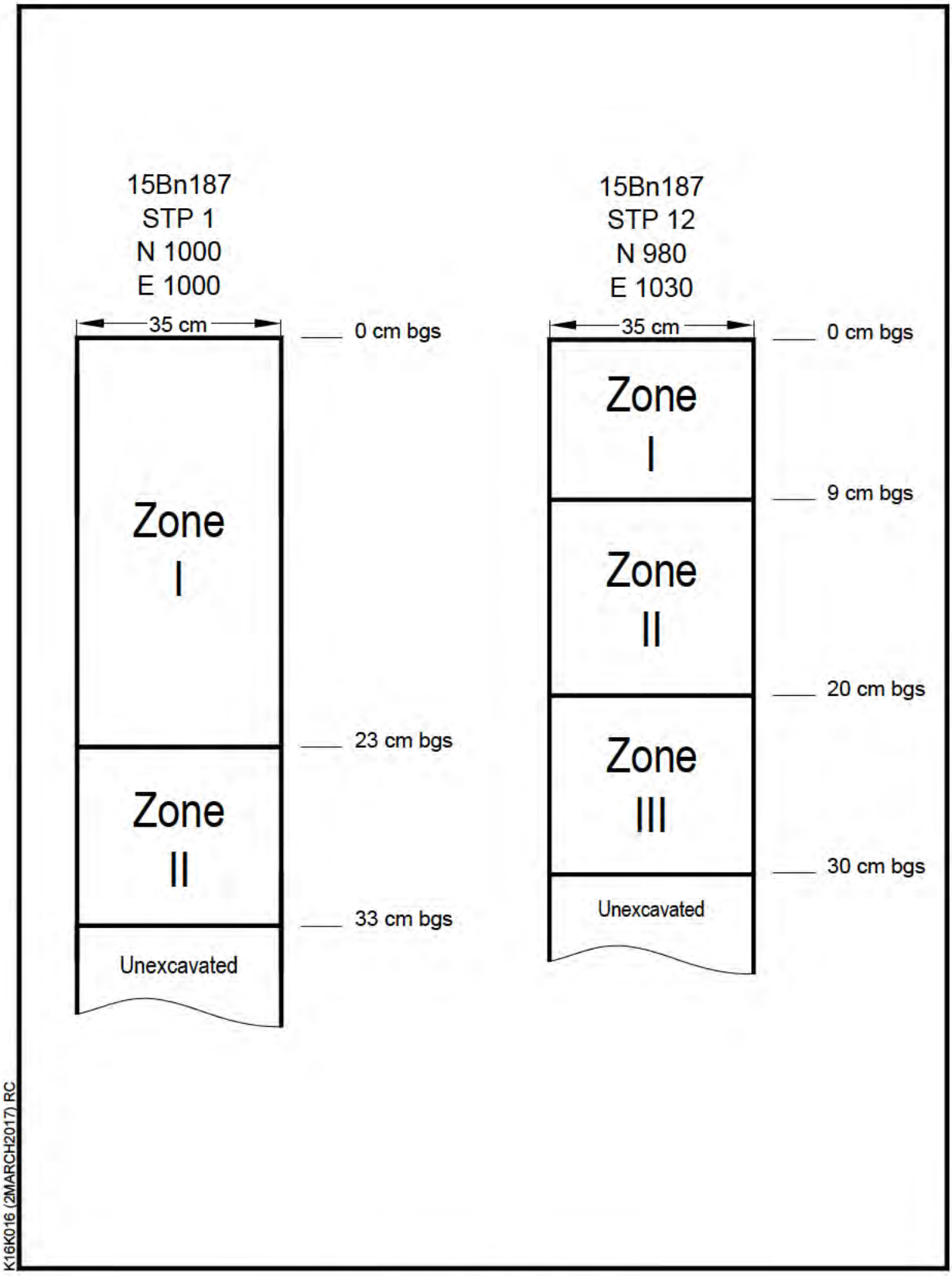


**Figure 24. Soil profiles for Site 15Bn187.**

Other artifacts in the assemblage consisted of furnishings, maintenance and subsistence, arms, and unidentified materials. Furnishings consisted of lamp chimney glass (1854–1940) and ceramic wall tile (unknown dates); maintenance and subsistence materials consisted of a fence staple, barbed wire fencing, and common clay flower pot fragments (all with unknown dates); the single arms-related item was a .38-caliber brass shell (1887–1934); and the unidentified item was a piece of iron/steel (unknown dates). The materials were spread across the site area with no artifact concentrations identified.

The historic artifact assemblage had an average date range of 1868–1939, and the mean date was 1903. The majority of the materials were architectural and domestics, which supports the known use of the site as a domestic farm and residence. An 1879 map showed no structures at the location, but a will from 1897 suggested a residence was present. The residence was no longer standing at some time between 1953 and 1979.

## Features

One shovel test exhibited a shallow sub-plow zone deposit that contained one ABM container glass fragment (see Figure 24). The shovel test was located to the immediate north of KY 1297. Aside from the single shovel test with a shallow sub-plow zone deposit, there was no evidence for the presence of intact features, midden, cultural deposits, or structural remains.

## Archival Research

Site 15Bn187 shared a deed chain with Site 15Bn186 until at least 1866. The property was part of the tract purchased by Nelson Tompkins in 1866 (BCDB 4:602). The tract that contained Site 15Bn187 was obtained prior to 1889 by Wesley and Fannie (nee Myers) Childress. Fannie Childress owned the property exclusively from 1897 through her death in 1913, when it was transferred to her nephew, Haiden T. Myers. The history of the property is detailed below.

Through an action of W. E. Jones, the administrator of the estate of Haiden T. Myers, deceased, the property containing Site 15Bn187, and other land, was transferred by Master Commissioner's sale for $1,500 to John Henry Hale on June 15, 1942 (DB 111:510). The title to the 4-ha (10-acre) tract was from four previous conveyances, which included the will of Fanny Childress (BCWB 6:256), William S. Smith (see Site 15Bn186) (BCDB 47:248), the Barren County Board of Education (BCDB 76:156), and L. W. Peterson (BCDB 72:334). The specific property containing Site 15Bn187 appears to have been associated with the will of Fanny Childress.

Fannie (nee Myers) Childress was the aunt of Haiden T. Myers. According to her will, she left her estate to her nephew, Haiden T. Myers, and the estate included her home where she was residing when the will was created on April 6, 1897 (BCWB 6:256). Fannie (nee Myers) Childress was born circa 1848–1853 and, when the 1870 census was recorded, she was residing in the home of her parents. Green Myers was listed as a 32-year-old farmer, and his household included his 30-year-old wife, Permelia, and their three children: 17-year-old Fannie; 16-year-old Bettie; and 9-year-old Mary. Also in the household was a young married couple: 22-year-old George Hazleup and his wife, 20-year-old Dougherty Hazleup (USBC 1870).

Fannie Myers married John Wesley Childress on June 5, 1871, in Barren County. John Wesley Childress was a son of Reese and Amanda (nee Watts) Childress, and a grandson of Nelson and Betty Tompkins. In the 1880 census for Barren County, Wesley Childress was listed as a 25-year-old laborer who was residing with his 28-year-old wife, Fannie. Also in the household was a family headed by 57-year-old William Allen. His family included his 19-year-old wife, Jane, three of his children from a previous marriage, and the 1-year-old son born from his union with Jane (USBC 1880).

Wesley Childress obtained the property containing Site 15Bn187 prior to 1889. An 1879 map showed no structures at the Site 15Bn187 location, indicating that the residence was not constructed until after 1879. On January 15, 1889, Wesley Childress transferred the .8-ha (2-acre) tract described as being on the northeast side of the Old Bowling Green Road, located 3.2 km (2.0 mi) west of Glasgow, and being part of

the land conveyed to Nelson Tompkins, to his wife, Fannie Childress, for love and affection (BCDB 36:617). It is unclear when Wesley Childress died and his place of burial is unknown. As noted previously, her will, dated April 6, 1897, left her estate to her nephew, Haiden T. Myers.

In the 1900 census, Fannie (nee Myers) Childress was the head of a household that included her nephew, 18-year-old Haiden Myers, and a 54-year-old boarder named William Barlow (USBC 1900). Haiden Myers was listed as her stepson, but other documentation indicates this was incorrect. Fannie Childress was a widow, indicating that her husband, Wesley Childress, had died between the census years of 1880 and 1900. When the 1910 census was recorded, Fannie (nee Myers) Childress was residing alone in a home near the household of Haiden T. Myers. Her age was unknown, and she was listed as having had one child, which was not living. She was listed as owning her home (USBC 1910). Fannie (nee Myers) Childress died on January 3, 1913, at the age of approximately 65 years old. Haiden T. Myers provided information for her death certificate.

Haiden T. Myers was left the estate of Fanny (nee Myers) Childress, per her will (BCWB 6:256). The will was dated April 6, 1897, but it is unclear when it was probated (circa 1913). Haiden T. and Ida Myers had previously owned the property containing Site 15Bn186, but they sold that property in 1916. It is possible that the family had been residing at Site 15Bn186, and then moved to the former residence of Fanny (nee Myers) Childress after it was transferred to Haiden and Ida Myers. Ida Myers died between the census years of 1930 and 1940, and Haiden Myers owned the property containing Site 15Bn187 until his death in 1942.

As mentioned previously, John Henry Hale purchased the land containing Site 15Bn187 through the Master Commissioner on June 15, 1942 (BCDB 111:510). In the 1940 census for Barren County, John Hale was listed as a 57-year-old public school janitor, and residing in his household was his 51-year-old wife, Kate, and their two children: 18-year-old son, Charles, and 16-year-old daughter, Bessie (USBC 1940). The family was listed as renting their home and they had lived at the same residence in 1935. The family may have moved to the residence at Site 15Bn187 after its purchase in 1942.

In summary, the property containing Site 15Bn187 was originally part of the tract purchased by African-American Nelson Tompkins in 1866. Prior to 1889, the portion of the tract that contained Site 15Bn187 was transferred to Wesley Childress. In 1889, Wesley Childress transferred the property to his wife, Fannie (nee Myers) Childress. Based on a historic map, the Childress family built the residence at the site after 1879 and, based on the will of Fannie Childress, the residence had been constructed by 1897. The Childress family probably lived at Site 15Bn187 until their deaths (prior to 1897 for Wesley Childress and in 1913 for Fannie Childress). The property was then transferred to Fannie (nee Myers) Childress' nephew, Haiden T. Myers. He owned the property until his death in 1942. A structure was shown at the Site

15Bn187 location on a 1953 map (see Figure 12), but was not depicted on the 1979 map (see Figure 2).

## Summary and NRHP Evaluation

Site 15Bn187 was a late nineteenth through twentieth century historic farmstead. A residence was constructed at the site between 1879 and 1897, but was no longer standing at some time between 1953 and 1979. The residence was probably occupied by the African-American Childress family through 1913, followed by occupation by the Myers family (related to the Childress family) until 1942. Although the site is associated with African Americans during the reconstruction period, it lacks integrity. No evidence of features, midden, or structural remains was identified, and although one shovel test contained cultural material in a sub-plow zone context, it was located to the immediate north of KY 1297 and there was little chance that additional intact, sub-plow zone deposits would be present. The portion of Site 15Bn187 that is within the project boundary is recommended as not eligible for the NRHP and no further work is recommended.

## Project Impacts

Site 15Bn187 was located along an undissected upland north of KY 1297. The portion of the site within the project boundaries lacks integrity and is recommended as not eligible for the NRHP. No further work is recommended.

# 15Bn188

**Component(s)**: Historic, twentieth century
**Site type(s)**: historic farm and residence
**Size**: 840 sq m (9,042 sq ft)
**Elevation**: 210 m (690 ft) AMSL
**Distance to nearest water**: 5 m (16 ft)
**Direction to nearest water**: west
**Type and extent of previous disturbance**: agricultural use; disturbance extent unknown
**Topography**: terrace
**Vegetation**: secondary growth (tall grass, weeds, saplings, vines, and mature deciduous trees)
**Ground surface visibility**: 0 percent
**Aspect**: flat
**Recommended NRHP status**: not eligible

## Site Description

Site 15Bn188 was a twentieth century farm and residence. The site was in a small clearing within a wooded area that consisted of secondary growth. Vegetation included tall grass, weeds, saplings, vines, and mature deciduous trees (Figure 25). The only disturbances identified consisted of possible previous agricultural plowing. The site was identified by the presence of historic artifacts in shovel tests, but the presence of the site was anticipated based on historic maps. Site boundaries were defined by the lack of cultural materials to the east and west, by the project boundary to the north, and by KY 1297 to the south. The site measured approximately 28 m (91 ft) north to south by 30 m (98 ft) east to west, covering 840 sq m (9,042 sq ft). The site may extend outside the project boundaries to the north (Figure 26).

## Investigation Methods

Field methods consisted of screened shovel testing on a 20 m (66 ft) grid across the terrace within the project boundaries. When cultural materials were identified, the shovel test interval was decreased to 10 m (33 ft) until at least two negative shovel tests were excavated in a row (east and west) or the project boundary or KY 1297 was reached (north and south, respectively). Six shovel tests were excavated within the site boundaries, three of which contained cultural materials. The fill from all shovel tests was screened and soil profiles were recorded for each of the positive shovel tests.

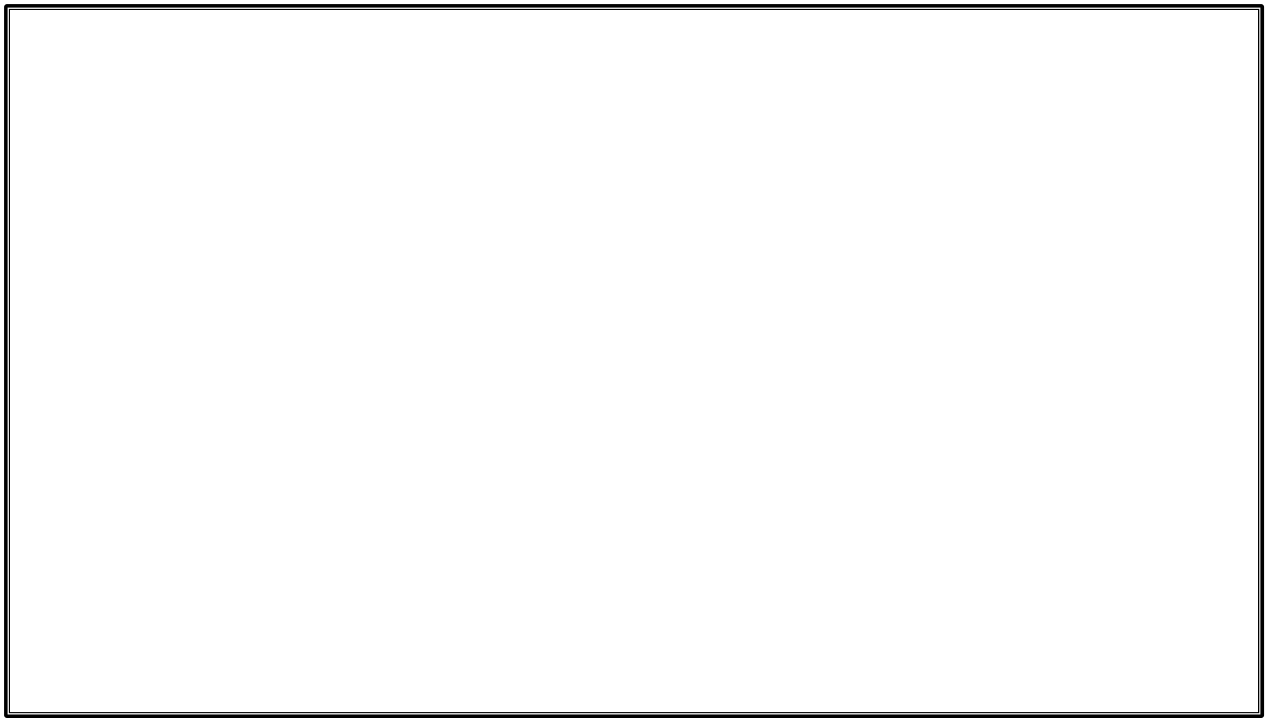

Figure 25. Overview of Site 15Bn188, looking north.

## Depositional Context

Talbott series soils were mapped for the site. Typical soil profiles at Site 15Bn188 consisted of a very dark grayish brown (10YR 3/2) silt loam to between 5 and 22 cm (2 and 9 in) bgs. This was followed by a subsoil of brown (10YR 5/3) silty clay loam (Figure 27).

## Artifacts

Artifacts were recovered only from the Ap horizon in shovel tests (Table 10). Architectural materials from Site 15Bn188 consisted of wire nails (post–1880) and tempered glass (unknown dates). Domestic materials consisted of ceramics, container glass, and container closures. Ceramics included undecorated whiteware (post–1830), chromatic glaze whiteware (1920–1970), and stoneware (1880–1925). A whiteware cup was identified in the assemblage. Container glass was ABM (post–1903) and undiagnostic (post–1860), and identified vessels consisted of a beer bottle and a meat jar. Container closures consisted of a crown cap with a plastic liner (post–1955) and a liner for a Mason jar (1869–1950). The unidentified item was a piece of amorphous plastic (post–1930).

The average date range of the historic artifacts recovered from this site was 1896–1959, and the mean was 1927. The assemblage represented primarily a light scatter of mostly domestic and architectural artifacts, and the presence of these items is consistent with a domestic farm and residence. Based on the artifact types and manufacture dates of the items, this site appears to date to the early decades of the twentieth century, likely with a house being constructed there by at least the 1910s or 1920s. A house was shown at the location on the 1953 and 1979 maps (see Figures 2 and 12). A mobile home appeared to have been placed on the site by circa 1960, and it may have replaced an earlier structure.

## Features

Three standing structures were identified at Site 15Bn188, and these consisted of a mobile home and two small outbuildings (Figures 28 and 29; see Figure 25). The mobile home appeared to have been of an early variety from circa 1960 and it measured approximately 11 m (36 ft) in length

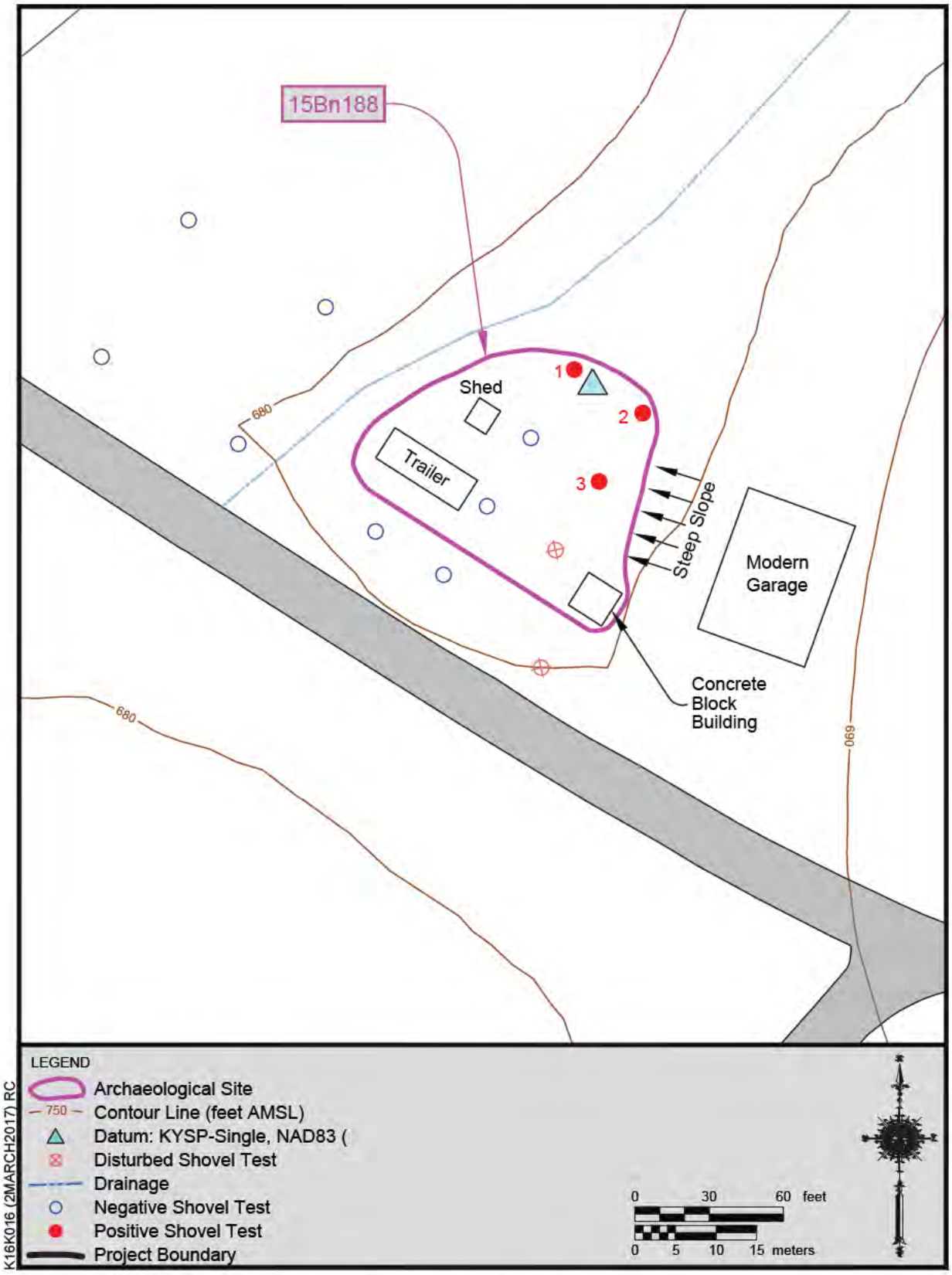


**Figure 26. Schematic plan map of Site 15Bn188.**

Table 10. Historic Artifacts from Site 15Bn188.

| Unit | Zone | Depth | Group | Class/Type | N = |
|---|---|---|---|---|---|
| STP 1 | I | 0–22 cm bgs | Architecture | Nail | 1 |
| STP 1 | I | 0–22 cm bgs | Domestic | Ceramic, ABM, container closures | 5 |
| STP 1 | I | 0–22 cm bgs | Unidentified | Plastic | 1 |
| STP 2 | I | 0–10 cm bgs | Architecture | Tempered glass, nails | 3 |
| STP 2 | I | 0–10 cm bgs | Domestic | Ceramic, undiag container glass | 2 |
| STP 3 | I | 0–5 cm bgs | Domestic | Ceramics, ABM | 4 |
| | | | | Total | 16 |

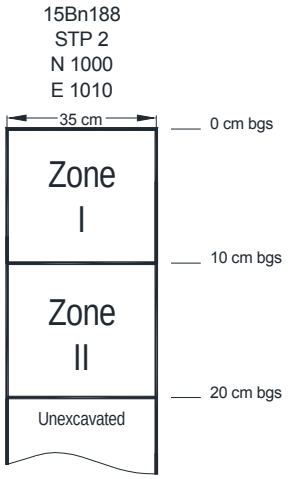


Figure 27. Soil profile for Site 15Bn188.

and 4 m (13 ft) in width. One outbuilding was composed of mortared concrete blocks and the rear of the structure had been built into the adjacent hillside. It had a concrete block slab roof and it measured approximately 5.0-x-5.0 m (16.4-x-16.4 ft). The other outbuilding was composed of weatherboards attached to a wood frame with wire nails, and it had a shingle roof. A modern travel-trailer had also been parked on the property (see Figure 25). There was no evidence for the presence of intact, sub-surface features, midden, or cultural deposits.

## Archival Research

The earliest deed identified for Site 15Bn188 dated to November 25, 1914. On that day, the property containing the site was sold at public auction for $350 to Mary Bell Perry, from Alanson Trigg as administrator for C. C. Scrivener (deceased) (BCDB 65:393). Premises were mentioned in the deed, indicating that a structure was present on the property by 1914.

Christopher C. Scrivener (also spelled Scrivener and Scribner, among others) was born in 1856, possibly to George and Liza Scrivener. He may have been born into slavery, being owned by James Scrivener of Barren County, who owned one male slave aged 4 years old in 1860. In the 1870 census for Barren County, George Scrivener was listed as a 50-year-old, African-American farmer who owned $500 in real estate and $200 in personal property. Residing in his household was his 49-year-old wife, Liza (Eliza), and five of their children: 26-year-old daughter, Selby; 19-year-old daughter, Mansissa; 17-year-old son, George; 15-year-old daughter, Mary; and 9-year-old son, Thornton. Chris Scrivener was listed as the final occupant of the household, and he was listed as being 13 years old (USBC 1870). Because he was listed last and out of order by age from the other children, it is possible that he was not the child of George and Liza Scrivener.

In the 1880 census for Barren County, George Scrivener was listed as a 60-year-old farmer, and residing with him was his 59-year-old wife, Eliza, and four of their children: 41-year-old son, Alfred; 21-year-old son, Christopher; 12-year-old son, Ellis; and 6-year-old daughter, Linca. Also in the household was a 70-year-old servant named Jackson Merrell (USBC 1880).

Christopher C. Scrivener married Lena Kinchlowe (also spelled Kincheloe and Stinchlow, among others) on December 25, 1897, in Barren County, but she died shortly after, and it is unclear if they had children (her burial location is unknown). In the 1900 census for Barren County, Christopher C. Scrivener was listed as a 43-year-old African-American widower and farmer who owned his farm. Residing in his household was a 39-year-old woman named America Stinchlow (Kincheloe), and she was listed as Scrivener's mother-in-law (USBC 1900). America Stinchlow was listed as a

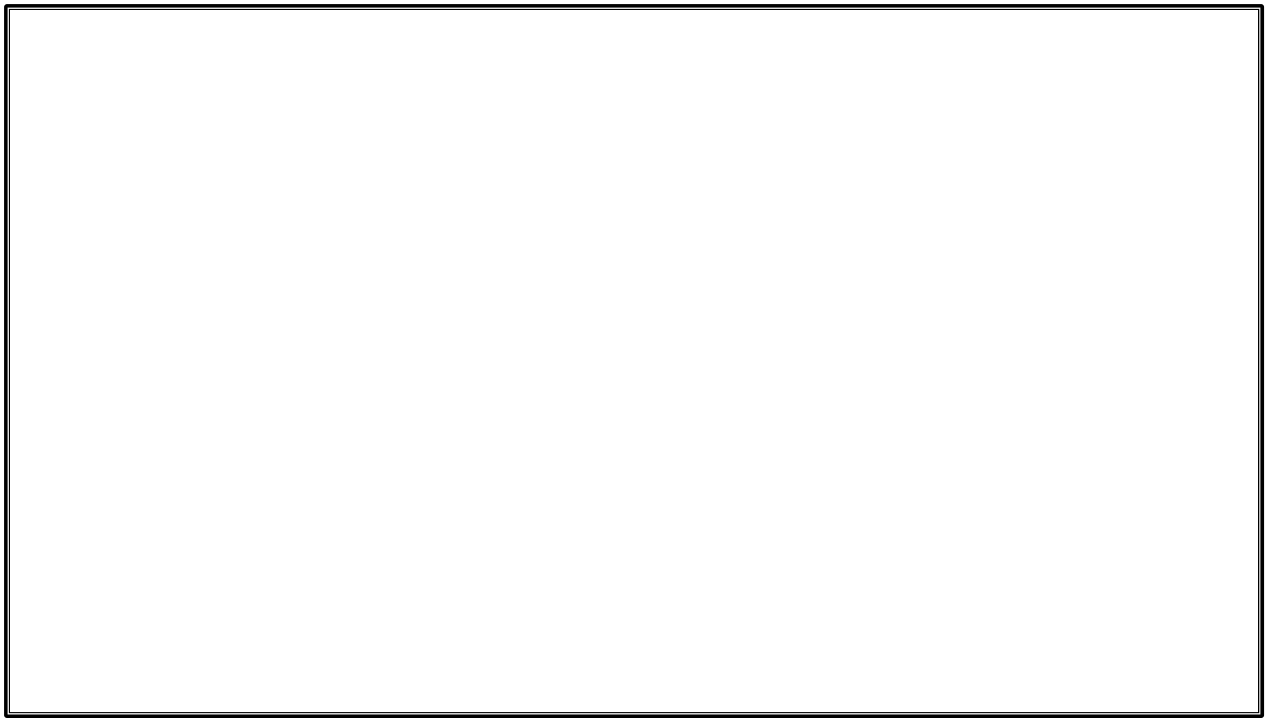

Figure 28. Concrete block outbuilding, looking east.

Figure 29. Frame outbuilding (right) and mobile home (left), looking west.

widow who had given birth to four children, only one of which was living. The household was listed just after the household of Fannie Childress and Haiden Myers, suggesting they were residing on adjoining properties.

In the 1910 census for Barren County, C. C. Scrivener was listed as residing along Lower Bowling Green Road. He was a widowed 53-year-old African-American log tracer who owned his farm (USBC 1910). No others were in his household. C. C. Scrivener died on July 7, 1913. He and his nephew, Henry Everett, had been in an argument for a long period of time, and Everett shot Scrivener three times with a shotgun. The third shot hit Scrivener's chest, which killed him instantly.

Following his death in 1913, the property was sold at auction to Mary Bell Perry in 1914. No information about her was found and she may never have resided at Site 15Bn188. On February 1, 1919, Mary Bell Perry (a single woman residing in Cook County, Illinois), transferred the property to Mary Wilson and Pearl Wilson (siblings) for $800 (BCDB 72:80).

Mary and Pearl Wilson were daughters of James and Sallie Wilson. In the 1900 census for Barren County, James Wilson was listed as a 56-year-old, African-American farmer who had been married for 25 years. Residing in his household was his wife (unknown age), Sallie, who was listed as having had seven children, all of whom were living in their household: 30-year-old son, Haden; 28-year-old son, Henry; 21-year-old son, William; 16-year-old daughter, Mary; 12-year-old daughter, Annie; 11-year-old daughter, Pearl; 5-year-old daughter, Sallie; and 1-year-old son, Clarence (USBC 1900).

Mary and Pearl Wilson were still residing in the home of their parents when the 1910 census was recorded. James Wilson was listed as a 61-year-old farmer who had been married for 36 years. Residing with him was his 58-year-old wife, Sallie, who was listed as having had nine children, six of which were living, along with four of their children: 28-year-old daughter, Mary; 21-year-old daughter, Pearl; 16-year-old daughter, Tollie; and 16-year-old son, Clarence. Mary and Pearl Wilson were both listed as teachers (USBC 1910).

Although Mary and Pearl Wilson owned the property containing Site 15Bn188 when the 1920 census was recorded, they were still residing with their parents. James Wilson was listed as a 76-year-old tobacco farmer, and residing with him was his 64-year-old wife, Sallie, and two of their daughters: 37-year-old Mary, and 30-year-old Pearl. Mary and Pearl Wilson were listed as rural school teachers (USBC 1920).

James Wilson died between the census years of 1920 and 1930, and it appears that Mary Wilson married a man named Henry Reed during that same period. In the 1930 census for Barren County, Sallie Wilson was listed as a 75-year-old head of the household and residing with her was her 40-year-old single daughter, Pearl Wilson, who was listed as a teacher (USBC 1930). Henry and Mary (nee Wilson) Reed were not found in the 1930 census for Barren County.

By the time the 1940 census was recorded, Pearl Wilson was residing on Dog Alley in Glasgow (her mother died in 1939). She was listed as the 50-year-old head of the household, and was a cook in a private home. Five boarders were residing in her home. Henry and Mary (nee Wilson) Reed were not found in the 1940 census for Barren County. Based on census records, it does not appear that the Wilson family ever resided on the property containing Site 15Bn188.

In summary, the earliest deed identified for the property containing Site 15Bn188 dated to 1914, and it appears that Christopher C. Scrivener owned the land possibly by the late nineteenth century. C. C. Scrivener may have established a residence on the property, but the residence may not have been occupied following Scrivener's death in 1913. It is possible that tenants or others occupied the residence prior to the placement of a mobile home on the property, which may have occurred circa 1960. A 1953 map showed a structure at the site, but this could have been the original residence and not the mobile home that is currently located on the property. It is unclear when the mobile home was abandoned.

## Summary and NRHP Evaluation

Site 15Bn188 was a twentieth-century historic farm and residence. Christopher C. Scrivener may have built a residence on the property by the late nineteenth century, but it may have been abandoned after his death in 1913. A mobile home was established on the property by circa 1960. It is unclear if the property was occupied continually throughout the twentieth century. Although the mobile home and two outbuildings were extant at the site, there was no evidence for the presence of intact subsurface features, midden, cultural deposits, or structural remains. The portion of Site 15Bn188 that is within the project boundary is recommended as not eligible for the NRHP and no further work is recommended

## Project Impacts

The portion of the site within the project boundaries lacks integrity and is recommended as not eligible for the NRHP. No further work is recommended.

# Previously Recorded Site 15Bn121

Site 15Bn121 was located within the current project area, but it was in a previously surveyed area (see Figures 2 and 3). The site was recorded by Arrow Enterprises, Inc., in 2002 during an archaeological survey associated with proposed athletic fields (Schock 2002). Materials recovered from the site suggested it was a historic farmstead that dated to the twentieth century, with most of the materials dating to the last half of the twentieth century. Schock (2002) recommended the site as not eligible for the NRHP, and no further work was recommended. During the current survey, the site location was visited and subjected to visual inspection. The area was covered in short grass and had been leveled for construction of athletic fields (Figure 30).

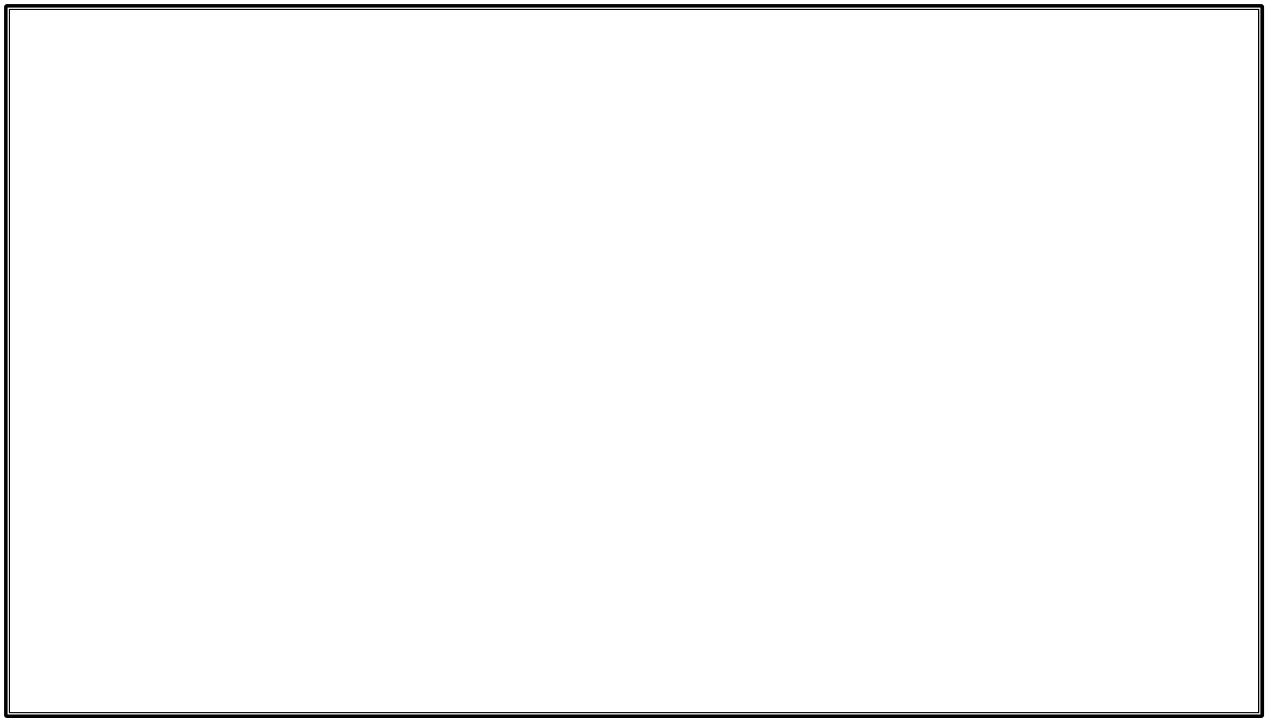

Figure 30. Site 15Bn121 location, looking southeast.

# VII. CONCLUSIONS, RECOMMENDATIONS, AND TREATMENT

Between December 5 and 7, 2016, and on January 17, 2017, CRA personnel conducted an archaeological survey of proposed major widening of KY 1297 (Cleveland Avenue) from Donnelly Drive to U.S. 31E (S.L. Rogers Wells Boulevard) and widening of Donnelly Drive in Glasgow, Barren County, Kentucky (Item No. 3-8821.00). The project area totaled 9.6 ha (23.6 acres), the majority of which were investigated through pedestrian survey supplemented with screened shovel testing and bucket augering. One small area in the western portion of the project area had been surveyed previously and was subjected only to visual inspection to confirm disturbance.

The current survey resulted in the identification of three archaeological sites (15Bn186–15Bn188). Site 15Bn186 was a multicomponent historic farmstead and prehistoric open habitation without mounds, and Sites 15Bn187 and 15Bn188 were historic farmsteads. The prehistoric component of Site 15Bn186 consisted of two undiagnostic lithic flakes, and there was no evidence for the presence of intact prehistoric deposits, midden, or features. The prehistoric component of Site 15Bn186 is recommended as not eligible for the NRHP. The historic component of Site 15Bn186 dated from the nineteenth through twentieth centuries, and it may have begun as a residential area for slaves, followed by purchase of the land by a former slave in 1866. The property appeared to have been occupied by at least one extended African-American family until the mid-twentieth century. Site 15Bn186 exhibited sub-plow zone cultural deposits in three areas, and a possible foundation remnant was identified. The NRHP eligibility of Site 15Bn186 could not be assessed and further archaeological work is recommended. Site 15Bn187 was similar to Site 15Bn186 in that the land was purchased by a former slave in 1866, and by the late nineteenth century it contained a residence that was occupied by African-American families until at least the mid-twentieth century. However, Site 15Bn187 lacked integrity and had little potential to contain intact, sub-plow zone features, midden, or cultural deposits. No

further work is recommended for Site 15Bn187. Site 15Bn188 was a historic farmstead that was occupied throughout the twentieth century. Site 15Bn188 lacked integrity and had little potential to contain intact, sub-plow zone features, midden, or cultural deposits. No further work is recommended for Site 15Bn188.

Note that a principal investigator or field investigator cannot grant clearance to a project. Although the decision to grant or withhold clearance is based, at least in part, on the recommendations made by the field investigator, clearance may be obtained only through an administrative decision made by the Federal Highway Administration and KYTC, Division of Environmental Analysis, in consultation with the State Historic Preservation Office (the Kentucky Heritage Council [KHC]).

If any previously unrecorded archaeological materials are encountered during construction activities, the KHC should be notified immediately at (502) 564-6662. If human skeletal material is discovered, construction activities should cease, and the KHC, the local coroner, and the local law enforcement agency must be notified, as described in KRS 72.020.

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# Appendix A. Historic Materials Recovered.

Table A-1. Historic Materials Inventory.

| Bag | Site | Unit # | Zone | Dep | Cat # | Group* | Class | Type | Attr 1a Def | Attr 1b-4a Def | Burned | Count | Wt (g) | Vessel Part | Vessel Type | Min Date | Max Date | References |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 15Bn186 | STP 1 | I | 0–23 cm bgs | 2 | A | Nails | Cut Nail: late machine headed | Fragment | | FALSE | 1 | | | | 1830 | 1890 | Nelson 1968 |
| 01 | 15Bn186 | STP 1 | I | 0–23 cm bgs | 1 | D | Container Glass | Undiagnostic container fragment | | Opaque white glass | FALSE | 1 | | Body | | 1870 | 1960 | Lindsey 2015 |
| 02 | 15Bn186 | STP 2 | I | 0–25 cm bgs | 3 | D | Ceramics | Coarse Redware | Slipped exterior (brown / black) | Unglazed interior | FALSE | 3 | | Body | | 1780 | 1860 | Ketchum 1971:4–34; O'Malley 1997 |
| 02 | 15Bn186 | STP 2 | I | 0–25 cm bgs | 4 | D | Container Glass | Automatic Bottle Machine | | Amethyst glass | FALSE | 1 | | Body | 0 | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 02 | 15Bn186 | STP 2 | I | 0–25 cm bgs | 4 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 1 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 03 | 15Bn186 | STP 3 | I | 0–25 cm bgs | 5 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 1 | | Body | Miscellaneous bottle | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 04 | 15Bn186 | STP 4 | I | 0–23 cm bgs | 6 | A | Nails | Wire Nail | 7d | Pulled | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 04 | 15Bn186 | STP 4 | I | 0–23 cm bgs | 6 | M | General Hardware | Staple | Fence Staple | | FALSE | 1 | | | | | | |
| 05 | 15Bn186 | STP 5 | I | 0–26 cm bgs | 10 | A | Construction Material | Brick | Handmade brick: vitrified | | FALSE | 1 | 15.9 | | | 1800 | 1880 | Walters 1982:128–130 |
| 05 | 15Bn186 | STP 5 | I | 0–26 cm bgs | 8 | D | Ceramics | Whiteware | Undecorated | | FALSE | 1 | | Rim | | 1830 | | Majewski and O'Brien 1987:119 |
| 05 | 15Bn186 | STP 5 | I | 0–26 cm bgs | 9 | D | Container Glass | Blown in Mold | | Aqua glass | FALSE | 1 | | Body | Canning jar | 1850 | 1920 | Faulkner 2000; Lindsey 2015; Miller & Sullivan 1984; Jones & Sullivan 1985 |
| 07 | 15Bn186 | STP 7 | I | 0–27 cm bgs | 13 | A | Flat Glass | Window Glass | | | FALSE | 1 | | | | 1831 | 1831 | Moir 1987 |
| 07 | 15Bn186 | STP 7 | I | 0–27 cm bgs | 13 | A | Flat Glass | Window Glass | | | FALSE | 1 | | | | 1908 | 1908 | Moir 1987 |
| 07 | 15Bn186 | STP 7 | I | 0–27 cm bgs | 11 | D | Ceramics | Whiteware | Plain | | FALSE | 1 | | Rim | Saucer | 1860 | 1930 | Majewski and O'Brien 1987:119 |
| 07 | 15Bn186 | STP 7 | I | 0–27 cm bgs | 11 | D | Ceramics | Whiteware | Undecorated | | FALSE | 1 | | Handle | Cup | 1830 | | Majewski and O'Brien 1987:119 |
| 07 | 15Bn186 | STP 7 | I | 0–27 cm bgs | 12 | D | Container Glass | Blown in Mold | | Clear glass | FALSE | 1 | | Body | | 1864 | 1920 | Lindsey 2015; Miller & Sullivan 1984; Jones & Sullivan 1985 |
| 07 | 15Bn186 | STP 7 | I | 0–27 cm bgs | 12 | D | Container Glass | Blown in Mold | | Aqua glass | FALSE | 1 | | Body | | 1800 | 1920 | Faulkner 2000 |
| 07 | 15Bn186 | STP 7 | I | 0–27 cm bgs | 14 | F | Lighting | Lamp Chimney | Glass: clear | | FALSE | 1 | | | | 1854 | 1940 | Faulkner 2008; Pullin 1986:356 |
| 08 | 15Bn186 | STP 7 | II | 27–53 cm bgs | 15 | D | Ceramics | Whiteware | Plain | | FALSE | 1 | | Base | Plate | 1860 | 1930 | Majewski and O'Brien 1987:119 |
| 09 | 15Bn186 | STP 8 | I | 0–26 cm bgs | 16 | M | General Hardware | Fencing | Indeterminate | | FALSE | 2 | | | | | | |
| 09 | 15Bn186 | STP 8 | I | 0–26 cm bgs | 17 | U | Metal | Tin | | Flat: thin | FALSE | 1 | | | | | | |
| 10 | 15Bn186 | STP 9 | I | 0–18 cm bgs | 18 | A | Nails | Indeterminate | Fragment | | FALSE | 1 | | | | | | |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 21 | A | Flat Glass | Window Glass | | | FALSE | 1 | | | | 1915 | 1915 | Moir 1987 |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 22 | A | Nails | Wire Nail | 6d | Unaltered | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 20 | D | Container Glass | Automatic Bottle Machine | | Clear glass, external thread | FALSE | 1 | | Rim | Miscellaneous jar | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 20 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 1 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 20 | D | Container Glass | Automatic Bottle Machine | | Amber glass | FALSE | 1 | | Body | Beer bottle | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 20 | D | Container Glass | Automatic Bottle Machine | | Green glass | FALSE | 2 | | Body | Soda / Mineral water | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 19 | F | Decorative Elements | Vase | | Ceramic: earthenware | FALSE | 1 | | | | 1900 | | estimated |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 23 | F | Appliances | Air circulation | Fan switch | | FALSE | 1 | | | | 1895 | 1927 | McAuley 2017 |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 24 | U | Plastic | Modern | | Item / part | FALSE | 1 | | | | 1930 | | Meikle 1995 |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 24 | U | Plastic | Modern | | Item / part | FALSE | 1 | | | | 1930 | | Meikle 1995 |
| 11 | 15Bn186 | STP 10 | I | 0–21 cm bgs | 24 | U | Plastic | Cellophane / Film | | Item / part | FALSE | 1 | | | | 1927 | | Bellis 2006 |
| 12 | 15Bn186 | STP 10 | II | 21–39 cm bgs | 27 | A | Flat Glass | Plate Glass | | | FALSE | 1 | | | | 1917 | | Roenke 1978 |
| 12 | 15Bn186 | STP 10 | II | 21–39 cm bgs | 28 | A | Nails | Wire Nail | 8d | Pulled | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 12 | 15Bn186 | STP 10 | II | 21–39 cm bgs | 26 | D | Ceramics | Whiteware | Chromatic glaze (monochrome) | Yellow | FALSE | 1 | | Body | Plate | 1920 | 1970 | Blaszczyk 2000:121; Faulkner 2000 |
| 12 | 15Bn186 | STP 10 | II | 21–39 cm bgs | 25 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 2 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 13 | 15Bn186 | STP 11 | I | 0–16 cm bgs | 30 | A | Construction Material | Other | Construction material | | FALSE | 1 | 8.5 | | | 1910 | 1960 | Wells 2007:31 |
| 13 | 15Bn186 | STP 11 | I | 0–16 cm bgs | 32 | A | Nails | Wire Nail | Fragment | | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 13 | 15Bn186 | STP 11 | I | 0–16 cm bgs | 29 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 2 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 13 | 15Bn186 | STP 11 | I | 0–16 cm bgs | 29 | D | Container Glass | Automatic Bottle Machine | | Clear glass, indeterminate lip | FALSE | 1 | | Rim | Miscellaneous jar | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 13 | 15Bn186 | STP 11 | I | 0–16 cm bgs | 33 | M | Cans | Paint Can | | | FALSE | 1 | | | | 1906 | | Berge 1980:261–262 |
| 13 | 15Bn186 | STP 11 | I | 0–16 cm bgs | 31 | T | Motorized Vehicle | Tempered glass | | | FALSE | 2 | | | | | | |
| 13 | 15Bn186 | STP 11 | I | 0–16 cm bgs | 34 | U | Metal | Iron / Steel | | Flat: thin | FALSE | 5 | | | | | | |
| 13 | 15Bn186 | STP 11 | I | 0–16 cm bgs | 35 | U | Plastic | Modern | | Item / part | FALSE | 1 | | | | 1930 | | Meikle 1995 |
| 14 | 15Bn186 | STP 12 | I | 0–12 cm bgs | 37 | A | Nails | Wire Nail | Fragment | | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 14 | 15Bn186 | STP 12 | I | 0–12 cm bgs | 36 | F | Lighting | Light Bulb | Manufactured | Frosted Glass (mfg only) | FALSE | 1 | | | | 1925 | | Bellis 2006 |
| 14 | 15Bn186 | STP 12 | I | 0–12 cm bgs | 38 | U | Multiple Materials | Item / Part | | | FALSE | 1 | | | | | | |
| 14 | 15Bn186 | STP 12 | I | 0–12 cm bgs | 39 | U | Plastic | Modern | | Item / part | FALSE | 2 | | | | 1930 | | Meikle 1995 |

| Bag | Site | Unit # | Zone | Dep | Cat # | Group* | Class | Type | Attr 1a Def | Attr 1b-4a Def | Burned | Count | Wt (g) | Vessel Part | Vessel Type | Min Date | Max Date | References |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | 15Bn186 | STP 13 | I | 0–10 cm bgs | 42 | A | Flat Glass | Window Glass | | | FALSE | 1 | | | | 1896 | 1896 | Moir 1987 |
| 15 | 15Bn186 | STP 13 | I | 0–10 cm bgs | 40 | D | Container Glass | Automatic Bottle Machine | Cup bottom mold | Clear glass | FALSE | 1 | | Base | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 15 | 15Bn186 | STP 13 | I | 0–10 cm bgs | 41 | D | Glass Tableware | Press mold: unleaded | | Clear unleaded glass | FALSE | 1 | | Stopper | Decanter | 1903 | | Jones 2000:149; Miller & Sullivan 1984 |
| 15 | 15Bn186 | STP 13 | I | 0–10 cm bgs | 43 | T | Motorized Vehicle | Tempered glass | | | FALSE | 1 | | | | | | |
| 15 | 15Bn186 | STP 13 | I | 0–10 cm bgs | 44 | U | Plastic | Modern | | Item / part | FALSE | 1 | | | | 1930 | | Meikle 1995 |
| 15 | 15Bn186 | STP 13 | I | 0–10 cm bgs | 44 | U | Plastic | Modern | | Amorphous | TRUE | 1 | | | | 1930 | | Meikle 1995 |
| 16 | 15Bn186 | STP 13 | II | 10–20 cm bgs | 47 | A | Construction Material | Brick | Machine made brick: non–vitrified | | FALSE | 1 | 35.7 | | | 1880 | | Holley 2009:97 |
| 16 | 15Bn186 | STP 13 | II | 10–20 cm bgs | 48 | A | Construction Material | Other | Construction material | | FALSE | 3 | 273.8 | | | 1910 | 1950 | Wells 2007:31 |
| 16 | 15Bn186 | STP 13 | II | 10–20 cm bgs | 45 | A | Flat Glass | Window Glass | | | FALSE | 2 | | | | 1908 | 1908 | Moir 1987 |
| 16 | 15Bn186 | STP 13 | II | 10–20 cm bgs | 46 | U | Metal | Tin | | Flat: thin | FALSE | 1 | | | | | | |
| 17 | 15Bn186 | STP 13 | III | 20–25 cm bgs | 49 | F | Floors | Linoleum | Red | | FALSE | 1 | | | | 1863 | 1970 | Powell 2003:9 |
| 17 | 15Bn186 | STP 13 | III | 20–25 cm bgs | 50 | M | Cans | Paint Can | | | FALSE | 1 | | | | 1906 | | Berge 1980:261–262 |
| 17 | 15Bn186 | STP 13 | III | 20–25 cm bgs | 51 | U | Metal | Iron / Steel | | Flat: thin | FALSE | 2 | | | | | | |
| 18 | 15Bn186 | STP 14 | I | 0–11 cm bgs | 53 | A | Construction Material | Plaster | Fragment | | FALSE | 1 | 82.1 | | | | | |
| 18 | 15Bn186 | STP 14 | I | 0–11 cm bgs | 52 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 2 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 18 | 15Bn186 | STP 14 | I | 0–11 cm bgs | 52 | D | Container Glass | Automatic Bottle Machine | | Green glass | FALSE | 1 | | | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 18 | 15Bn186 | STP 14 | I | 0–11 cm bgs | 52 | D | Container Glass | Automatic Bottle Machine | | Amber glass | FALSE | 1 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 18 | 15Bn186 | STP 14 | I | 0–11 cm bgs | 54 | U | Plastic | Modern | | Item / part | FALSE | 2 | | | | 1930 | | Meikle 1995 |
| 19 | 15Bn186 | STP 15 | I | 0–26 cm bgs | 55 | D | Ceramics | Unrefined earthenware | Chromatic glaze (monochrome) | Pink | FALSE | 1 | | Rim | Mixing bowl | 1920 | 1970 | Blaszczyk 2000:121; Faulkner 2000 |
| 20 | 15Bn187 | STP 1 | I | 0–23 cm bgs | 3 | A | Nails | Indeterminate | Fragment | | FALSE | 1 | | | | | | |
| 20 | 15Bn187 | STP 1 | I | 0–23 cm bgs | 1 | D | Container Glass | Blown in Mold | | Aqua glass | FALSE | 3 | | Body | Canning jar | 1850 | 1920 | Faulkner 2000; Toulouse 1977 |
| 20 | 15Bn187 | STP 1 | I | 0–23 cm bgs | 2 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 2 | | Body with base | Miscellaneous jar | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 20 | 15Bn187 | STP 1 | I | 0–23 cm bgs | 4 | M | General Hardware | Fencing | Barbed | | FALSE | 1 | | | | 1874 | | Turner 1971 |
| 21 | 15Bn187 | STP 2 | I | 0–20 cm bgs | 5 | D | Container Glass | Undiagnostic container fragment | | Clear | TRUE | 1 | | Body | | 1864 | | Lindsey 2015 |
| 22 | 15Bn187 | STP 3 | I | 0–20 cm bgs | 6 | D | Ceramics | Ironstone | Undecorated | | FALSE | 1 | | Body | | 1830 | | Majewski and O'Brien 1987:122 |
| 22 | 15Bn187 | STP 3 | I | 0–20 cm bgs | 7 | D | Container Glass | Automatic Bottle Machine | | Amber glass | FALSE | 1 | | Body | Beer bottle | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 23 | 15Bn187 | STP 4 | I | 0–23 cm bgs | 10 | A | Nails | Wire Nail | 9d | Pulled | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 23 | 15Bn187 | STP 4 | I | 0–23 cm bgs | 10 | A | Nails | Wire Nail | Fragment | | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 23 | 15Bn187 | STP 4 | I | 0–23 cm bgs | 8 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 2 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 23 | 15Bn187 | STP 4 | I | 0–23 cm bgs | 9 | F | Lighting | Lamp Chimney | Glass: clear | | FALSE | 1 | | | | 1854 | 1940 | Faulkner 2008; Pullin 1986:356 |
| 24 | 15Bn187 | STP 5 | I | 0–28 cm bgs | 11 | A | Flat Glass | Window Glass | | | FALSE | 1 | | | | 1864 | 1864 | Moir 1987 |
| 24 | 15Bn187 | STP 5 | I | 0–28 cm bgs | 12 | A | Nails | Wire Nail | Fragment | | FALSE | 2 | | | | 1880 | | Nelson 1968 |
| 24 | 15Bn187 | STP 5 | I | 0–28 cm bgs | 13 | A | Nails | Cut Nail: unspecified | Fragment | | FALSE | 2 | | | | 1800 | 1890 | Nelson 1968 |
| 24 | 15Bn187 | STP 5 | I | 0–28 cm bgs | 15 | F | Walls | Ceramic tile | | sage green | FALSE | 1 | | | | | | |
| 24 | 15Bn187 | STP 5 | I | 0–28 cm bgs | 14 | U | Metal | Iron / Steel | | Flat: thick | FALSE | 1 | | | | | | |
| 25 | 15Bn187 | STP 6 | I | 0–25 cm bgs | 17 | A | Flat Glass | Window Glass | | | FALSE | 1 | | | | 1857 | 1857 | Moir 1987 |
| 25 | 15Bn187 | STP 6 | I | 0–25 cm bgs | 18 | A | Nails | Wire Nail | Fragment | | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 25 | 15Bn187 | STP 6 | I | 0–25 cm bgs | 16 | D | Container Glass | Blown in Mold | | Amethyst glass | FALSE | 3 | | Body | Miscellaneous bottle | 1870 | 1920 | Lockhart 2006 |
| 26 | 15Bn187 | STP 7 | I | 0–30 cm bgs | 21 | D | Container Closures | Home Canning Jars | Liner for Mason zinc: flat | | FALSE | 1 | | Rim | | 1869 | 1950 | Toulouse 1969a:350, 1977:91, 96 |
| 26 | 15Bn187 | STP 7 | I | 0–30 cm bgs | 19 | D | Container Glass | Blown in Mold | | Clear glass | FALSE | 1 | | Body | Miscellaneous bottle | 1864 | 1920 | Lindsey 2015; Miller & Sullivan 1984; Jones & Sullivan 1985 |
| 26 | 15Bn187 | STP 7 | I | 0–30 cm bgs | 20 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 2 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 27 | 15Bn187 | STP 8 | I | 0–27 cm bgs | 23 | A | Flat Glass | Window Glass | | | FALSE | 1 | | | | 1908 | 1908 | Moir 1987 |
| 27 | 15Bn187 | STP 8 | I | 0–27 cm bgs | 24 | A | Nails | Wire Nail | 8d | Pulled | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 27 | 15Bn187 | STP 8 | I | 0–27 cm bgs | 22 | D | Ceramics | Whiteware | Plain | | FALSE | 1 | | Rim | Plate | 1860 | 1930 | Faulkner 2000 |
| 27 | 15Bn187 | STP 8 | I | 0–27 cm bgs | 22 | D | Ceramics | Whiteware | Undecorated | | FALSE | 1 | | Body | | 1830 | | Majewski and O'Brien 1987:119 |
| 27 | 15Bn187 | STP 8 | I | 0–27 cm bgs | 25 | M | General Hardware | Staple | Construction Staple | | FALSE | 1 | | | | | | |
| 28 | 15Bn187 | STP 9 | I | 0–26 cm bgs | 29 | A | Nails | Wire Nail | Fragment | | FALSE | 2 | | | | 1880 | | Nelson 1968 |
| 28 | 15Bn187 | STP 9 | I | 0–26 cm bgs | 30 | A | Nails | Cut Nail: late machine headed | Fragment | | FALSE | 2 | | | | 1830 | 1890 | Nelson 1968 |
| 28 | 15Bn187 | STP 9 | I | 0–26 cm bgs | 30 | A | Nails | Cut Nail: late machine headed | 5d | Unaltered | FALSE | 1 | | | | 1830 | 1890 | Nelson 1968 |
| 28 | 15Bn187 | STP 9 | I | 0–26 cm bgs | 30 | A | Nails | Cut Nail: late machine headed | 8d | Unaltered | FALSE | 1 | | | | 1830 | 1890 | Nelson 1968 |
| 28 | 15Bn187 | STP 9 | I | 0–26 cm bgs | 26 | D | Ceramics | Whiteware | Undecorated | | FALSE | 1 | | Body | | 1830 | | Majewski and O'Brien 1987:119 |
| 28 | 15Bn187 | STP 9 | I | 0–26 cm bgs | 27 | D | Container Glass | Automatic Bottle Machine | | Clear glass, embossed | FALSE | 1 | | Body | Soda / Mineral water | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 28 | 15Bn187 | STP 9 | I | 0–26 cm bgs | 28 | M | Farming and Gardening | Common Clay Flower Pot | | | FALSE | 3 | | | | | | |
| 28 | 15Bn187 | STP 9 | I | 0–26 cm bgs | 31 | R | Projectiles | Centerfire Cartridge: handgun | .38 caliber, 9.6 mm diameter | Brass shell | FALSE | 1 | | | | 1887 | 1934 | Steinhauer 2017 |
| 29 | 15Bn187 | STP 10 | I | 0–26 cm bgs | 32 | D | Ceramics | Whiteware | Plain | | FALSE | 1 | | Base | Plate | 1860 | 1930 | Faulkner 2000 |
| 30 | 15Bn187 | STP 11 | I | 0–32 cm bgs | 35 | A | Flat Glass | Window Glass | | | TRUE | 1 | | | | | | |
| 30 | 15Bn187 | STP 11 | I | 0–32 cm bgs | 37 | A | Nails | Indeterminate | Fragment | | FALSE | 14 | | | | | | |
| 30 | 15Bn187 | STP 11 | I | 0–32 cm bgs | 33 | D | Ceramics | Whiteware | Undecorated | | FALSE | 1 | | Body | Cup | 1830 | | Majewski and O'Brien 1987:119 |
| 30 | 15Bn187 | STP 11 | I | 0–32 cm bgs | 33 | D | Ceramics | Whiteware | Undecorated | | FALSE | 1 | | Base | Cup | 1830 | | Majewski and O'Brien 1987:119 |
| 30 | 15Bn187 | STP 11 | I | 0–32 cm bgs | 34 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 2 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |

| Bag | Site | Unit # | Zone | Dep | Cat # | Group* | Class | Type | Attr 1a Def | Attr 1b-4a Def | Burned | Count | Wt (g) | Vessel Part | Vessel Type | Min Date | Max Date | References |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 15Bn187 | STP 11 | I | 0–32 cm bgs | 36 | F | Lighting | Lamp Chimney | Glass: clear | | FALSE | 1 | | | | 1854 | 1940 | Faulkner 2008; Pullin 1986:356 |
| 31 | 15Bn187 | STP 12 | I | 0–9 cm bgs | 38 | D | Container Glass | Automatic Bottle Machine | | Clear glass, embossed | FALSE | 1 | | Body | Soda / Mineral water | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 32 | 15Bn187 | STP 12 | II | 9–20 cm bgs | 39 | D | Container Glass | Automatic Bottle Machine | | Aqua glass | FALSE | 1 | | Body | Canning jar | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 33 | 15Bn187 | STP 13 | I | 0–27 cm bgs | 41 | A | Construction Material | Brick | Indeterminate brick: non–vitrified | Low fired brick | FALSE | 1 | 2.7 | | | | | |
| 33 | 15Bn187 | STP 13 | I | 0–27 cm bgs | 40 | D | Container Glass | Undiagnostic container fragment | | Aqua glass | FALSE | 1 | | Body | | 1800 | | Faulkner 2000 |
| 34 | 15Bn187 | STP 14 | I | 0–22 cm bgs | 42 | D | Container Glass | Automatic Bottle Machine | Cup bottom mold | Clear glass | FALSE | 1 | | Body with base | Miscellaneous bottle | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 34 | 15Bn187 | STP 14 | I | 0–22 cm bgs | 42 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 1 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 35 | 15Bn188 | STP 1 | I | 0–22 cm bgs | 5 | A | Nails | Wire Nail | 9d | Pulled | FALSE | 1 | | | | 1880 | | Nelson 1968 |
| 35 | 15Bn188 | STP 1 | I | 0–22 cm bgs | 1 | D | Ceramics | Whiteware | Undecorated | | FALSE | 1 | | Body | | 1830 | | Majewski and O'Brien 1987:119 |
| 35 | 15Bn188 | STP 1 | I | 0–22 cm bgs | 3 | D | Container Closures | Home Canning Jars | Liner for Mason zinc: flat | | FALSE | 1 | | Rim | | 1869 | 1950 | Toulouse 1969:350, 1977:91, 96 |
| 35 | 15Bn188 | STP 1 | I | 0–22 cm bgs | 4 | D | Container Closures | Commercial Containers | Crown cap: plastic liner | | FALSE | 1 | | | | 1955 | | IMACS 1992:472 |
| 35 | 15Bn188 | STP 1 | I | 0–22 cm bgs | 2 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 1 | | Body | | 1903 | | |
| 35 | 15Bn188 | STP 1 | I | 0–22 cm bgs | 2 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 1 | | Rim | Meat jar | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |
| 35 | 15Bn188 | STP 1 | I | 0–22 cm bgs | 6 | U | Plastic | Modern | | Amorphous | FALSE | 1 | | | | 1930 | | Meikle 1995 |
| 36 | 15Bn188 | STP 2 | I | 0–10 cm bgs | 10 | A | Flat Glass | Tempered Glass | | | FALSE | 1 | | | | | | |
| 36 | 15Bn188 | STP 2 | I | 0–10 cm bgs | 9 | A | Nails | Wire Nail | Fragment | | FALSE | 2 | | | | 1880 | | Nelson 1968 |
| 36 | 15Bn188 | STP 2 | I | 0–10 cm bgs | 7 | D | Ceramics | Stoneware | Bristol slipped exterior | Albany slipped interior | FALSE | 1 | | Body | | 1880 | 1925 | Greer 1999; Ketchum 1983 |
| 36 | 15Bn188 | STP 2 | I | 0–10 cm bgs | 8 | D | Container Glass | Undiagnostic container fragment | | Amber glass | TRUE | 1 | | Body | Beer bottle | 1860 | | Faulkner 2000; Fike 1987:13 |
| 37 | 15Bn188 | STP 3 | I | 0–5 cm bgs | 11 | D | Ceramics | Whiteware | Chromatic glaze (monochrome) | Pink | TRUE | 3 | | Body | Cup | 1920 | 1970 | Blaszczyk 2000:121; Faulkner 2000 |
| 37 | 15Bn188 | STP 3 | I | 0–5 cm bgs | 12 | D | Container Glass | Automatic Bottle Machine | | Clear glass | FALSE | 1 | | Body | | 1903 | | Jones & Sullivan 1985; Lindsey 2015 |

* A: Architecture; D: Domestic; F: Furnishings; M: Maintenance and Subsistence; R: Arms; T: Transportation; U: Unidentified