Phase I Archaeological Survey of Two Parcels North of High Street within the Third Street Historic District for US 421 Milton-Madison Bridge Project (KYTC Item No.5-135.8), Milton, Trimble County, Kentucky

By

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ABSTRACT

Under contract with Walsh Construction Company, ASC Group, Inc., has conducted a Phase I archaeological survey for two parcels for the US 421 Milton-Madison Bridge project (KYTC Item No.5-135.8), from Milton, Kentucky, to Madison, Indiana. The project is administered jointly by the Kentucky Transportation Cabinet and the Indiana Department of Transportation. The setting is the Ohio River floodplain in Milton, Kentucky. The purpose of the Phase I survey is to provide information for compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA, as amended) and to recover archaeological information on two areas, specifically a grassy area and area adjacent to the bridge in the east parcel and a graveled lot in the west parcel. The construction project planned to walk cranes and heavy beams across these parcels and use the cranes and other machinery to complete construction of the Milton-Madison Bridge, leading to concerns about compaction negatively affecting features or artifacts that might be in these parcels. Prior to the fieldwork it was not known whether a site that existed north of the two parcels, 15Tm112, might extend into either or both of these parcels. The prehistoric component of 15Tm112 was previously determined eligible for listing on the National Register of Historic Places. Additionally, it was not known if historic archaeological remains might be located in either parcel that relate to the Third Street Historic District, which covers much of the area to be investigated.

The current Phase I archaeological survey was carried out in September-November 2012. The field methods were monitored backhoe-excavated trenches, shovel testing from surface, and shovel testing and excavation of 1-m x 1-m (3.3-ft x 3.3-ft) test units within trenches. Three historic features were identified during the investigation and documented. These are a historic post, a terra cotta drain, and a stone building foundation. Within the eastern parcel, particularly the southeastern portion of it, an intact historic residential occupation was identified and explored. It appears that the Great Flood of 1937, which devastated Milton, impacted this residence and resulted in its abandonment, demolition, and the capping of the area with brownish yellow to yellowish brown clayey fill. Under the fill, a stone foundation wall, line of bricks and structural rubble were documented, and, in combination with tile probing, the feature evidence indicate the presence of a buried house foundation. Artifacts recovered on, in, and around the foundation indicate a late nineteenth-early twentieth century domestic occupation. A historic post was identified in a trench north of the historic building foundation. Excavations in the western and northernmost portions of the eastern parcel recovered historic artifacts as well, but no evidence of features was encountered. In the western parcel, late nineteenth century to early twentieth century artifacts were recovered during excavation and a terra cotta drainage tile feature was documented; however, no house foundation was encountered there, which is believed to lie further west.

Prehistoric artifacts in intact contexts were found mostly in both the western parcel and in the western and northern portion of the eastern parcel, near the bridge alignment. Prehistoric artifacts were also found nearer the historic building foundation, but some of these were in disturbed contexts. Prehistoric artifacts were found in low to moderate densities in the historic A horizon (intermixed in excavation levels with historic artifacts) and in the B horizons below, in some cases, in undisturbed floodplain strata contexts. Prehistoric artifacts types are formal tools, expedient tools, debitage, and fire-cracked rock. Three formal stone tools were found at the site during the current investigation. However, no prehistoric features were found during the current

investigation and overall artifact densities were lower than was found farther north at 15Tm112 during the 2010–2011 investigations.

As the result of the current investigation it is recommended that the historic residential component of 15Tm112 be considered to be potentially eligible for listing on the National Register of Historic Places. The archaeological deposits are potentially significant and the integrity of the site is good. Avoidance of this archaeological resource is recommended or further investigations to more firmly ascertain its eligibility for listing. The historic residential component is located within the southeast quadrant of the eastern parcel, and the area for avoidance is identified in mapping in the report. Walsh Construction Company informed the Kentucky Transportation Cabinet that it is avoiding and will be avoiding the historic residential component during the ongoing construction work at the US 421 Milton-Madison bridge.

Throughout the western and northern portion of the eastern parcel and within the western parcel, both historic and prehistoric artifacts were encountered within floodplain strata. The historic artifacts scattered in the floodplain strata would appear to have much less important historical information potential than the residential component. A terra cotta drain tile found in the western parcel is not considered a significant feature. While the prehistoric finds identified during the current investigation provide some valuable information on expedient tool use and chert selection, no prehistoric features were encountered (meaning broad classes of data were not found) and the artifact finds were much lower density than previous work at 15Tm112 had identified farther north. For these reasons it is recommended that a finding of No Adverse Effect be applied for the historic finds outside of the historic residential component and for the prehistoric component encountered during the current investigation. Mapping within the report identifies the historic residential component to be avoided.

Should the nature of possible impacts due to the construction work or the areas of possible impacts change in the course of the development of the project, it is recommended that consideration be made on whether additional archaeological investigations are warranted.

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CHAPTER 1: INTRODUCTION

Under contract with Walsh Construction Company (Walsh), ASC Group, Inc. (ASC), has conducted a Phase I archaeological survey for two parcels for the US 421 Milton-Madison Bridge project, from Milton, Kentucky, to Madison, Indiana (Figures 1 and 2). The project is administered jointly by the Kentucky Transportation Cabinet (KYTC) and the Indiana Department of Transportation (INDOT). The project is identified by KYTC Item Number 5-135.8. The Kentucky Office of State Archaeology (OSA) registration number is FY13-7406 and the Kentucky Heritage Council (KHC) registration number is FY13-1290.

The purpose of the Phase I survey is to provide information for compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA, as amended). The Federal Highway Administration is the lead federal agency. This work is being conducted because of the federal undertaking (the bridge project) under Section 106 of the NHPA. The Phase I archaeological survey recovered information on two parcels, which are described below. The transportation project is the construction of a new bridge along US 421 connecting Milton, Trimble County, Kentucky, with Madison, Jefferson County, Indiana, across the Ohio River.

PROJECT AREA DESCRIPTION AND BOUNDARIES

The Area of Potential Effects (APE) is defined as two parcels on either side of the US 421 Milton-Madison Bridge corridor (Figures 1 and 2). The bridge approach was removed prior to the survey and a temporary bridge ramp was installed north of the two parcels. Specifically, the eastern parcel is a grassy area and area adjacent to the bridge. The area adjacent to the bridge is bare earth. The western parcel is graveled.

The eastern parcel is irregular in shape and has maximum dimensions of 27.4 m x 55 m (90 ft x 180 ft) [Plates 1 and 2]. The western parcel is rectangular and is 27.4 m x 30.5 m (90 ft x 100 ft) in size [Plate 3]. The total area of these parcels is .52 acre (.21 ha).

High Street in Milton is the southern project boundary. The project boundaries on the north, east, and west were identified by the KYTC and Walsh based on the areas projected to be needed for construction activities and the limits of the prior Phase I survey (McBride et al. 2010). In the eastern parcel, the project boundary was extended north into the McBride et al. (2010) survey area because cranes needed to be available for use in this area for installation of beams for the new bridge, as described below.

Figure 1. Map of Kentucky showing the vicinity of the study area.

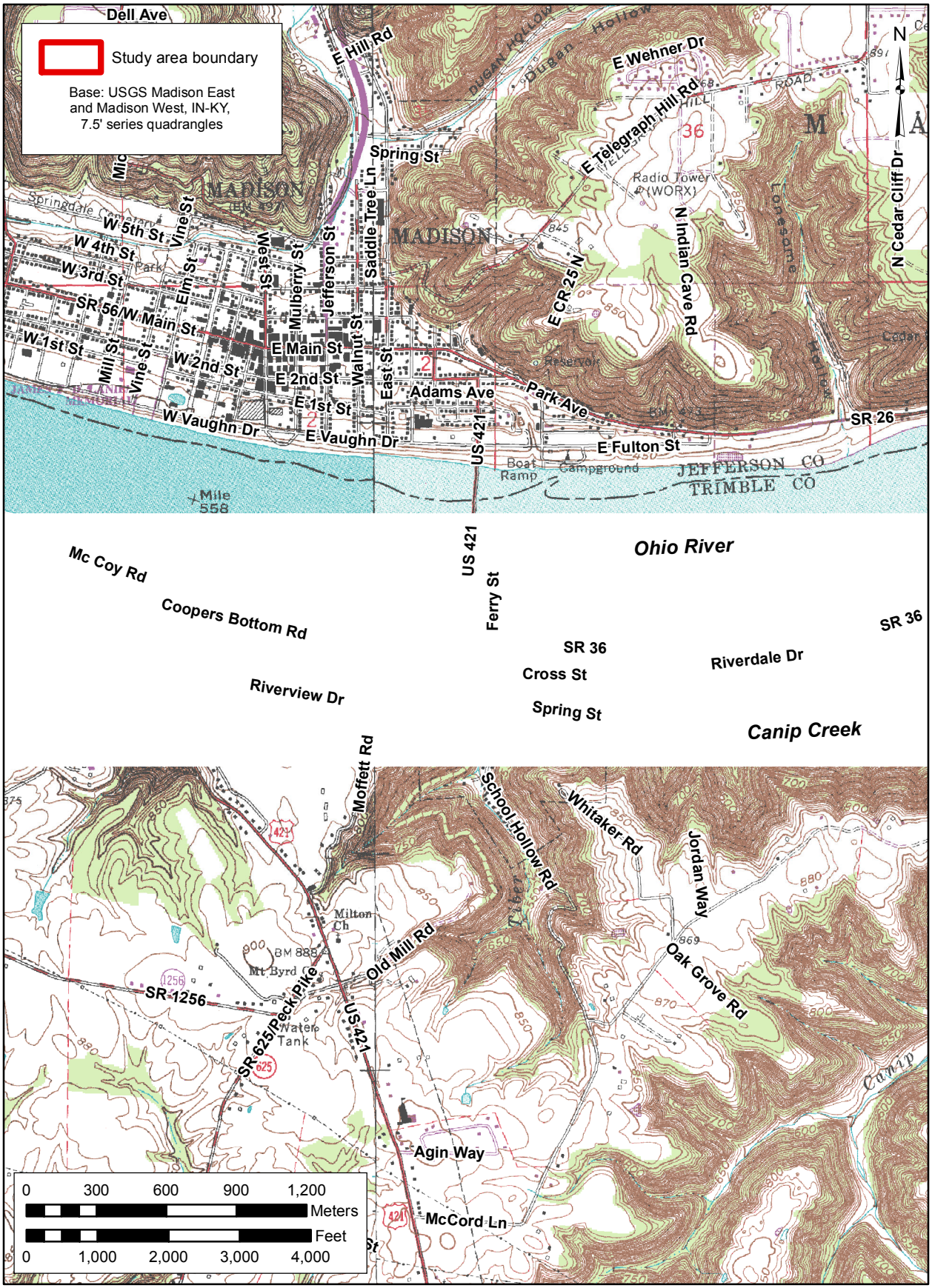


Figure 2. Portions of the 1971 (photorevised 1987 and 1994) Madison East and 1964 (photorevised 1980 and 1993) Madison West, IN-KY quadrangles (USGS 7.5' topographic maps) showing parcels east and west of the US 421 corridor.

Plate 1. Overview of southern part of eastern parcel (Area 1); facing east.

Plate 2. Overview of northern part of eastern parcel (Area 3); facing north-northwest.

Plate 3. Overview of western parcel (Area 2); facing west.

PURPOSE AND SCOPE OF WORK

This report describes the Phase I archaeological investigations of both the east and west parcels. The parcels were needed for ongoing bridge construction work led by Walsh. The most pressing need was that Walsh was having large bridge beams delivered to the work site and needed the areas to walk cranes toward the new bridge (which was partially constructed) while holding the beams. The cranes would be walked in both east and west of the bridge corridor (across the east and west parcels). Also, the northern portion of the eastern parcel needed to be surveyed. This area is where the crane would sit when working on the bridge. Compaction, or crushing of artifacts and features, was a concern. Additionally, the entirety of the western parcel and part of the eastern parcel is within the Third Street Historic District (now termed High Street) and it was unclear whether there might be historic archaeological remains in the project area related to historic houses that are now gone. Finally, the National Register of Historic Places (NRHP)-eligible Middle Archaic to Late Archaic component of archaeological site 15Tm112 is located just north of the project area of at depths of up to 50 cmbs–155 cmbs (20 inbs–61 inbs) [Schwarz 2011]. This component is eligible for listing on the NRHP. It was unclear if 15Tm112 might extend into the project area, and, if so, if significant archaeological deposits were present and at risk.

Informant information and mapping suggested the previous presence of historic buildings in the eastern and western parcels, remains of which would be archaeological in nature. The investigation sought to survey these areas, including near-surface archaeological investigation, which would focus on any historic occupation, and deeper excavation, which would focus on the prehistoric occupation of the site. A combination of trenching with a backhoe, test unit excavation, shovel testing, and feature documentation were the field techniques adopted for the project.

Archaeological information was collected to determine the period of occupation, the presence or absence of in situ remains, the extent of the remains, the amounts and types of cultural materials present, and the level of historic disturbance. The field investigation and documentary research is designed to provide preliminary information on the eligibility of any archaeological sites identified during survey for listing on the NRHP.

SITE CHECK DATE AND FIELD INVESTIGATION

The OSA site check was performed on September 18, 2012, by Samiran Chanchani, PhD. The Phase I effort reported here involved fieldwork in two field sessions on September 19–22, 2012, and October 22–November 1, 2012. The first field session addressed the two parcels which area immediately north of High Street and east and west of the bridge (termed Areas 1 and 2). The archaeological investigations were focused on the extreme limits of each parcel away from the bridge corridor. The second field session focused on the eastern parcel (Area 1) nearer to the bridge corridor. Also, a small parcel on the east side of the bridge corridor north of Area 1 and south of the existing bounds of 15Tm112 was examined. This northern parcel is called Area 3.

Kevin Schwarz, PhD, RPA, served as the project principal investigator. Chuck Mustain served as the field supervisor for the first session of Phase I survey. The first round of fieldwork had a crew of three field technicians, David Lamp, Jon Criss, and Kikii Gianakos. David Lamp served as field supervisor for the second session of fieldwork and Dave Boling and Ashley Popham were the field technicians. A total of 415.5 person-hours were expended during the field investigations.

NRHP CRITERIA FOR EVALUATION

The NHPA defines significance by application of the NRHP Criteria for Evaluation (A-D). These are identified and discussed below. In order to be significant, sites must also be able to convey their significance and have integrity of deposits. The NRHP Criteria for Evaluation are standards designed to evaluate the significance of historic properties (including archaeological sites) that are more than 50 years old, that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. are associated with events that have made a significant contribution to the broad patterns of history;
B. are associated with the lives of significant individuals in the past;
C. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. have yielded, or may be likely to yield, information important in history or prehistory (Little et al. 2000; National Park Service 1997:21).

Generally, prehistoric archaeological sites, if they are eligible for inclusion in the NRHP, are eligible under Criterion D, although eligibility under other criteria is possible. In order for Criterion D to be met a site both must have or have had information to contribute to our understanding of human history or prehistory and the information at the site must be considered important. Sites must contain or be likely to contain information bearing on an important archaeological research question. To be eligible a site must "have characteristics suggesting the likelihood that it possesses configurations of artifacts, soil strata, structural remains, or other natural or cultural features that make it possible to do the following: 1) test a hypothesis or hypotheses about events, groups, or processes in the past that bear on important research questions in the social or natural science or the humanities; or, 2) corroborate or amplify currently available information suggesting that a hypothesis is true or false; or reconstruct the sequence of archaeological cultures for the purposes of identifying and explaining continuities or discontinuities in the archaeological record of a particular area" (National Park Service 1997:21).

Archaeological sites must maintain integrity to be eligible for NRHP listing. In this case, the survival of artifact or feature patterning at sites as it relates to human-induced activity is also paramount in determining NRHP eligibility (Sebastian 1999).

The potential for NRHP listing of historic archaeological sites is variable and dependent on the site being representative of a specific period, event or trend, historic theme, or historically important person(s) [e.g., eligible under Criteria A–C]. A historic site may be eligible under Criterion A if it is associated with one or more events or trends important in a defined historic context. Criterion A recognizes properties associated with events, repeated activities, and historic trends. The events or trends must clearly be important within the associated historic context. Moreover, the property must have a significant association with the event or historic trends and it must retain historic integrity (Andrus 1997). Criterion B recognizes properties associated with individuals with importance to United States history. Criterion C recognizes properties representative of a particular type, period, method of construction, work of a master, or properties that have high artistic value. A historic site may be eligible under Criterion D if it can provide important information on aspects of American history or culture that are unknown or poorly known through written records. NRHP eligibility also depends on site preservation and integrity, among other factors.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Prehistoric and historic artifact deposits were found in both the eastern parcel and western parcel. Three historic features were identified during the investigation and documented. These are a historic post, a terra cotta drain, and a stone building foundation. All artifacts and features were assigned to 15Tm112. However, excepting the drainage tile feature in the western parcel, intact features were restricted to the southeast quadrant of the eastern parcel, where a stone building foundation with brick elements and a historic post were exposed. The stone building foundation and the immediately surrounding homestead area appear to be potentially significant archaeological resources.

It appears that the Great Flood of 1937, which devastated Milton, impacted this residence and resulted in its abandonment, demolition, and capping of the area with brownish yellow to yellowish brown clayey fill. Under the fill, the stone foundation wall, a line of bricks and structural rubble were documented, and, in combination with tile probing, the feature evidence indicate the presence of a buried house foundation. Artifacts recovered on, in, and around the foundation indicate a late nineteenth-early twentieth century domestic occupation. A historic post was identified in a trench north of the historic building foundation. Excavations in the western and northernmost portions of the eastern parcel recovered historic artifacts as well, but

no evidence of features was encountered. In the western parcel, late nineteenth century to early twentieth century artifacts were recovered during excavation and a terra cotta drainage tile feature was documented; however, no house foundation was encountered there, which is believed to lie further to the west.

Prehistoric artifacts in intact contexts were found mostly in both the western parcel and in the western and northern portion of the eastern parcel, near the bridge alignment. Prehistoric artifacts were also found nearer the historic building foundation, but some of these were in disturbed contexts. Prehistoric artifacts were found in low to moderate densities in the historic A horizon (intermixed in excavation levels with historic artifacts) and in the B horizons below, in some cases, in undisturbed floodplain strata contexts. Prehistoric artifacts types include formal tools, expedient tools, debitage, and fire-cracked rock. Three formal stone tools were found at the site during the current investigation. However, no prehistoric features were found during the current investigation and overall artifact densities were lower than was found farther north at 15Tm112 during the 2010–2011 investigations.

It is concluded in the report that if there are any construction impacts to the historic residential component in the southeast quadrant of the eastern parcel, the potential exists for adverse impacts due to construction activities. It is recommended that the historic residential component be avoided or further investigations be undertaken to more firmly ascertain the potential for this component of 15Tm112 to be listed on the NRHP. Walsh is avoiding and will avoid the historic residential component (the foundation area) during the ongoing construction project (personal communication Charlie Gannon to Kevin Schwarz, September 21, 2012).

For a number of reasons discussed in the report, it was concluded that historic and prehistoric deposits in the northern and western portions of the eastern parcel and the western parcel were not significant enough deposits to warrant avoidance or further work, based on the archaeological evidence collected to date (Schwarz 2012). Also, the level of disturbance is higher near the bridge alignment, suggesting that the integrity of some historic deposits may be compromised. In a letter, Casebier (2012) of the KHC recommended a finding of No Adverse Effect be applied for these areas. ASC concurs, and in accordance with Casebier (2012) it is recommended that a finding of No Adverse Effect be made for the northern and western portions of the eastern parcel and for the western parcel.

Should the nature of possible impacts due to the construction work or the areas of possible impacts change in the course of the development of the project it is recommended that consideration be made on whether additional archaeological investigations are warranted.

CURATION

The artifacts and field notes associated with this project will be curated at the Webb Museum of Anthropology at the University of Kentucky.

REPORT ORGANIZATION

The report is organized as follows. Chapter 2 describes the environmental setting. Chapter 3 is the previous investigations and summary of known sites. Chapter 4 is the fieldwork and artifact analysis methods. Chapter 5 presents the excavations. Chapter 6 discusses the materials recovered. Chapter 7 is the site description of 15Tm112. Chapter 8 provides a summary to the investigation and recommendations. Appendix A is the artifact catalog.

CHAPTER 2: ENVIRONMENTAL SETTING

PHYSIOGRAPHY

The project is located within the Outer Bluegrass physiographic division of Kentucky (Pollack 2008:10). Topography within the Outer Bluegrass is highly dissected. Landforms are generally steep-sided hills, sinuous ridges, and narrow stream valleys. The specific landform on which the project area is located is the Ohio River floodplain.

DRAINAGE

In the vicinity of Milton, the landscape is drained by Canip Creek and Tiber Creek, small tributaries that flow directly into the Ohio River (Figure 2). The northern edge of the project area is about 100 m (328 ft) south of the river bank of the Ohio River.

GEOLOGY

The bedrock strata of Trimble County are from the Paleozoic era. These rocks date to the Ordovician and Silurian geologic periods (490-400 million years ago) [McGrain 1983]. Ordovician strata include the Drakes formation. The Drakes formation includes the Saluda Dolomite, Bardstown member, and Rowland Member. Silurian strata include the Osgood formation, Brassfield formation, Laurel Dolomite, Louisville limestone, and Waldron Shale (Whitaker and Eigel 1992:158).

Portions of northern Kentucky were glaciated or glacially affected by the Kansan and Nebraskan glaciations. Based on the studies of Ray (1974) and Norton et al. (1983) the Milton area was on the edge of the glaciated area and in particular may have been affected by the Nebraskan glaciation (McBride et al. 2010: Figure 2.5). Nebraskan drifts are thought to cover parts of Trimble County and adjacent counties. Additionally, glacial erratics are often found in northern Kentucky. Some upland ridgetops in the Ohio Valley, in both Kentucky and Indiana, are capped in wind-blown loess deposits. The loess deposits settled on these ridges in northern and central Trimble County during the periods of glaciation.

River cobbles along the Ohio River are known to contain cherts (Ariens 2011). Bedrock chert sources are common in Mississippian, Devonian, and Silurian system exposures. Within Trimble County, Laurel chert is known to outcrop along ridges above and to the south of Milton (McBride et al. 2010: 2.1 to 2.4). Cherts occur within the Laurel Dolomite. Other chert sources occurring in the Ohio River drainage basin in Kentucky and Indiana include Derby, Fossiliferous, Holland, Jeffersonville, Muldraugh/Fort Payne, and Wyandotte (Cantin 2005;

Janzen 1971; McDowell 1986). All of these chert types were found during the current investigation and/or previous investigations of 15Tm112 (McBride et al. 2010; Schwarz 2011) and are defined in detail below. Additionally, Vanport, a high quality raw material, was recovered during the current investigation and although it occurs naturally in the Ohio River Basin, it is generally found much farther upstream, to the east. Boyle, a Devonian chert, is found in northeastern and central Kentucky (Vickery 1983). It was not positively identified in the project area. Certain glacial deposits contain chert cobbles as well.

The project area is located atop Quaternary period alluvium. Quaternary alluvium consists of unconsolidated gravel, sand, silt, and clay and contains sparse to abundant organic matter, depending on the locality (McBride et al. 2010). The surface layers in the project area consist of historic fill underlain by buried A horizons and B horizons that contain the archaeological sites. The thickness of alluvium ranges from 6 m–12 m (20 ft–40 ft), although artifact-bearing and feature-bearing strata are only known to exist to a little less than 1.6 m (5.24 ft) in depth.

GEOMORPHOLOGY

The project area is located on the distal portion of a point bar of the Ohio River. Landforms associated with this depositional setting include those created by lateral accretion (landforms growing downriver and laterally into the river) and those created by overbank deposition during flooding (McBride et al. 2010: Appendix E:4). The project area is a gentle slope that rises to the south. The landform drops off abruptly toward the river channel in the north but the plain continues south of the project area toward the bluff. The Ohio River floods seasonally and occasionally floods are catastrophic in magnitude.

As mentioned, previous archaeological studies just north of the project area (McBride et al. 2010; Schwarz 2011) had indicated that fill soils overlay natural floodplain soils. The fill soils were emplaced after the 1937 flood that devastated the town of Milton. A photograph of the period during the flood shows that the project area (next to the 1929 bridge) was flooded during this event so it has to be expected that the buildings along High Street and the grounds around them were affected by the floodwaters and flood silts (McBride et al. 2010:Figure 3.7). Even before 1937 frequent floods affected Milton. Other significant floods occurred in 1883, 1884, 1907, 1913, and 1914 (Hood ca. 1970s; McBride et al. 2010).

Soil Association and Soil Types

The project area is within the Huntington-Wheeling soil association (McBride et al. 2010). Soil phases within the project area are Huntington silt loam, occasionally flooded and Wheeling silt loam, 0 to 6 percent slopes (Whitaker and Eigel 1992). Huntington soils form in alluvium on floodplains with less than 2 percent slopes. A dark brown silt loam surface layer is present to a depth of 27 cm (11 in), and brown silt loam subsoil extends to a depth of 147 cm (58 in). Below that, the substratum is yellowish brown silt loam. It extends to a depth of 183 cmbs (72 inbs). Wheeling soils are deep, well-drained soils that are moderately permeable. These soils form in alluvium on stream terraces on the Ohio and Kentucky River. A brown silt loam surface layer is present to a depth of 4 cmbs (9 inbs). B horizons vary from dark yellowish brown to strong brown and are loamy soils extending to a depth of 152 cmbs (60 inbs). The substratum, below 152 cmbs (60 inbs), is a strong brown sand.

Geological Setting and Archaeological Strategy

The project area is on the upper portions of the floodplain of the Ohio River. One of the reasons this information is important is that the post-flood fill soils, overbank deposition due to the flooding and the general character of the Ohio River floodplain means that deep excavation techniques would be needed to discover archaeological resources within the project area. Thus, as described below, trenching with a backhoe was one of the main techniques used during the investigation, which included hand excavations as well.

Current Climate

Northern Kentucky has a humid continental climate. These means that Northern Kentucky has warm summers and cool winters with precipitation falling in each month of the year. According to Whitaker and Eigel (1992) the average summer temperature is 74 degrees F, with a maximum summer temperature in the 80–90 degree F range, with occasional days even hotter. In the winter the average temperature is 33 degrees F, with a minimum temperature of 23 degrees F. Precipitation averages about 18 cm (45 in) per year, with 6 cm (14 in) falling as snow and the balance falling as rain.

Flora and Fauna at Present

Currently the environment in the project area is that of devegetated spaces and short grass fields next to a major bridge-building project.

The larger environment of Trimble County is a mix of forest, crop land and residential, commercial, and industrial land-uses. The Outer Bluegrass, while not as distinctive as the Inner Bluegrass, is nonetheless noteworthy. Kentucky bluegrass carpets the region and older forest trees dot the landscape of farms and residences (Braun 1950).

PREHISTORIC CLIMATE

Between 7,950 B.P.–5,000 B.P., a warm, dry period, the hypsithermal climatic interval within the Midwest affected Kentucky. This period is sometimes called the altithermal period (Meltzer 1999). As a result of this period, hunting and gathering cultures in Kentucky had to adapt to the climatic changes (Jefferies 1996). The warming and drying trend contributed to periods of severe moisture stress and to the eastward advance of the prairie vegetation (Wright 1968). Beginning by about 2800 B.P., colder, wetter conditions began to prevail and modern floral patterns were in place by the end of the hypsithermal. Warm air masses from the Gulf of Mexico influenced the vegetation and climatic patterning of the area. Cooler temperatures again prevailed around 2000 years ago, during the Middle Woodland period (Delcourt 2002). A major climate change of the late Holocene is the Little Ice Age or Neo-Boreal episode that dates from 700 B.P. until well into the twentieth century (Delcourt 1979). The cooling trend may have had a significant impact on local native populations prior to Kentucky becoming a state.

PREHISTORIC AND EARLY HISTORIC FLORA AND FAUNA

Prior to the settlement of Euroamericans and the development of Milton, the Trimble County area would have been primarily forested, interspersed with stands of grasses. Braun (1950) classifies this portion of northern Kentucky as being part of the Western Mesophytic Forest. According to Braun (1950), the Western Mesophytic Forest region was a transition between the Mixed Mesophytic Forest region and the Oak-Hickory Forest region. The Bluegrass Section, in which the project area sits, is surrounded except on the north by the Knobs, which is part of the Mixed Mesophytic Forest region.

Accounts of early settlers, such as Filson (1784), describe the presence of mixed forests that included honey locust trees (*Gleditsia triacanthos*), coffee tree (*Gymnocladus dioicus*), paw paw (*Asimina triloba*), and black mulberry trees (*Morus nigra*) in abundance. Also, Filson mentioned tulip trees (*Liriodendron* sp.), laurels (*Kalmia* spp.), and magnolias (*Magnolia* spp.). Cane fields were prominently mentioned in Filson's account and map. He notes an abundance of wild rye (*Elymus* spp. or *Leymus* spp.), clover (*Trifolium* spp.), and buffalo-grass (many genera),

which covered vast areas and provided good forage for cattle. Showy flowers ornamented the bluegrass in spring and summer.

Braun (1950) has formally defined the Western Mesophytic Forest region existing at the time of the publication of *Deciduous Forests of Eastern North America*. These forests contained a variety of oak and hickory species present in oak-hickory forests generally. Species include bur oak (*Quercus macrocarpa*), white oak (*Quercus alba*), ckinquapin oak (*Quercus mulhenbergii*), Shumard oak (*Quercus shumardii*), shagbark hickory (*Carya ovata*), and pignut hickory (*Carya glabra*). Western Mesophytic forests have a more mixed pattern of dominance especially on the more northerly slopes. Here there is a greater abundance of American beech (*Fagus grandifolia*) and sugar maple (*Acer saccharum*). Besides several oaks and hickories, subordinants may include tulip poplar (*Lirodendron tulipifera*) and white ash (*Fraxinus americana*). The understory includes such small trees and shrubs as ironwood (*Ostrya virginiana*), flowering dogwood (*Cornus florida*), spicebush (*Lindera benzoin*), and paw paw. The herbaceous layer, while generally more diverse than that of the Oak-Hickory Forest region, is typically less diverse than the Mixed Mesophytic Forest region defined by Braun (1950). Common herbaceous components often include squirrel corn (*Dicentra canadensis*), wild yam (*Dioscorea quaternata*), wild ginger (*Asarum canadensis*), northern maidenhair fern (*Adiantum pedatum*), and Christmas fern (*Polystichum acrostichoides*).

These forests and grasslands would have supported an abundant variety of fauna. Fauna available to Middle and Late Archaic peoples in this part of Kentucky would have included white-tailed deer, rabbit, red fox, raccoon, and other mammals as well as birds, reptiles, amphibians, fish, and mollusks (Boisvert 1986; McBride et al. 2010). White-tailed deer, mollusks (like mussels), turkey and a few other species were the most important faunal resources exploited by Middle and Late Archaic peoples in Kentucky (Lewis 1996; Marquardt and Watson 1983).

CHAPTER 3: PREVIOUS INVESTIGATIONS AND SUMMARY OF KNOWN SITES

PREHISTORIC CULTURAL CONTEXT

Trimble County is within the Northern Blue Grass Management Area of Kentucky (Stackelback and Mink 2008). The prehistoric cultural context includes a review of archaeological evidence characteristic of the Middle Archaic and Late Archaic periods, but focuses especially on the Matanzas and Maple Creek cultures, whose tools have been recovered from 15Tm112 (Schwarz 2011). While the geographic focus will be on the Northern Blue Grass Management Area of Kentucky, Middle and Late Archaic sites, particularly those pertaining to the Matanzas and Maple Creek cultures, will be discussed from elsewhere as relevant to developing the prehistoric cultural context.

Middle Archaic of Kentucky (ca. 7,950 B.P.–4,950 B.P.)

During the Middle Archaic period, approximately 7950 B.P.–4950 B.P., the change in the climate from the proceeding Early Archaic period led to a greater variety of available resources. The onset of the Hypsithermal climatic interval at 7950 B.P. had ushered in a warmer and drier period in Kentucky that greatly changed the vegetation patterns in the region (Jefferies 1996:47). The diversification of subsistence procurement activities increased and a pattern of exploitation of seasonal resources began to grow in importance. The Middle Archaic economy became more diffuse, with a continued emphasis on exploitation of white-tail deer, but also with utilization of a wider variety of plant foods (Cleland 1966:92–93). Specialization in certain activities generated a more complex social structure within the band network as evidenced by what Griffin (1978:229) calls the early indication of "status differentiation among the band members."

The Middle Archaic period is, however, as poorly understood in Kentucky as it is across much of the North American continent east of the Mississippi. As such, data from sites in proximity to Kentucky must be utilized for comparative studies, allowing for a broader interpretation of the time period. The material remnants of Middle Archaic culture reflect the increasingly sophisticated technology adapted to the intensive exploitation of forest and riverine biomes (Jefferies 1996:47). There was an increase of ground and polished stone tools, full grooved axes, pendants, and winged and cylindrical bannerstones used as atlatl weights. One of the most characteristic elements of Middle Archaic material culture is the development of regional point styles (Cook 1976; Fowler 1959; Lewis and Lewis 1961; Nance 1986). In eastern Kentucky, the Middle Archaic is characterized by the presence of Morrow Mountain, Matanzas,

and Big Sandy II projectile points, while the western portion of the state is characterized by Eva, Cypress Creek, and Big Sandy projectile points (Jefferies 1996:47).

The reduction of forested areas, with an inferred increase of grassland during this period, affected settlement patterns during the Middle Archaic period in Kentucky (Conaty 1985; Janzen 1977; Jefferies 1983, 1996; Nance 1985). The ephemeral nature of most Middle Archaic sites suggests high mobility by small bands, similar to that described for the Early Archaic period (Jefferies 1996:50). In the Bluegrass, Middle Archaic sites are recognized by the occurrence of scattered projectile points, primarily Big Sandy II, Matanzas, and Morrow Mountain (Jefferies 2008:208). At the Morrisroe site (15Lv156), for example, two large Middle Archaic base camps have been systematically investigated, producing dates that range between 8200 B.P. and 5550 B.P. Large Middle Archaic occupations have also been noted along the Ohio River near Louisville, and these include the Reid, Hornung, and Miller sites.

Raddatz projectile points are recognized in Kentucky, Indiana (Munson and Harn 1966) and Illinois (Fowler 1959) as dating to ca. 8000 B.P.–5000 B.P. Raddatz projectile points have been recovered from Read Shell Mound (Webb 1950) and Parrish Village (Webb 1951) in Kentucky. Significant reliance on aquatic resources as well as plant foods is suggested by the numbers of processing implements and the location of large sites along major river drainages. Middle Archaic shell middens have been excavated at the Eva site (Lewis and Lewis 1961) and at several locations in the Nashville Basin (Dowd 1989; Hofman 1984). However, substantial shell middens have not been noted within the Eastern Highland Rim or the Cumberland Plateau (Faulkner and McCollough 1973). Hickory nuts and acorn appear to be an important resource, and some evidence exists for the introduction of squash (*Cucurbita* sp.) during this time.

While some areas seem to have been sparsely occupied during the Middle Archaic (Gatus and Marquardt 1984), other regions were intensively utilized (Faulkner and McCollough 1973). This may be due to the increasing reliance on riverine resources and the location of sites in optimal zones for maximizing resource utilization. Also, a persistent idea is that many Middle Archaic sites are buried in floodplains, and lack of recognition of this fact has led to a belief in the sparsity of Middle Archaic occupations as well as an emphasis on a riverine orientation of settlement and subsistence systems. Middle Archaic subsistence patterns reflect a diversified utilization of available food resources. Shellfish and gastropods have been recovered in large quantities at some localities. In addition, nuts and herbaceous seeds were also harvested.

Recently it has been noted that variability in Middle Archaic artifact assemblages reflect different strategies for adapting to regionally distinctive environments. These more specialized tools and facilities allowed Middle Archaic hunters and gatherers to exploit new resources or collect efficiently (Jefferies 2008:208).

The utilization of plant food resources may have ultimately had an effect on the settlement system. Specifically, there is a shift toward more intensive occupation along major streams and, according to Johnson (1977:149), larger "permanent and semi permanent settlement was probably restricted to the river terraces." More ephemeral campsites were located on the floodplains or in upland zones (Johnson 1977).

Of the 923 Archaic components known to exist in the Bluegrass region (as of 2008), only 7.3 percent, or 67, are Middle Archaic. Of these 67 Middle Archaic sites, 15 are from the North Bluegrass management area (Jefferies 2008:260). The North Bluegrass management area consists of Trimble County and nine counties around it. Within the Northern Bluegrass management area, only Ryle Village (15Be246) is listed as an important site having a Middle Archaic component (it also has a Late Archaic component) [Jefferies 2008:263]. It is an open habitation site with a possible shell midden. This site was located on bottom land. Atlatl weights, grooved adzes, and a side-notched Brewerton projectile point were recovered from this site (Fenwick and Weinland 1978).

Middle Archaic Chronology

The earliest radiocarbon dated Middle Archaic components cited for the region are associated with the Stanly Stemmed cluster on the eastern side of Tennessee, while the Eva/Morrow Mountain projectile points have a temporal range that extends from approximately 7244 B.P. to 5980 B.P. The Sykes/White Springs/Benton projectile points date from 6115 B.P. to 4595 B.P., for which the latest dates are well within the accepted range for the Late Archaic of the eastern half of the United States. As mentioned, Raddatz projectile points are associated regionally with the period of ca. 8000 B.P.–5000 B.P, although absolute dates are lacking. However, Matanzas points, typically a Midwestern projectile point form, are regarded as a type that continues from the late Middle Archaic into the Late Archaic period (Justice 1987:119).

Middle Archaic-Late Archaic Period Transition

Stafford (1994) proposed that in the Ohio Valley Archaic side-notched projectile point styles and stemmed projectile points have dissimilar production trajectories and chert types.

Although there is some degree of temporal overlap, in general this transition in projectile point usage serves as a temporal indicator. He states that side-notched forms (Godar, Matanzas, Big Sandy II, Faulkner) precede stemmed forms (Oak Grove, Karnak, and Saratoga) and later stemmed points (e.g., McWhinney). He builds on Munson's (1980) research that places Matanzas projectile points in use from 7000 B.P.–5500 B.P. However, later studies point out that the period of overlap may be a little longer than Stafford had originally considered.

McGrath et al. (2005) review and comment on a number of Kentucky, southern Ohio, and southern Indiana sites that feature either Matanzas projectile points, McWhinney projectile points, or both. Most of these sites are west of the project area although some are in Ohio. Most are in or near the Ohio Valley proper. The review indicates that the Robert Dudgeon site (15Ta6), the Habich site (15Jf550), the Hornung site (15Jf60), the Mogan site (12Pe839), the Oliver Vineyard site (12Mo141), the Miles Farm site (12Cl158), and the Maple Creek site (33Ct52) are illustrative of the transition (Table 1). The Robert Dudgeon site was not dated by radiocarbon assays but has both point types. Those sites for which radiocarbon analyses have been run are more informative. Radiocarbon intercepts at sites with both Matanzas projectile points and McWhinney Heavy Stemmed projectile points span the period from 5220 B.P.–3530 B.P., potentially indicating a long period of overlap. However, it is not clear that the period of overlap of the two projectile point styles is this long. The reason is primarily because radiocarbon date(s) at each site pertain to the McWhinney or the Matanzas occupation, not necessarily both. No McWhinney Heavy Stemmed projectile points are recorded in the McGrath et al. (2005) sample from sites prior to ca. 5300 B.P. Around the time that McGrath et al. (2005) published their paper, Stafford and Cantin (2005), citing new radiocarbon dates, clarified their understanding of southern Indiana chronology for this period.

The sites and others discussed by McGrath et al. (2005) broadly agree with the chronology proposed by Stafford and Cantin (2005) that the side-notched projectile point tradition predominates from ca. 5300 B.P.–4500 B.P. and the following stemmed projectile point distribution dates to 4500 B.P.–3000 B.P. and even later; however, the questions of the relative overlap of the traditions and the origin and ending points of these phenomena are still open for debate.

Table 1. Selected Radiocarbon Dates of Middle to Late Archaic Contexts.

Site No. (Name)	Primary Projectile Point Cluster found at site	Radiocarbon Date (Years B.P.)
Icehouse Bottom (40Mr23)	Stanly, Stratum D	7790 ± 215
Patrick (40Mr40)	Stanly, Stratum 6	7810+175
Morrisroe (15Lv156)	Morrow Mountain/Kirk/Eva	7110+250
Cave Spring (40Mu141)	Eva/Morrow Mountain, Trench 80C	7250+350
Howard (40Mr66)	Morrow Mountain, Level 3	7244+165
Icehouse Bottom (40Mr23)	Morrow Mountain, Stratum B Feature 186	6995+245
Cave Spring (40Mu141)	Eva/Morrow Mountain, Area B	6540+110 6885+90
Dust Cave	Eva/Morrow Mountain	6050+100 6840+90
12Fl1082	Matanzas	5280±80
15JF267 (KYANG)	Matanzas	5010±90
15JF60* (Hornung Site)	Matanzas	5220±230, 4900±200 20±60, 4240±90
15JF550* (Habich Site)	Matanzas	4480±80 rcybp
12Po51	Matanzas	4210+85
12Cl158** Miles Farm Site	McWhinney	4230–4060
33Ct52 Maple Creek site	McWhinney	4115±150
12Pe929	McWhinney	4060±30
12Mo141** Oliver Vineyard site	McWhinney	3940±40†
12Pe839** Mogan site	McWhinney	3920±20 3530±90
15Tm112	McWhinney and Matanzas***	2950±40 B.P. 2860±30 B.P.

*-McWhinney Heavy Stemmed projectile points also present at site.
**- Matanzas projectile points also present at site.
***-Radiocarbon dates relate to McWhinney occupation not Matanzas occupation.
†- mean of two dates.
rcybp = radiocarbon years before present (these dates are uncalibrated).

Late Archaic (ca. 5000 B.P.–2900 B.P.)

The climate during the Late Archaic period was warmer and drier than the present day (Cleland 1966:93; Pielou 1991:289–290; Shane 1994:21). Soil cores show an increase in oak pollen with a decrease in elm and beech pollens after 5000 B.P., indicative of this warming and drying period. Coincident with climate change, increased population and territorial restriction appears to have led to regional cultural adaptations, including the Maple Creek culture (Duerksen and Doershuk 1998; Ledbetter and O'Steen 1992).

A wider array of specialized objects was utilized during the Late Archaic, including steatite and sandstone bowls, stone tubes and beads, polished plummets, net sinkers, whistles and rattles, birdstones, boatstones, and bone awls, needles, and perforators (Boisvert 1986; Chapman 1975:6). Ceremonialism became increasingly important as evidenced by more elaborate, formalized mortuary practices and the presence of exotic burial goods that were procured through emerging trade networks (Chapman and Otto 1976:20; Stothers et al. 2001:252).

Prior to the Late Archaic period, cultural groups incorporated some seasonal patterning into their subsistence strategy. However, it was during the Late Archaic period that the trend toward greater efficiency in the exploitation of plant and animal resources culminated. A variety of settlement-subsistence patterns have been hypothesized to account for Late Archaic lifeways. Most of them posit some version of seasonal coalescence and dispersal, taking advantage of resource abundance—or conversely, resource scarcity—obligating smaller group exploitation patterns during part of the year (Boisvert 1986; Ledbetter and O'Steen 1992; Vickery 1976). Thus, the size and composition of these mobile groups is thought to have varied in accordance to the distribution and availability of resources across the landscape and through the seasons (Boisvert 1986), although details of individual models vary.

Some Late Archaic sites are large and represent repeated occupations over long periods of time. The settlement systems reflected the need for changing locations as a response to seasonal resources. During the spring and summer, the exploitation of shellfish, fish, turtles, migratory birds, and other aquatic resources produced concentrations of sites that can be characterized as small camps on slight knolls. Winter campsites were situated above the valleys for the effective exploitation of upland game such as deer, other mammals, and birds.

Hickory (*Carya* sp.), walnut (*Juglans nigra*), hazelnut (*Corylus* sp.), acorn (*Quercus* sp.), persimmons (*Diospyros virginiana*), and hackberry (*Celtis* sp.), all non-cultivated resources,

were found at the Late Archaic Houpt site in Butler County, Ohio (Duerksen and Doershuk 1998:108). Cultivated sumpweed (*Iva annua*), sunflower, chenopodium (*Chenopodium berlandieri*), and maygrass (*Phalaris caroliniana*) remains were recovered from human paleofeces dated to 3000 B.P.–3100 B.P. at Hooton Hollow, a rockshelter in eastern Kentucky (Gremillion 1996:526–527).

Northeastern Laurentian Archaic materials are not strongly represented in southwestern Ohio, and the temporal context of this complex is not well understood within the region (Immel-Blei and McDaniel 1986). According to Vickery (1974), the terminal Late Archaic Maple Creek phase, ca. 3750 B.P.–3000 B.P., is a southwestern Ohio variant of the Riverton culture, which has a focus in the Wabash River Valley of Indiana (Winters 1969). At the Maple Creek site in Clermont County, Merom-Trimble and McWhinney Heavy Stemmed projectile points were reported as important components of the flaked stone artifact assemblage (Vickery 1974). Recent research, however, suggests that the artifact types associated with the two cultures rarely co-occur, and that the terminal Archaic occupations of southern Ohio and northern Kentucky are not similar to the Riverton culture recognized farther to the west (Boisvert 1986; Duerksen and Doershuk 1994, 1998; Ledbetter and O'Steen 1992).

Also common at Maple Creek culture sites was a chipped stone microtool industry including micro-perforators, drills, and gravers that were not made from true blades. Sites often yielded manos, although few other groundstone tools were recovered (celts were more common than grooved axes). Sites rarely produced atlatl parts or bell-shaped pestles. However, limestone hoes, stone tablets, sandstone tabular pipes, tubular bone beads, soapstone bowls, grooved stone netsinkers, bone fishhooks, and reamers and ceramics have been found at Maple Creek culture sites (Vickery 1980; Ledbetter and O'Steen 1992).

Many settlement-subsistence models for Late and Terminal Archaic societies in the Eastern Woodlands posit the existence of mobile social groups that coalesced at larger base camps during part of year, according to the availability of wild food resources, and dispersed to subsidiary camps at other times. Vickery (1976, 1980) has been a proponent of this point of view since he inferred that such a settlement-subsistence system existed for the Late Archaic Maple Creek culture. He posited that the Maple Creek site was a summer and fall base camp with some indications of spring occupations (Vickery 1976). The site included approximately 5.7 acres (2.3 ha) of concentrations of midden and other features at the crest of the Ohio River

levee at its confluence with Maple Creek. Excavations revealed evidence of intensive occupation, focusing on food processing and preparation. Vickery's excavations identified earth ovens, roasting pits, refuse pits, a hearth, a cache, and burials. Vickery's overall model suggests that upland subsidiary camps were used for hunting, collecting, raw material extraction, and wintering, but that the base camp was the focus for harvesting certain abundant riverine food sources and the focus of social life.

Criticism of Vickery's Maple Creek culture settlement-subsistence model has been made. As mentioned above, Boisvert (1986) has provided the most elaborate critique of Vickery's (1976, 1980) model. He suggests that larger Late Archaic sites, those that have been interpreted as base camps, are in fact simply multiple family group camps that have been reoccupied many times, while smaller sites (often interpreted as subsidiary camps), are simply less intensively occupied manifestations of the same multiple family group camps. Boisvert (1986) documents that the much smaller Glacken site (15Be272), which he excavated, exhibits evidence of the same range of activities as much larger base campsites. The Glacken site is located in Boone County near the famous Big Bone Lick saline spring. A dense concentration of Late Archaic artifacts, a disturbed midden, and 12 features were found. The activities that Boisvert documents for the Glacken site include food preparation in boiling pits, roasting pits, earth ovens, and a full range of faunal remains, as well as burials. He also identified the predominance of general utility tools and tool production debris at the Glacken site, generalized evidence that belies the hypothesis of a specific purpose seasonal camp. Faunal remains document a fall-winter occupation.

Other archaeological evidence casts further doubt on the Maple Creek culture settlement-subsistence model proposed by Vickery. Ledbetter and O'Steen (1992) documented the Grayson site (15Cr73), a Late Archaic Maple Creek site in a tributary drainage near the Big Sandy River in Carter County, Kentucky. Merom-Trimble points were recovered in abundance at the Grayson site. Of a somewhat smaller scale than the Maple Creek site, a full range of more than 100 features was identified there (although some belong to the Late Woodland component). Remains of houses, including an interior hearth, large pits, and lithic caches suggest a winter occupation. Ledbetter and O'Steen (1992) concluded that Maple Creek sites display a wide variability in occupational characteristics and seasonality indicators that contradict Vickery's (1976, 1980) model.

The Mabel Hall site (33Le87), on the Ohio River floodplain in Lawrence County, Ohio, is another example of a site that bears affinities to the Maple Creek culture, although it is considerably east of the area that is generally identified with the phase. It has a Late Archaic–Early Woodland period occupation with a minor Late Woodland component. Late Archaic stemmed points, some of which are similar to McWhinney Heavy Stemmed points, are present at this site, as are Early Woodland Fayette Thick ceramics. The excavations revealed 179 intact features, of which only 14 appeared to relate to the Late Woodland occupation (Skinner and Kime 1986). Ceramics recovered at the site were carbon dated by association to 1165 B.C.±85, 885 B.C.±75, and 825 B.C.±115 (Seeman 1986:566).

More recent excavations of Maple Creek culture sites in southwestern Ohio have been reported by Duerksen and Doerschuk (1994, 1998) and Purtill (2002). Duerksen and Doerschuk (1998) report on the Houpt site (33Bu477), a small, Late Archaic extractive camp near Hamilton, Ohio. The site includes Merom-Trimble points, other stone tools, lithic debitage, and 14 subsurface features. They interpret the site to be a small extractive camp, probably focused on faunal resources that could be exploited in a nearby wetland. The site may have been reoccupied several times and the authors describe two scenarios for its use. The site may represent an extractive site reoccupied several times by mobile small-scale foragers. Alternately, it may be a camp where smaller social groups split from macroband to pursue seasonal foraging opportunities. Purtill (2002) reports on a similar site, the Davisson Farm (33LE619) site, in Lawrence County, Ohio. The site produced both Brewerton Eared-Notched points as well as characteristically Maple Creek-like Late Archaic earth ovens. He interprets the site as a small, seasonally reoccupied camp (summer and early fall occupations) that appears to be a cultural hybrid in that it shares traits with the Laurentian Archaic, Maple Creek, and Cogswell phases.

Granger (1988) defined the Old Clarksville phase for the Falls of the Ohio area based on his work at the Old Clarksville site. Sites from this phase contain burials and shell middens similar to those located throughout the Ohio Valley, and also contain artifacts such as Matanzas points, which had their origins in the Middle Archaic. Radiocarbon dating, however, indicates that Old Clarksville phase sites date to 5500 B.P. to 3500 B.P., occupying the entire Late Archaic period. Other sites assigned to the Old Clarksville phase by Granger include sites from the Clark Maritime Center complex, Ashworth II (15Bu336), Arrowhead Farm (15Jf237), Mill Creek

Station I (15Jf206), McNeely Lake (12Jf200), Hornung (15Jf60) and KYANG (15Jf267)[Burdin 1999]. Both the Hornung site and the KYANG site are dated by radiocarbon analysis (Table 1).

Recently, several authors (Ariens 2011; Bader 2005; Cantin and Stafford 2009) have noted that it appears that riverine Late Archaic peoples (e.g., along the Ohio River) used mostly local cherts including those gathered from gravel bars. This is a marked contrast with the prior period, the Middle Archaic, where high-quality cherts (often obtained from long distances) predominated. Also, some upland Late Archaic sites, such as the Houpt site (33BU477), where Wyandotte chert predominates, vary from this trend (Duerksen and Doerschuk 1998) since Wyandotte chert would have been acquired from a distance.

Of the 923 Archaic components known to exist in the Bluegrass region (as of 2008), a total of 30.3 percent, or 280, are Late Archaic. Of these 280 Late Archaic sites, 78 are the within North Bluegrass Section (Jefferies 2008:260). In addition to the Ryle Village site mentioned above, other important sites in the northern Bluegrass Section include the Glacken site (15Be272), Ronald Watson Gravel site (15Be249), Panther Rock (15C158) and the Hayes site (15Cl157). The Glacken site was described previously. The Hayes site contains Merom-Trimble projectile points that are associated with a radiocarbon date.

Data collected to date (Schwarz 2011) places 15Tm112 at the end of the prehistoric temporal range for McWhinney occupations (Table 1). It does not appear that the two radiocarbon assays obtained from features at 15Tm112 relate to the Matanzas occupation. They are Feature 1, 2860±30 B.P. (Cal 1120 B.C. to 970 B.C. and Cal 960 B.C. to 940 B.C) and Feature 2, 2950±40 B.P. (Cal 1300 B.C.–1020 B.C). Feature 2 was closely associated with a McWhinney Heavy Stemmed projectile point.

HISTORIC CONTEXT

Frontier Era (1785–1815)

The Milton area was first settled in 1785, even before Kentucky was a state. At that time the area was still part of Virginia. Many of the early settlers built their homes on the banks of Canip Creek in the east part of what is now Milton. The town of Milton itself was founded in 1789 and was officially incorporated by the Virginia legislature.

The impetus for the settlement of Milton was, of course, the Ohio River. The Ohio River has provided an artery of communication and trade that has greatly influenced the historic development of Kentucky and surrounding states. Other early settlements in what is now Trimble

County include one along Corn Creek (near the Ohio River) that was established as early as 1790. Settlement on the lower Little Kentucky River began about 1800. Bedford, which would later become the county seat, was not founded until 1816.

The Golden Age of Steamboating (1815–1850s)

Goods were transported up and down the river initially on flat boats (including rafts) and canoes, and eventually keel boats and packet boats. In the early nineteenth century, local ferries came to play a role in providing a flow of commodities along the river and into hinterland regions. Ferries connected to wagon roads and other water transportation and stimulated the growth of hotels, stores, and manufacturing businesses. A ferry was operating between Milton and Madison, Indiana as early as 1804. The Milton-Madison ferry ran for 125 years until the bridge opened in 1929.

The early nineteenth century witnessed the growth of river boating, especially with the advent of the steam boat around 1815. River towns thrived and built up a lot of infrastructure along their water fronts. River wharves, docks, landings and small warehouses were constructed to accept and transfer merchandise (McBride et al. 2010:3.16). By the time Trimble County was formed, the area along the Ohio River was enjoying a golden age. The introduction of the steam boats in 1815 led to a dramatic increase in river boat trade (McBride and McBride 2008) that fostered this economic growth. Trimble County's population was 4,480 in 1840 and increased to 5,963 in 1850, a 33.1 percent increase.

Houses were being built in small numbers in the earliest part of the nineteenth century (as the population was still small) in what Johnson (1982) describes as the first wave of building in Trimble County. These houses were predominantly built in the Federal Style (Johnson 1982), on the one hand, and pioneer-style log cabins on the other hand. Both of these styles are poorly represented in modern Milton. Twenty-one log buildings are known in Trimble County, including single pen, dogtrot, and saddlebag forms but from the description of Johnson (1982), none are in Milton.

The first public roads in Trimble County were the Bedford-Sulphur Pike, the Old Bedford-Milton Pike, and the Bedford-Campbellsburg Pike (Johnson 1982).

The first county court met in 1837 in Bedford, which had just become the county seat. Trimble County had been organized in 1836, the county territory having previously been parts of Henry, Gallatin, and Oldham counties (Johnson 1982). But it was Milton's location on the Ohio

River which gave it an advantage and allowed it to grow to be the largest town in Trimble County.

The county is named for the Honorable Robert Trimble, one of the most prominent jurists from Kentucky. Trimble was named Chief Justice of Kentucky in 1810, although he declined the position due to his limited financial circumstances. Subsequently, in 1813 he was appointed district attorney for the state. In 1816, he was named to the federal district court. He served with distinction in this position until John Quincy Adams named Trimble to serve on the Supreme Court of the United States in 1826. He held this position until his death in 1828 (Collins 1874).

Agriculture was an important early industry and remains important in Trimble County today. Primary crops were corn, wheat, oats, tobacco, and fruits, including apples, peaches, strawberries, and blackberries. Cattle and hogs were important agricultural commodities (Collins 1874).

The river boat trade increased apace and did not abate until the introduction of the railroad in the 1850s. Trimble County's population fell in the decade just prior to the Civil War, whereas it had been growing previously (McBride et al. 2010:3.18). A population of 5,880 persons was registered in the 1860 census, a 2.3 percent decline from the previous census.

According to Johnson (1982) the second major period of building activity was 1840–1860. This period has been expressed in Milton where Greek Revival style houses were built mid-century (a few survive such as the Dr. Calvert house described below).

Kentucky was a border state and, as such, permitted slavery in the antebellum period. In the 1840 census, there were 673 slaves in Trimble County, or 15.0 percent of the population. The slave population was relatively steady on a percentage basis when 941 slaves were present in 1850, but clearly there was a major increase in overall numbers. This amounted to 15.7 percent of the population. In 1860, there were 831 slaves, or 14.9 percent of the population, a slight decrease in overall numbers.

The Civil War (1861–1865)

During 1861, a committee was formed immediately after the Civil War started. Attendees from both Milton and Madison, Indiana, convened in Madison with the purpose to preserve harmony and good feelings between the two states. Nonetheless, as McBride et al. (2010:3.20) make clear, despite agreements to prevent the raids, invasions, etc., that were sweeping the nation as civil strife intensified, various factions formed within each community.

Local newspapers cite incidents of barns being burned, horses stolen, and gunshots fired into homes in Milton.

Kentucky in the Civil War remained in the Union but small-scale battles, raids and guerrilla actions were carried out there (Harrison 1975). Louisville (down river from Milton) was an important river port for staging the Union Army (L.A. Willams and Company 1882:95-96). Louisville also served as an important point of evacuation for Union soldiers and hospitals filled with wounded from both sides. Graveyards in Louisville, Jeffersonville, and New Albany, Indiana, filled with war dead from both sides (Schwarz 2006). Milton undoubtedly sent many soldiers to the war but there is little record of this period.

McBride et al. (2010:3.21) state that "the economic effects of the Civil War were probably more significant to people in Kentucky than the physical devastation." War damage also disrupted transportation, especially railroads. This included the Louisville and Nashville Railroad, which was severely damaged. According to McBride et al. (2010) almost 100,000 Kentucky men entered the Union Army and 40,000 Kentucky men entered the Confederate Army. The resulting labor shortage had severe effects on Kentucky's economy. Also, according to McBride et al. (2010) nearly a third of soldiers died in the conflict.

A list compiled by Judge William Chancellor Morgan placed 10 businesses in Milton in 1862. These included a hotel, three grocers (one of which included a dry goods store), one dry goods store, a general store, and two blacksmiths. One is listed as "boots and shoes," presumably meaning a bootsmith establishment (Johnson 1982). Boots would have been much needed in 1862 for the war effort. Another establishment was listed as a carding machine, presumably for carding wool (Trimble County Historical Society 1974). Johnson (1982) refers to one business in Milton as a wool-carding factory, implying greater scale than a single machine.

The Richwood Distillery was another important business. Located on SR 36 on the outskirts of Milton, it operated from just after the Civil War until 1910. It produced bourbon whiskey which was marketed as Susquehanna and Old Teakettle (Johnson 1982).

Late Nineteenth Century (1865–1900)

Milton's and Trimble County's populations grew and declined sporadically after the Civil War as industrial and commercial development occurred but the riverboat trade dropped off. In 1870, 5,577 people lived in Trimble County, according to census data, a 5.4 percent decline from the previous decade.

However the following decade, population of Trimble County rose to 7,171, a 28 percent increase. A business directory by R.L. Polk (1876–1877) listed several businesses in Milton, including three general stores, two druggists, three physicians, and one miller.

Johnson (1982) states that a third period of increased building activity took place in Trimble County from 1860–1910. In the case of Third Street in Milton, where the project area sits (today called High Street), it appears based on historic buildings still extant in the 1980s (Johnson 1982) and described below that the increased building, in the form of Queen Anne style houses, started in 1865–1875. Johnson (1982) ties this period of growth to the post-Civil War recovery. As described below, an increase in town-based industrial production and marketing might be a related reason for the third period of building. Most of the buildings listed in the Third Street Historic District were built early during this third period of increased building.

In his *Kentucky: History of the State*, Perrin (1887) stated that in 1880 Milton was the most important town in Trimble County. The author thus made the case that it was more important than Bedford, the county seat.

Trimble County's population was relatively stable with 7,170 in the 1880 census and 7,140 in the 1890 census. This amounts to a .4 percent drop over the decade. Population of Milton itself grew from 352 in 1880 to 458 in 1890 (McBride et al. 2010), a 30.1 percent increase. Milton's economy was very much tied to that of its larger neighbor across the river, Madison, Indiana, via the ferry service connecting the two, and Victorian-era prosperity was shared by both.

In 1880, more than 8,000 hogs were recorded for Trimble County. Cows and sheep were the next most important livestock, with more than 4,000 head of each. Only 2,882 horses and mules were recorded. Corn by far was the most important grain crop (281,183 bushels), followed by wheat (66,027 bushels) and oats (25,399 bushels). An astonishing 1,658,307 pounds of tobacco were produced in that year in the county's tobacco fields (Perrin 1887).

The mid- to late nineteenth century rise of Milton is apparent in the growth in businesses located there. McBride and McBride (2008) attribute this period of growth, which was experienced broadly in Kentucky, to the decline of rural industry and consolidation of small manufacturing, which led to rural to urban migration. By 1883, 27 commercial businesses were present in Milton, including a saloon, two general stores, two liveries, four blacksmithies (one blacksmith functioned as the postmaster as well), wagonmaker, flour mill, painter, shoemaker,

tobacconist, hotel, cooperage, and several others establishments. It should be noted that by this time, Milton had its own newspaper, the Milton Free Press (McBride et al. 2010). In 1880, Milton's population was quite a bit larger than Bedford, the county seat, which had 197 inhabitants (Perrin 1887).

As documented by McBride et al. (2010), a number of serious floods occurred along the Ohio River in the late nineteenth century and early twentieth centuries, including some that flooded buildings along the waterfront. Significant floods occurred in 1883, 1884, 1907, 1913, 1914 and 1937. All of these floods crested between January and early April in the years indicated. The 1884 flood was particularly severe, destroying several buildings in Milton and even carrying some downstream.

Early Twentieth Century (1901–1950s)

Milton's population declined to 324 in the 1900 census, a 29.6 percent decline from the previous decade. In the same period, Trimble County's population increased just slightly to 7,272 from 7,140, or 1.8 percent. Johnson (1982) cites the bypassing of commerce on rail networks that left local economies in places like Milton and Wise's Landing in Trimble County limited in their late nineteenth century growth and ultimately fading as the twentieth century approached.

Milton's population grew to 355 in 1910, a rise of 9.6 percent. In the same time frame, Trimble County's population fell from 7,272 in 1900 to 6,512 in 1910, an 11.1 percent decline. It is unclear what accounts for the population increase in Milton.

By the early twentieth century, Milton had its own grade school and high school and a dedicated school board. Bedford had a similar school system and in all Trimble County there were 33 schools (Hood ca. 1970s).

In 1919, 95 miles of turnpike (presumably improved roads) were present in Trimble County. Additionally there were 10 saw mills, 14 tractors in use, and five creameries in operation.

Also, there were 1,388 farms in Trimble County in 1919. Of these, 1,372 were operated by whites and 16 were operated by blacks. Owner- or manager-operated farms were in the majority, at 811, while there were 577 tenant-operated farms (McBride et al. 2010).

In terms of field agriculture in 1919, hay and other forage dominated with 13,598 acres. This was followed by corn (10,585 acres), tobacco (4,380 acres), wheat (4,129 acres), and clover

(2,620 acres). No other crop exceeded 1,000 acres planted. Oats (865 acres), rye (127 acres) sorghum (23 acres) and barley (6 acres) were the only other grains. Minor amounts of potatoes (106 acres), strawberries (4 acres) and blackberries (4 acres) were grown as well.

In terms of tree crops, peaches (24,515 trees) and apples (17,562 trees) stood out with many fewer pear trees (7,651), cherry trees (1,205) and plum trees (426). A total of 826 grape vines were recorded in 1919 (McBride et al. 2010).

Hogs (5,166 head) and beef cattle (4,124) were the most common livestock, followed by sheep (3,621) and horses (3,018). Fewer mules (499) and jacks (10) were kept. At this time, McBride et al. (2010) notes that Kentucky was still a leader among southern states in agricultural production.

Milton's population declined again from 355 in 1910 to 320 in 1920, an 11.0 percent decline. Across Trimble County a decline was registered as well, to 6,011, an 8.7 percent decline from the previous decade.

Early twentieth century housing in Trimble County was primarily frame houses, utilizing American Foursquare, Princess Anne, and T-plan designs. Johnson (1982) writes that many of these houses were relatively simple floor plans and had few decorative elements. Additional two-story dwellings of frame construction had fenestration of four bays with off-center or side entrances and were completed by an attached lean-to or single-story ell.

The construction of overland highways US 42 and US 421 helped to lessen the isolation of Trimble County. Toward this end in 1928, the Milton-Madison Bridge was constructed, effectively linking Milton and Madison together for road travel. The bridge was dedicated on a bitterly cold December day in 1928 (Hood 1970s)

Another very salient historic event in the history of Milton is the Great Flood of 1937, which is known to have partially covered houses on High Street (Third Street) with water (McBride et al. 2010). The historic record, what little exists, indicates that Milton was devastated by this event. On January 24, 1937 the Ohio River crested at 21.7 m (71.1 ft), 3.3 m (10 ft) above the previous recorded flood level. The Milton-Madison Bridge was closed and some homes along the river were swept away. Others were damaged. Historic photographs illustrate the extent of the flooding. A photograph showing the Milton-Madison bridge during the flood illustrates that a long narrow house was present east of the bridge with a small addition or porch at its northwest corner; however, the floodwaters limit the details that can be made out in the

photograph because the house was partly underwater (McBride et al. 2010:Figure 3.7). The areas immediately east and west of the bridge do not appear to have had structures, at least not tall structures that would have been visible during the flood. West of the bridge a sizeable squarish two-story house is partly visible above the floodwaters (possibly a Foursquare-style house). It appears to be a distance away from the bridge (possibly meaning it was outside the current western parcel to be surveyed) but the angle of the photograph makes judging distances difficult (McBride et al. 2010: Figure 3.7).

After the flood, Milton did not recover quickly as the effects of the flood (and, additionally, the Great Depression) were felt for some time. The population of Trimble County remained subdued as well. Population of the county did not exceed 6,000 from 1930–1970.

The effects of the Great Depression were felt throughout Kentucky as unemployment rose substantially. However, New Deal programs such as the Works Progress Administration ameliorated the worst effects. Nonetheless, as Ball et al. (2009) state, other trends such as mechanization of agriculture and migration to large cities negatively affected populations and prospects for Kentucky small towns like Milton.

Limited industrial growth in the Milton area is noted after World War II, particularly in areas east of the Milton. As described below some of the affected houses on High Street were torn down after the 1937 flood, including, based on archaeological evidence, the first house east of the bridge.

LITERATURE REVIEW

The literature review was carried out at the OSA in Lexington and the Kentucky Heritage Council (KHC) and State Library/Archives in Frankfort on September 18, 2012 by Samiran Chanchani, PhD. The literature review at the OSA confirmed the previous surveys and sites known from ASC's previous investigation for the Milton-Madison Bridge Project, as described in Schwarz (2011). The data are described below.

Five previous cultural resources investigations have been conducted within a 2-km (1.6-mi) radius literature review area around the project area (Genheimer 1999; Hobson 1989; Janzen 1980; McBride et al. 2010; Schwarz 2011) [Figure 3]. Three archaeological sites have been identified in this literature review area (15Tm1, 15Tm27, and 15Tm112) [Table 2].

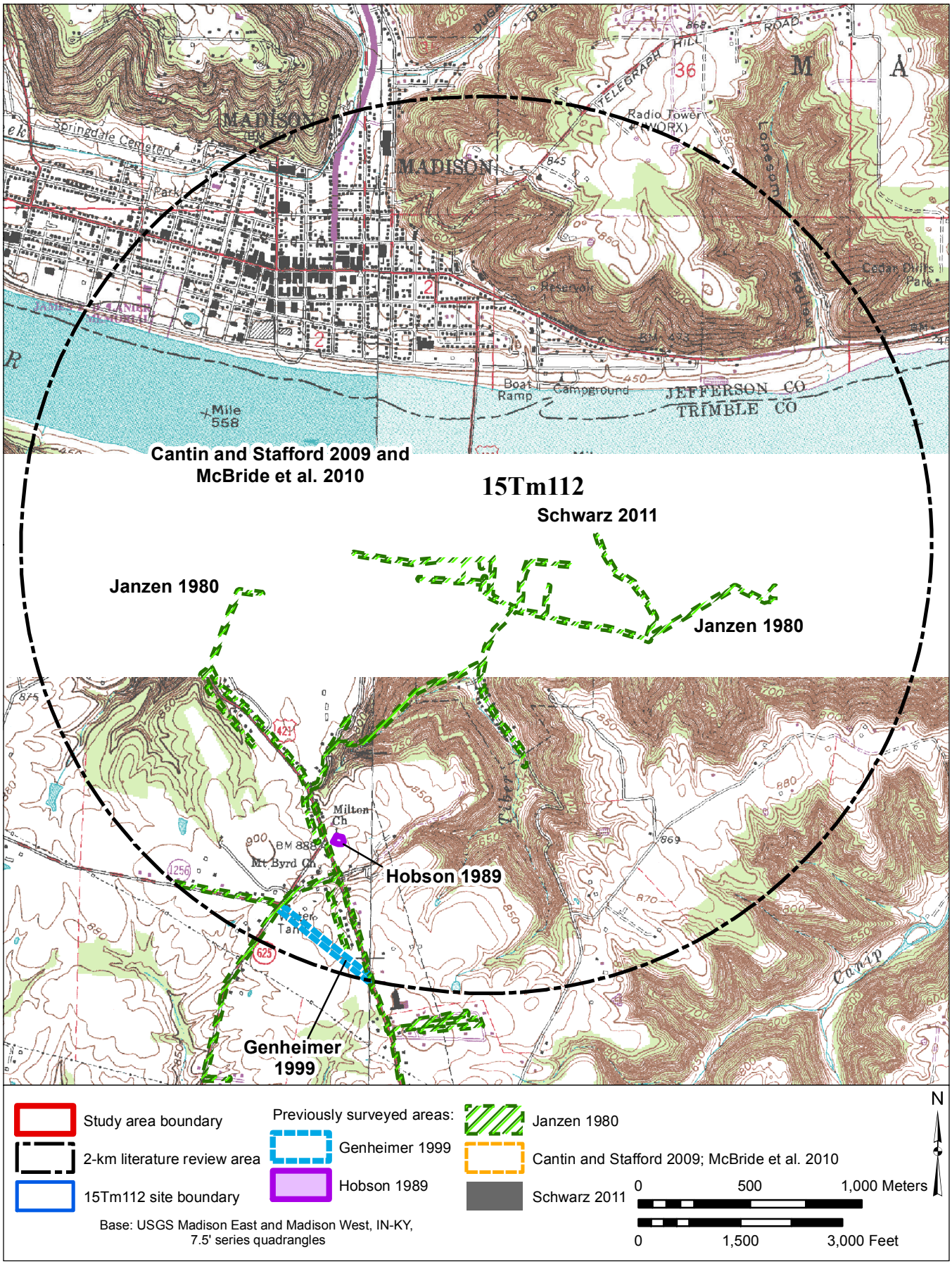


Figure 3. Portions of the 1971 (photorevised 1987 and 1994) Madison East and 1964 (photorevised 1980 and 1993) Madison West, IN-KY quadrangles (USGS 7.5' topographic maps) showing parcels east and west of the US 421 corridor, the 2-km (1.2 mi) literature review area, and locations of previous archaeological study areas.

Table 2. Archaeological Sites within the 2-km (1.6-mi) Radius Literature Review Area.

State Site No.	Recorder or Agency and Date	7.5′ Quad Name and Date	Cultural Affiliation/ Site Type	Landform	Distance to Water (m)	Site Size (m^2)	National Register Criteria Status
15Tm1	Unknown/	Madison East 1971	Prehistoric/non-mound earthwork? (described an ancient fortification by landowner)	Ridge	900	Unknown	Unevaluated
15Tm27	R. Hobson/ Cultural Resource Analysts, Inc. 1989	Madison East 1971	Prehistoric/Lithic scatter	Ridge	1500	>13,935	No further work recommended (Hobson 1989)
15Tm112	K. Schwarz/ ASC Group, Inc. 2011	Madison East 1971	Middle Archaic to Late Archaic and Historic/possible prehistoric base camp and historic waterfront structure and artifact scatter	Floodplain	75	8900	Prehistoric component recommended eligible for listing on NRHP (Schwarz 2011); historic waterfront structure component unevaluated but recommendation of no effect made for historic waterfront structure component in relation to US 421 Bridge project.

Janzen (1980) conducted an archaeological survey for proposed sewer lines and a sewage treatment plant for Milton, Kentucky (Figure 3). He did a walkover survey of the sewer line routes and sewage treatment plant site and found no evidence of any prehistoric or historic sites. Janzen also interviewed local residents but could elicit no information about archaeological sites in the area. He concluded that the proposed project would have no affect on any cultural resources. No further work was recommended.

Hobson (1989) completed a Phase I cultural resource assessment of a proposed senior citizens home in Milton, Trimble County, Kentucky (Figure 3). The project area was 150,000 ft² (13,935 m²) and was located in upland terrain southwest of the current project area. A systematic pedestrian survey was undertaken, supplemented by shovel testing. One previously unrecorded prehistoric site, 15Tm27, was located. It was a small lithic scatter consisting entirely of debitage. Hobson recommended that the site did not warrant further archaeological investigation.

Genheimer (1999) conducted a Phase I archaeological survey of two portions of the City of Milton Water Supply and Water Distribution Improvements in the vicinity of Milton (Figure 3). One of these parcels, for a water line, is a linear corridor between US 421 and SR 625. It is within the literature review area. Pedestrian survey and shovel testing were used in what were mixed survey conditions. No sites were found in this area or another area described in the report, which is outside the current literature review area. No further work was recommended.

Site 15Tm1 is a site apparently reported by a local landowner. It is located on a projecting point of a ridge overlooking the town of Milton. It is reported to be the remains of an ancient fortification, but cultivation appears to have obliterated any traces of occupation.

McBride et al. (2010) undertook Phase I archaeological survey, deep testing, and core drilling monitoring for the Milton-Madison Bridge Project (Figure 3). Also, a sonar survey was undertaken in the Ohio River to identify the potential for submerged sites, although none were found. The above-water APE for the proposed project is a total of 7.18 acres (2.91 ha), including a bridge construction area and two ferry areas. The Phase I surveyors excavated 72 shovel probes and recorded five isolated finds. No artifacts were encountered during the core drilling monitoring. Thirteen trenches were excavated and geoarchaeological characterization of the trenches was undertaken by Mark Cantin of Indiana State University (Cantin and Stafford 2009). During the course of survey a historic/prehistoric site was discovered (15Tm112) at depths of

between ca. 1.00 m–1.55 m (3.28 ft–5.08 ft) below surface, extending over an area of 52.5 m x 40 m (172.2 ft x 131.2 ft) [McBride et al. 2010]. A prehistoric feature was encountered and excavated during the Phase I work at ca. 1.46 m (4.79 ft) below surface. The site could not be dated and it was unclear whether significant deposits were present at the site or what the extent of the site was. Avoidance or further work was recommended for the site.

The avoidance option was not possible, so in 2010–2011, Schwarz (2011) conducted a Phase I–II survey for the US 421 Milton-Madison Bridge project. The project plans involved construction of pilings and piers at depth in/near the location of 15Tm112 and archaeological investigations were required. The investigation was limited to the APE, six narrow trenches. The investigations carried out by Schwarz (2011) included archaeological trenching, shovel testing, test unit excavation, and feature investigations. The prehistoric component of 15Tm112, a Middle to Late Archaic occupation, was determined eligible for listing on the NRHP. Multiple projectile points and other stone tools, debitage, and four prehistoric cultural features were documented during the investigation of Schwarz (2011).

A historic component was identified at the site as well, but it consisted of a few artifacts and several historic features. The historic features are wooden posts and a horizontal timber exposed in a trench. These features are thought to be related to a waterfront structure, such as a pier remnant, but because of the relatively limited exposure of a single waterfront structure and hence, limited interpretability of the features within a narrow APE, a finding of No Adverse Effect for the historic archaeological component was recommended (Schwarz 2011:130).

It should be mentioned that because 15Tm112 has not been delineated, its existence or non-existence in the parcels currently under investigation had not been determined at the time of the investigation. It was considered possible that the prehistoric component of 15Tm112, which is mostly buried below 50 cmbs (20 inbs), extends into one or both of the two parcels.

Thus, 15Tm112 is a multicomponent site with a Middle Archaic component, a Late Archaic component, and a historic component. The prehistoric component of 15Tm112 was determined to be eligible for listing on the NRHP while the historic component remains unevaluated. A determination of No Adverse Effect was recommended for the limited historic component uncovered during the previous investigation (Schwarz 2011). Other than the excavations of Schwarz (2011), no new archaeological investigations within a radius of 2 km (1.24 mi) have been undertaken since the original Phase I work (McBride et al. 2010).

Thus, the resulting Phase I archaeological survey design described below included elements of survey of the near surface soil horizons to look for historic archaeological remains. The eastern parcel is reputed to have once had a house or mortuary although the age of the building is not known nor is it known if any foundation remnants remain. It is a grassy field and construction area today. The western parcel had three mobile homes and now has a graveled parking lot. Mapping from the 1970s indicates there may have been a structure on or near the western parcel before the mobile homes were there. In addition to the historic archaeological survey, trenching and deeper hand excavations (shovel testing and test units) are used to investigate the site at depth. Here, the goal is to identify if prehistoric remains are present or not at depth in the floodplain in the two areas to be surveyed and preliminarily characterize the remains.

Third Street Historic District

At the KHC, documentation of the Third Street Historic District was sought since all of the western parcel and part of the eastern parcel to be surveyed for archaeology are within the historic district. The historic district was listed on the NRHP in 1984 and encompasses about two blocks, including the Third Street and US 421 intersection. The period of significance is 1850–1899 (National Park Service 2012). Most maps show Third Street labeled as High Street now so the name must have been changed at some point. Six architectural properties (TM-M-17 through TM-M-22) are listed as contributing properties to the historic district. TM-M-22 is outside of the actual boundaries of the district (Figure 4; Table 3). One other structure, TM-M-15, was recommended to be potentially eligible for listing on the NRHP. It is outside of the historic district. Wilbur Smith Associates (WSA) conducted a Phase I study of historic architecture for the US 421 Milton-Madison Bridge, documented 14 properties in the downtown Milton area (Ball et al. 2009). This report was not available in the KHC offices but was obtained from J. David McBride of CDM Smith, the successor company to WSA. In addition to revisiting several properties along High Street/Third Street that had been previously inventoried (TM-M-15, TM-M-17, TM-M-18, and TM-M-19) [Figure 4; Table 3], a number of other properties were included in the Ball et al. (2009) study. These include the US 421 bridge (considered eligible for listing on the NRHP) and two listed properties on Ferry Street that are outside of the study area for the current investigation.

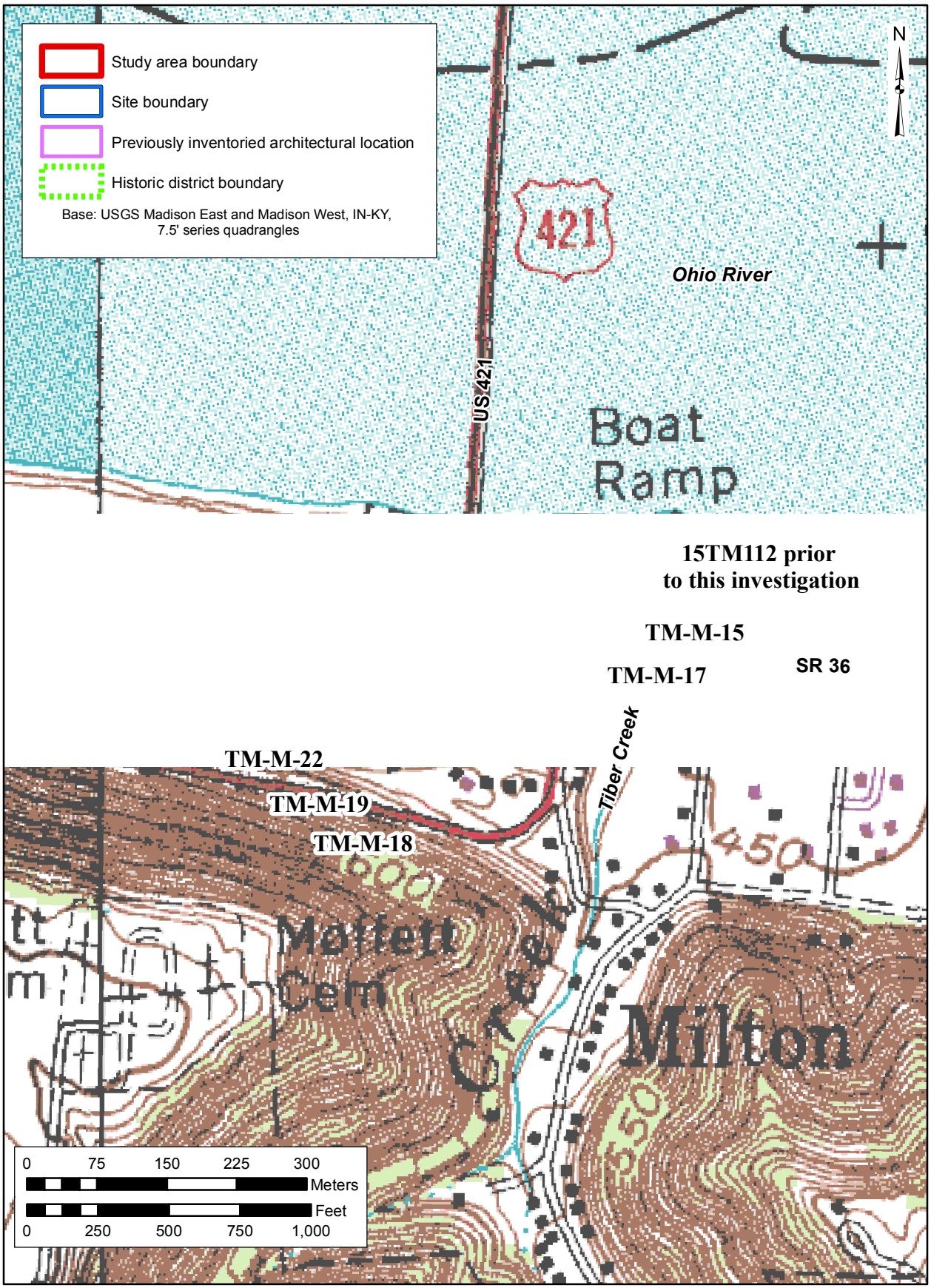


Figure 4. Portions of the 1971 (photorevised 1987 and 1994) Madison East and 1964 (photorevised 1980 and 1993) Madison West, IN-KY quadrangles (USGS 7.5' topographic maps) showing the results of the literature review for the Third Avenue Historic District.

Table 3. Previously Inventoried Cultural/Historic Resources.

7.5′ Quad Name	Structure No. /Property Name	Recorder, Agency and Date	Address/Location of Building/ Structure	Date(s) of Construction	Style and Type of Building/Structure	NRHP Eligibility Status/Date/Current Condition
Madison East	TM-M-15 Ginn's Furniture Store (now Kountry Korner)	William Johnson/KHC/ 1982	SR 36, Milton	ca. 1875–1900	Rectangular, brick two-story commercial building	Listed as an individual property/1984/extant
Madison East	TM-M-17 Wood-Oakley House (now Wood-Oakley funeral home)	William Johnson/KHC/ 1983	Third St., Milton	ca. 1880–1890	T-shaped plan, brick two-story house (Queen Anne style), one outbuilding	Listed in Third Street Historic District/ 1984/extant
Madison East	TM-M-18 Vinson Oakley House	William Johnson/KHC/ 1983	Third St., Milton	ca. 1880	T-shaped plan, brick two-story house (Queen Anne style)	Listed in Third Street Historic District/ 1984/Demolished in 2011 or 2012
Madison East	TM-M-19 Dr. Calvert House	William Johnson/KHC/ 1983	Third St., Milton	ca. 1850	Four-bay plan, frame, one-story cottage (Greek Revival style)	Listed in Third Street Historic District/ 1984/extant
Madison East	TM-M-20	William Johnson/KHC/ 1983	Third St., Milton	ca. 1865	Five-bay central passage plan, frame, two-story house with ell (Queen Anne Style) Two frame outbuildings	Listed in Third Street Historic District/ 1984/condition unknown
Madison East	TM-M-21	William Johnson/KHC/ 1983	Third St., Milton	ca. 1875	T-shaped plan, frame, two-story house (Queen Anne style)	Listed in Third Street Historic District/1984/ condition unknown
Madison East	TM-M-22	William Johnson/KHC/ 1982	Third St., Milton	ca. 1840–1850	Three-bay plan, frame, two-story house with ell, one frame outbuilding	Listed in Third Street Historic District/ 1984/condition unknown

The two parcels surveyed during the current investigation are in the northeast portion of the historic district. The historic district is listed as having a period of significance as 1850–1899 and its significance derives primarily from single-family domestic dwellings. For example, Johnson (1982:7) states that the Third Street historic district is architecturally significant for its historic association with the cultural development of Trimble County. The district is a cohesive collection of mid- to late nineteenth century vernacular architecture.

Specifically, the historic significance of the Third Street historic district for its Queen Anne-style and Greek Revival-style houses (National Park Service 2012). Most of the houses within the district were built in this period. These include the Wood-Oakley house (now the Wood-Oakley Funeral Home) [TM-M-17] [Plate 4], dating to ca. 1880–1890, the Vinson Oakley house (TM-M-18), dating to ca. 1880, and the Dr. Calvert house (TM-M-19), dating to ca. 1850 (Figure 4; Plate 5). One commercial structure, Ginn's Furniture Store (TM-M-15), is present near the district, but it is not listed as contributing to the district nor is it physically within the district boundaries. It is now the Kountry Korner Store. It dates to ca. 1875–1900 and is a rectangular, brick two-story commercial building. It is located on the corner of High Street and SR 36.

Buildings that were still visible from the project area are marked as extant on Table 3. But as the task at hand was a Phase I archaeological survey no attempt was made to systematically ascertain the status of the other buildings. One residential structure, the Vinson Oakley House (TM-M-18) [Figure 4], was recently demolished, apparently in 2011 or 2012. Clearly in the intervening years since the early 1980s NRHP nomination some buildings have been torn down in Milton. Structures that could not be seen from the project area are marked "condition unknown."

Plate 4. The Wood-Oakley Funeral Home (TM-M-17), which is across High Street from Area 1; facing south.

Plate 5. The Dr. Calvert House (TM-M-19), which is across High Street from Area 2; facing south.

Historic Map Analysis

Historic maps were sought at the State Library/Archives but none were found. However, the records of the Trimble County Historical Society were accessed as well. The Trimble County Public Library in Bedford houses the collection of the Trimble County Historical Society. It was visited during a period of rain at the work site on October 25, 2012. During this visit a photocopy of an original 1858 plat map of Milton was found in the historical files and photocopied (Samuel 1858) [Figure 5]. The map shows High Street, which was apparently later known as Third Street, although it is now again called High Street. Also shown is a street to the north of High Street, Water Street, which fronted the Ohio River (Figure 5). To the south was Spring Street, named after "Ridge Spring," which issued forth from the ridge above the site of downtown Milton (Samuel 1858). Three streets were platted going north and south. Canip Street ran along the east edge of Milton. Cross Street ran through the center of Milton and Mill Street ran on the western edge of Milton. The northwest corner of Milton had nearly two acres set aside for a mill.

In fact, Rennick (1988:199) states that Milton's name may be a shortened version of Milltown or a combination of Milltown and Kingston, another town that was platted west of Milton in 1867. Admittedly, Rennick does not know how the name was acquired and states that no one else does either, but those are the two possibilities mentioned. Today the names High Street and Canip Creek survive on modern maps of Milton. Canip Street underwent a name change and is now called Ferry Street. Kingston was later incorporated as part of Milton.

Based on the distance from Ferry Street to the US 421 Bridge (about 350 ft/106 m), it appears that the Milton-Madison bridge and approach are sited west of where Cross Street was routed originally (Figure 5). It appears that the property consisting of the eastern parcel surveyed (Area 1 and 3) was mostly in Lot No. 3 and encompasses portions of Lot No. 2 and Lot No. 4 (Figure 5). According to the records originally recorded on the plat map, Lot No. 3 was bought in 1858 by Archabald King for $75.00 while Lot No. 2 was purchased by John Rock for $90.00. Lot No. 4 was bought by Benjamin Taylor for $100.00. The western parcel (Area 2) would probably be in Lot No. 1. This lot was purchased by Benjamin Taylor for $269.00 (Samuel 1858). Each of the lots sold north of High Street was 20.1 m wide x 60.3 m long (66 ft wide and 198 ft long) [Figure 5].

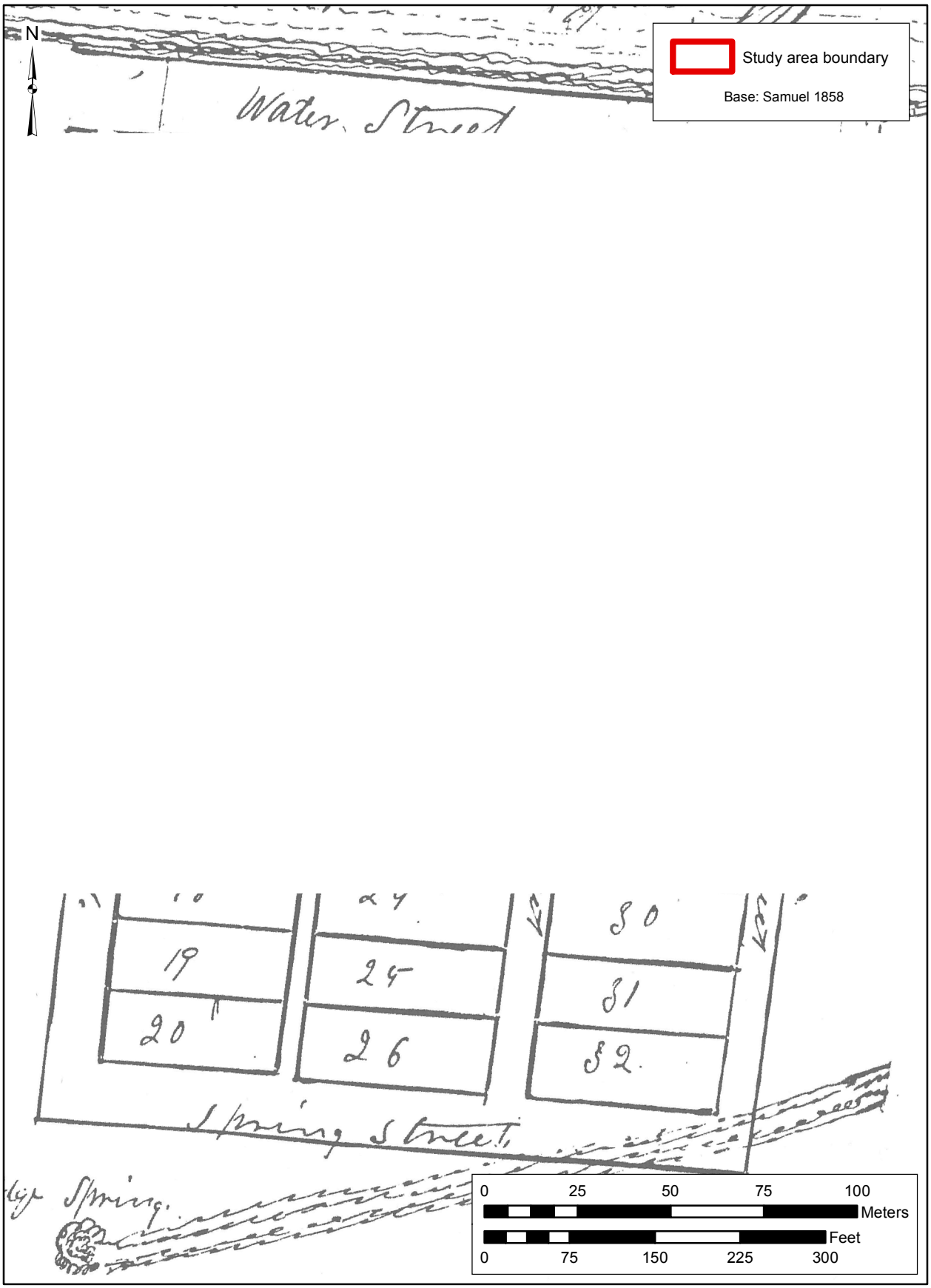


Figure 5. *Plat Map of Milton, Kentucky* (Samuel 1858) with study area overlain.

The surname King, which is associated with Lot No. 3, is present in an 1862 list of businesses in Milton. Zeb King is listed as selling dry goods and Arnold and King are listed as grocers. It is not clear if either of these establishments were associated with the Archabald King who owned property on High Street. Perhaps he was the King listed as partner with Arnold or perhaps he was related to Zeb King.

CHAPTER 4: METHODS

Field methods of the investigation and laboratory methods for analyzing prehistoric and historic artifacts are described in this chapter.

FIELD METHODS

The following field methods were employed during the Phase I survey: trench excavation with a backhoe and archaeological monitoring, excavation of 50-cm x 50-cm (20-in x 20-in) shovel test pits (STPs), excavation of 1-m x 1-m (3.3-ft x 3.3-ft) test units, and excavation of features. They are described below.

Trenching

Walsh Construction Company supplied an operator and backhoe to excavate 12 trenches in September, October, and November 2012. The backhoes used each had a smooth bucket with no teeth for excavating smooth, accurate trenches. The excavations were monitored by an archaeologist. The archaeologist was able to stop the backhoe work to investigate any artifacts, soil anomalies, cultural strata, or features encountered.

Trenches 1–6 varied in width and length between approximately 1.0 m–1.2 m in width and 7.5 m–11.5 m in length (3.3 ft–4 ft x 24.5 ft–37.7 ft). Depth of each trench is described in the Results (Chapter 5). The maximum depth of each of these trenches was set at 152 cm (60 in). However, after a discussion with a Walsh safety inspector, who stated that due to the soil conditions, he considered 121 cm (48 in) to be the maximum safe trench depth without stepping the trenches. For this reason, the trench excavations were modified. The depth of subsequent trenches (Trenches 7–12) was set at an approximate maximum of 152 cm (60 in) but each trench was stepped at approximately 75 cm (30 in) and the floor and wall of the step was maintained at a 1:1 relationship. In order to maintain excavation safety in this way, Trenches 7–12 needed to be roughly 2.5 m x 7.5 m (8.2 ft x 24.6 ft) each. The upper wall was approximately 75 cm (30 in) in depth and the bench was 75 cm (30 cm) in depth. This meant that the center of the trench could be extended down an additional 77 cm/30.3 in (a total depth of 152 cm/60 in) in a deep test that was 1 m x 6 m (3.3 ft x 19.6 ft). The STP and, in two selected trenches, the 1-m x 1-m (3.3-ft x 3.3-ft) test unit, were excavated in Trenches 7–12 within the deep test portion of these trenches (prior to backhoe excavation there).

Trenches 1–6 were placed at various orientations to maximize the chance to find features. The trenches were excavated until the fill horizons were penetrated and historic strata were

encountered, generally between 50 cmbs–80 cmbs (20 inbs–31.4 inbs) in each trench. Based upon the stratigraphy uncovered by McBride et al. (2010) and Schwarz (2011) it had been thought that the prehistoric cultural stratum of interest would be reached at a depth of ca. 80 cmbs (ca. 31.4 inbs). It was recognized that the depths of the cultural stratum may be a little more shallow or deeper depending on natural undulations of the subsurface strata.

As noted above, Trenches 7–12 were stepped, generally at about 75 cmbs (30 inbs). At or near this point exposure of the historic stratum (buried A horizon) was made and in Area 1 near the existing bridge historic artifacts were found prior to encountering prehistoric artifacts. Once the trench was approximately level at 75 cmbs (30 inbs) shovel testing commenced. Artifacts were collected during the trench excavations, although they were generally not numerous. A representative 1-m (3.3-ft) section of each trench was profiled. The locations of the profiles are mapped in the report.

One STP was excavated in each trench. In Trenches 1–6, mechanical excavation was suspended when the historic stratum (buried A horizon) was encountered, and at that point the STP was placed within the partially excavated trench and the depths at which point the STP was started varied according to what depth the historic stratum was exposed. STPs were also excavated in each of Trenches 7–12, although because of the stepping of the trench, the starting depth of each STP tended to be closer to 75 cmbs (30 inbs), although there was some variability. The methods used for the STPs are described below.

Shovel Test Pits within the Trenches

This investigation method utilized STPs to rapidly assess the potential to encounter high densities of artifacts and/or features or middens in a particular trench. The technique consisted of excavating 50-cm x 50-cm (20-in x 20-in) STPs, one each, within the trenches. The STPs were excavated to a maximum depth of 160 cmbs (62.9 in) although the final depth was determined by the field director based on finds and field conditions. A record was kept for all STPs excavated. This record includes soil profile/depth, soil texture, soil color, and presence/absence of cultural materials. All cultural materials were collected, except coal and brick fragments. All STP fill was screened through 0.25-in hardware cloth to aid the search for artifacts. The purpose of this action was to gauge whether there was any historic or prehistoric archaeology of interest in these trenches that would warrant additional investigation of 15Tm112. STPs were excavated using arbitrary 10-cm (4-in) levels.

Test Unit Excavation within the Trenches

The plan outlined in the scope of services documents specified that for each area investigated, one 1-m x 1-m (3.3-ft x 3.3-ft) test unit would be excavated to provide a controlled sampling of artifacts at depth and explore for features. Three trenches were placed within Area 1, six trenches were placed within Area 2, and three trenches were placed within Area 3. After initial clearance of the fill layers expected in each trench, excavation of one 1-m x 1-m (3.3-ft x 3.3-ft) units would commence in the trench selected for a particular area. The unit(s) were placed at a location in the trench(es) at the discretion of the field supervisor and principal investigator based on their own judgment. For example, the levels of artifacts encountered in the STP or during the trenching figured in the placement of the test unit. Other factors leading to the placement of a test unit include the presence of a historic feature nearby.

Excavation was to be carried out utilizing natural stratigraphy if a stratum break or feature can be found. Failing that, arbitrary 10-cm (4-in) deep excavation levels were utilized. Soils were passed through a 0.25-in hardware cloth to provide for a controlled collection. Excavation continued until 160 cm (62.9 in). This depth was chosen as it is the maximum depth for safe excavation, per Occupational Safety and Health Administration (OSHA) trench guidelines. When features were encountered, they were investigated by the methods described below. Plan view maps and profiles of test units were made as appropriate.

Initially one 1-m x 1-m (3.3-ft x 3.3-ft) test unit was placed in the eastern parcel (Unit 2) and one in the western parcel (Unit 1) [Figure 6]. In the eastern parcel, the excavations encountered the stone foundation wall during the trench excavation that led to the decision to place the test unit in Trench 5. In the western parcel nothing of substance was found during the initial trenching so there was no way to prioritize where to put the test unit on that side. Subsequently, it was determined to place one test unit in Area 1 (Area 1, Unit 3) and one test unit within the crane work area on the east side of the bridge (Area 3, Unit 4) [Figure 6]. Among the trenches, the 1-m x 1-m (3.3-ft x 3.3-ft) test unit locations were determined based on artifacts in the STPs and stratigraphic conditions observed to maximize the chance of finding artifacts and intact deposits. Excavation methods for the test units are below.

Figure 6. Aerial photograph showing the two parcels, trenches, STPs, test units, and features.

Tile Probing the Extent of Feature 3

Tile probes are often used in construction and related industries to locate buried objects without the need to resort to costlier geophysical methods. A tile probe consists of a metal rod attached to a handle. The rod is inserted into the soil until it strikes hard material. This method was used to delineate Feature 3, a foundation that was partially uncovered during mechanical stripping of Trenches 5 and 6. Tile probing commenced at the known location of the foundation. Additional probes were placed at intervals of approximately 50 cm (20 in) on a grid from this point. When stone was encountered, flags were inserted into the ground at that location and the depth was recorded. After thoroughly probing the area, the flags left a close approximation of the footprint of the foundation. The maximum extent of the foundation was then recorded without a TOPCON total station. Instead, a submeter GPS unit was used to record the apparent building corners. In this way, further excavation and unnecessary disturbance were avoided but the building was better located. The GPS data is presented in a table and referenced in the Site Description (Chapter 7).

Feature Investigations

When historic features were found they were partially exposed, photographed, and drawn in planview. Soil was excavated within and near them, as appropriate, to determine if artifacts were associated with the feature. Drawings of features and photographs were made as appropriate.

Mapping

A TOPCON total station was used to map the trenches, excavation units, and features. A datum was established utilizing a piece of rebar. It was placed in the ground in a grassy area south of Trench 1. The datum was assigned to arbitrary coordinates of N500 E500. Additional total station points were shot in of the surrounding features like High Street and the parking lot next to 15Tm112 so that the map could accurately be placed in space on an aerial photograph. A center point was shot for each historic or prehistoric feature and STP, and corner points were shot in for the trenches and test units. Additionally, a submeter-accurate Trimble GPS receiver was utilized and selected points were recorded with it. Points recorded along trenches ensure that the locations of features and excavation units were accurately recorded and mapped.

LABORATORY ANALYSIS

Lithic Analysis

Lithic materials are the most durable artifacts collected on prehistoric sites. Although prehistoric peoples utilized many organic materials, lithic material is often the only evidence of prehistoric activity to survive. In the sites under study the most common means of forming stone tools was by chippage, a form of reduction of certain cryptocrystalline rocks. Chipped stone lithic materials from archaeological sites are usually divided into two general categories: debitage and tools. Tools are the final product of lithic reduction while debitage are the by-products of such reduction.

Fire-cracked rock (FCR) is rock that is fire-reddened or exhibits angular breakage or other patterning consistent with a rock having been heated in a fire, such as a hearth, campfire, or earth-oven.

Debitage Analysis

The debitage analysis adopted is a typological approach with two basic types, flakes and shatter. Flakes are further assigned into sub-groups based upon a combination of size, form, and presence and prevalence of dorsal flake scars and dorsal cortex, as is discussed below. The prevalence of flakes of particular types is thought to be related to the lithic reduction continuum by which an unmodified raw material is reduced to a preform or core and then is further thinned and shaped until it reaches a requisite form (Callahan 1979). At this point, the tool's edge is adjusted and it is sharpened. The subtypes of flakes recognized in the analysis of this reduction continuum are primary flakes, secondary flakes, and tertiary flakes, which are defined below, as well as bipolar flakes and micro flakes. The definitions and, thus, the analysis, are based on Andrefsky (2005). It is recognized that not all lithic reduction is core reduction aimed at producing bifaces and that flake tool traditions and blade traditions exist and must be modeled differently (Dibble 1991).

flake: unmodified flake or fragment thereof, generally thin, exhibiting a bulb of percussion; includes primary, secondary, and tertiary reduction flakes;

primary flake: these flakes were removed in an attempt to reduce mass of the nucleiform and subsequently create a workable preform or a useable core. These flakes may display scars of previously detached flakes over the entire dorsal face and are typically triangular in cross

section. A subgroup of this category includes *primary decortication flakes,* which have >70 percent of cortex remaining on the exterior surface;

secondary flake (thinning flake): these flakes were removed to further shape the preform into a workable piece. Similarly, they retain flake scars over the entire dorsal face but may be distinguished from primary flakes in that they are somewhat thinner in cross section and frequently lack the pronounced bulb of percussion seen on primary flakes;

tertiary flake (sharpening flake): these flakes are tiny chips removed during the final stages of tool manufacture. As their descriptive name implies, this stage in flake removal was employed to strengthen and sharpen the edges of a tool.

bipolar flake: flakes exhibiting points of applied force at opposing ends. Bipolar flakes show evidence of the applied force at opposing ends, often in the form of compression rings emanating from both ends (Andrefsky 2005).

micro flake: lithic debris typically smaller than 3.1 mm (.125 in).

shatter: a blocky or angular chunk of chert that is a byproduct of lithic reduction, which shows no indication of reworking or being used as a core. In addition, pieces of shatter that cannot be assigned as unmodified flakes are included in this category;

core: nucleus or mass of lithic materials that shows signs of detached piece removal (Andrefsky 2005).

The debitage analysis thus consists of first sorting the material into two broad categories: shatter and flakes or fragments thereof (Sullivan and Rozen 1985). Shatter was defined as debitage pieces exhibiting no obvious dorsal or ventral surfaces and are usually blocky and angular in appearance. Attributes recorded for shatter were limited to raw material, presence or absence of cortex, and evidence for heat alteration. A core is often considered to be an objective piece that functions primarily as the source for detached pieces (e.g., flakes) [Andrefsky 2005].

Flakes were identified as either whole flakes or flake fragments. For flakes, the primary, secondary, and tertiary assignments are made. Also recorded for flakes/flake fragments were the following attributes (if present): raw material, presence/absence of dorsal cortex, and evidence for heat alteration. These attributes are discussed below.

Definitions of Variables

Lithic raw material: Flakes were macroscopically inspected to determine the most likely geological sources of raw materials, employing the chert reference collection in the ASC Group artifact laboratory. This variable monitors procurement activities, selectivity in the use of different chert types for different technological purposes, and serves as a means estimating mobility and/or exchange networks.

Dorsal surface cortex: Cortex is defined as any exterior piece of a lithic material that does not exhibit a humanly induced fracture scar. Cortex may therefore occur in a wide variety of forms, including weathered, discolored or stained surfaces, joint planes, patination, or adhering geological matrix (Ahler 1987). This definition contrasts cortex with the non-cortical surface, which is any humanly induced fracture surface (Ahler 1987; Odell and Henry 1989:241). Flakes and flake fragments were categorized for absence or presence of cortex. The presence of cortex on dorsal flake surfaces indicates that flakes were detached from the outer surfaces of raw materials that had little prior modification. Assemblages dominated by flakes lacking cortex represent flake production from cores or tools that were extensively modified prior to their introduction to a site or assemblages in which raw materials were being extensively shaped. The maintenance of existing tools, for example, should result in the deposition of few, if any, cortical flakes. Generally, primary flakes have cortex coverage of between 50 percent–100 percent, secondary flakes have lesser percentages of cortex coverage, and tertiary flakes usually have no cortex coverage (Andrefsky 2005:117).

Heat treatment: Purposeful heat treatment is a highly controlled process designed to reduce the tensile strength of the chert (typically by 40–70 percent) to improve chert fracturing properties and reduce the amount of force required to fracture the stone, thereby increasing the knapper's control over the fracturing process. Heat treatment is often difficult to detect, but heat-treated cherts usually exhibit more vitreous fracture surfaces than those of non-heat-treated surfaces and may exhibit distinctive color changes as a consequence of oxidized iron impurities (Luedtke 1992; Rick 1978). Heat treatment is coded as present or absent. Where indeterminate or ambiguous, it is coded as absent.

Lithic Reduction Model

By examining the overall size of flakes, their morphologies, and cortex coverage, archaeologists have developed models for assessing where a flake assemblage fits in the overall lithic reduction trajectory (Pecora 2001). For example, a site lithic assemblage may demonstrate evidence of early stage reduction of chert nodules or cobbles (e.g., primary decortication flakes), reduction of preforms to bifaces, reduction of cores, tool sharpening and maintenance, etc. or some combination of these or other reduction strategies (Carr 1994; Carr and Bradbury 2001).

The approach of Andrefsky (2005) is used to model the reduction trajectory present within a particular assemblage. Andrefsky created samples of debitage from experimentally reducing cortex-covered cobbles, split cobbles (with 50 percent cortex coverage), and bifacial preforms (with little cortex), and then classified the number of flakes he obtained from each experiment by percent of cortex coverage. He correlated the percentage of cortex coverage with flake types (e.g., primary flakes, secondary flakes, and tertiary flakes). As mentioned above, primary flakes have cortex coverage of between 50 and 100 percent, secondary flakes have lesser

percentages of cortex coverage, and tertiary flakes usually have no cortex coverage (Andrefsky 2005:117).

Tool Analysis

The tool analysis consisted of classifying the tools based on their nominal attributes. The classification of a tool is based upon the presumed primary function of the tool or, in the case that the particular function of a tool cannot be determined, is descriptive in nature. Tools are also classified as formally shaped tools (formal tools)[Callahan 1979; Whittaker 1994] and expedient tools, flakes that show evidence of minor retouch or wear traces. The classification of some tools, in particular projectile points, allows a determination of temporal or cultural affiliation (Justice 1987). In addition to the attributes that are recorded for debitage, the tool analysis involves recording the metric attributes (length, width, and thickness) of the tools if possible. The following terms are often utilized in describing the elements of a tool assemblage:

> *biface/biface fragment:* bifacially worked objects in the early or advanced stages of reduction, or fragmentary bifacially worked objects that are not projectile point or knife fragments. Bifacially worked objects are worked on both sides;
>
> *drill:* A sharply pointed instrument, generally with a long tapered blade and a beveled tip. Twisting or rotary action is able to penetrate wood, shell, or similar substances.
>
> *endscraper:* a bifacial or flake tool with retouch along the terminal margin forming a narrow or broad sharpened scraping surface.
>
> *graver/graver spur:* a flake tool with a chisel head produced by the removal of two flakes or spalls to create a very sharp angled and durable pointed chisel blade, also termed a burin (Andrefsky 2005:256). A graver spur is a small graver blade located at a roughly perpendicular angle along a larger flake.
>
> *perforator*: a long, sharp stone tool used for puncturing materials like hides.
>
> *retouched flake*: A flake that has had one or more episodes of sharpening, resulting in the removal of small pressure flakes (retouch).
>
> *utilized flake*: a flake that exhibits evidence of wear (wear traces) indicating it had been used as a tool in the past.

Lithic Raw Material Identification

Efforts to identify the sources of the lithic raw materials utilized at archaeological sites is often problematic due to the fact that there can be great variations of attributes between chert

samples taken from the same source, and there are similarities in the attributes of cherts from different sources (Odell 2003). The problem is compounded to some degree by the fact the Late Archaic Maple Creek cultures are known to have used cobble cherts found on gravel bars along the Ohio River and its tributaries (Ariens 2011; Bader 2005). Use of a type collection during analysis and consultation with the archaeological literature allays that difficulty to some degree, allowing for the identification of cherts provisionally that were found during the project. For the purposes of this investigation, the following chert types were utilized: Derby, Fossiliferous, Holland, Jeffersonville, Laurel, Muldraugh-Fort Payne, Vanport, and Wyandotte chert. These raw materials are defined below.

Derby chert: Derby chert is bedded between two sandstone beds, which are in the uppermost part of the Mississippian sequence. It may lie within the Degonia or Palestine sandstones. It is also possible it is within the Kincaid limestone, a chert-bearing parent bed that contains thin layers of sandstone. Regardless of the lack of exactness of its stratigraphic provenience, all of these bedrock units are confined to the southern portion of Perry County, Indiana. The type area for Derby chert is German and Koontz Ridge, Perry County (Cantin 2005:17).

Derby chert ranges from light gray to medium dark gray with medium light gray being the most common. Darker gray silty-appearing bands may be present and run parallel to the bedding plane. Derby chert weathers to various shades of tan and brown (5YR 6/4, 7.5YR 6/4, and 10YR 6/4). Luster, texture, and fracture quality vary widely. At the type area, the chert is dull and grainy in luster, appearing dolomitic. Textures range from coarse-medium to medium and fracture is very blocky. Outcrops close to Derby produce specimens that have a slightly lustrous to waxy sheen and a medium-fine to nearly fine texture, with a high degree of translucence and conchoidal fracture. Higher quality varieties show greater range of colors including blues and darker and lighter browns. Most Derby chert is non-fossiliferous (Cantin 2005:16–17).

Fossiliferous cherts: Multiple types of fossil-bearing cherts are found in the central portion of the Ohio River Valley. Cantin et al. (2005) identify Allens Creek, Muldraugh, and Saint Louis Fossiliferous chert as frequently appearing in Falls of the Ohio region archaeological assemblages. According to their review of the data, Allens Creek is nearly indistinguishable from several other fossiliferous cherts. For example, they refer to Allens Creek as a variety of Muldraugh chert (see below)and also mention that Allens Creek chert is referred to as Knobs chert by Janzen (1971). According to Cantin et al. (2005:11), beds of Muldraugh and Allens Creek chert are found alternating or laterally graded in exposures in Harrison and Floyd counties, Indiana. Fossils common to Allens Creek chert are sponge spicules and fenestrate bryoza. Another type of chert that is highly fossiliferous is Saint Louis Fossiliferous. Saint Louis Fossiliferous chert is a rock type present in Mississippian strata that is often noted for its green color. It outcrops in numerous areas in Kentucky (McDowell 1986:23–24), including the Fort Knox Military Reservation (Striker et al. 2005) and areas in the interior of Kentucky (west,

northwest, and southwest of 15Tm112) [McBride et al. 2010]. Fossils tend to be very small and include fusulinids, foraminifera, and ostracods.

Holland chert: Holland chert is a glossy high to very high-quality chert. It is found in the Holland Limestone that is a member of the Raccoon Creek group of the Pennsylvanian section. Sources of the chert have been found in Dubois and Spencer counties. Holland chert is variable in color, ranging from dark gray with light gray mottling to a translucent pinkish or yellowish gray (Munson and Munson 1984:158). A variety of this chert contains black-blue mottles with yellowish streaks of limonite along the surface of stress fractures. A "dark-phase" variant of Holland chert is also defined. The discussion presented in Cantin (2005:24–25) indicates that Holland and Ferdinand types overlap. According to this view, what was being called Ferdinand chert does not belong with the Pennsylvanian-aged Ferdinand Limestone, but rather is part of the Holland Limestone. Holland Dark-Phase is identified as medium gray to brownish gray with characteristic light blue-gray mottles. Darker shades of gray to nearly black are common. A blue cast is often visible as well. The chert may have rust-colored limonite stains and the luster is waxy. It is fine textured and thin edges can be translucent. It is a high-quality chert. Sponge spicules, echinoderm spines, and other fossils are common. It is identified in bedrock and residual exposures in Dubois and Spencer counties.

Jeffersonville chert: Jeffersonville chert is found in the Jefferson County, Scott County, and Jennings County areas of Indiana and Jefferson County, Kentucky. The known sources are Coffee Creek in southern Jennings County and Big Creek and Graham Creek in the Muskatatuck Basin of Scott/Jefferson/Jennings counties (Cantin 2005:28). It apparently occurs archaeologically in Kentucky at sites near the Falls of the Ohio, as has been suspected for some time (Boisvert et al. 1979; Janzen 1971). Working in the Falls of the Ohio area, Cantin et al. (2005:3–4) have confirmed that Janzen's Type IV "Falls Chert" is Jeffersonville chert. Cantin et al. have also identified Jeffersonville chert outcropping in the Poplar Level road cut in Louisville. Cantin and Stafford (2009) also identified Jeffersonville and Laurel cherts in the Phase I assemblage at 15Tm112.

The chert derives from nodular bands in the Jeffersonville Limestone member of the Muskatatuck group, Devonian system (McDowell 1986:17). At least three distinctive strata of Jeffersonville chert exist and each has separate characteristics. The uppermost stratum (IV) is a tabular bedded chert, which is highly fossiliferous. When cortex is present (it is generally thin), the chert is white and chalky or occasionally brown or green. Small coral or brachiopod fossils are usually leached out. The middle stratum (III) has the same basic characteristics as stratum IV, but has fewer fossils and larger brown or siliceous spots/mottles. The lowermost stratum (II) is poorly silicified and of inferior quality.

Laurel chert: This chert is found in bedded formations of the Laurel Limestone member of the Salamonie Dolomite of the Silurian system (Shaver et al. 1986:73–74). Outcrops of Laurel chert have been documented in Franklin, Ripley, and Dearborn counties, Indiana It is believed

that other outcrops exist in Bartholemew, Clark, Jefferson, Ripley and Shelby counties, Indiana (Cantin 2005:32). It is also found in Greene, Miami, and Preble counties, Ohio (Kagelmacher 2001:37). Additionally, Laurel Dolomite outcrops along ridges just south of and above Milton in Trimble County, Kentucky. It is believed that chert occurs in parts of the dolomite exposures (McBride et al. 2010: 2-1 to 2-4). It is most common in the Whitewater and Great Miami valleys. The chert is usually white or light gray to light blue gray, with thin bands of light gray, light blue gray, or light purple gray. The luster ranges from dull to highly glossy, while the texture ranges from medium-coarse to fine-medium. Cantin (2005:32) states that the chert was utilized throughout prehistory, but especially during the Archaic period. It is noted to occur in outcrop areas of eastern Indiana and was found at the Maple Creek site of southwest Ohio, more than 80 km (50 mi) away from the source area.

Muldraugh/Fort Payne chert: This chert is located in the Muldraugh formation of the Sanders group, Mississippian system (Grabowski 2001; McDowell 1986:21; Shaver et al. 1986). In Kentucky, this chert is called Fort Payne chert or Knobs chert. In southern Indiana, documented outcrops are limited to the Ohio River area in Harrison County. The formation undergoes a facies change to the northwest where it is equivalent to the Allens Creek chert of Monroe, Washington, and Floyd counties. The formation also bears Attica chert that is in the Warren-Fountain county area. Cantin (2005) notes that all three cherts (Muldraugh, Allens Creek, and Attica) located in this formation are visually distinct. Muldraugh chert is usually a pastel brown or a shade of gray. Cantin (2005) observes that while uniform colors do occur, the chert is usually variegated with lighter shades of gray or light brown. Irregular chalky white patches and vugs have also been documented in the chert. Typical Muldraugh chert usually has a dull, chalky luster. The texture ranges from medium-coarse to medium. Cantin (2005) also notes that while this is the most common description of Muldraugh chert, three other varieties have also been documented: Allens Creek variety, Attica variety, and Holland variety. Muldraugh chert was used extensively at the Longworth-Gick site in Kentucky (Collins 1979).

Vanport chert: The Pennsylvanian-age Vanport member extends northward from Scioto and Lawrence counties, Ohio, on the Ohio River to Stark County in northern Ohio. The most notable chert deposit within this member occurs in its central portion in Licking and Muskingum counties and is known as Flint Ridge flint. This high-grade chalcedony was used extensively throughout prehistory, as evidenced by numerous aboriginal quarry pits on Flint Ridge itself, and by the fact that artifacts diagnostic for all of the different prehistoric temporal periods were fashioned from it. It occurs in a vast array and mottling of colors, is sometimes banded, and is of high lustrous quality (Stout and Schoenlaub 1945). It was widely traded in prehistory and is found across the Ohio Valley region at a number of sites.

Wyandotte chert: This chert, which is also referred to as Harrison County or Golconda chert, is found in both nodular and bedded forms (Smith 1990). The source for this chert is in Harrison and Crawford counties, Indiana, and Meade, Breckenridge, and Hardin counties, Kentucky (Brown 2005; Tankersley 1989). Cantin et al. (2005:12) state that large high-quality Wyandotte nodules occur by the thousands in stream beds and residual exposures in these

counties. The chert outcrops in the Fredonia member of the Ste. Genevieve Limestone formation, Blue River group, Valmeyeran series, Mississippian system (Bassett and Powell 1984). This is a very high-quality chert, usually glossy, that is medium to dark blue-gray in color with concentric or parallel banding (Munson and Munson 1984; Tankersley 1989).

Historic Artifact Analysis

The historic artifact analysis consisted of sorting the artifacts based upon function, material class, and other key attributes. This method is based on the system devised by South (1977) and later modified by Ball (1984), among others, to fit nineteenth-century domestic sites in the Ohio Valley. This method makes the site data easier to compare with contemporaneous sites in the region as well as aiding in the interpretation of the site. In particular, a sample of artifacts, systematically recovered from the site area, provides some insights into location and types of activity areas by utilizing the Artifact Pattern Analysis developed by South (1977) and modified by Ball (1984). This analysis may then be utilized to guide further archaeological research of the site if such research is needed.

Some of the artifacts may possess particular intrinsic attributes (e.g., method of manufacture, maker's marks, and decorations) that indicate a date or date range for their manufacture. This data can then be utilized to determine a date range for the site as a whole or for a particular feature. Likewise, certain intrinsic artifact attributes are indicative of the original cost of the artifact, providing insight into the socioeconomic status of the site's occupants (Miller 1980). A description of the functional groups utilized in this analysis is provided below.

Architectural Group

This group of artifacts consists of architectural elements or the remains thereof (e.g., roofing material, door lock parts, hinges, plumbing elements, window glass, nails, brick, etc.). Architectural remains in the vicinity of standing, collapsed, or subsurface structural remnants usually enter the archaeological record through abandonment as opposed to being lost or discarded. This abandonment may be due to flood, neglect, fire, the movement of people, or a host of other factors. In many instances abandoned buildings deteriorate and sometimes collapse from neglect. Collapsed structural remains such as roofing pieces, window glass, nails, hinges, and doorknobs are concentrated in the immediate vicinity of where the building once stood. This functional group may provide insights into buildings, foundation type and material, frame construction, types of windows, doors, associated hardware, fence post types, and privy construction.

South (1977) did not include building stone, brick, concrete, plaster, wood, and other similar remains in his original Artifact Pattern Analysis; however, these items were included in Ball's (1984) study of pattern analysis of historic sites in the Ohio Valley. Therefore, these construction-related items are included in this study. Window glass thickness and nail types have the potential for use in developing generalized dating of a site (Ball 1983; Nelson 1968)

Faunal Group

This group of artifacts consists of animal remains. It includes materials such as preserved animal bones or bone fragments. Because of the diverse use animal materials, they are not unified in function or with regard to the means by which they can enter the archaeological record. However, the presence of such materials can be used to make inferences about diet, health, socioeconomic status, cultural preferences and other variables that help to understand interactions on local or regional levels.

Floral Group

This group consists of preserved plant remains, including wood, plant fibers, and other organic materials which derive from plants. Because of the diverse use plant materials, they are not unified in function or with regard to the means by which they can enter the archaeological record. However, the presence of plant materials can be used to make inferences about diet, health, socioeconomic status, cultural preferences and other variables that help to understand interactions on local or regional levels.

Fuel and Energy Group

This category includes small bits of fuel sources, principally coal and admixtures of materials often found with coal such as cinders. In principal other fuel sources such as fire wood, petroleum products would be included in this category as would any tool (such as a chimney base) used to burn fuel.

Kitchen Group

This group was designed to include artifacts that represent the remains of items related to food preparation, service, and consumption. South (1977) placed all glass and ceramics that could not be attributed elsewhere within this category. The Kitchen Group artifacts generally represent deliberately discarded material. With the exception of food remains, most of the other kitchen-related material is discarded when it is broken or replaced. Kitchen ceramics were coded according to recognizable ware types and decoration method (Magid 1984; Miller 1987).

Kitchen glass was separated according to type, manufacturing method, color, and other diagnostic attributes. Examples of kitchen glass types include medicine bottle, bottle, condiment jar, container glass, and miscellaneous glass fragment. Temporal information can frequently be obtained from an analysis of the ceramic ware and decoration types and the manufacturing method, product brand, manufacturer, and color of some glass artifacts (e.g., Toulouse 1969, 1977). In most instances, Kitchen Group remains account for a significant portion of the artifact assemblage from domestic sites.

Miscellaneous Activities Group

This miscellaneous group includes a variety of material that did not fit elsewhere, such as stable items. Unidentified objects were also placed in this group.

Personal Group

Artifacts in this category are items that are individually owned. This includes artifacts relating to personal hygiene or adornment, items of clothing, writing instruments, and money. Perfume bottles, jewelry pieces, cosmetic jars, pencils, inkbottles, and coins fall within this category. Personal Group artifacts generally represent a small percentage of an artifact assemblage.

Tools and Hardware Group

This category is reserved for tools of fragments thereof used in daily life such as hammers, saws, and any fasteners that are not clearly architectural in nature. Often, unidentified metal fragments are included in this category.

Toys and Games Group

Toys and games refer to children's play things. These are generally durable remains of games such as marbles and jacks, and vestiges of sports equipment. Generally, toys and games artifacts make up only a small percentage of a historic artifact assemblage and are one of the few ways archaeologists can understand the lives of children.

CHAPTER 5: RESULTS OF INVESTIGATIONS

FIELDWORK SUMMARY

Fieldwork took place during two periods from September-November 2012. The weather varied from generally seasonable to cool and, at times, rainy. The area investigated was arbitrarily divided into three survey areas, which were numbered Areas 1–3 (Figure 6; Table 4). This was done to help organize the investigation and facilitate the taking of notes.

As described above, the parcels were needed for ongoing bridge construction work led by Walsh. The most pressing need was that Walsh was having large bridge beams delivered to the work site and needed the areas to walk cranes toward the new bridge (which was partially constructed) while holding the beams. The cranes would be walked in both east and west of the bridge corridor (Areas 1 and 2). Also, the northern portion of the eastern parcel needed to be surveyed (Area 3). This area is where the crane would sit when working on the bridge. Compaction, or crushing of artifacts and features, was also a concern.

In the eastern parcel (Area 1), the grassy field was tested with a series of nine 50-cm x 50-cm (20-in x 20-in) STPs utilizing a ca. 8-m (ca. 26.2-ft) intervals in order to determine if near-surface intact deposits with historic and/or prehistoric artifacts were present and undisturbed (Plate 1). These STPs were excavated independent of and in addition to the six STPs placed inside the trenches. They were excavated to a maximum depth of 50 cmbs (20 inbs). Because the western parcel was a graveled lot it was determined that it would not be practical to shovel test it (Plate 3).

Twelve trenches were excavated with a backhoe, six in the grassy field in the eastern parcel (Area 1), three in the gravel lot in the western parcel (Area 2), and three in Area 3. Trenches 1–6 varied in size between 7.5 m–11.5 m (24.5 ft–37.7 ft) in length and approximately 1 m–1.2 m (3.3 ft–4 ft) in width. The maximum depth trenches were excavated was 160 inbs (63 inbs) due to safety concerns and OSHA trench safety regulations. Due to safety concerns Trenches 7–12 were stepped at about 75 cmbs (29.5 inbs), and an approximately 1-m x 6-m (3.3-ft x 19.7-ft) deep interior was excavated in the center of each trench. The maximum excavation depth in each deep test was 150 cmbs (59 inbs). Trenches 7–12 were each roughly 7.5 m (25 ft) in length and 2.5 m (8.2 ft) in width (Figure 6). In one case, Trench 12, the trench excavation had to be widened to accommodate an abandoned water line that ran through the trench.

Table 4. Phase I Archaeology Survey Methods Table.

Area Designation	Landform	Land Use	Surface Visibility	Survey Method/Interval	Number of Units	Resources Identified
1	Floodplain	Grassy field and area next to previous bridge	<10%–100%	Visual inspection, STP, test units, trenches	23	15Tm112
2	Floodplain	Gravel parking lot	20%–100%	Visual inspection, STP, test unit, trenches	7	15Tm112
3	Floodplain	Grassy field and area next to previous bridge	0%	Visual inspections, STP, test units, trenches	7	15Tm112

Trenches were placed at varying orientations to maximize the chance to find features. Trenches were excavated with a backhoe with a smooth bucket and all excavations were monitored by an archaeologist. The backhoe and operator were supplied by the Walsh Construction Company. In each case, the backhoe trenches exposed fill horizons below which a generally thin historic A horizon and a thicker B horizon were present. Once the fill was penetrated by the backhoe in each trench, one STP was excavated within the trench floor as deep as was practical. Also, one 1-m x 1-m (3.3-ft x 3.3-ft) test unit was placed in each parcel within a trench selected to maximize the recovery of artifacts and provide information on cultural stratigraphy. Finally, feature investigation techniques were used to document and explore three cultural features.

Excavations indicated that 15Tm112 extended south and westward of its previously tentative boundaries. All of the artifacts recovered and the three features identified and characterized were assigned to 15Tm112 (Table 4). Below is the description of fieldwork organized by survey area. This is followed by the updated site description of 15Tm112 (Table 5).

Table 5. Phase I Archaeology Resources.

Project Name: US 421 Milton-Madison Bridge						Data Collector's Name(s): Kevin Schwarz Collection Date(s): January 24, 2012			
Site Designation /Location/ UTM	**Cultural Periods/ Centuries**	**Cultural Material**	**Depositional Context**	**Resource Type**	**Landform and Soil Phase**	**Investigation Type and Surface Visibility**	**Site Dimensions**	**Potential to Yield Important Information**	**Recommenda-tion**
15TM112	Middle Archaic to Late Archaic; late nineteenth century-ca. 1937	Drill fragment, endscraper, biface fragment, expedient flake tools, FCR, core, and debitage, drain tile feature, historic ceramics and glass, and metal container glass and kitchen ceramics, nails, metal, bricks, faunal remains, marbles, limestone foundation wall and brick feature, and historic post	Buried A and B horizons, features, structural rubble, etc.	Historic residential site with prehistoric base camp	Floodplain/ Huntington silt loam, occasionally flooded and Wheeling silt loam, 0 to 6 percent slopes	Visual inspection, STPs, test units, trenches, feature excavation	100 m x 162 m	Yes for historic residential component; limited evidence of potential to yield important information for prehistoric component within current investigation area based on current data.	Avoidance or Phase II investigation for historic residential component in southeastern part of eastern parcel; No Adverse Effect finding for prehistoric and historic scatter near bridge in eastern parcel and in western parcel.

AREA 1

Based on prior archaeological work at the Milton-Madison bridge project it was expected that most of the project area would be covered in ca. 50–80 cm (20 in–32 in) of fill, below which historic and prehistoric strata with artifacts and features may be encountered in buried A and/or B horizons. In some previous WSA and ASC trenches and hand excavations nothing was found below the fill. Under and around the 1929 bridge, disturbed soils were deeper (up to 110 cmbs/43.3 inbs; Cantin and Stafford 2009). However, it was considered possible that portions of the eastern parcel may be undamaged or less damaged because of their grassy character and the reported house or mortuary that supposedly sat directly across the street from the Wood-Oakley funeral home.

Surface visibility in the grassy field was nil, or 0 percent, while in the construction areas to the northwest and west of the grassy field it was 90–100 percent, with bare earth conditions prevailing.

Shovel Testing in Area 1 from the Surface

The grassy portion of Area 1 was shovel tested from the surface utilizing 8-m (26.2 ft) intervals (Figure 6). The focus of the excavations was the area next to High Street. STPs were assigned numbers (STP 1–STP 9). Six additional STPs were placed in trenches within the grassy area. These STPs are discussed in a separate section below.

The excavations from surface uncovered modern fill (made land) in each STP. The fill consisted of a sterile yellowish brown (10YR 4/6) or brown (10YR 4/3) clay or silt clay loam horizon. In some cases this was mottled with dark yellowish brown (10YR 4/4) or dark brown (10YR 3/3) silty clay loam. In one case a lens of gravel was encountered within the fill. In most cases, this horizon extended to at least 40 cmbs (16 inbs). Usually a thin dark grayish brown (10YR 3/2) historic stratum was encountered below, consisting of a gravelly silt loam accompanied by brick fragments and coal (not collected). Historic artifacts were recovered from this stratum below 42 cmbs (16.5 inbs) from STPs 2, 3, and 6, although the artifact counts were less than 15 in each case. A foundation stone was encountered in STP 2 at approximately 50 cmbs (20 inbs). Initially, it was not recognized as a foundation stone.

Trenching in Area 1

Six trenches were excavated in Area 1 (Figure 6; Plate 1). They were numbered as Trenches 4–9, in the order of their excavation.

Trench 4 was excavated in the northern portion of the parcel and was oriented east-west (Figure 6). It was the closest trench in Area 1 to the dense prehistoric deposits at 15Tm112 to the north excavated during the fieldwork. Trench 4 was approximately 1.4 m (4.5 ft) in width, and 11 m (36.1 ft) in length. The excavations uncovered a brownish yellow (10YR 6/6) clay fill on top. It extended to a depth of about 55 cmbs (22 inbs). Below that a buried A horizon was present that consisted of a dark yellowish brown (10YR 3/4) silty clay loam with gravel and coal at the interface (Plate 6). This was apparently the historic land surface. A dark yellowish brown (10YR 4/6) sandy clay loam B horizon was uncovered below that. The texture changed to sandy loam at approximately 120 cmbs (47 inbs), and extended to about 145 cmbs (57 inbs) [Figure 7]. The lower B horizon was sandier than the first. These two horizons are taken to be natural subsoil horizons. Despite archaeological monitoring no prehistoric artifacts or features were encountered in the trench. However, when the backhoe was excavating a ramp for the archaeologist to descend into the trench, a circuloid historic post mold (Feature 1) was exposed at 86 cmbs (34 inbs) in the western portion of the trench. A STP was also excavated within Trench 4; it is described below.

Trench 5 was excavated in the eastern portion of Area 1 and was oriented north-south (Figure 6). It was approximately 1.2 m (3.8 ft) wide and 8.1 m (26.6 ft) long. After penetrating a yellowish brown clayey fill, a small portion of a stone foundation wall was exposed at about 50 cmbs (20 inbs). The stone foundation wall appeared to be running in an east-west direction so it was determined that another trench (Trench 6) would be placed in a perpendicular direction to try to follow the wall. At this point a line of bricks was exposed (Figure 8). Trench 5 was then completely exposed to completely remove the yellow brown clayey fill at depths varying between 35 cmbs–70 cmbs (14 inbs–27 inbs) [Figure 9], but averaging 50 cmbs (20 inbs), and historic strata were exposed on the surface. At that point, hand excavations were carried out in Trench 5 (Plate 7).

Plate 6. Profile of 1-m (3.3-ft) section of Trench 4 in Area 1; facing north.

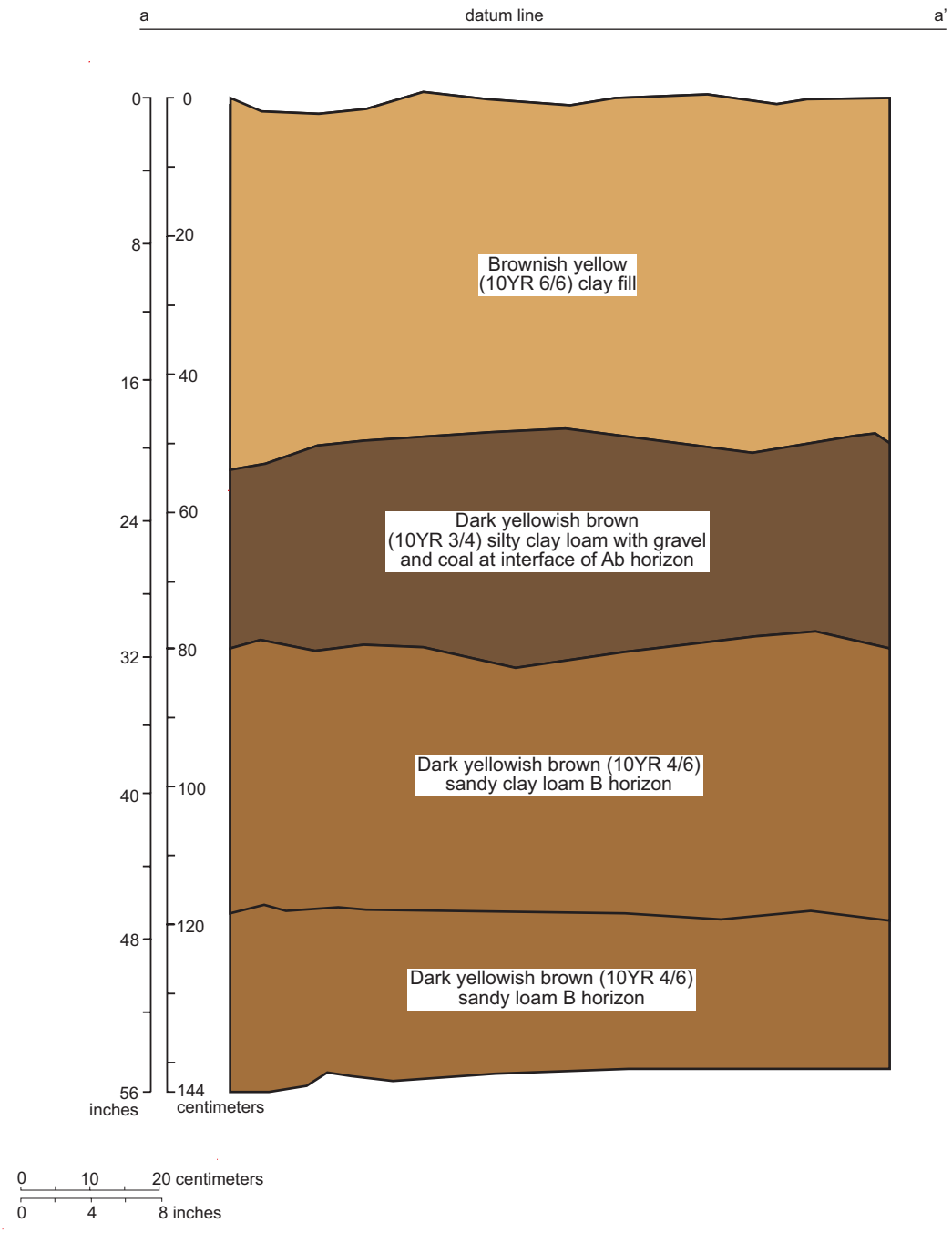


Figure 7. North profile of 1-m (3.3-ft) section of Trench 4 in Area 1.

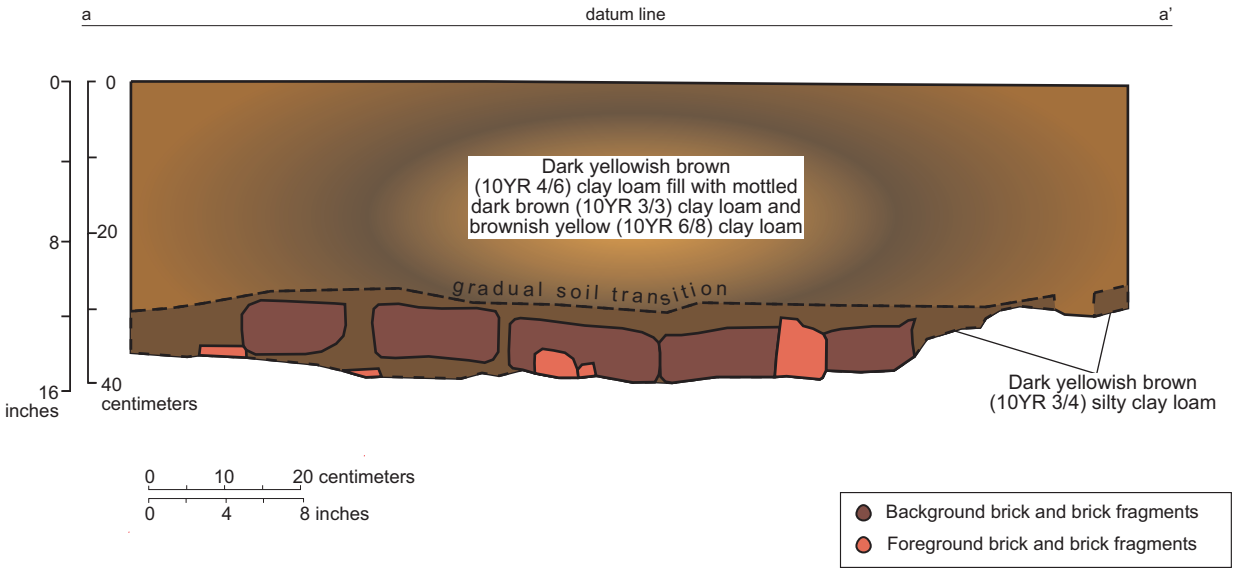


Figure 8. South profile of 1.6-m (5.2-ft) section of Trench 6, showing line of bricks (Feature 3) in Area 1.

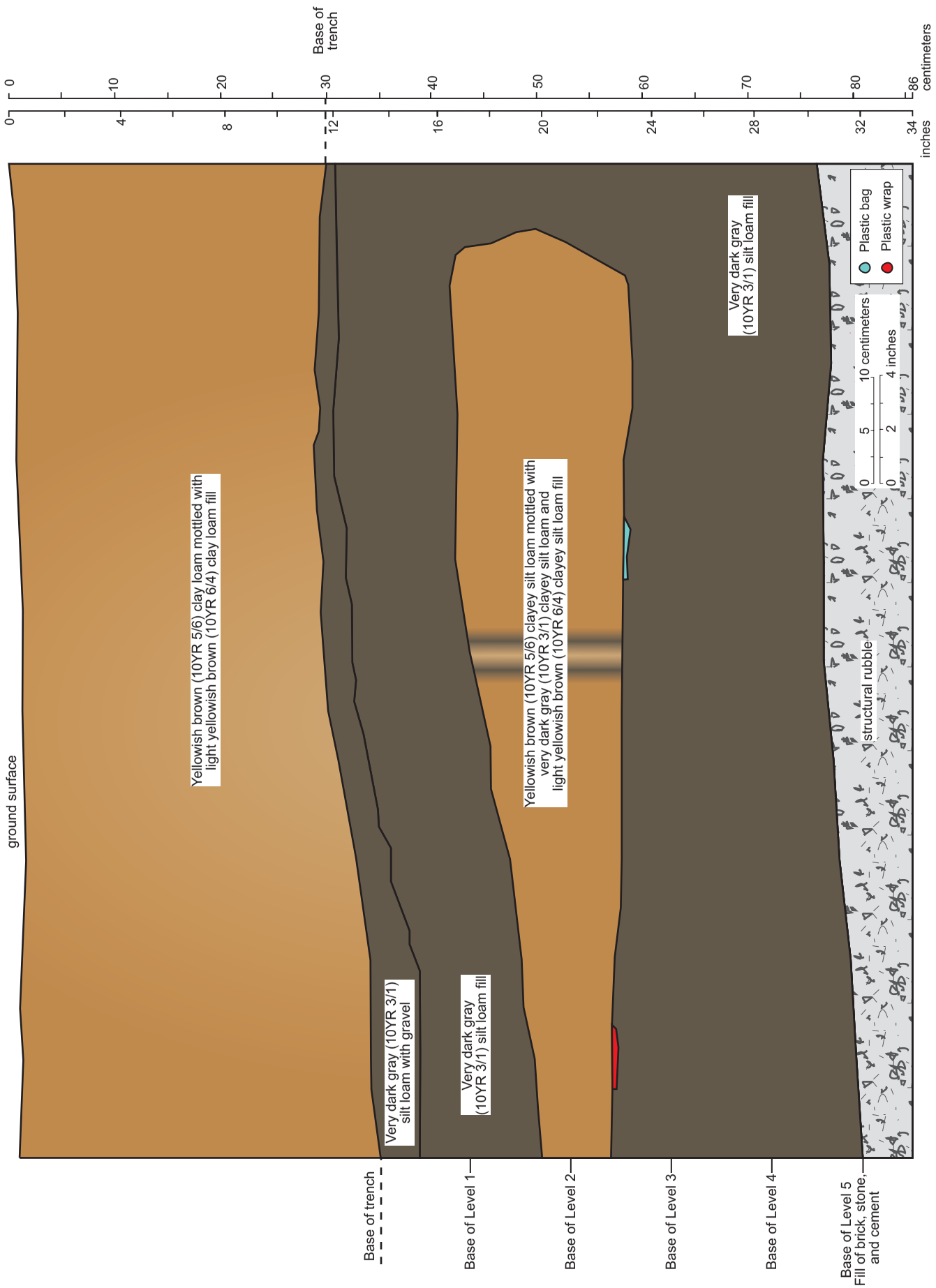


Figure 9. East profile of 1-m (3.3-ft) section of Trench 5 (upper portion) and Test Unit 2 in Area 2.

Plate 7. Overview of Trench 5 after complete excavation of Test Unit 2 and partial excavation of STP 10. Stone foundation wall (Feature 3) is visible in mid-ground; facing north.

Trench 6 was excavated to an approximate width of 1.2 m (3.9 ft), and an approximate length of 11.3 m (37 ft). In Trench 6, the monitored excavations with the backhoe exposed the foundation wall, which extended 9.1 m (30 ft) along the length of the trench. During clearance of this trench, which exposed the foundation wall at about 50 cmbs (20 inbs), an in situ line of bricks was uncovered in the south trench wall at 45 cmbs (18 inbs), just above and south of the foundation wall (Figure 8). The brick feature is a structural or decorative element associated with the residence, such as a patio or sidewalk. It appears to be outside the house, north of the front wall of the house. STPs were placed in both trenches in proximity to the stone foundation wall. The stone foundation wall and line of bricks are described below as Feature 3.

Trench 7 was placed nearest to High Street (Figure 6). As discussed above, Trench 7 was stepped back to meet OSHA guidelines for safety. It was excavated to a maximum width of 1.8 m (6 ft), and a length of 5.7 m (18.7 ft). The resulting interior trench which was excavated down

to the vertical terminus was approximately 1.2 m (4 ft) in width and 4.2 m (13.8 ft) in length. Its east-west mid-point was about 6.7 m (22 ft) north of the edge of pavement. If a second building foundation, particularly of a house, were to be present in Area 1 it most likely would be located where Trench 7 was placed. Excavations, however, revealed that deep fill layers were present in the southwestern portion of the trench nearest High Street and the bridge right-of-way had deep fill layers over a truncated B horizon (Plate 8).

Farther to the northeast the excavations of Trench 7 revealed a thin (10 cm–15 cm/ 4 in–6 in) historic stratum. A 1-m (3.3-ft) exposure of this area was profiled (Figure 10). Two fill layers were present: the uppermost was a dark yellowish brown silty loam mottled with yellowish brown (10YR 4/4–10YR 4/6) silt loam fill, approximately 0–10 cmbs/0–4 inbs. The lower fill was a thick yellowish brown clay loam mottled with brownish yellow (10YR 5/6–10YR 6/6) clay loam fill. Between 50 cmbs–60 cmbs (20 inbs–24 inbs) an irregular historic stratum (Ab horizon) was identified (Plate 9), although in a few places it was as wide as 15 cm (6 in). It is a black (10YR 2/1) loam. Underneath the buried A horizon is a 10-cm thick brown (10YR 5/3) clay loam B horizon. Beneath the upper B horizon is the lower B horizon, a yellowish brown (10YR 4/6) clay loam, which extends to the bottom of the trench (160 cmbs/63 inbs) and is undisturbed (Plate 9). No artifacts were found during trenching of Trench 7.

Plate 8. Overview of Trench 7 after rainstorm and flooding (Area 1); facing southwest.

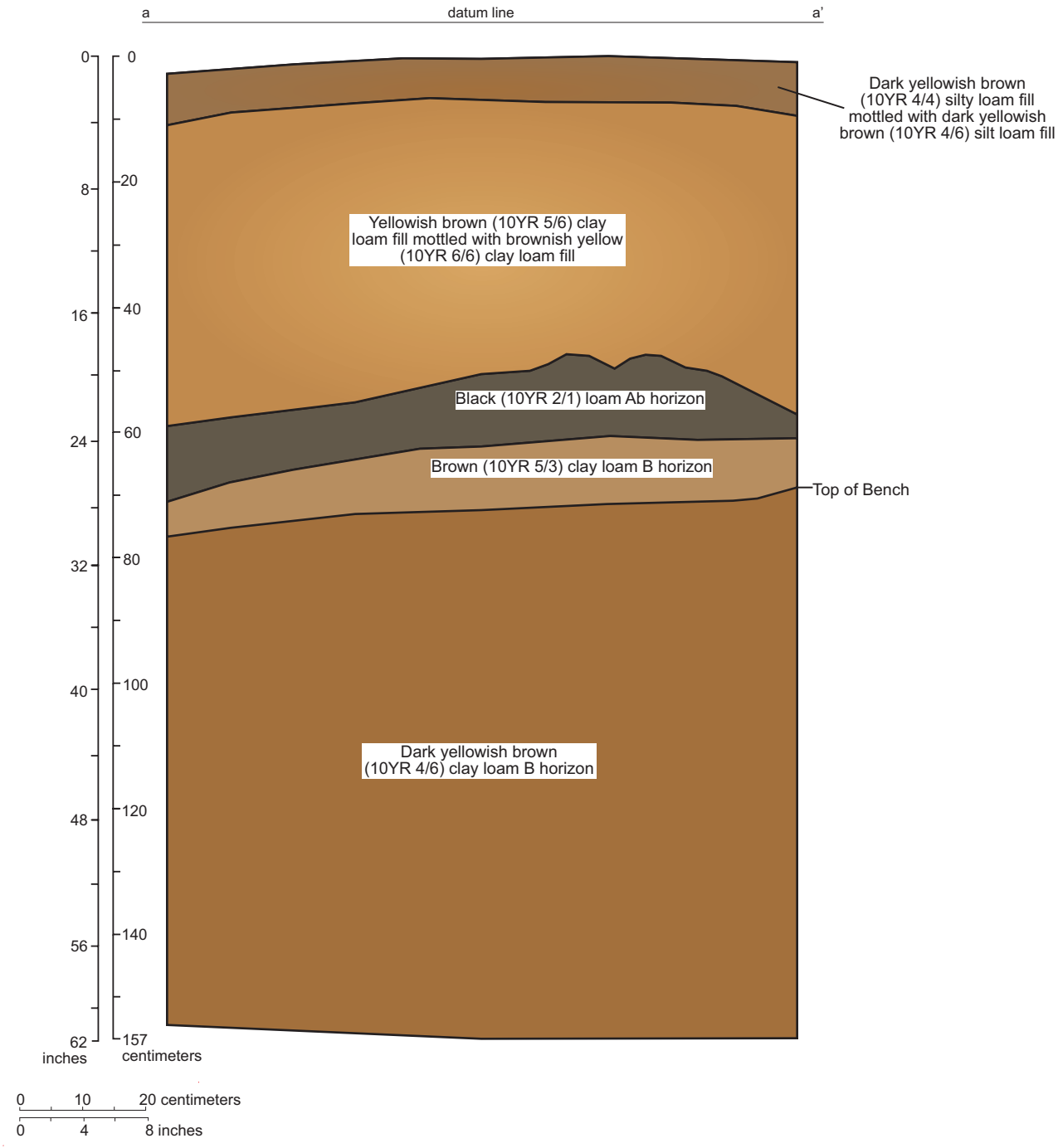


Figure 10. Southeast profile of 1-m (3.3-ft) section of Trench 7 in Area 1.

Plate 9. Profile of 1-m (3.3-ft) section of Trench 7 (Area 1); facing southeast.

Trench 8, being farther away from High Street, displayed less evidence of disturbance than Trench 7 (Figure 6). Trench 8 was also stepped back to meet OSHA guidelines for safety in the same manner as Trench 7. It was excavated to a maximum width of 1.9 m (6.2 ft), with a maximum length of 7.3 m (24 ft). The interior trench was approximately 1.2 m (4 ft) in width and 6.9 m (22.6 ft) in length. The uppermost fill layer was about 30 cm (12 in) thick and was a dark yellowish brown (10YR 4/4) firm silt loam (Plate 10). Below that was a yellow (10YR 7/8) compact clay fill that extended to a depth of 70 cmbs–75 cmbs (28 inbs–30 inbs) [Figure 11]. At 70 cmbs–75 cmbs (28 inbs–30 inbs) remnants of a gravel pavement were encountered. The gravels were (5 cm–10 cm/2 in–4 in) diameter. Below the gravel was a 25-cm to 30-cm (10-in–12-in) thick buried A horizon, which was the historic stratum. The buried A horizon consisted of a dark yellowish brown (10YR 3/4) firm silt loam that extended to just above 100 cmbs (39 inbs) [Figure 11]. Below that an undisturbed B horizon was exposed (Plate 10). It was a dark yellowish brown (10YR 4/6) silty clay loam that graded into a silty clay with depth. No artifacts except brick fragments were identified during trenching in Trench 8 and these were not collected.

Trench 9 excavations revealed that the upper portion was disturbed fill soils. Trench 9 was stepped back in the same manner as Trenches 7 and 8. It had a maximum width of 1.9 m (6.2 ft), with a maximum length of 8 m (26.2 ft). The interior trench was approximately 1.2 m (4 ft) in width and 6.5 m (21.3 ft) in length. Approximately the upper 65 cm (26 in) exposed in the trench was disturbed fill soils (Figure 12). The uppermost layer of fill in the southern portion of the trench was a dark yellowish brown (10YR 4/4) silt loam, which was found to a depth of about 40 cmbs (16 inbs). Below that depth a yellow (10YR 7/8) compacted clay fill was encountered (Figure 12; Plate 11). At 60 cmbs (24 inbs), a layer of large gravel that was 5 cm–10 cm/2 in–4 in diameter was present running across the trench. This was likely a historic prepared ground surface (Plate 11). Below the gravel a buried A horizon was encountered that extended to 80 cmbs (31 inbs). It was a dark yellowish brown (10YR 3/4) firm silt loam. Throughout the trench the basal deposits were B horizon soils (Plate 11). The B-horizon soils consisted of yellowish brown (10YR 4/6) silt clay loam that grades into a silty clay with depth. Multiple gray (10YR 5/1) clay linear disturbances mark the location of root stains. Ten historic artifacts were recovered during the mechanical excavation of Trench 9.

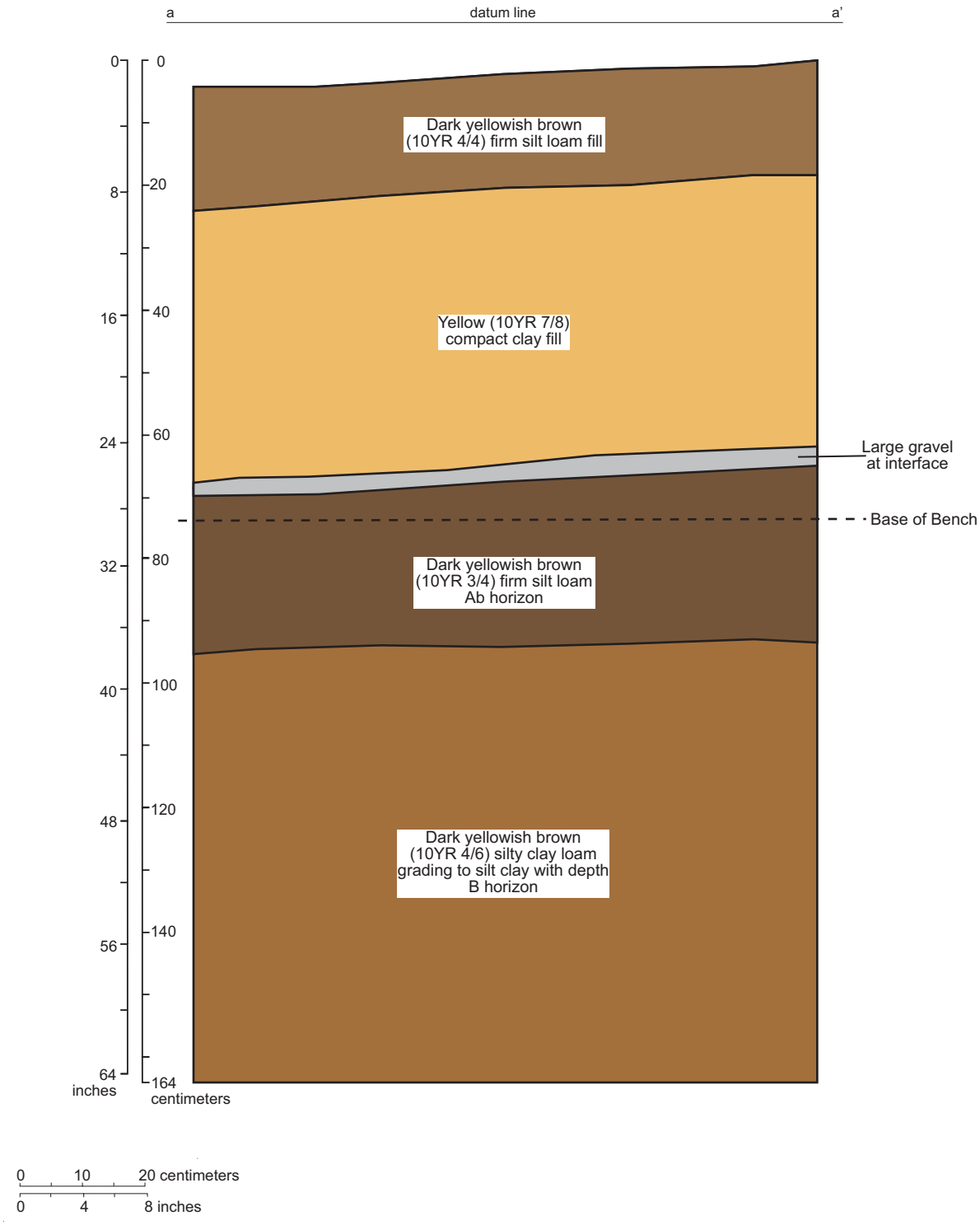


Figure 11. Southeast profile of 1-m (3.3-ft) section of Trench 8 in Area 2.

Plate 10. Profile of 1-m (3.3-ft) section of Trench 8 (Area 1); facing southeast.

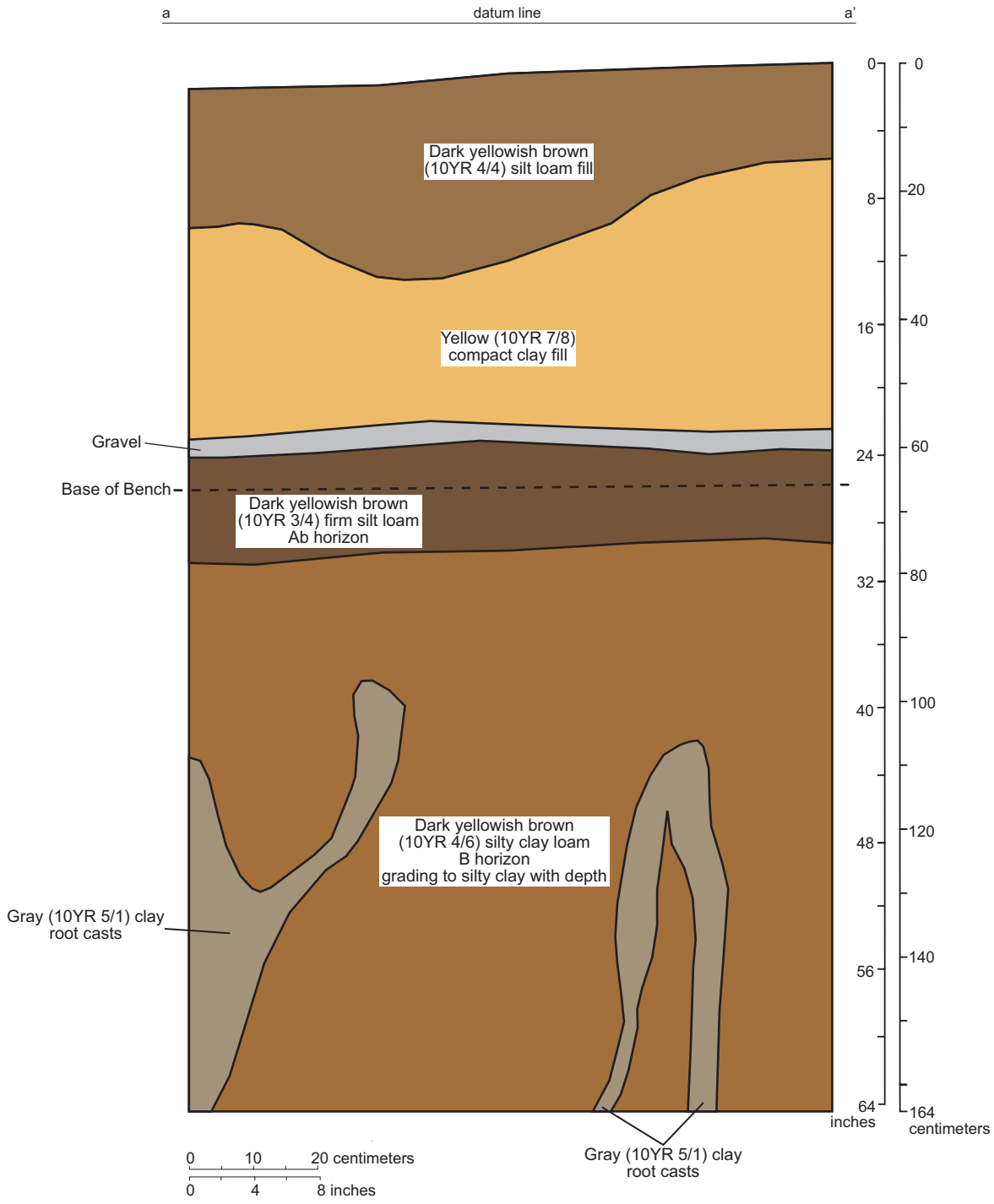


Figure 12. Southeast profile of 1-m (3.3-ft) section of Trench 9 (upper portion) and Test Unit 3 in Area 1.

Plate 11. Overview of Trench 9 (Area 1) after rainstorm; facing southwest.

Shovel Testing in Area 1 Trenches

STP 11 was excavated in Trench 4, on a step in the trench at a shallow depth (50 cmbs/20 inbs). The STP was placed just above and west of Feature 1, a historic post. It was thought that a buried A horizon was encountered. The STP was excavated utilizing 10-cm (4-in) levels. The first soil horizon encountered was a very dark brown (10YR 2/2) silt loam with gravel and coal. Below that a made-land horizon was encountered from 60 cmbs–90 cmbs (24 inbs–35 inbs), consisting of a yellowish brown (10YR 5/6) silt clay loam with a few pieces of coal. The coal was not collected. Between 90 cmbs–100 cmbs (35 inbs–39 inbs) a dark yellowish brown (10YR 5/4) silt clay loam was uncovered. These two horizons appear to be made-land horizons or at least were affected by historic activities. Historic artifacts were recovered but the STP could not penetrate below rocks partially covering the floor of the STP at 100 cmbs (39 inbs) [Plate 12].

The results from STP 11 are somewhat unexpected and equivocal. Although the rest of Trench 4 appeared to have natural subsoils, the STP was within fill horizons down to a depth of 100 cmbs (39 inbs), suggesting historic activity in this corner of the trench. Certainly the results from Feature 1 are supportive of historic activity being found at depth in the trench, but the stratigraphic interpretation is unclear.

Plate 12. Overview of STP 11 in Trench 4 (Area 1) after excavation; facing down and to the west.

The STP in Trench 5 (STP 10) was excavated slightly south of the partially exposed foundation wall (Figure 6). Excavation was initiated at 70 cmbs (27.6 inbs). Between 80 cmbs and 100 cmbs (31 inbs–39 inbs), the soil is a brown (10YR 4/3) silt loam. Below that depth a yellowish brown (10YR 5/6) clayey silt loam was exposed. Only two artifacts were found in the uppermost level, before four sterile 10-cm (4-in) levels were excavated. The excavations were terminated at 120 cmbs (47.2 cmbs).

The STP in Trench 6 (STP 12) was initiated in the eastern end of Trench 6 slightly east of the eastern end of the stone foundation wall (Figure 6). The excavation was placed in the trench floor at a depth of 50 cmbs (20 inbs). Five 10-cm (4-in) levels were excavated within this STP. No historic artifacts were recovered and a single broken retouched flake was found in Level 1, between 50 cmbs–60 cmbs (20 inbs–23.6 inbs). A single stratum was exposed in this STP: a dark yellowish brown (10YR 4/4) silt loam. Excavation was abandoned at 100 cmbs (39.4 inbs) due to lack of artifact finds below 60 cmbs (23.6 inbs).

In Trench 7 (STP 13), excavation was initiated at 60 cmbs (24 inbs) and encountered mostly a yellowish brown (10YR 5/4) silt loam to silt clay in three 10-cm levels (Figure 6). That were within the buried A horizon. Below 90 cmbs (35 inbs) B-horizon soils graded to a

yellowish brown (10YR 5/6) compact silt loam and then a silt clay. Excavations were completed to 160 cmbs (63 cmbs) but no artifacts were encountered.

In Trench 8 (STP 14), excavation was initiated at 70 cmbs (28 inbs) [Figure 6]. In Levels 1 and 2 a dark yellowish brown (10YR 3/4) firm silt loam was encountered. This is the buried A horizon. Below that, seven levels of excavation exposed the B horizon down to 160 cmbs (63 inbs). The B horizon was entirely a yellowish brown (10YR 4/6) firm silty clay. No artifacts were encountered in this STP.

In Trench 9 (STP 15), excavation was initiated at 70 cmbs (28 inbs) within the historic stratum (the Ab horizon) [Figure 6]. Three levels were excavated within this Ab horizon, a dark yellowish brown (10YR 3/4–10YR 4/4) compact silt loam. Below, the exposed B horizon graded gradually from a dark yellowish brown to yellowish brown (10YR 4/4–10YR 4/6) silt loam and then to a silty clay. Excavation included six levels of this B horizon and terminated at 160 cmbs (63 inbs). Prehistoric artifacts were found in Level 2 (80 cmbs–90 cmbs/31 inbs–35 inbs) and Level 5 (110 cmbs–120 cmbs/43–47 inbs) and a historic glass artifact was found in Level 6 (130 cmbs–140 cmbs/51 inbs–55 inbs). No artifacts were found below 140 cmbs (55 inbs).

Test Unit 2

Test Unit 2 was placed in Trench 5 and spanned the entire width of Trench 5 (Figure 6). It was placed within Trench 5 to be, presumably, within the structure partially defined by the stone foundation wall (Feature 3). Test Unit 2 was about 2.3 m (7.5 ft) north of the stone foundation wall. It was a 1-m x 1-m (3.3-ft x 3.3-ft) test unit. The trench surface was a very dark gray (10YR 3/1) silt loam with abundant gravel. Hand excavation was initiated at the trench floor, which at that location was about 30 cmbs–35 cmbs (12.0 inbs–13.8 inbs). Below about ca. 5 cm–10 cm (ca. 2 in–4 in) within the test unit, gravel ceased to be found although the soil was otherwise similar to what was above (Figure 9). After 15 cm (6 in) of additional excavation, a thick lens of different material was exposed, although it was not found until almost 10 cm (4 in) deeper in other parts of the unit. This lens was never exposed in the entire test unit, as the dark soil continued downward in a portion of the test unit (Figure 9). The soil lens was exposed between 42 cmbs–59 cmbs (17 inbs–23 inbs) [Figure 9]. The lens varied in thickness but was up to 17 cm (7 in) thick. It consisted of a yellowish brown (10YR 5/6) clayey silt loam mottled with a very dark gray (10YR 3/1) clayey silt loam and a light yellowish brown (10YR 6/4) clayey silt

loam. At the bottom of this stratum a plastic bag and a sheet of plastic wrap were discovered, suggesting this stratum—and the artifacts and the material above them—are the result of a soil disturbing and filling episode in the modern era.

Below the lens was more very dark gray (10YR 3/1) silt loam. At approximately 72 cmbs–80 cmbs (28.3 inbs–31.4 inbs) an impenetrable layer of structural rubble was encountered across the unit (Figure 9; Plate 13). Excavation of Test Unit 2 was abandoned at this point.

Plate 13. Exposed impenetrable structural rubble in Test Unit 2 (Area 1); facing east.

Excavation of five 10-cm (4-in) levels within Test Unit 2 resulted in recovery of both prehistoric and historic artifacts and modern plastic. Although this location appeared to be an intact historic stratum when viewed from the surface, the mixed recovery context indicates disturbance. It appears that the prehistoric and historic artifacts are within a reworked, disturbed soil matrix as the result of a filling/soil mixing episode in the modern era.

Test Unit 1 was excavated in Area 2 (the western parcel) and is reported below.

Test Unit 3

Test Unit 3 was placed in Trench 9 to follow up on the location where both prehistoric and historic artifacts were recovered (Figure 6) during shovel testing. The 1-m x 1-m (3.3-ft x 3.3-ft) test unit was placed slightly southwest of STP 15. Excavations were initiated at between 60 cmbs–65 cmbs (24 inbs–27 inbs) with the unevenness of the trench floor accounting for the

variability. Ten 10-cm (4-in) levels were excavated within the test unit and excavations were completed to 164 cmbs (65 inbs). The stratigraphy within the test unit was virtually identical to that described for Trench 9 and STP 15 (Figure 12; Plate 14). At about 60 cmbs (24 inbs), a layer of gravel was exposed at the interface of the fill and buried A horizon. The gravel was large, approximately 5 cm–10 cm diameter/4 in–8 in diameter in size. The buried A horizon was a dark yellowish brown (10YR 3/4) firm silt loam that extended to about 75 cmbs (30 inbs). Below that was a B horizon of yellowish brown (10YR 4/6) silty clay loam to silty clay (Plate 14). A few river pebbles were found below 100 cmbs (39 inbs). In Level 10 (150 cmbs–160 cmbs/59 inbs–63 inbs), a minor sandy component was noted in the silty clay. Also, gray (10YR 5/1) clay linear striations marked the areas where root casts were located.

Prehistoric artifacts were found in Levels 1, 2, and 5. No artifacts were found below 110 cmbs (43 inbs).

Plate 14. Profile of 1-m (3.3-ft) section of Trench 9 and Test Unit 3 (Area 1); facing southwest.

AREA 2

A large pile of soil occupied a portion of the northern part of Area 2. Areas that could be trenched were limited by the soil pile, the construction activity, and the roadway to the ferry. The area to be surveyed was described as a gravel parking lot. Additionally, historic background information collected at the offices of the KHC suggested a possible structure location in this portion of the parcel. Map 6 of the KYTC Historic Resources Map of Trimble County (dated 1978), which was appended to the historic district nomination form (Johnson 1982), shows a building in this approximate location (back from the road on the western end of the western parcel away from the bridge). Because of the graveled nature of the lot and the likely presence of fill, it was determined during scoping of the project that excavation of STPs from the ground surface would probably not be worthwhile. Therefore, trenching with the backhoe was the first excavation undertaken in Area 2 and STPs were placed in the trench floor once the fill was removed.

Trenching in Area 2

Three trenches were placed at various angles within the space that was covered in a loose gravel pavement in Area 2 (Figure 6; Plate 3). The sizes of the trenches varied depending on their location and orientation. Trench 1 was approximately 7.1 m (23.2 ft) long and 1.3 m (4.2 ft) wide. Trench 2 was approximately 8 m (26.4 ft) long and 1 m (3.3 ft) wide. Trench 3 was approximately 10.1 m (33.2 ft) long and 1.6 m (5.1 ft) wide. Excavations in Trenches 1–3 in the western parcel identified generally similar stratigraphy with pavement and fill horizons accounting for the uppermost 70 cm–100 cm (28 in–39 in), depending on the trench (Figures 13–15; Plates 15–18). The near-surface portion of the profile was the gravel-paved lot that gave way to a yellowish brown to brownish yellow (10YR 4/6–10YR 6/6) clayey fill below. The central portion of Trench 1 could not be excavated below ca. 40 cmbs (16 inbs) because of the presence of a large tree bole and tree roots but both ends of the trench were excavated to approximately 150 cmbs (59 inbs).

In the trenches, at approximately 100 cmbs/39 inbs (or in Trench 2 at 70 cmbs/28 inbs), a historic stratum (Ab horizon) consisted of a very dark grayish brown (10YR 3/2) silt loam horizon, which in some cases contained gravel (Figure 13). In one case (Trench 2), coal was encountered (Plate 15). This stratum may be a pre-1937 flood-buried A horizon (historic land surface). Below that were other strata that contained asphalt, rock and other evidence of historic

activity, including a few historic artifacts. In Trench 2, this was a dark yellowish brown (10YR 3/4) clay loam (Figure 15). The same stratum was found in Trench 3, and coal was noted in this stratum (Plates 16 and 18). Both of these buried A horizons in Trenches 2 and 3 were from 100 cmbs–130 cmbs (39 inbs–51 inbs). The lowest portion of each trench (down to about 151 cmbs/ 60 inbs) consisted of relatively undisturbed B horizon(s) [Plates 17 and 18]. In the case of Trenches 1 and 3, only a narrow exposure could be made under the buried A horizon. In Trench 2, a series of yellowish brown (10YR 4/6) B horizons was noted. The horizons graded from silty clay loam to silty clay and then sandy clay and were exposed from 85 cmbs–150 cmbs (33 inbs–59 inbs).

The only major disturbances noted in the B horizon(s) were that abandoned modern plastic and metal utility lines crossed the trenches in several places, and terra cotta drain tile was encountered at 131 cmbs (51 inbs) in a test unit placed in Trench 2 These are not shown on Figures 13–15. The drain tile was treated as Feature 2 and is described below but the utility lines were not treated as features. No prehistoric artifacts were found during trenching but hand excavations demonstrated the prehistoric artifacts to be mostly between 100 cmbs–140 cmbs (39 inbs–55 inbs).

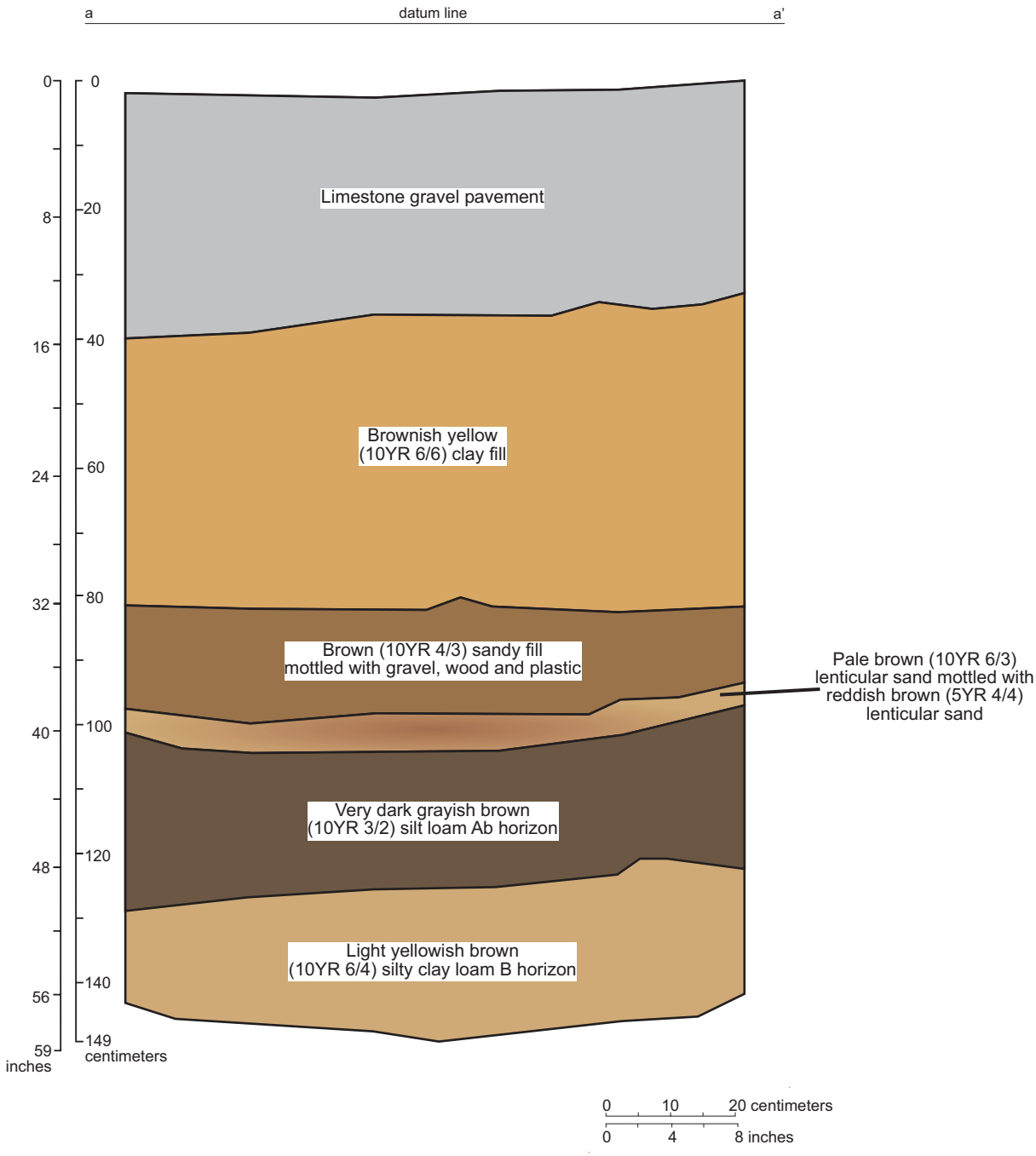


Figure 13. West profile of 1-m (3.3-ft) section of Trench 1 in Area 2.

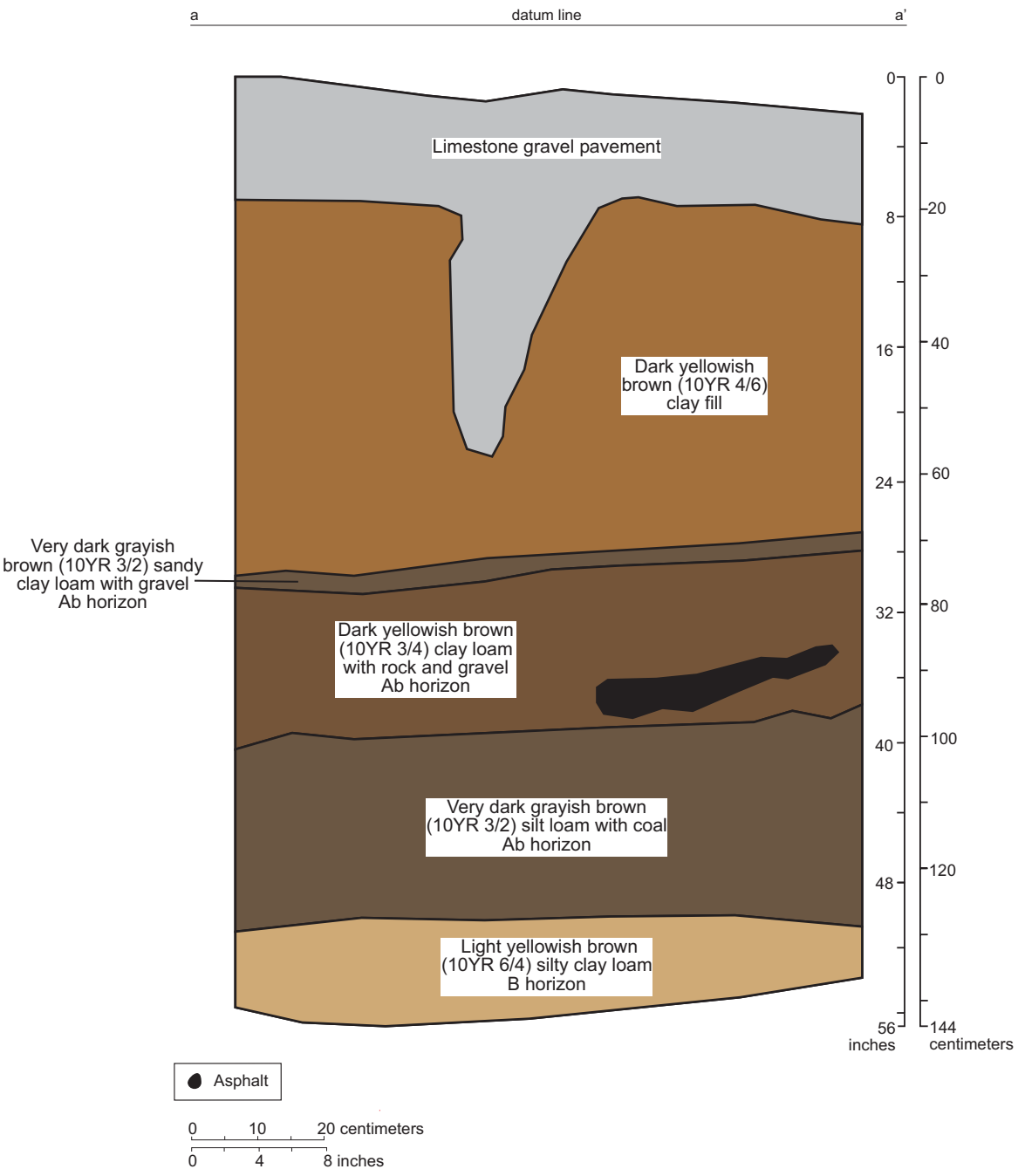


Figure 14. North profile of 1-m (3.3-ft) section of Trench 3 in Area 2.

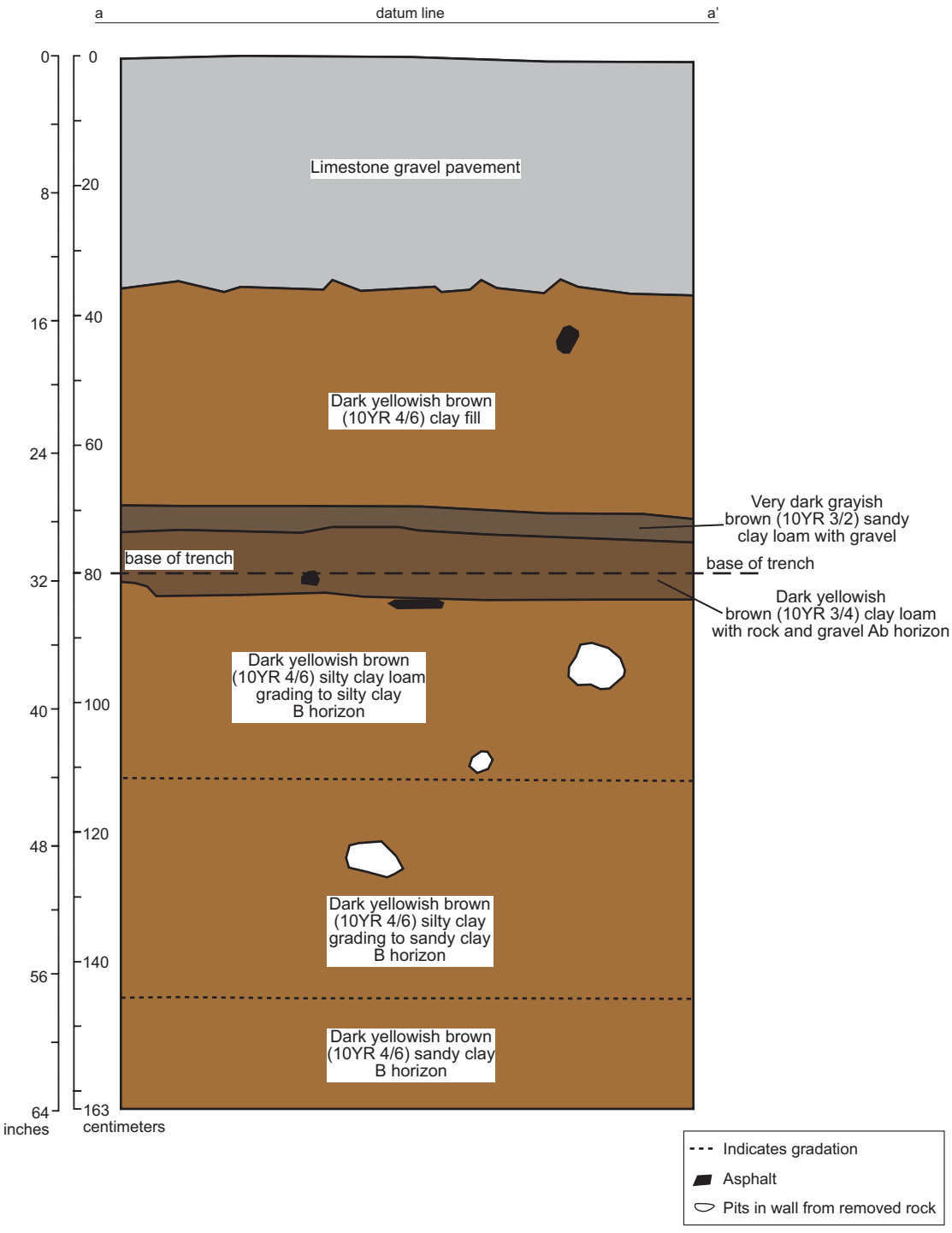


Figure 15. Northeast profile of 1-m (3.3-ft) section of Trench 2 (upper portion) and Test Unit 1 in Area 2.

Plate 15. Trench 2 profile including Test Unit 1 (Area 2); facing northeast.

Plate 16. Overview of Trench 3 (Area 2); facing west.

Plate 17. Profile of 1-m (3.3-ft) section of Trench 1 (Area 2); facing west.

Plate 18. Profile of 1-m (3.3-ft) section of Trench 3 (Area 2); facing north.

Shovel Testing in Area 2 Trenches

One STP was excavated in each trench in Area 2 (Figure 6). The numbering system for STPs was restarted in Area 2 so STPs 1–3 were placed in Trenches 1–3, respectively.

In STP 1 in Trench 1, excavations started at 101 cmbs (40 inbs) [Figure 6]. The excavation revealed a black (10YR 2/1) silt clay loam with historic artifacts. This stratum was taken to be a buried A horizon. In Level 2, below 111 cmbs (44 inbs), a dark brown to dark yellowish brown (10YR 3/3–10YR 3/4) silt clay loam was exposed. It graded into a brown (10YR 4/3) silt clay loam at around 121 cmbs (48 inbs), which continued down to 150 cmbs (59 inbs). Historic artifacts were found in the first four levels but not the last level excavated.

In Trench 2 (STP 2) [Figure 6], excavations started at 89 cmbs (35 inbs) and excavation proceeded in 10-cm (4-in) levels. The stratigraphy in this STP was similar to what was found in Test Unit 2, described below. To a depth of 99 cmbs (39 inbs), a brown (10YR 4/3) friable silt loam with coal fragments was noted. This is the buried A horizon and contains historic artifacts. Below that a yellowish brown (10YR 5/6) silt clay loam B horizon was noted. In Level 2 of the STP, the faces of the soil peds were colored dark gray (10YR 4/1) although the soil matrix itself was a brown (10YR 4/3) silt clay loam. Historic artifacts were found. Below Level 2, prehistoric artifacts (debitage) were present in low numbers, but not historic artifacts. Level 5 was sterile and excavation of the STP terminated at 139 cmbs (55 inbs).

In Trench 3 (STP 3) [Figure 6], excavation was initiated at the base of the trench at 93 cmbs (37 inbs). The soil here was a dark yellowish brown (10YR 4/4) silt loam. This was taken to be a buried A horizon. Below that, in Level 2 and below, a yellowish brown (10YR 5/6) silt loam grading into a silty clay loam was exposed and extended down to 143 cmbs (56 inbs). This stratum is a B horizon. Levels 1 and 2 yielded historic artifacts, while Level 3 yielded historic and prehistoric artifacts. Level 4 yielded only prehistoric artifacts. Level 5 was sterile.

These STPs yielded mostly low levels of historic artifacts and STPs 2 and 3 had low levels of prehistoric artifacts that were mostly chert debitage. Level 1 (93 cmbs–103 cmbs) in the STP in Trench 3 was the only case in which 20 or more artifacts (all historic) were found within a 10-cm (4-in) level in STPs in Area 2.

No evidence of prehistoric or historic features was found in the STP excavation in Area 2 in the western parcel.

Test Unit 1

In Trench 2, a 1-m x 1-m (3.3-ft x 3.3-ft) test unit was excavated (Figure 6). It was located slightly northwest of the STP. Excavation was initiated on a rough trench floor that varied between 92 cmbs (36 inbs) and 108 cmbs (43 inbs). Thus, the excavation was uneven and varied between 2 cm–18 cm (.5 in–7 in) and a level floor was established at the bottom of Level 1 at 110 cmbs (44 cmbs). Six excavation levels were completed with Levels 2–6 excavated as 10-cm (4-in) levels. Excavation terminated after roughly 60 cm (24 in) of screened excavation. The first stratum excavated was a dark yellowish brown (10YR 3/4) silt loam, which was a portion of the buried A horizon (Plate 15). Below Level 1, B horizons continued down by gradations of soil texture. Initially the excavations encountered a dark yellowish brown (10YR 4/6) silty clay loam, grading to a silty clay and then to a sandy clay, and this last B horizon continued down until excavations were terminated (Figure 15). Historic and prehistoric artifacts were recovered with historics dominating Levels 1 and 4. At 131 cmbs (52 inbs), a terra cotta drain tile was uncovered crossing the test unit at an angle. It was treated as a feature (Feature 2), but it is not a significant find in and of itself. It may have served to drain a residential area or perhaps a garden or field. If the former function was what occurred then it may indicate a residence was nearby as historic mapping indicated. Prehistoric artifacts in the test unit include debitage, FCR, and one drill fragment. Historic artifacts recovered include whiteware, glass fragments, metal fragments, and a glass button.

AREA 3

Area 3 was identified as a crane work area for raising bridge beams into place so it had to be surveyed for buried cultural deposits (Figure 6; Plate 2). Trenches 10–12 were placed in Area 3 to test this portion of the eastern parcel (Figure 6). During the fieldwork there, heavy rains impacted Trenches 10–12 and because of the rain the trenches were temporarily flooded. Employees of Walsh assisted with ASC's effort by pumping the water out of the trenches with a mechanical pump.

Trenching in Area 3

Trenches 10–12 were oriented north-south, parallel to the bridge right-of-way (Figure 6). Trench 10 was placed about 6.1 m (20 ft) from the edge of original bridge construction area (which corresponds to the area covered by the McBride et al. (2010:Figure 6.1) survey. It was

approximately 8.2 m (27 ft) in length and 1.8 m (6 ft) in width in the outer stepped back portion. The interior trench was approximately 1.2 m (4 ft) wide and 7 m (23 ft) in length.

Trench 10 excavations revealed three strata. A single fill episode consisted of a dark yellowish brown (10YR 4/6) firm silty clay loam (Figure 16; Plate 19). At between 45 cmbs–50 cmbs (18 inbs–20 inbs), coal and gravel were noted at the interface with the buried A horizon. This lens of gravel and coal extended into the buried A horizon 10 cm–12 cm (4 in–6 in). The buried A horizon itself was a dark brown (10YR 3/3) friable silt loam that extended to a depth of about 120 cmbs (47 inbs). Below that a B horizon was exposed. It was a yellowish brown (10YR 5/8) silty clay loam grading to a silty clay with depth. Excavations in the trench terminated at 160 cmbs (63 inbs). Three prehistoric lithic artifacts were recovered during excavation of Trench 10.

Trench 11 was placed about 9.1 m (30 ft) east of Trench 10 (Figure 6). Trench 11 was approximately 8.2 m (27 ft) in length and 1.8 m (6 ft) in wide in the outer stepped back portion. The interior trench was approximately 1.2 m (4 ft) wide and 7 m (23 ft) in length. Excavations revealed three layers of fill before the buried A horizon was encountered at 70 cmbs (28 inbs) [Plate 20]. The uppermost layer of fill, which was irregular, was a dark yellowish brown (10YR 4/4) loamy silt. It was approximately 20 cm (8 in) thick on average. Below that was a thick layer of fill consisting of a dark yellowish brown to yellowish brown (10YR 3/6–10YR 4/6) silty clay that extended as deep as 60 cmbs (24 inbs). Finally, a yellowish brown (10YR 4/6–10YR 5/6) silty clay fill was uncovered that varied between 10 cm–30 cm (4 in–12 in) in thickness. The buried A horizon was between 70 cmbs–90 cmbs (28 inbs–35 inbs). It consisted of a very dark grayish brown (10YR 3/2) loamy silt mottled with dark grayish brown (10YR 4/2) loamy silt. Two B horizons were exposed in the deep test. From 90 cmbs–130 cmbs (35 inbs–51 inbs), dark yellowish brown (10YR 4/4) silty clay mottled with a yellowish brown (10YR 5/4) silty clay was exposed. This horizon grades into a yellowish brown (10YR 4/6) silty clay. Excavations terminated at 161 cmbs (64 cmbs). A total of 34 historic artifacts were recovered from Trench 11 during the backhoe excavation.

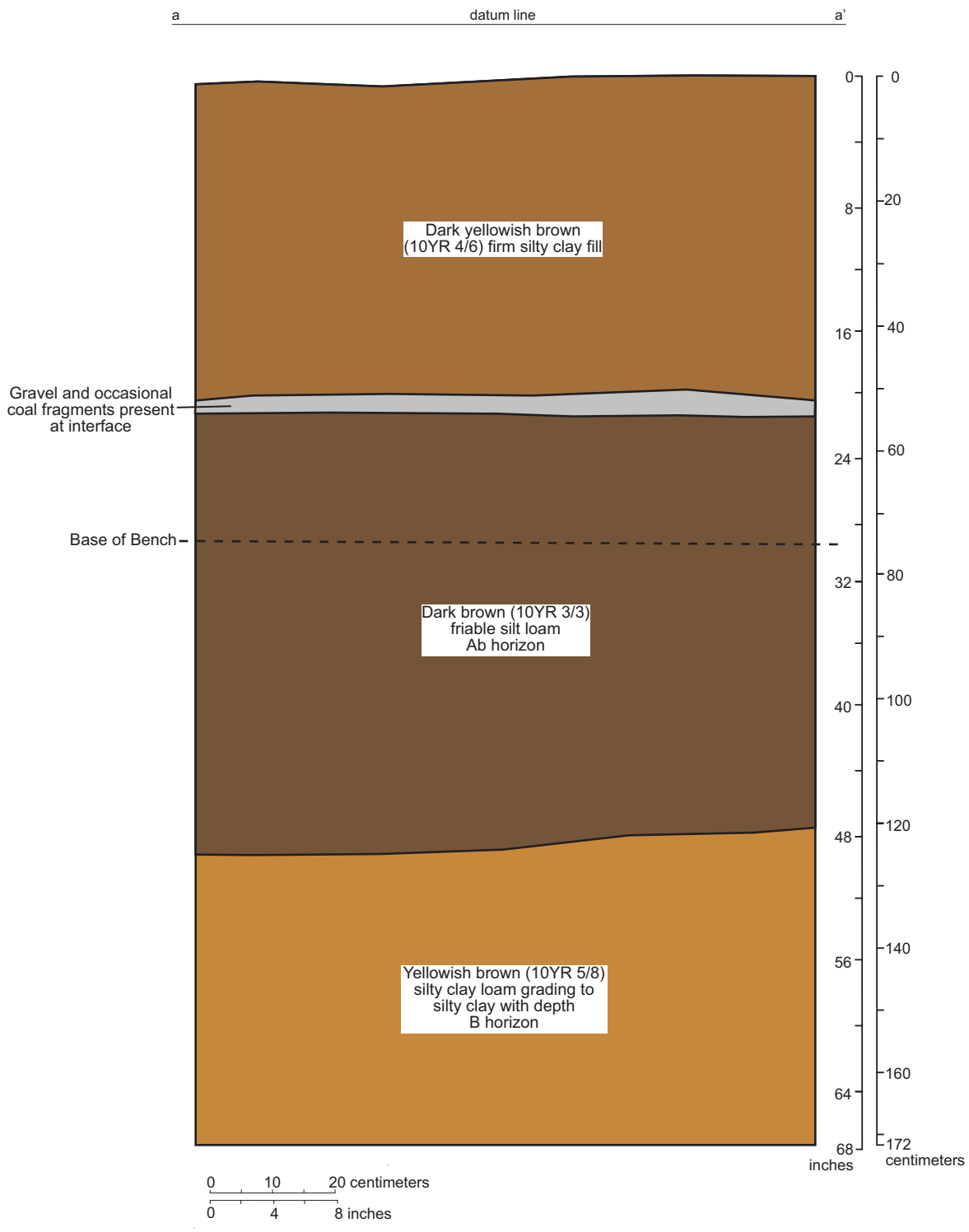


Figure 16. East profile of 1-m (3.3-ft) section of Trench 10 in Area 3.

Plate 19. Profile of a 1-m (3.3-ft) section of Trench 10 (Area 3); facing east.

Plate 20. Overview of Trench 11 (Area 3); facing north.

Trench 12 was placed about 9.1 m (30 ft) east of Trench 11 (Figure 6). During excavation two utility lines were exposed running north-south within the trench. One was a metal water line and the other was a PVC water line. It is believed that both utilities were abandoned but to avoid impacting them the trench was expanded laterally, so its final dimensions were 7.5 m x 3.8 m (25 ft x 12.4 ft). The interior trench was approximately .9 m (3 ft) in width and 6.3 m (20.8 ft) in width. The deep test was carefully placed between the two utilities and there was no impact to them by the backhoe work. The utility lines had been placed in the ground via trenching and narrow linear disturbances accompanied these trenches. The utility lines were discovered above 75 cmbs (30 inbs). Stratigraphy in the trench consisted of three primary strata. The fill in this trench was little shallower than was seen in the other trenches but similar to what was present in Trenches 5 and 6 in Area 1. About 45 cm (18 in) or a little more of fill was present (Figure 17; Plate 21). The fill was a dark yellowish brown (10YR 4/6) firm silt loam. Below that a thin interface was characterized by coal and gravel inclusions. The coal pieces extend about 12 cm (5 in) into the buried A horizon, while the gravel was mostly surficial to the historical land surface. The buried A horizon was a dark brown (10YR 3/3) friable silt loam. This stratum extended from ca. 45 cmbs–110 cmbs (18 inbs–43 inbs). Below that was an undisturbed B horizon of yellowish brown (10YR 5/8) silty clay loam grading to a silty clay with depth. Excavations terminated at 161 cmbs (64 inbs).

Artifacts were found during excavation of Trench 12. Artifacts both in the fill and in the buried A horizon and were segregated and bagged separately. Within the fill, 17 historic artifacts and two faunal remains (mussel shells) were recovered, while the buried A horizon yielded seven prehistoric lithic artifacts, two historic artifacts, and one faunal remain (a bone fragment).

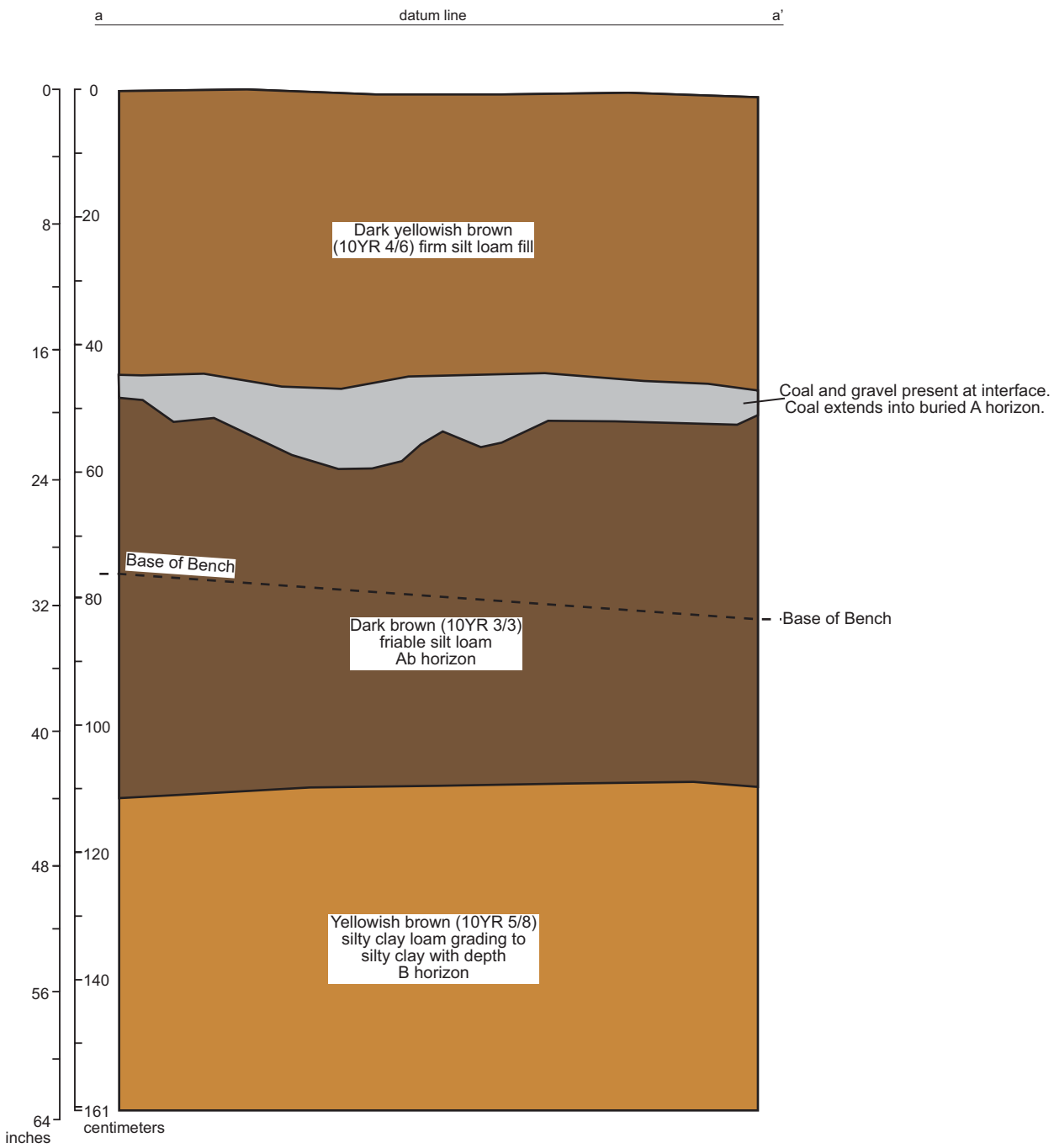


Figure 17. West profile of 1-m (3.3-ft) section of Trench 12 in Area 3.

Plate 21. Profile of 1-m (3.3-ft) section of Trench 12 (Area 3); facing east.

Shovel Testing in Area 3 Trenches

In Trench 10, STP 16 (Figure 6) was initiated at 60 cmbs (24 inbs) within the historic stratum. Because of the effects of the rainstorm the very muddy buried A horizon was recorded as a dark yellowish brown (10YR 3/4) silty clay but the soil texture would have felt more coarse grained if the soil had been drier. Lower in the STP, the soil graded to a lighter shade of dark yellowish brown (10YR 4/4) silty clay, and once the B horizon was encountered a yellowish brown (10YR 4/6) silty clay was exposed. A historic artifact was exposed and collected in Level 1 (60 cmbs–70 cmbs/24 inbs–28 inbs) and prehistoric artifacts were found in Levels 3–5 (80 cmbs–110 cmbs/31 inbs–43 inbs). One historic artifact was recovered in Level 5. Below 110 cmbs (43 inbs) no prehistoric artifacts were found and excavations terminated at 130 cm (51 inbs).

In Trench 11, STP 17 (Figure 6) the stratigraphy was similar to that of the trench as a whole. Excavation was initiated at 90 cmbs (35 inbs). The uppermost levels are a dark yellowish brown to yellowish brown (10YR 4/4–10YR 4/6) silt loam, which graded to a yellowish brown (10YR 4/6) silty clay. A limited number of artifacts were found in Levels 1 and 3. Excavation was terminated at 160 cmbs (63 inbs) after four 10-cm (4-in) levels were excavated without finding an artifact.

In Trench 12. STP 18 (Figure 6) displayed somewhat similar results to STP 17. Excavation was initiated at 100 cmbs (39 inbs). The soils graded with depth from a yellowish brown (10YR 5/6) silt loam or silt clay loam to a yellowish brown (10YR 4/6) silty clay. A limited number of lithic artifacts were found in Level 1. Level 5 yielded a late stage reduction flake, but due to its small size, it was lost in the field and could not be recovered. Excavation terminated after Level 6, at 160 cmbs (63 inbs), due to the inability to continue excavating by hand below this depth.

Test Unit 4

Test Unit 4 was placed in Trench 11 (Figure 6), north of the STP. It was located as close as possible to the trenches excavated north of this location in 2010 because the 2010 trenches had very dense accumulations of prehistoric artifacts. Excavation was initiated at 75 cmbs–77 cmbs (30 inbs–30.5 inbs). The soils in the test unit were almost identical to those of STP 17. The uppermost level is the buried A horizon that consisted of a very dark grayish brown loamy silt mottled with dark grayish brown (10YR 3/2–10YR 4/2) loamy silt (Figure 18). Below that, two B horizons are a dark yellowish brown silt clay mottled with a yellowish brown (10YR 4/4–10YR 5/4) silt clay, which graded with depth to a yellowish brown (10YR 4/6) silty clay (with more clay than the overlying horizon) [Figure 18; Plate 22]. There was no evidence of disturbance within the test unit and prehistoric artifacts were restricted to the first three excavated levels. Historic artifacts were restricted to Level 1.

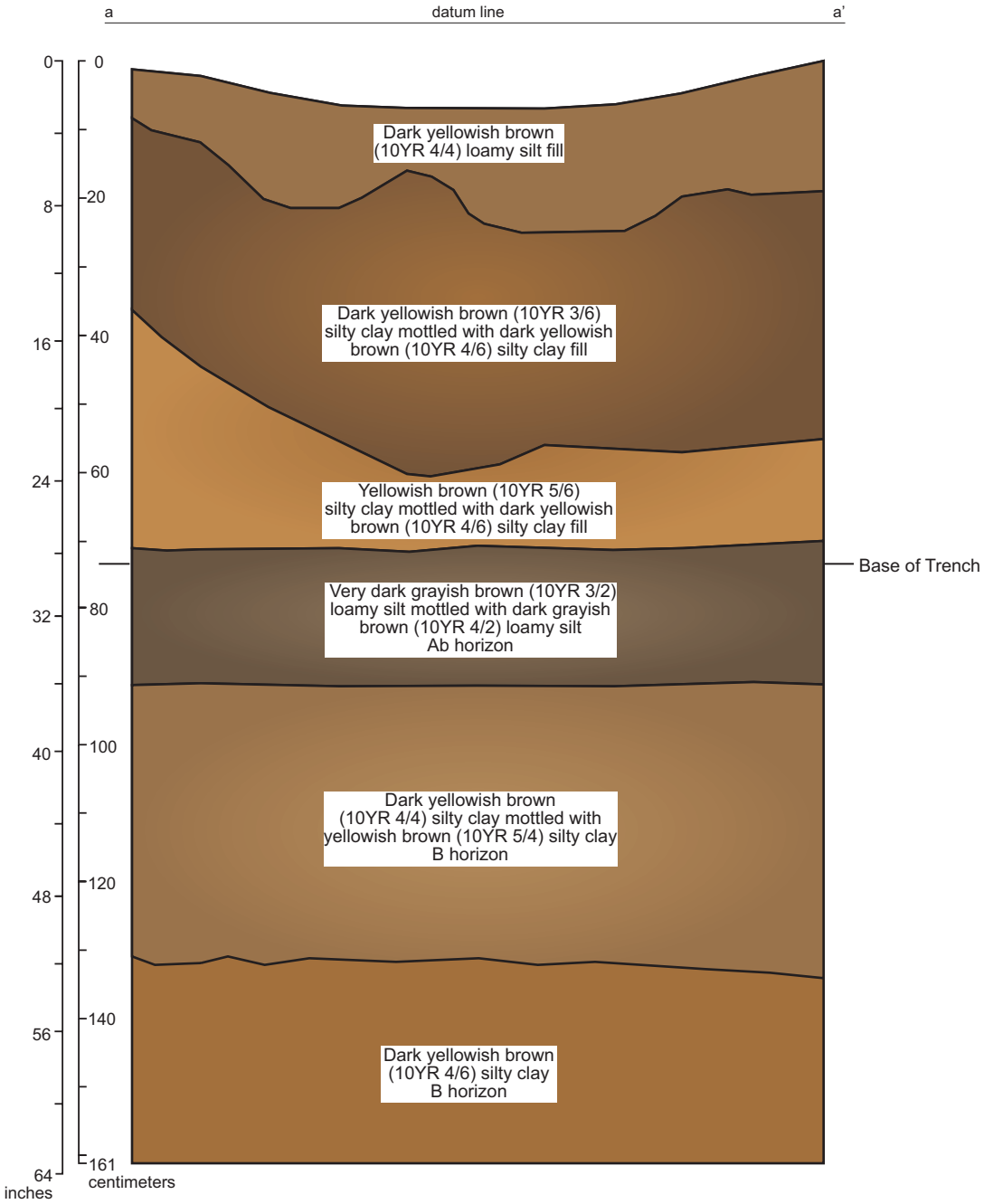


Figure 18. West profile of 1-m (3.3-ft) section of Trench 11 (upper portion) and Test Unit 4 in Area 3.

Plate 22. Profile of 1-m (3.3-ft) section of Trench 11 and Test Unit 4 (Area 3); facing west.

CHAPTER 6: MATERIALS RECOVERED

More historic artifacts (*n*=333) were recovered during the current investigation than prehistoric artifacts (*n*=102). A grand total of 435 artifacts are in the assemblage. Historic artifact classes dominated the assemblage, including glass, ceramics, metal artifacts, and other classes of historic artifacts in lesser numbers. Prehistoric artifact finds were dominated by unmodified debitage (*n*=69, or 67.6 percent), with fewer formal tools (*n*=3, 2.9 percent), expedient (flake) tools (*n*=9, 8.9 percent), FCR (*n*=18, 17.6 percent), a core (*n*=1, 1.0 percent) and cobbles (*n*=2, 2.0 percent) [Table 6]. More historic artifacts were found in Area 1 (particularly southeastern part of the parcel) than Area 2 (western parcel) or Area 3 (north of Area 1). Conversely, more prehistoric artifacts were found in Area 3 than Area 2. Area 1 had the least number of prehistoric artifacts. Most of the prehistoric artifacts found in Area 1, but not all, are in mixed secondary contexts, while many prehistoric artifacts in Area 2 appeared to be found in good context in floodplain strata. Some prehistoric artifacts in Area 3 are in floodplain strata while others are in fill or the buried A horizon.

Below is the analysis of the materials that were recovered. Laboratory methods and typological information are presented in the section termed Laboratory Analysis in Chapter 4. The artifact analysis is presented in tabular form in Appendix A.

Table 6. Prehistoric Artifacts by Type.

Artifact Type	Total	Percent
Cobble	2	2.0
Core	1	1.0
Debitage	69	67.6
Expedient Tool	9	8.9
FCR	18	17.6
Formal Tool	3	2.9
Grand Total	**102**	**100**

LITHIC ANALYSIS

Prehistoric lithics recovered in the project area consisted mainly of chipped stone artifacts (*n*=82) with FCR (*n*=18) and two cobbles (*n*=2). Among chipped stone artifacts, about 84.1 percent consisted of unmodified debitage (*n*=69) while 10.9 percent were classified as expedient tools (*n*=9), e.g., debitage showing some form of modification. These were retouched

specimens, a flake with graver spurs, or utilized flakes (flakes with wear-traces). Fewer formal tools (*n*=3, 2.9 percent) were recovered (Tables 6 and 7). A drill fragment was recovered (Plate 23A). Additionally, a biface fragment (a possible perforator base) was collected (Plate 23B) and an endscraper was recovered (Plate 23C). One chert core (*n*=1, 1.0 percent) was present in the assemblage.

Table 7. Formal Stone Tools Recovered at 15Tm112 During the Current Investigation.

Tool type	Material	Provenience	Length	Width	Thickness	Weight (g)
Drill, fragment	Jeffersonville chert	Trench 5, Test Unit 1, Level 2	*31.99*	*15.99*	*5.66*	*2.5*
Base fragment of biface (possible perforator)	Holland chert	Trench 12, general provenience	*27.10*	19.55	7.95	*4.3*
Endscraper	Jeffersonville chert	Trench 10, general provenience	46.75	49.13	10.41	30.3
Note: italicized measurements are partial due to incomplete specimens.						

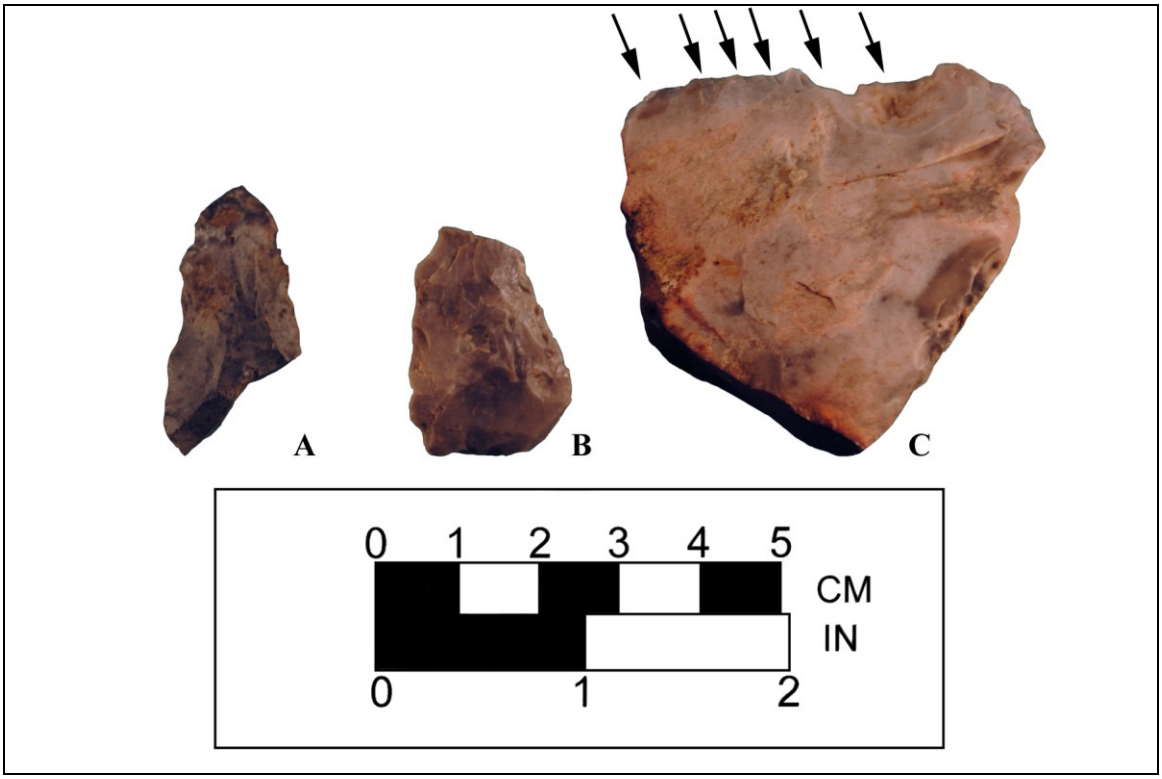


Plate 23. Formal stone tools recovered during the Phase I survey: A) drill fragment from Test Unit 1, Level 2; B) biface fragment (possible perforator base) from Trench 12, general provenience; C) endscraper from Trench 10, general provenience. Arrows indicate retouch.

Lithic materials are further broken down by type. Flakes that are modified (*n*=9) are classified as expedient tools. Out of these nine tools, 10 instances of modification were observed. One of the utilized flakes had two graver spurs, each end of which is ground down or damaged by use. Expedient tools (10 instances of modification) are classified thus: flake with graver spurs (n=2, 20.0 percent) [Plate 24A], retouched flakes (*n*=5 50.0 percent) [Plate 24B], and utilized flakes (flakes that have wear-traces) [*n*=3, 30.0 percent; Plate 24C] such as grinding or crushing along the distal flake margin.

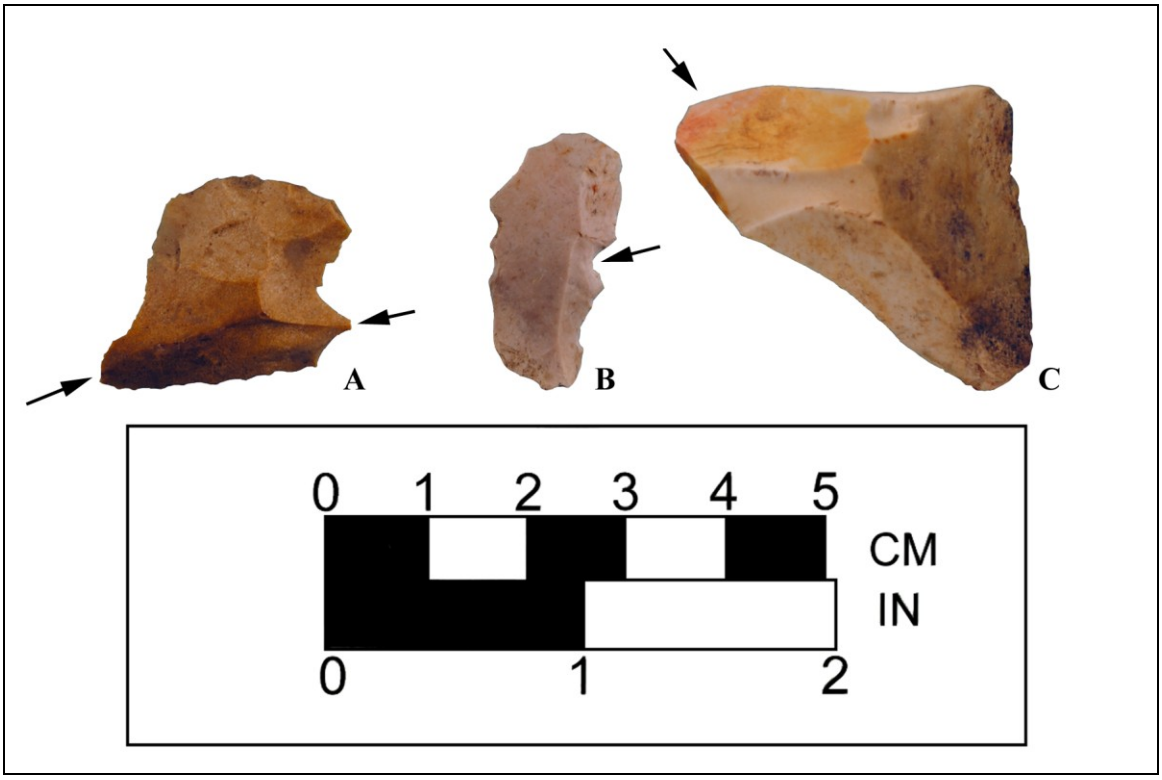


Plate 24. Selected expedient stone tools recovered during the Phase I survey: A) utilized flake with two graver spurs from Unit 2, Level 2; B) retouched flake from Unit 2, Level 2; C) utilized flake from Trench 5, general provenience. Arrows indicate retouch.

Unmodified flakes (*n*=66) include broken flakes (*n*=21, 31.8 percent), primary flakes (*n*=9 13.6 percent), secondary flakes (*n*=26, 39.3 percent), tertiary flakes (*n*=8, 12.1 percent), a microflake (*n*=1, 1.5 percent), and a bipolar flake (*n*=1, 1.5 percent). These counts and percentages do not include the two pieces of shatter in the assemblage. Modified flakes (expedient tools) include broken flakes (*n*=2, 22.2 percent), primary flakes (*n*=3, 33.3 percent), and secondary flakes (*n*=4, 44.5 percent).

A total of 27 of the 82 artifacts, or 32.9 percent, had possible or definite evidence of heat treatment. Of the chipped stone artifacts, 39 or 47.6 percent had cortex.

All of the chipped stone artifacts and one cobble were made of chert. Chert raw materials were identified in the assemblage in the following amounts: Derby (*n*=2, 2.4 percent), Fossiliferous (*n*=1, 1.2 percent), Holland (*n*=2, 2.4 percent), Holland Dark-Phase (*n*=1, 1.2 percent), Jeffersonville (*n*=36, 43.3 percent), Laurel (*n*=32, 38.6 percent), Muldraugh/Fort Payne (*n*=2, 2.4 percent), Vanport (*n*=1, 1.2 percent), and Wyandotte (*n*=6, 7.3 percent).

None of the prehistoric artifacts recovered during the current investigation are temporally diagnostic. The types of chert utilized, the preference for expedient flake tools (see below in analysis section of the last chapter) and the types of formal tools are consistent with the Middle to Late Archaic assemblage identified at 15Tm112 during the 2011 fieldwork farther north. The major archaeological culture/phase that the site was identified with (Schwarz 2011) was the Maple Creek culture/phase (term used interchangeably in the literature), a Late Archaic cultural manifestation in the Ohio Valley (Boisvert 1986; Ledbetter and O'Steen 1992; Vickery 1976, 2008). Further discussion of 15Tm112 is presented below in the Analysis section of Chapter 7.

Relatively few formal stone tools were identified during the current investigation (*n*=3). However, nine expedient flake tools are noted in the assemblage. The prior investigation recovered and analyzed many more formal stone tools and, in combination with feature evidence, the accumulated evidence was enough to hypothesize that 15Tm112 was a base camp, e.g., a relatively dense habitation site inhabited by multiple families for extended periods of the year (generally seasonally). Maple Creek base camps are often found on the floodplain of the Ohio River, so the hypothesized site function fits the model of Maple Creek settlement patterns (Vickery 1976, 2008) and artifact and feature data. As such, if 15Tm112 is a base camp, then a full range of domestic activities would expect to be reflected within the site.

Certainly the data collected in Schwarz (2011) indicates multiple domestic activities were taking place at the site. In the current data, three formal tools—a drill fragment, a biface fragment (possible perforator), and an endscraper—likely indicate mundane domestic tasks, probably related to subsistence, were taking place at the site. The drill could have been used for drilling hard substances like wood or shell (Andrefsky 2005; Nass 2013). The biface fragment, if it is a perforator, could have been used for puncturing hides or similar material and the endscraper could have been used for processing hides or certain plant processing tasks (Jefferies

1990). The prevalence and use of endscrapers and expedient flake tools is further discussed in the Analysis section of Chapter 7 of the report.

The presence of a limited amount of FCR in the assemblage indicates that use of fire, e.g., for cooking food and/or creating a campfire for personal warmth within the habitation site. No features were found during the current investigation, although thermal features were encountered and documented by McBride et al. (2010) and Schwarz (2011).

The extensive analysis of 1,274 lithic debitage collected by Schwarz (2011) at 15Tm112 indicated that while a number of different lithic reduction tasks were going on at the site, bifacial reduction and late-stage reduction activities predominated. A relatively low percentage of primary (e.g., decortication) flakes were encountered (3.5 percent); secondary and tertiary flakes, which would have been used for thinning bifaces and finishing/maintaining stone tools, were most prevalent. The current lithic data set is much smaller and can only supplement the previously collected data. A more substantial percentage (14.9 percent) of unmodified debitage consisted of primary debitage and broken cobbles (probably river cobbles) is indicative of the Late Archaic lithic reduction patterning most prevalent at Late Archaic sites (Ariens 2011; Bader 2005). Thus, the current data set adds to archaeological knowledge about 15Tm112 and indicates that at least some primary decortication or initial reduction of chert raw materials, particularly cobbles, was going on at the site, which was mostly dominated by mid- to late-stage reduction activities.

HISTORIC ARTIFACT ANALYSIS

Historic artifact analysis focused on the functional groups identified for historic sites by South (1977) and Ball (1984). As such, artifacts were identified within their broad functional groups such as kitchen-related artifacts, architectural debris, fuel-and energy-related artifacts, tools and hardware, etc. Then more specific descriptions of materials and styles were included in the artifact catalog. The assemblage identified during the survey is quantified as follows: kitchen (*n*=190, 57.1 percent), architectural debris (*n*=75, 22.5 percent), tools and hardware (*n*=20, 6.0 percent), faunal remains (*n*=17, 5.1 percent), miscellaneous (*n*=11, 3.3 percent), personal (*n*=9, 2.7 percent), floral remains (*n*=6, 1.8 percent), fuel/energy (*n*=3, 0.9 percent), and toys and games (*n*=2, 0.6 percent).

Among the major classes of artifacts within the kitchen category are container glass (*n*=107) and ceramics (*n*=80). All of the container glass is fragmentary and includes a variety of vessel types, such as bottle fragments (*n*=20) and aqua canning jar fragments (*n*=7), milkglass canning jar fragments (*n*=8), and various other container glass (*n*=72). Both colored and colorless glass were recovered, along with fragments of glass that could not be identified. Within Test Unit 1 in Area 2 a melted/burned glass fragment was found. Additionally, oil lamp chimney glass fragments (*n*=4) were recovered.

Common kitchen ceramics are whiteware (*n*=39) and stoneware (*n*=23). Albany slipping or salt glazing are common surface treatments for stoneware. In addition, porcelain (*n*=4), terra cotta (*n*=3), and ironstone (*n*=9) are present, although less common in the assemblage than whiteware and stoneware. Two yellowware sherds were recovered.

Blue transfer-print whiteware rim sherds (*n*=9) were recovered in STPs in Area 2. One of the ironstone sherds is a rim sherd. Surface treatment for one yellowware sherd was Rockingham glaze.

Among architectural category artifacts, aqua window glass (*n*=29) and cut nails (*n*=16) were the most common, with wire nails (*n*=12) and other materials present in lesser quantities. A few brick fragments, limestone fragments, and mortar were collected, although in general it was not intended to collect this class of construction material. A whole hand-made brick was recovered from Trench 6 (Plate 25) and is almost certainly associated with the house foundation (Feature 3). Many brick fragments were noted but not collected from Trench 6.

Plate 25. Hand-made brick recovered from Trench 6, associated with house foundation (Feature 3).

Two other architectural category artifacts are worth mentioning. A single octagonal terra cotta drainage tile (Plate 26) was recovered; it was part of Feature 2 documented within Test Unit 1. Three slate shingle fragments were recovered as well, all within Area 1.

Metal artifacts were generally fragmentary. Most were pieces of small hardware, and nearly all identified pieces were ferrous metal.

A clay (ceramic) marble and a machine-made glass marble were the only toys and games category artifacts found. A white glass button, classified as a personal item, was also found.

Coal and cinders were present throughout many contexts while modern trash was limited mostly to Test Unit 2. Another modern item was a graphite battery rod fragment.

The faunal remains were mostly bone fragments (n=14) and an animal tooth, probably a deer tooth. The bone fragments are unidentified. Two bone fragments are burned and five are cut (i.e., they have one or more cut marks visible). Two mussel shell fragments were recovered. Wood fragments (n=6), which were unidentified, came from Feature 1, the post in Trench 4.

Plate 26. Octagonal terra cotta drainage tile from Test Unit 1, Feature 2.

Diagnostics among historic artifacts largely relate to the late nineteenth century-early twentieth century time frame (Table 8). Some ceramics, including yellowwares, blue transfer-print whitewares, and ironstone, were prevalent in the mid-nineteenth century but continued to be used, so dating their production—much less their use—is often difficult. For example, a common ceramic, ironstone, had peak production from ca. 1842–ca. 1860 but production continued into the later decades of the nineteenth century. Embossed ironstone ceramics, which are present in the assemblage, were common during and after the 1860s (Stelle 2011). According to Stelle (2011) the mean ceramic date for embossed ironstone is 1880. Ironstone marks such as "STONE CHINA" (a partial maker's mark was found on a sherd in STP 11 in Trench 4) [Plate 27A] were characteristic of at least two late nineteenth-century American potteries (Kovel and Kovel 1953). A rim sherd and body sherd refit (Plate 27B) and an embossed ironstone rim sherd with a faint black line were recovered as well (Plate 27C).

Table 8. Historic Diagnostic Artifacts Recovered at 15Tm112 During the Current Investigation.

Description	Area	Provenience	Date Range	Reference	Count	Comment
Nail, cut	1	STP 3, Level 2	ca. 1790–1890s	Nelson 1968; Gillio et al. 1980	2	
Nail, cut	1	STP 6, Level 2	ca. 1790–1890s	Nelson 1968; Gillio et al. 1980	1	
Nail, cut	2	Trench 1, Level 3	ca. 1790–1890s	Nelson 1968; Gillio et al. 1980	1	
Nail, cut, large	2	Trench 1, Level 4	ca. 1790–1890s	Nelson 1968; Gillio et al. 1980	1	
Nail, cut	1	Trench 6, general provenience	ca. 1790–1890s	Nelson 1968; Gillio et al. 1980	2	
Nail, cut	1	Trench 5, Test Unit 2, Level 1	ca. 1790–1890s	Nelson 1968; Gillio et al. 1980	5	
Nail, cut	1	Trench 5, Test Unit 2, Level 2	ca. 1790–1890s	Nelson 1968; Gillio et al. 1980	3	
Nail, cut	1	Trench 9, general provenience	ca. 1790–1890s	Nelson 1968; Gillio et al. 1980	1	
Stoneware body sherd; exterior salt-glazed, interior Albany slip	2	Trench 3, STP 3, Level 3	1825–1900 (most common)	Stelle 2011	2	
Stoneware rim sherd; ext./int. Albany slip	3	Trench 12, general provenience	1825–1900 (most common)	Stelle 2011	1	
Stoneware body sherd; ext./int. Albany slip	3	Trench 11, Test Unit 4, Level 1	1825–1900 (most common)	Stelle 2011	1	
Stoneware rim sherd; interior Albany slip, exterior salt-glazed	2	Trench 1, STP 1, Level 2	1825–1900 (most common)	Stelle 2011	1	
Clay marble	1	Trench 5, Unit 2, Level 2	19th century to 1930	Gartley and Carskadden 1998: 49–55	1	Small diameter; brown-bodied earthenware marble ("commie")
Blue transfer print whiteware rim sherd	2	Trench 2, STP 2, Level 2	ca. 1828-present	Magid 1984	4	3 pieces fit together, mended

Table 8. Historic Diagnostic Artifacts Recovered at 15Tm112 During the Current Investigation.

Description	Area	Provenience	Date Range	Reference	Count	Comment
Blue transfer print whiteware rim sherd	2	Trench 3, STP 2, Level 1	ca. 1828-present	Magid 1984; Neale 2005	5	"Blue Willow" pattern; refits - pieces mended
Glass canning jar fragment, aqua	1	Trench 5, Test Unit 2, Level 2	1858–ca. 1900	Toulouse 1969	1	Embossed with …NOV. 3…/1858. (Likely Patented November 30, 1858)
Glass container fragment, light olive green	1	STP 3, Level 2	1860-present	Magid 1984	1	
Glass canning jar fragment, aqua	1	Trench 6, General	1858–ca. 1900	Toulouse 1969	1	Embossed with…M…1Plate…1Nov30…/185 …(Likely Patented November 30, 1958)
Undecorated ironstone base sherd	1	Trench 4, STP 11, Level 4	1860s or later	Stelle 2011	1	Embossed on base with partial maker's mark …TONE CHINA. Probably "STONE CHINA," which was a mark of several late nineteenth-early twentieth century potteries including the Mercer Pottery Company of Trenton, New Jersey and the Wheeling Pottery Company, West Virginia (Kovel and Kovel 1953).
Embossed ironstone rim sherd, with faint black line around rim	3	Trench 12, general provenience	1860s or later	Stelle 2011	1	
Glass canning jar lid liner fragment, milkglass	3	Trench 12, general provenience	1869-1940 (ca. 1900–1930, peak period)	Toulouse 1969, 1977	3	2 pieces fit together, the other piece has "F O" embossed on it, probably part of FOSTER SEALTEST, a common canning jar sealing system used by Indiana canners (Toulouse 1969)

Table 8. Historic Diagnostic Artifacts Recovered at 15Tm112 During the Current Investigation.

Description	Area	Provenience	Date Range	Reference	Count	Comment
Milkglass canning jar lid liner fragments	2	Trench 1, STP 1, Level 1\	1869–ca. 1940 (ca. 1900–1930, peak period)	Toulouse 1969, 1977	2	Pieces fit together
Milkglass canning jar body fragment	2	Trench 2, STP 2, Level 2	1869–ca. 1940 (ca. 1900–1930, peak period)	Toulouse 1969, 1977	1	
Milkglass canning jar base fragment	1	Trench 9, General provenience	1869-ca. 1940 (ca. 1900–1930, peak period)	Toulouse 1969, 1977	1	
Container glass mouth and neck fragment, solarized amethyst	2	Trench 2, Test Unit 1, Level 1	1880–ca. 1918	Deiss 1981; Munsey 1970	1	
Glass container base fragment, solarized amethyst	3	Trench 12, general provenience	1880–ca. 1918	Deiss 1981; Munsey 1970	1	
Stoneware jug mouth and neck fragment; exterior Bristol slip, interior Albany slip	3	Trench 12, general provenience	1890s–present	Stelle 2011	1	
Coca-Cola bottle fragment, brown	1	Trench 6, General provenience	1900–1916	http://www.thecoca-colacompany.com/dynamic/press_center/imagegallery.html	6	Embossed with partial Coca-Cola registered trademark information
Glass Coca-Cola? bottle fragment, brown	1	Trench 5, STP 10, Level 1	1912–1916	Lockhart 2010: 333–335; antique bottles.com/coke/	1	Embossed with straight arrow. Probably part of an “Arrow” Coca-Cola bottle, primarily from TN and KY.
Coca-Cola bottle fragment, aqua	2	Trench 3, STP 3, Level 1	1915–1957	http://www.thecocacolacompany.com/dynamic/press_center/imagegallery.html	2	Embossed with …l/…EGISTE../…NT OF… and …MA…
Glass marble, machine made	1	Trench 5, Test Unit 2, Level 5	post-1920, probably 1950s	Block 2010: 115–122	1	Peltier Glass Company “Banana” cat’s eye, colorless glass with green vane

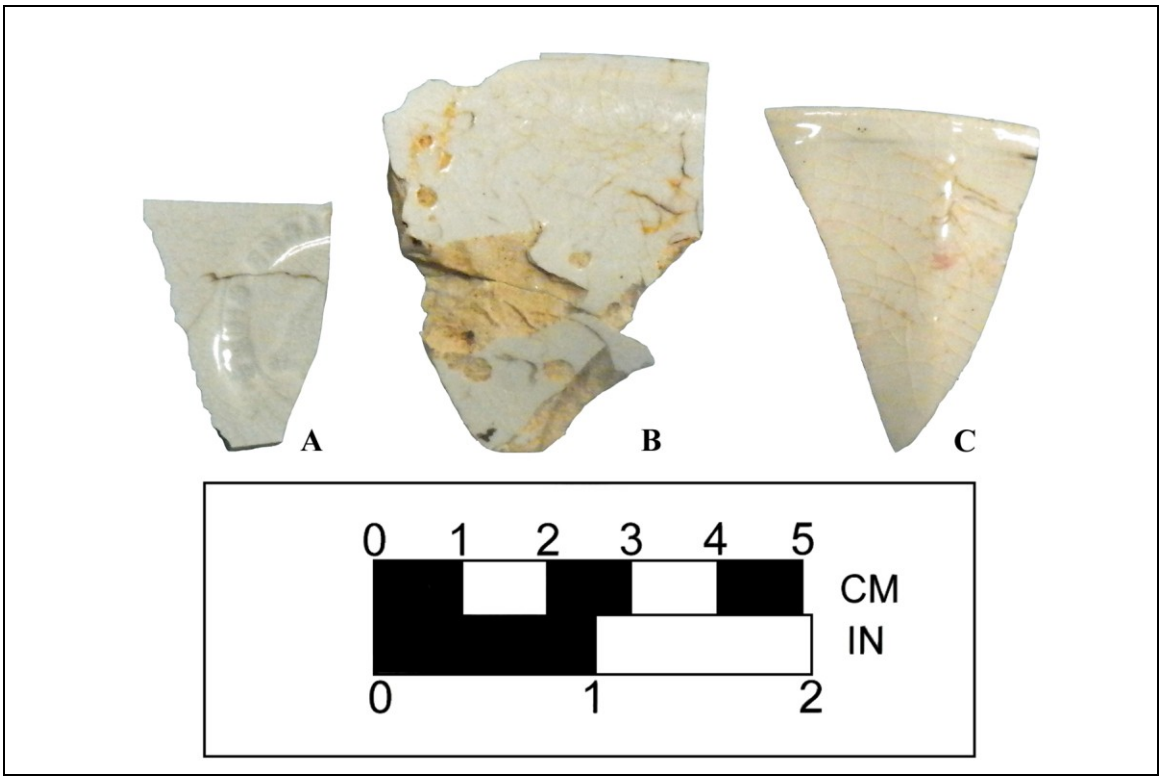


Plate 27. Selected historic ceramics recovered during the Phase I survey: A) undecorated ironstone base sherd, embossed with "…TONE CHINA," likely STONE CHINA, 1860s or later, from STP 11, Level 4; B) undecorated ironstone rim and body sherd (refits) from Trench 12, general provenience; C) embossed ironstone rim sherd, with faint black line around rim, 1860s or later, from Trench 12, general provenience.

Whitewares include undecorated sherds, blue transfer-print wares, and hand-painted polychrome wares. Embossed whitewares were present as well. Among transfer-printed ceramics, the Blue Willow pattern, a common decorative style through much of the nineteenth century (1828–present) that is still used today, was present on one sherd (Plate 28A). Also, an embossed whiteware rim sherd with gold on the edge (Plate 28B) was present as was a whiteware sherd with a polychrome hand-painted floral motif (Plate 28C). Polychromy in hand-painted whitewares was uncommon, but according to Stelle (2011) and Miller (1987), it occurred most often from 1830–1850. Esary (1982), however, suggests the peak production period is 1840–1860. Hand-painted polychrome whitewares continued to be produced after 1860 and even until the present time, although it is not as popular as a style as it was in the mid-nineteenth century.

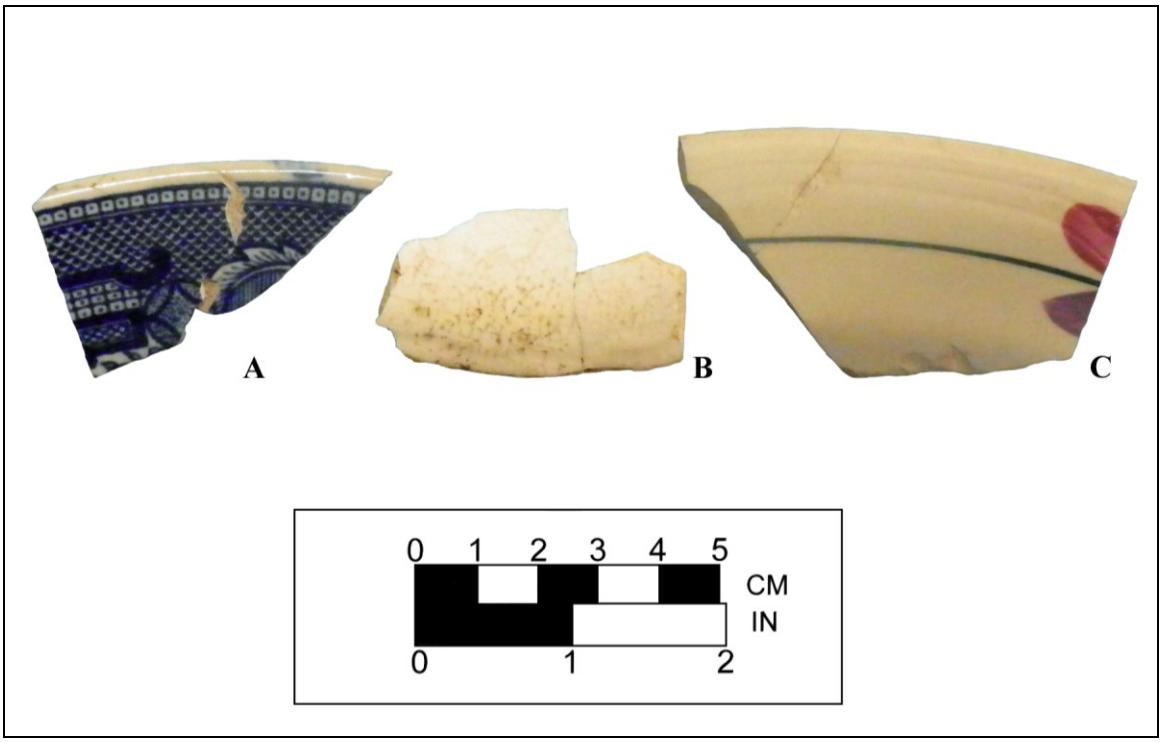


Plate 28. Selected decorated whiteware sherds recovered during the Phase I survey: A) blue transfer-print rim sherd, Blue Willow pattern, 1828-present, from STP 3, Level 1; B) embossed whiteware rim sherd with gold on edge from Trench 11, general provenience; C) whiteware rim sherd with embossed and polychrome hand-painted floral motif, from Trench 11, general provenience.

Yellowware was common from about the 1830s onward, and Rockingham glaze, a common glaze for yellowware, dates to approximately 1845–1900 (Magid 1984) [Plate 29A]. Among stoneware sherds, salt-glaze, Albany slipping, and Bristol glaze or slipping were present in the assemblage along with stoneware sherds without surface treatments. Albany slipping was most common from ca. 1825–1900 (Plate 29B). Salt-glaze surface treatments became less common after 1860 (Plate 29C). Bristol glaze or slipping became increasingly common after 1890 and replaces Albany slipping in the twentieth century (Stelle 2011). Stoneware, ironstone, whiteware, and yellowware ceramics were sometimes for used for decades, and then were discarded, ending up within archaeological assemblages at later dates.

Glass artifacts include two fragments of Mason jars with partial embossed scripts dating to November 30th, 1858 (Plate 30A; Table 8). Mason jars displaying this patent date were common from 1858–ca. 1900 (Toulouse 1969). Milkglass canning jars and canning jar lid liners date to 1869–ca. 1940 (Toulouse 1969, 1977), although the peak period was ca. 1900–1930 (Plate 30B and 30C).

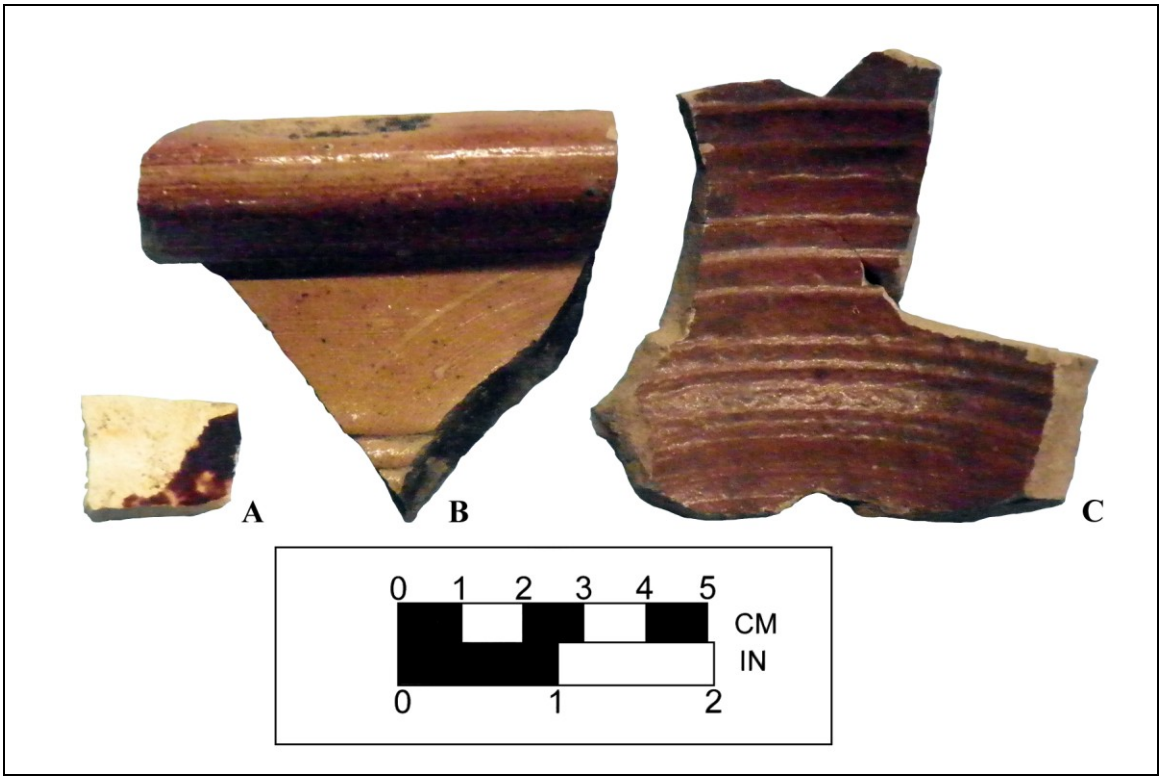


Plate 29. Additional historic ceramics recovered during the Phase I survey: A) yellowware body sherd with Rockingham glaze, 1845–1900, from Test Unit 2, Level 1; B) stoneware rim sherd with Albany slip from STP 2, Level 2; C) salt-glaze stoneware sherd from Trench 12, general provenience.

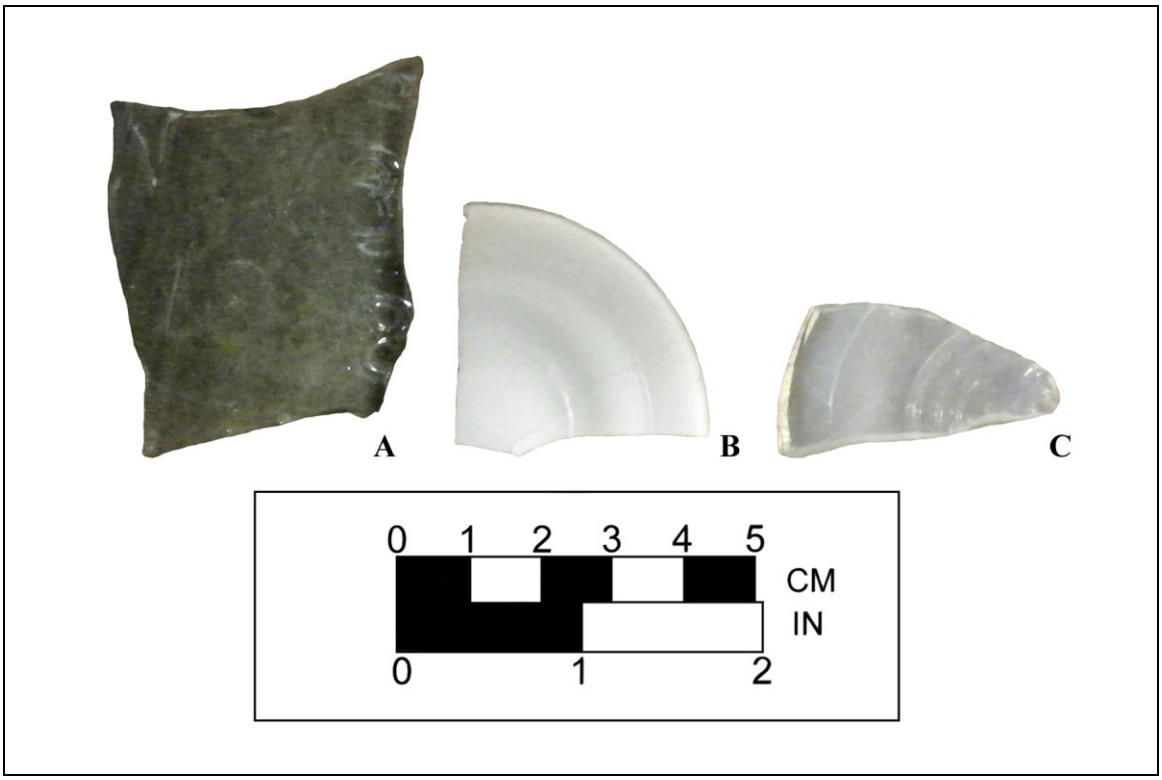


Plate 30. Selected diagnostic glass artifacts recovered during the Phase I survey: A) aqua Mason canning jar fragment, embossed, with partial patent date of November 30, 1858 (1858–ca. 1900) from Test Unit 2, Level 2; B) milkglass canning jar lid liner fragment (ca. 1900–1930, peak period) from Trench 12, general provenience; C) milk glass canning jar base fragment (ca. 1900–1930, peak period) from Trench 9, general provenience.

Solarized amethyst glass dates to 1880–ca. 1918 (Plate 31A). Early Coca Cola bottles, with embossed lettering and brown glass, date to 1916 or before (Lockhart 2010), while aqua Coca Cola bottles are mostly later. Both types were found in the assemblage. One bottle glass fragment was embossed with a straight arrow. This was probably part of an "Arrow" Coca-Cola bottle, which were primarily from Kentucky and Tennessee (Plate 31B).

Clay marbles were prevalent in the late nineteenth century to about 1930 (Plate 31C). They were typically called "commies" or commons, and were usually made from clay left over from the production of earthenware ceramics. Production of machine-made glass marbles post-dates the 1920s, as the ceramic marbles eventually are no longer made (Block 2010; Gartley and Carskadden 1998). One glass marble, from the Peltier Glass Company, was present in the historic assemblage (Table 8).

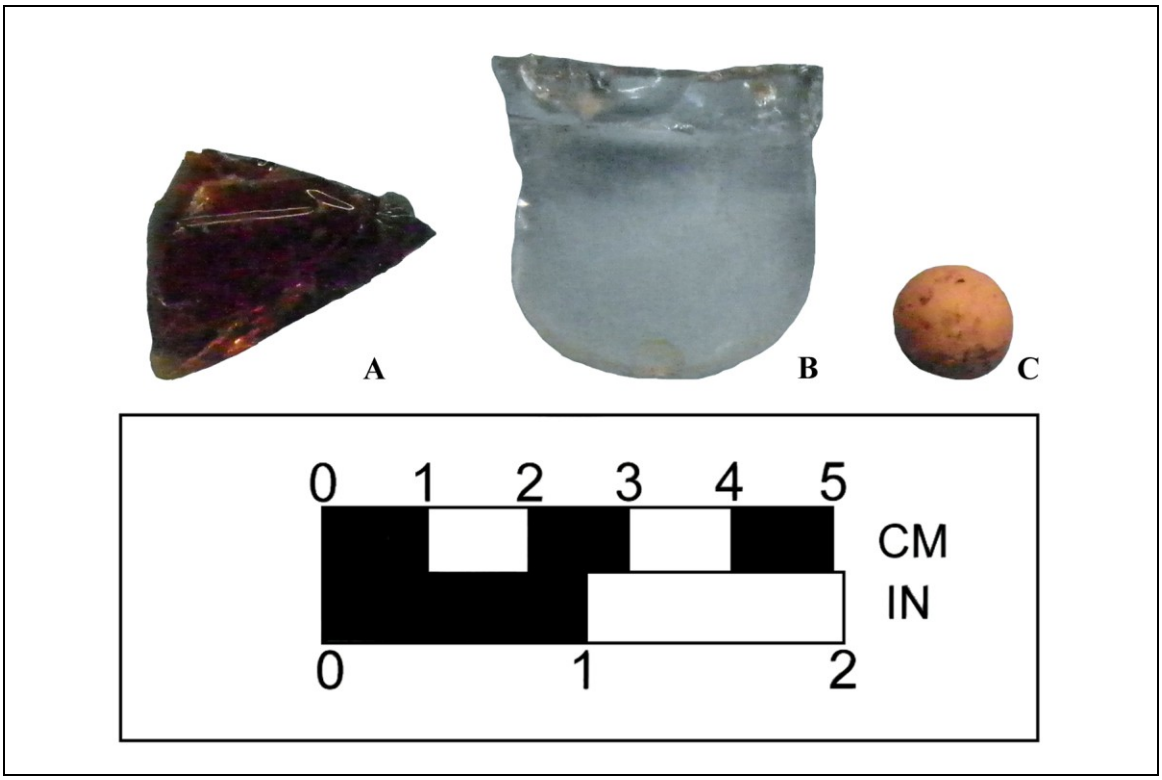


Plate 31. Additional selected artifacts: A) solarized amethyst glass, 1880–ca.1918, from Test Unit 1, Level 1; B) bottle glass fragment with embossed arrow, 1912–1916, from STP 10, Level 1; C) clay marble or "commie," nineteenth century-1930, from Test Unit 2, Level 2.

Overall, the historic artifact assemblage fits the late nineteenth century-early twentieth century expectations for a domestic site in a small town, and a few observations reveal facets of town life in Milton in that time range. The recovery of wide ranges of material from various functional groups, including personal items (the glass button) and toys and games (marbles), illustrates the kinds of activities expected for a house and the kinds of people (e.g., children) in such as setting. In addition, the abundant kitchen-related artifacts, which reveal ceramics from most major ware categories, and indicate a substantial commitment to consumption of canned goods (presumably foods such as vegetables and fruits preserved in glass canning jars), as well as the advent of consumption of soft drinks (early Coca-Cola bottles) and connections to regional markets. One expects that home canning was popular in this time frame and that store-bought food and beverages became increasingly popular over time. Faunal remains are also illustrative of diet, which presumably included deer and shellfish. Additionally, the architectural evidence provides a look at nineteenth-century building practices in Milton, including the presence of

hand-made bricks, square cut nails, and slate shingles as roofing materials, which illustrate the traditional building materials of the time. If a larger sample of artifacts were procured, particularly of kitchen-related items, sufficient materials would be present to allow comparisons of economic patterning of consumption, socioeconomic status and class, and regional and town versus rural with other historic residential sites in Kentucky and Indiana.

ARTIFACTS BY DEPTH IN HAND-EXCAVATED UNITS

Artifacts within test units and STPs within trenches were excavated in 10-cm (4-in) levels and the number of artifacts found within each level was recorded (Tables 9–22). In Area 1, STPs from surface were excavated utilizing natural and cultural stratigraphy to establish excavation levels, since it was suspected that disturbed fill would be encountered at the initiation of excavation.

Excavations in the southeast portion of Area 1 included STPs within trenches and Test Unit 2 (Tables 9–12). These excavations recovered historic artifacts mostly between 35 cmbs–65 cmbs (14 inbs–26 inbs), although lesser numbers of artifacts were found at greater depths.

In STP 10, two historic artifacts were found between 70 cmbs–80 cmbs (28 inbs–31 inbs) [Table 9]. In STP 11, Trench 4, 12 historic artifacts were found from 50 cmbs-60 cmbs (20 inbs-24 inbs). Below, two historic artifacts were recovered from STP 11 between 70 cmbs–90 cmbs (28 inbs–35 inbs) [Table 10]. One piece of coal was noted only in the depth range between 70 cmbs–90 cmbs (28 inbs–35 inbs). The coal was not collected. In Test Unit 2, historic artifacts were also found in Levels 4 and 5 (65 cmbs–84 cmbs/26 inbs–33 inbs) although fewer than found in Levels 1–3 (Table 12).

Few prehistoric artifacts were recovered in the eastern portion of Area 1, and the only prehistoric artifact recovered in good context was a single piece of debitage from 50 cmbs–60 cmbs (20 inbs–24 inbs) in STP 12 (Table 11). The prehistoric artifacts in Test Unit 2 were found between 35 cmbs–65 cmbs (14 inbs–26 inbs), but were considered to be from mixed secondary contexts.

Area 1 STPs excavated from surface encountered a sterile fill (described above), generally between 0–42 cmbs (0–16.5 inbs), which was called Level 1. Level 2 was the historic A horizon between ca. 40 cmbs–50 cmbs (16.5 inbs–20 inbs).

Trenches 7–9 were excavated in the western portion of Area 1, adjacent to the 1929 bridge approach. No artifacts were found in STPs in Trenches 7 and 8, which were closest to High Street. In Trench 9, STP 15, prehistoric lithic debitage was discovered in Level 2 (80 cmbs–90 cmbs/31 inbs–35 inbs) and Level 5 (110 cmbs–120 cmbs/43 inbs–47 inbs). A historic artifact was found in Level 6 (120 cmbs–130 cmbs/47 inbs–51 inbs) in this STP (Table 13). Prehistoric artifacts only were found in Test Unit 3 in Trench 9 but they were restricted to Levels 1, 2, and 5 (60 cmbs–80 cmbs/24 inbs–32 inbs and 100–110 cmbs/39 inbs–43 inbs) [Table 14].

Table 9. Artifacts for Area 1, STP 10.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	70–80 cmbs	2	0
2	80–90 cmbs	0	0
3	90–100 cmbs	0	0
4	100–110 cmbs	0	0
5	110–120 cmbs	0	0

Table 10. Artifacts for Area 1, STP 11.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	50–60 cmbs	12	0
2	60–70 cmbs	0	0
3	70–80 cmbs	1	0
4	80–90 cmbs	1	0
5	90–100 cmbs	0	0

Table 11. Artifacts for Area 1, STP 12.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	50–60 cmbs	0	1
2	60–70 cmbs	0	0
3	70–80 cmbs	0	0
4	80–90 cmbs	0	0
5	90–100 cmbs	0	0

Table 12. Area 1, Test Unit 2.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	35–45 cmbs	27	1
2	45–55 cmbs	29	9
3	55–65 cmbs	8	4
4	65–75 cmbs	7	0
5	75–84 cmbs	7	0

Table 13. Artifacts for Area 1, STP 15.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	70–80 cmbs	0	0
2	80–90 cmbs	0	1
3	90–100 cmbs	0	0
4	100–110 cmbs	0	0
5	110–120 cmbs	0	1
6	120–130 cmbs	1	0
7	130–140 cmbs	0	0
8	140–150 cmbs	0	0
9	150–160 cmbs	0	0

Table 14. Artifacts for Area 1, Test Unit 3.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	60–70 cmbs	0	3
2	70–80 cmbs	0	5
3	80–90 cmbs	0	0
4	90–100 cmbs	0	0
5	100–110 cmbs	0	2
6	110–120 cmbs	0	0
7	120–130 cmbs	0	0
8	130–140 cmbs	0	0
9	140–150 cmbs	0	0
10	150–164 cmbs	0	0

In Area 2 hand excavations, historic artifacts were found between 91 cmbs–140 cmbs (36 inbs–55 inbs), although the majority of historic artifacts tended to be found in the first two excavation levels, e.g., between 91 cmbs–120 cmbs (36 inbs–47 inbs) [Tables 15–18]. Prehistoric artifacts were found between 109 cmbs–133 cmbs (43 inbs–52 inbs), and there was some overlap with historic artifact distributions. The number of prehistoric artifacts in the STPs in Area 2 was not particularly high, although substantially more prehistoric artifacts (n=20) were found in Test Unit 1 (Table 18).

Table 15. Artifacts from Area 2, STP 1.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	101–111 cmbs	5	0
2	111–121 cmbs	4	0
3	121–131 cmbs	4	0
4	131–141 cmbs	1	0
5	141–151 cmbs	0	0

Table 16. Artifacts for Area 2, STP 2.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	89–99 cmbs	0	0
2	99–109 cmbs	9	0
3	109–110 cmbs	0	1
4	119–129 cmbs	0	3
5	129–139 cmbs	0	0

Table 17. Artifacts for Area 2, STP 3.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	93–103 cmbs	24	0
2	103–113 cmbs	14	0
3	113–123 cmbs	6	6
4	123–133 cmbs	0	1
5	133–143 cmbs	0	0

Table 18. Artifacts for Area 2, Test Unit 1.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	ca. 92–110 cmbs	20	0
2	110–120 cmbs	9	13
3	120–130 cmbs	5	7
4	130–140 cmbs	5	0
5	140–150 cmbs	0	0
6	150–163 cmbs	0	0

In Area 3, the historic artifacts from hand excavations, which were few in number, came mostly from between 60 cmbs–90 cmbs (24 inbs–35 inbs). However, in STP 16 (Trench 10) a single historic artifact was found between 100 cmbs–110 cmbs (39 inbs–43 inbs). Prehistoric artifacts, which were a little more numerous, were generally found in the same ranges of depths as the historic artifacts, although two pieces of debitage were found deeper, at 110 cmbs–120 cmbs (43 inbs–47 inbs) and 140 cmbs–150 cmbs (55 inbs–59 inbs) [Tables 19–22].

Table 19. Artifacts from Area 3, STP 16.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	60–70 cmbs	1	0
2	70–80 cmbs	0	0
3	80–90 cmbs	0	5
4	90–100 cmbs	0	2
5	100–110 cmbs	1	1
6	110–120 cmbs	0	0
7	120–130 cmbs	0	0

Table 20. Artifacts for Area 3, STP 17.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	90–100 cmbs	1	2
2	100–110 cmbs	0	0
3	110–120 cmbs	0	1
4	120–130 cmbs	0	0
5	130–140 cmbs	0	0
6	140–150 cmbs	0	0
7	150–160 cmbs	0	0

Table 21. Artifacts for Area 3, STP 18.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	100–110 cmbs	0	2
2	110–120 cmbs	0	0
3	120–130 cmbs	0	0
4	130–140 cmbs	0	0
5	140–150 cmbs	0	1*
6	150–160 cmbs	0	0
Note: * Artifact lost in the field; not in artifact catalog.			

Table 22. Artifacts for Area 3, Test Unit 4.

Level	Depths	Historic Artifacts	Prehistoric Artifacts
1	75–90 cmbs	3	10
2	90–100 cmbs	0	3
3	100–110 cmbs	0	8
4	110–120 cmbs	0	0
5	120–130 cmbs	0	0
6	130–140 cmbs	0	0
7	140–150 cmbs	0	0
8	150–161 cmbs	0	0

ARTIFACT DISTRIBUTION BY STRATUM

Throughout the project area, excavations showed similar stratigraphy, which generally consisted of one or more layers of fill overlying an Ab horizon/B horizon sequence. The specific composition of the fills varied across the project area and occasionally contained inclusions of gravel or concrete. In most cases, the interface between the fill and Ab horizon was abrupt, whereas the Ab/B horizon interface was less distinct and sometimes a gradation was noted. As mentioned, a total of 435 artifacts were recovered during the fieldwork (Table 23) and most were historic (n=333) in nature. This includes 98 artifacts (29.4 percent of the historic assemblage) from the fill, 103 artifacts (30.9 percent) from the Ab horizon, and 25 artifacts (7.5 percent) from the B horizons. A total of 21 artifacts (6.4 percent) were from feature contexts. A substantial amount of unprovenienced historic artifacts (*n*=86, or 25.8 percent) also were recovered from the

trench spoil. The large portion of artifacts recovered from the fill can likely be attributed to post-flood demolition of historic properties that once occupied the area.

Prehistoric artifacts totaled 102 in number (Table 23). Artifacts from the fill (*n*=14) and trench spoil (*n*=10) account for 23.5 percent of the prehistoric assemblage. The buried A horizon had a lower percentage of prehistoric artifacts than the B horizons with 29.4 percent (*n*=30) and 47.1 percent (*n*=48), respectively.

Table 23. Distribution of Artifacts by Strata.

Soil Horizon	Historic Artifacts	Prehistoric Artifacts
Fill	98	14
Unprovenienced trench spoil	86	10
Ab horizon	103	30
Feature	21	0
B horizon(s)	25	48
Total:	333	102

A comparison of individual excavation units (STPs and Test Units) is instructive of variability in the distribution of artifacts by strata (Tables 24–28). For example in Area 1 the fill/disturbed areas extended deeper in some areas than in others, most notably in STP 11 in Trench 4 and in Test Unit 2 in Trench 5. Both excavation units had fill deposits with artifacts below 80 cmbs (31.4 inbs) whereas the Ab horizon was encountered at shallower depths in other excavations in Area 1. Also, most shovel testing and test unit excavations in Area 1 recovered no artifacts, historic or prehistoric, in the B horizons (Table 25). One exception to this generalization is STP 15 in the northwest portion of Area 1 and the adjacent Test Unit 3, in Trench 9. One historic artifact and eight prehistoric artifacts were found in a B horizon.

In Area 2 STP and test unit excavations, historic artifacts were just about equally prevalent in Ab horizon and B horizon context, while prehistoric artifacts were much more likely to be found in the B horizon than in the Ab horizon (Tables 26 and 28).

In Area 3 STP and test unit excavations, by contrast prehistoric artifacts were slightly more prevalent in the Ab horizon than in the B horizon, but were present in appreciable quantities in both horizons. Historic artifacts were found only in the Ab horizon and in small numbers (Tables 27 and 28).

Table 24. Summary of Artifacts Recovered from Area 1 STPs Excavated from Surface (by Stratum).

Stratum	Area 1, STP 2		Area 1, STP 3		Area 1, STP 6	
	Hist.	Prehist.	Hist.	Prehist.	Hist.	Prehist.
Fill horizon(s)	0	0	0	0	0	0
Ab horizon	7	0	14	0	7	0
B horizon(s)	0	0	0	0	0	0

Table 25. Summary of Artifacts Recovered from Area 1 STPs within Trenches (by Stratum).

Stratum	Area 1, STP 10		Area 1, STP 11		Area 1, STP 12		Area 1, STP 15	
	Hist.	Prehist.	Hist.	Prehist.	Hist.	Prehist.	Hist.	Prehist.
Fill horizon(s)	0	0	12	0	0	0	0	0
Ab horizon	2	0	0	0	0	1	0	1
B horizon(s)	0	0	0	0	0	0	1	1

Table 26. Summary of Artifacts Recovered from Area 2 STPs by Stratum.

Stratum	Area 2, STP 1		Area 2, STP 2		Area 2, STP 3	
	Hist.	Prehist.	Hist.	Prehist.	Hist.	Prehist.
Fill horizon(s)	0	0	0	0	0	0
Ab horizon	5	0	9	0	24	6
B horizon(s)	9	0	0	4	20	1

Table 27. Summary of Artifacts Recovered from Area 3 STPs by Stratum.

Stratum	Area 3, STP 16		Area 3, STP 17		Area 3, STP 18	
	Hist.	Prehist.	Hist.	Prehist.	Hist.	Prehist.
Fill horizon(s)	0	0	0	0	0	0
Ab horizon	2	8	1	2	0	2
B horizon(s)	0	0	0	1	0	1*
*- Artifact lost in the field, not in the artifact catalog.						

Table 28. Summary of Artifacts Recovered from Test Units by Stratum.

Stratum	**Area 2, Unit 1**		**Area 1, Unit 2**		**Area 1, Unit 3**		**Area 3, Unit 4**	
	Hist.	**Prehist.**	**Hist.**	**Prehist.**	**Hist.**	**Prehist.**	**Hist.**	**Prehist.**
Fill/Disturbed horizon(s)	0	0	78	14	0	0	0	0
Ab horizon	20	0	0	0	0	3	3	13
B horizon(s)	19	20	0	0	0	7	0	8

FEATURES

Three features were documented during the investigation, all of which are historic (Table 29). In Trench 4, Feature 1 is a historic post that was partially excavated (Figure 6). Feature 2 is a terra cotta drainage tile partially uncovered in Test Unit 1 in Trench 2 (Figure 6). Feature 3 is a historic foundation wall and a small area of brick exposed in Trenches 5 and 6, and possibly in STP 2. Via tile probing, Feature 3 was found to extend beyond the bounds of Trenches 5 or 6 and appears to be a rectangular house foundation (Figure 6). In addition to the line of bricks (perhaps part of a small porch or sidewalk) there appears to be a rectangular addition on the northwest side of the foundation. Perhaps it was a porch. The features are described in detail in the next chapter.

Table 29. Summary of Features at 15Tm112 from the Current Investigation.

Feature No.	Excavation Unit(s)	Horizontal dimensions	Top Elev. (cmbs)	Bottom Elev. (cmbs)	Excavated?	Investigation Method	Feature or Deposit Type	Notes
1	Trench 4	22 cm x 20 cm	86	Unknown (at least 98)**	Partial	Removal of single ca. 10-cm level	Historic post mold	Post extends deeper but total depth was not ascertained. Wood fragments, faunal bone, ceramics, glass and metal were recovered from the feature.
2	Trench 2, Test Unit 1	80 cm* x 8 cm	129	137	Partial	Mapping and removal within test unit	Historic drainage tile	Octagonal terra cotta
3	Trenches 5 and 6, STP 10, Test Unit 2	9.1 m x 5.5 or 6 m	45	ca. 95	Exposure within trenches, STP, and test unit	Mapping within trenches and tile probing	Stone foundation wall and line of bricks	Portion of house foundation exposed (Based on tile probing, house dimensions are believed to be approximately 9.1 m x 5.5 or 6.0 m, excepting a small patio or addition, which is ca. 2.5 m x 3.0 m).

*–Dimensions as exposed in the excavation unit. Feature is larger and complete dimensions could not be determined.
**–Point at which feature excavation terminated.

CHAPTER 7: SITE DESCRIPTION

SITE 15TM112

Site 15Tm112 was originally identified as a temporally unaffiliated prehistoric site northeast of the current study area (McBride et al. 2010). Later Phase I/II investigations (Schwarz 2011) determined that the site extended to the south and west with the tentative southern boundary being the northern edge of the parking lot (Figure 4). Mainly prehistoric artifacts and features were found but the site included a historic component, mostly in the form of remnants of a pier or other riverside construction and a very limited amount of historic artifacts. The prehistoric component, a dense, buried Middle and Late Archaic habitation site, was determined eligible for listing on the NRHP (Schwarz 2011). The site was identified as being most closely associated with the Maple Creek culture, which was located in Ohio River Valley between ca. 3750 B.C.–3000 B.C. (Boisvert 1986; Ledbetter and O'Steen 1992; Vickery 1976, 2008).

Because of the limited exposure of the historic waterfront structure and limited interpretability of the features, it was recommended that a finding of No Adverse Effect to historic properties be applied to the historic component. As the result of the Schwarz (2011) investigation, the historic component of 15Tm112 was considered to be unevaluated for listing on the NRHP. Avoidance was recommended for the prehistoric component. Failing avoidance it was recommended that measures be taken to minimize harm to the prehistoric component as known in 2011 or steps be taken to assess adverse impacts and put a plan in place to mitigate them. If additional impacts were possible away from the area tested by Schwarz (2011) it was recommended that additional archaeological investigations would be appropriate.

The current finds reveal that 15Tm112 extends even farther to the south and west and includes both prehistoric finds and a historic residential component (Figures 19 and 20). Historic and prehistoric artifacts were found below 42 cmbs (17 inbs) in the eastern portion of Area 1. The southwest portion of Area 1 (next to the bridge right-of-way) was largely disturbed and no artifacts were recovered from Trenches 7 and 8, although artifacts were recovered from Trench 9 in the northwest portion of Area 1. All excavations in Areas 2 and Area 3 encountered artifacts.

Figure 19. Aerial photograph showing 15Tm112 boundaries as revised.

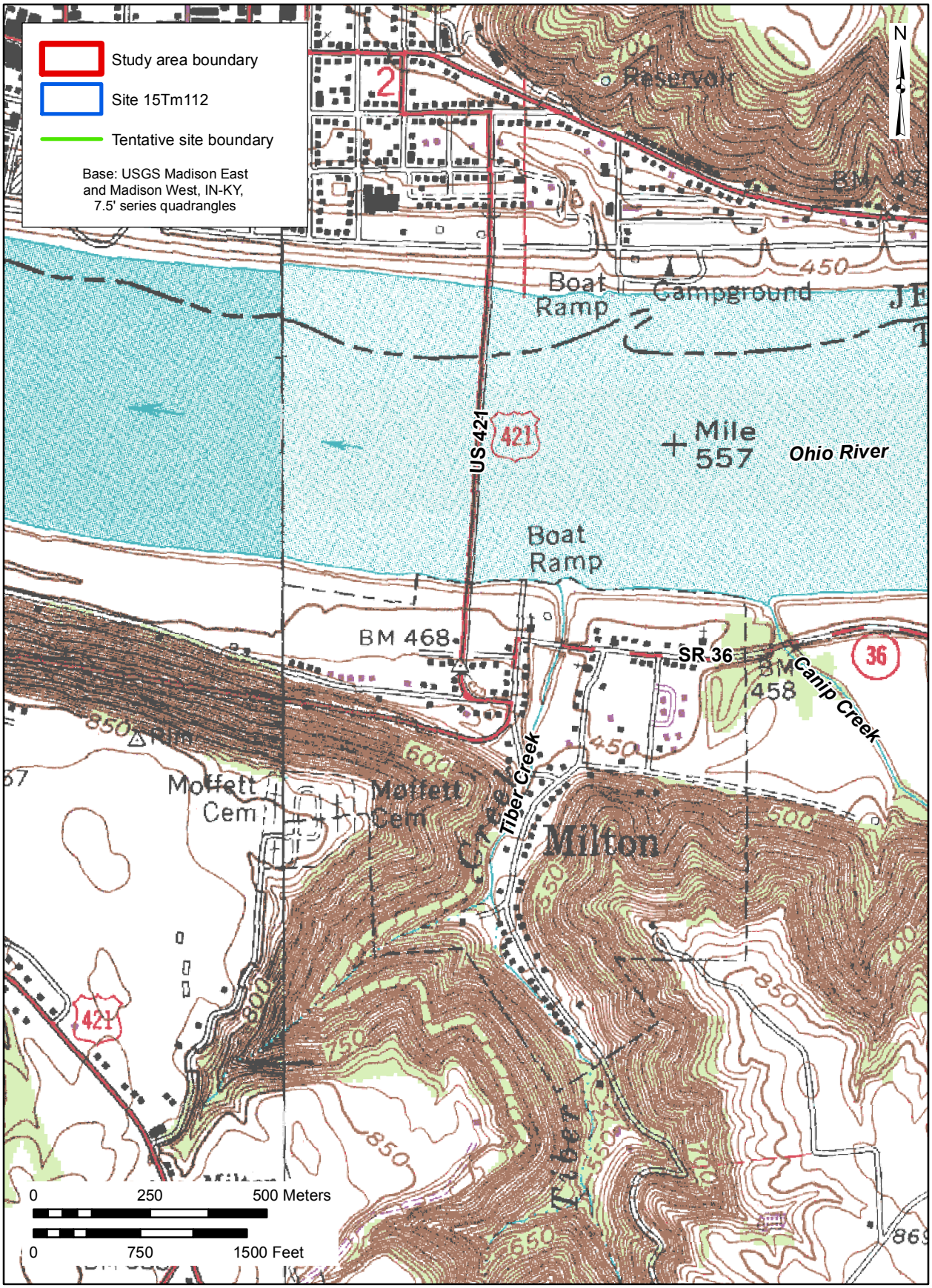


Figure 20. Portions of the 1971 (photorevised 1987 and 1994) Madison East and 1964 (photorevised 1980 and 1993) Madison West, IN-KY quadrangles (USGS 7.5' topographic maps) showing 15Tm112 as revised.

Creating site boundaries for 15Tm112 based on the current state of knowledge is difficult, at least with any accuracy. The site has not been delineated and excavations have simply been expanded to test areas prior to when they were needed for the ongoing construction work on the US 421 bridge. The 2010 work did not delineate the prehistoric component and every trench and nearly every excavation unit was positive for prehistoric artifacts. During the current investigation a similar situation was present. East of Area 1 and 3 the parking lot appears to be a reasonable boundary for 15Tm112, although it is certainly conceivable that the site continues under the pavement, particularly the prehistoric component, which is deeper than the historic component. High Street forms a logical southern boundary for the site, particularly for the historic component, since it was the boundary of the lot. The areas of Trench 7 and 8 were negative and mostly disturbed so they were excluded from the updated tentative site boundary (Figure 19). West of the bridge approach, site boundaries are even more tentative. Since all trenches and excavations in them were positive, a buffer (5-m/16-ft) was drawn around them and connected directly to the existing site boundary, but since less investigation was undertaken on that side of the bridge the site dimensions are based on little data (Figure 19).

It should be emphasized that the updated site boundary (Figures 19 and 20) for 15Tm112 is tentative and if additional areas outside those already investigated are tested then it is possible that 15Tm112 might be present to the west, north, and east of its current tentative configuration. High Street bounds the site on the south. The tentative site boundary is irregular and the site was expanded an additional 30 m (98 ft) to the west and 48 m (157 ft) to the south. The revised tentative site dimensions for 15Tm112 are 100 m (328 ft) north-south by 162 m (531 ft) east-west. Below is a description of the features encountered at the site. Chapter 6 described artifacts recovered during the investigation.

Feature 1

A historic post was documented and partially excavated in Trench 4 (Figure 6). It was identified while the backhoe was clearing a ramp for the archaeologist to descend into the trench. The archaeologist monitoring the excavations identified it at a depth of approximately 86 cmbs (34 inbs). Machine excavation was stopped and the area was cleaned off as well as possible and scraped to define the feature. The dark stain was subcircular when identified on the surface of the trench but excavation proved it to be relatively close to circular in form. The stain is 22 m x 20 cm (9 in x 8 in). Its surface when exposed was a very dark grayish brown (10YR 3/2) silt loam with dark grayish brown (10YR 4/2) silt loam mottles and iron stains. It stood out from the surrounding yellowish brown (10YR 5/6) clayey silt loam matrix (Figure 21; Plate 32).

Because this small feature was exposed in an angled trench floor it was difficult to do a cross section excavation of it. It was determined to excavate a single 10-cm (4-in) level across the entire feature to sample it. Because of the unevenness of the feature at the surface, as exposed, between 1 cm–12 cm (.4 in–4.7 in) of the feature matrix was removed, and the resultant floor within the feature was leveled off after the first level. This was an adequate sample so excavation was terminated at that point.

Wood fragments at the center of the postmold were encountered but were too splintered to be identified. Presumably these were part of the post. Also, small fragments of faunal bone, glass, whiteware sherds, and unidentified metal were within the feature. Coal and cinders were also present but these were not collected.

Feature 1 may relate to a fence or outbuilding that was once on the property.

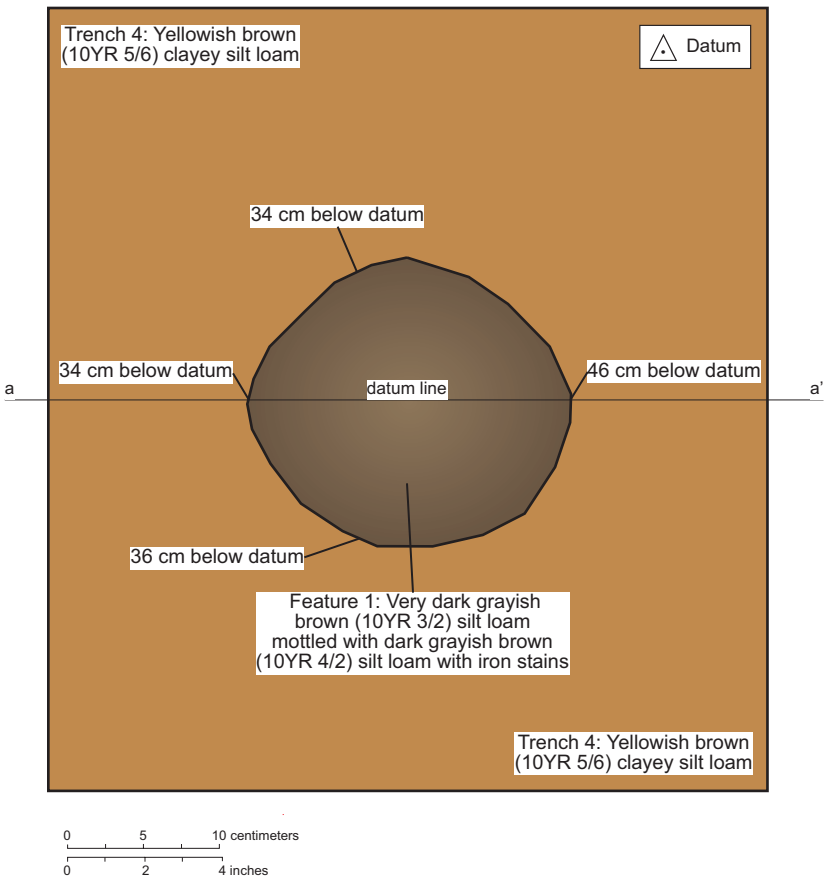
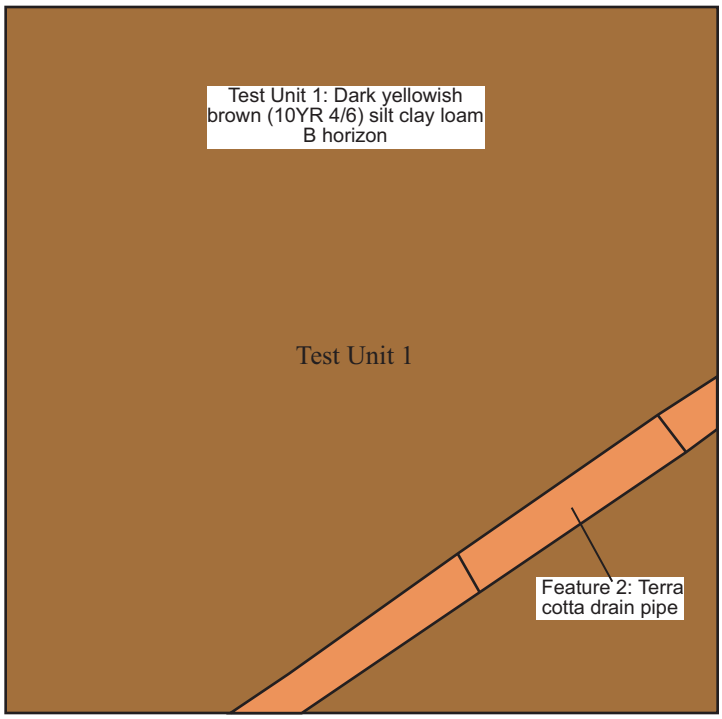


Figure 21. Plan view map of Feature 1 in Area 1 Trench 4, a historic post.

Plate 32. Feature 1, after partial excavation; facing west. Feature 1 is a historic post mold exposed in Area 1, Trench 4 from 86 cmbs–98 cmbs (34 inbs–39 inbs).

Feature 2

Feature 2 is a drainage tile running across Test Unit 1 (Figure 6) in Level 4 at 131 cmbs (52 inbs) in Trench 2, Area 2. It was exposed in the test unit via shovel shaving (Figure 22). The drainage tile is red octagonal terra cotta. The drainage tiles are fully intact and an 80-cm (32-in) exposure was made in the southeastern portion of the test unit. It was embedded in a dark yellowish brown (10YR 4/6) silt clay loam. It was about 4 cm (1.6 in) from the center of the tile to the edge of the octagon. The drainage tile was slightly sloped and it was exposed at a maximum depth of 137 cmbs (54 in). A small sample of the drainage tile was collected. The feature is not considered to be significant in and of itself. It may be related to agricultural drainage but more likely was a drainage feature of the landscaping surrounding the house that was nearby, perhaps the 1970s house mapped on a KYTC map in Johnson (1982). Regardless, few other historic artifacts were found in this location.



0 10 20 centimeters
0 4 8 inches

Figure 22. Plan view map of Feature 2, terra cotta drain (Area 2).

Feature 3

A stone foundation wall and brick feature were uncovered first in Trench 5 within Area 1 (Figure 6). The stone foundation wall was running in an east-west direction so another trench (Trench 6) was placed in a perpendicular direction to try to follow the wall. Trench 5 was exposed to completely remove the brownish yellow clayey fill. Fill depths varied from 35 cmbs–70 cmbs (14 inbs–27 inbs) and historic strata were exposed below the fill.

In Trench 6 the monitored excavations with the backhoe exposed the foundation wall, which extended 9.1 m (30 ft) along the length of the trench. The wall was subsequently determined to be a front wall. During clearance of this trench, which exposed the foundation wall at about 50 cmbs (20 inbs), an in situ line of bricks was exposed in the south trench wall at 45 cmbs (17.7 inbs), just above and south of the foundation wall (Figures 8, 23, and 24; Plate 33). The brick feature is a structural or decorative element associated with the residence like a sidewalk or porch. The exposed wall is not seen at either end of the trench, so it is believed the ends of the foundation wall in the trench were exposed.

Both Trench 5 and Trench 6 were cleaned and an STP was placed in each trench (Figure 25). The objective was to sample locales close to but outside the structure that the wall must have defined. Test Unit 2 was placed inside the structure (e.g., north of the wall). During cleaning historic artifacts were encountered, including handmade bricks and brick fragments with partial bonds (after cleaning the bond could not be read as it was too incomplete). One handmade brick was collected. Also, a few square-cut nails were recovered in Trench 6. In Trench 6 a small concentration of container glass was found; mostly it was Mason jar glass fragments (Figure 23). When the foundation wall (Feature 3) was cleaned off the entire wall within the trench was exposed. It was uncut, stacked, shape-selected limestone (Figure 23; Plate 34). Feature 3 extends to STP 2 where an apparent foundation stone was identified in an STP excavated from ground surface.

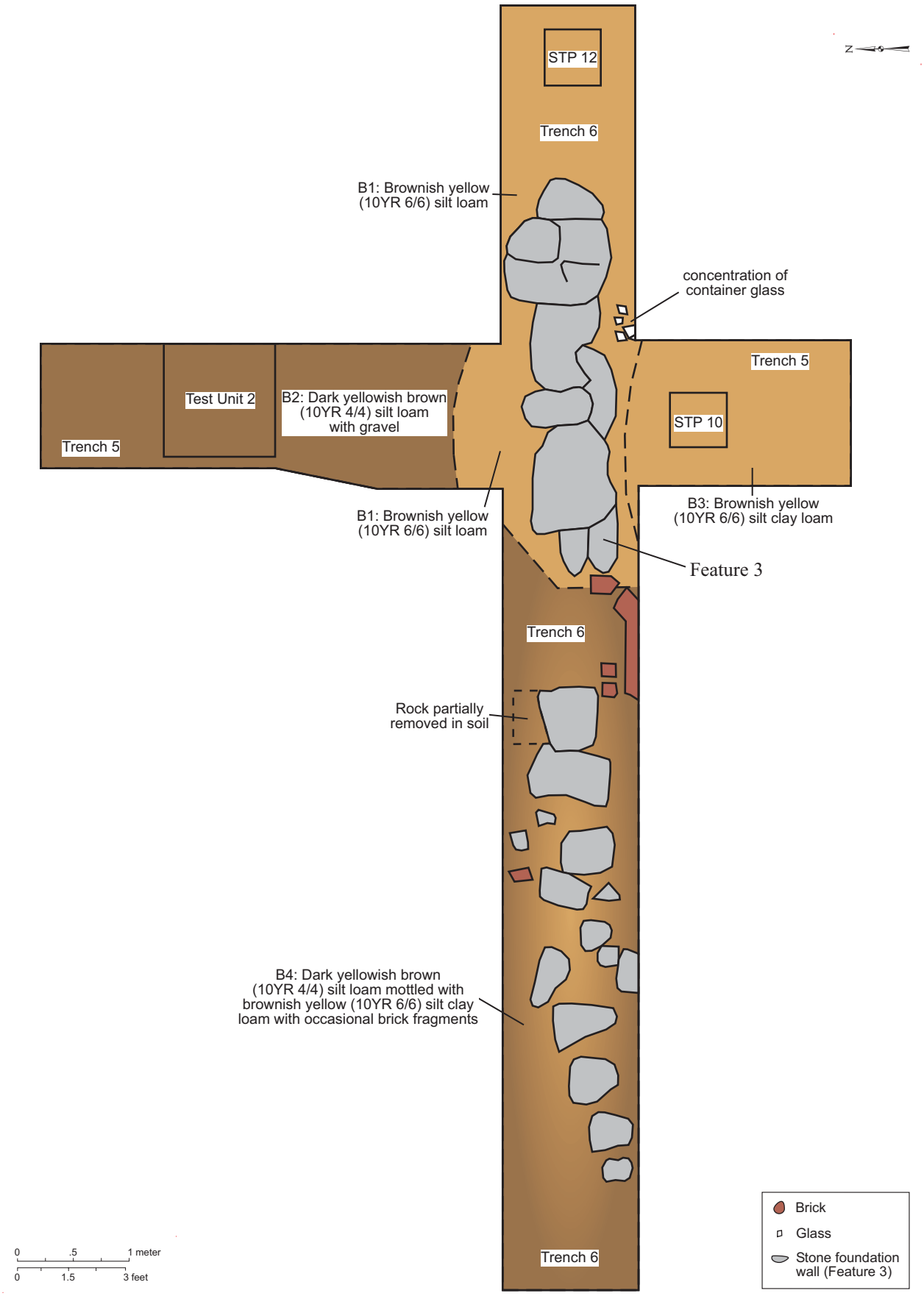


Figure 23. Plan view map of Trenches 5 and 6 in Area 1 showing stone foundation wall (Feature 3).

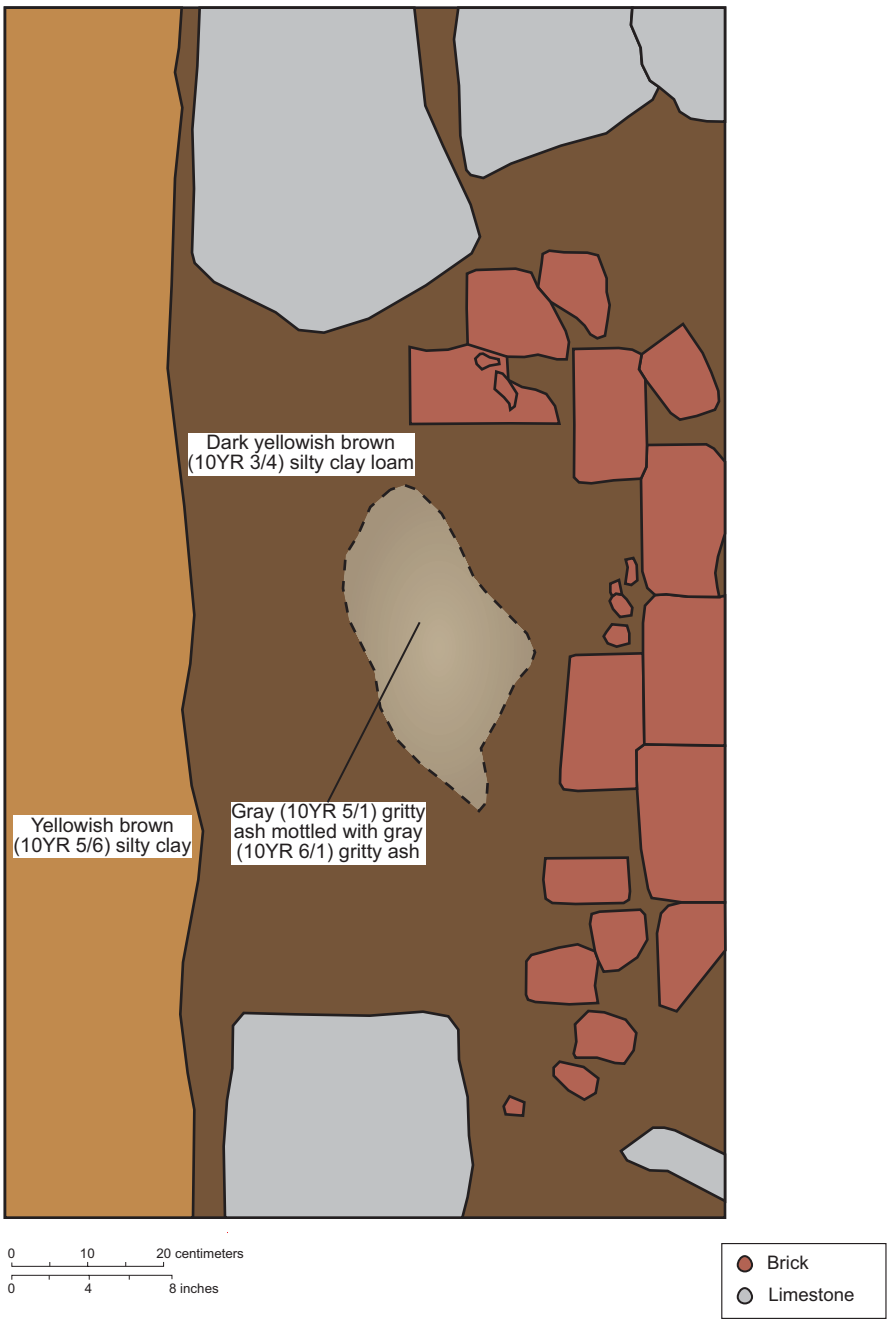


Figure 24. Detailed plan view map of 1.6-m (5.2-ft) section of Trench 6 in Area 1 showing in situ line of bricks (Feature 3).

Figure 25. Aerial photograph showing approximate extent of house foundation (Feature 3) based on Trench 6 and tile probing (Area 1).

Plate 33. Line of bricks exposed just south of stone foundation wall (Feature 3); facing south-southwest. The line of bricks was exposed in Area 1 in Trenches 5 and 6 between 29 cmbs–38 cmbs (11 inbs–15 inbs).

Plate 34. Feature 3, stone wall foundation; facing west. The stone wall foundation was exposed in Area 1 in Trenches 5 and 6 between 45 cmbs–95 cmbs (18 inbs–37 inbs).

After cleaning, about 24 limestone shape-selected stones were apparent. It was not completely clear if the wall continued in any other direction but the trenching and cleaning appears to have isolated a wall that is 9.1 m (30 ft) in length running east-west. The length, 9.1 m (30 ft), is a relevant measurement because building styles prevalent in Kentucky (and southern Indiana for that matter) generally derive from the United States eastern seaboard. Modular sizes were common for houses in traditional building, typically utilizing a 10-ft base (3.0 m). Typically house sizes were 10 ft, 20 ft, and 30 ft (3.0 m, 6.1 m, and 9.1 m), etc., (Glassie 1968; 1975; Roberts 1996), so an evenly measured length for the foundation wall such as 30 ft would not be surprising.

Subsequently, in email and phone conference conversations, Mr. Nicolas Laracuente of the KHC asked that the area around the exposed foundation wall be probed with a tile probe to ascertain the extent of the foundation, particularly west of Trench 6. To that end, a metal tile probe was utilized to probe every 50 cm (20 in) into the ground to establish if foundation stones were present at depth. Admittedly this is an imperfect method, but it seemed to work well because the field director was able to probe in this manner and establish that the apparent edge of the wall in the western end of Trench 6 was indeed verified by the probing. The probing, which hit stone at intervals, indicated that the foundation extended southward and by following and continuing to probe the outlines of the entire foundation became evident. The probing verified that the wall exposed in Trench 6 is the front wall of the house and indicates the foundation to have been about 30 ft x 18 or 20 ft (Figure 25). The metric equivalent would be ca. 9.1 m x 5.5 m or 6.0 m. Upon probing west of the apparent northwest corner of the building it was realized that a large masonry construction, possibly a porch or addition, was present. The porch or addition dimensions of the structure are tentative but appear to be about 3.0 m x 2.5 m (9.8 ft x 8.2 ft). Figure 25 maps the apparent extent of the foundation, which was also photographed (Plate 35).

UTM coordinates are recorded for each corner of the foundation in Table 30 and the UTM datums shown on Figure 25.

STP 10 was expanded slightly to the north to expose the south face of the stone wall (Plate 36). The stone wall extended down about 50 cm (20 in) to ca. 95 cmbs (37 inbs). No artifacts were found in the expanded unit except the foundation stones. The foundation stones are dry laid.

Plate 35. View of approximate extent of stone foundation (Feature 3) based on Trench 6 results (trench is refilled) and tile probing in Area 1. Lathe and pink flagging tape mark approximate extent of foundation. View is facing south-southeast.

Plate 36. Exposure of foundation wall (Feature 3) in expanded Area 1, STP 10; facing north. The stone foundation wall is in Area 1 in Trenches 5 and 6 between 45 cmbs–95 cmbs (18 inbs–37 inbs).

Analysis

The analysis of the prehistoric and historic components of 15Tm112 is discussed here. As identified in Schwarz (2011), 15Tm112 is a multicomponent site with both prehistoric and historic components. The prehistoric component discovered during the earlier investigation was identified as a habitation site, possibly a base camp, with a Middle Archaic to Late Archaic temporal assignment. Culturally, 15Tm112 appears most closely affiliated with the Maple Creek culture or phase, an archaeological culture associated with the Middle Ohio Valley (Boisvert 1986; Ledbetter and O'Steen 1992; Vickery 1976, 2008). Nearly 1,700 prehistoric artifacts were recovered from the 2010–2011 investigation of 15Tm112, mostly chert debitage, FCR, and formal stone tools. Five features were investigated and two radiocarbon dates confirmed the Late Archaic use of the site. Projectile points include a Raddatz Side Notched projectile point, a

Matanzas Side Notched projectile point, McWhinney Heavy Stemmed projectile points, and a Merom Cluster projectile point, in addition to other bifaces/biface fragments and hammerstones (Schwarz 2011). The site was buried in floodplain A and B horizons predominantly between 50 cmbs–154 cmbs (20 inbs–61 inbs). A small historic component was also identified, mostly consisting of post features and a historic timber, but 11 historic artifacts were found as well.

The current investigation expands the site boundaries to the west and south and the distribution of prehistoric materials, present in most trenches, indicates that 15Tm112 should be expanded since it is inferred that the distribution of prehistoric materials is relatively continuous under the fill layers that cap the site. Prehistoric materials were found spread around the two parcels surveyed, particularly in the northern part of the eastern parcel (Area 3) but also in the western parcel (Area 2) and, to a limited extent, in the northern part of Area 1. One prehistoric artifact, a piece of debitage, was even discovered in the southeast corner of Area 1, next to the historic foundation. It was apparently in an undisturbed context. Historic materials were more concentrated at/near the historic residential component (southeast quadrant of eastern parcel) but were present throughout the areas sampled, excepting Trenches 7 and 8, where brick fragments were the only historic materials observed.

The prehistoric and historic artifacts are not completely separable by 10-cm (4-in) levels but the prehistoric artifacts tend to be found in lower excavation levels (e.g., lower depths below surface) than the historic artifacts. There is some stratigraphic overlap. Most artifacts were found between 50 cmbs–140 cmbs (20 inbs–55 inbs).

Although the excavations during the current investigations provided some useful data for understanding the distribution of prehistoric cultural materials across the site, the density of prehistoric artifacts found in 2012 was much lower than in areas to the north, where a dense portion of the site was found during the 2010–2011 investigation. In the first investigation (Schwarz 2011), one 1-m x 1-m (3.3-ft x 3.3-ft) test unit yielded more than 350 artifacts, and of the four test units excavated the minimum number of artifacts recovered was 143. The mean number of prehistoric artifacts recovered in each test unit was 230.1 artifacts. For the current (2012) investigation, none of the four test units produced more than 21 prehistoric artifacts, with the mean being 16.3 artifacts per test unit. Test units in Area 3 (Test Unit 4) and Area 2 (Test Unit 1) had the most with 21 and 20 artifacts each. Area 1 (eastern parcel) had fewer prehistoric artifacts and some of those found, particularly in Test Unit 2, were in mixed contexts.

These data suggest that the area under investigation currently is more peripheral to the center or core of the prehistoric occupation site than the 2010–2011 investigation area. Coupled with the lack of prehistoric features identified during the current investigation, it seems likely that the current investigation is closer to the edge of the site. Besides the lower density of artifacts, there were fewer formal stone tools (n=3) found during the current investigation than the previous investigation (n=23). With lower artifact density, fewer formal tools and no features, most indications are that the portion of the prehistoric component uncovered during the current investigation is less significant in terms of having important information to convey on prehistory than the dense portions of this site that were investigated in 2010–2011 (Schwarz 2011).

Overall, the kinds of chert resources being utilized at the site were similar in each investigation. Jeffersonville and Laurel cherts, both of which are locally available, are common in both assemblages. Cobble cherts from the Ohio River are also commonly used both among specimens that have been identified by named type and by those that could not be precisely identified. The relative rarity of high-quality chert types at 15Tm112, which would have been imported from long distances, is noteworthy in both investigations. This category of materials includes Wyandotte chert and Vanport chert. The latter chert was identified in very small amounts in the 2012 prehistoric artifact assemblage and Wyandotte is uncommon but present in both assemblages. The preference for locally available and river cobble cherts over high-quality imports is a noteworthy characteristic of Ohio Valley Middle Archaic-Late Archaic peoples (Bader 2005), and the current data amplify Bader's observations.

One initially puzzling difference between the prehistoric assemblages of the two investigations is the higher prevalence of prehistoric expedient tools, utilized and retouched flakes, and a flake with graver spurs recovered during the current investigation. However, Bader (2005) notes that this pattern fits with what she and others have identified for the Falls of the Ohio Middle Archaic to Late Archaic sites (Granger and Bader 1989; Janzen 1971; Munson and Munson 1984). Contrary to patterns established for other periods in the Falls region, lower-quality localized cherts were preferred for certain tools such as expedient flake tools; she specifically cites gravers and endscrapers (Bader 2005:60; also Gatus 1987). According to Bader, local cherts such as Muldraugh/Fort Payne, although not creating as sharp an edge, had lower silica content than high-quality cherts and thus held an edge better.

Fewer high-quality cherts such as Wyandotte were noted in tool assemblages, despite the nearness of this high-quality source to the Falls region, the region Bader was discussing. Wyandotte chert was not prevalent in Middle to Late Archaic assemblages (Cantin 2005:47) and tended to be favored for projectile points but not these other kinds of tools. This pattern existed throughout the Late Archaic period and did not change significantly until the Early Woodland when an increase of the prevalence of Wyandotte is noted in regional lithic assemblages (Seeman 1975).

The prevalence of localized cherts, expedient tools and an endscraper (most of these tools are made of Jeffersonville and Laurel cherts) at 15Tm112 appears to fit the pattern Bader (2005) describes. It is unclear if Jeffersonville and Laurel expedient tools hold their edges as well at Muldraugh/Fort Payne materials, but the relative scarcity of Wyandotte in the assemblage is noteworthy. Overall, the prevalence of expedient tools in the 15Tm112 assemblage and the slightly greater proportions of primary decortication flakes in the 2012 assemblage are the main new contributions of the current investigation to the study of regional prehistory. Much of the rest of the information only amplifies observations made as the result of the previous investigations (Schwarz 2011).

Thus, the current investigation has provided some new and potentially important information about the prehistoric component. Specifically, it added the expedient tools to the assemblage of 15Tm112, had at least some evidence of primary decortication and confirmed that 15Tm112 overall is similar to the Falls of the Ohio Middle Archaic to Late Archaic sites that Bader (2005) has described and even, it might be noted, other sites further up the Ohio Valley (Ariens 2011). However, although the 2012 investigation of the prehistoric component at 15Tm112 has provided some valuable data on expedient tool usage, overall the amounts and kinds of prehistoric data classes available for study are limited in comparison to the 2010–2011 study of 15Tm112.

In assessing site significance of prehistoric sites, Sebastian (1999) states an archaeological site should possess artifact types and classes suitable for in-depth analyses that allow comparison to other sites in the region. Further, a site should have intact subsurface deposits (e.g., features, middens, or dense concentrations of artifacts) capable of producing quality data on temporal, cultural, and functional characteristics of the site. While the 2012 prehistoric assemblage of 15Tm112 allows for some additional analysis of the prehistoric

component, the expedient tools and debitage, the lack of intact prehistoric features, middens, etc., identified within Areas 1–3 and lack of other classes of artifacts (certain projectile points, ground stone tools, faunal remains, and floral remains), make it appear that the prehistoric archaeology in the current investigation area falls below the threshold of significance for listing on the NRHP based on its own merits. And while the current data clearly make a contribution to the analysis of the much more robust data set obtained for 15Tm112 in 2010–2011, the apparent absence of prehistoric features or dense concentrations of prehistoric artifacts means that its contribution to the overall analysis of the site is limited and the currently available sample of Areas 1–3 may be adequate for prehistoric archaeology, since substantial areas already have been excavated.

Within the southeast quadrant of the eastern parcel, a pre-1937 historic residential component is present with intact features. It is inventoried as part of 15Tm112. The artifact assemblage is substantial with relatively high density, consisting mostly of a domestic kitchen glass and ceramic assemblage, although faunal remains and several other categories of historic artifacts were present as well. The artifacts associated with the historic component are mostly late nineteenth to early twentieth century, and fit with the apparent termination and capping of the site with a clayey fill in 1937 or immediately thereafter. Specifically, as the Great Flood of 1937 was one of the most devastating events in the town's history, and the site appears to engage that historic theme.

Additionally, the artifact deposits around the foundation and the features themselves appear to be capable of providing information on the history of the development of the town of Milton, a historic river town, in the period of significance for the Third Street Historic District, 1850–1899 (National Park Service 2012). It is possible that the historic residential component of 15Tm112 could be eligible for listing on the NRHP under Criterion A association events that have made a significant contribution to the broad patterns of history. Further investigation and analysis would be needed to better demonstrate these potential thematic associations and apply the NRHP criteria. Another possibility is that 15Tm112 is eligible for listing on the NRHP under Criterion D, potential to provide important information on history, in this case on the late nineteenth-century and early twentieth-century history of town-life in a historic Ohio River town. Again, further investigation such as a Phase II archaeological investigation would be needed to better demonstrate the information potential of the historic residential component, which has

been only explored to a limited extent. Integrity of the foundation is good and associated artifact deposits within and around the feature have been discovered, suggesting that overall integrity of the historic residential component is good.

It is likely that if the historic residential component of 15Tm112 were eligible for listing as an individual archaeological resource then this component would make a significant contribution to the Third Street Historic District. The Third Street Historic District was notable for its historic structures, while the historic residential component in question is focused on historic archaeology. If 15Tm112 is eligible for listing under Criterion D, then in all likelihood, the eligibility determination could be made on the basis that the historic residential component contributing important architectural information (e.g., on the architectural plan, materials and construction techniques of the house), and/or the artifact/feature data would contribute to an understanding of the lives of the late nineteenth century and early twentieth century inhabitants of these houses in Milton. Both of these potential data sources would mean that an NRHP-eligible historic residential component at 15Tm112 would contribute to the Third Street Historic District.

However, if the historic residential component of 15Tm112 was to be eligible as an individual archaeological resource only under Criterion A then a close consideration and application of specific historic themes or contexts it would engage in relation to the Third Street Historic District would have to be assessed. For example, further investigation may establish that the site's study or preservation would contribute to an understanding of the "cultural development of Trimble County" (Johnson 1982: 7), which is the significance statement for the district. Particularly if a contribution to an understanding of the cultural development of Trimble County could be made through study or preservation of the site as a representative example of a an archaeological site derived from the late nineteenth century context, then it would be a significant contribution to the Third Street Historic District. The historic period that would need to be engaged would be the period of significance for the district (1850–1899), which would include the last decade of the antebellum era (1850s), the Civil War period (1861–1865) and the post-war late nineteenth century (1865–1899)[National Park Service 2012]. Historic themes or contexts that could be engaged by the historic residential component include the effects of the Civil War on Milton, the growth of Milton as a post-war town, including its residential district, and, relatedly, the growth and consolidation of industry in towns in the late nineteenth century.

Too little is known about the historic residential component of 15Tm112 to know if any of those themes or contexts would apply, or if another as yet unnamed historic theme or context would apply.

Recommendations for 15Tm112

As the result of the current investigation it is recommended that the historic residential component of 15Tm112 be considered to be potentially eligible for listing on the NRHP. Criteria A and D of the NHPA are most applicable. The historical archaeological deposits are potentially significant and the integrity of the site is good. Either avoidance of this archaeological resource or further investigations to more firmly ascertain its potential for eligibility for listing on the NRHP is recommended. The historic residential component is located within the southeast quadrant of the eastern parcel, and the area for avoidance or further work is identified on Figure 26. Walsh informed the KYTC that it is avoiding and will be avoiding the historic residential component during the ongoing construction work at the US 421 Milton-Madison bridge.

As described above, the historic residential component of 15Tm112 may contribute to the Third Street Historic District but more research would be needed to assess any potential contribution. Because the historic residential component is being avoided by the US 421 Bridge project it does not appear necessary to make this assessment at the current time.

Throughout the western and northern portions of the eastern parcel and within the western parcel, both historic and prehistoric artifacts were encountered within floodplain strata. The historic artifacts scattered in the floodplain strata would appear to have much less important historical information potential than the residential component. While the prehistoric finds identified during the current investigation provide some valuable information on expedient tool use and chert selection, no features were encountered (meaning broad classes of data were not found) and the artifact finds were much lower density and had a less diverse assemblage than previous work at 15Tm112 had identified further north. For these reasons, it is recommended that a finding of No Adverse Effect be applied for the historic finds outside of the historic residential component and for the prehistoric component encountered during the current investigation. These areas are recommended to be cleared for construction. Figure 26 identifies the areas to be cleared for construction.

Figure 26. Aerial photograph showing the historic residential component to be avoided, the 2010–2011 study area and area of 151m112 for which is recommended to be cleared for construction.

It should be restated that the dense portion of the prehistoric component (15Tm112) was recommended to be eligible for listing on the NRHP (Schwarz 2011), and a finding to that effect was made previously by the KYTC and KHC. If this area is to be impacted below 25 cmbs (10 inbs) by construction activity or other agents, then adverse effects will need to be assessed and a plan put in place to either reduce effects, minimize effects, or mitigate them. It is recommended that impacts to the dense portion of 15Tm112 be avoided. Figure 26 identifies the area where these dense prehistoric deposits were found although the archaeological work has not delineated 15Tm112 so boundaries are tentative.

If the historic residential component cannot be avoided then additional archaeological investigations would consist of Phase II archaeological testing that might include geophysical survey, test unit or block excavation, exposure of the foundation and features by trenching, feature investigations, historical and archival research and artifact analysis.

Should the nature of possible impacts due to the construction work or the areas of possible impacts change in the course of the development of the project it is recommended that consideration be made on whether additional archaeological investigations are warranted.

CHAPTER 8: SUMMARY AND RECOMMENDATIONS

SUMMARY

Under contract with Walsh Construction Company, ASC Group, Inc., has conducted Phase I archaeological survey for two parcels for the US 421 Milton-Madison Bridge project (KYTC Item No.5-135.8), from Milton, Kentucky, to Madison, Indiana. The project is administered jointly by the KYTC and the INDOT. FHWA is the lead federal agency. The setting of the study is in the Ohio River floodplain in Milton, Kentucky. The purpose of the Phase I survey is to provide information for compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA, as amended) and to recover archaeological information on two areas, specifically a grassy area and area adjacent to the bridge in the east parcel and a graveled lot in the west parcel. The construction project planned to walk cranes and heavy beams across these parcels and use the cranes and other machinery to complete construction of the Milton-Madison Bridge, leading to concerns about compaction negatively affecting features or artifacts that might be in these parcels.

Prior to the fieldwork it was not known whether 15Tm112 extends into either of these parcels (McBride et al. 2010; Schwarz 2011). Based on fieldwork conducted in 2010 and reported in 2011, 15Tm112 was identified as primarily a Middle Archaic to Late Archaic habitation site that is buried on the floodplain of the Ohio River, with a historic component thought to be a part of a pier or other waterfront structure. The prehistoric component of 15Tm112 is considered to be eligible for listing on the NRHP, while a No Adverse Effect finding was recommended for the historic component at the site as it was known prior to the current investigation.

The two parcels surveyed during the fall of 2012 are mostly south of and mostly outside of previously surveyed area and part of the eastern parcel and all of the western parcel are in the Third Street Historic District. Informant information and mapping obtained during the current investigation suggested the previous presence of historic buildings in the eastern parcel and mapping indicate the possible previous presence of a building in the western parcel, remains of which could be archaeological in nature.

The current investigation was carried out in September-November, 2012. The field methods were monitored backhoe-excavated trenches, shovel testing from surface, and shovel testing and excavation of 1-m x 1-m (3.3-ft x 3.3-ft) test units within trenches. Artifact and

feature finds extended 15Tm112 to the south and west from its previous tentative boundaries identified and documented during the 2010–2011 investigation. Three historic features were identified during the current investigation and documented. These are a historic post, a terra cotta drainage tile feature, and a stone building foundation. Within the eastern parcel, particularly the southeastern portion (Area 1), an intact historic residential occupation was identified and explored. It appears that the Great Flood of 1937, which devastated Milton, impacted this residential property and resulted in its abandonment and capping of the area with brownish yellow to yellowish brown clayey fill. Under the fill, a stone foundation wall, a line of bricks, and structural rubble were documented, and, in combination with tile probing, the feature evidence indicate the presence of a buried house foundation. Artifacts recovered on, in, and around the foundation indicate a late nineteenth-century to early twentieth-century domestic occupation. Additionally the historic post was found in another trench (north of the foundation) that may relate to a fence or outbuilding that once was on the property. Excavations in the western and northern portions of the eastern parcel recovered historic artifacts as well, but no evidence of features was encountered.

In the western parcel, late nineteenth-century to early twentieth-century artifacts were recovered during excavation and a drainage tile feature was documented; however, no indications were found of a house foundation there, which is believed to lie further west.

Prehistoric artifacts were found in both the western parcel and in the western and northern portion of the eastern parcel, near the bridge alignment. Prehistoric artifacts, although fewer of them) were also found nearer the historic building foundation in the eastern parcel, but some of these were in disturbed contexts. In general, prehistoric artifacts were found in low to moderate densities in the historic A horizon (intermixed in excavation levels with historic artifacts) and in the B horizons below, in some cases, in undisturbed floodplain strata contexts. Prehistoric artifacts types are formal tools, expedient tools, debitage, and fire-cracked rock. Three formal stone tools were found at the site during the current investigation.

The three formal stone tools were among the prehistoric artifacts and these artifacts may relate to the Middle Archaic to Late Archaic components at the site (known to exist further north) but nothing in these data make that inference definite. The tools are a drill fragment, the base fragment of a biface (a possible perforator), and an endscraper. No prehistoric features

were found during the current investigation and overall artifact densities were lower than those found further north at 15Tm112 during the 2010–2011 investigations.

The tentative site boundary for 15Tm112 is irregular and the site was expanded an additional 30 m (98 ft) to the west and 48 m (157 ft) to the south. The revised tentative site dimensions for 15Tm112 are 100 m (328 ft) north-south by 162 m (531 ft) east-west (Figures 19 and 20). The tentative site area of 15Tm112 is 7,660 m² (82,454 ft²) or 0.8 hectares (1.89 acres), based on the tentative site boundary as revised in this report. As described above, the site bounds are termed tentative because the site has not been delineated and the total extent of the site in unknown. The site may extend north, west, or east of its current tentative boundaries if additional archaeological investigation are ever completed. High Street is the southern boundary.

RECOMMENDATIONS

As the result of the current investigation it is recommended that the historic residential component of 15Tm112 be considered to be potentially eligible for listing on the NRHP. The archaeological deposits are potentially significant and the integrity of the site is good. Avoidance of this archaeological resource is recommended or further investigations to more firmly ascertain its eligibility for listing. The historic residential component is located within the southeast quadrant of the eastern parcel, and the area for avoidance is identified in mapping in the report. Walsh informed the KYTC that it is avoiding and will be avoiding the historic residential component during the ongoing construction work at the US 421 Milton-Madison bridge.

As described above, the historic residential component of 15Tm112 may contribute to the Third Street Historic District but more research would be needed to assess any potential contribution. Because the historic residential component is being avoided by the US 421 Bridge project it does not appear necessary to make this assessment at the current time.

Throughout the western and northern portion of the eastern parcel and within the western parcel, both historic and prehistoric artifacts were encountered within floodplain strata although no prehistoric features were found. The historic artifacts scattered in the floodplain strata would appear to have much less important historical information potential than the residential component. While the prehistoric finds identified during the current investigation provide some valuable information on expedient tool use and chert selection, no prehistoric features were encountered (meaning broad classes of data were not found) and the artifact finds were much

lower density than previous work at 15Tm112 had identified further north. For these reasons it is recommended that a finding of No Adverse Effect be applied for the historic finds outside of the historic residential component and for the prehistoric component encountered during the current investigation. It is recommended that these low density areas be cleared for construction (Figure 26).

Should the nature of possible impacts due to the construction work or the areas of possible impacts change in the course of the development of the project, it is recommended that consideration be made on whether additional archaeological investigations are warranted.

If the historic residential component cannot be avoided then additional archaeological investigations would consist of Phase II archaeological testing that might include geophysical survey, test unit or block excavation, exposure of the foundation and features by trenching, feature investigations, historical and archival research and artifact analysis.

All field notes and artifacts from this investigation will be curated at the William S. Webb Museum at the University of Kentucky, Lexington.

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APPENDIX A: ARTIFACT ANALYSIS

Appendix A. Prehistoric Artifact Analysis.

State Site Number	Fieldwork Period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Artifact Type	Description	Raw Material	Heat Altered	Cortex	Count	Weight (g)	Comments
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35-45	Fill	Debitage	Secondary flake	Jeffersonville chert	yes	yes	1	1.8	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45-55	Fill	Expedient Tool	Retouched secondary flake	Jeffersonville chert	no	no	1	0.9	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45-55	Fill	Expedient Tool	Utilized secondary flake with graver spurs	Jeffersonville chert	no	yes	1	1.8	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45-55	Fill	Debitage	Secondary flake	Laurel chert	yes	no	1	0.5	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45-55	Fill	Debitage	Tertiary flake	Jeffersonville chert	yes	no	1	0.1	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45-55	Fill	Debitage	Bipolar flake	Muldraugh/Fort Payne chert	no	yes	1	1.7	From pebble chert
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45-55	Fill	Debitage	Broken flake	Muldraugh/Fort Payne chert	no	no	1	0.1	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45-55	Fill	Debitage	Primary flake	Jeffersonville chert	yes	yes	1	0.5	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45-55	Fill	Debitage	Broken flake	Derby chert	no	yes	1	2.0	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45-55	Fill	Debitage	Broken flake	Derby chert	no	yes	1	0.3	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55-65	Fill	Debitage	Broken flake	Jeffersonville chert	no	no	1	1.3	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55-65	Fill	Debitage	Broken flake	Jeffersonville chert	yes	no	1	0.4	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55-65	Fill	Expedient Tool	Retouched primary flake	Laurel chert	yes	yes	1	2.4	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55-65	Fill	Expedient Tool	Possible utilized secondary flake	Laurel chert	no	yes	1	6.2	
15Tm112	September 2012	29	1	6	STP 12	Level 1	50-60	Ab horizon	Expedient Tool	Retouched broken flake	Jeffersonville chert	yes	yes	1	4.5	
15Tm112	October 2012	6	1	9	STP 15	Level 2	80-90	Ab horizon	FCR	Fire cracked rock	Quartzite	yes	yes	1	76.0	
15Tm112	October 2012	7	1	9	STP 15	Level 5	110-120	B horizon	Debitage	Broken flake	Laurel chert	no	yes	1	1.7	
15Tm112	October 2012	12	1	9	Unit 3	Level 1	60-70	Ab horizon	Debitage	Secondary flake	Laurel chert	no	no	1	0.4	
15Tm112	October 2012	12	1	9	Unit 3	Level 1	60-70	Ab horizon	Debitage	Secondary flake	Jeffersonville chert	yes	no	1	0.2	

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State Site Number	Fieldwork Period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Artifact Type	Description	Raw Material	Heat Altered	Cortex	Count	Weight (g)	Comments
15Tm112	October 2012	12	1	9	Unit 3	Level 1	60-70	Ab horizon	FCR	Fire cracked rock	Quartzite	yes	yes	1	132.8	
15Tm112	October 2012	13	1	9	Unit 3	Level 2	70-80	B horizon	Debitage	Secondary flake	Jeffersonville chert	no	no	1	0.2	
15Tm112	October 2012	13	1	9	Unit 3	Level 2	70-80	B horizon	Debitage	Secondary flake	Laurel chert	no	no	1	0.2	
15Tm112	October 2012	13	1	9	Unit 3	Level 2	70-80	B horizon	Debitage	Secondary flake	Holland chert, Dark-Phase	no	no	1	0.5	
15Tm112	October 2012	13	1	9	Unit 3	Level 2	70-80	B horizon	Debitage	Tertiary flake	Jeffersonville chert	no	no	1	0.1	
15Tm112	October 2012	13	1	9	Unit 3	Level 2	70-80	B horizon	Debitage	Broken flake	Jeffersonville chert	no	yes	1	2.1	
15Tm112	October 2012	14	1	9	Unit 3	Level 5	100-110	B horizon	Debitage	Secondary flake	Wyandotte chert	no	no	1	0.1	
15Tm112	October 2012	14	1	9	Unit 3	Level 5	100-110	B horizon	Debitage	Cortical shatter	Laurel chert	no	yes	1	26.1	Made from a cobble
15Tm112	September 2012	9	2	2	STP 2	Level 3	109-119	B horizon	Debitage	Broken flake	Jeffersonville chert	no	no	1	0.1	
15Tm112	September 2012	10	2	2	STP 2	Level 4	119-129	B horizon	Debitage	Broken flake	Wyandotte chert	no	no	1	0.1	
15Tm112	September 2012	10	2	2	STP 2	Level 4	119-129	B horizon	Debitage	Secondary flake	Jeffersonville chert	yes	yes	1	0.4	
15Tm112	September 2012	10	2	2	STP 2	Level 4	119-129	B horizon	Debitage	Primary flake	Jeffersonville chert	no	yes	1	4.1	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	FCR	Fire-cracked rock	Granite	yes	yes	2	191.3	Refits
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Debitage	Primary flake	Laurel chert	no	yes	1	3.5	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Formal Tool	Drill fragment	Jeffersonville chert	yes	no	1	2.5	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Expedient Tool	Retouched primary flake	Laurel chert	no	yes	1	4.9	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Debitage	Broken flake	Wyandotte chert	no	no	1	0.4	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Debitage	Broken flake	Jeffersonville chert	no	no	1	1.0	Ground platform
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Debitage	Secondary flake	Jeffersonville chert	yes	yes	1	0.2	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Debitage	Tertiary flake	Laurel chert	yes	yes	1	0.1	

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State Site Number	Fieldwork Period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Artifact Type	Description	Raw Material	Heat Altered	Cortex	Count	Weight (g)	Comments
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Debitage	Primary flake	Jeffersonville chert	yes	yes	1	1.0	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Debitage	Shatter	Jeffersonville chert	yes	yes	1	2.8	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Debitage	Primary flake	Jeffersonville chert	no	yes	1	10.5	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110-120	B horizon	Core	Core	Laurel chert	no	yes	1	99.7	Refits
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120-130	B horizon	FCR	Fire-cracked rock	Granite	yes	yes	1	39.9	
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120-130	B horizon	Debitage	Tertiary flake	Laurel chert	no	no	1	0.1	
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120-130	B horizon	Debitage	Secondary flake	Jeffersonville chert	no	yes	1	1.3	
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120-130	B horizon	Debitage	Broken flake	Jeffersonville chert	no	no	1	3.8	
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120-130	B horizon	Debitage	Secondary flake	Laurel chert	no	no	1	0.8	
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120-130	B horizon	Debitage	Secondary flake	Laurel chert	yes	yes	1	0.8	
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120-130	B horizon	Debitage	Secondary flake	Jeffersonville chert	no	yes	1	1.4	
15Tm112	September 2012	12	2	3	STP 3	Level 3	113-123	B horizon	Debitage	Secondary flake	Jeffersonville chert	no	no	1	0.2	
15Tm112	September 2012	13	2	3	STP 3	Level 3	113-123	B horizon	Expedient Tool	Utilized broken flake	Jeffersonville chert	possibly	no	1	0.6	
15Tm112	September 2012	13	2	3	STP 3	Level 3	113-123	B horizon	Debitage	Tertiary flake	Jeffersonville chert	yes	no	1	0.1	
15Tm112	September 2012	13	2	3	STP 3	Level 3	113-123	B horizon	Debitage	Secondary flake	Laurel chert	no	no	2	0.4	
15Tm112	September 2012	13	2	3	STP 3	Level 3	113-123	B horizon	Debitage	Broken flake	Jeffersonville chert	yes	no	1	0.4	
15Tm112	September 2012	14	2	3	STP 3	Level 4	123-133	B horizon	Debitage	Broken flake	Vanport chert	no	no	1	0.1	
15Tm112	October 2012	19	3	10	STP 16	Level 3	80-90	Ab horizon	Debitage	Broken flake	Laurel chert	no	yes	1	0.3	
15Tm112	October 2012	19	3	10	STP 16	Level 3	80-90	Ab horizon	Debitage	Tertiary flake	Laurel chert	yes	no	1	< 0.1	
15Tm112	October 2012	19	3	10	STP 16	Level 3	80-90	Ab horizon	Debitage	Secondary flake	Jeffersonville chert	no	no	1	0.1	

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State Site Number	Fieldwork Period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Artifact Type	Description	Raw Material	Heat Altered	Cortex	Count	Weight (g)	Comments
15Tm112	October 2012	19	3	10	STP 16	Level 3	80-90	Ab horizon	Debitage	Primary flake	Laurel chert	no	yes	2	11.2	
15Tm112	October 2012	20	3	10	STP 16	Level 4	90-100	Ab horizon	Debitage	Secondary flake	Laurel chert	no	yes	1	0.9	
15Tm112	October 2012	20	3	10	STP 16	Level 4	90-100	Ab horizon	Debitage	Secondary flake	Laurel chert	yes	yes	1	0.5	
15Tm112	October 2012	21	3	10	STP 16	Level 5	90-100	Ab horizon	Debitage	Broken flake	Wyandotte chert	no	no	1	0.2	
15Tm112	October 2012	2	3	10		Fill from Stepback Excavation	0-75	N/A	FCR	Fire cracked rock	Quartzite	yes	yes	1	98.1	
15Tm112	October 2012	2	3	10		Fill from Stepback Excavation	0-75	N/A	Formal Tool	Endscraper	Jeffersonville chert	yes	yes	1	30.3	Made on large primary flake
15Tm112	October 2012	2	3	10		Fill from Stepback Excavation	0-75	N/A	Expedient Tool	Retouched primary flake	Jeffersonville chert	no	yes	1	11.1	
15Tm112	October 2012	9	3	11	STP 17	Level 1	90-100	Ab horizon	FCR	Fire cracked rock	Sandstone	yes	yes	1	37.7	
15Tm112	October 2012	9	3	11	STP 17	Level 1	90-100	Ab horizon	FCR	Fire cracked rock	Rhyolite	yes	yes	1	13.1	
15Tm112	October 2012	10	3	11	STP 17	Level 3	110-120	B horizon	Debitage	Primary flake	Laurel chert	no	yes	1	2.8	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75-90	Ab horizon	Debitage	Tertiary flake	Wyandotte chert	no	no	1	0.1	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75-90	Ab horizon	Expedient Tool	Possible retouched secondary flake	Laurel chert	no	no	1	0.3	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75-90	Ab horizon	Debitage	Broken flake	Jeffersonville chert	yes	no	1	0.1	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75-90	Ab horizon	Debitage	Secondary flake	Laurel chert	yes	no	2	0.5	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75-90	Ab horizon	Debitage	Broken flake	Jeffersonville chert	no	yes	1	2.2	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75-90	Ab horizon	Debitage	Broken flake	Jeffersonville chert	yes	no	1	0.9	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75-90	Ab horizon	FCR	Fire cracked rock	Sandstone	yes	yes	1	145.0	

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State Site Number	Fieldwork Period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Artifact Type	Description	Raw Material	Heat Altered	Cortex	Count	Weight (g)	Comments
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75-90	Ab horizon	FCR	Fire cracked rock	Quartzite	yes	yes	2	194.6	
15Tm112	October 2012	16	3	11	Unit 4	Level 2	90-100	Ab horizon	Debitage	Secondary flake	Jeffersonville chert	yes	yes	1	0.4	
15Tm112	October 2012	16	3	11	Unit 4	Level 2	90-100	Ab horizon	FCR	Fire cracked rock	Sandstone	yes	yes	2	212.6	
15Tm112	October 2012	17	3	11	Unit 4	Level 3	100-110	B horizon	Debitage	Primary flake	Laurel chert	no	yes	1	21.1	
15Tm112	October 2012	17	3	11	Unit 4	Level 3	100-110	B horizon	Debitage	Secondary flake	Laurel chert	no	no	2	3.7	
15Tm112	October 2012	17	3	11	Unit 4	Level 3	100-110	B horizon	Debitage	Primary flake	Laurel chert	no	yes	1	6.0	Made from pebble
15Tm112	October 2012	17	3	11	Unit 4	Level 3	100-110	B horizon	Debitage	Broken flake	Laurel chert	no	yes	2	0.8	Only 1 has cortex present
15Tm112	October 2012	17	3	11	Unit 4	Level 3	100-110	B horizon	FCR	Fire cracked rock	Sandstone	yes	yes	2	213.7	
15Tm112	October 2012	11	3	12	STP 18	Level 1	100-110	Ab horizon	Debitage	Secondary flake	Holland chert	no	no	1	0.5	
15Tm112	October 2012	11	3	12	STP 18	Level 1	100-110	Ab horizon	Debitage	Micro flake	Wyandotte chert	no	no	1	< 0.1	
15Tm112	October 2012	5	3	12		Intact A Horizon from Stepback Excavation	45-100	N/A	Debitage	Tertiary flake	Jeffersonville chert	no	no	1	0.2	
15Tm112	October 2012	5	3	12		Intact A Horizon from Stepback Excavation	45-100	N/A	Formal Tool	Base fragment of biface (possible perforator)	Holland chert	yes	no	1	4.3	
15Tm112	October 2012	5	3	12		Intact A Horizon from Stepback Excavation	45-100	N/A	Cobble	Partially reduced cobble	Fossiliferous chert	no	yes	1	201.1	Made from cobble, probably Allen's Creek chert; three flakes removed
15Tm112	October 2012	5	3	12		Intact A Horizon from Stepback Excavation	45-100	N/A	FCR	Fire cracked rock	Quartzite	yes	yes	1	67.4	

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State Site Number	Fieldwork Period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Artifact Type	Description	Raw Material	Heat Altered	Cortex	Count	Weight (g)	Comments
15Tm112	October 2012	5	3	12		Intact A Horizon from Stepback Excavation	45-100	N/A	FCR	Fire cracked rock	Basalt	yes	yes	1	47.6	
15Tm112	October 2012	5	3	12		Intact A Horizon from Stepback Excavation	45-100	N/A	FCR	Fire cracked rock	Sandstone	yes	yes	1	187.0	
15Tm112	October 2012	5	3	12		Intact A Horizon from Stepback Excavation	45-100	N/A	Cobble	Unmodified cobble	Granite	no	yes	1	101.0	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	25	1	4	STP 11	Level 1	50–60	Fill	Architectural	Brick fragment			2	3	
15Tm112	September 2012	23	1	6	General		0–50	Unprovenienced trench spoil	Architectural	Brick, whole			1	5 lbs	handmade
15Tm112	September 2012	25	1	4	STP 11	Level 1	50–60	Ab horizon	Architectural	Limestone fragment			4	17.7	
15Tm112	September 2012	3	1	None	STP 6	Level 2	42–50	Ab horizon	Architectural	Nail, cut	ca. 1790–1890s	Nelson 1968, Gillio et al. 1980	1	6.9	
15Tm112	October 2012	1	1	9	General	Fill from Stepback Excavation	0–60	Unprovenienced trench spoil	Architectural	Nail, cut	ca. 1790–1890s	Nelson 1968, Gillio et al. 1980	1	9.4	
15Tm112	September 2012	2	1	None	STP 3	Level 2	42–50	Ab horizon	Architectural	Nail, cut	ca. 1790–1890s	Nelson 1968, Gillio et al. 1980	2	10.8	
15Tm112	September 2012	22	1	6	General		0–50	Unprovenienced trench spoil	Architectural	Nail, cut	ca. 1790–1890s	Nelson 1968, Gillio et al. 1980	2	21.9	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Architectural	Nail, cut	ca. 1790–1890s	Nelson 1968, Gillio et al. 1980	3	20.6	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Architectural	Nail, cut	ca. 1790–1890s	Nelson 1968, Gillio et al. 1980	5	27.7	
15Tm112	September 2012	1	1	None	STP 2	Level 2	42–50	Fill	Architectural	Nail, wire			2	8.8	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55–65	Fill	Architectural	Nail, wire			2	7.1	
15Tm112	September 2012	24	1	5	STP 10	Level 1	70–80	Ab horizon	Architectural	Shingle fragment, slate			1	0.1	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Architectural	Shingle fragment, slate			2	4.8	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	21	1	5	General	Level 1	35–70	Ab horizon	Architectural	Window glass fragment, aqua			1	2.4	
15Tm112	September 2012	22	1	6	General		0–50	Fill	Architectural	Window glass fragment, aqua			1	1.9	
15Tm112	September 2012	25	1	4	STP 11	Level 1	50–60	Fill	Architectural	Window glass fragment, aqua			1	4.9	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55–65	Unprovenienced trench spoil	Architectural	Window glass fragment, aqua			1	1.9	
15Tm112	September 2012	1	1	None	STP 2	Level 2	42–50	Ab horizon	Architectural	Window glass fragment, aqua			3	3.3	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Architectural	Window glass fragment, aqua			3	2.8	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Architectural	Window glass fragment, aqua			3	2.3	
15Tm112	September 2012	2	1	None	STP 3	Level 2	42–50	Ab horizon	Architectural	Window glass fragment, aqua			4	8.1	
15Tm112	September 2012	33	1	5	Unit 2	Level 5	75–84	Fill	Architectural	Window glass fragment, aqua			6	10.5	
15Tm112	September 2012	2	1	None	STP 3	Level 2	42–50	Fill	Faunal	Bone fragment, unidentified animal			1	0.1	
15Tm112	September 2012	15	1	4	Feature 1	Level 1	86–98	Feature	Faunal	Bone fragment, unidentified animal			5	19.8	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	2	1	None	STP 3	Level 2	42–50	Ab horizon	Faunal	Bone fragment, unidentified animal, cut			2	2	
15Tm112	September 2012	32	1	5	Unit 2	Level 4	65–75	Fill	Faunal	Bone fragment, unidentified animal, cut			3	5.8	
15Tm112	September 2012	3	1	None	STP 6	Level 2	42–50	Ab horizon	Faunal	Burned bone fragment, unidentified animal			1	0.8	
15Tm112	September 2012	15	1	4	Feature 1	Level 1	86–98	Feature	Floral	Wood fragments, unidentified			6	2.5	
15Tm112	September 2012	15	1	4	Feature 1	Level 1	86–98	Feature	Fuel/Energy	Coal fragment			2	1.5	
15Tm112	September 2012	22	1	6	General		0–50	Unprovenienced trench spoil	Kitchen	Coca-Cola bottle fragment, brown	1900–1916	http://www.thecoca-colacompany.com/dynamic/press_center/imagegallery.html#	6	72.4	Embossed with partial Coca-Cola registered trademark information
15Tm112	September 2012	25	1	4	STP 11	Level 1	50–60	Fill	Kitchen	Container glass rim fragment, colorless			1	0.8	
15Tm112	October 2012	1	1	9	General	Fill from Stepback Excavation	0–65	Unprovenienced trench spoil	Kitchen	Embossed whiteware rim sherd			1	35.3	
15Tm112	September 2012	22	1	6	General		0–50	Fill	Kitchen	Glass canning jar fragment, aqua			1	9.6	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	22	1	6	General		0–50	Unprovenienced trench spoil	Kitchen	Glass canning jar fragment, aqua	1858–c. 1900	Toulouse 1969	1	8.9	Embossed with M…/PATE …/NOV 30…/185… (Likely Patented November 30, 1858)
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Kitchen	Glass canning jar fragment, aqua	1858–ca. 1900	Toulouse 1969	1	18.7	Embossed with …NOV. 3…/1858. (Likely Patented November 30, 1858)
15Tm112	September 2012	21	1	5	General	Level 1	ca. 0–50	Fill	Kitchen	Glass canning jar fragment, aqua			3	22.7	
15Tm112	September 2012	24	1	5	STP 10	Level 1	70–80	Ab horizon	Kitchen	Glass Coca-Cola? bottle fragment, brown	1912–1916	Lockhart 2010: 333–335; antiquebottles.com/coke/	1	4.4	Embossed with straight arrow. Probably part of a "Arrow" Coca-Cola bottle, primarily from TN and KY.
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Glass container base fragment, colorless			1	3.7	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	2	1	None	STP 3	Level 2	42–50	Ab horizon	Kitchen	Glass container fragment, aqua			1	3.2	
15Tm112	October 2012	8	1	9	STP 15	Level 6	120–130	B horizon	Kitchen	Glass container fragment, aqua			1	0.9	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Kitchen	Glass container fragment, aqua			2	7.5	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–55	Fill	Kitchen	Glass container fragment, aqua			3	7.7	
15Tm112	September 2012	15	1	4	Feature 1	Level 1	86–98	Feature	Kitchen	Glass container fragment, brown			1	1.7	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Glass container fragment, brown			1	9.8	
15Tm112	September 2012	32	1	5	Unit 2	Level 4	65–75	Fill	Kitchen	Glass container fragment, brown			2	6.7	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Kitchen	Glass container fragment, brown			5	3.1	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	15	1	4	Feature 1	Level 1	86–98	Feature	Kitchen	Glass container fragment, colorless			1	0.9	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Glass container fragment, colorless			1	0.3	Thin glass
15Tm112	September 2012	1	1	None	STP 2	Level 2	42–50	Ab horizon	Kitchen	Glass container fragment, colorless			2	4.5	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Kitchen	Glass container fragment, colorless			2	0.7	
15Tm112	September 2012	32	1	5	Unit 2	Level 4	65–75	Fill	Kitchen	Glass container fragment, colorless			2	3.6	
15Tm112	October 2012	1	1	9	General	Fill from Stepback Excavation	0–60	Unprovenienced trench spoil	Kitchen	Glass container fragment, colorless			2	3.4	
15Tm112	September 2012	2	1	None	STP 3	Level 2	42–50	Ab horizon	Kitchen	Glass container fragment, colorless			3	5.7	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Glass container fragment, colorless			3	5.3	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Glass container fragment, green			1	2.6	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	35–45	Fill	Kitchen	Glass container fragment, green			1	0.5	
15Tm112	September 2012	2	1	None	STP 3	Level 2	42–50	Ab horizon	Kitchen	Glass container fragment, light olive green	1860–present	Magid 1984	1	2.9	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Glass container mouth and neck fragment, brown			1	2.7	Threaded, mold seam
15Tm112	October 2012	1	1	9	General	Fill from Stepback Excavation	0–60	Unprovenienced trench spoil	Kitchen	Milkglass canning jar base fragment	1869–ca. 1940 (ca. 1900–1930, peak period)	Toulouse 1969, 1977	1	2.9	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Oil lamp chimney fragment, colorless			1	0.1	
15Tm112	September 2012	3	1	None	STP 6	Level 2	42–50	Ab horizon	Kitchen	Pressed glass fragment, colorless			3	7.1	
15Tm112	October 2012	1	1	9	General	Fill from Stepback Excavation	0–60	Unprovenienced trench spoil	Kitchen	Pressed glass fragment, colorless			3	14.8	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Kitchen	Terra cotta rim sherd			1	3.2	
15Tm112	September 2012	28	1	4	STP 11	Level 4	80–90	Fill	Kitchen	Undecorated ironstone base sherd	1860s or later	Stelle 2011	1	3.1	Embossed on base with partial maker's mark …TONE CHINA. Probably "STONE CHINA," which was a mark of several late nineteenth-early twentieth century potteries including the Mercer Pottery Company of Trenton, New Jersey and the Wheeling Pottery Company, West Virginia (Kovel and Kovel 1953).

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	October 2012	1	1	9	General	Fill from Stepback Excavation	0–60	Unprovenienced trench spoil	Kitchen	Undecorated ironstone rim sherd			1	9.8	
15Tm112	September 2012	3	1	None	STP 6	Level 2	42–50	Ab horizon	Kitchen	Undecorated ironstone rim sherd			2	8.7	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Undecorated porcelain body sherd			1	1.1	
15Tm112	September 2012	25	1	4	STP 11	Level 1	50–60	Fill	Kitchen	Undecorated porcelain body sherd			2	17.1	
15Tm112	September 2012	25	1	4	STP 11	Level 1	50–60	Fill	Kitchen	Undecorated whiteware base sherd			1	14.4	Partial maker's mark, not enough to identify
15Tm112	September 2012	15	1	4	Feature 1	Level 1	86–98	Feature	Kitchen	Undecorated whiteware body sherd			1	0.4	
15Tm112	September 2012	27	1	4	STP 11	Level 3	70–80	Fill	Kitchen	Undecorated whiteware body sherd			1	4.6	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Kitchen	Undecorated whiteware body sherd			1	3.1	
15Tm112	October 2012	1	1	9	General	Fill from Stepback Excavation	0–60	Unprovenienced trench spoil	Kitchen	Undecorated whiteware body sherd			1	1.9	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Undecorated whiteware body sherd			2	4.2	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Undecorated whiteware plate rim/base sherd			1	10	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Kitchen	Undecorated whiteware rim sherd			1	0.6	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Kitchen	Yellowware body sherd; Rockingham glaze	1845–1900	Magid 1984	1	3.1	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Tools and Hardware	Battery rod fragment, graphite			2	4.9	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Tools and Hardware	Composite white and ferrous metal round disc			1	10.4	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55–65	Fill	Tools and Hardware	Ferrous metal bracket fragment			1	170.7	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55–65	Fill	Tools and Hardware	Ferrous metal flat screw			1	3.6	
15Tm112	September 2012	26	1	5	Unit 2	Level 1	35–45	Fill	Tools and Hardware	Ferrous metal ring			1	39.3	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Tools and Hardware	Ferrous metal screw			1	4.4	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Tools and Hardware	Ferrous metal strip fragment			1	3.5	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55–65	Fill	Tools and Hardware	Ferrous metal strip fragment with holes			1	26.9	
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Tools and Hardware	Ferrous metal tube fragment			1	17.9	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	25	1	4	STP 11	Level 1	50–60	Fill	Tools and Hardware	Unidentified metal object			1	4.1	
15Tm112	September 2012	31	1	5	Unit 2	Level 3	55–65	Fill	Tools and Hardware	Unidentified metal object			2	1.6	
15Tm112	September 2012	15	1	4	Feature 1	Level 1	86–98	Feature	Tools and Hardware	Unidentified metal object			4	19	One piece has coal fragments rusted onto it.
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Tools and Hardware	Unidentified white metal object			1	33.2	Possible tool bit or weight
15Tm112	September 2012	30	1	5	Unit 2	Level 2	45–55	Fill	Toys and Games	Clay marble	19th century to 1930	Gartley and Carskadden 1998: 49–55	1	1.8	Small diameter; brown-bodied earthenware marble or “commie”
15Tm112	September 2012	33	1	5	Unit 2	Level 5	55–65	Fill	Toys and Games	Glass marble, machine made	Post-1920, probably 1950s	Block 2010: 115–122	1	5.1	Peltier Glass Company “Banana” cat's eye, clear glass with green vane
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Architectural	Brick fragment			1	3.9	
15Tm112	September 2012	6	2	1	STP 1	Level 3	121–131	Ab horizon	Architectural	Brick fragment			2	3.5	
15Tm112	September 2012	12	2	3	STP 3	Level 3	113–123	Ab horizon	Architectural	Mortar			1	1.4	
15Tm112	September 2012	6	2	1	STP 1	Level 3	121–131	Ab horizon	Architectural	Nail, cut	ca. 1790–1890s	Nelson 1968, Gillio et al. 1980	1	4.8	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	7	2	1	STP 1	Level 4	131–141	Ab horizon	Architectural	Nail, cut, large	ca. 1790–1890s	Nelson 1968, Gillio et al. 1980	1	31.1	
15Tm112	September 2012	12	2	3	STP 3	Level 3	113–123	Ab horizon	Architectural	Nail, wire			1	6	
15Tm112	September 2012	11	2	3	STP 3	Level 1	93–103	Ab horizon	Architectural	Nail, wire			6	42	
15Tm112	September 2012	19	2	2	Unit 1	Level 4	140–150	B horizon	Architectural	Nail, wire fragment			1	1.9	
15Tm112	September 2012	20	2	2	Unit 1 (Feature 2)	Level 4	129–137	Feature	Architectural	Octagonal terra cotta pipe fragment			1	3 lbs	Possible drainage tile
15Tm112	September 2012	11	2	3	STP 3	Level 1	93–103	Ab horizon	Architectural	Unidentified metal object			1	39.7	Thin, rectangular in shape - metal strip?
15Tm112	September 2012	11	2	3	STP 3	Level 1	93–103	Ab horizon	Architectural	Window glass fragment, aqua			2	3.4	
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Architectural	Window glass fragment, aqua			2	1	
15Tm112	September 2012	5	2	1	STP 1	Level 2	111–121	Ab horizon	Faunal	Animal tooth - Deer?			1	3.4	
15Tm112	September 2012	5	2	1	STP 1	Level 2	111–121	Ab horizon	Fuel/Energy	Clinker/Cinder/Coal Slag			1	2.7	
15Tm112	September 2012	8	2	2	STP 2	Level 2	99–109	Ab horizon	Kitchen	Blue transfer-print whiteware rim sherd	ca. 1828–present	Magid 1984	4	5	3 Pieces fit together, mended
15Tm112	September 2012	11	2	3	STP 3	Level 1	93–103	Ab horizon	Kitchen	Blue transfer-print whiteware rim sherd	ca. 1828–present	Magid 1984; Neale 2005	5	10.7	"Blue Willow" Pattern; refits - pieces mended

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	11	2	3	STP 3	Level 1	93–103	Ab horizon	Kitchen	Coca-Cola bottle fragment, aqua	1915–1957	http://www.thecoca-colacompany.com/dynamic/press_center/imagegallery.html#	2	12	Embossed with …l/…EGISTE../…NT OF… and …MA…
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Container glass mouth and neck fragment, solarized amethyst	1880–ca. 1918	Deiss 1981, Munsey 1970	1	11.8	
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Container glass rim fragment, aqua			1	0.9	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110–120	B horizon	Kitchen	Container glass rim fragment, colorless			1	6.3	
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Embossed ironstone rim sherd			1	1.2	
15Tm112	September 2012	11	2	3	STP 3	Level 1	93–103	Ab horizon	Kitchen	Glass canning jar fragment, aqua			1	1.8	Embossed with …E/ and partial other letter
15Tm112	September 2012	4	2	1	STP 1	Level 1	101–111	Ab horizon	Kitchen	Glass container fragment, aqua			1	0.9	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120–130	B horizon	Kitchen	Glass container fragment, aqua			1	1.3	
15Tm112	September 2012	11	2	3	STP 3	Level 1	93–103	Ab horizon	Kitchen	Glass container fragment, aqua			6	4.4	Probably part of the Coca-Cola bottle).
15Tm112	September 2012	4	2	1	STP 1	Level 1	101–111	Ab horizon	Kitchen	Glass container fragment, brown			1	5.6	
15Tm112	September 2012	5	2	1	STP 1	Level 2	111–121	Ab horizon	Kitchen	Glass container fragment, colorless			1	2.3	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110–120	B horizon	Kitchen	Glass container fragment, colorless			4	2.5	
15Tm112	September 2012	4	2	1	STP 1	Level 1	101–111	Ab horizon	Kitchen	Glass container fragment, green			1	3.7	
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Glass fragment, melted/burned			1	1	
15Tm112	September 2012	8	2	2	STP 2	Level 2	99–109	Ab horizon	Kitchen	Milkglass canning jar body fragment	1869–ca. 1940 (ca. 1900–1930, peak period)	Toulouse 1969, 1977	1	0.5	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	4	2	1	STP 1	Level 1	101–111	Ab horizon	Kitchen	Milkglass canning jar lid liner fragments	1869–ca. 1940 (ca. 1900–1930, peak period)	Toulouse 1969, 1977	2	3.7	Refit
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120–130	B horizon	Kitchen	Oil lamp chimney fragment, colorless			1	0.1	
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Oil lamp chimney fragment, colorless			2	0.5	
15Tm112	September 2012	13	2	3	STP 3	Level 3	113–123	B horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior Albany slip			1	5.5	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110–120	B horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior Albany slip			1	13.4	
15Tm112	September 2012	12	2	3	STP 3	Level 3	113–123	B horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior Albany slip	1825–1900 (most common)	Stelle 2011	2	31.2	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior Albany slip			3	39.3	
15Tm112	September 2012	18	2	2	Unit 1	Level 3	120–130	B horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior Albany slip			3	41	2 pieces fit together
15Tm112	September 2012	8	2	2	STP 2	Level 2	99–109	Ab horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior unglazed			1	3	
15Tm112	September 2012	11	2	3	STP 3	Level 1	93–103	Ab horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior unglazed			1	2.7	
15Tm112	September 2012	12	2	3	STP 3	Level 3	113–123	Ab horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior unglazed			1	2.8	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior unglazed			1	2.1	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	ca. 92–110	B horizon	Kitchen	Stoneware body sherd; exterior salt-glazed, interior unglazed			1	6.4	
15Tm112	September 2012	5	2	1	STP 1	Level 2	111–121	Ab horizon	Kitchen	Stoneware rim sherd; interior Albany slip, exterior salt-glazed	1825–1900 (most common)	Stelle 2011	1	100.4	
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Terra cotta body sherd			2	2.4	
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Undecorated ironstone body sherd			1	0.9	
15Tm112	September 2012	8	2	2	STP 2	Level 2	99–109	Ab horizon	Kitchen	Undecorated whiteware body sherd			3	0.5	
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Kitchen	Undecorated whiteware body sherd			3	0.7	
15Tm112	September 2012	19	2	2	Unit 1	Level 4	130–140	B horizon	Miscellaneous Activities	Modern insulation			3	0.2	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110–120	B horizon	Miscellaneous Activities	Modern synthetic fiber fragment			1	0.1	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	September 2012	16	2	2	Unit 1	Level 1	ca. 92–110	Ab horizon	Personal	Button, glass, white			1	1.1	4-hole
15Tm112	September 2012	6	2	1	STP 1	Level 3	131–141	B horizon	Tools and Hardware	Unidentified metal object			1	81.9	
15Tm112	September 2012	17	2	2	Unit 1	Level 2	110–120	B horizon	Tools and Hardware	Unidentified metal object			1	0.8	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75–90	Ab horizon	Architectural	Mortar fragment			1	1.4	
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Architectural	Window glass fragment, aqua			2	13.4	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75–90	Ab horizon	Architectural	Window glass fragment, colorless			1	0.3	
15Tm112	October 2012	5	3	12	General	Intact A Horizon from Stepback Excavation	50–80	Unprovenienced trench spoil	Faunal	Bone fragment, unidentified animal			1	9.1	
15Tm112	October 2012	9	3	11	STP 17	Level 1	90–100	Ab horizon	Faunal	Burned bone fragment, unidentified animal			1	0.2	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Faunal	Mussel shell fragment			2	45	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Embossed ironstone rim sherd, with faint black line around rim	1860s or later	Stelle 2011	1	5.8	

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State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Embossed porcelain jar or vase base fragment, light blue			1	19.5	
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Embossed whiteware rim sherd with embossed and polychrome hand painted floral motif			2	21.2	refits
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Embossed whiteware rim sherd with gold on edge			2	9.1	refits
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Glass bottle base fragment, colorless			3	25.9	2 pieces appear to be from same bottle
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Glass bottle fragment, multi-sided, colorless			5	46.1	Possible condiment bottle
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–45	Unprovenienced trench spoil	Kitchen	Glass bottle mouth and neck fragment, colorless			2	41	Threaded, mold seam; 2 different bottles
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Glass bottle neck fragment, colorless			1	4.1	

Appendix A. Historic Artifact Analysis.

State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Glass canning jar lid liner fragment, milkglass	1869–1940 (ca. 1900–1930, peak period)	Toulouse 1969, 1977	3	12.9	2 pieces fit together, the other piece has “F O”embossed on it, probably part of FOSTER SEALTEST, a common canning jar sealing system used by Indiana canners (Toulouse 1969)
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Glass container base fragment, aqua			2	79.9	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Glass container base fragment, solarized amethyst	1880–ca. 1918	Deiss 1981, Munsey 1970	1	15.6	
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Glass container fragment, aqua			1	1.5	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Glass container fragment, blue			1	2.2	

Appendix A. Historic Artifact Analysis.

State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Glass container fragment, brown			1	11.5	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Glass container fragment, colorless			1	17.9	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Glass container fragment, frosted			1	3.2	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Hand painted whiteware body sherd, green leaf design			1	2.2	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Pressed glass fragment, colorless			1	10.6	
15Tm112	October 2012	15	3	11	Unit 4	Level 1	75–90	Ab horizon	Kitchen	Stoneware body sherd; ext./int. Albany slip	1825–1900 most common)	Stelle 2011	1	2.7	
15Tm112	October 2012	5	3	12	General	Intact A Horizon from Stepback Excavation	50–80	Unprovenienced trench spoil	Kitchen	Stoneware body sherd; exterior salt-glazed, interior Albany slip			1	12.2	

Appendix A. Historic Artifact Analysis.

State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Stoneware body sherd; exterior salt-glazed, interior Albany slip			3	73.1	2 pieces fit together
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Stoneware jug mouth and neck fragment; exterior Bristol slip, interior Albany slip	1890s–present	Stelle 2011	1	34.9	
15Tm112	October 2012	5	3	12	General	Intact A Horizon from Stepback Excavation	50–80	Unprovenienced trench spoil	Kitchen	Stoneware rim sherd; ext./int. Albany slip	1825–1900 (most common)	Stelle 2011	1	12.8	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Undecorated ironstone body sherd			1	2.8	Fits with rim sherd above
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Undecorated ironstone rim sherd			1	10.3	Fits with body sherd below
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Undecorated whiteware base sherd			2	9.5	
15Tm112	October 2012	2	3	10	General	Fill from Stepback Excavation	0–45	Fill	Kitchen	Undecorated whiteware body sherd			1	3	

Appendix A. Historic Artifact Analysis.

State Site Number	Fieldwork period	Bag	Area	Trench	Section	Level	Depths (cmbs)	Stratum	Functional Group	Description	Date Range	Reference	Count	Weight (g)	Comment
15Tm112	October 2012	18	3	10	STP 16	Level 1	60–70	Ab horizon	Kitchen	Undecorated whiteware body sherd			1	0.2	
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Kitchen	Undecorated whiteware body sherd			4	8.9	
15Tm112	October 2012	21	3	10	STP 16	Level 5	100–110	Ab horizon	Kitchen	Undecorated whiteware rim sherd			1	3.8	
15Tm112	October 2012	4	3	12	General	Interface of Fill/A Horizon Stepback Excavation	45–50	Unprovenienced trench spoil	Kitchen	Yellowware, body sherd	1830–present	Magid 1984	1	2.9	
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Miscellaneous Activities	Automotive windshield glass, aqua			7	5.9	
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Personal	Glass Vicks VapoRub jar with partial corroded metal lid attached, cobalt blue			1	83.1	"VICKS VAPORUB," Z, 34, and intertwined Vs embossed on base
15Tm112	October 2012	3	3	11	General	Fill from Stepback Excavation	0–75	Unprovenienced trench spoil	Personal	Metal lid fragment			7	2.4	Possible lid of a Vicks VapoRub jar