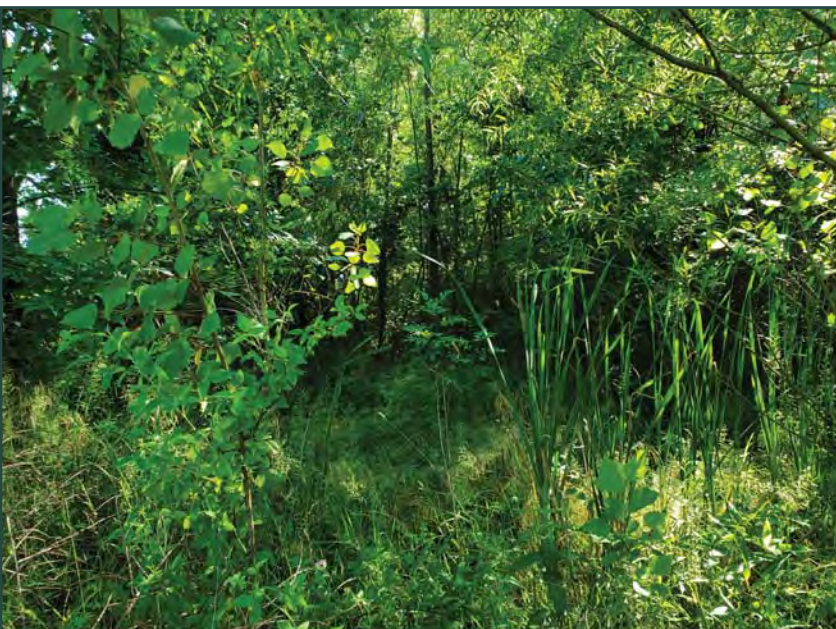


AN ARCHAEOLOGICAL SURVEY OF THE KY 1007 RECONSTRUCTION PROJECT IN CHRISTIAN COUNTY, KENTUCKY (ITEM NO. 2-227.00)



by
Caitlin Eileen Nichols, RPA 17357

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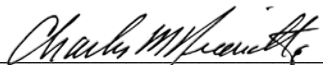
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With a contribution by Julia K.C. Gruhot

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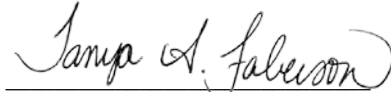
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ABSTRACT

Between June 22 and 24, 2021, Cultural Resource Analysts, Inc., personnel conducted an archaeological survey of the proposed KY 1007 reconstruction in Christian County, Kentucky (Item No. 2-227.00). The total project area was located along KY 1007 from Sanderson Drive to West Seventh Street in the community of Hopkinsville, Kentucky. The survey was conducted at the request of Daniel Peake of the Kentucky Transportation Cabinet. The project area encompassed a total of 4.44 ha (10.98 acres) and was surveyed in its entirety.

Prior to conducting the field research, a records review was conducted at the Office of State Archaeology. The review indicated that there were 16 professional archaeological surveys and site investigations that had been previously conducted within a 2 km radius of the current project area. Additionally, 25 previously recorded archaeological sites were located in this area. One of the previous surveys intersected with the current project area (Schenian 1987); however, none of the previously recorded sites intersected with or were inside of the current project area. Any portions of the current project area that were previously investigated by this survey were re-investigated in the current study.

The field investigation consisted of intensive pedestrian survey supplemented by screened shovel testing. One bucket auger was excavated in a small area where culturally sterile subsoil could not be reached with shovel testing. Ground surface visibility was consistently less than 10 percent throughout the project area. Disturbances to the area included agricultural activities, bioturbation, mechanical grading, and road construction.

Three isolated finds (IF 1–IF 3) were recovered; however, no archaeological sites were recorded as a result of the survey. No archaeological sites listed in, or eligible for listing in, the National Register of Historic Places will be affected by the proposed right-of-way and temporary easements. Therefore, archaeological clearance is recommended.

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I. INTRODUCTION

Between June 22 and 24, 2021, Cultural Resource Analysts, Inc. (CRA), personnel conducted an archaeological survey of the proposed KY 1007 reconstruction in Christian County, Kentucky (Figure 1). The survey was conducted at the request of Daniel Peake of the Kentucky Transportation Cabinet (KYTC). The total project area was located along KY 1007 from Sanderson Drive to West Seventh Street and encompassed a total of 4.44 ha (10.98 acres). The fieldwork was completed by Caitlin Nichols and Jennie VanMeter and required approximately 30 person hours to complete. Office of State Archaeology (OSA) Geographic Information Systems (GIS) data were requested by CRA on June 3, 2021, and were returned on June 7, 2021. The results were researched by Julia K.C. Gruhot of CRA at the OSA on June 16, 2021. The OSA project registration number is FY21-11305.

Purpose of the Study

The study was conducted to comply with Section 106 of the National Historic Preservation Act. This transportation project is federally funded and is therefore considered an undertaking subject to 106 review.

Any state, county, or municipal lands in the project area were surveyed under OSA Kentucky Antiquities Act Permit Number 2021-23 pursuant to Kentucky Revised Statute (KRS) 164.720.

The purpose of this assessment was to locate, describe, evaluate, and make appropriate recommendations for the future treatment of any historic properties or prehistoric archaeological sites that may be threatened by proposed construction activities. For the purposes of this assessment, a site was defined as “any location where human behavior has resulted in the deposition of artifacts, or other evidence of purposive behavior at least 50 years of age” (Sanders 2017:2). Cultural deposits less than 50 years of age were not considered sites.

The following is a description of the project area, field methods used, and results of this investigation. It is intended to conform to the *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports* (Sanders 2017).

Project Description

The project consists of various areas along KY 1007 from Sanderson Drive to West Seventh Street; the total area measurement is 4.44 ha. These areas will be used for new right-of-way (ROW) and temporary easements. This construction will improve safety and mobility from the intersection of Sanderson Drive and KY 1007 to the intersection of West Seventh Street and KY 1007, measuring approximately 2.76 km in length (Figures 2 and 3a–3e).

Summary of Findings

Prior to conducting the field research, a records review was conducted at the OSA, which indicated that there were 16 professional archaeological surveys and archaeological site investigations that had been previously performed within a 2 km radius of the current project area. In addition, 25 archaeological sites have been recorded in this area. One previous survey intersected with the current project area (Schenian 1987); however, none of the previously recorded sites intersected with or were inside of the current project area. Any portions of the current project area that were previously investigated by this survey were re-investigated in the current study.

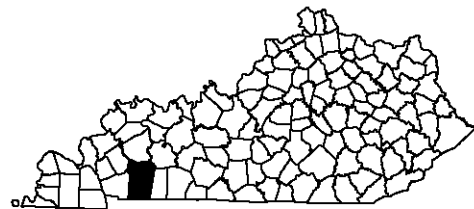


Figure 1. Map of Kentucky showing the location of Christian County.

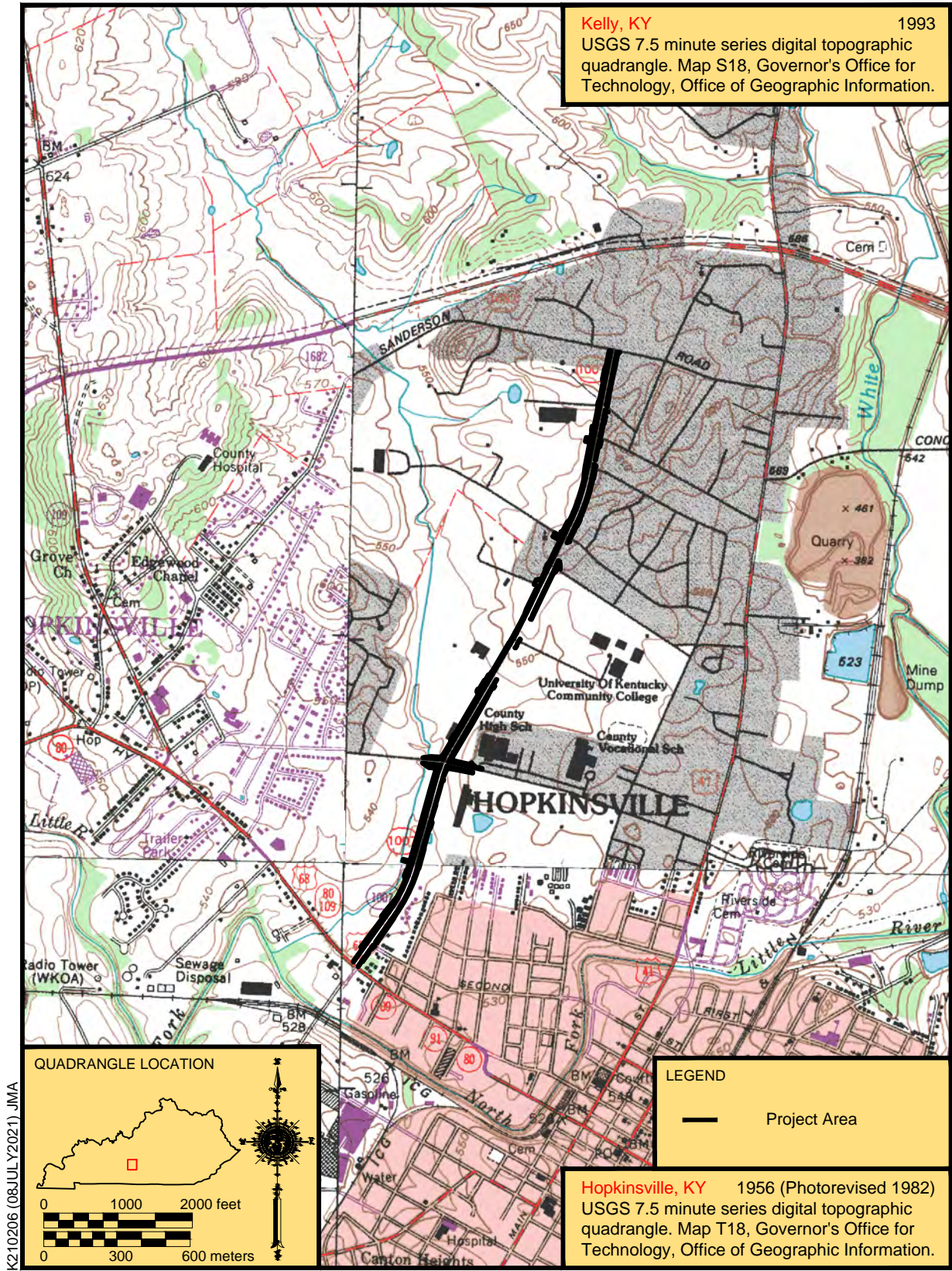


Figure 2. Location of project area on topographic quadrangle.

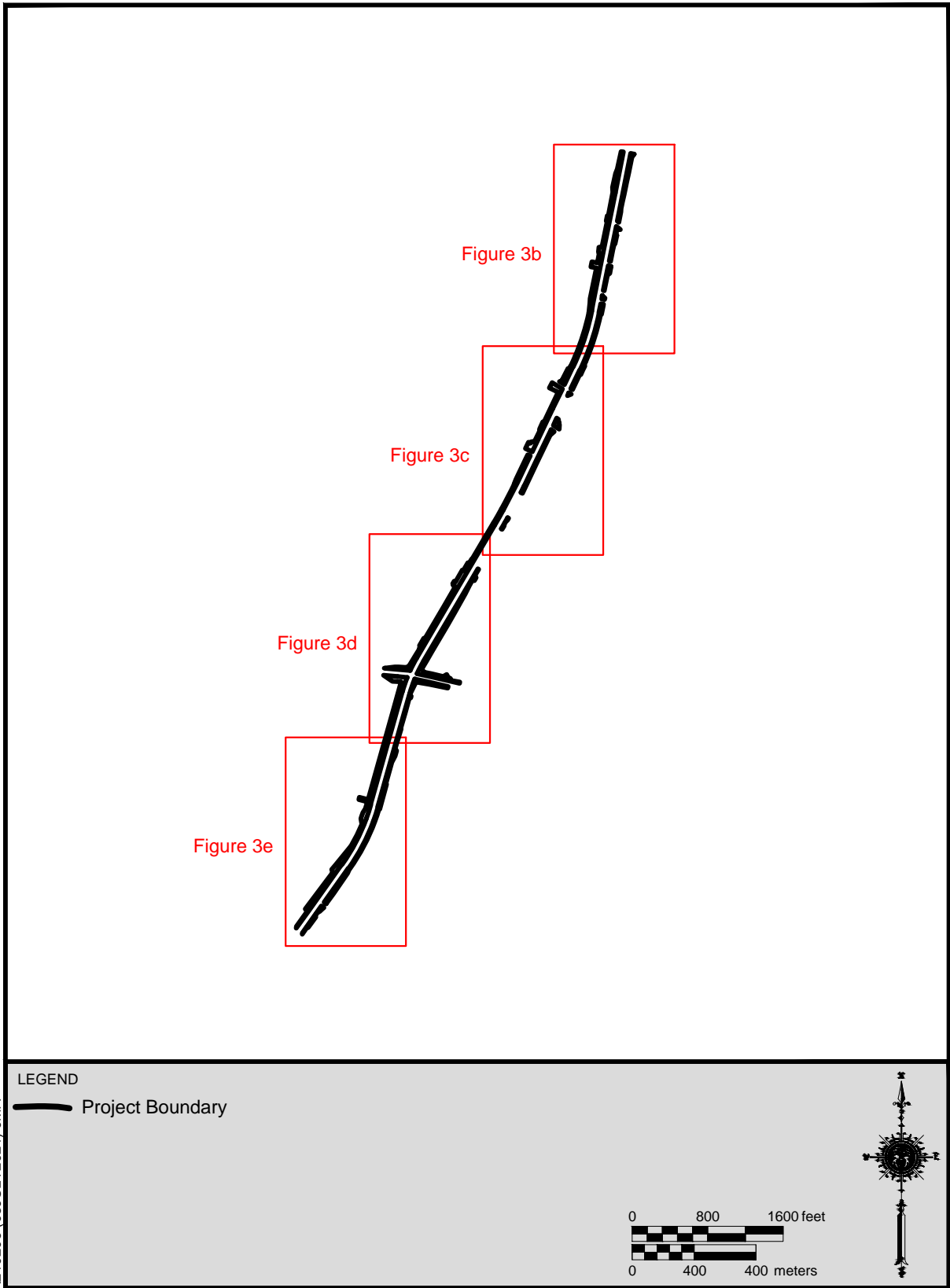


Figure 3a. Project area key.

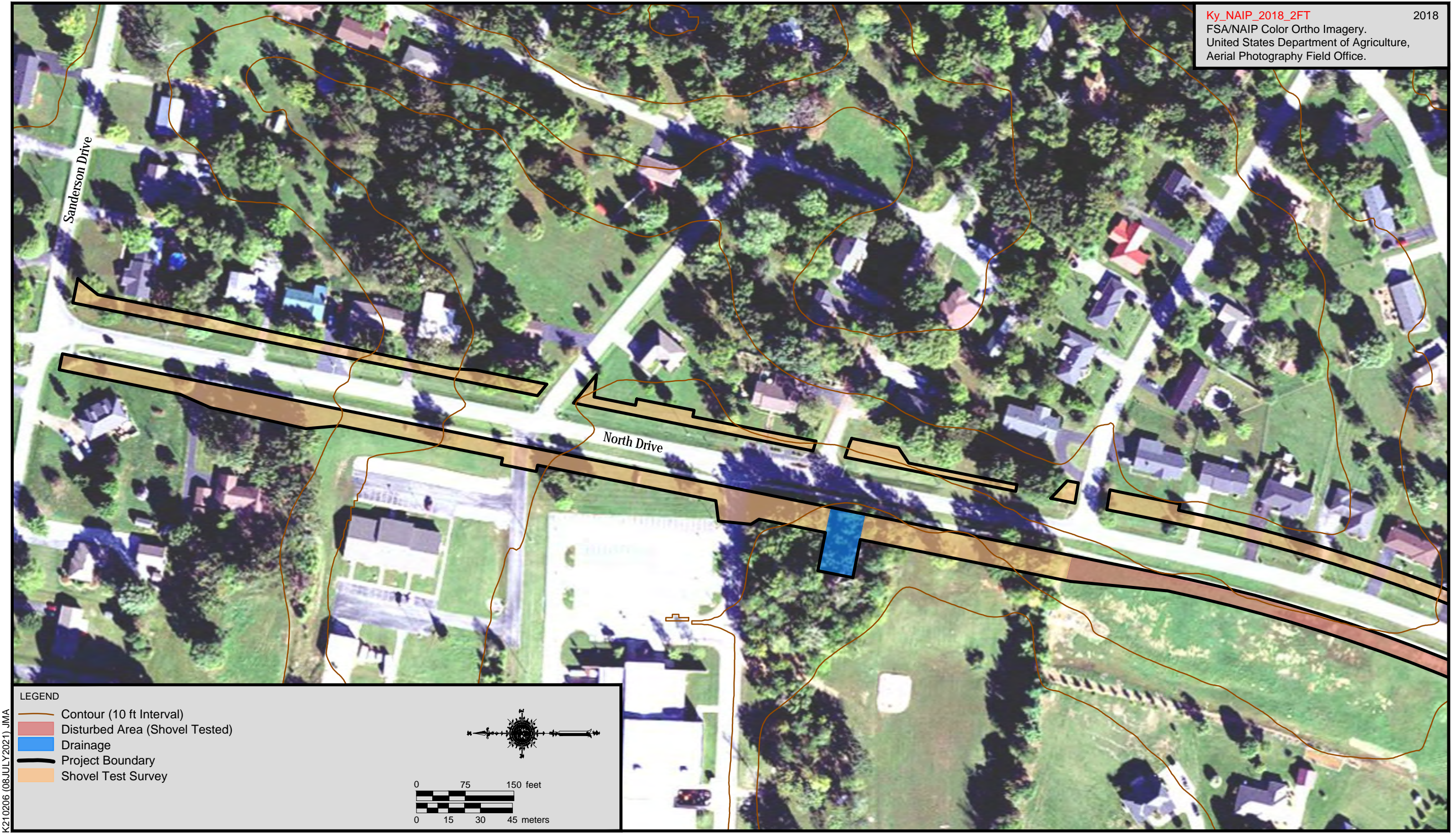


Figure 3b. Project area on aerial photography showing field methods.

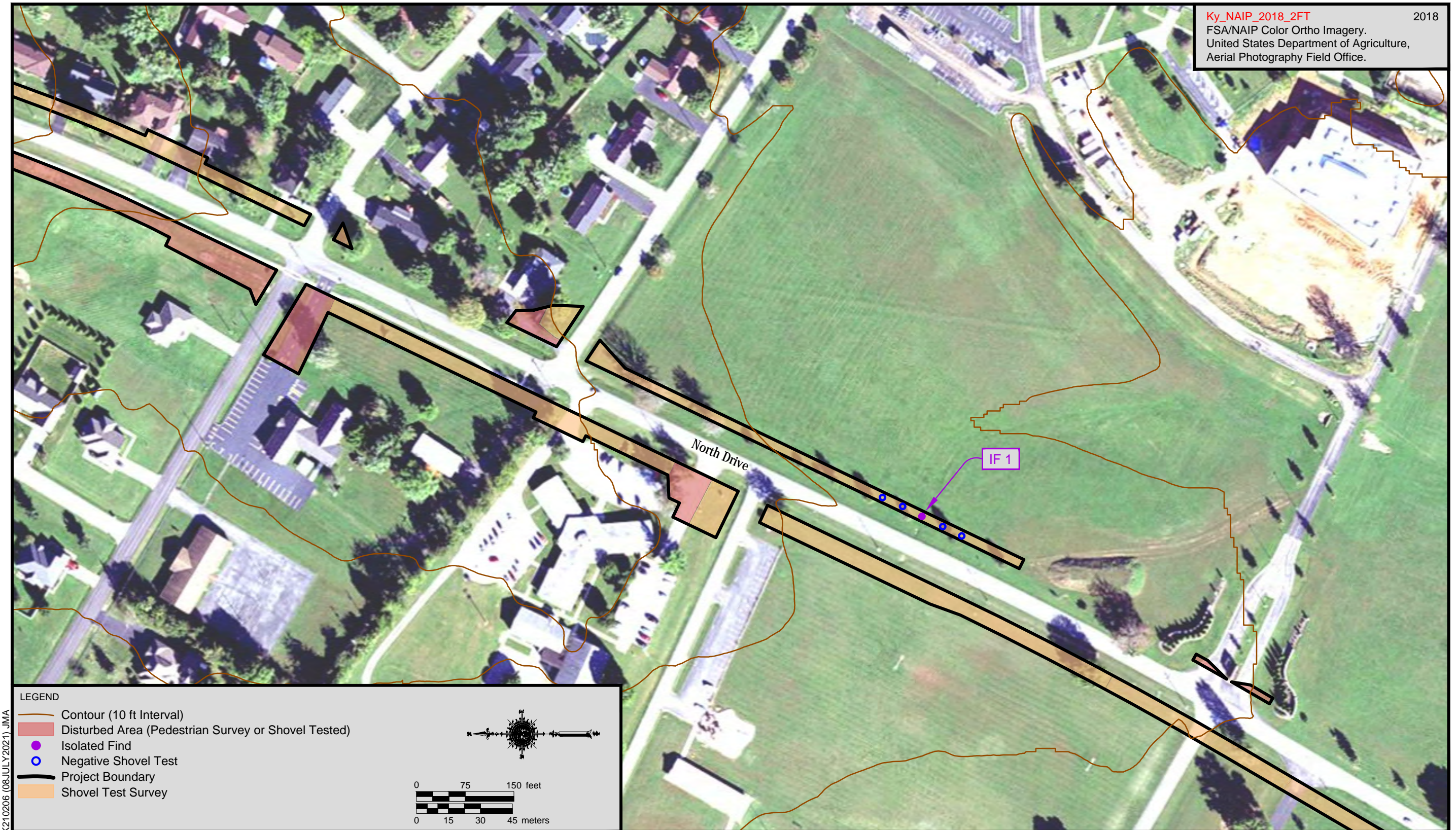
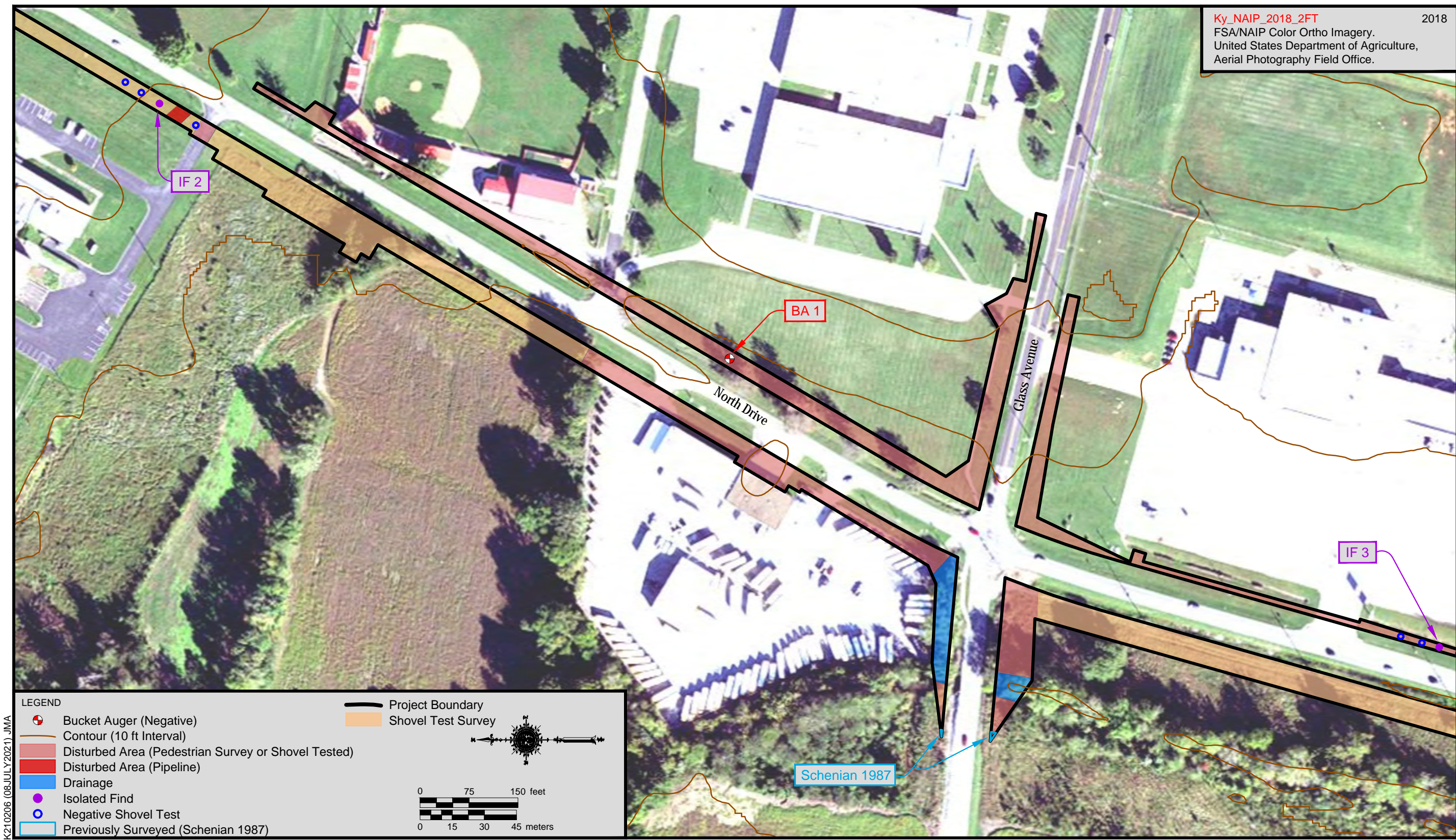


Figure 3c. Project area on aerial photography showing field methods.



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Figure 3d. Project area on aerial photography showing field methods.

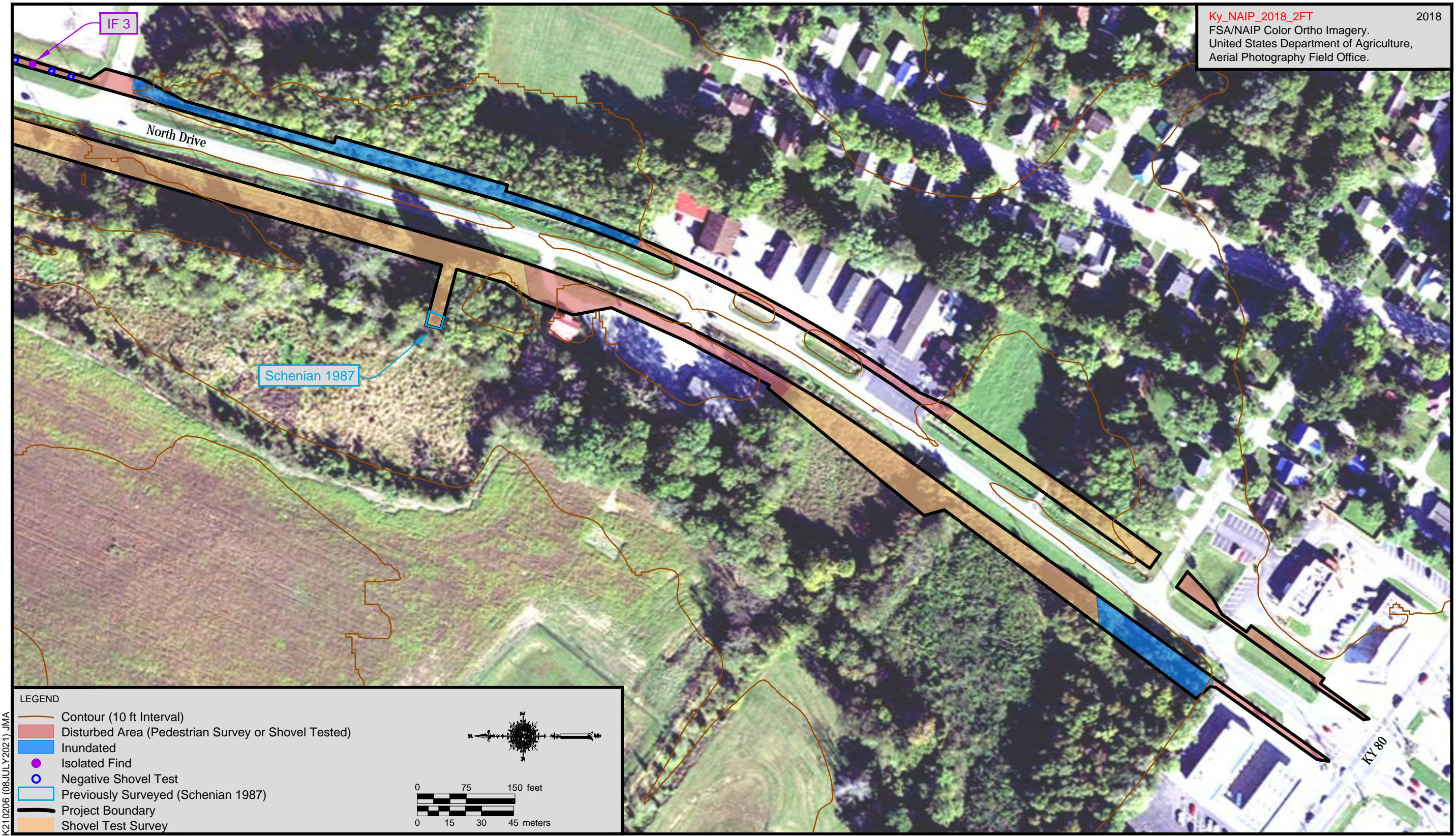


Figure 3e. Project area on aerial photography showing field methods.

Three isolated finds were recorded (IF 1–IF 3); however, no archaeological sites were recorded as a result of the survey. No archaeological sites listed in, or eligible for listing in, the National Register of Historic Places (NRHP) will be affected by the proposed ROW and temporary easement areas. Therefore, archaeological resource clearance is recommended.

II. DESCRIPTION OF THE PROJECT AREA

The entire project area consists of approximately 4.44 ha and is located in Christian County, Kentucky, in various locations along KY 1007 (see Figures 2 and 3a–3e).

Characteristics of the project area varied depending on the location. Most of the project area was adjacent to existing ROW within residential yards (Figure 4) or other grassy lots adjacent to commercial buildings (Figure 5). Other locations of the project area included

agricultural fields (Figure 6), fields with significant secondary growth (Figure 7), wooded areas (Figure 8), and paved or gravel lots (Figure 9). Some portions of the project area were completely inundated, making shovel testing impossible (Figure 10). Vegetation in the project area largely consisted of grasses, agricultural crop chaff, secondary growth, and deciduous trees. Areas that were inundated had vegetation consistent with wetlands (see Figure 10). Ground surface visibility (GSV) throughout the project area was less than 10 percent.

Disturbances within the project area were largely due to urban development. Most of the grassy lots or fields were heavily disturbed by mechanical grading, which was confirmed via shovel testing as well as visual inspection of the landscape (Figure 11). As previously discussed, smaller portions of the project area consisted of pavement or gravel lots while others had underground utilities (Figure 12). Other disturbances included agricultural activities within agricultural fields and bioturbation such as crayfish (Figure 13).



Figure 4. Overview of the project area within residential yards, facing northeast.



Figure 5. Overview of the project area within a grassy lot, facing southwest.



Figure 6. Overview of the project area within an agricultural field, facing northeast.



Figure 7. Overview of the project area within a field with significant secondary growth, facing northeast.



Figure 8. Overview of the project area within a wooded area, facing northwest.



Figure 9. Overview of the project area within a paved lot, facing southwest.



Figure 10. Overview of the project area completely inundated with vegetation consistent of wetlands, facing east.



Figure 11. Lot disturbed by mechanical grading, facing northwest.



Figure 12. Underground utilities within the project area, facing southeast.



Figure 13. Crayfish holes within the project area, facing east.

Soils in the Project Area

The soil series are classified by the amount of time it has taken them to form and the landscape position on which they are found (Birkeland 1984; Soil Survey Staff 1999). This information can provide a relative age of the soils and can express the potential for buried archaeological deposits within them (Stafford 2004). The soil order and group classifications for each soil series are used to assist with determining this potential. The descriptions of the soil series present within the present project area are discussed below. The current project area consists of seven soil series: Caneyville, Crider, Dunning, Newark, Nicholson, Sadler, and Vertrees.

The Caneyville series consists of moderately deep, well-drained soils found on ridges and hillsides. Caneyville soils were formed in a thin silty mantle over fine textured residuum of limestone. A typical Caneyville profile consists of an Oi horizon of hardwood leaf litter that extends 0–3 cm below ground

surface (bgs). Below that is an A horizon of dark grayish brown (10YR 4/2) silt loam that extends 3–5 cm bgs. Below that is an E horizon of yellowish brown (10YR 5/4) silt loam that extends 5–13 cm bgs. Below that is a Bt1 horizon of yellowish red (5YR 4/6) silty clay that extends 13–56 cm bgs. Below that is a Bt2 horizon of strong brown (7.5YR 5/6) clay with common faint yellowish red (5YR 4/6) and grayish brown (10YR 5/2) mottles that extends 56–86 cm bgs. Below that is an R horizon of light gray limestone at 86 cm bgs (Soil Survey Staff 2021).

The Crider series consists of very deep, well-drained soils that are found on uplands. Crider soils were formed in a loess mantle and the underlying residuum from limestone and are moderately permeable. A typical Crider profile consists of an Ap horizon of brown (10YR 4/3) silt loam that extends 0–20 cm bgs. Below that is a Bt1 horizon of brown (7.5YR 4/4) silt loam that extends 20–30 cm bgs. Below that is a Bt2 horizon of brown (7.5YR 4/4) silt loam with common black (7.5YR 2.5/1) manganese concretions that extends 30–

61 cm bgs. Below that is a Bt3 horizon of reddish brown (5YR 4/4) silt loam that extends 61–97 cm bgs. Below that is a 2Bt4 horizon of dark red (2.5YR 3/6) silt clay loam with common black (10YR 2/1) manganese concretions that extends 97–127 cm bgs. Below that is a 2Bt5 horizon of dark red (10R 3/6) clay with common black (10YR 2/1) manganese concretions that extends 127–254 cm bgs. The last horizon is an R horizon of limestone bedrock at 254 cm bgs (Soil Survey Staff 2021).

The Dunning series consists of very deep, poorly drained soils that are found on flood plains, at stream heads, and in ponded areas (Froedge 1980). Dunning soils were formed in fine-textured alluvium. A typical Dunning profile consists of an Ap horizon of very dark gray (10YR 3/1) silt loam that extends 0–23 cm bgs. Below that is an Ag horizon of very dark gray silty clay loam that extends 23–38 cm bgs. Below that is a Bg1 horizon of dark gray (2.5Y 4/1) silty clay loam with strong brown (7.5YR 5/8) masses of oxidized iron in the matrix that extends 38–71 cm bgs. Below that is a Bg2 horizon of dark gray (2.5Y 4/1) silty clay with black (10YR 2/1) iron-manganese nodules and dark brown (7.5YR 3/3) and strong brown (7.5YR 5/8) masses of oxidized iron throughout the matrix that extends 71–122 cm bgs. The last horizon is a Cg horizon of gray (2.5Y 5/1) silty clay with black (7.5YR 2.5/1) iron-manganese nodules and dark brown (7.5YR 3/3) and strong brown (7.5YR 5/8) masses of oxidized iron throughout the matrix that extends 122–244 cm bgs (Soil Survey Staff 2021).

The Newark series consists of very deep, somewhat poorly drained soils found on level floodplains and in depressions. Newark soils were formed in mixed alluvium from limestone, shale, siltstone, sandstone, and loess. A typical Newark profile consists of an Ap horizon of brown (10YR 4/3) silt loam that extends 0–23 cm bgs. Below that is a Bw horizon of brown (10YR 5/3) silt loam with faint light brownish gray (10YR 6/2) iron depletions that extends 23–38 cm bgs. Below that is a Bg horizon of light brownish gray (2.5Y 6/2) silt loam with many distinct brown (10YR 4/3) masses of iron accumulations that

extends 38–81 cm bgs. Below that is a Cg horizon of light brownish gray (2.5Y 6/2) silt loam with few black (N2.5/0) and dark brown (7.5YR 3/3) manganese and iron nodules, common yellowish brown (10YR 5/4) and brown (10YR 5/3) masses of iron accumulations, and common faint light gray (10YR 7/2) clay depletions that extends 81–132 cm bgs. Below that is a C horizon of brown (10YR 4/3) silt loam with black (N2.5/0) and dark brown (7.5YR 3/3) manganese and iron nodules and many distinct gray (10YR 6/1) iron depletions that extends 132–152 cm bgs (Soil Survey Staff 2021).

The Nicholson series consists of very deep, moderately well-drained soils that are found on upland ridgetops. Nicholson soils formed in a mantle of loess or silty material underlain by residuum of limestone, calcareous shale, and siltstone. A typical Nicholson profile consists of an Ap horizon of brown (10YR 4/3) silt loam that extends 0–20 cm bgs. Below that is a Bt1 horizon of brown (7.5YR 4/4) silt loam with common faint brown (7.5YR 4/3) clay films and few fine black (N2.5/0) manganese concretions that extends 20–56 cm bgs. Below that is a Bt2 horizon of yellowish brown (10YR 5/4) silty clay loam with common faint brown (10YR 5/3) clay films and few fine black (N2.5/0) manganese concretions that extends 56–71 cm bgs. Below that is a Btx horizon of brown (7.5YR 4/4) silty clay loam with common gray (10YR 5/1) clay films, gray (10YR 5/1) iron and clay depletions, and black (N2.5/0) manganese concretions that extends 71–97 cm bgs. Below that is a 2Bt3 horizon of yellowish brown (10YR 5/6) silty clay with common yellowish brown (10YR 5/4) clay films, fine black (N2.5/0) manganese concretions, distinct light olive brown (2.5Y 5/4) and gray (10YR 6/1) iron depletions, and strong brown (7.5YR 5/6) masses of iron accumulations that extends 97–127 cm bgs. The last horizon is a 2C horizon of yellowish brown (10YR 5/6) clay with common light brownish gray (2.5Y 6/2) iron depletions that extends 127–152 cm bgs (Soil Survey Staff 2021).

The Sadler series consists of deep or very deep, moderately well-drained soils located on

rolling upland ridgetops. Sadler soils formed in a mantle of loess underlain by residuum of acid sandstone, siltstone, and shale. A typical Sadler profile consists of an Ap horizon of brown (10YR 4/3) silt loam with few fine dark brown (10YR 3/3) iron and manganese concretions that extends 0–18 cm bgs. Below that is a yellowish brown (10YR 5/6) silt loam with common distinct dark yellowish brown (10YR 4/4) clay films and few dark brown (10YR 3/3) iron and manganese concretions that extends 18–51 cm bgs. Below that is an E/B horizon of pale brown (10YR 6/3) and yellowish brown (10YR 5/6) silt loam with common distinct pale brown (10YR 6/3) and light brownish gray (10YR 6/2) silt coatings and common dark brown (10YR 3/3) iron and manganese concretions that extends 51–61 cm bgs. Below that is a 2Btx horizon of yellowish brown (10YR 5/6), dark brown (10YR 3/3), and light brownish gray (10YR 6/2) silt loam with common gray (10YR 6/1) clay films, gray (10YR 6/1) silt coatings, and few black (N2.5/0) iron and manganese concretions that extends 61–122 cm bgs. Below that is a 2Bt horizon of light olive brown (2.5Y 5/4) clay loam with common gray (10YR 6/1) clay films, few black (N2.5/0) iron and manganese concretions, and few grayish brown (10YR 5/2) iron depletions that extends 122–157 cm bgs. Below that is a 2C horizon of gray (5Y 6/1) and yellowish brown (10YR 5/8) loam with few black (N2.5/0) iron and manganese concretions that extends 157–193 cm bgs. The final horizon is a 2R horizon of interbedded brown sandstone and gray shale at 193 cm bgs (Soil Survey Staff 2021).

The Vertrees series consists of very deep, well-drained soils located on ridgetops and side slopes. Vertrees soils formed in residuum from limestone interbedded with siltstone and shale. A typical Vertrees profile consists of dark grayish brown (10YR 4/2) silt loam that extends 0–18 cm bgs. Below that is a Bt1 horizon of yellowish red (5YR 5/8) clay with common continuous yellowish red (5YR 5/6) clay films that extends 18–61 cm bgs. Below that is a Bt2 horizon of red (2.5YR 4/6) clay with prominent yellowish brown (10YR 5/6) mottles and yellowish red (5YR 5/6) clay films

that extends 61–130 cm bgs. The last horizon is a Bt3 horizon of red (2.5YR 4/6) clay with prominent yellowish brown (10YR 5/6) mottles, many continuous yellowish red (5YR 5/6) clay films, and chert and shale channers that extends 130–198 cm bgs (Soil Survey Staff 2021).

The Caneyville, Crider, Nicholson, Sadler, and Vertrees series are classified as Alfisols. Alfisols are found on landforms that formed during the late Pleistocene or earlier (Soil Survey Staff 1999:163–165). Archaeological deposits would only be found on or very near the ground surface on landforms mapped with Alfisols. As a result, no bucket augers were excavated in areas mapped with these soil series.

The Dunning series soils are classified as Mollisols, which are found on landforms that formed during the late Pleistocene to Holocene or even earlier (Soil Survey Staff 1999:555–557). Additionally, the Newark series soils are classified as Inceptisols, which are found on landforms that formed during the late Pleistocene or Holocene time periods (Soil Survey Staff 1999:489–493). These series may have deeply buried and intact archaeological deposits, depending upon the landform on which they formed (e.g., sideslope vs. alluvial terrace). Any portions of the project area that were mapped with Dunning or Newark series typically reached the water table, impenetrable gravel from nearby disturbance, or culturally sterile subsoil. As a result, only one bucket auger was excavated.

A typical soil profile within the project area would vary depending on its location. For example, within the residential yards and grassy lots of the northern half, a typical soil profile would consist of two zones. Zone I was a dark yellowish brown (10YR 4/4) silty clay loam that extended 0–25 cm bgs at its deepest points. Below that was Zone II, a yellowish brown (10YR 5/6) clay loam that extended 25–35 cm bgs. Shovel tests were terminated when CRA personnel were confident they had excavated 10 cm into culturally sterile subsoil (Zone II). Soils encountered within the northern

half of the project area were most similar to the Caneyville, Nicholson, and Sadler soils.

Within agricultural fields or fields with significant secondary growth closer to the central and southernmost portions of the project area, a typical soil profile would consist of two zones. Zone I was a dark grayish brown (10YR 4/2) silt loam that extended 0–15 cm bgs. In some areas, Zone I was more of a dark yellowish brown (10YR 4/4) silt loam. Below that was Zone II, a light brownish gray (2.5Y 6/2) silty clay loam with common strong brown (7.5YR 4/6) iron or manganese concretions and staining that extended 15–30 cm bgs. In some areas, Zone I extended 0–40 cm bgs and Zone II extended 40–50 cm bgs. Zone II is consistent with hydric soil; as a result, CRA personnel terminated shovel tests once Zone II was reached. Hydric soil is soil that formed under conditions of saturation, flooding, or ponding long enough to develop anaerobic conditions (Soil Survey Staff 2021). Thus, it is reasonable to conclude that CRA personnel had reached culturally sterile subsoil when they excavated into Zone II of these shovel tests. These soils were most similar to the Dunning or Newark soils. Their shallow depth is most likely due to disturbance from previous road construction or agricultural activities.

Other portions of the project area within the southern half that were located within grassy lots adjacent to commercial developments had deeper soil profiles and more evidence of disturbance from commercial development. A typical profile consisted of three zones. Zone I was a dark brown (10YR 3/3) silty clay loam that extended 0–15 cm bgs. Below that was Zone II, a reddish brown (5YR 4/4) clay loam that extended 15–25 cm bgs. Below that was Zone III, a light olive brown (2.5Y 5/3) silty clay loam with strong brown (7.5YR 4/6) manganese or iron concretions and staining that extended 25–40 cm bgs. The strong brown iron or manganese concretions increased with depth within the matrix of Zone III. CRA personnel terminated shovel tests once they encountered the water table or were confident they had reached culturally sterile subsoil (Zone III). Some shovel tests in grassy lots closer to the southern end of the project area were

terminated at the bottom of Zone II due to impassible gravel being present. It was determined that the gravel was disturbance from the development of KY 1007. These soils are not similar to any of the soils mapped within the project area. It is most likely that these areas had been deeply disturbed by mechanical grading during the development of KY 1007 and commercial buildings. Zone III was somewhat similar to the deeper horizons of the Dunning and Newark soils.

One small area within a grassy lot adjacent to a commercial development had deeper soils than discussed in the previous paragraph. Shovel tests showed a soil profile that consisted of two zones. Zone I was a brown (10YR 4/3) silt loam that extended 0–35 cm bgs. Below that was a dark brown (10YR 3/2) silt loam that extended 35–65 cm bgs. CRA personnel were not confident they had reached subsoil in this area with shovel tests; as a result, a bucket auger was excavated at the bottom of a shovel test. This bucket auger revealed three more zones. Zone III was a dark grayish brown (10YR 4/2) clay loam with few yellowish brown (10YR 5/6) striations that extended 65–85 cm bgs. Below that was Zone IV, a dark grayish brown (10YR 4/2) silty clay with yellowish brown (10YR 5/6) mottles that extended 85–100 cm bgs. The final zone was Zone V, a light olive brown (2.5Y 5/4) clay with olive yellow mottles (2.5Y 6/6) that extended 100–120 cm bgs. The bucket auger was terminated at 120 cm bgs once CRA personnel encountered the water table. CRA personnel were confident, however, that Zones III, IV, and V were culturally sterile subsoil. Since this area was within 50 m of a paved lot to the north and shovel tests exhibited a soil profile similar to the profile discussed in the previous paragraph to the south, no additional augers were excavated. This methodology is consistent with *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports* (Sanders 2017:22). Vertrees and Dunning soils were mapped for the area; however, the soils were more similar to the Dunning series.

A small area within the south central portion of the project area had a typical soil

profile that consisted of three zones. Zone I was a yellowish brown (10YR 5/4) silt loam that extended 0–30 cm bgs. Below that was Zone II, a light gray (10YR 7/2) silt that was lightly mottled with yellowish brown (10YR 5/4) and yellowish brown (10YR 5/6) silt and extended 30–50 cm bgs. Below that was Zone III, which consisted of brownish yellow (10YR 6/6) mottled with yellowish brown (10YR 5/6) silty clay loam that extended 50–65 cm bgs. CRA personnel terminated shovel tests once they were confident they had reached culturally sterile subsoil (Zone III). The area where this soil profile was present was mapped with Newark soils; however, these profiles are not similar to a typical Newark profile. They are most similar to the Nicholson or Sadler soils.

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

Prior to initiating fieldwork, a search of records maintained by the NRHP and at the OSA (FY21-11305) was conducted to: 1) determine if the project area had been previously surveyed for archaeological resources; 2) identify any previously recorded archaeological sites that were situated within the project area; 3) provide information concerning what archaeological resources could be expected within the project area; and 4) provide a context for any archaeological resources recovered within the project area. A search of the NRHP records indicated that no archaeological sites listed in the NRHP were situated within the current project area or within a 2 km radius of the project area (United States Department of the Interior, National Park Service 2021).

Previous Archaeological Investigations

Julia K.C. Gruhot

In total, 16 previous professional archaeological surveys and archaeological site investigations have been conducted within a 2.0 km radius of the project area (Table 1). In addition, 25 archaeological sites have been recorded in this area (Table 2). A review of OSA records revealed that 15 previous professional archaeological surveys and site investigations have been documented with their office in this area. Research revealed one additional survey completed within the 2 km area has not yet been entered in the OSA GIS (Sanders and Maynard 1979). The records returned from the OSA database may include discrepancies; these discrepancies are typically identified and documented during research visits to the OSA library.

One of the previous surveys falls within the boundaries of the current project area (Schenian 1987). Previously surveyed portions of the project area investigated prior to 2001 employed methodologies that do not meet the current State Historic Preservation Office (the Kentucky Heritage Council [KHC]) standards and guidelines; therefore, during the current investigation these areas were revisited and surveyed using presently accepted methodologies. The 2 km radius included areas within the Kelly and Hopkinsville quadrangles (United States Geological Survey [USGS] 1956 [photorevised 1982], 1993).

In June 1987, Pamela A. Schenian, a staff archaeologist for the Archaeology Service Center at Murray State University in Murray, Kentucky, conducted a Phase I archaeological survey of a proposed drainage improvement project area near Hopkinsville, Christian County, Kentucky. This survey was conducted at the request of Ms. Allene White Gold, Manager of Community Development, Hopkinsville, Kentucky. The total combined area of all lines was 5.47 ha (13.51 acres), which were subjected to pedestrian survey supplemented with trowel-sorted shovel testing.

Table 1. Previous Archaeological Surveys and Site Investigations within 2 km of the Project Area.

Reference	Requested By	Requested On Behalf Of	Purpose	Survey Date	Survey Size	Methods	Results	Recommendations	NRHP Eligibility
Allen 1979	Howard K. Bell Consulting Engineers, Inc.	-	Two proposed wastewater treatment facilities in Christian County, Kentucky	July 26 and September 15, 1979	24.28 ha (60.00 acres)	Screened shovel testing, test unit excavation	4 sites (15Ch320–15Ch323)	No Further Work	None Eligible
Bacon-Schulte 2010	Pennyroyal Housing Alternatives, Inc.	Kentucky Housing Corporation	Proposed construction of the Pennyroyal Regional Veterans Program Center in Christian County, Kentucky	June 21, 2010	1.2 ha (3.0 acres)	Screened shovel testing	No Sites Identified	No Further Work	N/A
Barrett 2010	Affordable Housing of Hopkinsville, Inc	The Drury Brothers	Proposed construction of 34 one-bedroom units located in Hopkinsville in Christian County, Kentucky	January 2010	1.7 ha (4.3 acres)	Pedestrian survey, shovel testing	No Sites Identified	No Further Work	N/A
Foster 2013	Element Design	City of Hopkinsville	Proposed park improvements at Virginia Park and Walnut Street Center Park in Hopkinsville, Christian County, Kentucky	January 29 and February 2–3, 2013	0.6 ha (1.6 acres)	Pedestrian survey, screened shovel testing	2 sites (15Ch686 and 15Ch687)	No Further Work	None Eligible
Foster 2015	Arnon Environmental & Geoscience, LLC	-	Proposed construction of storm drainage facilities in Hopkinsville, Christian County, Kentucky	October 20, 2015	0.17 ha (0.43 acre)	Screened shovel testing	No Sites Identified	No Further Work	N/A
Sanders and Maynard 1979	KHC	-	Identify, document, and inventory prehistoric archaeological sites in Christian County, Kentucky	May–June 1977	Area of unspecified size	Pedestrian survey, informant interviews	230 sites (15Ch49–15Ch278), 7 previously recorded sites (15Ch1, 15Ch4, 15Ch17, 15Ch20, 15Ch314, 15Ch315, and 15Ch319)	Not Specified	Not Specified
Schenian 1987	Hopkinsville-Christian County Planning Commission	-	Proposed drainage improvement project area in Hopkinsville, Christian County, Kentucky	June 11 and 15, 1987	5.47 ha (13.51 acres)	Pedestrian survey, shovel testing	1 site (15Ch481)	No Further Work	Not Eligible
Schenian 1988	Hopkinsville-Christian County Planning Commission	Mr. Dennis J. Courtney, Manager of Community Development, Hopkinsville, Kentucky.	Proposed Cox Mill Road drainage improvement project area outside of Hopkinsville, Christian County, Kentucky	May 12, 1988	1.4 ha (3.5 acres)	Pedestrian survey, shovel testing.	No Sites Identified	No Further Work	N/A

Reference	Requested By	Requested On Behalf Of	Purpose	Survey Date	Survey Size	Methods	Results	Recommendations	NRHP Eligibility
Schlarb and Winter 2007	Commonwealth of Kentucky, Department of Military Affairs, Boone National Guard Center, Frankfort, Kentucky	-	Survey of National Guard Armories in 39 counties in Kentucky	2007	Area of unspecified size	Pedestrian survey, screened shovel tests	5 sites (15Ne93, 15M1453, 15Jf712, 15B1116, 15Lo228)	No Further Work	None Eligible
Schock 1986	Pennyrile Area Development District, Inc.	-	Proposed Tomberlin Industries project in Christian County, Kentucky	August 1986	2.1 ha (5.1 acres)	Pedestrian survey	No Sites Identified	No Further Work	N/A
Schock 2000	The Phillips Companies	-	Proposed apartments in Christian County, Kentucky	August 8 and 11, 2000	3.0 ha (7.5 acres)	Pedestrian survey, shovel testing	No Sites Identified	No Further Work	N/A
Smith 1993a	Hopkinsville/Christian County Planning Commission	-	Proposed community center in Christian County, Kentucky	July 18, 1993	1,787 sq m (19,235 sq ft)	Pedestrian survey, shovel testing	No Sites Identified	No Further Work	N/A
Smith 1993b	H.K. Bell Consulting Engineers, Inc.	-	Proposed water treatment plant expansion in Christian County, Kentucky	March 11, 1993	2 ha (5 acres)	Pedestrian survey, shovel testing	No Sites Identified	No Further Work	N/A
Smith 1993c	Hopkinsville/Christian County Planning Commission	-	Proposed construction of the Waddell Retention Basin in Christian County, Kentucky	July 18, 1993	1.0 ha (2.5 acres)	Pedestrian survey, shovel testing	No Sites Identified	No Further Work	N/A
Stafford 1980	Howard K. Bell Consulting Engineers, Inc.	-	Proposed wastewater pipeline corridors in Christian County, Kentucky	Indeterminate Prehistoric	Area of Unspecified Size	Pedestrian survey, systematic shovel testing	14 sites (15Ch358–15Ch371)	15Ch358–15Ch362, 15Ch368, 15Ch370, 15Ch371: No further work 15Ch363–15Ch366: One 1-x-2 m test pit 15Ch367: Four 1-x-2 m test pits 15Ch369: Avoidance	Not Specified
Versluis 1998	Hopkinsville/Christian County Planning Commission	-	Proposed housing subdivision in Hopkinsville, Christian County, Kentucky	December 15, 1998	5.8 ha (14.3 acres)	Pedestrian survey, screened shovel testing	No Sites Identified	No Further Work	N/A

Table 2. Previously Recorded Archaeological Sites within 2 km of the Project Area.

Site	Site Name	References	Site Type	Cultural Affiliation	Surveyed By	Survey Company	Survey Date	Investigation Type	NRHP Status
15Ch51	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	Tom Sanders, David Maynard	KHC	May 12, 1977	Reconnaissance	Not Assessed
15Ch52	-	Sanders and Maynard 1979	Open habitation w/o mounds	Early Woodland Late Archaic	Tom Sanders, David Maynard	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch97	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	David Maynard	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch98	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	David Maynard	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch99	-	Sanders and Maynard 1979	Open habitation w/o mounds	Early Archaic	David Maynard	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch100	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	David Maynard	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch101	-	Sanders and Maynard 1979	Open habitation w/o mounds	Archaic Woodland	David Maynard	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch102	-	Sanders and Maynard 1979	Open habitation w/o mounds	Archaic Woodland	Tom Sanders	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch103	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	Tom Sanders	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch104	-	Sanders and Maynard 1979	Open habitation w/o mounds	Archaic	Tom Sanders	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch106	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	Tom Sanders, David Maynard	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch107	-	Sanders and Maynard 1979	Open habitation w/o mounds	Archaic	Tom Sanders, David Maynard	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch108	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	Tom Sanders, David Maynard	KHC	May 12, 1977	Reconnaissance	Not Assessed
15Ch109	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	Tom Sanders, David Maynard	KHC	May 12, 1977	Reconnaissance	Not Assessed
15Ch110	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	Tom Sanders	KHC	May 11, 1977	Reconnaissance	Not Assessed
15Ch111	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	Tom Sanders	KHC	May 12, 1977	Reconnaissance	Not Assessed
15Ch112	-	Sanders and Maynard 1979	Open habitation w/o mounds	Indeterminate Prehistoric	David Maynard	KHC	May 12, 1977	Reconnaissance	Not Assessed
15Ch113	-	Sanders and Maynard 1979	Open habitation w/o mounds	Archaic	David Maynard	KHC	May 12, 1977	Reconnaissance	Not Assessed
15Ch114	-	Sanders and Maynard 1979	Open habitation w/o mounds	Paleoindian	Tom Sanders, David Maynard	KHC	May 12, 1977	Reconnaissance	Not Assessed
15Ch321	-	Allen 1979	Open habitation w/o mounds	Indeterminate Prehistoric	Not Specified	UK	July 26, 1979, and September 15, 1979	Intensive	Not Eligible
15Ch358	-	Stafford 1980	Historic farm/residence Open habitation w/o mounds	Indeterminate Prehistoric Indeterminate Historic	Stafford and Driskell	UK	September 17, 1980	Reconnaissance	Not Assessed
15Ch359	-	Stafford 1980	Prehistoric isolated find	Indeterminate Prehistoric	Stafford and Driskell	UK	April 17, 1980	Reconnaissance	Not Assessed
15Ch481	-	Schenian 1987	Open habitation w/o mounds	Indeterminate Prehistoric	P. Schenian	Murray State University	June 11, 1987	Reconnaissance	Not Assessed
15Ch686	-	Foster 2013	Historic farm/residence	1801–1950	A. Lee Foster	Pennyrile Archaeological Services, LLC	February 2 and 3, 2013	Reconnaissance	Not Eligible
15Ch687	-	Foster 2013	Historic farm/residence	1801–1950	A. Lee Foster	Pennyrile Archaeological Services, LLC	January 29, 2013	Reconnaissance	Not Eligible

The investigation yielded the identification of one site (15Ch481). This site is within the 2 km radius of the current project area. Site 15Ch481 was a small lithic scatter of indeterminate temporal-cultural affiliation in the secondary impact zone. No archaeological materials or deposits were found in the primary impact zone, so no additional archaeological work was recommended for this site (Schenian 1987).

Archaeological Site Data

OSA records show that prior to this survey, 673 archaeological sites had been recorded in Christian County (Table 3). The majority of these (n = 479; 71.17 percent) are prehistoric open habitations without mounds. Other types of sites that are common in Christian County are historic farms or residences (n = 51; 7.58 percent), rockshelter (n = 38; 5.65 percent), undetermined (n = 26; 3.86 percent), cemeteries (n = 16; 2.38 percent), earth mounds (n = 13; 1.93 percent), caves (n = 12; 1.78 percent), and open habitation sites with mounds (n = 10; 1.49 percent). Less common site types include quarries (n = 5; 0.74 percent), other (n = 5; 0.74 percent), isolated finds (n = 4; 0.59 percent), stone mounds (n = 4; 0.59 percent), petroglyphs or pictographs (n = 3; 0.45 percent), other special activity areas (n = 2; 0.30 percent), workshops (n = 2; 0.30 percent), industrial (n = 1; 0.15 percent), isolated burial (n = 1; 0.15 percent), and a mound complex (n = 1; 0.15 percent).

The landform locations of sites in Christian County were examined to determine the likelihood of encountering sites on similar landforms within the project area. The majority of sites in Christian County are located on undissected uplands (n = 269; 39.97 percent). Other landforms include dissected uplands (n = 170; 25.26 percent), hillsides (n = 104; 15.45 percent), floodplains (n = 77; 11.44 percent), terraces (n = 47; 6.98 percent), other (n = 3; 0.45 percent), and unspecified (n = 3; 0.45 percent). The open habitation site without mounds was the most abundant site type on dissected uplands (n = 109; 16.20 percent), floodplains (n = 69; 10.25 percent), hillsides (n = 68; 10.10 percent), terraces (n = 30; 4.46 percent), and undissected uplands (n = 201;

29.87 percent). On the landforms specified as other or unspecified, site types included cemetery (n = 1; 0.15 percent), open habitation site without mounds (n = 2; 0.30 percent), quarry (n = 1; 0.15 percent), and undetermined (n = 1; 0.15 percent).

Temporal periods represented in Green County are predominately Indeterminate Prehistoric (n = 401; 44.46 percent), followed by Archaic (n = 158; 17.52 percent), Historic (n = 119; 13.19 percent), Woodland (n = 83; 9.20 percent), Late Prehistoric (n = 51; 5.65 percent), Unspecified (n = 51; 5.65 percent), and Paleoindian (n = 39; 4.32 percent).

Table 3. Summary of Selected Information for Previously Recorded Sites in Christian County. Data Obtained from OSA and May Contain Coding Errors.

Site Type	N	%
cave	12	1.78
cemetery	16	2.38
earth mound	13	1.93
historic farm / residence	51	7.58
industrial	1	0.15
isolated burials	1	0.15
isolated find	4	0.59
mound complex	1	0.15
open habitation w/ mounds	10	1.49
open habitation w/o mounds	479	71.17
other special activity area	2	0.30
petroglyph / pictograph	3	0.45
quarry	5	0.74
rockshelter	38	5.65
stone mound	4	0.59
workshop	2	0.30
other	5	0.74
undetermined	26	3.86
Total	673	100.00
Time Periods Represented	N	%
Paleoindian	39	4.32
Archaic	158	17.52
Woodland	83	9.20
Late Prehistoric	51	5.65
Indeterminate Prehistoric	401	44.46
Historic	119	13.19
Unspecified	51	5.65
Total	902*	100.00
Landform	N	%
Dissected Uplands	170	25.26
Floodplain	77	11.44
Hillside	104	15.45
Terrace	47	6.98
Undissected Uplands	269	39.97
Other	3	0.45
Unspecified	3	0.45
Total	673	100.00

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

Map Data

In addition to the file search, a review of available maps at the private collection at CRA was initiated to help identify any historic structures that may have been located within the project area. The following maps were reviewed.

1878 Map of Christian County, Kentucky (Beers and Lanagan)

1937 Christian County, Kentucky (Kentucky Department of Highways [KDOH])

1950 General Highway Map of Christian County, Kentucky (Kentucky State Highway Department)

1951 Hopkinsville, Kentucky, 7.5-minute series topographic quadrangle (USGS)

1952 Kelly, Kentucky, 7.5-minute series topographic quadrangle (USGS)

1957 General Highway Map of Christian County, Kentucky (KDOH)

No mapped structures were identified within or adjacent to the project area on these maps.

Survey Predictions

Considering the known distribution of sites in Christian County, the available information on site types recorded, and the nature of the current project area, certain predictions were possible regarding the kinds of sites that might be encountered within the project area. Based on the data for previously known sites, prehistoric open habitation without mounds was the primary site type anticipated for this investigation.

IV. FIELD METHODS

The boundaries of the current project area were determined in the field by a Samsung Galaxy S10e using ArcGIS Collector software coupled with a Trimble R1 GPS unit.

All 4.44 ha were subjected to intensive pedestrian survey at a 20 m interval supplemented with shovel testing. In disturbed areas where pavement or gravel was not

present, disturbance was confirmed with shovel testing. Shovel tests were excavated every 20 m; they measured not less than 35 cm in diameter and extended well into the subsoil. In areas where archaeological materials were recovered (IF 1–IF 3), shovel test intervals were reduced to 10 m. One bucket auger was excavated in an area where culturally sterile subsoil could not be reached with shovel testing to determine the likelihood of deeply buried archaeological deposits. All other areas with mapped Mollisols or Inceptisols were not investigated with bucket augers due to CRA encountering the water table, hydric soil, impassible gravel, or culturally sterile subsoil. All fill removed from the tests was screened through 0.25-inch mesh hardware cloth, and the sidewalls and bottoms were examined for cultural materials and features.

V. RESULTS

During the course of the current survey, three isolated finds were documented (IF 1–IF 3). Additional shovel tests placed around these isolated finds did not yield any additional archaeological materials.

IF 1

KYSP-Single NAD83: N4082179.04,
E456206.00

Elevation: 169 m AMSL

Distance to nearest water: 442 m

Direction to nearest water: West

Type and extent of previous disturbance:
Mechanical grading and road construction

Topography: Upland

Vegetation: Grasses

Ground surface visibility: Less than 10 percent

Aspect: Level

Description: Two flakes that weighed approximately 5.2 g were recovered from the topsoil sediments of a single shovel test. Both flakes were made of Ste. Genevieve chert and were both middle stage reduction flakes. Four

shovel tests were excavated at 10 m intervals northeast and southwest of the immediate vicinity of the find, but no additional cultural material was encountered (see Figure 3c). Two shovel tests were placed northeast of IF 1 and two were placed southwest. Any additional shovel tests northwest and southeast of IF 1 would have been outside of the current project area. The small sample size and lack of variety suggest a short-term occupation or specialized use of this area; however, any meaningful interpretation of this assemblage is not possible at this time.

IF 2

KYSP-Single **NAD83:** N4081937.00,
E456043.56

Elevation: 165 m AMSL

Distance to nearest water: 316 m

Direction to nearest water: West

Type and extent of previous disturbance:
Mechanical grading and road construction

Topography: Upland

Vegetation: Grasses

Ground surface visibility: Less than 10 percent

Aspect: Level

Description: One flake that weighed approximately 6.6 g was recovered from the topsoil sediments of a single shovel test. The flake was made of Ste. Genevieve chert and was at middle stage reduction. Three shovel tests were excavated at 10 m intervals northeast and southwest of the immediate vicinity of the find, but no additional cultural material was encountered (see Figure 3d). Two shovel tests were excavated northeast of IF 2. Only one shovel test was excavated 20 m southwest of IF 2; 10 m southwest of IF 2 was an underground gas pipeline and therefore a shovel test was not excavated here. Any additional shovel tests northwest and southeast of IF 2 would have been outside of the current project area. The small sample size and lack of variety suggest a short-term occupation or specialized use of this area; however, any meaningful interpretation of this assemblage is not possible at this time.

IF 3

KYSP-Single **NAD83:** N4081335.83,
E455798.35

Elevation: 159 m AMSL

Distance to nearest water: 81 m

Direction to nearest water: West

Type and extent of previous disturbance:
Mechanical grading and road construction

Topography: Upland

Vegetation: Grasses, agricultural crops

Ground surface visibility: Less than 10 percent

Aspect: Level to gently sloped

Description: One flake that weighed approximately 5.1 g was recovered from the topsoil sediments of a single shovel test. The flake was made of Ste. Genevieve chert and was at middle stage reduction. Four shovel tests were excavated at 10 m intervals north and south of the immediate vicinity of the find, but no additional cultural material was encountered (see Figures 3d and 3e). Two shovel tests were excavated north of IF 3 and two were excavated south. Any additional shovel tests west and east of IF 3 would have been outside of the current project area. The small sample size and lack of variety suggest a short-term occupation or specialized use of this area; however, any meaningful interpretation of this assemblage is not possible at this time.

VI. CONCLUSIONS AND RECOMMENDATIONS

Note that a principal investigator or field archaeologist cannot grant clearance to a project. Although the decision to grant or withhold clearance is based, at least in part, on the recommendations made by the field investigator, clearance may be obtained only through an administrative decision made by the lead federal agency in consultation with the KHC.

A review of OSA records revealed that 16 previous archaeological surveys were conducted within a 2 km radius of the project area. Additionally, 25 previously recorded archaeological sites were recorded in this area. One of the previous surveys intersected with the current project area (Schenian 1987); however, none of the previously recorded sites intersected with or were inside of the current project area. Any portions of the current project area that were previously investigated by this survey were re-investigated in the current study.

The field investigation consisted of intensive pedestrian survey supplemented by screened shovel testing. One bucket auger was excavated in a small area where culturally sterile subsoil could not be reached with shovel testing. GSV was consistently below 10 percent throughout the project area.

Three isolated finds were recorded (IF 1–IF 3); however, no archaeological sites were recorded as a result of the survey. No archaeological sites listed in, or eligible for listing in, the NRHP will be affected by the proposed ROW and temporary easement areas. Therefore, archaeological resource clearance is recommended.

If any previously unrecorded archaeological materials are encountered, the KHC should be notified immediately at (502) 564-7005. If human skeletal material is discovered, construction activities should cease, and the KYTC, the local coroner, and the local law enforcement agency must be notified, as described in KRS 72.020.

REFERENCES CITED

- Allen, Roger C.
1979 *A Cultural Resource Management Assessment of Two Proposed Waste Water Treatment Facilities in Christian County, Kentucky*. Archaeological Report 20. Program of Archaeological Research, Department of Anthropology, University of Kentucky, Lexington.
- Bacon-Schulte, Weston
2010 *An Archaeological Survey of the Proposed Pennyroyal Regional Veterans Program Center in Hopkinsville, Christian County, Kentucky*. Contract Publication Series IN10-19. Cultural Resource Analysts, Inc., Evansville, Indiana.
- Barrett, Jared
2010 Phase I Archaeological Survey for the Proposed 34 One-Bedroom Unit Project on the Drury Brothers Property in Hopkinsville, Christian County, Kentucky. TRC, Nashville, Tennessee. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- Beers, D.G and J. Lanagan.
1878 *Map of Christian County, Kentucky*. D.G. Beers & Co., Philadelphia.
- Birkeland, Peter W.
1984 *Soils and Geomorphology*. Oxford University Press, New York.
- Foster, A. Lee
2013 Intensive Archaeological Survey of Virginia Park and a Portion of Walnut Street Center Park Proposed for Park Improvements, Hopkinsville, Christian County, Kentucky. Pennyrile Archaeological Services, LLC, Cadiz, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- 2015 Phase I Archaeological Survey of Two Locations Proposed for Construction of Storm Drainage Facilities in Hopkinsville, Christian County, Kentucky. Pennyrile Archaeological Services, LLC, Cadiz, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- Froedge, Ronald D.
1980 *Soil Survey of Christian County, Kentucky*. United States Department of Agriculture, Soil Conservation Service, in cooperation with the Kentucky

- Agricultural Experiment Station.
Washington, DC.
- Kentucky Department of Highways
1937 Christian County, Kentucky. Kentucky Department of Highways in Cooperation with the United States Department of Agriculture, Bureau of Public Roads, Frankfort.
- 1957 General Highway Map of Christian County, Kentucky. Kentucky Department of Highways in Cooperation with the United States Department of Agriculture, Bureau of Public Roads, Frankfort.
- Kentucky State Highway Department
1950 General Highway Map of Christian County, Kentucky. Kentucky State Highway Department State-Wide Highway Planning Survey in Cooperation with the United States Department of Commerce, Bureau of Public Roads, Frankfort.
- Sanders, Thomas N. (editor)
2017 *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports*. Edition 2.5, minor revisions. Kentucky State Historic Preservation Office, Kentucky Heritage Council, Frankfort.
- Sanders, Thomas N., and David R. Maynard
1979 A Reconnaissance and Evaluation of Archaeological Sites in Christian County, Kentucky. Kentucky Heritage Council, Frankfort, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- Schenian, Pamela A.
1987 An Archaeological Reconnaissance of the Westwood/Boxwood Drainage Improvement Project in Hopkinsville, Christian County, Kentucky. Archaeology Service Center, Murray State University, Murray, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- 1988 An Archaeological Reconnaissance of the Cox Mill Road Drainage Improvements Project Area near Hopkinsville, Christian County, Kentucky. Archaeology Service Center Murray State University, Murray, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- Schlarb, Eric J., and Susanne Winter
2007 *An Archaeological Assessment of National Guard Armories in the State of Kentucky*. KAS Report No. 103. Kentucky Archaeological Survey, Lexington.
- Schock, Jack M.
1986 A Cultural Reconnaissance of 5.1 Acres for the Proposed Tomberlin Industries Plant North of Hopkinsville in Christian County, Kentucky. Arrow Enterprises, Bowling Green, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- 2000 A Cultural Reconnaissance of 7.5 Acres for the Proposed Mason Pointe Apartments at Hopkinsville in Christian County, Kentucky. Arrow Enterprises, Bowling Green, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- Smith, Harold E.
1993a A Phase I Archaeological Survey for a Proposed Community Center within the City of Hopkinsville, Christian County, Kentucky. Vaughan Engineering, Inc., Madisonville, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- 1993b A Phase I Archaeological Survey of a Proposed Water Treatment Plant Extension Area in the City of Hopkinsville, Christian County, Kentucky. Vaughan Engineering, Inc., Madisonville, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.

- 1993c A Phase I Archaeological Survey of the Waddell Village Retention Basin Site within the City of Hopkinsville, Christian County, Kentucky. Vaughan Engineering, Inc., Madisonville, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.
- Soil Survey Staff
 1999 *Soil Taxonomy, A Basic System of Soil Classification for Making and Interpreting Soil Surveys*. 2nd ed. Agricultural Handbook No. 436. US Department of Agriculture, Natural Resources Conservation Service, Soil Survey Division, Washington, DC.
- 2021 Natural Resources Conservation Service. United States Department of Agriculture, available online at <http://websoilsurvey.sc.egov.usda.gov/App?HomePage.html>, accessed June 29, 2021.
- Stafford, C. Russell
 2004 Modeling Soil-Geomorphic Associations and Archaic Stratigraphic Sequences in the Lower Ohio River Valley. *Journal of Archaeological Science* 31:1,053–1,067.
- Stafford, Malinda
 1980 An Archaeological Survey and Assessment of the Proposed Trunklines for the Waste Water Treatment Facilities in and in the Vicinity of Hopkinsville, Christian County, Kentucky. Archaeological Report 41. University of Kentucky, Department of Anthropology, Lexington.
- United States Department of the Interior, National Park Service
 2021 National Register of Historic Places Database and Research. Electronic document, <https://www.nps.gov/subjects/nationalregister/database-research.htm>, accessed June 29, 2021.
- United States Geological Survey
 1951 Hopkinsville, Kentucky, 7.5-minute series topographic quadrangle. United States Department of the Interior, Washington, DC.
- 1952 Kelly, Kentucky, 7.5-minute series topographic quadrangle. United States Department of the Interior, Washington, DC.
- 1956 (Photorevised 1982) Hopkinsville, Kentucky, 7.5-minute series topographic quadrangle. United States Department of the Interior, Washington, DC.
- 1993 Kelly, Kentucky, 7.5-minute series topographic quadrangle. United States Department of the Interior, Washington, DC.
- Versluis, Vincent A.
 1998 A Phase I Archaeological Reconnaissance of a 14.3 Acre Tract for a Proposed Housing Subdivision in Hopkinsville, Christian County, Kentucky. Great Rivers Archaeological Services, Lexington, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.