Contract Publication Series 15-269

AN ARCHAEOLOGICAL SURVEY FOR THE PROPOSED WIDENING AND REALIGNMENT OF KY 864 IN JEFFERSON COUNTY, KENTUCKY (ITEM NO. 5-481.00)

by
Richard L. Herndon, RPA

Prepared for

KENTUCKY TRANSPORTATION CABINET

Prepared by

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ABSTRACT

On August 5 and September 2, 2015, Cultural Resource Analysts, Inc., personnel completed an archaeological survey for the proposed widening and realignment of KY 864 in Jefferson County, Kentucky (Item Number 5-481.00). The survey was conducted at the request of David Waldner of the Kentucky Transportation Cabinet. The project area extends from Mile Point 1.818 to Mile Point 3.455 between I-265 and Cedar Creek Road. Both the east and west sides of the existing road will be widened; however, the realignment will occur in an open area toward the southern end of the project area. Total project area was approximately 14.6 ha (36.0 acres). The purpose of the project is to improve access, safety, and mobility that would alleviate increasing traffic demands.

No previously recorded sites were identified within the project area as part of the pre-field records review. Field methods consisted of pedestrian survey and screened shovel testing. The project area, which was entirely surveyed, consisted primarily of terraformed residential lots with manicured lawns. Some properties had non-residential uses, however, including two that have churches and several others that are currently open areas with tall grass or wooded. No archaeological sites were identified as a result of the survey. No archaeological sites listed in or eligible for the National Register of Historic Places will be affected by the proposed construction activities. Therefore, archaeological clearance is recommended.

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I. INTRODUCTION

On August 5 and September 2, 2015, Cultural Resource Analysts, Inc. (CRA), personnel completed an archaeological survey for the proposed widening and realignment of KY 864 in Jefferson County, Kentucky (Figure 1). The project was assigned Item Number 5-481.00. The survey was conducted at the request of David Waldner of the Kentucky Transportation Cabinet (KYTC). The fieldwork was completed by Karen Taylor, Will Goodman, and Richard L. Herndon in 38 work hours. Field methods were pedestrian survey supplemented with systematic screened shovel testing. Office of State Archaeology (OSA) Geographic Information Systems (GIS) data requested by CRA on July 2, 2015, was returned on July 8, 2015. The results were researched by Heather Barras of CRA at the OSA on July 16, 2015. The OSA project registration number is FY16_8517.

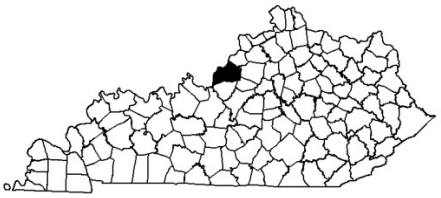

Figure 1. Map of Kentucky showing the location of Jefferson County.

Project Description

The project area on KY 864 extends from Mile Point 1.818 to Mile Point 3.455 between I-265 and Cedar Creek Road (Figures 2 and 3). In addition to Cedar Creek, this section of KY 684 also includes Beulah Church Road and Cooper Chapel Road. At the northern end, both the east and west sides of Beulah Church Road will be widened; however, the realignment will occur in an open area toward the southern end of the project area. The realignment will straighten an L-shaped bend that currently exists along Cooper Chapel Road. At the extreme southern terminus, the intersection of Cooper Chapel Road and Cedar Creek Road will be widened where the realignment rejoins these existing roads. Total project area was approximately 14.6 ha (36.0 acres). The purpose of the project is to improve access, safety, and mobility that would alleviate increasing traffic demands.

Purpose of 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.

The purpose of this assessment was to locate, describe, evaluate, and make appropriate recommendations for the future treatment of any historic properties or sites that may be affected by the project. For the purposes of this assessment, a site was defined as "any location where human behavior has resulted in the deposition of artifacts, or other evidence of purposive behavior at least 50 years of age" (Sanders 2006:2). Cultural deposits less than 50 years of age were not considered sites in accordance with *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (National Park Service 1983).

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

Summary of Findings

Prior to conducting the field research, a records review was conducted at the OSA. The review indicated that no archaeological sites had been documented within the project area. The review also showed that a very small portion of the project footprint had been previously surveyed (Curran 2011).

No archaeological sites were recorded during this survey. No archaeological sites listed in or eligible for listing in the National Register of Historic Places (NRHP) will be affected by the proposed construction, and archaeological clearance is recommended.

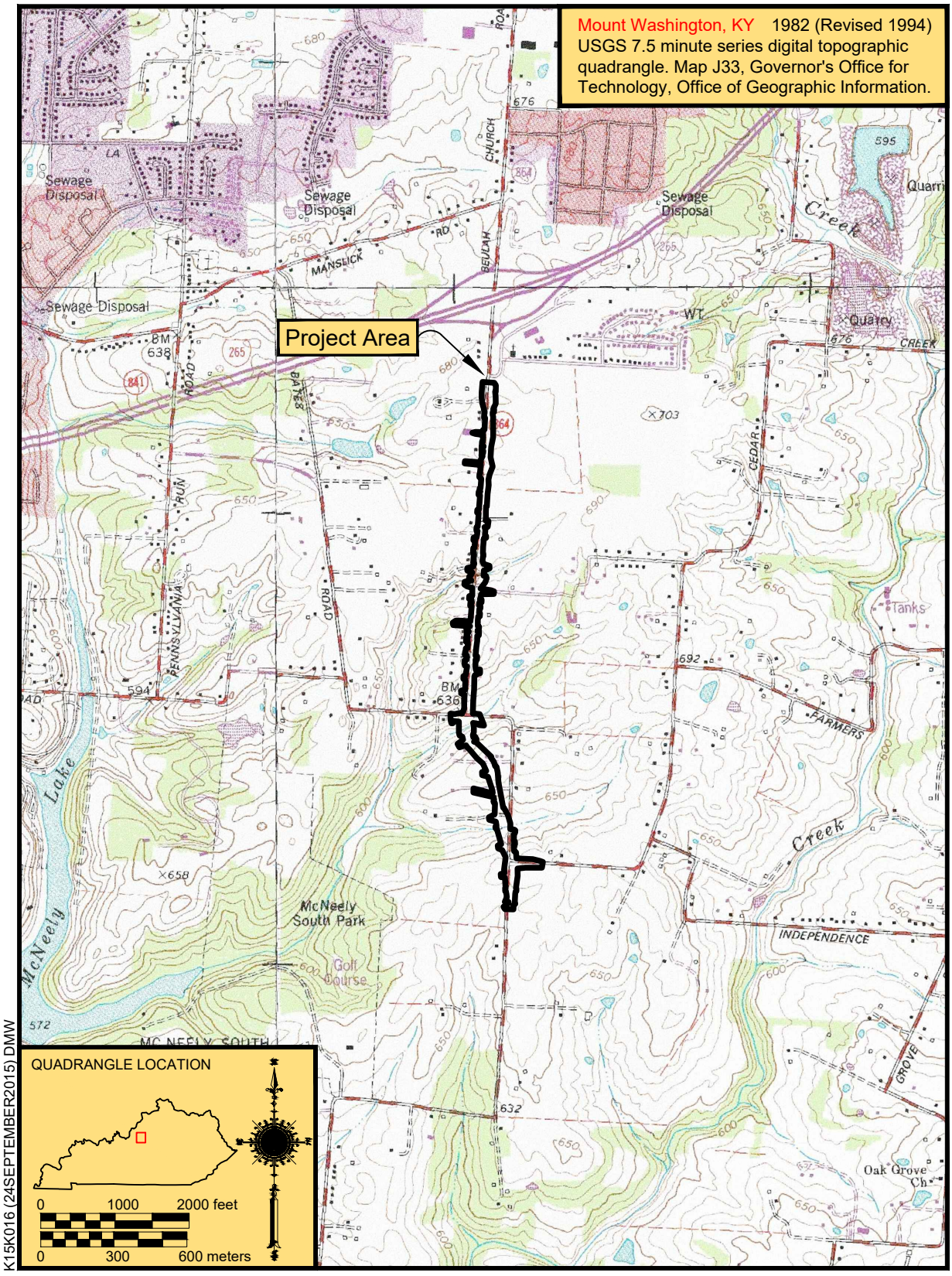

Figure 2. Project area on topographic quadrangle.

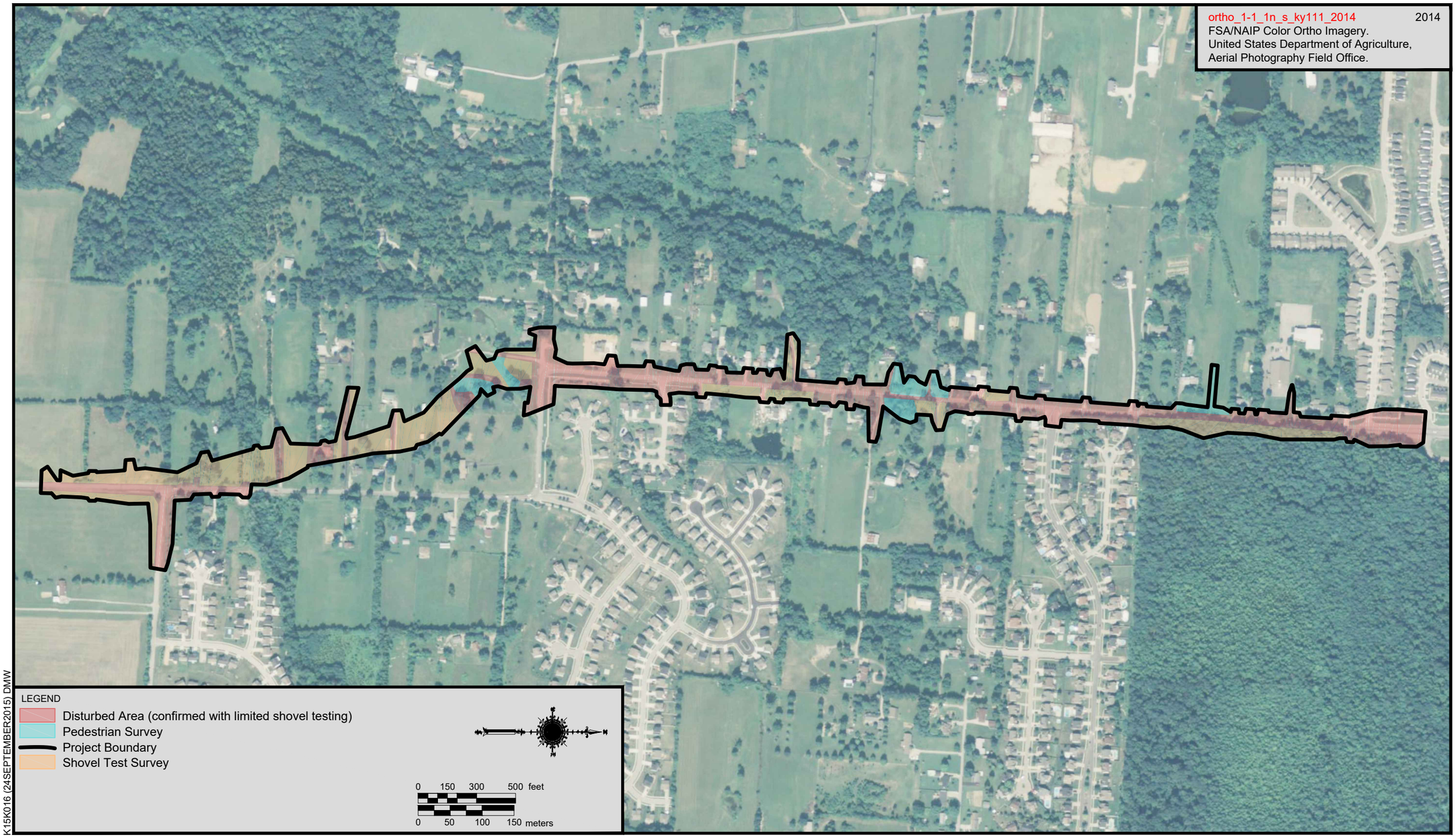

Figure 3. Project area plan map.

II. DESCRIPTION OF THE PROJECT AREA

Within the project area elevations ranged from 190 to 207 m (620 to 680 ft) above mean sea level (AMSL). No major drainages are present, but several very small unnamed, intermittent streams crossed the project area. The northern end of the proposed corridor is anchored approximately .33 km (.21 mi) south of the intersection of Beulah Church Road and I-265 near Rocky Road (see Figures 2 and 3). The southern end is located adjacent to Cedar Creek Road. Altogether, the project footprint is approximately 3,643 m (11,954 linear ft) in length, or 14.6 ha in area. As noted previously, the proposed project consists of road widening and realignment.

Road widening is being recommended for the northern two-thirds of the project area on the east and west sides of Beulah Church Road. New right-of-way (ROW) generally ranged between 4 and 12 m (15 and 40 ft) along this portion of the road, except for a series of proposed bump-outs mainly along existing driveways. Most properties located here were disturbed by modern residential and neighborhood construction (Figure 4), terraformed lawns, and various utilities (Figure 5). Some areas were undisturbed including a few residential parcels where the houses were located well away from the road and a stretch of woods along the east side of Beulah Church Road at the northern end of the project area. The woods and lawns had no ground surface visibility.

Heading south from the intersection of Beulah Church Road and Cooper Chapel Road the proposed realignment occurs. This portion of the project area ranges from 40 to 50 m (131 to 164 ft) in width and is mostly located away from existing roads, modern homes, and recently constructed residential subdivisions. Instead, pastures with tall grass (Figure 6) and large-sized lawns (Figures 7 and 8) characterize this area. The entire realigned portion of the project area had no ground surface visibility. At the southern of the corridor, the proposed realignment rejoins KY 864 near its intersection with Cedar Creek Road. It is in this area that another modern subdivision is located in addition to open pasture areas (Figure 9). This latter area had no ground surface visibility due to the presence of grass.

Seven soil series have been defined in the project area. They consist of Caneyville, Crider, Elk, Lawrence, Newark, Nicholson, and Urban. The Urban soils are highly disturbed from modern development and are not discussed further. The other soil series are classified by the amount of time it has taken them to form and the landscape position they are found on (Birkeland 1984; Soil Survey Staff 1999). This information can provide a relative age of the soils and can express the potential for buried archaeological deposits within them (Stafford 2004). The soil order and group classifications for each soil series are used to assist with determining this potential.

Crider series soils consist of deep, well-drained typic Paleudalfs on wide, nearly level ridges; on short, strongly sloping sideslopes; and in sinks. The surface layer and the upper part of the subsoil formed primarily in loess of Sangamon age or older, and the lower part of the subsoil formed primarily in residuum derived from high-grade limestone. The slopes range from 2 to 20 percent. Crider soils are typically silt loam sediments that have a brown (10YR 4/3) Ap horizon with an average depth of 23 cm (9 in) below ground surface (bgs) and are underlain by brown (7.5YR 4/4) silt loam subsoil (Soil Survey Staff 1999).

The Caneyville series (Typic Hapludalfs) consists of well drained and moderately deep soils located on hillsides, ridgetops, and shoulder slopes. These soils were formed from clayey alluvium that originated from limestone, and slopes range from 2 to 40 percent. Caneyville soils are typically silt loam soils that have a brown (10YR 4/3) Ap horizon with an average depth of 13 cm (5 in) bgs and are underlain by a yellowish red (5YR 5/6) silty clay loam subsoil (Soil Survey Staff 1999). In some parts of the survey area, rock outcrops were included with Caneyville soils to form a soil complex.

Figure 4. Overview of modern subdivision on east side of Beulah Church Road near its intersection with Cooper Chapel Road, facing north.

Figure 5. Disturbed areas from utilities along Beulah Church Road, facing north.

Figure 6. Pasture area located on the west side of the Cedar Creek Road intersection, facing west.

Figure 7. Lawn area located at the Faith Separate Baptist Church south of the intersection of Beulah Church Road and Cedar Creek Road, facing north.

Figure 8. Additional open areas or lawns located in the proposed realigned portion of the project area, facing south.

Figure 9. Intersection of Cooper Chapel Road and Cedar Creek Road, facing west. Note the modern subdivision to the right and the open pasture to the left.

A typical Elk Series pedon generally consists of an Ap horizon (i.e., plow zone) of a dark grayish brown (10YR 4/2) silt loam (weak fine and medium granular structure) to a depth of approximately 20 cm (8 in) bgs. The plow zone is underlain by an AB horizon of a brown (10YR 4/3) silt loam (weak fine and medium sub-angular blocky structure) to a depth of 30 cm (12 in) bgs. This horizon is then underlain by a series of three clay-rich Bt horizons. These horizons, generally ranging from a dark yellowish brown (10YR 4/6) to a yellowish brown (10YR 5/4), have a higher clay content than the overlying horizons. The clay content increases with depth, expressed by both clay amount and soil structure, to approximately 132 cm (52 in) bgs. These lower horizons also contain increasing evidence for redoximorphic conditions (i.e., redox features), as evident by Fe/Mn concretions and Fe masses. At a depth of 132 cm, the parent material appears to change, reflecting more influences from the underlying, fragmented bedrock and gravel deposits.

Lawrence series soils (Aquic Fragiudalfs) consist of very deep, somewhat poorly drained soils formed on stream terraces and upland ridges from Late Pleistocene silty alluvium. A typical profile for Lawrence soils in Jefferson County is a brown (10YR 4/3) silt loam Ap horizon from 0 to 25 cm (0 to 10 in) with Fe depletions and oxidized Fe masses throughout over a light olive brown (2.5Y 5/3) silt loam BE horizon extending to 40 cm (16 in) with Fe depletions and masses and Fe/Mn concretions. This is underlain by brown (7.5YR 4/4) silt loam Bt horizons to a depth of 68 cm (27 in) with redoximorphic features, such as Fe depletions, oxidized Fe masses, and Fe/Mn concretions. A Btx (fragipan) horizon of brown (7.5YR 4/4) silt loam with Fe/Mn concretions and masses forms a lithologic discontinuity. Below this, the remainder of the profile consists of a yellowish brown (10YR 5/6) silty clay loam 2Bt horizon underlain by a light olive brown (2.5Y 5/3) silty clay 2BC horizon and a light olive brown (2.5Y 5/3) silty clay 2C horizon extending to a depth of 163 cm (65 in). Strong redoximorphic features, such as oxidized Fe masses and Fe/Mn concretions, are present in these horizons (Soil Survey Staff 1999).

Newark series (Fluventic Endoaquepts) soils consist of very deep, somewhat poorly drained soils formed in mixed alluvium. The soil is on nearly level floodplains and in depressions. These soils are widely scattered throughout creek and river valleys and developed in Late Pleistocene or younger deposits. Those soils along small creeks formed in sediment that washed mostly from soils of limestone origin, and those in the Ohio Valley formed in mixed sediment that washed from the upper part of the Ohio River basin. These soils typically have a brown (10YR 4/3) silt loam Ap horizon from 0 to 23 cm (0 to 9 in) bgs over a brown (10YR 5/3) silt loam Bw-horizon from 23 to 38 cm (9 to 15 in) bgs that has many fine and medium faint light brownish gray (10YR 6/2) iron depletions. Commonly, the sediments are gleyed below 38 cm in these soils as a result of a high water table (Soil Survey Staff 1999).

Nicholson series soils consist of very deep, moderately well-drained mesic Oxyaquic Fragiudalfs on ridges, summits, and sideslopes. The surface layer is a thin, fine-silty loess over clayey residuum weathered from limestone and dolomite of the Silurian and Ordovician Systems. The slopes range from 0 to 12 percent. Nicholson soils are typically silt loam sediments that have a dark yellowish brown (10YR 4/4) Ap horizon with an average depth of 23 cm (9 in) below ground surface (bgs) and are underlain by brown (7.5YR 4/4) silt loam subsoil (Soil Survey Staff 1999).

Sediments observed in shovel probes through the project area generally conform to the descriptions given above. Probes revealed dark yellowish brown (10YR 3/4) silty clay loam plow zone that extended to approximately 20 cm (8 in) below ground surface (bgs). Below the plow zone, a strong brown (7.5YR 4/6) silty clay with many fine iron/manganese concretions was present to at least 35 cm (14 in) bgs. The southern third of the project area, however, had a much thinner

plow zone, suggesting that this area is heavily deflated from erosional activities. There are no locations within the project area with the potential for buried deposits.

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

This section of the report covers the previous research that has been conducted in and immediately adjacent to the project area through local, state, and federal records review. These reviews include previously recorded archaeological sites and professional investigations. This section also summarizes a review of historic maps of the project area, which are often used to help guide the identification of possible archaeological sites before the start of fieldwork. Lastly, all these data are used to develop a series of survey predictions.

Previous Research in Jefferson County

Prior to initiating fieldwork, a search of records maintained by the NRHP (available online at: http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome) and the OSA (FY16_8517) 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. The OSA file search was conducted between July 7 and 16, 2015. The work at OSA consisted of a review of professional survey reports and records of archaeological sites for an area encompassing a 2 km radius of the project footprint. To further characterize the archaeological resources in the general area, the OSA archaeological site database for the county was reviewed and synthesized. The review of professional survey reports and archaeological site data in the county provided basic information on the types of archaeological resources that were likely to occur within the project area and the landforms that were most likely to contain these resources. The results are discussed below.

OSA records revealed that 12 previous professional archaeological surveys and 1 NRHP evaluation have been conducted within a 2 km radius of the project area. Eleven archaeological sites have been recorded in this area also. None of these sites fall within the actual project area.

The records search revealed that 5 of the 11 sites in the file search area (15Jf540, 15Jf669, 15Jf670, 15Jf789, and 15Jf792) were historic farm/residences. Two of the sites were recorded as rockshelters (15Jf200 and 15Jf671) and 1 site was recorded as a cave (15Jf201). One site was a combination rockshelter and cave (15Jf537). The remaining 2 sites were recorded as prehistoric open habitations without mounds (15Jf788 and 15Jf790). The 2 km radius included areas within the Mount Washington quadrangle.

In addition, the Louisville Metro Historic Landmarks and Preservation Districts Commission was consulted on August 4, 2015. Historic Preservation Officer Cynthia Johnson concluded that no identified historic or archeological sites were in the area of potential effect (APE) based on their mapping information.

Previous Archaeological Investigations

Beginning in the fall of 1968 and continuing intermittently through the winter of 1971, the Louisville Archaeological Society

conducted an archaeological excavation of the Durrett Site (15Jf201), a cave in Jefferson County, Kentucky. Field methods consisted of a .9 m by 2.4 m (3 ft by 8 ft) test pit and 1.5 m by 1.5 m (5 ft by 5 ft) test units. One fire hearth, two rock features, and one large ochre feature were identified. A full analysis of the cultural materials and overall site analysis was not provided (Louisville Archaeological Society 1972).

In December 1975, the University of Louisville, Archaeological Survey (ULAS) completed an archaeological survey of proposed freeway construction in Jefferson County, Kentucky (Granger and DiBlasi 1975). The project was performed at the request of the KYTC. During this project, a corridor measuring approximately 46.7 km (29.0 mi) in length was investigated by pedestrian survey supplemented with shovel testing and test pits. As a result of the study, 38 previously unrecorded sites were identified, but none were located within the 2 km radius of the project area.

In October of 1984, KYTC personnel conducted an archaeological survey of a corridor 716 m (2,350 ft) in length and 27 m (90 ft) in width for the proposed connection of Pennsylvania Run Road with Bates Lane in Jefferson County, Kentucky (McGraw 1985). The field methods consisted of a pedestrian survey and shovel testing. No sites were recorded and no further work was recommended.

During October and November of 1984, ULAS personnel conducted an archaeological survey of two proposed Metropolitan Parks Department development areas at McNeely Lake Park in Jefferson County, Kentucky (Granger 1985). The survey was conducted at the request of the Metropolitan Parks Department. Field methods included surface inspection, shovel testing, auger tests, backhoe trenching, and 1 m by 1 m test units. One previously documented site (15Jf200) and one previously undocumented site (15Jf537) were identified during the survey. Site 15Jf537 was not located within the 2 km radius of the current project area.

Site 15Jf200 is a prehistoric rockshelter with Late Archaic, Middle Woodland, and Late Woodland occupations. The site was discovered in 1963 and excavations were originally performed by the Louisville Archaeological Society until 1965, when they ceased work and began excavations at the Durrett Site (15Jf201). In 1968, when the University of Louisville established the Archaeological Survey program, excavations continued sporadically at Site 15Jf200 for two field seasons until vandalism of units dictated a halt to the project in 1970. The 1984 ULAS survey examined the interior and exterior ground surfaces for fill areas, rock detritus, vandalism, erosion, and other observable modifications. Based on these investigations, careful excavation of the remaining deposits and stabilization of the site, opening it to public inspection and education, was recommended. The same recommendations were made for Site 15Jf201, although the 1984 ULAS survey did not investigate it since it was outside of the project area. Nomination to the NRHP was recommended (Granger 1985).

On May 13, 1991, Cultural Horizons, Inc., personnel conducted an archaeological survey of a .4 ha (1.0 acre) borrow site in Jefferson County, Kentucky (Stallings and Ross-Stallings 1991). The survey was conducted at the request of Matsuda Bridge Company, Inc., and survey methods consisted of pedestrian survey supplemented with shovel testing. No archaeological sites were documented during the survey and no further work was recommended.

On August 23, 1993, CRA personnel conducted an archaeological survey for a proposed plant and discharge location in Jefferson County, Kentucky (Kerr 1993). At the request of GRW Engineers, Inc., on behalf of the Louisville and Jefferson County Metropolitan Sewer District, 12 ha (30 acres) were investigated via pedestrian survey and shovel testing. No sites were recorded and no further work was recommended.

During June, July, and August of 1998, personnel for Joseph E. Granger Consultant conducted an archaeological survey of a

proposed residential development in anticipation of the proposed relocation of the City of Minor Lane Heights due to increased noise level at the Louisville International Airport in Jefferson County, Kentucky (Bader et al. 1998). At the request of Ted Stone for the Corradino Group, 116 ha (287 acres) were investigated with pedestrian survey supplemented with shovel testing. Three archaeological sites were identified during the survey (15Jf669–15Jf671).

Site 15Jf669, the "Tobbe Farm Site", consisted of a historic scatter associated with an extant residential and farm complex. The main house and associated structures all date to the mid-twentieth century. The site was not considered eligible for NRHP inclusion and no further work was recommended on the site (Bader et al. 1998).

Site 15Jf670, the "Miles Farm Site", consists of a residence, tenant house, and five associated outbuildings including a barn and a recently constructed equipment shed. The site dates to the twentieth century and was not considered eligible for NRHP inclusion. No further work was recommended (Bader et al. 1998).

Site 15Jf671, the "Miles Rockshelter", has an indeterminate prehistoric temporal affiliation with an undefined historic component (Bader et al. 1998). It was recommended for further investigation due to the potential for subsurface deposits and concern for potential looting of artifacts. The site is potentially eligible for NRHP inclusion.

On October 8, 1999, Great Rivers Archaeological Services personnel conducted an archaeological survey at the request of ATC Associates, Inc., for a proposed cellular tower and access road in Jefferson County, Kentucky (Versluis 1999). An area of unspecified size was investigated with a pedestrian survey supplemented with shovel testing. No archaeological sites were identified and no further work was recommended.

During June and July of 2000, Joseph E. Granger Consultant personnel conducted an archaeological investigation for the proposed expansion of the Cedar Creek Wastewater Treatment Plant in Jefferson County, Kentucky (Bader et al. 2000). At the request of Ed Biskis of the Corradino Group, approximately 4.8 ha (12.0 acres) were surveyed via pedestrian survey supplemented with shovel testing. No sites were recorded and no further work was recommended.

On March 30, 2001, AMEC Earth and Environmental, Inc., personnel conducted an archaeological survey for two proposed group homes for young men recovering from debilitating brain injuries on Shobe Lane in Jefferson County, Kentucky (Rohe et al. 2001). At the request of John Yunt on behalf of Christian Church Homes of Kentucky, Inc., .76 ha (1.87 acres) were investigated via pedestrian survey supplemented with screened shovel testing. No sites were recorded and no further work was recommended.

Between July 5 and July 14, 2011, CRA personnel conducted an archaeological survey for the proposed Cooper Chapel III extension in Jefferson County, Kentucky (Curran 2011). At the request of Gerry Fister of Third Rock Consultants, LLC, on behalf of the KYTC (Item No. 5-404.00), 26.3 ha (64.9 acres) were surveyed. Field methods consisted of pedestrian survey supplemented with screened shovel testing. Five sites were encountered during the survey (15Jf788–15Jf792), four of which are located within the 2 km radius of the current project (15Jf788–15Jf790 and 15Jf792).

Site 15Jf788 is a prehistoric open habitation without mounds of indeterminate temporal affiliation. For the portion of this site located within the project area, no further work was recommended. It was not eligible for NRHP inclusion (Curran 2011).

Sites 15Jf789 and 15Jf792 are historic farm/residences. Site 15Jf789 dates from the early nineteenth to the early twentieth centuries. The site consisted of historic cultural material and a chimney base or building foundation feature. Based on archival information and the possibility for intact features, it was recommended for further work. NRHP status was not assessed. Site 15Jf792 dates from the

nineteenth to mid-twentieth centuries. The portion of the site contained within the project area was disturbed and not eligible for inclusion on the NRHP. No further work was recommended (Curran 2011).

Site 15Jf790 is a historic artifact scatter dating from the nineteenth to early twentieth centuries. The portion of this site within the project area consisted of poor depositional integrity and low artifact density. It was not considered eligible for NRHP inclusion and no further work was recommended (Curran 2011).

Between August 30 and September 10, 2012, Corn Island Archaeology, LLC, personnel conducted an archaeological survey of a proposed connector road and associated multi-use trails in Jefferson County, Kentucky (Schatz et al. 2013). The survey was conducted at the request of Jonathan D. Henney of Gresham, Smith and Partners on behalf of Louisville Metro Parks. The project area totaled 9.1 ha (22.5 acres) and was investigated with a pedestrian survey supplemented with screened shovel testing. One archaeological site (15Jf821) was documented during the survey. This site is not located within the 2 km radius of the current project.

On February 20, 2014, Corn Island Archaeology, LLC, conducted an archaeological survey of proposed minor revisions to a planned connector road alignment and an excess material fill area in Jefferson County, Kentucky (Schatz 2014). The survey was undertaken at the request of Gresham, Smith and Partners, on behalf of Louisville Metro Parks, and covered 2.31 ha (5.72 acres). Field methods consisted of pedestrian survey and screened shovel testing. No sites were recorded and no further work was recommended.

Site 15Jf540, the "John Bates House and Property," did not have an associated report, but the site form found in the OSA records indicated it was a historic farm/residence dating from 1801 to 1950. The site was recorded in December 1984 by the Kentucky Department of Transportation (KYDOT)/State Historic Preservation Office (SHPO) as a rare example of an early nineteenth century log house and farm. The investigation was intensive and the site is listed as an NRHP property.

Archaeological Site Data

The OSA records show that prior to this survey, 722 archaeological sites had been recorded in Jefferson County (Table 1). The site data indicate that the majority of archaeological sites recorded in Jefferson County consist of open habitations without mounds (n = 533; 73.82 percent) and historic farms/residences (n = 104; 14.4 percent). Other site types in the county include caves (n = 2; .28 percent), cemeteries (n = 17; 2.35 percent), earth mounds (n = 2; .28 percent), industrial (n = 9; 1.25 percent), isolated finds (n = 2; .28 percent), mound complex (n = 1; .14 percent), open habitation sites with mounds (n = 2; .28 percent), other (n = 13; 1.8 percent), other special activity areas (n = 2; .28 percent), quarry (n = 1; .14 percent), rockshelters (n = 4; .55 percent), undetermined (n = 21; 2.91 percent), and workshops (n = 9; 1.25 percent). Open habitations without mounds and historic farms/residences are the only site types that occur in numbers equaling more than 3 percent of the total number of sites for Jefferson County.

Temporal periods recorded for sites in Jefferson County consisted of Paleoindian (n = 5; .53 percent), Archaic (n = 177; 18.81 percent), Woodland (n = 114; 12.11 percent), Late Prehistoric (n = 59; 6.27 percent), and Historic (n = 186; 19.77 percent). The remaining components were classified as Indeterminate/Unspecified Prehistoric (n = 400; 42.51 percent).

The majority of recorded sites in Jefferson County are located on floodplains (n = 375; 51.94 percent), followed by terraces (n = 105; 14.54 percent), dissected uplands (n = 98; 13.57 percent), undissected uplands (n = 46; 6.37 percent), and hillsides (n = 42; 5.82 percent). The remaining sites (n = 56; 7.76 percent) are located on unspecified/other landforms.

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

Site Type:	N	%
Cave	2	0.28
Cemetery	17	2.35
Earth Mound	2	0.28
Historic Farm/Residence	104	14.4
Industrial	9	1.25
Isolated Find	2	0.28
Mound Complex	1	0.14
Open Habitation with Mounds	2	0.28
Open Habitation without Mounds	533	73.82
Other	13	1.8
Other Special Activity Area	2	0.28
Quarry	1	0.14
Rockshelter	4	0.55
Undetermined	21	2.91
Workshop	9	1.25
Total	722	100
Time Periods Represented	**N**	**%**
Paleoindian	5	0.53
Archaic	177	18.81
Woodland	114	12.11
Late Prehistoric	59	6.27
Indeterminate Prehistoric	396	42.08
Historic	186	19.77
Unspecified	4	0.43
Total	941*	100
Landform	**N**	**%**
Dissected Uplands	98	13.57
Floodplain	375	51.94
Hillside	42	5.82
Other	1	0.14
Terrace	105	14.54
Undissected Uplands	46	6.37
Unspecified	55	7.62
Total	722	100

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

The current project area is situated on dissected upland and hillside landforms. Most of the sites found on dissected uplands are open habitations without mounds (n = 51; 52.04 percent) and historic farms/residences (n = 27; 27.55 percent). The majority of the sites found on hillsides are open habitations without mounds (n = 30; 71.43 percent) and historic farms/residences (n = 4; 9.52 percent).

Map Data

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

1858 Map of Jefferson County, Kentucky (Bergmann 1858);

1907 Louisville, Kentucky, 15-minute series topographic quadrangle (United States Geological Survey [USGS]);

1912 Topography of Jefferson County, Kentucky (USGS);

1931 Oil and Gas Map of Jefferson County, Kentucky (Kentucky Geological Survey);

1937 Highway and Transportation Map of Jefferson County, Kentucky (Kentucky Department of Highways);

1951a Louisville, Kentucky, 15-minute series topographic quadrangle (USGS);

1951b Brooks, Kentucky, 7.5-minute series topographic quadrangle (USGS);

1953 General Highway Map of Jefferson County, Kentucky (Kentucky State Highway Department).

None of the historic maps consulted showed structures located within the project area. An adjacent structure was noted on the 1907, 1912, and 1931 maps west of the project area on the south side of Cooper Chapel Road. That same structure shows up on the 1937 map with the addition of a school located just south of the project area near the Cooper Chapel Road and Cedar Creek Road intersection. The 1951a, 1951b, and 1953 maps depict both these structures with the addition of numerous other structures along Beulah Church Road. But again, all appear to be outside the project area.

Survey Predictions

Considering the known distribution of sites in the county, the available information on site types recorded, and the nature of the present project area, certain predictions were possible regarding the kinds of sites that might be encountered within the project area. Prehistoric open habitation sites without mounds and historic residences were the primary site type expected.

IV. FIELD METHODS

This section describes the methods used during the survey. Permission to enter the project area was given by the various

landowners before fieldwork started. Prior to the survey, CRA was provided with mapping of the project area from the client as well (see Figure 3). While in the field, the limits of the survey area were determined by using a global positioning system (GPS) unit with 1–3 m horizontal accuracy and the project map.

The entire project area was subjected to intensive pedestrian survey supplemented with systematic screened shovel testing. The former survey technique was conducted by walking parallel transects along natural contours. Dirt roads and all exposed areas were walked and visually examined for indications of cultural material and features.

Shovel testing at 20 m intervals was necessary in level areas with no ground surface visibility.

Each shovel test was no less than 35 cm in diameter and extended well into the subsoil. The fill from each shovel test was screened through .64 cm (.25 in) mesh hardware cloth. The walls and bottom of each shovel test were cleaned with a trowel to examine the stratigraphy and to note any evidence of historic or prehistoric activity. Soil profile data were observed and recorded.

STPs were excavated throughout the project area except in obviously disturbed areas such as heavily terraformed subdivisions. Limited shovel testing was used to confirm disturbance along the northern two-thirds of the project area in residential lawns. These areas also had numerous utility lines, driveways, and drainages. Pockets of intact soils were identified in this area for several properties, particularly in woods and residential lots where houses were located well away from the project area.

South of the Beulah Church Road and Cedar Creek Road intersection, the project area was almost entirely shovel tested except for several properties that had modern houses on them.

V. RESULTS AND CONCLUSIONS

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 SHPO (the Kentucky Heritage Council [KHC]).

The records search revealed no previously recorded archaeological sites or historic properties within the project area, and no archaeological sites or historic properties were identified as a result of this investigation. Because no sites listed in, or eligible for, the NRHP will be affected by the proposed construction, cultural resource clearance is recommended.

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

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