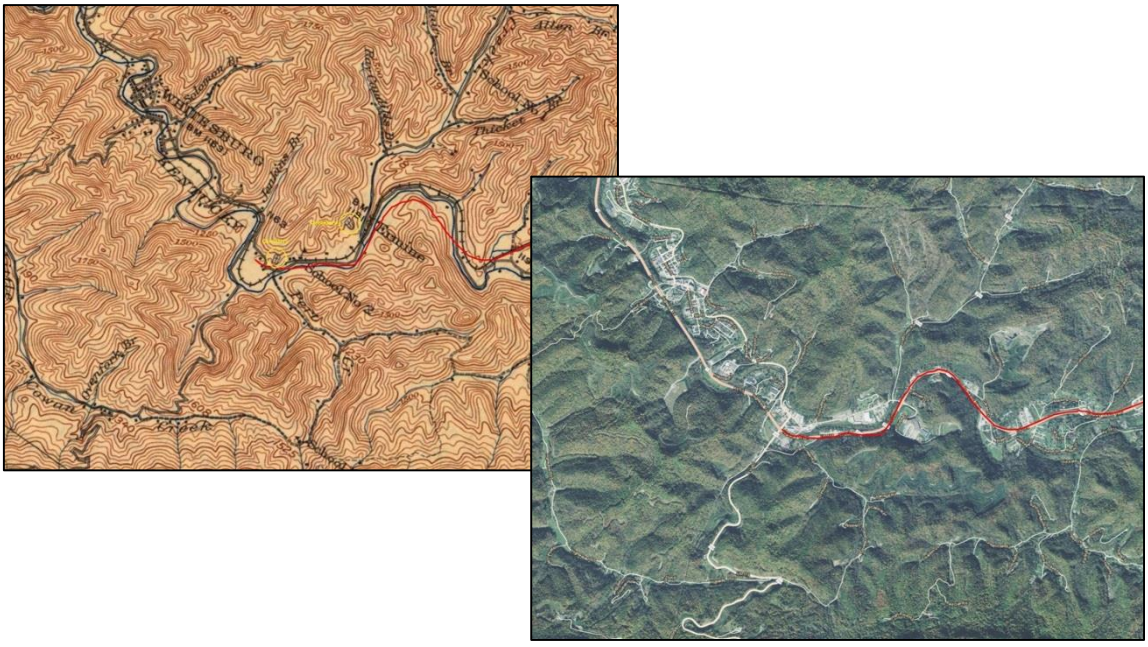
ARCHAEOLOGICAL OVERVIEW

OF THE US 119 IMPROVEMENT PROJECT, LETCHER COUNTY, KENTUCKY (ITEM NO 12-199)



September 21, 2015

Amec Foster Wheeler CRM Report 2015-028
Project No. 769700012

Submitted to:

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Archaeological Overview of US 119 Improvement Project, Letcher County, Kentucky (Item No. 12-199.00)

CRM Report No. 15-028
Project No. 769700012

By

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21 September 2015

ABSTRACT

Amec Foster Wheeler Environment & Infrastructure, Inc. prepared an archaeological overview of the proposed US 119 improvement project in Letcher County, Kentucky (Item Number 12-199). The route of the construction corridor extends approximately 10.9 miles between the US 23/US 119 intersection near Pound Gap on the east and Whitesburg on the west. Most of the route follows along the narrow floodplain of North Fork of the Kentucky River and is surrounded by high rugged mountains. The proposed project will include both widening of the existing highway and straightening of the route to increase safety conditions. Construction activities may adversely impact archaeological sites.

No previously documented prehistoric or historic archaeological sites are documented along the proposed construction corridor. However, most of the projected route has never been surveyed to identify archaeological sites. Given the region's rugged mountainous landscape, the narrow floodplains of Letcher County may have offered favorable settings for both prehistoric and historic settlement activities. Historic maps indicate a scatter of historic houses and farmsteads up and down the proposed project corridor. Amec Foster Wheeler recommends that a Phase I archaeological survey should be conducted on the proposed construction alternate to identify archaeological sites that may be adversely impacted by the project.

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1.0 INTRODUCTION

1.1 Project Overview

At the request of Palmer Engineering, Inc., Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) conducted background research and developed an archaeological overview for proposed improvements to US 119 in Letcher County, Kentucky (Item No. 12-199.00). The Kentucky Transportation Cabinet (KYTC) proposes to realign approximately 10.7 miles of US 119 between Whitesburg, the Letcher County Seat, and the small city of Jenkins, Kentucky. The purpose of the investigation was to identify previously recorded archaeological sites that could be impacted by the proposed road improvement, review prior archaeological surveys, and to provide a general a general assessment of the project area's potential to contain prehistoric and historic archaeological sites.

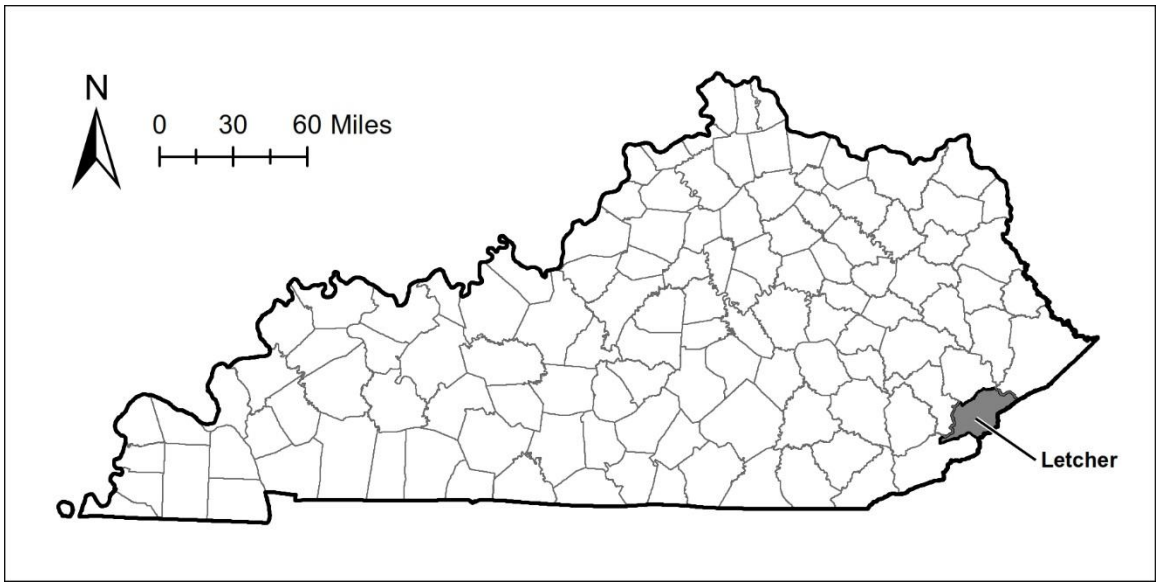

Figure 1. Map of Kentucky showing the location of the project area in Letcher County.

1.2 Area of Potential Effect

The project area is located in Letcher County, Kentucky (**Figure 1**). The area of potential effect (APE) for archaeological resources for the US 119 improvement project includes those areas that would be physically disturbed by construction activities. Ground disturbance including excavation, leveling, and filling could destroy archaeological sites or reduce the integrity of archaeological sites by displacing artifacts and disturbing archaeological deposits and features. Construction alternates for the project are in development by the KYTC project design team. The construction corridor would roughly follow the current US 119 roadbed between the junction of US 119 and US 23 on the east and Whitesburg, KY on the west (**Figures 2, 3,** and **4**). The construction design alternatives would largely be confined to the narrow valley of North Fork of the Kentucky River and the valley of Bottom Fork.


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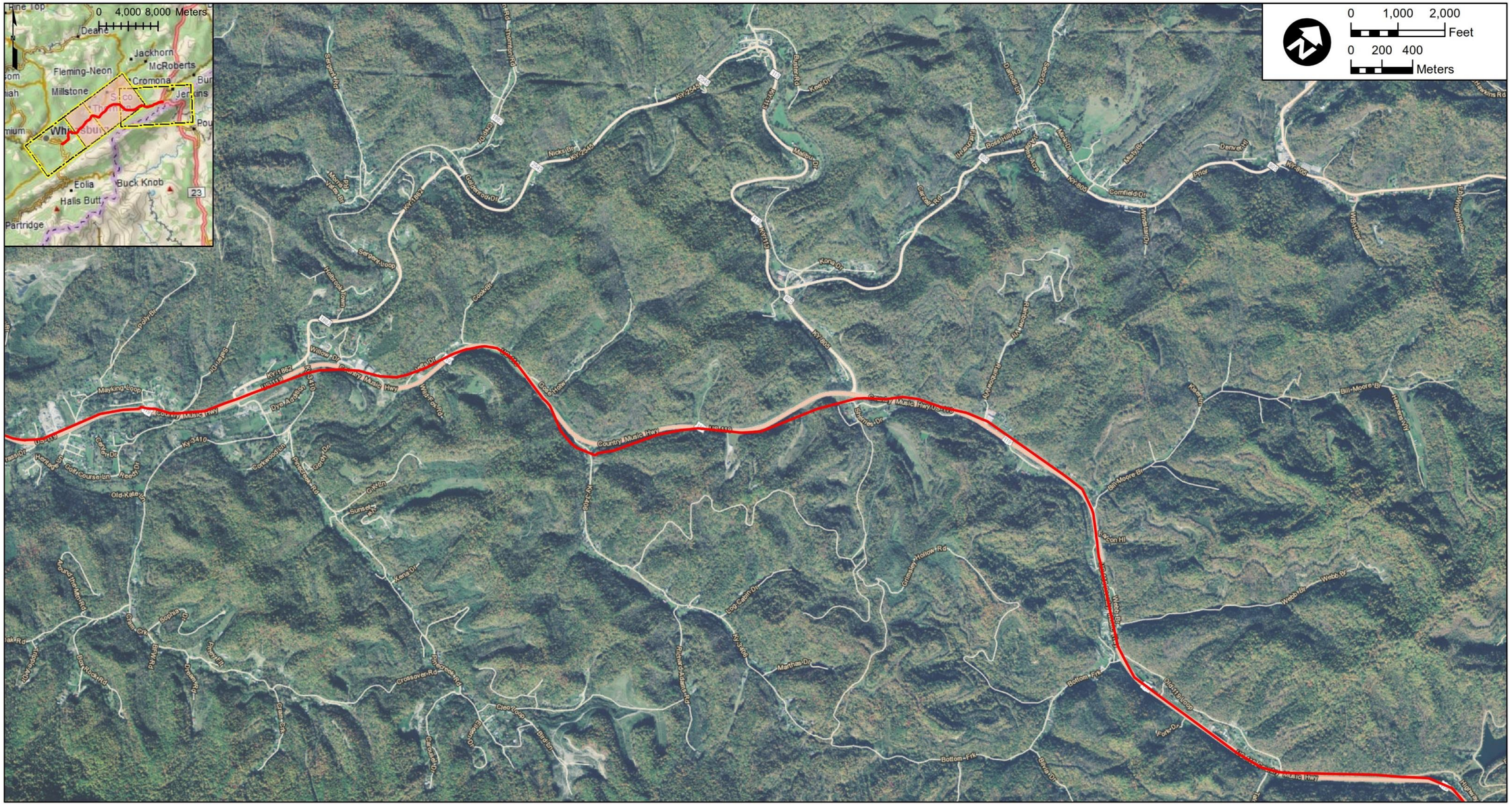

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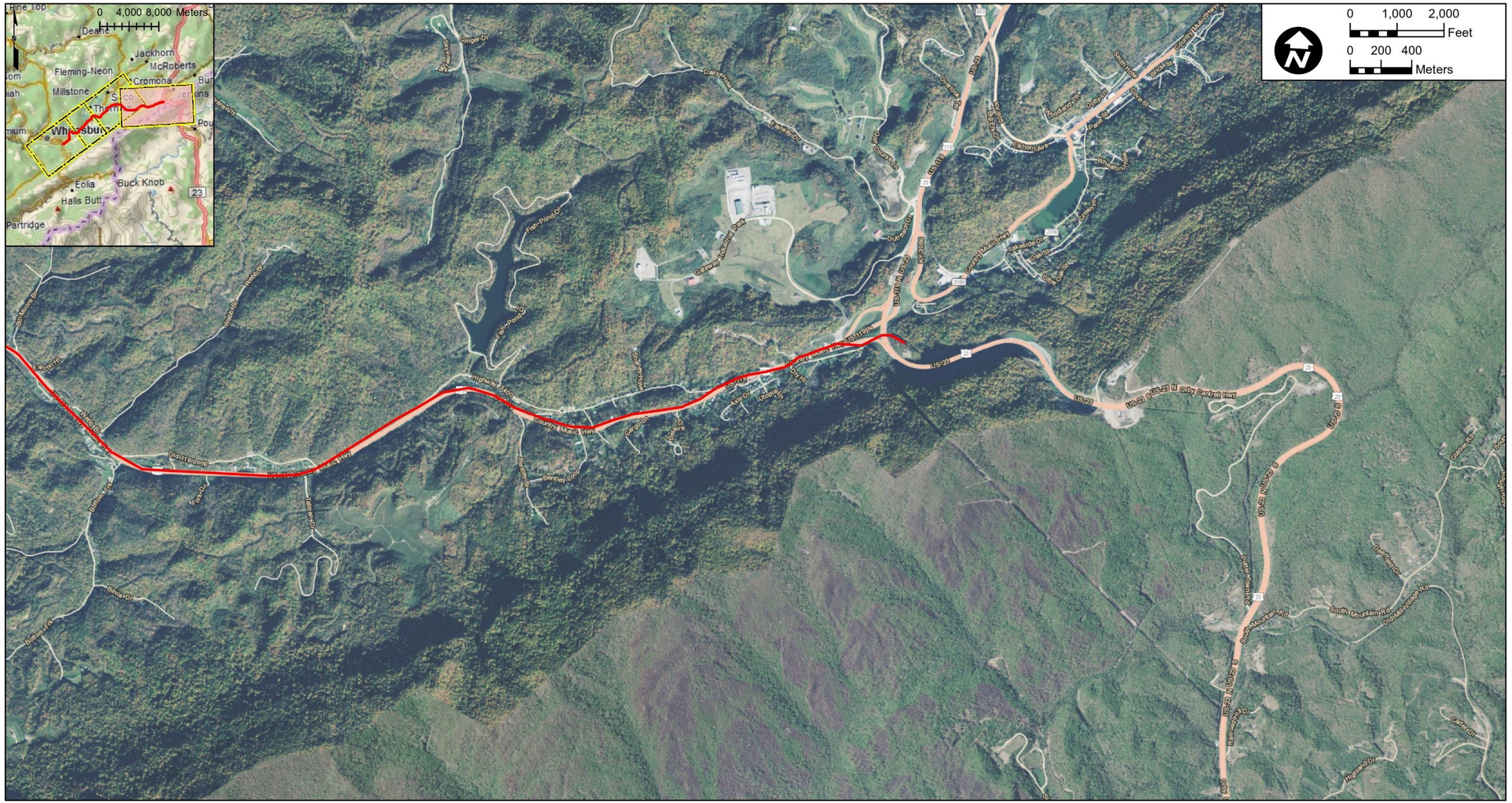
Imagery: USDA FSA (2014), DeLorme (2013)

Figure 3. Route of US 119 improvement corridor project area and current aerial imagery (central portion of project area).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Maple St
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Gateway Jackhammer Park
Bill Moore Dr
Webb Dr
Jacob Hill
Highway 3490
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Bailey Dr
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Jack Ave
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1.3 Research Methods and Study Area

The background research focused on identifying known archaeological resources within the study area and a 1.24-mile (mi) or 2-kilometer (km) buffer around the study area (**Figures 2, 3,** and **4**). Records on file with the Kentucky Office of State Archaeology (OSA) and digital data were examined to identify known archaeological sites and prior archaeological surveys of the project area. Historic maps of the project area were also reviewed to identify historic houses, cemeteries, and other historic structures indicative of potential archaeological sites.

This overview is not a substitute for a full archaeological investigation and does not provide information sufficient to meet the requirements of Section 106 of the National Historic Preservation Act (NHPA) of 1966 (36 CFR 400.4, as amended) or other Federal or State regulations. To meet these requirements a Phase I archaeological survey should be conducted by professional archaeologists. The Phase I archaeological survey must comply with the National Historic Preservation Act of 1966 (as amended), 16 U.S.C. 470 (f), and Presidential Executive Order 11593 as well as specifications for archaeological fieldwork and report preparation developed by the Kentucky Heritage Council (Sanders 1991, revised June 2001).

1.4 Letcher County Physiography, Streams and Soils

Letcher County is in the mountains of the Eastern Coal Fields physiographic region in southeast Kentucky. It is bordered by Virginia to the east, Pike County to the north, Harlan County to the south, and Perry and Knott Counties to the east. The mountainous terrain is extremely rugged throughout Letcher County and includes tall mountain peaks, steep slopes, and narrow hollows.

The elevation change from the valley floors to the mountain peaks is commonly 1,200 to 1,300 feet (McGrain and Currens 1978:47). Pine Mountain dominates the landscape of Letcher County and extends along the county's eastern half. Its peak reaches 3,273 feet in elevation making it the second highest peak in Kentucky. The tallest, Black Mountain, reaches an elevation 3,720 feet above mean sea level (AMSL) in Letcher County and 4,139 feet to the south in Harlan County (McGrain and Currens 1978).

The headwaters of several major waterways begin in Letcher County. Watersheds include Cumberland River to the south, Kentucky River in the middle, and Big Sandy on the northeast. The Kentucky River drains most of Letcher County. Much of the proposed US 119 project corridor extends along the narrow valley of the North Fork of the Kentucky River from south of Whitesburg to the river's headwater near the Junction of US 119 and US 25 between the community of Payne Gap and Jenkins (**Figures 2-4**). The Kentucky River flows westward from the project area. Just under 2.5 miles of the US 119 route through the project area extends up the Bottom Branch hollow east of Mayking. Several smaller tributary streams drain into the Kentucky River from mountains north and south of the valley. Among these are Pert Creek and Crafts Colly Creek on the west end of the project area, as well as Cram Creek, Pine Creek, and Bottom Branch to the east. Elkhorn Creek begins in the town of Jenkins, immediately west of the project area and drains northward to its confluence with Russell Fork of Big Sandy River at Elkhorn City.

The bedrock in the area consists of siltstone, sandstone, and shale of the Pennsylvanian System (McIntosh 2004). Almost all the soils in Letcher County are acidic and were formed mostly from sandstone and shale. According to the USGS Web soil Survey (NRCS 2013), there are numerous soil types in the varied terrain of the project area. **Table 1** lists the 14 major soil types found along

the route of the proposed US 119 road corridor within the narrow valleys of North Fork of the Kentucky River and Bottom Branch which the construction corridor is expected to follow. Mountainside soils include those of the Cloverlick-Kimper-Highsplint complex, 30-65 percent slops; Dekalb-Rock Outcrop-Latham soils 25-65 percent slopes; Shelocta-Highsplint complex, 30 to 65 percent slopes; and Gilpin-Shelocta complex, 12 to 15 percent slopes among others. The steep mountains sides where these soils are found are largely uninhabitable. With the exception of later coal mining activity, the prehistoric and early historic activity in these areas would have been sporadic with little potential for activities that would leave an archaeological footprint.

The narrow valleys of the Kentucky River and its tributaries provide the only naturally level ground in the county. Allegheny loams along the upper terraces, Itmann very channery sandy loam, and Rowdy-Grigsby complex, 0 to 4 percent slopes, occasionally flooded soils may mark areas with level ground where archaeological sites could be found. Flooding along the Kentucky River could preserve archaeological sites in these areas through the deposition of sediments.

Of note, however, is the extent of modified "urban" soils (including Udorthent and Urban Land complexes). Historic settlement activity has been concentrated in the narrow valley floodplains throughout Letcher County. Consequently the soils have been extensively disturbed by historic and ongoing agricultural, residential, commercial, and other development activities. The most extensively modified portions of project area are the communities of Mayking and Payne Gap, but a patchwork of farms, houses, and commercial structures can be found in virtually every stretch of level ground throughout the North Fork of the Kentucky River Valley. The developments that define these soils are apparent in aerial photographs of the project corridor (**Figures 2-4**). **Figures 5** and **6** depict the typical landscape of the project area. If prehistoric and early historic archaeological sites are located in these areas they have a high potential to be disturbed.

Table 1. Soils Classifications within the Study Area

Soils Abbreviation	Soil Name	Topographic Setting
AIC	Allegheny loam, 2 to 15 percent slopes	Upper terraces along lower mountainside slopes along Kentucky River and tributary valleys.
CkF	Cloverlick-Kimper-Highsplint complex, 30 to 65 percent slopes	Steep mountain side slopes.
DLF	Dekalb-Rock Outcrop-Latham Association, steep	Lower mountain slopes and hill sides.
DrF	Dekalb-Gilpin-Rayne complex 25-65 percent slopes, very rocky	Steep mountain side slopes; hills and knolls rising from floodplain.
FaF	Fairpoint soils, steep, benched	Lower mountain slopes and hill sides.
GiD	Gilpin-Shelocta complex, 12 to 15 percent slopes	Base of hillsides adjacent to floodplain.
ImF	Itmann very channery sandy loam, 4 to 80 percent slopes	Floodplain along North Fork of the Kentucky River
RgB	Rowdy-Grigsby complex, 0 to 4 percent slopes, occasionally flooded	Floodplain along North Fork of the Kentucky River
SCF	Shelocta-Cutshin Association, steep	Steep mountain slopes.
SGF	Shelocta-Gilpin Association, steep	Steep mountain slopes.
ShF	Shelocta-Highsplint complex, 30 to 65 percent slopes, very stony	Steep mountain slopes.
UdE	Udothents-Urban land complex, steep	Floodplain bottoms; extensively disturbed by residential, commercial, and other urban development.
UrC	Urban land-Udothents complex, 0-15 percent slopes	Floodplain bottoms; extensively disturbed by residential, commercial, and other urban development.
UuB	Urban land-Uthorthents-Grigsby complex, 0 to 6 percent slopes, rarely flooded.	Floodplain bottoms; extensively disturbed by residential, commercial, and other urban development.

Figure 5. Project area along North Fork of the Kentucky River Floodplain depicting level floodplain and residential/commercial development (facing west).

Figure 6. Project area depicting steep slope and residential/urban development (facing west).

2.0 PREHISTORIC AND HISTORIC CONTEXTS

This summary is a brief outline of Kentucky archaeological history and draws heavily from *The Archaeology of Kentucky* (Pollack 1990) the archaeological state plan prepared by the KHC/SHPO and the subsequent update of the plan published in 2008 (Pollack 1990, 2008). Other key references include Kentucky Archaeology (Lewis 1996) and the Kentucky Encyclopedia (Kleber 1992).

2.1 Paleoindian Period (12,000?-8,000 BC)

The Paleoindian period (12,000?-8,000 BC) represents the earliest documented cultures across all regions of Kentucky. This period begins with the introduction of humans into Kentucky at the end of the Pleistocene epoch. Though the time of this introduction is uncertain, recent excavations indicate they took place prior to 12,000 BC (Bense 1994; Broster and Norton 1996). The generally held model for Paleoindian settlement holds that the earliest groups lived as specialized big game hunters who relied on the now extinct megafauna such as mammoths and mastodons (Maggard and Stacklebeck 2008). This model has been used to explain the widespread distribution of Early Paleoindian projectile point types. Paleoindian components in this area characterized by Clovis and related fluted points, including Cumberland, Greenbriar, and Quad types (Broster and Norton 1996; Justice 1987). Also included in the tool kit is the Paleolithic blade/core technology. The Paleoindian period is among the least understood time periods and sites are rare. As of 2008 only four Paleoindian sites had been documented in the Southeast Mountains region of the Upper Cumberland Management Area (Maggard and Stacklebeck 2008:131).

2.2 Archaic Period (8,000-1,000 BC)

The Archaic period (8,000-1,000 BC) spans more 7,000 years from the end of the Pleistocene glacial period to the emergence of ceramic technologies sometime around 1,000 BC. Archaic groups were hunter-gatherers but overtime their subsistence strategies expanded to include a much wider selection of game and plant species, and their settlement systems gradually become more regionally circumscribed with less far ranging mobility (Jefferies 2008). The Early Archaic period occurs between 8,000-6,000 BC and is characterized by points such as corner notched Kirk variants, Thebes, LeCroy, and Kanawha points (Justice 1987). Kirk variants are distributed throughout the Midwest and Southeast east of the Mississippi River. In the later years of the Early Archaic tool kits also begin to include ground stone tools.

The Middle Archaic (6,000-3,700 BC) in southeast Kentucky is characterized by Morrow Mountain, Sykes-White Springs and Big Sandy points as well as the increase in intensity of settlements when sites from this period are found. However, Middle Archaic sites are rarer than either the preceding Early Archaic or later Late Archaic periods. In the Southeastern Mountains Region of the Upper Cumberland Management Area only 15 sites with Middle Archaic components have been found while there are 43 sites with Early Archaic components and 55 with Late Archaic components (Jefferies 2008:253). There is no consensus among researchers as to the reason for this apparent decline in sites during the middle centuries of the Archaic period. The pattern may reflect a period of population decline, changes in subsistence-settlement strategies, or archaeological factors that lead to underreporting of Middle Archaic sites.

The Late Archaic (3,700-1,000? BC) is marked by more intense use of habitation areas as evidenced by the presence of large storage pits and the first evidence of shelters that could be

described as “houses” (Bentz 1998; Jefferies 2008; Stallings et al. 2001). Late Archaic groups continued relying on hunting and gathering, but there are hints of early horticultural practices throughout the eastern United States. Native plants such as chenopod, squash, and sunflower were exploited which in time were domesticated and farmed. In southeast Kentucky and eastern Tennessee distinctive projectile point styles during the Late Archaic have been used to distinguish three temporally discrete phases: Benton (3700-3000 BC) Ledbetter (3000-1200 BC), and Wade (1200-450 BC). Wade phase sites are a transitional period between the Late Archaic and Early Woodland periods. Wade variety points are found at numerous sites without pottery which, but they also have been found at pottery bearing sites that date to the Early Woodland period. This points to regional cultural continuity.

2.3 Woodland Period (1,000 BC to AD 1000)

The Early Woodland period extends from 1,000 BC to AD 0, and is demarcated by the earlier Late Archaic period by the appearance of pottery in the archaeological record. The influence of Early Woodland Adena culture, centered in Northern Kentucky and the Middle Ohio River Valley, is seen in common projectile point styles, sand-tempered ceramics, and cord-marked and fabric impressed ceramics at the end of the period. Camps and small seasonally occupied villages form the bulk of sites during this period and the large numbers of sites suggest an increase in the population during the period. The Middle Woodland period extends from AD 1 to 500. This period is characterized by a flourishing interregional exchange network and a complex social system. This complexity allowed elites of the period to call together the population to construct large numbers of mounds and mound complexes (Applegate 2008: Bentz 1998). The Late Woodland period (AD 500-1000) forms a transitional period between the Middle Woodland and the Mississippian period. Late Woodland continues the transition of mobile bands into sedentary groups with an increased reliance on local resources (Stallings et al 2001). Technologically innovations included the introduction of the bow and arrow. Horticulture and incipient agriculture became increasingly important to the subsistence practices of Late Woodland Groups. Corn had been introduced to the Ohio and Cumberland River Valleys during the later Woodland period and by the Late Woodland, corn was being grown at settlements throughout the Southeast and Midwest.

2.4 Mississippian Period (AD 1000-1500)

The Mississippian period (AD 1000-1500) is marked by the appearance of platform mounds and plazas, the adoption of more exotic and diverse pottery styles, and triangular Madison, serrated Fort Ancient, Levanna, and Nodena points (Justice 1987; Pollack 2008). Mississippian culture marked by a complex hierarchical settlement systems led by politically powerful chiefs and chiefly clans. Settlements included planned villages with central plazas and large platform mounds where rituals occurred and chiefs and village leaders lived. Maize agricultural and intensive use of other cultigens like squash and beans allowed for a large increase in localized sedentary population. The upper Cumberland River valley was the northeast periphery of Mississippian settlements in Kentucky. A number of small Mississippian villages with central mounds and associated farmsteads and hamlets were located along the upper Cumberland River and its tributaries (Jefferies 1995, 1996). Mississippian culture differs significantly from contemporaneous For Ancient societies found to the north in the Middle Ohio Valley of northern Kentucky, southern Ohio, West Virginia and southeast Indiana. Fort Ancient groups lived in small circular villages with little evidence for chiefs or social hierarchies and hierarchical settlement systems. Archaeological evidence indicates that there was little direct interaction between Mississippian and Fort Ancient groups for much of their history (French 2010). By AD 1500, Mississippian culture was in sharp decline.

2.5 Contact Period (AD 1500-1700s)

The earliest documented European exploration of what was to become Kentucky was by the Frenchmen Marquette and Joliet, who passed by the mouth of the Ohio and western Kentucky in 1673 during their exploration of the Mississippi River (Alvord 1920:63-64, 2008). Other French, English, and Spanish traders and explorers may have passed through the territory in the late seventeenth century to mid-eighteenth century as well (McBride and McBride 1990:583). Early contact of Native Americans with Europeans in what is now Kentucky, however, may have been indirect, with European trade goods and information about Europeans spread through the existing exchange systems. During the early part of the Contact period, access to the region by Europeans was almost exclusively from the south from Spanish Florida, (which extended into present-day Georgia and Alabama), and later from the north by the French in Illinois, who wrote of the Shawnee living on the Ohio River. The few surviving descriptions of inhabitants are indirect and sketchy.

Native American inhabitants of the Kentucky region during the Contact period probably consisted of diverse Algonquian or Iroquoian speaking groups that based their economies on a combination of horticulture, fishing, hunting, and gathering. Small encampments at scattered locations coalesced into larger villages on floodplains in the spring for the cultivation of corn, beans, squash, and a few other select plants, like tobacco. Typically during this period, the native cultures underwent acculturation, a virtual breakdown of their former way of life through replacement by or approximation of the cultural norms of the dominant culture. Traditional technologies such as lithic stone tool manufacture and clay ceramic manufacture were abandoned and replaced by European items such as metal knives, pots, and other trade goods. In addition, disease increasingly reduced native populations all over the central and eastern parts of the continent during this period. In this region, epidemics are documented from the last decades of the 1500s and into the mid-1600s.

The signing of the Greenville Treaty in 1795 marks the end of the Contact period. This document, signed by 1,100 tribal chiefs, Native Americans, ceded virtually all land claims to the United States government in return for promises of territorial boundaries and other rights (Niles 1996:217). Native Americans were removed to small reservations to the north and west, leaving no Native American communities in Kentucky (Henderson et al. 1986:1-17).

2.6 Historic Period (1763 – Present)

Permanent European and Euro-American settlement in Kentucky began with the end of the French and Indian War in 1763. With the British Crown firmly in control of North America they initially banned colonial migration west of the Appalachian Mountains into the Ohio Valley. The British colonists fiercely resisted the ban and the Virginia government and other colonies pressed ahead with land speculation. In the 1760s “Long Hunters” such as Daniel Boone, Simon Kenton, and James Harrod trekked into Kentucky on multi-year hunting and exploration trips. They blazed trails through Cumberland Gap that marked routes along which settlers followed from Virginia, North Carolina and other colonies. With the victory of the 13 colonies over the British in the Revolutionary War the floodgate was opened for American migration into Kentucky. Along with the Ohio River to the north, the Cumberland Gap to the south of Letcher County in Bell Counter near the Kentucky/Tennessee border was the primary highway for westward migration into Kentucky. By the end of the Revolutionary War as many as 12,000 American colonists had passed through Cumberland Gap (Kleber 1992:246).

While Cumberland Gap was located further to the south, other mountain passes like Pound Gap, Austin Gap and Flat Gap provided access to Kentucky through what is now Letcher County. A pioneer trail passed through Pound Gap into the North Kentucky River Valley to the east of the US 119 project area. During the initial colonization of Kentucky from the 1760s to statehood in 1792 most settlers passed through Letcher County's daunting mountainous terrain toward destinations in the Bluegrass and Ohio River Valley. Early permanent settlers included Peter Whitaker who built a house on Whitaker's Branch (Kleber 1992:546). Other settlers followed and by the early 1800s small homesteads were scattered across most of the major stream valleys in the region. The population grew through the 1840s. Initially Mayking, located in the valley near Pound Gap was the major settlement. It was eventually supplanted by Whitesburg which became the county seat when Letcher County was established in 1842 from portions of Perry and Harlan Counties. Letcher County was named for Kentucky Governor Robert P. Letcher (1840-1844).

Letcher County's daunting mountains limited population growth and economic development throughout much of the nineteenth century. Whitesburg and Mayking were the only settlements of note. During the Civil War, Pound Gap proved to be a strategic pass into Kentucky. On March 15, 1862, Brigadier General James A. Garfield (future president of the United States) led an army of 700 men to defeat a small Confederate force commanded by General Humphrey Marshall and secured control of Pound Gap for the union. There were other smaller skirmishes throughout the war including a raid by Confederate General John Hunt Morgan who defeated a contingent of Union soldiers guarding Pound Gap (Kleber 1992:546).

After the Civil War, the citizens of Letcher County dealt with a period of lawlessness that persisted into the final decades of the nineteenth century. The county courthouse in Whitesburg survived the Civil War, though many others in Kentucky were burned. But violence and lawlessness was common and is exemplified in the life of "Bad John" Wright (Ebling 1997). John Wesley Wright (1844-1931) was born in Letcher County. He enlisted in the Confederate Army at 17 and fought throughout the war. After dabbling in circus performing as a sharpshooter, he returned to Letcher County and quickly became embroiled in personal fights, family feuds, and bounty hunting. He died in 1931 amid reports of having killed as many as 36 men.

At the end of the nineteenth century the character and culture of Letcher County and the eastern mountains of Kentucky were transformed by the coal industry. By 1905 coal companies had purchased mineral rights to much of the county (Kleber 1992:468). Consolidation Coal Company constructed the town of Jenkins on Elkhorn Creek in 1911 to house coal mine workers. Completion of the Lexington and Eastern Railroad in 1912 connected the region to the larger national economy and the population expanded rapidly. By 1940 Jenkins had a total population of over 10,000 people. Other communities like Whitesburg and Mayking grew as well. Consolidation Mining held title to most of Jenkins as a company town until 1947 when it began selling off property before selling its mining interests to Bethlehem Steel nine years later.

The region's coal industry has been in steady decline since Consolidation Coal Company divested itself of mines and other properties. Coal mining continued to be the mainstay of Letcher County's economy into the 1990s, but the industry had changed dramatically. Modern mechanized coal mining techniques require far few employees than were needed in the early twentieth century. More recently the industry has been challenged by requirements of environmental regulations and competition from natural gas. By 2014 the population of Letcher County had declined to 23,359 from a high of 40,592 in 1940 (https://en.wikipedia.org/wiki/ Letcher_County,_Kentucky; accessed September 9, 2015).

3.0 BACKGROUND RESEARCH

3.1 Research at the Office of State Archaeology (OSA)

The Kentucky Office of State Archaeology (OSA) archives were researched on July 24, 2015 to identify archaeological surveys conducted in the project as well as previously recorded archaeological sites that could be impacted by construction activities associated with the improvements to US 119. Available data on surveys and archaeological sites within 2 km (1.24 mi) of the project corridor were investigated and are illustrated on **Figures 7-9**. **Table 2** summarizes previous surveys and **Table 3** lists previously recorded sites. A total of 19 professional archaeological investigations have been conducted in the project area since the 1980s. A majority involved planned surface coal mines along rugged ridgetops and mountain slopes to the north and south of the North Fork of the Kentucky River. Other projects have been proposed cross-country highway corridors. Only small areas of the river bottoms have been investigated for archaeological sites.

3.1.1 Previously Reported Archaeological Sites

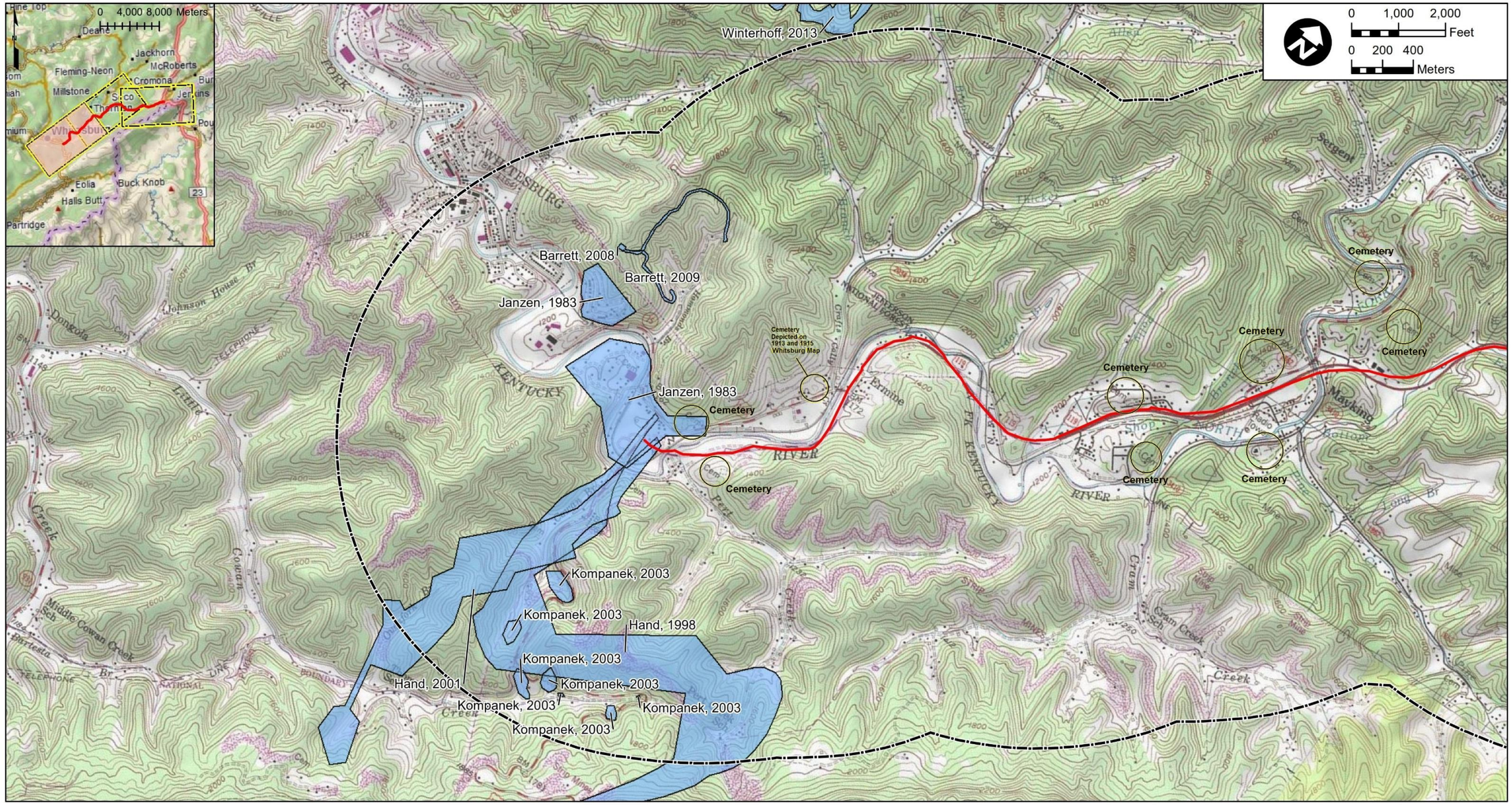
Despite extensive areas that have been investigated nearby, only two archaeological sites (15LR48 and 15LR80) have been identified as a result of professional investigations (**Table 3**). Both sites are historic house/farmsteads. Site 15LR48, the Bentley house/farmstead, included structural remnants and archaeological deposits from a late 1700s cabin associated with the initial settlement of Kentucky prior to statehood. The early cabin site is located in the Boone Branch floodplain. Investigators recommended that it may be eligible for the NRHP. Site 15LR80 is an early to mid-twentieth century house/farmstead located in a hollow near the head of Pine Creek. It was not recommended eligible for the NRHP. A third site, 15LR98 is listed on OSA digital data records, but no site form was identified in the files and no information is available. Given its marked location on a steep hillside, the site could be a rockshelter, but this is speculation. All three of the reported sites are on the periphery of the 2-km (1.24-mi) OSA data research buffer and are highly unlikely to be adversely impacted by construction activities associated with the US 119 improvement project.

3.1.2 Previous Archaeological Surveys Summaries

Summaries of the previous archaeological investigations conducted within 2 km (1.24 mi) of the US 119 road improvement corridor are provided below. The prior studies provided few insights into the project area's potential to contain archaeological sites or the density of site distribution that could be expected. Most of the terrain covered by these earlier surveys is in the rugged mountains and not in the river bottoms where more favorable settings for both prehistoric and historic activities would be expected. The only large sections of the North Fork of the Kentucky River floodplain that have been surveyed for archaeological resources in the anticipated construction corridor are located to the east of Whitesburg. Don Janzen surveyed this area in 1983 and documented no prehistoric or historic archaeological sites in the area.

Niquette 1983

CRAI conducted one of the earliest professional archaeological survey in the project 2-km (1.24-mi) investigation area in 1983 (Niquette 1986). The survey encompassed a 2 acres in the town of Neon Junction to be developed into a wastewater treatment plant. It was in the Boone Fork drainage to the north of the US 119 corridor. No archaeological sites were found.



Amec Foster Wheeler Environment & Infrastructure 11003 Bluegrass Pkwy. Suite 690 Louisville, KY 40299	amec foster wheeler	CLIENT: Kentucky Transportation Cabinet	CLIENT LOGO: KENTUCKY TRANSPORTATION CABINET	DRAWN BY: chad.knopf CHK'D BY: MWF PROJECTION: NAD 1983 StatePlane Kentucky FIPS 1600 Feet SCALE: 1:24,000 1 inch = 2,000 feet DATE: 7/27/2015 3:33:08 PM	PROJECT: US 119 REALIGNMENT CORRIDOR LETCHER COUNTY, KENTUCKY	LEGEND: Project APE 2 km Buffer of APE Preliminary Site Recorded Site Previous Survey	

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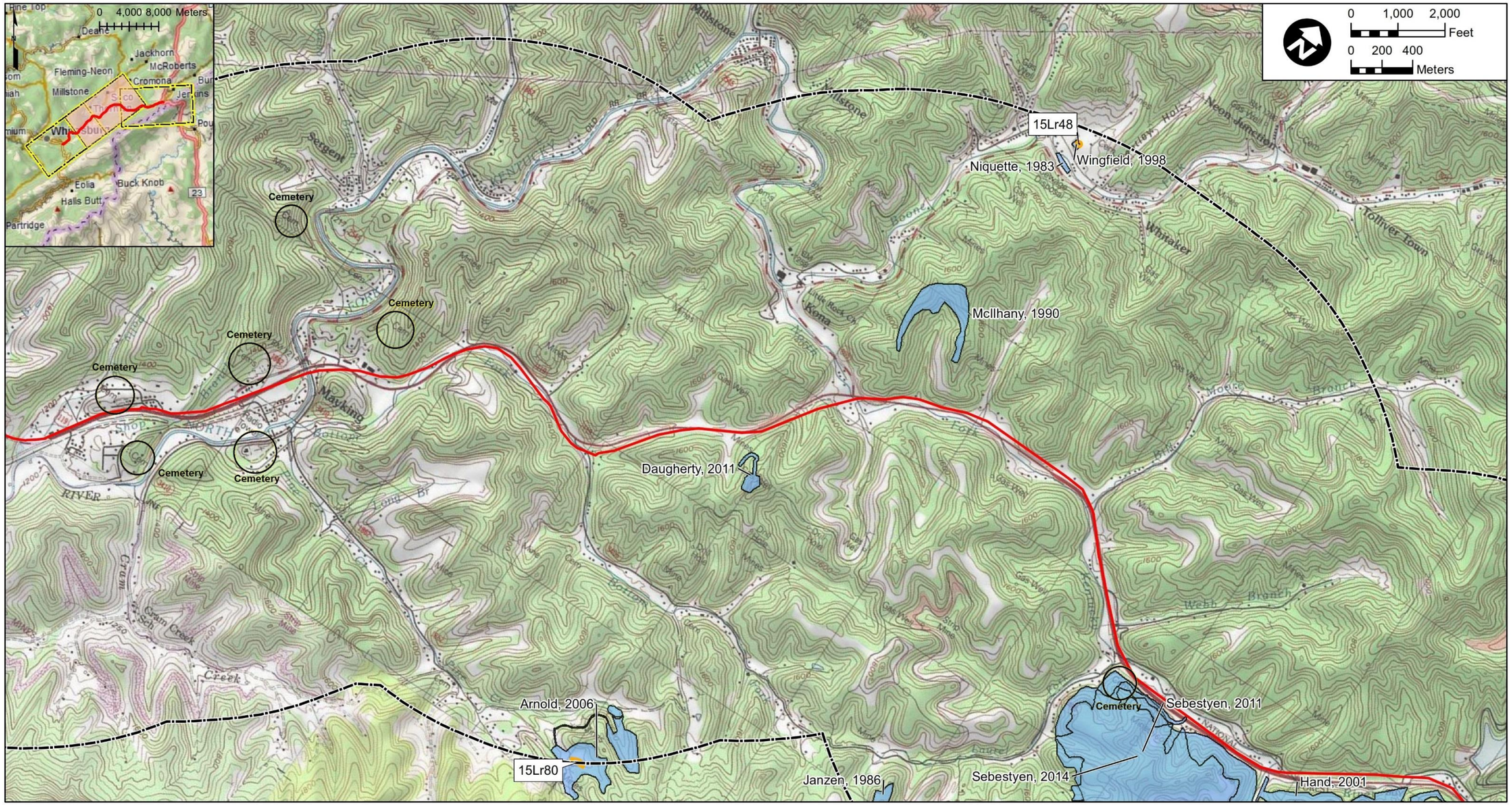
Imagery: DeLorme (2013); USGS 24K Topo: Flat Gap KY/VA (1978), Jenkins West KY/VA (1979), Jenkins East VA/KY (1978), Mayking KY (1979), Whitesburg KY/VA (1979)

Figure 7. Previous archaeological surveys and sites located with 2.0 km of the study area (west end of project area).



Amec Foster Wheeler Environment & Infrastructure 11003 Bluegrass Pkwy. Suite 690 Louisville, KY 40299	amec foster wheeler	CLIENT: Kentucky Transportation Cabinet	CLIENT LOGO: KENTUCKY TRANSPORTATION CABINET	DRAWN BY: chad.knopf CHK'D BY: MWF PROJECTION: NAD 1983 StatePlane Kentucky FIPS 1600 Feet SCALE: 1:24,000 1 inch = 2,000 feet DATE: 7/27/2015 3:33:14 PM	PROJECT: US 119 REALIGNMENT CORRIDOR LETCHER COUNTY, KENTUCKY	LEGEND: Project APE 2 km Buffer of APE Preliminary Site Recorded Site Previous Survey	

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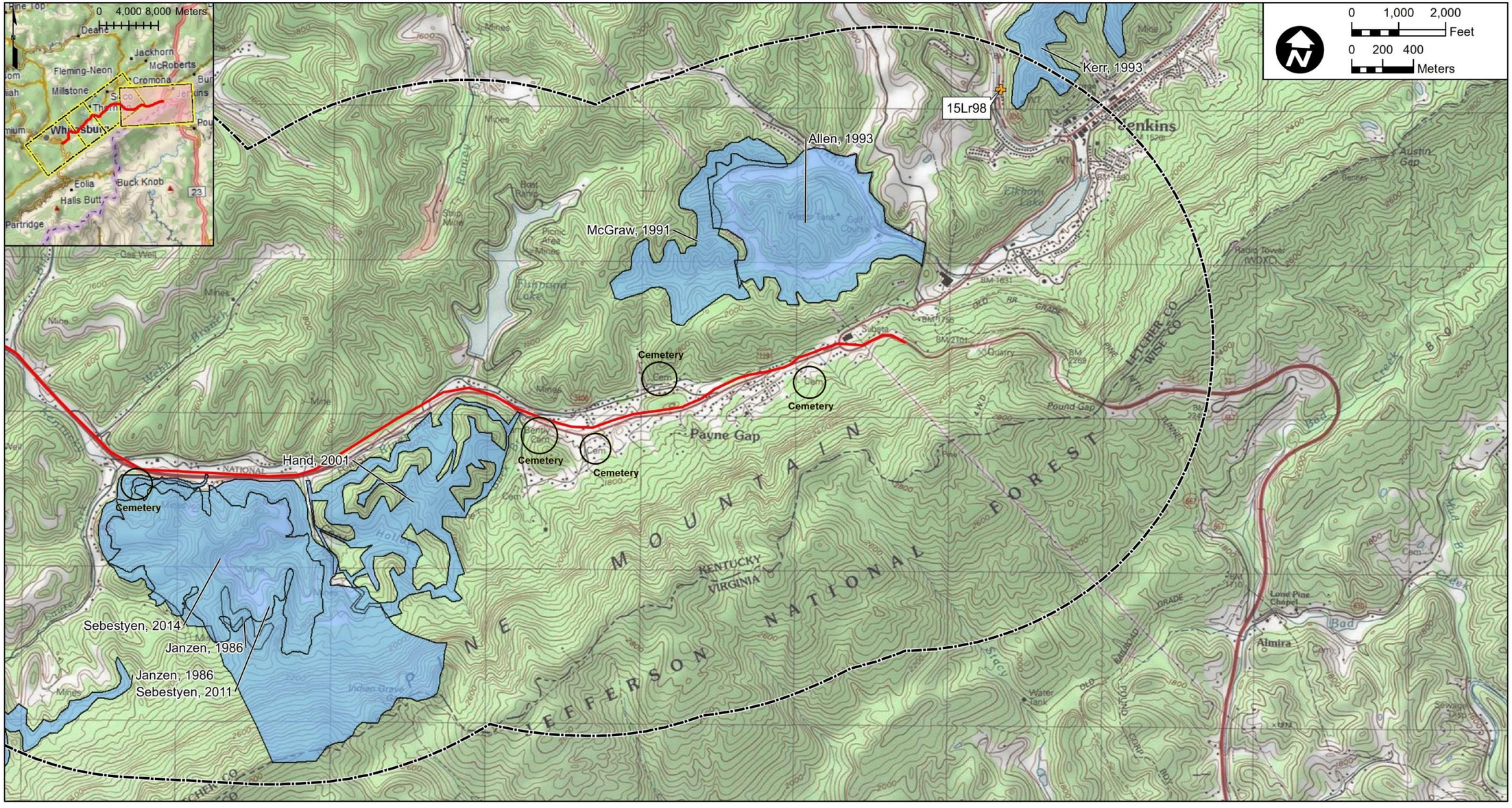
Imagery: DeLorme (2013); USGS 24K Topo: Flat Gap KY/VA (1978), Jenkins West KY/VA (1979), Jenkins East VA/KY (1978), Mayking KY (1979), Whitesburg KY/VA (1979)

Figure 8. Previous archaeological surveys and sites located with 2.0 km of the study area (central portion of project area).



Amec Foster Wheeler Environment & Infrastructure 11003 Bluegrass Pkwy. Suite 690 Louisville, KY 40299	amec foster wheeler	CLIENT: Kentucky Transportation Cabinet	CLIENT LOGO: KENTUCKY TRANSPORTATION CABINET	DRAWN BY: chad.knopf CHK'D BY: MWF PROJECTION: NAD 1983 StatePlane Kentucky FIPS 1600 Feet SCALE: 1:24,000 1 inch = 2,000 feet DATE: 7/27/2015 3:33:19 PM	PROJECT: US 119 REALIGNMENT CORRIDOR LETCHER COUNTY, KENTUCKY	LEGEND: Project APE 2 km Buffer of APE Preliminary Site Recorded Site Previous Survey	

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Imagery: DeLorme (2013); USGS 24K Topo: Flat Gap KY/VA (1978), Jenkins West KY/VA (1979), Jenkins East VA/KY (1978), Mayking KY (1979), Whitesburg KY/VA (1979)

Figure 9. Previous archaeological surveys and sites located with 2.0 km of the study area (east end of project area).

Table 2. Archaeological Surveys Located within 2-Kilometer (1.24-Mile) Research Buffer around the Letcher County 12-199/US 119 Study Area

Year	Authors	Report Title	Survey Area	Sites within 2-km (1.24 miles)	Field Methods
1983	Janzen, Donald	A Cultural Resource Assessment of the Whitesburg Wastewater System Improvement Project, Letcher County, Kentucky	1,150 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
1983	Niquette, Charles M.	A Phase One Assessment of an Alternative Plant and Pumping Station Site for the Fleming-Neon Wastewater Treatment Facility, Letcher County, Kentucky. Contract Publication Series 83-3. CRAI. Lexington, KY	2 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
1986	Janzen, Donald E.	An Archaeological Survey of Surface Mining Permit Area 467-0126 Letcher County, Kentucky. Janzen, Inc.	506.1 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
1990	McIlhany, Calvert W.	A Phase I Investigation Of Archaeological Resources Within Undisturbed Portions Of A & A Construction's Proposed Coal Contour Mining Area Near Kona in Letcher County, Kentucky	20.17 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
1991	McGraw, Betty J.	Phase I Archeological Survey of the Manning Coal Corporation Child's Branch Coal Permit Area Letcher County, Kentucky	138.33 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
1993	Allen, Paul	A Coal Mine Survey of the Jenkins Golf Course, Letcher County, Kentucky	219.7 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
1993	Kerr, Jonathan P.	A Coal Mine Survey Along Elkhorn Creek in Letcher County, Kentucky. CRAI. Lexington, KY	241.4 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
1998	Hand, Robert B.	An Archeological Reconnaissance of the Proposed U.S. 119 Realignment Project from Whitesburg to Poor Fork in Letcher County, Kentucky	7,868	None (Sites 15LR49-53 found outside project US 119 project area)	Pedestrian Reconnaissance and systematic subsurface testing
1998	Wingfield, Derek M.	An Archeological Reconnaissance of Four Tracts of Land in Letcher County, Kentucky	8.25 acres	15LR48	Pedestrian Reconnaissance and systematic subsurface testing

Year	Authors	Report Title	Survey Area	Sites within 2-km (1.24 miles)	Field Methods
2001a	Hand, Robert B.	An Archaeological Survey of a Proposed Coal Mine Operation Along Cook Hollow in Letcher County, Kentucky	190.4 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
2001b	Hand, Robert B.	An Archaeological Reconnaissance of the Proposed US 119 Reconstruction (Item Number 12-314.00) Pine Mountain Tunnel Alternate in Letcher County, Kentucky	1,738.4 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
2003	Kompanek, James H.	An Archaeological Survey of Eighteen Fill Areas for Spot Road Improvements to US 119 in Letcher County, Kentucky	48.92 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
2006	Arnold, George, Heather Barras, and Jennifer Faberson	An Archaeological Survey of the Proposed Blue Mountain Ventures, Inc., Coal Mine Operation Along Pine Creek in Letcher County, Kentucky	43.47 acres	15LR80	Pedestrian Reconnaissance and systematic subsurface testing
2008	Barrett, Jared	Phase I Archaeological Survey of the Proposed Ermine Cellular Tower Site, Letcher County, Kentucky	51 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
2009	Barrett, Jared	Phase I Archaeological Survey of the Proposed Ermine Cellular Tower Access Road Reroute, Letcher County, Kentucky	31.2 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
2011	Dona R. Daugherty	Phase I Archaeological Survey of the Proposed Kona Cellular Communications Tower Location, Letcher County, Kentucky	42.7 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
2011 2014	Sebestyen, Kimberly and Steven Brann	Phase I Archaeological Survey for the Federal Bureau of Prisons Feasibility Study at Three Proposed Sites in Letcher County, Kentucky	4,587 acres	None	Pedestrian Reconnaissance and systematic subsurface testing
2013	Winterhoff, E. Quent	A Phase I Archaeological Survey of the Proposed Raven Energy, Inc. Surface Mine Located Along Fairchild Branch in Letcher County, Kentucky	70.54 acres	None	Pedestrian Reconnaissance and systematic subsurface testing

Table 3. Archaeological Sites Located within 2-Kilometer (1.24-Mile) Research Buffer around the Letcher County 12-119/US 119 Study Area.

Site	OSA NRHP Eligibility	NRHP/Management Recommendations	Site Name	Site Type	Age/Cultural Affiliation	Report Reference	Site Area (m^2)	Comments
15Lr48	NRHP status not assessed	May be eligible for NRHP; avoidance or Phase II recommended.	Daniel Bentley Pioneer Cabin	Historic House / Farmstead	Historic (1751-1800)	Wingfield 1998	3,500	Site form and 1998 report (Wingfield 1998) state that the site may be eligible for the NRHP and should be avoided or subjected to Phase II.
15Lr80	Inventory site (does not presently meet NRHP criteria)	Not eligible for the NRHP; no further archaeological investigations recommended	None	Historic House / Farmstead	Historic (1900-2000)	Arnold 2006	3325	Early to Late 20th century house/farmstead. Not eligible for the NRHP
15Lr98	No data	No data	No data	No data	No data	None	No data	No Site Form at OSA

Janzen 1983

In 1983 Don Janzen conducted a Phase I archaeological survey in Whitesburg for development of 5,200 feet of sewer line. The archaeological survey was accompanied by an assessment of aboveground resources. The survey area encompassed 1,150 acres broken between three parcels, much of which lay in the Kentucky River floodplain. Janzen documented no archaeological sites. The survey included portions of the Kentucky River floodplain on the western end of the current US 119 improvement project area.

Janzen and Stallings 1986

In 1986 Janzen and Stallings (1986) surveyed 506.1 acres of proposed surface coal mine areas in Pine Mountain south of US 119. No sites were found.

McIlhany 1990

Calvert McIlhany conducted a Phase I survey of 20.17 acres of mountain ridges to the north of US 119 for surface coal mining. No sites were found.

McGraw 1991

In 1991 Betty McGraw (1991) conducted a Phase a Phase I survey of 138.33 acres for the Child's Branch coal mining project to the north of US 119. The survey included ridgetops and side slopes. No sites were found.

Kerr 1993

In 1993 CRAI archaeologists (Kerr 1993) conducted a Phase I survey of 241.4 acres for surface coalmining. The project area was on ridgetops and side slopes to the north of Elkhorn Creek on to the west of the US 119 project area. Elkhorn Creek and Little Elkhorn Creek merge to form the Kentucky River to the south of Jenkins, Kentucky. No archaeological sites were found.

Allen 1993

In 1993 CRAI archaeologists (Allen 1993) surveyed 219.7 acres to be developed for surface mining. The area included ridge tops to the north of the Kentucky River as well as portions of the narrow constricted floodplain of Little Elkhorn Creek. No archaeological sites were found.

Wingfield 1998

In 1998 CRAI conducted surveys of four small parcels and different locations across Letcher County (Wingfield 1998). The four parcels, totaling 3.3 ha (8.25 acres) were to be developed for low income housing. A historic house/farmstead (15Lr48) was recorded in the Neon Junction community in the narrow floodplain of Boone Branch. The site, named the Daniel Bentley Pioneer Cabin, included structural remnants and archaeological deposits for cabin constructed by Mr. Bentley in the late 1700s. The parcel was part of an early land grant from the Commonwealth of Virginia before Kentucky Statehood (Wingfield 1998). Because of the potential for intact archaeological deposits and the association with one of the first families to settle in Letcher County, it was recommended that site 15LR48 may be eligible for the NRHP and should be avoided or subjected to Phase II archaeological investigations to assess significance. No other archaeological sites were identified.

Hand 1998

In 1998 CRAI archaeologists conducted a Phase I archaeological survey of the proposed US 119 realignment over Pine Mountain from Whitesburg to Poor Fork in Letcher County (Hand 1998). The realignment corridor extended 6.76 miles (10.9 km) and the survey investigation buffer encompassed a total of 7,868 acres. Hand identified five historic archaeological sites (15LR49-15LR53). All were historic house/farmsteads that dated exclusively to the twentieth century. None were considered significant archaeological and no further archaeological investigations were recommended. The sites are all more than 2 km (1.24 mi) away from the current US 119 realignment route.

Hand 2001a, 2001b

In 2001 CRAI surveyed 190.4 acres of ridges and side slopes to the south of the Kentucky River between Cook Hollow on the west and Buck Branch on the east (Hand 2001a). The area was to be developed for surface mining. No archaeological sites were found.

Hand 2001b

In 2001 CRAI conducted additional work for the proposed US 119 realignment between Whitesburg and Poor Fork and examined a tunnel alignment which would go through Pine Mountain (Hand 2001b). The survey corridor extended 1.8 miles. No archaeological sites were found within the project but the historic Adams Cemetery was noted outside of the tunnel APE.

Kompanek 2003

CRAI conducted a Phase I survey of 18 separate fill areas for spot road improvements along US 119 (Kompanek 2003). The project area included 19.8 ha (48.92 acres) at scattered locations. One previously reported twentieth century house/farmstead (15LR49) which Hand had investigated in 2001 was reassessed and determined not to be eligible for the NRHP (Hand 2001a). The site is more than 2 km (1.24 mi) from the present US 119 project corridor.

Arnold 2006

CRAI conducted an archaeological survey of 17.59 ha (43.47 acres) to be impacted by proposed coal mine operations along Pine Creek to the south of the current US 119 project area. One previously unrecorded site, 15LR80, was investigated. Site 15LR80 was a mid- to late-twentieth century historic house/farmstead with structural remnants and scattered artifacts. There were no significant archaeological deposits and the site was recommended not eligible for the NRHP.

Barrett 2008, 2009

In 2009, TRC conducted archaeological surveys for a small communications cell tower) as well as an access roads (Barrett 2008, 2009). The conjoined project areas are located on ridges above Hammonds Branch to the east of Whitesburg. No archaeological sites were found.

Daugherty 2011 (depicted as Dona 2011 on OSA Maps)

In 2011 Wilber Smith Associates conducted an archaeological survey of a proposed cell tower and access road to the south of the Kentucky River east of Bottoms Fork (Daugherty 2011). No sites were found.

Sebestyen and Kerr 2011, 2014

In 2011 and again in 2014 CRAI and TEC, Inc, under contract to the Federal Bureau of Prisons (BOP), conducted a Phase I archaeological survey of three potential sites for a new federal correctional facility. In all a total of 4,587 acres were surveyed (Kerr 2011, 2014). The proposed Payne Gap/Lawson site was located south of US 119 in the project area. No archaeological sites were found.

Winterhoff 2013 (depicted as E. Quent 2013 on OSA map)

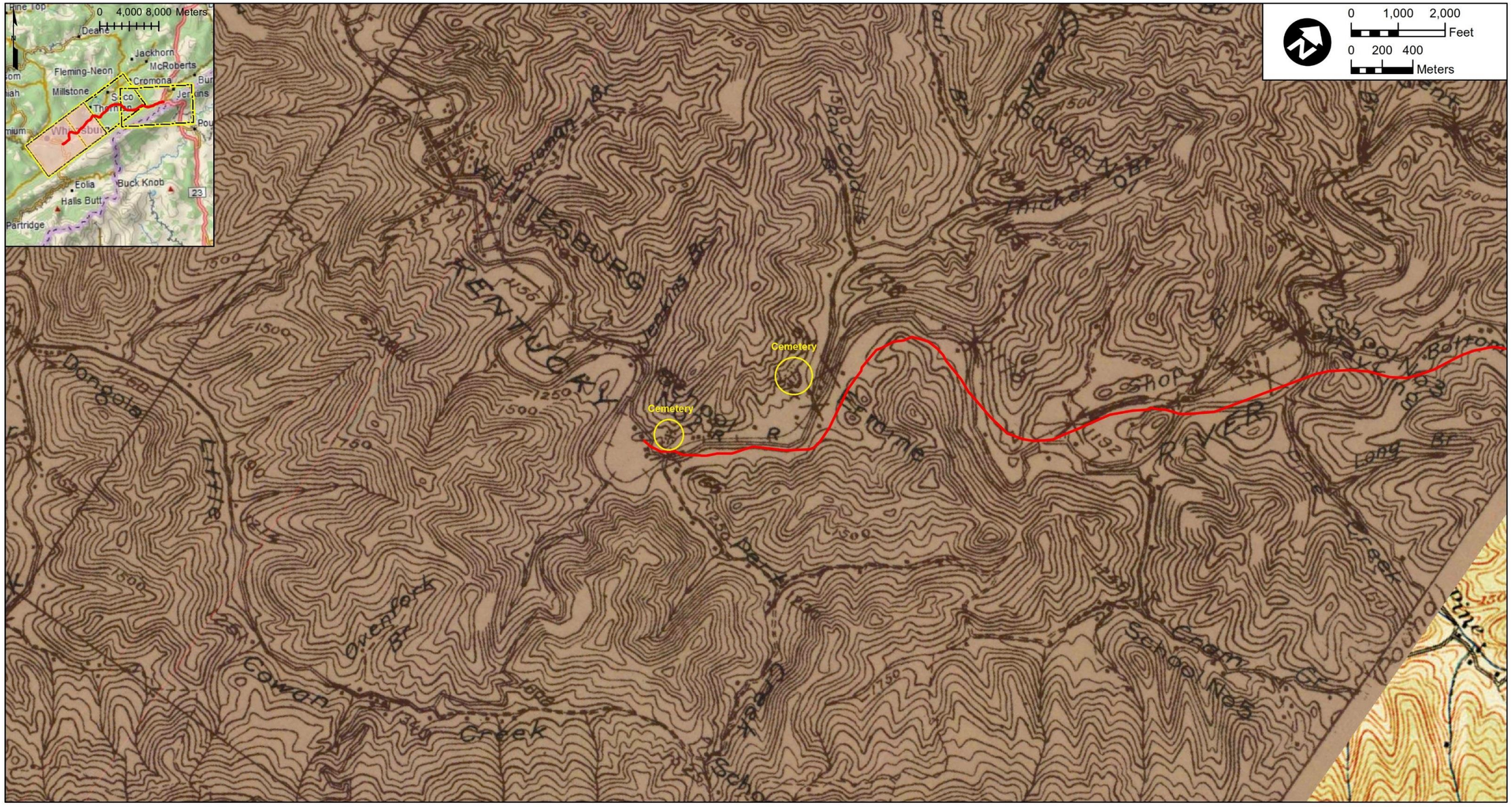
In 2013 Apogee Environment & Archaeology, Inc conducted a Phase I archaeological survey of 70.54 acres of the proposed Raven Energy, Inc surface mine (Winterhoff 2013). No archaeological sites were documented though potential aboveground historic features associated with railroads and mining were noted as part of the historic landscape.

3.2 Historic Maps of Project Area

An examination of historic maps of the study area was conducted to determine if any historic structures depicted on the maps are still present. **Table 4** lists historic maps that depict the project area. Few nineteenth century maps are available of the region. The earliest maps of eastern Kentucky prepared by the Kentucky Geological survey date to 1880 and 1889. Both are general maps associated with topographic and geological mapping that were then underway in the region. Both were large regional maps with insufficient detail to aid evaluating archaeological site potential. The US Geological Survey issued the 1:125,000 scale Whitesburg, KY-VA topographic map in 1892 which accurately depicts topography, drainages and major towns. Small towns are depicted but roads, railways, and individual structures are not shown.

The 1912 Pound, VA-KY and 1913 and Whitesburg KY-VA 1:62,500 scale USGS topographic maps provide the earliest depictions of structure locations in the project area. (**Figures 10-12**). The USGS issues revised versions of the maps for Pound, VA-KY in 1914 and Whitesburg, KY-VA in 1915 (**Figures 13-15**). The maps provide general locations for roads, railway lines, residential and commercial structures, churches/cemeteries, and schools. As many as 60 individual structures are depicted in the bottoms of the North Fork of the Kentucky River and Bottom Branch Hollow along the route of the US 119 construction corridor. Undoubtedly, many of these structures represent houses and farmsteads that date back to the nineteenth century. Based on the maps, the houses are generally dispersed which suggests much of the North Fork of the Kentucky River valley was a rural landscape despite the presence of the Lexington and Eastern Railway line that had been constructed by 1912. The communities of Payne Gap and Mayking are marked by only a few scattered buildings. The isolated houses in the Kentucky River Valley contrast with the organized rows of buildings in Jenkins, the Consolidated Coal Company's mining town that sprawled along the Elkhorn Creek to the east of the project area.

The 1954 USGS topographic maps of Jenkins West, Mayking, and Whitesburg provide a snapshot of the project area in the mid-twentieth century (**Figures 16-18**). The towns of Jenkins and Whitesburg to the east and west of the project area had expanded considerably in the four decades since the initial maps were drawn earlier in the century. The settlement of the North Fork of the Kentucky River had also greatly increased. Small compared to the 60 or so individual structures located along the route of the project corridor depicted on the 1914 and 1915 maps, in 1954 there were more than 300 buildings. Many were clustered into small urban communities like Payne Gap, Mayking, Ermine and a number of unnamed communities found at road intersections and along the hollows up and down the valley.



Amec Foster Wheeler
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CLIENT:
Kentucky Transportation Cabinet

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DRAWN BY: daniel.conn
CHK'D BY: MWF
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DATE: 7/29/2015 2:53:03 PM

PROJECT:
US 119 REALIGNMENT CORRIDOR
LETCHER COUNTY, KENTUCKY

LEGEND:
Project APE

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Imagery: DeLorme (2013); USGS 48K Topo: Whitesburg KY (1913), Pound VA (1912)

Figure 10. US 119 construction corridor depicted on 1912 Pound, VA-KY and 1913 Whitesburg, KY-VA USGS topographic maps (west end of project area).

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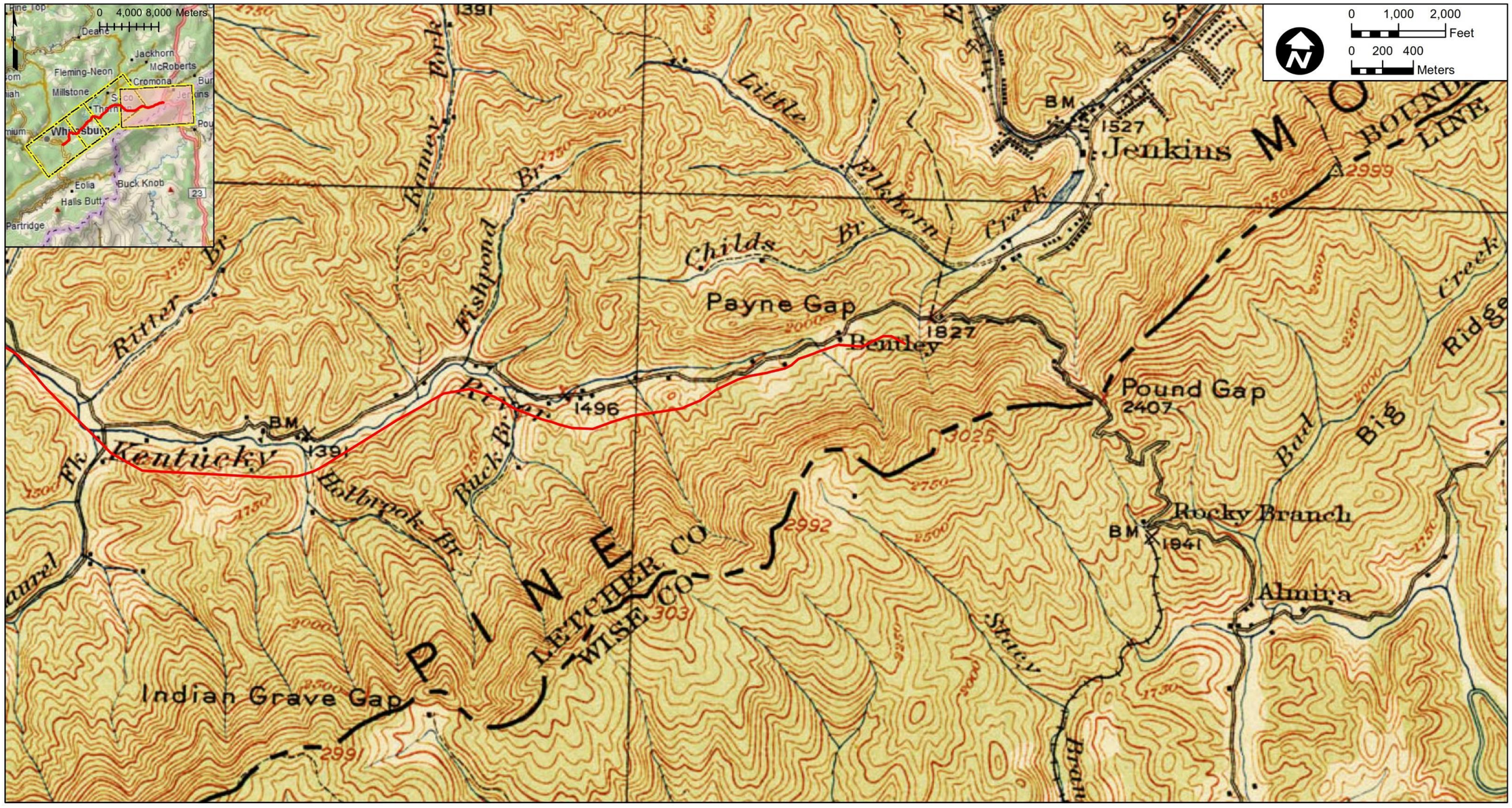
Imagery: DeLorme (2013); USGS 48K Topo: Whitesburg KY (1913), Pound VA (1912)

Figure 11. US 119 construction corridor depicted on 1912 Pound, VA-KY and 1913 Whitesburg, KY-VA USGS topographic maps (middle of project area).



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Imagery: DeLorme (2013); USGS 48K Topo: Whitesburg KY (1913), Pound VA (1912)

Figure 12. US 119 construction corridor depicted on 1912 Pound, VA-KY and 1913 Whitesburg, KY-VA USGS topographic maps (east end of project area).

Amec Foster Wheeler Environment & Infrastructure 11003 Bluegrass Pkwy. Suite 690 Louisville, KY 40299	amec foster wheeler	CLIENT: Kentucky Transportation Cabinet	CLIENT LOGO: KENTUCKY TRANSPORTATION CABINET	DRAWN BY: daniel.conn CHK'D BY: MWF PROJECTION: NAD 1983 StatePlane Kentucky FIPS 1600 Feet SCALE: 1:24,000 1 inch = 2,000 feet DATE: 7/29/2015 2:52:20 PM	PROJECT: US 119 REALIGNMENT CORRIDOR LETCHER COUNTY, KENTUCKY	LEGEND: Project APE	

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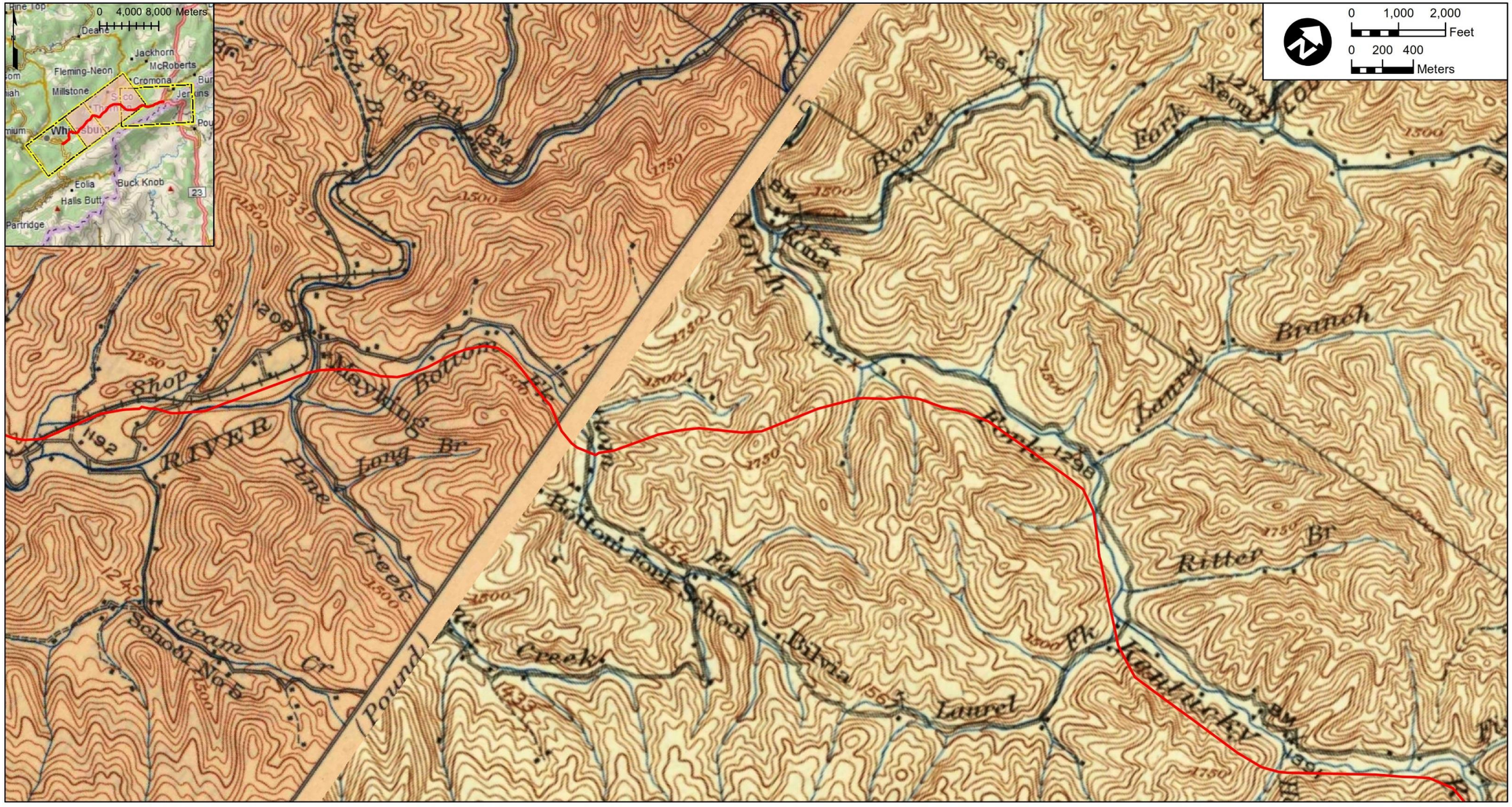
Imagery: DeLorme (2013); USGS 62.5K Topo: Whitesburg KY (1915), Pound VA (1914)

Figure 13. US 119 construction corridor depicted on 1914 Pound, VA-KY and 1915 Whitesburg, KY-VA USGS topographic maps (west end of project area).



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Imagery: DeLorme (2013); USGS 62.5K Topo: Whitesburg KY (1915), Pound VA (1914)

Figure 14. US 119 construction corridor depicted on 1914 Pound, VA-KY and 1915 Whitesburg, KY-VA USGS topographic maps (middle of project area).

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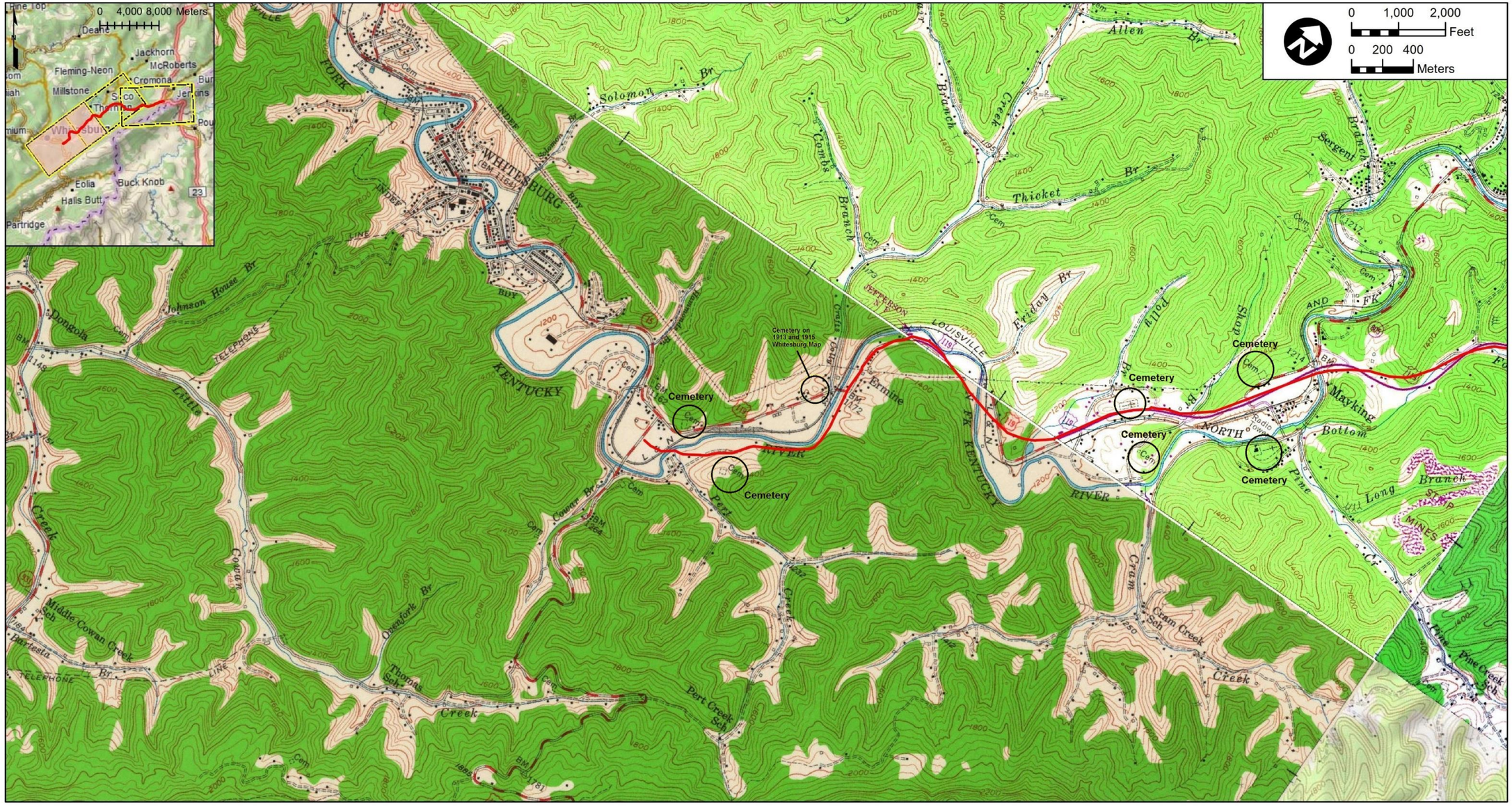
Imagery: DeLorme (2013); USGS 62.5K Topo: Whitesburg KY (1915), Pound VA (1914)

Figure 15. US 119 construction corridor depicted on 1914 Pound, VA-KY and 1915 Whitesburg, KY-VA USGS topographic maps (east end of project area).



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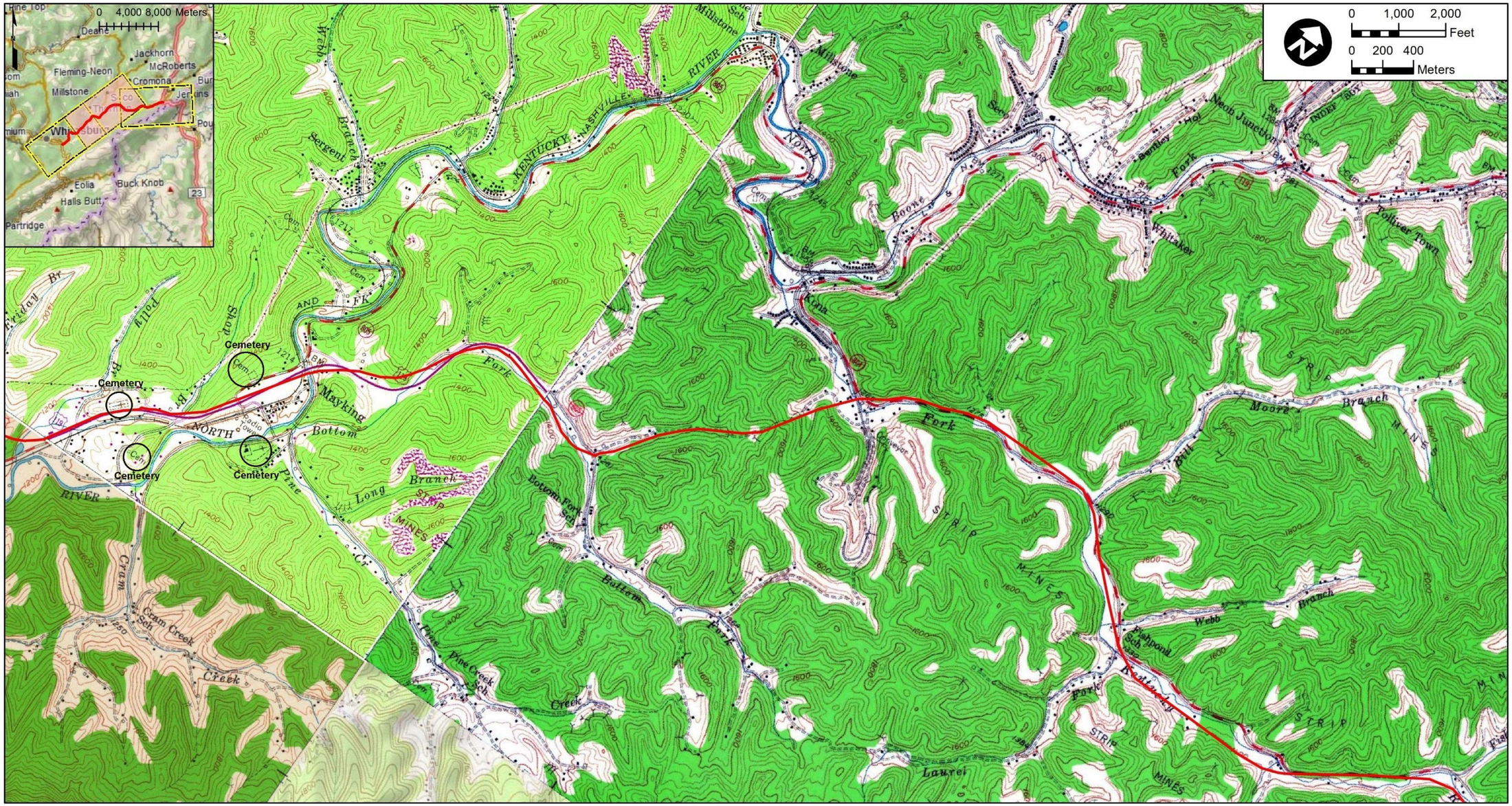
Imagery: DeLorme (2013); USGS 24K Topo: Flat Gap KY/VA (1978), Jenkins West KY/VA (1954), Jenkins East VA/KY (1978), Mayking KY (1954), Whitesburg KY/VA (1954)

Figure 16. US 119 construction corridor depicted on 1954 Jenkins East, KY-VA; 1954 Jenkins West, KY-VA; 1954 Mayking, KY; and 1954 Whitesburg, KY-VA USGS topographic maps (west end of project area).



Amec Foster Wheeler Environment & Infrastructure 11003 Bluegrass Pkwy. Suite 690 Louisville, KY 40299	amec foster wheeler	CLIENT: Kentucky Transportation Cabinet	CLIENT LOGO: KENTUCKY TRANSPORTATION CABINET	DRAWN BY: daniel.conn CHK'D BY: MWF PROJECTION: NAD 1983 StatePlane Kentucky FIPS 1600 Feet SCALE: 1:24,000 1 inch = 2,000 feet DATE: 7/29/2015 2:51:43 PM	PROJECT: US 119 REALIGNMENT CORRIDOR LETCHER COUNTY, KENTUCKY	LEGEND: Project APE	

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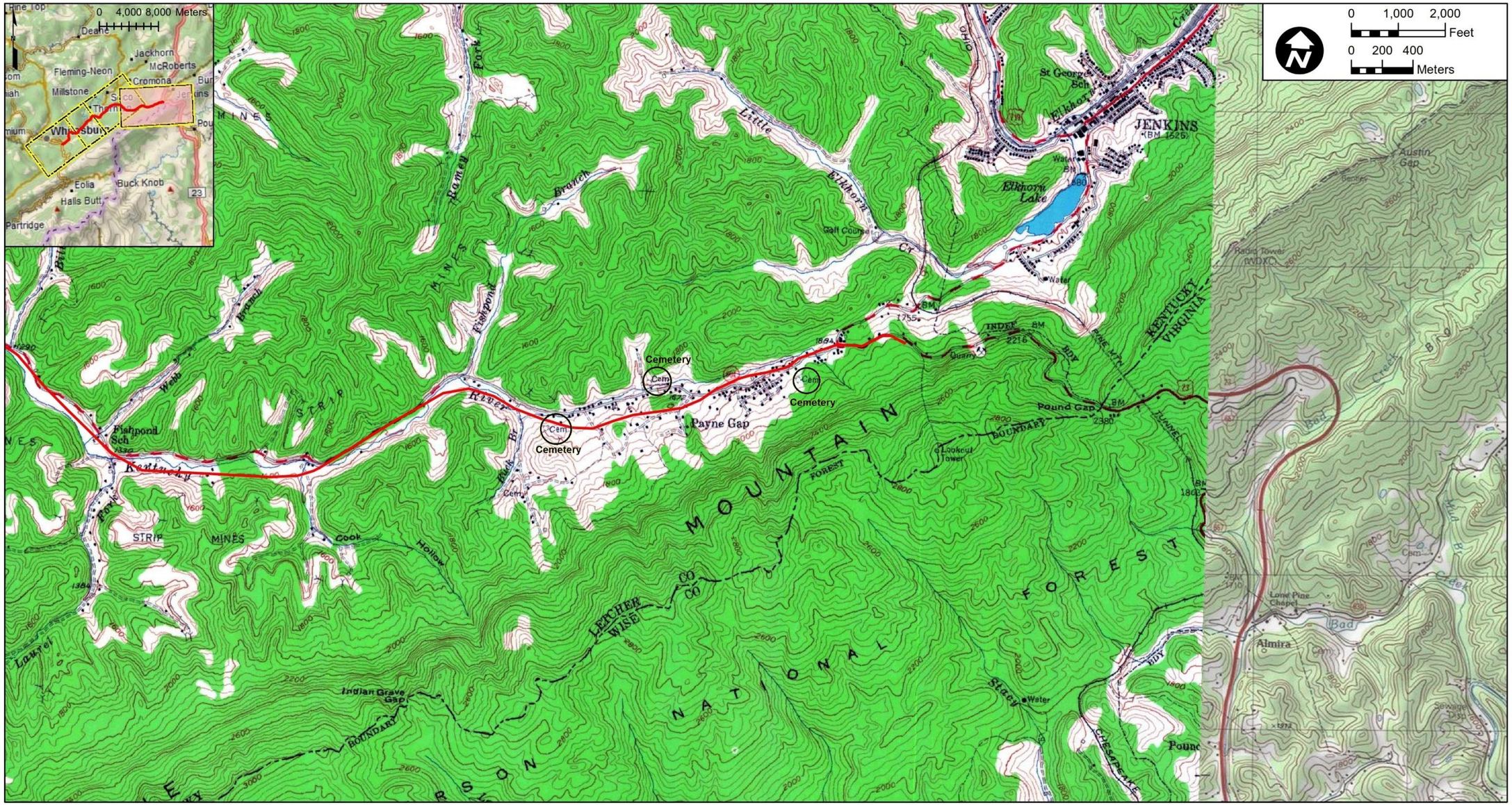
Imagery: DeLorme (2013); USGS 24K Topo: Flat Gap KY/VA (1978), Jenkins West KY/VA (1954), Jenkins East VA/KY (1978), Mayking KY (1954), Whitesburg KY/VA (1954)

Figure 17. US 119 construction corridor depicted on 1954 Jenkins East, KY-VA; 1954 Jenkins West, KY-VA; 1954 Mayking, KY; and 1954 Whitesburg, KY-VA USGS topographic maps (middle of project area).



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Imagery: DeLorme (2013); USGS 24K Topo: Flat Gap KY/VA (1978), Jenkins West KY/VA (1954), Jenkins East VA/KY (1978), Mayking KY (1954), Whitesburg KY/VA (1954)

Figure 18. US 119 construction corridor depicted on 1954 Jenkins East, KY-VA; 1954 Jenkins West, KY-VA; 1954 Mayking, KY; and 1954 Whitesburg, KY-VA USGS topographic maps (east end of project area).

The locations of 13 cemeteries and churches were identified near the construction corridor on current and historic topographic maps of the project area. Their locations are identified in **Figures 5-7**. Cemeteries that are greater than 50 years old should be documented as archaeological sites and evaluated for NRHP eligibility. Two cemeteries located in the western portion of the project area are depicted on the 1913 and 1915 Whitesburg maps (**Figure 8** and **Figure 11**). One is located at the mouth of Pert Creek and the second is located on a ridge spur to the east of Ermine. The cemeteries are more than a century old and may well date to the 1800s. The cemetery at Ermine is not depicted on maps later than 1915 and appears to have been abandoned. An additional eight cemeteries and churches are depicted on the 1954 maps (**Figures 14-16**). These are at least 60 years old. Small unmarked family cemeteries and individual graves are common throughout the Kentucky. Other small cemeteries and grave sites not depicted on maps could be present along the project corridor.

Table 3. Historic Maps of Project Area

Map Year	Title	Comments
1880	"Sketch Map of the Upper Cumberland River" By the Kentucky Geological Survey, John R. Proctor, Director.	General overview of terrain and waterways with locations of major towns marked. Roads, smaller towns, and structures are not depicted.
1889	"Preliminary Map of South East Kentucky" By the Kentucky Geological Survey, John R. Proctor, Director.	General terrain and waterways are depicted, along with major roads and town. Small towns and structures are not shown.
1892	"Whitesburg, KY-VA Topographic Map". United States Geological Survey, John Wesley Powell, Director.	1:125,000 scale USGS topographic map that accurately depicts topography, drainages, and locations of major towns. Roads, railways, small towns, and individual structures are not depicted. Based on 1883, 1884, 1885 regional surveys.
1912	"Pound, VA-KY Topographic Map" United States Geological Survey	1:62,500 scale USGS topographic map that accurately depicts topography, drainages, and major features of the built environment. Locations of roads, railways, structures are depicted.
1913	"Whitesburg, KY-VA Topographic Map" United States Geological Survey	1:62,500 scale USGS topographic map that accurately depicts topography, drainages, and major features of the built environment. Locations of roads, railways, individual structures are depicted.
1914	"Pound, VA-KY Topographic Map" United States Geological Survey	1:62,500 scale USGS topographic map that accurately depicts topography, drainages, and major features of the built environment. Locations of roads, railways, individual structures are depicted. Based on 1912 regional survey.
1915	"Whitesburg, KY-VA Topographic Map" United States Geological Survey	1:62,500 scale USGS topographic map that accurately depicts topography, drainages, and major features of the built environment. Locations of roads, railways, individual structures are depicted. Based on 1913 regional survey.
1954	"Jenkins, KY-VA Topographic Map" United States Geological Survey	1:24,000 scale USGS topographic map that accurately depicts topography, drainages, and major features of the built environment. Locations of roads, railways, individual structures are depicted.
1954	"Mayking, KY-VA Topographic Map" United States Geological Survey	1:24,000 scale USGS topographic map that accurately depicts topography, drainages, and major features of the built environment. Locations of roads, railways, individual structures are depicted.
1954	"Whitesburg, KY-VA Topographic Map" United States Geological Survey	1:24,000 scale USGS topographic map that accurately depicts topography, drainages, and major features of the built environment. Locations of roads, railways, individual structures are depicted.

4.0 POTENTIAL FOR ARCHAEOLOGICAL SITES AND MANAGEMENT RECOMMENDATIONS

Various factors must be considered when assessing the potential of an area to contain prehistoric and/or historic archaeological sites. Among these are topographic setting, soils, proximity to water, location along major routes of transportation, prior settlement patterns, and the extent of ground disturbances within the area resulting from erosion, construction, maintenance, or farming activities.

With the exception of small areas, the anticipated route of the US 119 improvement corridor through the North Fork of the Kentucky River valley east of Whitesburg has not been surveyed for archaeological sites. Only three previously reported archaeological sites were identified in the 2-km (1.24-mi) research buffer including 15Lr48, 15Lr80, and 15Lr98. All are located far from the anticipated road corridor and would not be physically impacted.

Given the rugged terrain of eastern Kentucky, the river valleys of Letcher County have provided more favorable settings for prehistoric and historic settlement. Bearing this in mind, the route of the project area through the North Fork of the Kentucky River valley is considered to have a moderate to high potential for both prehistoric and historic sites. The potential for archaeological is lower along the steep mountain slopes. But natural rockshelters may be present in these area which were used by both prehistoric and historic people and mining activity may be present. However, because historic settlement has been concentrated in the river valleys, if archaeological sites are present in the project area there is a high potential that they have been disturbed by historic and ongoing ground disturbances such as residential and commercial development, road destruction, and other activities. Amec Foster Wheeler recommends that a Phase I archaeological survey should be conducted along the construction alternatives to identify archaeological sites that may be adversely impacted by the proposed project.

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