



Legal Department

American Electric Power
1 Riverside Plaza
Columbus, OH 43215-2373
AEP.com

August 2, 2016

Chairman Asim Z. Haque
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215

Erin C. Miller
Contract Counsel –
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August 2, 2016

**Re: Case No. 16-1527-EL-BLN
In the Matter of the Letter of Notification for the
Hanging Rock 138 kV Transmission Line Rebuild Project**

Dear Chairman Haque,

AEP Ohio Transmission Company (“Company”) filed a Letter of Notification in the instant case on Friday, July 29th in thirteen parts. The Company inadvertently included the wrong engineering design drawing for the Project in its “Part 3” filing under “Appendix B.”

Attached is an updated Part 3, which is to replace the previously filed Part 3. Included in this attachment is the correct engineering schematic for the Project under Appendix B.

If you have any questions, please do not hesitate to contact me.

Respectfully Submitted,

/s/ Erin C. Miller
Erin C. Miller
Contract Counsel
AEP Ohio Transmission Company, Inc.

cc: Counsel OPSB Staff
Jon Pawley, OPSB Staff

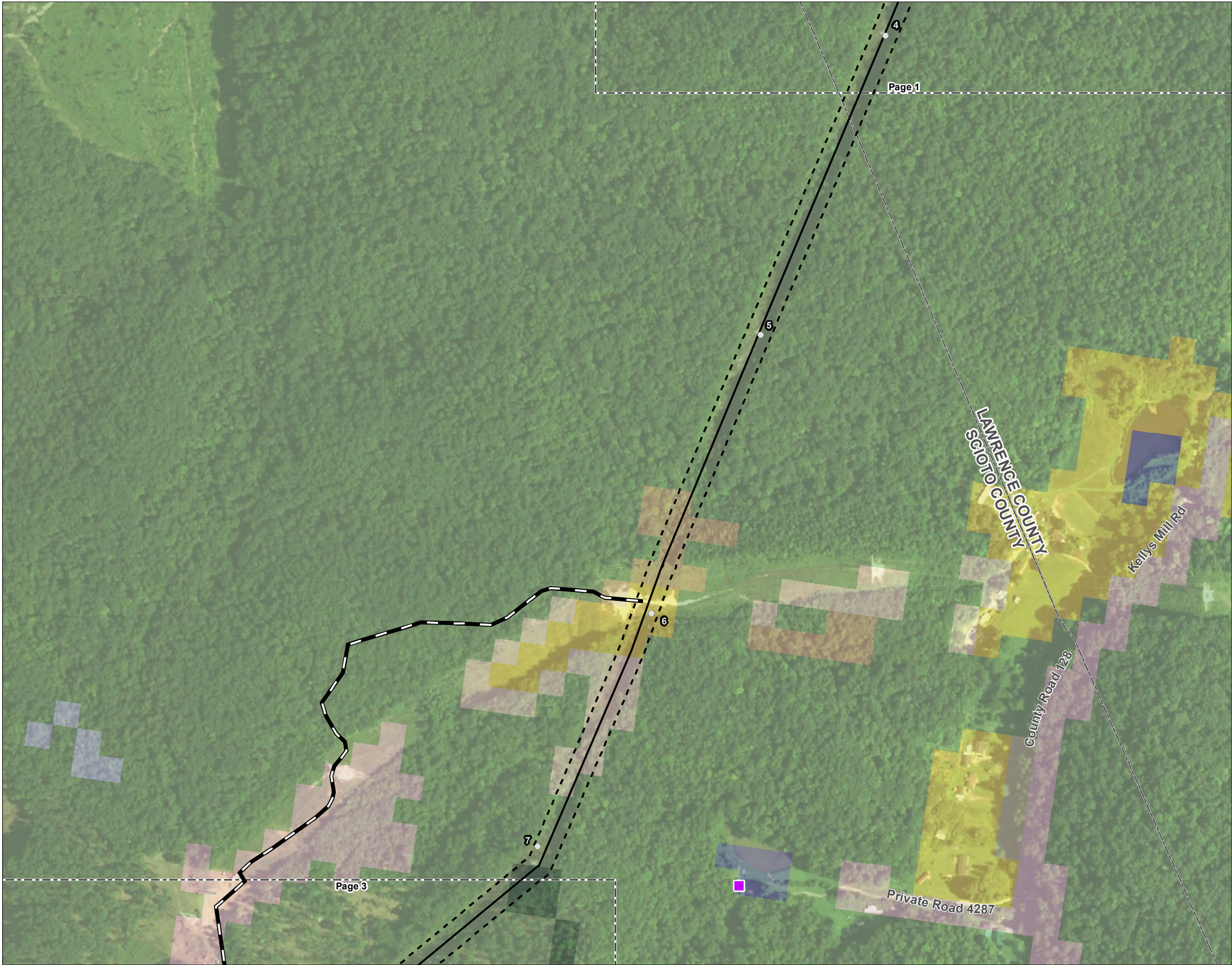


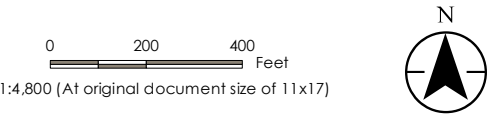
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Title
Land Use Map

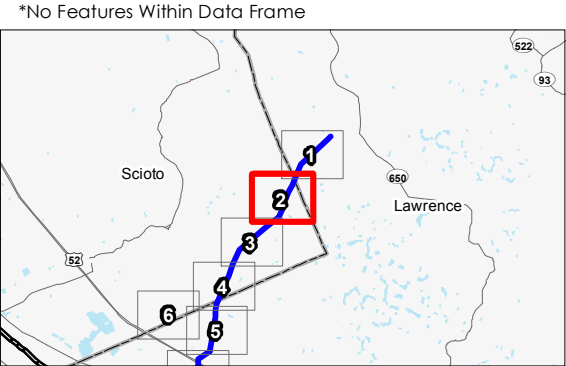
Client/Project
American Electric Power
Hanging Rock 138kV Transmission Line Project

Project Location
Lawrence and Scioto
Counties, OH

193704584
Prepared by JD on 2016-07-11
Technical Review by CP on 2016-07-13
Independent Review by MK on 2016-07-21



- Legend**
- | | | | |
|--|--------------------------------------|--|-----------------------------|
| | Hanging Rock 138kV Transmission Line | | Developed, High Intensity |
| | AEP Substation | | Developed, Low Intensity |
| | Existing Structures | | Developed, Medium Intensity |
| | Access Road | | Developed, Open Space |
| | 100ft ROW | | Evergreen Forest |
| | Residence | | Hay/Pasture |
| | Cemetery* | | Herbaceous |
| | Barren Land | | Mixed Forest |
| | Cultivated Crops | | Open Water |
| | Deciduous Forest | | Shrub/Scrub |
| | | | Woody Wetlands |



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources Include: Stantec, AEP, NADS, USGS, NLCD
3. Orthophotography: 2015 NAIP



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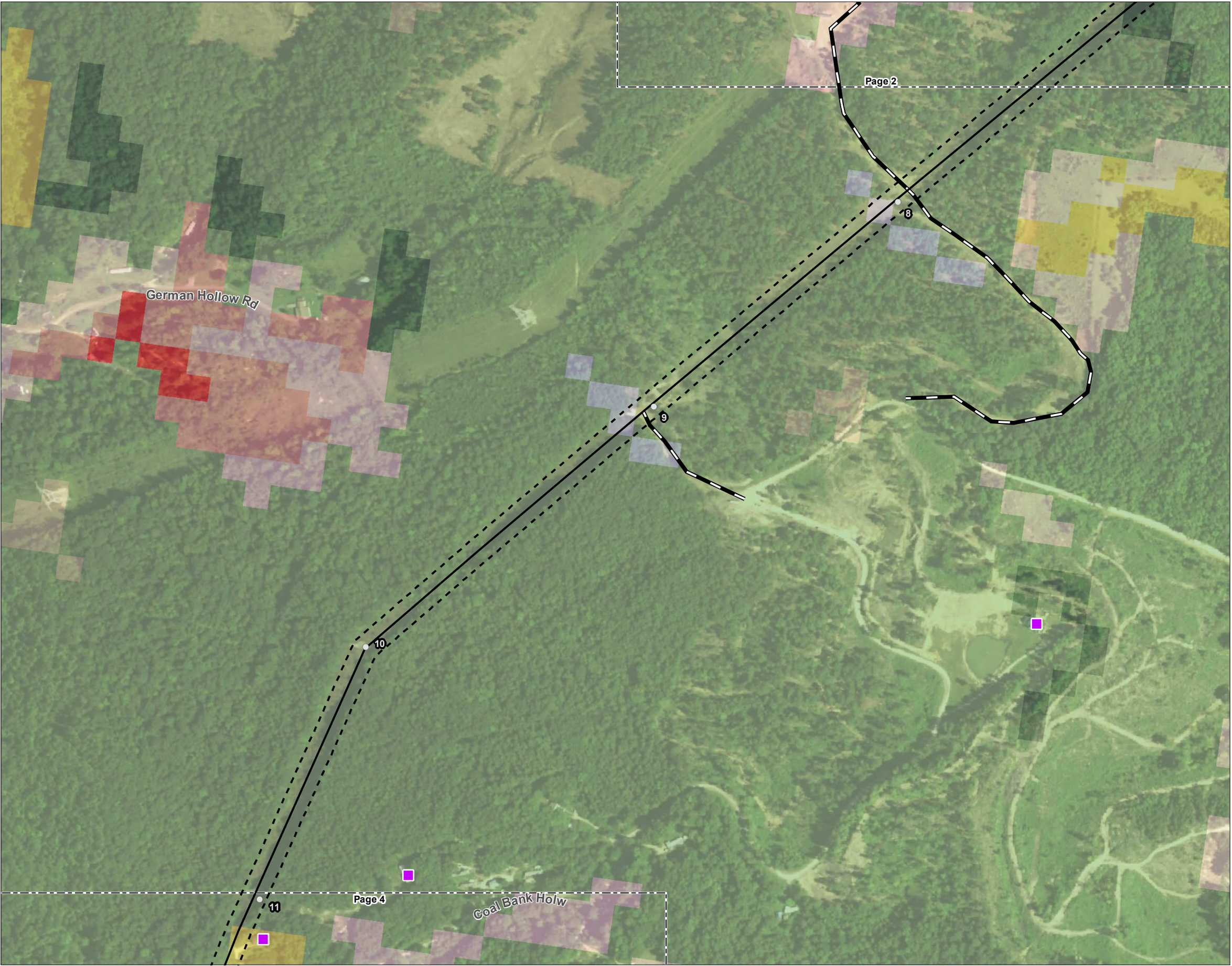


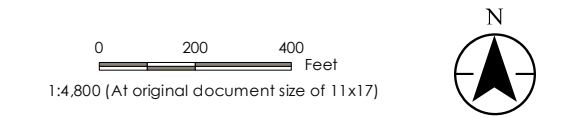
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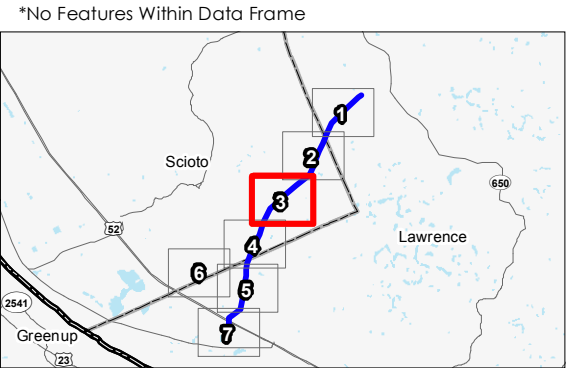
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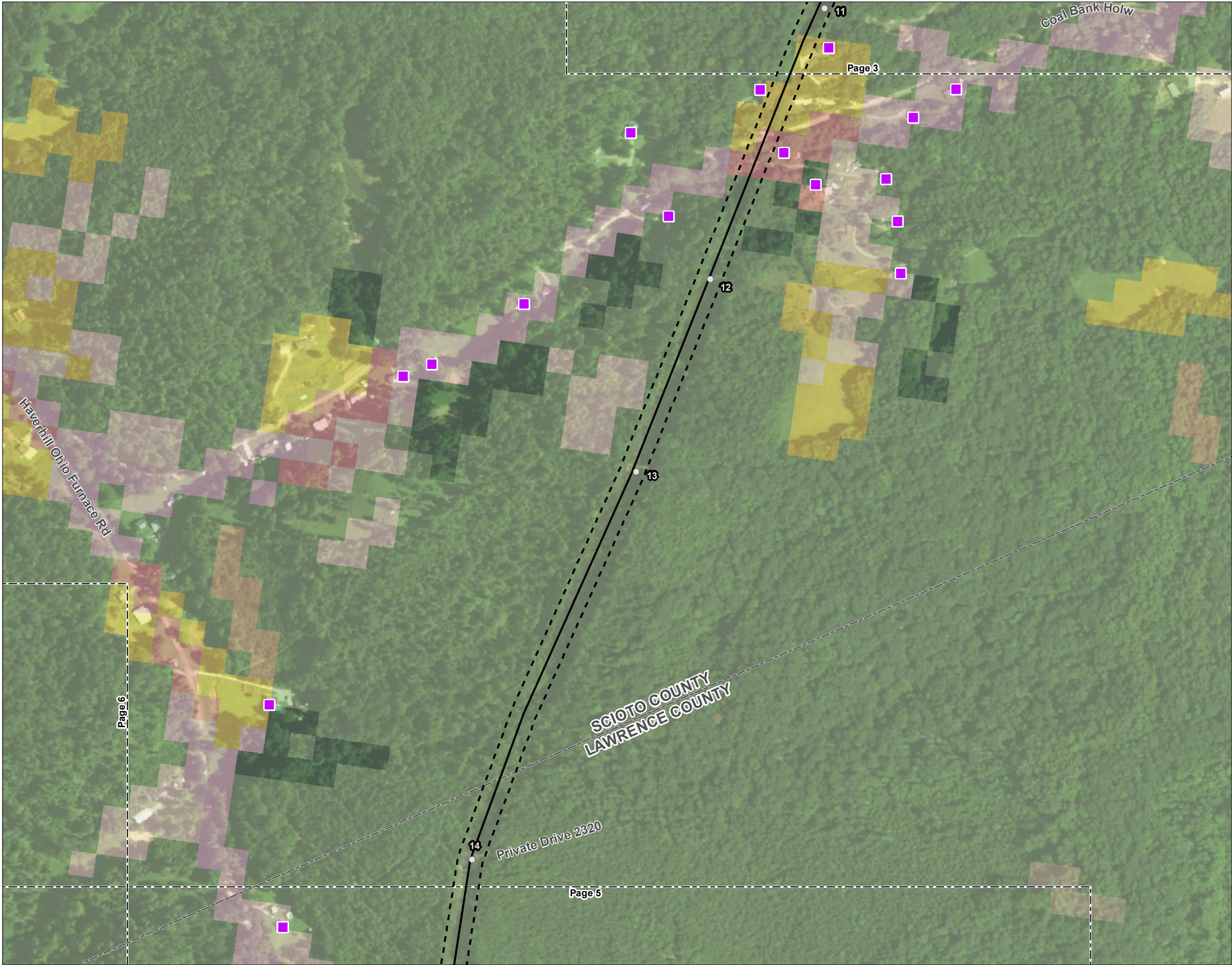
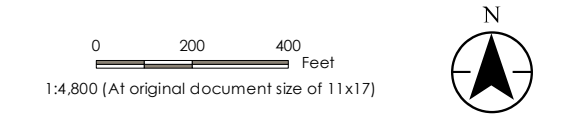


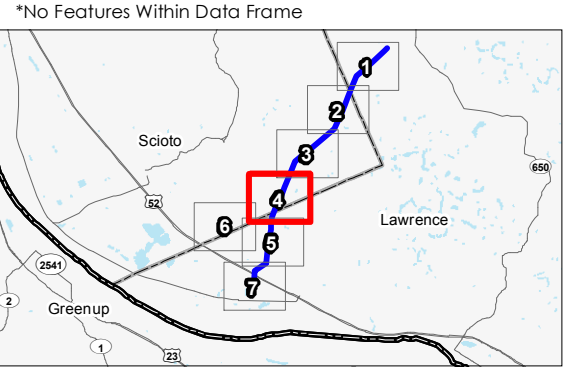
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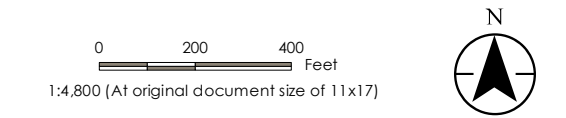
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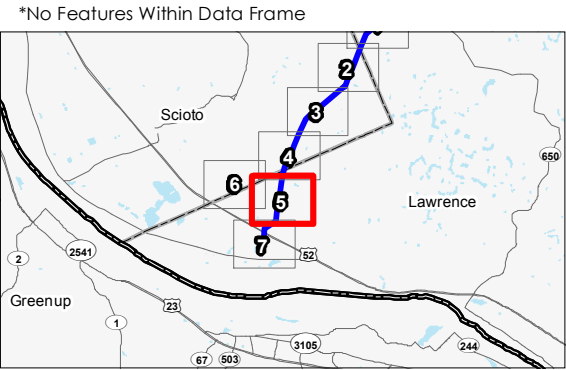
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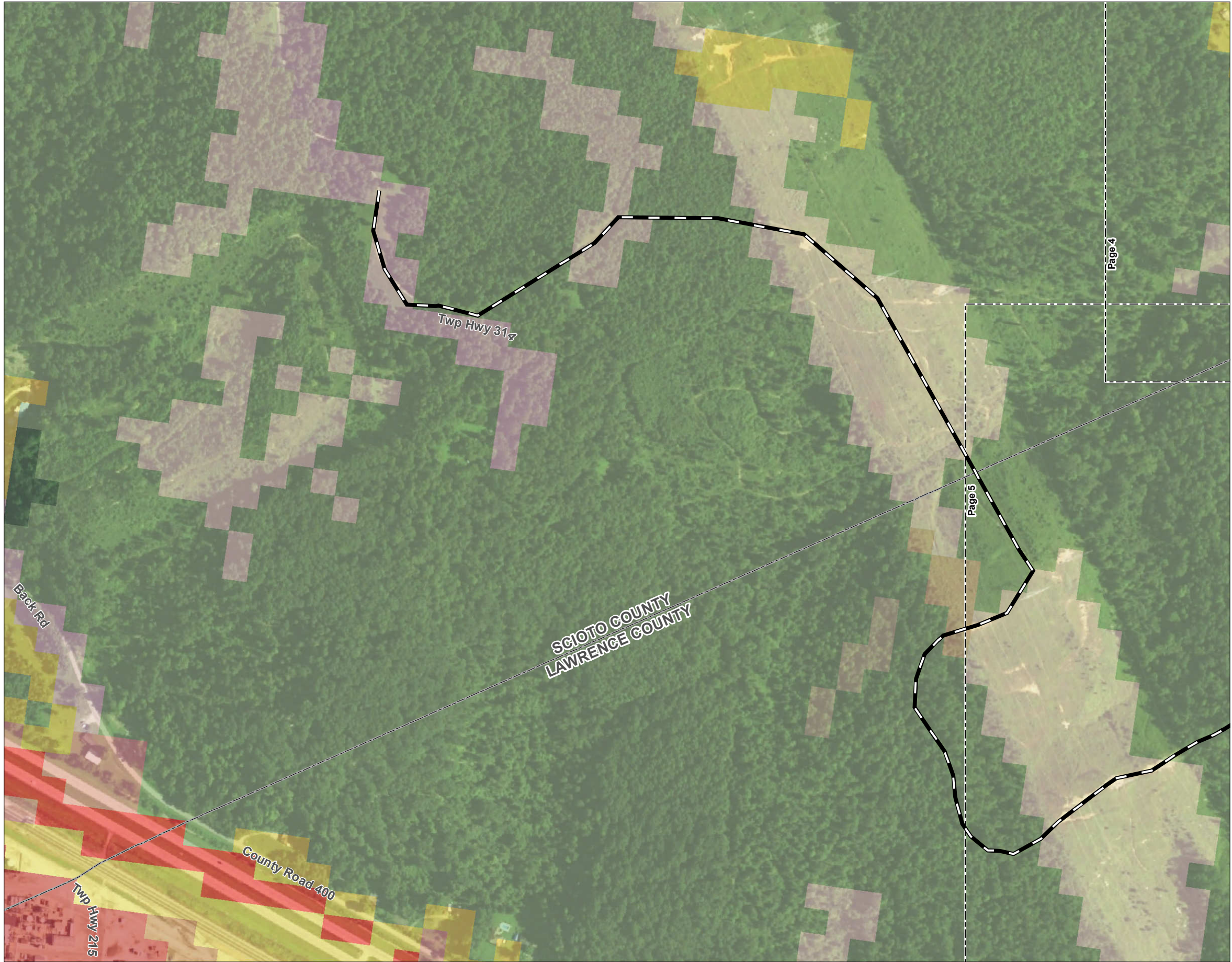


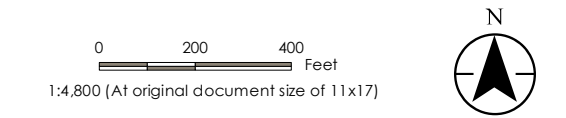
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Legend

Hanging Rock 138kV Transmission Line

AEP Substation

Existing Structures

Access Road

100ft ROW

Residence

Cemetery*

NLCD

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Cultivated Crops

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Developed, High Intensity

Developed, Low Intensity

Developed, Medium Intensity

Developed, Open Space

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Herbaceous

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Woody Wetlands

*No Features Within Data Frame

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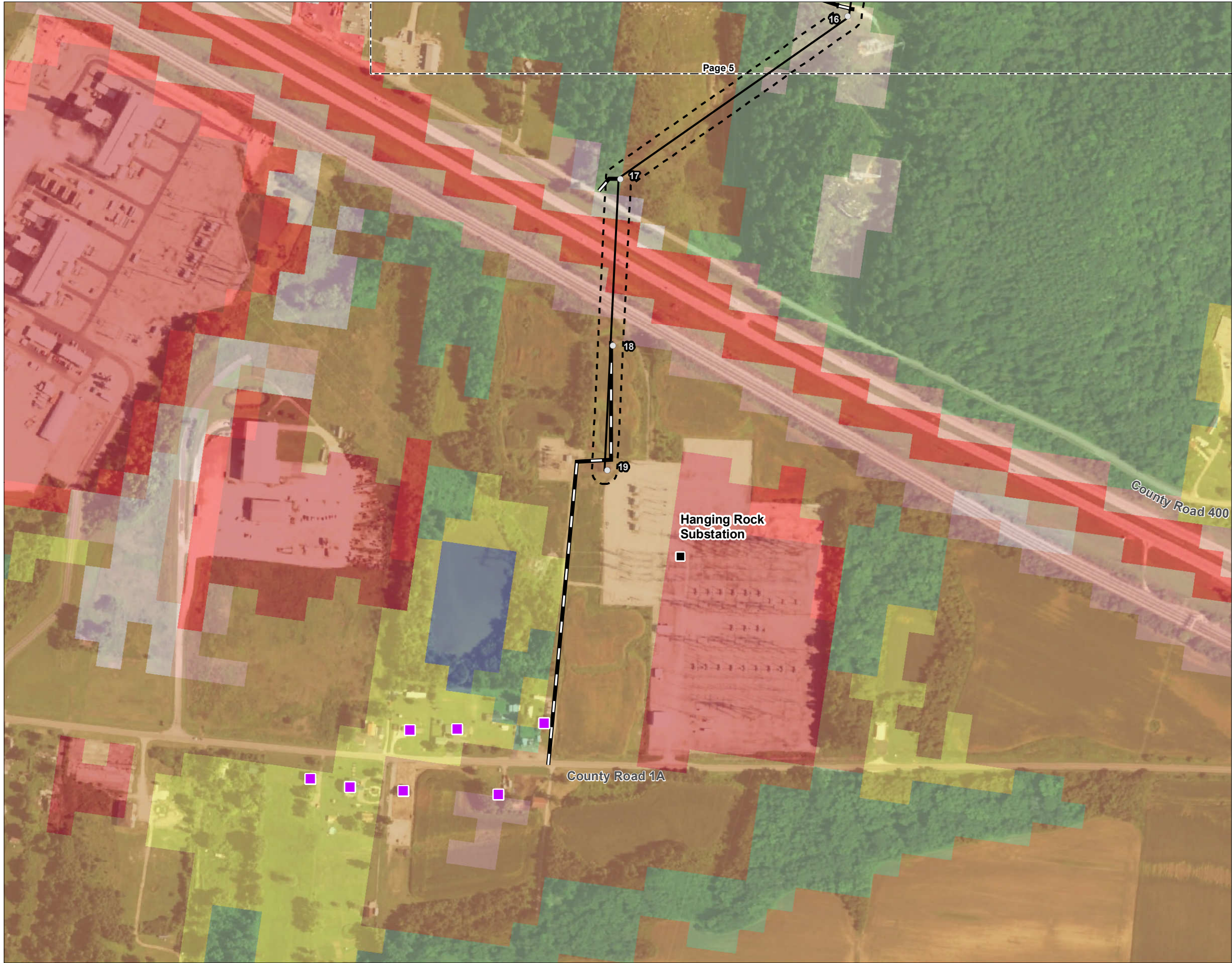


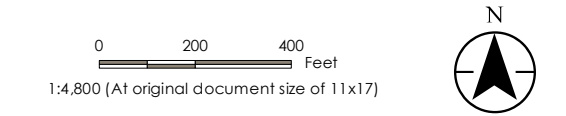
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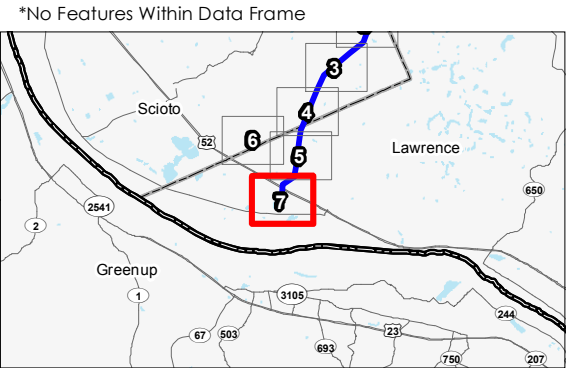
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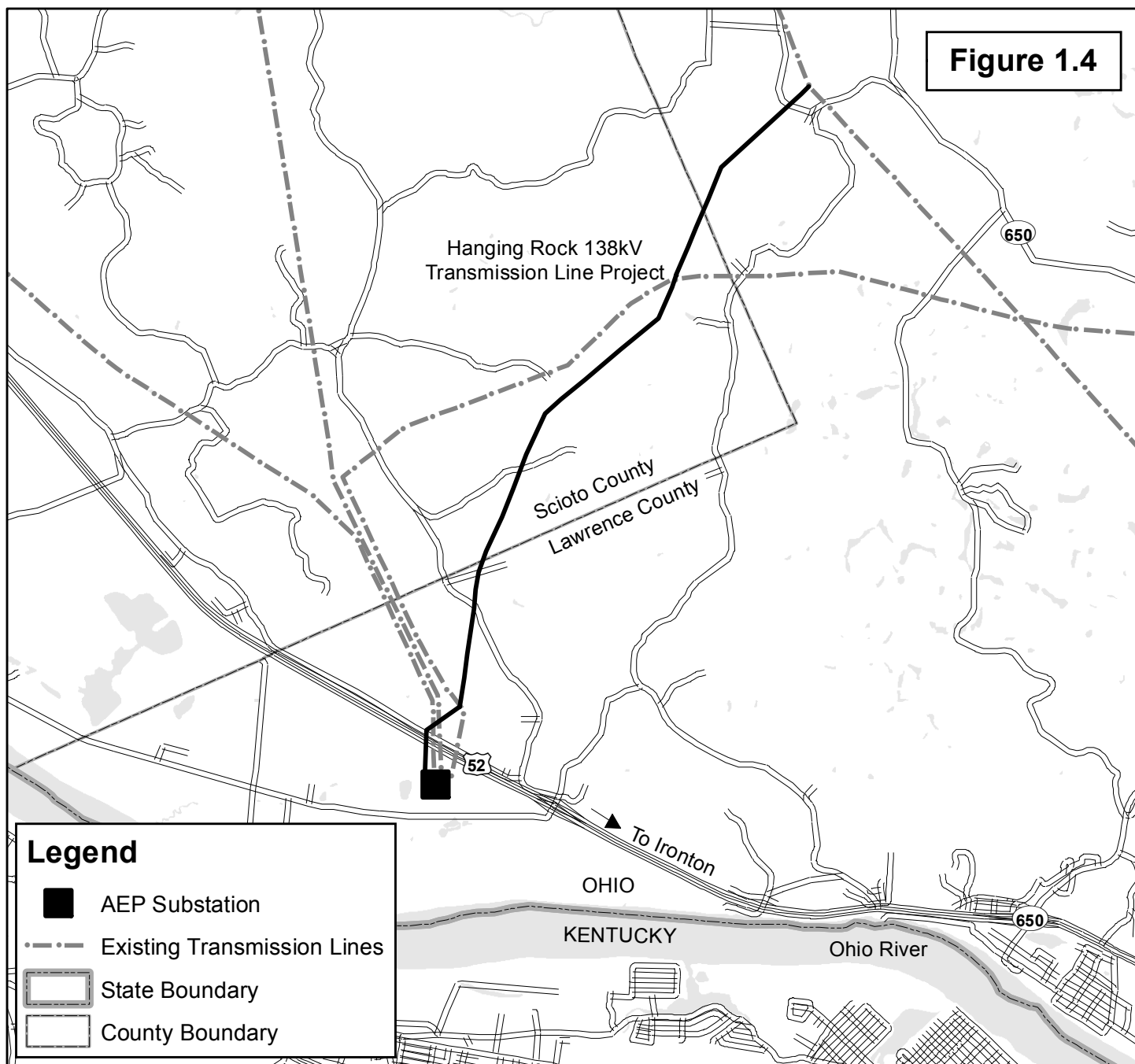
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Figure 1.4

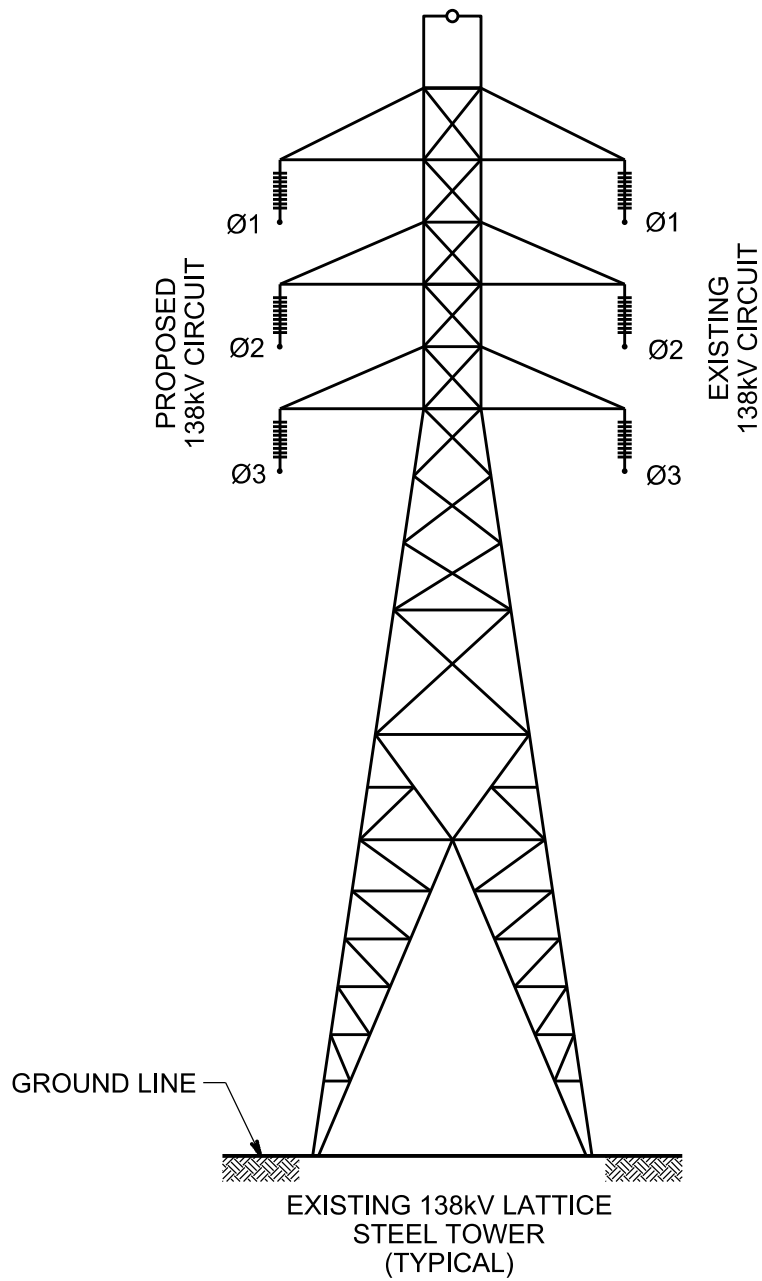


LETTER OF NOTIFICATION FOR HANGING ROCK 138KV TRANSMISSION LINE PROJECT

Appendix B Design Drawings

July 29, 2016

Appendix B Design Drawings



HANGING ROCK 138kV EXTENSION



PROPOSED LINE
TOWER - SUSPENSION
CONFIGURATION

NOT TO SCALE

FIGURE 1

LETTER OF NOTIFICATION FOR HANGING ROCK 138KV TRANSMISSION LINE PROJECT

Appendix C Cultural Resources Survey Report
July 29, 2016

Appendix C Cultural Resources Survey Report



**Phase I Cultural Resources Management Survey for the
Hanging Rock 138kV Extension Project in Green Township,
Scioto County and Elizabeth & Hamilton Townships,
Lawrence County, Ohio**

Ryan J. Weller

July 25, 2016

1395 West Fifth Ave.
Columbus, OH 43212
Phone: 614.485.9435
Fax: 614.485.9439
Website: www.wellercrm.com

**Phase I Cultural Resources Management Survey for the
Hanging Rock 138kV Extension Project in Green Township,
Scioto County and Elizabeth & Hamilton Townships,
Lawrence County, Ohio**

By

Ryan J. Weller

Submitted By:

**Ryan J. Weller, P.I.
Weller & Associates, Inc.
1395 West Fifth Ave.
Columbus, OH 43212
Phone: 614.485.9435 Fax: 614.485.9439
Website: www.wellercrm.com**

Prepared for:

**American Electric Power
1 Riverside Plaza
Columbus, OH 43215**

Lead Agency:

Ohio Power Siting Board



Ryan J. Weller, P.I.

July 25, 2016

Abstract

In July of 2016, Weller & Associates, Inc. conducted a Phase I cultural resources management survey for the Hanging Rock 138kV Extension Project in Green Township, Scioto County and Elizabeth & Hamilton Townships, Lawrence County, Ohio. The lead agency for the project is the Ohio Power Siting Board. A cultural resources management survey was conducted in a manner that is reflective of Section 106 of the National Historic Preservation Act to identify any sites or properties relative to this undertaking and to evaluate them for the National Register of Historic Places. The work involved a literature review and field investigations. There were no cultural materials identified.

The majority of the project area was severely disturbed and precluded archaeological testing. One area of the project consisted of plowed agricultural soils conducive to surface collection methods. The remaining portions of the project were comprised by existing roads and/or mechanically stripped soils.

The literature review for this project did not identify any sites or previously recorded cultural resources within or immediately abutting the project area. Two prehistoric sites, 33LE0009 and 33LE0016 are located to the east and south of the project area according to the online mapping resources.

There were no cultural materials identified during these investigations and the work is not considered to affect any historic properties. No further work is recommended for this undertaking.

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Introduction

In July of 2016, American Electric Power (AEP) contracted Weller & Associates, Inc. (Weller) to conduct Phase I Cultural Resources Management Survey for the Hanging Rock 138kV Extension Project (Project) in Green Township, Scioto County and Elizabeth & Hamilton Townships, Lawrence County, Ohio (Figures 1-3). The work was conducted under contract with American Electric Power (AEP) pursuant to documentary requirements for the Ohio Power Siting Board (OPSB). These investigations were conducted in a manner subject to the survey and report format established in *Archaeology Guidelines* (Ohio State Historic Preservation Office [SHPO] 1994). The work efforts were designed to evaluate pertinent cultural resources for the National Register of Historic Places (NRHP) pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 [36 CFR 800]). This report summarizes the results of the fieldwork and literature review. The work includes a literature review/background documentation, archaeological field investigations, and visual inspection of the Area of Potential Effects (APE).

Alex Thomas conducted the literature review on July 5, 2016. Ryan Weller served as the Principal Investigator/Senior Project Manager and Chris Nelson was the Project Manager. The field crew included Ryan Weller, Alex Thomas, Matt Sanders, Craig Schaefer, and Stephanie Sharps. The report was prepared by Joshua Engle with figures by Alex Thomas.

Project Description

The proposed project will restring a new circuit on the opposite side of the existing poles along the Hanging Rock 138 kV transmission line. There are eight poles that require access roads as the line will be installed using helicopters. The field work will only be required for the eight poles. The line extends through portions of Elizabeth and Hamilton Townships, Lawrence County, and a portion of Green Township, Scioto County. The line is existing and the changes should be minimal with the addition of another line on existing poles. Therefore, an architectural survey will not be necessary. Access roads have been identified with a total of approximately 5,449 m (17,877 ft) requiring survey. The access roads cross a mixture of forested and open areas as well as slope and previously mined locations.

Environmental Setting

Climate

Lawrence/Scioto Counties, like all of Ohio, have a continental climate, with hot and humid summers and cold winters. The prevailing wind is from the south. The total annual precipitation for the county is about 41 inches most of which (55 percent) falls as rain between April and September [United States Department of Agriculture, Soil Conservation Service (USDA, SCS) 1998].

Physiography, Relief, and Drainage

The project area is located in the unglaciated Allegheny Plateau Region. The county is contained within the Ironton Plateau of this region (Brockman 1998). The terrain and topography in the county is rugged and hilly with steeply sided upland landforms. The soils in this area are primarily formed from decomposing and weathering underlying bedrock as the parent material. Areas along the river are formed from ancient glacial outwash deposits, old alluvium, and more recent alluvium. The project area is located within the Ohio River Valley. The immediate area is drained by unnamed tributaries of Sperry Fork, Union Branch, and the Ohio River.

Geology

The underlying bedrock in the county is affiliated with the Pennsylvanian-era Systems (Brockman 1998; USDA, SCS 1998). The bedrocks of the area consist of sandstone, clay, shale, limestone, siltstone, and coal.

Soils

The project is located within the Shelocta-Wharton-Latham soil association in Scioto County and Shelocta-Latham soil association in Lawrence County. Both associations consist of deep and moderately deep, strongly sloping to steep, well drained and moderately well drained soils formed in colluvium and residuum on uplands (USDA, SCS 1989: 7, 1998: 14). The project is contained within 10 specific soil series. The soils are consistent with upland conditions that consist of silt loams and silty clay loams with the exception of one area in the Shelocta silt loam (SaB) series on a terrace (USDA, SCS 1989, 1988).

Table 1. Soils in the Project.			
Soil Symbol	Soil Name	% Slope	Location
BkD	Bethesda channery silty clay loam	8-25	Coal extraction spoil
CtB	Coolville-Tilsit silt loams	2-6	Hills
GIL1D1	Gilpin-Latham silt loams,	15-25	Side Slope
LaGZD1	Latham-Gilpin association, hilly	8-15	Hills
LaSXD1	Latham-Steinsburg complex	8-15	Side Slope
SaB	Sciotoville silt loam	1-6	Terraces
SbB	Shelocta silt loam	2-6	Hills
SsF	Steinsburg-Shelocta association, very steep	40-70	Side Slope
SWLZE1	helocta-Wharton-Latham association, steep	25-40	Side Slope
TcB	Tilsit-Coolville association, undulating	3-8	Hills

Flora

There was, and continues to be, great floral diversity in Ohio. This diversity is relative to the soils and the terrain that generally includes the till plain, lake plain, terminal glacial margins, and unglaciated plateau (Forsyth 1970). Three major glacial advances, including the Kansan, Illinoian, and Wisconsinan, have affected the landscape of Ohio. The effects of the Wisconsin glaciation are most pronounced and have affected more than half of the state (Pavey et al. 1999).

The least diverse part of Ohio extends in a belt from the northeast below the lake-affected areas through most of western Ohio (Gordon 1966). These areas are part of the late Wisconsin ground moraine and lateral end moraines. It is positioned between the lake plains region and the terminal glacial moraines. This area included broad forested areas of beech maple forests interspersed with mixed oak forests in elevated terrain or where relief is greater (Forsyth 1970; Gordon 1966). Prairie environments such as those in Wyandot and Marion County areas would contain islands of forests, but were mostly expansive open terrain dominated by grasses.

The northwestern Ohio terrain is nearly flat because of ancient glacial lakes and glaciation, which affected the flora. However, the vegetation was more diverse than the till plain to the south and east because of the variety of factors that contributed to its terrain. Forests within the Black Swamp were generally comprised of elm/ash stands; however, dissected areas along drainages and drier, elevated areas from beach deposits would contain mixed forests of oak and hickory (Gordon 1966, 1969). There was little upland floral diversity in the lake plains (Black Swamp region) except for the occasional patches of oak and hickory. Floral variety was most evident in narrow sleeves along larger stream valleys where there is relief.

The most biological diversity in Ohio is contained within the Allegheny Plateau, which encompasses the southeastern two-thirds of the state (Sheaffer and Rose 1998). Because this area is higher and has drier conditions, it is dominated by mixed oak forests. Some locations within the central part of this area contain beech and mixed mesophytic forests. There are large patches of oak and sugar maple forests to the south of the terminal moraine from Richland to Mahoning County (Gordon 1966).

Southwestern Ohio from about Cincinnati to Bellefontaine east to the Scioto River historically contained a very diverse floral landscape. This is an area where moraines from three glacial episodes are prevalent (Pavey et al. 1999). Forests in this area include elm-ash swamp, beech, oak-sugar maple, mixed mesophytic, prairie grasslands, mixed oak, and bottomland hardwoods (Core 1966; Gordon 1966, 1969). These forest types are intermingled with prairies being limited to the northern limits of this area mostly in Clark and Madison Counties.

Generally, beech forests are the most common variety through Ohio and could be found in all regions. Oak and hickory forests dominated the southeastern Ohio terrain and were found with patchy frequency across most of northern Ohio. Areas that were formerly open prairies and grasslands are in glacial areas, but are still patchy. These are in the west central part of the state. Oak and sugar maple forests occur predominantly along the glacial terminal moraine. Elm-ash swamp forests are prevalent in glaciated areas including the northern and western parts of Ohio (Gordon 1966; Pavey et al. 1999).

The majority of Gallia and Lawrence counties, including the project areas, is generally within what is considered to be a mixed oak forest area (Gordon 1966). The forestation of the county consists mostly of hardwoods including, "oak/hickory, Virginia pine/pitch pine, and oak/pine" (USDA, SCS 1998:79).

Fauna

The upland forest zone offered a diversity of mammals to the prehistoric diet. This food source consisted of white-tailed deer, black bear, Eastern cottontail rabbit, opossum, a variety of squirrels, as well as other less economically important mammals. Several avian species were a part of the upland prehistoric diet as well (i.e. wild turkey, quail, ruffed grouse, passenger pigeon, etc.). The lowland zone offered significant species as well. Raccoon, beaver, and muskrat were a few of the mammals, while wood duck and wild goose were the economically important birds. Fishes and shellfish were also an integral part of the prehistoric diet. Ohio muskellunge, yellow perch, white crappie, long nose gar, channel catfish, pike, and sturgeon were several of the fish, whereas, the Ohio naiad mollusc, butterfly's shell, long solid, common bullhead, knob rockshell, and cod shell were the major varieties of shellfish. Reptiles and amphibians, such as several varieties of snakes, frogs, and turtles, were also part of the prehistoric diet (Trautman 1981; Lafferty 1979; Mahr 1949).

Cultural Setting

The first inhabitants of Ohio were probably unable to enter this land until the ice sheets of the Wisconsin glacier melted around 14,000 B.C. Paleoindian sites are considered rare due to the age of the sites and the effects of land altering activities such as erosion. Such sites were mostly used temporarily and thus lack the accumulation of human occupational deposits that would have been created by frequent visitation. Paleoindian artifact assemblages are characteristic of transient hunter-gatherer foraging activity and subsistence patterns. In Ohio, major Paleoindian sites have been documented along large river systems and near flint outcrops in the Unglaciaded Plateau (Cunningham 1973). Otherwise, Paleoindian sites in the glaciaded portions of Ohio are encountered infrequently and are usually represented by isolated finds or open air scatters.

The Paleoindian period is characterized by tool kits and gear utilized in hunting Late Pleistocene megafauna and other herding animals including but not limited to short-faced bear, barren ground caribou, flat-headed peccary, bison, mastodon, giant beaver (Bamforth 1988; Brose 1994; McDonald 1994). Groups have been depicted as being mobile and nomadic (Tankersley 1989); artifacts include projectile points, multi-purpose unifacial tools, burins, gravers, and spokeshaves (Tankersley 1994). The most diagnostic artifacts associated with this period are fluted points that exhibit a groove or channel positioned at the base to facilitate hafting. The projectiles dating from the late Paleoindian period generally lack this trait; however, the lance form of the blade is retained and is often distinctive from the following Early Archaic period (Justice 1987).

The Archaic period has been broken down into three sub-categories, including the Early, Middle, and Late Archaic. During the Early Archaic period (ca. 10,000-8000 B.P.), the environment was becoming increasingly arid as indicated by the canopy (Shane 1987). This period of dryness allowed for the exploitation of areas that were previously inaccessible or undesirable. The Early Archaic period does not diverge greatly from the Paleoindian regarding the type of settlement. Societies still appear to be largely mobile with reliance on herding animals (Fitting 1963). For these reasons, Early Archaic artifacts can be encountered in nearly all settings throughout Ohio. Tool diversity

increased at this time including hafted knives that are often re-sharpened by the process of beveling the utilized blade edge and intense basal grinding (Justice 1987). There is a basic transition from lance-shaped points to those with blades that are triangular. Notching becomes a common hafting trait. Another characteristic trait occurring almost exclusively in the Early and Middle Archaic periods is basal bifurcation and large blade serrations. Tool forms begin to vary more and may be a reflection of differential resource exploitation. Finished tools from this period can include bifacial knives, points, drills/perforators, utilized flakes, and scrapers.

The Middle Archaic period (8000-6000 B.P.) is poorly known or understood in archaeological contexts within Ohio. Some (e.g., Justice 1987) regard small bifurcate points as being indicative of this period. Ground stone artifacts become more prevalent at this time. Other hafted bifaces exhibit large side notches with squared bases, but this same trait can extend back to the Paleoindian period. The climate at this time is much like that of the modern era. Middle Archaic period subsistence tended to be associated with small patch foraging that involved a consistent need for mobility with a shift towards stream valleys (Stafford 1994). Sites encountered from this time period throughout most of Ohio tend to be lithic scatters or isolated finds. The initial appearance of regional traits may be apparent at this time.

The Late Archaic period in Ohio (ca 6000-3000 B.P.) diverges from the previous periods in many ways. Preferred locations within a regional setting appear to have been repeatedly occupied. The more intensive and repeated occupations often resulted in the creation of greater social and material culture complexity. The environment at this time is warmer and drier. Most elevated landforms in northeastern Ohio have yielded Archaic artifacts (Prufer and Long 1986: 7), and the same can be stated for the remainder of Ohio.

Various artifacts are diagnostic of the Late Archaic period. Often, burial goods provide evidence that there was some long-distance movement of materials, while lithic materials used in utilitarian assemblages are often from a local chert outcrop. There is increased variation in projectile point styles that may reflect regionalism. Slate was often used in the production of ornamental artifacts. Ground and polished stone artifacts reached a high level of development. This is evident in such artifacts as grooved axes, celts, bannerstones, and other slate artifacts.

It is during the Terminal Archaic period (ca 3500-2500 B.P.) that extensive and deep burials are encountered. Cultural regionalism within Ohio is evident in the presence of Crab Orchard (southwest), Glacial Kame (northern), and Meadowood (central to Northeastern). Along the Ohio River, intensive occupations have been placed within the Riverton phase. Pottery makes its first appearance during the Terminal Late Archaic.

The Early Woodland period (ca 3000-2100 B.P.) in Ohio is often associated with the Adena culture and the early mound builders (Dragoo 1976). Early and comparably simple geometric earthworks first appear with mounds more spread across the landscape. Pottery at this time is thick and tempered with grit, grog, or limestone; however, it becomes noticeably thinner towards the end of the period. There is increased emphasis on gathered plant resources, including maygrass, chenopodium, sunflower, and squash. Habitation sites have been documented that include structural evidence. Houses that

were constructed during this period were circular, having a diameter of up to 18.3 m (Webb and Baby 1963) and often with paired posts (Cramer 1989). Artifacts dating from this period include leaf-shaped blades with parallel to lobate hafting elements, drilled slate pieces, ground stone, thick pottery, and increased use of copper. Early Woodland artifacts can be recovered from every region of Ohio.

The Middle Woodland period (ca 2200-1600 B.P.) is often considered to be equivalent with the Hopewell culture. The largest earthworks in Ohio date from this period. There is dramatic increase in the appearance of exotic materials that appear most often in association with earthworks and burials. Artifacts representative of this period include thinner, grit-tempered pottery, dart-sized projectile points (Lowe Flared, Steuben, Snyders, and Chesser) [Justice 1987], exotic materials (mica, obsidian, and marine shell, etc.). The points are often thin, bifacially beveled, and have flat cross sections. There seems to have been a marked increase in the population as well as increased levels of social organization. Middle Woodland sites seem to reflect a seasonal exploitation of the environment. There is a notable increase in the amount of Eastern Agricultural Complex plant cultigens, including chenopodium, knotweed, sumpweed, and little barley. This seasonal exploitation may have followed a scheduled resource extraction year in which the populations moved camp several times per year, stopping at known resource extraction loci. Middle Woodland land use appears to center on the regions surrounding earthworks (Dancey 1992; Pacheco 1996); however, there is evidence of repeated occupation away from earthworks (Weller 2005a). Household structures at this time vary with many of them being squares with rounded corners (Weller 2005a). Exotic goods are often attributed to funerary activities associated with mounds and earthworks. Utilitarian items are more frequently encountered outside of funerary/ritual contexts. The artifact most diagnostic of this period is the bladelet, a prismatic and thin razor-like tool, and bladelet cores. Middle Woodland remains are more commonly recovered from central Ohio south and lacking from most areas in the northern and southeastern part of the state.

The Late Woodland period (ca A.D. 400-900) is distinct from the previous period in several ways. There appears to be a population increase and a more noticeable aggregation of groups into formative villages. The villages are often positioned along large streams, on terraces, and were likely seasonally occupied (Cowan 1987). This increased sedentism was due in part to a greater reliance on horticultural garden plots, much more so than in the preceding Middle Woodland period. The early Late Woodland groups were growing a wide variety of crop plants that are collectively referred to as the Eastern Agricultural Complex. These crops included maygrass, sunflower, and domesticated forms of goosefoot and sumpweed. This starch and protein diet was supplemented with wild plants and animals. Circa A.D. 800 to 1000, populations adopted maize agriculture, and around this same time, shell-tempered ceramics appear. Other technological innovations and changes during this period included the bow and arrow and changes in ceramic vessel forms.

The Late Prehistoric period (ca A.D. 1000-1550) is distinctive from former periods. The Cole complex (ca A.D. 1000-1300) has been identified in central and south central Ohio. Sites that have been used to define the Cole complex include the W.S. Cole (33DL11), Ufferman (33DL12), and Decco (33DL28) sites along the Olentangy; the Zencor Village site, located along the Scioto River in southern Franklin County; and the

Voss Mound site (33FR52), located along the Big Darby Creek in southwestern Franklin County. It has been suggested that this cultural manifestation developed out of the local Middle Woodland cultures and may have lasted to be contemporaneous with the Late Prehistoric period (Barkes 1982; Baby and Potter 1965; Potter 1966). Cole is a poorly defined cultural complex as its attributes are a piecemeal collection gathered from various sites. Some have suggested that it may be associated with the Fort Ancient period (Pratt and Bush 1981). Artifacts recovered from sites considered as Cole include plain and cordmarked pottery, triangular points, Raccoon Notched points, chipped slate discs, rectangular gorgets, and chipped stone celts. The vessels often have a globular form with highly variable attributes and rim treatment. There have been few structures encountered from this period, but those that have are typically rounded or circular (Pratt and Bush 1981; Weller 2005b).

Monongahela phase sites date to the Late Prehistoric to Contact period in eastern Ohio. Monongahela sites are typically located on high bottomlands near major streams, on saddles between hills, and on hilltops, sometimes a considerable distance from water sources. Most of these sites possessed an oval palisade, which surrounded circular house patterns. Burials of adults are usually flexed and burial goods are typically ornamental. A large variety of stone and bone tools are found associated with Monongahela sites. Monongahela pottery typically is plain or cordmarked with a rounded base and a gradually in-sloping shoulder area. Few Euro-American trade items have been found at Monongahela sites (Drooker 1997).

Protohistoric to Settlement

By the mid-1600s, French explorers traveled through the Ohio country as trappers, traders, and missionaries. They kept journals about their encounters and details of their travels. These journals are often the only resource historians have regarding the early occupants of seventeenth century Ohio. The earliest village encountered by the explorers in 1652 was a Tionontati village located along the banks of Lake Erie and the Maumee River. Around 1670, it is known that three Shawnee villages were located along the confluence of the Ohio River and the Little Miami River. Because of the Iroquois Wars, which continued from 1641-1701, explorers did not spend much time in the Ohio region, and little else is known about the natives of Ohio during the 1600s. Although the Native American tribes of Ohio may have been affected by the outcome of the Iroquois Wars, no battles occurred in Ohio (Tanner 1987).

French explorers traveled extensively through the Ohio region from 1720-1761. During these expeditions, the locations of many Native American villages were documented. In 1751, a Delaware village known as Maguck existed near present-day Chillicothe. In 1758, a Shawnee town known as 'Lower Shawnee 2' existed at the same location. The French also documented the locations of trading posts and forts, which were typically established along the banks of Lake Erie or the Ohio River (Tanner 1987).

While the French were establishing a claim to the Ohio country, many Native Americans were also entering new claims to the region. The Shawnee were being forced out of Pennsylvania because of English settlement along the eastern coast. The Shawnee created a new headquarters at Shawnee Town, which was located at the mouth of the

Scioto River. This headquarters served as a way to pull together many of the tribes which had been dispersed because of the Iroquois Wars (Tanner 1987).

Warfare was bound to break out as the British also began to stake claims in the Ohio region by the mid-1700s. The French and Indian War (1754-1760) affected many Ohio Native Americans; however, no battles were recorded in Ohio (Tanner 1987). Although the French and Indian War ended in 1760, the Native Americans continued to fight against the British explorers. In 1764, Colonel Henry Bouquet led a British troop from Fort Pitt, Pennsylvania to near Zanesville, Ohio.

In 1763, the Seven Years' War fought between France and Britain, also known as the French and Indian War ended with The Treaty of Paris. In this Peace of Paris, the French ceded their claims in the entire Ohio region to the British. When the American Revolution ended with the Second Treaty of Paris in 1783, the Americans gained the entire Ohio region from the British; however, they designated Ohio as Indian Territory. Native Americans were not to move south of the Ohio River but Americans were encouraged to head west into the newly acquired land to occupy and govern it (Tanner 1987).

By 1783, Native Americans had established fairly distinct boundaries throughout Ohio. The Shawnee tribes generally occupied southwest Ohio, while the Delaware tribes stayed in the eastern half of the state. Wyandot tribes were located in north-central Ohio, and Ottawa tribes were restricted to northeast Ohio. There was also a small band of Mingo tribes in eastern Ohio along the Ohio River, and there was a band of Mississauga tribes in northeastern Ohio along Lake Erie. The Shawnee people had several villages within Ross County along the Scioto River (Tanner 1987). Although warfare between tribes continued, it was not as intense as it had been in previous years. Conflicts were contained because boundaries and provisions had been created by earlier treaties.

In 1795, the Treaty of Greenville was signed as a result of the American forces defeat of the Native American forces at the Battle of Fallen Timbers. This allocated the northern portion of Ohio to the Native Americans, while the southern portion was opened for Euro-American settlement. Although most of the battles which led up to this treaty did not occur in Ohio, the outcome resulted in dramatic fluctuations in the Ohio region. The Greenville Treaty line was established, confining all Ohio Native Americans to northern Ohio, west of the Tuscarawas River (Tanner 1987).

Ohio Native Americans were again involved with the Americans and the British in the War of 1812. Unlike the previous wars, many battles were fought in the Ohio country during the War of 1812. By 1815, peace treaties began to be established between the Americans, British, and Native Americans. The Native Americans lost more and more of their territory in Ohio. By 1830, the Shawnee, Ottawa, Wyandot, and Seneca were the only tribes remaining in Ohio. These tribes were contained on reservations in northwest Ohio. By the middle 1800s, the last of the Ohio Native Americans signed treaties and were removed from the Ohio region.

Lawrence County History

Lawrence County was created from several other counties and organized in 1816. Within a year, roads were built to connect early settlements such as Symmes Creek and Burlington. The early settlers took advantage of the abundant natural resources within the county as well as its ideal location along the Ohio River for shipping the resources. The first settlers in the county arrived in the 1790s and settle along the Ohio River and its tributaries. In 1849, Ironton became the county seat. In the early period of the county agriculture was the dominant economy, until it was eclipsed by mining and industrial pursuits in the 1820s. Lawrence County is situated within the fruit growing belt along the middle Ohio River, which allowed for another valuable export for the county (Hardesty 1882, Howe 1888, Willard 1916).

Lawrence County is part of the Hanging Rock Region, a name which originated between 1830 and 1840 from the excellent quality of iron shipped from the Town of Hanging Rock. This region spans approximately 19 km (12 mi) in width through Ohio and Kentucky. The region extends about 80 km (50 mi) along the north side of the Ohio River and 48 km (30 mi) along the south side of the Ohio River. The iron from this region attracted the attention of manufacturers in Pittsburgh, as well as other industrial areas, because of its high quality. The first blast furnace was constructed in 1826. In the 1830s and 1840s several towns, such as Ironton, Ashland, and Greenupsburg developed solely from the growing iron industry (Hardesty 1882, Howe 1888, Willard 1916).

The City of Ironton was laid out in 1849 by the Ohio Iron & Coal Company at the terminus of the Iron Railroad, which was the first railroad in the county. Ironton became the center of business for the Hanging Rock Iron Region and the center of manufacture and industry in the county. Freight from the many mills, furnaces, and factories was shipped to both Cincinnati and Marietta. Ironton was home to the largest nail factory in the western U.S. and one of the largest and best foundries in the Mississippi Valley. Due to the thriving industry, the population of Ironton grew quickly and the city was made the county seat in 1851. Coal mining became an integral aspect of the economy because of the many mills and blast furnaces. The majority of the coal excavated from the several drift mines was utilized locally as a heat source for the population and energy source for industry. The high sulfur content in the coal eventually let the region to importing the majority of its coal from West Virginia and Lake Superior (Hardesty 1882, Howe 1888, Willard 1916).

Hamilton Township History

Hamilton Township's namesake is after that of iron furnace worker by the name of Robert Hamilton. The township is located in the westernmost part of the county and abuts Scioto County. The terrain and landscape within the area varies from rugged uplands to Ohio River terraces. The Ohio River lines the southern part of the township and was certainly the focus of the early settlers. The community of Hanging Rock is the largest aggregate of people in the township, which indicates that it is overall very rural and not densely populated. Other than agriculture, the early economy of the township was pursuant to iron. Robert Hamilton worked at the Mount Vernon Furnace. John Campbell moved to the Hanging Rock area in the 1830s and improved the iron

production process through the utilization of waste gases. The region takes its name from a nearly 400 feet high cliff that looms and protrudes over the Ohio River. This precipice has since been removed for highway construction (Hardesty 1882; Howe 1888; Willard 1916).

Modern Hamilton Township still retains its rural feel, at least in the upland areas. However, the Ohio River floodplain has been the intent and target of industrial and commercial development. The Lawrence County Economic Development group has been one of the major players in this endeavor. The township is accessed and bypassed via State Route 52, which mimics the course of the river valley.

Elizabeth Township History

Elizabeth Township was organized around the year 1812. It is located in the north-western portion of Lawrence County within the Allegheny Plateau. Neighboring townships include Decatur to the north, Aid to the east, Upper to the south and Green to the west. Streams such as Pine Creek, Cannons Creek and Storms Creek water the township (Howe 1854).

The topography in Elizabeth Township is primarily hilly with little to no rolling or level areas. A small portion of the township resides within Wayne National and Dean State Forest. The soil consists of a sandy clay loam that is rich with and produces an excellent crop. Large quantities of iron can be found there as well (Hardesty 1882).

Before European settlers came into Elizabeth Township, it was covered in dense forests of maple, oak and ash trees. Thousands of acres were cleared for agricultural and construction purposes. The timber was used to build homes, barns, schools, etc. The early immigrants who settled in the area came from surrounding states such as Kentucky and Pennsylvania. Many have ancestries that can be traced back to German, Irish and French descent (Howe 1854).

Agriculture was the leading source of economic success during the early years of settlement. The primary crops were corn, wheat, potatoes and rye. Much of Elizabeth Township's success came from the mining industry which eventually died leaving many of its communities devastated. The county as a whole served as the primary mining area in the state of Ohio (Hardesty 1882). The village of Hanging Rock received its name from a sandstone cliff which protrudes four-hundred feet in the air. A successful iron worker died and was buried in an iron coffin on top of Hanging Rock. The village contained multiple mills, general stores and churches (Howe 1854).

Scioto County History

Scioto County was formed on May 1, 1803 from Adams County of the Northwest Territory and took its name from the river. Portsmouth, the County Seat, is located at the confluence of the Scioto and Ohio rivers in the south-central portion of Scioto County. According to historian Henry Howe, the name Scioto was first applied to the river by the Wyandot American Indians. The land is steep and hilly in many areas while the two river plains, when not flooded, are flat and fertile (Howe 1888, Ohio History Central 2012).

Because of its position and importance, the land of Scioto County has a long and varied history. Before the Treaty of Greenville 1795, which eased the minds of New Englanders and newly emigrating Europeans, the land was dominated by Shawnee Native Americans, French, English, and American trappers and adventurers. The French especially played an important role in the area. Celoron De Bienville (also known as Celoron De Blainville) (Ohio History Central 2012) was a French explorer sent to the Northwest for the purpose of surveying and claiming land for the French Crown. In 1749 his entourage came to a “Shawanese” village at the mouth of the Scioto inhabited not only by the Indians but also a few English trappers and traders. After dispersing the English, Celoron encamped at the town four days in mid-August. He later made and planted lead plaques in the surrounding area at the mouths of Ohio River tributaries demarking the land as belonging to Louis XV. He did not however, bury a lead plate at the mouth of the Scioto. The lead plates buried at the mouths of the Muskingum and Kanawha Rivers were later found. After the Northwest Territory was acquired from the French, and Scioto County was formed as a large tract. It went through many size and border changes with donations to and from its neighbors. Today Scioto claims 620 square miles (Howe 1888).

Several men are claimed to have built the first cabin in Scioto County around the years 1795 and 1796. Among them are John Belli, Thomas McDonald, Samuel Marshall Sr., and Hezekiah Merritt. Other early Euro-American settlers include the families of John Lindsay, Isaac Bonser, Uriah Barber, John Beatty, William Ward, and Ephraim Davis. Both Lindsay and Marshall are thought to be the first permanent Euro-American settlers and came from Manchester, Ohio (formerly Massie’s Station and the first permanent settlement in the Virginia Military District circa 1790). Emanuel Traxler built a cabin on the site of the current city of Portsmouth in 1796 (Howe 1888, Ohio History Central 2012).

In 1799, Alexandria was laid out by Alexander Parker on the west side of the old confluence of the Scioto and Ohio Rivers. The mouth of the Scioto River has since been move about one mile to the east. It was the first town within present-day Scioto County and the first County Seat, but was short lived due to flooding (USDA 1989). In fact, many settlers had already moved across the Scioto River to the east side and established Boneyfiddle by the time Portsmouth was established in 1803 by Henry Massie. The east side of the Scioto where Portsmouth now stands, was, and still is the better location, but settlement was opened first to the west of the Scioto River in the Virginia Military District. Thus, Alexandria was the first settlement, as the Congress Lands East of the Scioto River was not yet open to settlement.

Geography and topography were the major influences in Portsmouth’s survival and Alexandria’s downfall. Portsmouth, having a higher elevation and better drainage was less susceptible to flooding. Because of its position along two of the major waterways within the state, Portsmouth boomed as a shipping town and was named the county seat. It was incorporated as a town December 29, 1814 and a Courthouse was built in 1817, the land for which was donated by Henry Massie (Howe 1888).

The use of the land has been as varied as its inhabitants, but all uses have revolved around the central importance of the river junction. The Indian inhabitants as well as the early Euro-American trappers used the rivers as a highway north into the interior of the Ohio valley. The farmers who came next used the fertile floodplains to grow their crops and used the hillsides as pasture for their cattle. Once towns and cities were established, riverboats stopped at their banks and encouraged the trade industry. The abundance of timber and iron ore spurred the birth of the iron industry during the 1820s through the 1850s in the area which Portsmouth and surrounding towns played a major role. The area of South Webster also had high quality clay that could be used in the production of brick and tile. The quarrying of sandstone in the western portion of the county was a major industry in communities such as Buena Vista, Henley, McDermott, and Rarden until around 1910. Sand and gravel quarries along the Scioto and Ohio Rivers have also been worked over the years. The Ohio & Erie Canal, completed in 1832, from Cleveland to Portsmouth, further increased trade and industry in the county. The canal eventually lost out to the railroad introduced to the county in 1853. Over the years, the county has boasted shoe factories, iron foundries, brick factories, and a steel mill, but have all since closed (USDA 1989). From 1930-1934, Portsmouth was home to a National Football League (NFL) team, the Portsmouth Spartans. The team participated in the first NFL night game in 1930 at Spartan Stadium in Portsmouth, and the first NFL playoff game in 1932. The team was later sold and moved to Detroit becoming the Detroit Lions (Fleming 2008).

Today, most of the industry that once occupied Scioto County is gone. The population has been in decline since the 1950s, but the County still hosts around 80,000 residents. Agricultural exports are primarily corn, wheat and oats (USDA 1989). The major industries today are service and retail businesses. In 1956, the Uranium Enrichment Plant in Piketon began providing employment for many Scioto County residents. The Southern Ohio Correctional Facility in Lucasville also provides employment opportunities for the area. Portsmouth is the home to Shawnee State University, one of the County's largest employers (Ohio History Central 2012).

Green Township History

Located in southern Ohio in the southeastern portion of Scioto County, Green Township is situated along the Ohio River. The rural township geography is heavily forested and hilly. Green Township was derived from fraudulent origins. A land speculation company called the Scioto Land Company, sold land to French immigrants that were looking to escape the tumult of the French Revolution in 1790. The company promoted lands with false promises, and in the end the Scioto Land Company did not pay for the lands they sold and were therefore no longer authorized to sell them. When the French immigrants arrived, they found an undeveloped environment, which they had paid for but did not own. As expected of those fleeing the French Revolution, the immigrants generally had middle to upper class skill sets based on city economies. These skill sets were not useful for the rural Ohio lands that required agricultural livings. Native American presence caused additional conflict in the area, and the cumulative hardships caused some of the immigrants to return to France. To help remedy the deception and hardships, Congress passed an act in 1795 giving the French colonists 23,934 acres of land that later became Green Township (Evans 1904; Howe 1854).

The French settlers largely made income from selling peach and apple brandy. Many of the settlers that remained in the U.S., moved to the nearby town of Gallipoli. The population that made up Green Township later consisted of colonists from New Hampshire that bought the French properties from the “French Grant”. The “French Grant” officially became Green Township between the years of 1803 and 1811. The loss of county records in this timeframe has prevented an exact date of formation from being known (Evans 1904; Howe 1854).

One of six townships within Ohio called Green Township, Scioto County’s Green Township was named after Griffin Green, a land developer who had owned land in the region in the late 1700’s. The township is noted to have had the first iron blast furnace in Scioto County, built in ca. 1826-1827 by Daniel Young, which he called the “Franklin Furnace”. The furnace was closed several decades later and eventually dismantled for reuse in canal locks and a school house foundation. The Franklin Furnace was influential enough that the area in which the iron blast furnace was built became a census-designated place/CDP within Green Township, called Franklin Furnace. Franklin Furnace still exists today within Green Township (Evans 1904; Howe 1854).

Research Design

The purpose of a Phase I survey is to locate and identify cultural resources that will be affected by the planned electric line extension project. This includes archaeological deposits as well as architectural properties that are older than 50 years. Once these resources are identified and sampled, they are evaluated for their eligibility or potential eligibility to the National Register of Historic Places (NRHP). These investigations are directed to answer or address the following questions:

- 1) Did the literature review reveal anything that suggests the project corridors had been previously surveyed and what is the relationship of previously recorded properties to the project area?
- 2) Are cultural resources likely to be identified in the project area?

The following field methods were utilized to address cultural resources regarding the project area.

Archaeological Field Methods

The survey conducted within the project area used two methods of sampling and testing to identify and evaluate cultural resources. These included surface collection and visual inspection.

Surface Collection. This method was used in situations where bare ground visibility was sufficient for sampling. This can include any tilled fields, occasional soybean stubble or mature soybean situations, and standing corn. Situations where repeated no-till agriculture is practiced typically precludes the opportunity to conduct surface collection methods. It is typically necessary for conditions to offer a minimum of 50 percent bare ground visibility. Pedestrian

transects were spaced at 5 m intervals. Artifact locations were plotted using a Trimble GeoXT global positioning system.

Visual inspection. This method was conducted in locations where cultural resources were not expected, such as disturbed areas and wet areas. This method was used to verify the absence or likelihood of any cultural resources. This method was also utilized to document the general terrain and the surrounding area.

The application of the resulting field survey methods was documented in field notes, field maps, and project plan maps.

Curation

There were no cultural materials identified during these investigations. Notes and maps affiliated with this project will be maintained at Weller & Associates, Inc. files.

Literature Review

The literature review study area is defined as a 305 m (1,000 ft) radius from the project (Figure 2). In conducting the literature review, the following resources were consulted at SHPO, at the Columbus Metropolitan Library, at the State Library of Ohio, and from various online resources:

- 1) *An Archaeological Atlas of Ohio* (Mills 1914);
- 2) SHPO United States Geological Survey (USGS) 7.5' series topographic maps;
- 3) Ohio Archaeological Inventory (OAI) files;
- 4) Ohio Historic Inventory (OHI) files;
- 5) National Register of Historic Places (NRHP) files;
- 6) SHPO consensus Determinations of Eligibility (DOE) files;
- 7) SHPO CRM/contract archaeology files; and
- 8) Lawrence/Scioto County atlases, histories, historic USGS 15' series topographic map(s), and current USGS 7.5' series topographic map(s);
- 9) Ohio Genealogical and cemetery map resources.

The *Archaeological Atlas of Ohio* (Mills 1914) did not indicate any resources within the project. There are two mounds and a village indicated about a mile from the project area and nearer the river.

A review of the SHPO topographic maps indicated no sites located in the project area (Figure 2). There are four sites located within 305 m (1,000 ft) of the Project including 33LE0009, 33LE0016, 33LE0615, and 33LE0617. Site LE0009 is an unidentified Woodland mound group east of the Project on the Ohio River Valley bluff/ridge top. Site 33LE16 (Ohio Baptist Site) is a multi-component prehistoric lithic scatter with Paleoindian-Protohistoric components located to the south and east of the Project on a terrace. Sites 33LE0615 and 617 are located to the west of the Project and were identified during a professional survey (Purtill 2001). None of these sites appear to be directly involved in the current Project. Site 33LE0619 is located just outside or

tangent to the Project study area and is a multi-component prehistoric and historic period site that was mitigated professionally (Purtill et al. 2002).

The OHI files indicated no previously recorded OHIs located in the Project or its study area.

A review of the NRHP resources and determinations of eligibility (DOE) files indicated that site 33LE0619 is at the western fringe of the study area. This is a multi-component site that is located on a terrace and is to the west of the Project.

A review of the SHPO contract files indicated that there have been two previous Phase I CRM surveys conducted within the project area (Purtill et al. 2001; Riggs 2001). This survey was conducted for a large tract associated with the Hanging Rock energy facility and is to the west and south of the current project area. This resulted in the Phase III data recovery at 33LE0619, a prehistoric period component (Purtill et al. 2002). This site is located on an ancient stream terrace within the Ohio River Valley and is to the west of the project area; it's at the edge of the study area. Riggs (2002) conducted investigations for a structure at the Hanging Rock Substation and is just west of the Project; there were no sites identified by this survey.

Atlas and cartographic maps were inspected prior to these investigations. The *Map of Scioto County, Ohio* (Banton and Gibbs 1875) does not indicate any buildings near the project. The USGS *1898 Ironton, Ohio and 1926 Greenup, Kentucky 15 Minute Series (Topographic)* maps indicates that there are buildings near the southern aspect of the Project, but none appear to be within it (Figure 4). The USGS *1985 Wheelersburg, 1985 Ironton, 1976 Pedro, Ohio and 1985 Greenup, Kentucky 7.5 Minute Series (Topographic)* maps did not indicate any structures within the project (Figure 2). There are two cemeteries that are located in the study area including Trumbo and Austin. These are both located at the southern edge of the study area and are not near the Project.

Literature Review Summary

The literature review indicated that archaeological site 33LE009 and 16 are located near the Project. However, their location and boundaries are clearly positioned outside of the area. Intact terraces in this area have been previously investigated and have identified important sites, such as 33LE0619. These seem to be on landforms that are more defined, elevated or in closer proximity to a drainage. The project area is further from the river. It is anticipated that much of the terrace landform relative to the Project will be disturbed due to its proximity to an existing substation. While uplands will consist of shallow deflated soils typical of the area.

Archaeological Survey Results

The field investigations for this project were conducted on July 15 and 20, 2016. The weather during the survey was sunny and hot with temperatures averaging 85° F. The weather did not hinder the completion of the survey. However, the field investigations were cautious of the hundreds of ticks that were prevalent throughout the upland areas. Protective clothing and sprays were necessary. These investigations

involved surface collection and visual inspection (Figures 5-37). Situations that precluded archaeological investigation included existing cut unimproved and graveled roads, disturbed landforms, and excessive slopes. This accounts for the majority of the Project. There were no cultural materials identified during these investigations.

The majority of the Project is located in the uplands that are to the north of the Ohio River Valley. The terrain in these uplands is very rugged and the access corridors often utilized existing cut/graded ridge top trails. Many of these areas were severely disturbed as a result of the previous preparation and construction activities. The archaeological investigations in these areas consisted of visual inspection and photographic documentation where conditions were disturbed; no other means of investigation were necessary in this area as it was clear that it was disturbed or sloped.

A portion of the Project located in an agricultural field was suitable for surface collection (Figure 13). This is located in the southern part of the Project and south of SR 7. The field was in corn at the time of survey with widely spaced rows and ground surface visibility greater than 90 percent. There were no cultural materials identified during the surface collection aspect of the Project.

The field investigations for this project did not identify any cultural materials. Much of the Project was found to be severely disturbed or contained in steeply sloped terrain. The testing was limited to the intact locations and areas that were suitable for archaeological investigation. The access corridors and upland areas, in particular, made use of existing routes.

APE Definition and NRHP Determination

The APE is a term that must be applied on an individual project basis. The nature of the project or undertaking is considered in determining the APE. This may include areas that are off the property or outside of the actual project's boundaries to account for possible visual impacts. When construction is limited to underground activity, the APE may be contained within the footprint of the project. The APE includes the footprint of the project and a limited area surrounding it. The project corridor is located in a primarily rural, upland setting. Portions of the Project are located on the Ohio River terrace but these portions are limited to existing gravel roads. Additionally, the project does not involve any buildings or dense urban settings.

The proposed work for the Hanging Rock 138kV Extension Project is considerate of the existing above ground electric corridor. The segment of the line that is involved in this project extends northeast from the Hanging Rock through rural Scioto and Lawrence counties. The work was conducted to address areas/corridors that were going to be disturbed as construction of discontinuous access easements was accomplished. The project involves stringing a second conductor circuit on an existing tower line, which has a vacant position. The establishment of this new line will have very limited impact to the surrounding cultural environment as the above ground towers and facilities are extant. For this reason, the area of potential effect for this project was considered to be limited to the planned access corridors. These have a limited construction easement that is typically less than 8 m wide. Weller's survey accounted for an easement that was 15 m wide.

Since these corridors will be nearly ground level, little impact is considered to the surrounding cultural contexts that exist outside of the work limits. The access corridors are similar to gravel or improved earthen drives.

The current project plans do not involve the removal of any residences or buildings that are older than 50 years. There were no archaeological resources identified in association with this project. This project is not considered to have any adverse effect on historic properties. The re-utilization of the existing electric line for service improvements is congruent with the current use of this corridor.

Recommendations

In July of 2016, Weller completed a Phase I cultural resources management survey for the Hanging Rock 138kV Extension Project in Green Township, Scioto County and Elizabeth & Hamilton Townships, Lawrence County, Ohio. The investigations involved surface collection and visual inspection. The fieldwork did not result in the identification of any cultural remains, and there are no historic properties considered to be within the area of potential effects. An appropriate finding of 'no historic properties affected' is considered for the undertaking. No further work is considered to be necessary.

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