Appendix C Cultural Resources Survey Reports

Phase I Archaeological Investigations for the Approximately 21.9 km (13.6 mi) Hedding Road Switch-Fulton Station 138kV Rebuild Project in Lincoln, Harmony, Chester, and South Bloomfield Townships, Morrow County, Ohio

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June 3, 2016

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Phase I Archaeological Investigations for the Approximately 21.9 km (13.6 mi) Hedding Road Switch-Fulton Station 138kV Rebuild Project in Lincoln, Harmony, Chester, and South Bloomfield Townships, Morrow County, Ohio

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Abstract

From March to May of 2016, Weller & Associates, Inc. conducted Phase I archaeological investigations for the approximately 21.9 km (13.6 mi) Hedding Road Switch-Fulton Station 138kV Rebuild Project in Lincoln, Harmony, Chester, and South Bloomfield Townships, Morrow County, Ohio. These investigations were conducted to meet guidelines that were set forth by the Ohio Power Siting Board; the survey was conducted in a manner that is conducive to current state guidelines for archaeological survey and evaluates the resources in a manner that is reflective of Section 106 of the National Historic Preservation Act. The work involved a literature review and field investigations. These investigations involved surface collection, subsurface testing, and visual inspection. This resulted in the identification of 23 previously unrecorded archaeological sites including 33MW0202-224.

The project is a corridor that extends through the southeastern part of Morrow County. This is lowly populated area that is mostly affiliated with agricultural countryside and occasional small patches of woods. The western terminus of the project corridor is at Fulton Station, which is just west of the Alum Creek Valley and Worthington-New Haven Road. The corridor crosses Alum Creek, Big Walnut Creek and other hinterland drainages before it meets the eastern terminus at Hedding Road Switch. This switch station is just west of Hedding Road, about 0.8 km (0.5 mi) from the Knox County line. The terrain in is this area ranges from gently undulating to slightly rolling as it involves topography that is resultant from glacial end moraine deposition. The western part of the corridor is within the Scioto River watershed and the eastern part is within the Kokosing/Muskingum River watershed. This is an existing electric line that consists of wooded structures. The plans are to replace the wooden structures with metal ones, which will likely reduce the overall amount of structures for this segment of the West Mount Vernon -South Kenton 138 kV electric line. This work was limited to the existing electric line corridor that is 30.5 m (100 ft) wide.

The literature review for this project indicated that there are cultural resources identified in the vicinity. Mills Atlas (1914) indicates that the project will be near two sites, an enclosure and a mound. There have not been any archaeological sites identified in the study area for this project. There have not been any professional surveys that directly involve this project and there are no National Register of Historic Places/Determination of Eligibility sites in the study area.

These investigations involved subsurface testing, surface collection, and visual inspection. The testing identified 23 sites, 33MW0202-224 that mostly date from the prehistoric period. No further work is considered to be necessary for 33MW0202-222 and 224 as they do not meet the minimum requirements to be regarded as significant/eligible for the NRHP; they are not landmarks. Site 33MW0223 dates from the Late Paleo-Indian period and it is being recommended for further assessment to determine its significance if it cannot be avoided. If avoidance of the site is possible, an appropriate finding of ‘no historic properties affected’ is considered appropriate for the project area. If 33MW0223 can be avoided, no further work is recommended for this project.

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Introduction

From March to May of 2016, Weller & Associates, Inc. conducted Phase I archaeological investigations for the approximately 21.9 km (13.6 mi) Hedding Road Switch-Fulton Station 138kV Rebuild Project in Lincoln, Harmony, Chester, and South Bloomfield Townships, Morrow County, Ohio (Figures 1-5). This is part of a larger electric line considered as the West Mount Vernon -South Kenton 138 kV. The work was completed for American Electric Power Transco (AEP). These investigations were conducted in a manner that is reflective of procedures pertaining to the National Register of Historic Places (NRHP) and pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 [36 CFR 800]). This work was completed to satisfy requirements for the Ohio Power Siting Board. This report summarizes the results of the fieldwork and literature review and the report format and design is similar to that established in *Archaeology Guidelines* (Ohio State Historic Preservation Office [SHPO] 1994).

The project is a corridor that extends through the rural southeastern part of Morrow County. The western terminus of the project corridor is at Fulton Station, which is just west of the Alum Creek Valley and Worthington-New Haven Road. The corridor crosses Alum Creek, Big Walnut Creek and other hinterland drainages before it meets the eastern terminus at Hedding Road Switch. This switch station is just west of Hedding Road, about 0.8 km (0.5 mi) from the Knox County line. The terrain in is this area ranges from gently undulating to slightly rolling as it involves topography that is resultant from glacial end moraine deposition. This is an existing electric line that consists of wooded structures. The plans are to replace the wooden structures with metal ones, which will likely reduce the overall amount of structures for this segment of the West Mount Vernon -South Kenton 138 kV electric line. This work was limited to the existing electric line corridor that is 30.5 m (100 ft) wide. The overall area for this survey is 66.8 ha (165.1 ac).

Chad Porter conducted the literature review on March 29, 2016. Ryan Weller served as the Principal Investigator and Chris Nelson was the Project Manager. The history/architectural work was conducted by Chris Nelson and Jackie Lehmann and is contained in a separate and stand-alone document. The archaeological field crew included Alex Thomas, Matt Sanders, Brittany Vance, Ryan Weller, Stephanie Sharps, and Craig Schaefer. The report preparation was by Ryan Weller, with Chad Porter and Jon Walker completing the figures.

Project Description

The project will include a rebuild of Section 2 (Hedding Road Switch to Fulton Station portion) of the West Mount Vernon-South Kenton 138 kV transmission line. The work covers the approximate 21.9 km (13.6 mi) right-of-way extending from Hedding Switch to Fulton Station in Morrow County, Ohio. Poles for the existing line will be replaced with steel structures. Since there appears to be several older properties (possibly farmsteads) remaining in the area that may have historic value, an architectural report was prepared. Based on this and the change in structure type, an architectural survey will

also be conducted along the route. Access roads have not yet been identified and will be include in a later report.

Environmental Setting

Climate

Morrow County, like all of Ohio, has a continental climate with hot and humid summers and cold winters. The dampest time of year is during May and July with January and February being the driest (Brown et. al. 1998; United States Department of Agriculture, Soil Conservation Service (USDA, SCS) 1993).

Physiography, Relief and Drainage

The south central part of Morrow County, including the project area extends eastward from the Berea Escarpment; a boundary that separates the Galion Glaciated Low Plateau from the Central Ohio Clayey Till Plain physiographic regions. The project area is within the Galion Glaciated Low Plateau region. This region is characterized as having "Rolling upland transitional between the gently rolling Till Plain and the hilly Glaciate Allegheny Plateau; mantled with thin to thick drift…" (Brockman 1998). The glacial geomorphological aspects of the project area pertain to Wisconsinan-age deposits and largely pertain to end moraine situations; these are typically more rolling than the ground moraine areas. The western part of the project area is within the Scioto River watershed and includes named drainages such as Alum Creek, Big Walnut Creek, and Castro Run. The eastern part of the project is within the Muskingum River watershed and includes the South Branch Kokosing River and Mile Run. There are numerous unnamed tributaries associated with this project relative the aforementioned named streams.

Geology

The geology of this region is by underlain Mississippian-age bedrock deposits (Brockman 1998)". These are sedimentary materials that include sandstone, shale, siltsonte, conglomerate, and minor limestones.

Soils

The project area is located in southeastern Morrow County. The soils are associated in Till Plains (western part) as well as the Glaciated Allegheny Plateaus (eastern part). The terrain consists of level to gently rolling conditions, that are in hinterland areas (United States Department of Agriculture, Soil Conservation Service [USDA, SCS] 2016). There are 18 different soil series types indicated within the project. There are occasional and small deposits of Carlisle muck present, which are generally characteristic of end moraine or hummocky terrain situations. The remaining soil types are indicative of glaciated conditions and are commonly present in this region. None of these soils are indicative of deep alluvial deposition (Table 1).

Table 1. Soils in the Project Area.			
Soil Symbol	**Soil Name**	**% Slope**	**Location**
AdC2, AdD2, AdE2	Amanda silt loam	6-12, 12-1818-25	Side slopes along valley walls
BeA, BeB	Bennington silt loam	0-2, 2-6	Ground Moraines, slight rises
Ble1A1	Blount silt loam	0-2	Ground Moraines, slight rises
CdB, CdC, CdC2	Centerburg silt loam	2-6, 6-12	Ground moraines on till plains
Co	Condit silt loam	0-1	Low, flat areas in uplands
Gwd1C1	Glynwood silt loam	6-12	Upland sloping elevations
Gwe5B2	Glynwood clay loam	2-6	End Moraines
Mf	Milford silty clay loam	-0-	Depressions on till plains, drainage ways on till plains
Sh	Shoals clay loam	0-2	Upland drainage valleys
So	Sloan silt loam	-0-	Depressions on till plains, drainage ways on till plains
Cb	Carlisle muck	-0-	Bog, upland depressions & kettles
Pm	Pewamo silty clay loam	0-1	Depressions on till plains, drainage ways on till plains
Lo	Lobdell silt loam	-0-	Depressions on till plains, drainage ways on till plains

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, Illinoisan, 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 forests 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 the project area's original vegetation was comprised of Beech forestation (Gordon 1966).

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 Unglaciated Plateau (Cunningham 1973). Otherwise, Paleoindian sites in the glaciated 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, and 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).

Lepper (1986) has gathered information about this time period in the region. In the central Muskingum River basin there is a dense concentration of sites centered on discrete outcrops of Upper Mercer chert and a few of these sites are exceptionally large suggesting periodic reoccupation. There are indications that the Paleoindians were unusually selective regarding the quality of their raw material, but the evidence for a lithic determined settlement system can be derived from principles of hunter-gatherer settlement systems as outlined by Binford (1978).

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 (Bamforth 1988). 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.

A local proliferation of the Late Archaic is regarded as the Gilbert Phase. The Gilbert Site is located on the east side of the Muskingum River and on the floodplain. This site has yielded features that have been dated from the Late Archaic period. The Gilbert point type, a form similar to Brewerton styles, was defined from deposits from this site (Carskadden 1963) and has been identified with some frequency throughout the county. This is situated to the south of the project and in a similar geological location.

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). Pottery makes its first appearance during the Terminal Late Archaic.

Previous studies of Early Woodland "Adena" and Middle Woodland "Hopewell" settlement patterns in the lower Scioto Valley (Shane 1971), Hocking Valley (Black 1979), and southern Ohio in general (Fischer 1974) suggest the following: early Adena sites were located in diverse topographic settings due to seasonal movement from one primary resource zone to another. These settings included not only river bottoms, but also hilltops and small stream valleys. A shift is seen in late Adena toward greater use of river bottoms and Hopewell sites tended to be located primarily in the bottoms of major rivers. The shift from uplands to bottomlands is thought to be a result of a shift from a generalized subsistence toward an increased dependence on a variety of bottomland resources (Carskadden and Morton 1997a; Ford 1979; Smith 1987; Wymer 1987).

Evidence from Muskingum County, where 209 sq km of hinterland have been surveyed, indicated that during all three periods (early Adena, late Adena, and Hopewell), the bottoms of the Muskingum and Licking Rivers were exploited to a much greater degree than the hinterland (Carskadden and Morton 1997a). The density of river bottom

sites is 5.9 times greater than the average hinterland density for early Adena sites, more than 4.8 times for late Adena, and 6.3 times for Hopewell when looking at workshops and short term sites. Early and late Adena sites have their greatest density along the Muskingum River, whereas the greatest density of Hopewell sites can be found along the Licking River. The dispersed nature of Adena habitation sites (hamlets) has long been recognized. Webb, for example, has observed that "individual house groups perhaps were several hundred feet apart, each group a small unit in itself, yet scores of such house groups might have been within an area of a few square miles" (Webb 1942:363).

The pattern mentioned above by Webb is apparent for the late Adena sites near Dresden and at other locations along the Muskingum River and seems to hold true for early Adena in the area. At Philo, six late Adena hamlets have been located in the river bottoms below a single ridge top burial mound. The local Hopewell settlements take on the same dispersed pattern as seen in earlier Adena. There appears to be a propensity for repeatedly selecting the exact same location, or nearly so, throughout Adena and Hopewell. Of the early Adena river bottom habitation sites, 52 percent were re-occupied in late Adena (or were continuously occupied into late Adena). A total of 34 percent of all late Adena sites in the river bottoms were occupied in Hopewell (about 50 percent long term and 50 percent short term). Twenty percent of the river bottom sites were occupied during all three periods. The site selection continuity seems to represent continuity in subsistence strategies (Carskadden and Morton 1997a).

Adena hamlets in Carskadden and Morton's (1997a) survey are more ephemeral than Hopewell hamlets; there is less in the way of diagnostic artifacts, debitage and pottery. Late Adena hamlets covered areas averaging 0.28 to 0.32 ha with scattered postholes, usually in no identifiable pattern, in the immediate vicinity of a cluster of cooking/thermal features. Although some possible storage pits and a midden were identified at one site, Duncan Falls, there is no real indication that these sites were occupied for great lengths of time (Carskadden and Morton 1997a). What is lacking in the Muskingum River Valley are large (2.0 ha) late Adena sites that are known to occur along the Hocking River by the first century A.D. There also seems to be a lack of late Adena concentrations of mounds and earthworks in the Muskingum River Valley. Radiocarbon dates suggest that very late Adena in the central Muskingum Valley was contemporaneous with very late Adena in the Hocking Valley (post A.D. 1) and yet what was going on in the Hocking Valley was very different from what was going on in the central Muskingum Valley (Carskadden and Morton 1997a).

Although Flint Ridge flint appears to have played a role in the Hopewellian trade network, it became an important source for flint during late Adena, at least locally in the Muskingum River Valley. Over 84 percent of the late Adena (Robbins Phase) projectile points found throughout the Carskadden and Morton (1997a) survey were made from Flint Ridge flint. This contrasts with only 22 percent use of Flint Ridge in early Adena and 74 percent in Hopewell (Carskadden and Morton 1997a).

It seems that most of the ridge top and small stream valley hinterland habitation sites (Adena and Hopewell) in the Muskingum River Valley have characteristics of typical bottomland hamlets, which occur in clusters, just like those in the bottoms. Again it seems that Hopewell sites seem to occur in the general vicinity, if not exact, on the

same site as a late Adena hamlet or hamlet clusters. This continuity continues all the way back into the early Adena, 65 percent of early Adena hinterland habitation sites also date to or have late Adena components, and 25 percent of the hinterland late Adena habitation sites also had either "long term" or "short term" Hopewell components. About 23 percent of all of these hinterland sites were occupied at some point during all three periods (Carskadden and Morton 1997a).

Carskadden and Morton (1997a) argue that the hinterland sites represent continuously occupied Adena-Hopewell occupations. They also suggest that towards the end of the early Adena there was a "settling in" period for local populations. Most of the groups had established themselves in the river bottoms; however a few groups established themselves in the hinterlands and then remained there into Hopewell. There seems to be no evidence of late Adena populations from the hinterlands moving to the river valleys (Carskadden and Morton 1997a).

Middle Woodland "Hopewell"

Dispersed clusters or isolated river bottom sites of little more than an acre in extent characterize middle Woodland "Hopewell" along the central Muskingum Valley proper. Often associated with these sites are single river terrace burial mounds and in a couple cases, groups of two to four low burial mounds located on terraces or hilltops overlooking the open sites (discussed later).

Review of the *Bibliography of Muskingum County Archaeology 1795-1995* (Carskadden and Morton 1997b) indicates the location of numerous resources in Muskingum County. Many obscure resources are located in this bibliography. The Trinway Earthwork, sometimes called the Dresden Circle (33MU573) is depicted on a late nineteenth century county history (Everhart 1882). In 1805, a diary/journal reference indicated the presence of the earthworks describing it as a "circular brest-works and redoubts, rising one above the other" and located "on a side hill at Wakkatomaka." This reference is reported from a secondhand account and may refer to other earthworks other than the Trinway Earthwork (Carskadden and Morton 1997b).

According to current conventional wisdom, Adena and Hopewell are simply stages in a continuous developmental sequence, and there are sites that span the transitional period between what would be called late Adena and classic Hopewell. These sites produced projectile points that appear intermediate between the late Adena Robbins type and the later Hopewellian corner notched forms, as well as plain surfaced pottery with characteristics of Adena Plain and McGraw Plain/Murphy Plain. What is suggested is that the corrected date of 77 A.D. from the Cox B site, associated with plain, cordmarked, as well as rocker stamped pottery, probably comes closer to dating the beginning of the Hopewellian component of the Cox site cluster, and the beginning of cordmarked pottery in central Muskingum Valley, meaning the beginning of Hopewell (Carskadden and Morton 1997a).

In spite of Squier and Davis' remark about the lack of rudimentary Hopewellian earthworks, at least three are possible in the Muskingum Valley above Marietta. Two of these (the Dresden Circle and the Lichtenau Circle) are located in the 3.2 km wide

bottoms of the Upper Muskingum between Dresden and Coshocton, and the third is located in a narrower portion of the valley at Gilbert, about midway between Dresden and Zanesville. The earthwork just above Dresden, situated near the Hopewellian Cox sites, was a circle about 174 m in diameter; surrounded an area of a little less than 2.4 ha. The Lichtenau earthwork, located about four kilometers below (south) Coshocton, consisted of a circle of about the same size (Carskadden and Morton 1997a). Late Adena as well as Hopewellian habitation sites can be found in the immediate vicinity of both of these circles. Carskadden and Morton (1997a) report that the Dresden and Lichtenau earthworks were constructed by the early Hopewell.

Hopewell settlements are generally characterized as clusters of dispersed sedentary farmsteads or hamlets occurring in the general vicinity of earthwork complexes (Carskadden and Morton 1997a; Pacheco 1988; Smith 1987). Similar, if not identical patterns of Hopewell settlement can be seen along the lower Licking and in the central and upper Muskingum Valley, where a number of clusters of up to six households or hamlets, have been located. Isolated single Hopewell hamlets occur rarely where there is a limited area exposed by plowing according to Carskadden and Morton (1997a). Yet, only at Dresden and possibly Gilbert (and Lichtenau in Coshocton County) are these hamlet clusters associated with an earthwork. However, Cox B and Cox C are the only Hopewell hamlets along the Muskingum that have been tested.

These Hopewell habitation sites (open-air) are further divided into two types, which are designated as long term and/or short term habitations. The long term sites are characteristic of farming hamlets as outlined by Pacheco (1988) and consist of hundreds of bladelets, dozens of projectile points, and an abundance of debitage, whereas, the short term sites are differentiated by two or three bladelets, one or two projectile points, and a very small amount of debitage. Pottery sherds and pit features are normally, but not always, characteristic of long term sites, whereas single pit features are reminiscent of short term habitation (Carskadden and Morton 1997a). Pacheco (1992) went on further to designate these sites as small artifact clusters. According to Pacheco (1992) these sites/clusters average .14 ha in size and have artifact densities of less than .2 per sq m, whereas, the hamlets (long term) average .45 ha and have artifact densities greater than .2 per sq m. These small artifact cluster sites as defined by Pacheco (1992) represent short duration specialized camps or activity areas (Carskadden and Morton 1997a; Pacheco 1992).

Over half (56 percent) of the “short term” sites/specialized camps/activity areas found in Carskadden and Morton’s (1997a) survey occur in the bottoms of the Muskingum and Licking Rivers, more often than not in the vicinity of the hamlet clusters. The remaining 43 percent of the sites occur in the hinterlands, mostly in the valleys of stream valleys (Carskadden and Morton 1997a).

There is a third type of Hopewellian site identified, and this is the so-called ridge top workshop. These workshops are located in close proximity to flint quarries (could be up to six km away), have an abundance of debitage (particularly bladelet cores, and various blanks in different stages of reduction). These sites for the most part lack pit features. An example of this site type is located near Flint Ridge State Park at the Dodson Village. Numerous amounts of debitage were recovered yet an excavation in

1932 revealed only two cooking features and a small amount of animal bone and potsherds. A reanalysis of this site and artifacts concluded that this site "represents very short term occupations over a long period of time by comparatively small groups of people intent upon procuring Flint Ridge Flint" (Murphy and Morton 1984:24).

On the other hand excavation at the Murphy sites has produced just as much if not more lithic debitage as the workshops (Dancey 1991; Pacheco 1992). The Murphy sites suggest that the abundance of such debitage does not preclude a site from being a hamlet. A large amount of debitage may be the result of long duration of occupation. Sites such as those as the Murphy sites are described by Pacheco as "intense occupation by a substantial permanent population." There are ridge top Hopewell sites located in the Muskingum Valley that are distant from flint outcrops that appear to fit the definition of hamlets (Carskadden and Morton 1997a).

The early Late Woodland is assumed by Carskadden and Morton (1997a) to be a continuation of the Middle Woodland culture, yet lacking the Hopewellian interaction sphere of goods and elaborate mortuary practices. This stage is represented in the central Muskingum River Valley by a number of open sites along the river including an excavated component at the Philo II site, several rockshelters in the hinterland and possibly a hinterland circular earthen enclosure. Diagnostic artifacts of this time frame include Chesser Notched points and plain rimmed, grit tempered Peters Cordmarked pottery. The angular shoulders, which distinguish Newtown-like pottery, are not found at central Muskingum River Valley sites. Limestone tempering, the characteristic of Watson Cordmarked pottery is present in a minority of sherds. All of the sherds recovered from the early Late Woodland features at Philo II are cordmarked, but nothing that could be interpreted as Peters Plain has been found. Pottery lips appear flattened and un-notched. The only radiocarbon date is from Philo II, A.D. 850 (Morton 1977). The timeframe for the early Late Woodland probably dates between 600-850 A.D. (Morton 1984).

Morton (1984) refers to the middle Late Woodland as "Intrusive Mound-like." This is a hard cultural manifestation to identify in the central Muskingum River Valley. No burials have been identified in this region as Intrusive Mound-like, however; artifacts associated with this timeframe have been identified in the region. Artifacts associated with the middle Late Woodland are Jack's Reef, Raccoon Notched/Side Notched, and Levanna triangular points. Sites yielding Jack's Reef projectile points are believed to represent the early period of the middle Late Woodland while the Raccoon Notched points indicate a later period within the middle Late Woodland (Morton 1984). Morton (1984) defines the timeframe for this period is most likely between A.D. 850-1100. The pottery during this timeframe is the Cole Cordmarked (?) and the Peters Cordmarked.

An "Intrusive Mound-like" site near Dresden along the Muskingum River yielded exclusively Jack's Reef Corner Notched points and Peters Cordmarked pottery from a refuse pit. The Peters Cordmarked ceramics are predominant in the early Late Woodland and characterized by a thickened or collared rim with two slight but noticeable raised rim areas with notches along the slip. It seems to Morton (1984) that this vessel is the morphological "missing link" between the plain-rimmed Peters Cordmarked and the later collared and castellated Cole-style ware.

In regards to settlement and subsistence patterns little can be inferred until further investigations within the Muskingum River Valley have been carried out. What can be said is that settlements are represented by low terrace or floodplain "hot spots," sites of generally smaller extent and thinner density than the early Late Woodland sites. Jack's Reef and Raccoon Notched points have been identified in rockshelters, but these are considerably less numerous than Chesser Notched points in such contexts (Morton 1984).

Sites belonging to the late Late Woodland or the "Cole/Baldwin-like" phase include two-rock shelters and two excavated open sites: the Locust Site along the Licking River and a site at Copeland Island along the Muskingum River. Tentative dates suggest 1100-1150 A.D. as the beginning of this phase in the central Muskingum areas, although the earliest radiocarbon dates obtained indicate A.D. 1190 from Copeland Island. These sites have yielded Levanna-like triangular points, yet Raccoon Notched points are found on these sites and believed to fall within the early phase of the late Late Woodland (Morton 1984).

The pottery is similar to that of the Baldwin phase pottery and radiocarbon dated to A. D. 1230. Similarities can also be seen in central Ohio, such as the Cole, Decco, and Ufferman sites. What all the pottery of the Muskingum River Valley has in common is a high proportion of cordmarking, grit tempering, and collared and castellated rims with flange/lugs. What seems to be absent or rare are punctuates, strap handles, incised designs, and shell tempering-in short all of the pottery diagnostic of Fort Ancient. A few sherds in the Muskingum Valley have incising of the parallel oblique kind on the neck of the vessel or in one vessel on the collar (Morton 1984).

Intra-site patterning of the late Late Woodland sites consists of a sparse "linear scatter" or diffuse series of "hot spots" along the floodplain, very much like the patterning of earlier sites. What this seems to suggest is periodic reoccupation over an extended span of time rather than intensive occupation over a relatively short span of time. The Fort Ancient style circular nucleated village layout seen in the later Philo Phase or in the Baum Phase of the Scioto Valley seems to be lacking at these late Late Woodland sites. Present at these sites are deep refuse/storage pits, often containing bone and shell refuse. This suggests some degree of intensity of the occupation at these sites (Morton 1984).

Late Prehistoric

The early Late Prehistoric or the Philo Phase is characterized by nucleated, circular, central plaza-type villages occupied year-round, large scale river bottom maize agriculture, smooth shell tempered Philo Punctate pottery, rich and diversified bone and antler industries, and ossuary-style mass burials (Carskadden and Morton 1977). Projectile points of this time period are the Madison point and the Fort Ancient style points. Radiocarbon dates suggest a beginning of this phase in the Muskingum Valley from A.D. 1230 to A.D. 1320. Radiocarbon dates have suggested something interesting concerning the Cole/Baldwin-like phase. It seems that the Cole/Baldwin-like phase persisted as much as a generation after the appearance of the Philo phases, at least in certain portions of the Muskingum Valley (e.g. Locust Site, Eddy Paul Rockshelter).

Several Cole Cordmarked vessels have been recovered from the Philo phase Richards site (A.D. 1260 to A.D. 1290) [Morton 1984].

The late Late Prehistoric or the Riker Phase manifests itself in the form of Wellsburg Simple Stamped and Tuttle Hill Notched pottery. One site, in Muskingum County near Dresden, has a radiocarbon date A.D. 1350 (30 years after the latest Philo phase), and may represent the earliest influx of Riker phase traits into the central Muskingum area, possibly from northeast Ohio. The only other manifestation of this phase in the Muskingum Valley is from a mound to the West of Zanesville, which yielded Tuttle Hill Notched ceramics (Morton 1984).

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.

Morrow County History

Morrow County is number eighty-five chronologically of Ohio's eighty-eight counties. The reason for its late beginning lies in the contention through which people who, for one reason or another, opposed the establishment of Marion as the county seat of Marion County. At that time, 1824, the land that would become Morrow was the outlying land of four counties: Richland, Knox, Delaware, and the source of contention – Marion. Soon however, the contention shifted from external to internal and the main opposition to progress came from the various towns within the would-be county. Gilead and Chester were the main rivals in this race for Morrow's county seat. Finally, in 1848, the Gilead backers saw their side win the contest as the state legislature formally accepted their bid for the establishment of the new county centered around Mt. Gilead (Baskin 1880; Baughman 1911; Howe 1888; Morrow County Centennial Committee [MCCC] 1979).

Though Morrow County was not established until after the pioneer period ended, there were certainly those who settled the land that would eventually come under the jurisdiction of Morrow and they deserve brief recognition. Evan Holt was the first to settle on what would become Morrow County land. He built a home near present day Chesterville in 1807. Asa Mosher built the county's first mill in 1819. The first schools in the county began about 1817. Even Johnny Appleseed reportedly roamed through Morrow during the War of 1812 giving the settlers the latest news of the war and, of course, planting orchards (Baskin 1880; Baughman 1911; Howe 1888; MCCC 1979; Morrow County History Book Committee [MCHBC] 1989).

Progress of education, culture and industry came with the establishment of schools churches and transportation lines. Subscription schools provided education early on, with the first union school coming to Mt. Gilead in 1853. Through history, there have been three colleges in Morrow: Hesper Mount Seminary in 1845, Iberia College from 1855, and Alum Creek Academy some twenty years later. The "Old School Baptists" built the first church in 1816. This building was also the home of the first organized community school. The early roadways were the Delaware-Mansfield road and the Worthington-New Haven Road both before 1825. Railroads began construction in the late 1840's and the New York Central ran the first cars beginning in 1851 (Baskin 1880; MCCC 1979; MCHBC 1989).

The first village to have a plat was Friendsborough in 1822; probably so named because of the Quaker influence among the earliest pioneers of Morrow County. However, the town was as meek as its namesakes and the town never developed beyond its own plat. The first surviving town was Whetstone. Jacob Young laid it out two years after Friendsborough submitted their plat. In his honor, the inhabitants also hailed themselves from Youngstown; but in 1832, the name permanently became Mt. Gilead. The state granted the town incorporation in 1844. Other towns came in subsequent years. Today there are only eight others in the county: Bloomfield, Cardington, Sparta, Iberia, Marengo, Chesterville, Edison, and Fulton (Baskin 1880; Baughman 1911; Howe 1888; MCCC 1979).

Outside of these few communities, the rest of the county focuses on agriculture and save a couple manufacturing enterprises early on farming has been the only business to have any significant export. Early on, Morrow County had several small quarries and a few clay foundries but they were mostly small affairs all of which had closed by the middle 1900's (Baughman 1911; MCCC 1979; MCHBC 1989).

Morrow County has exported more people of significance than product. There have been members of Congress, Senators, Governors, members of State Legislature, Major League Baseball players, and even a U.S. President born in Morrow. Warren G. Harding was born in Blooming Grove in 1865 (MCCC 1979; MCHBC 1989).

Lincoln Township History

What is now Lincoln Township was surveyed in 1803 and then again in1807 by Jesse Spenser (Baughman & Bartlett 1911). The earliest known settlement in Lincoln

Township is what was eventually known as Peru. Benjamin Collins was the first person to purchase land here. He was an elderly man who emigrated from Junius, New York. Edmund Buck and Amos Earl arrived and built a cabin, purchased by Collins, and a bachelor's hall. Alexander Edgar settled in the area and established a store and distillery in 1818. Most trade in this area happened in Edgar's store until the businesses were opened in nearby Chesterville and Cardington. The first roads in the township were laid out in approximately 1823 (Baughman & Bartlett 1911).

Lincoln Township was formed on March 3, 1828 from Harmony and Westfield Townships and named in honor of General Benjamin Lincoln, known for his military service during the Revolutionary War. Settlers in this region were often involved in nearby Quaker church services. Most citizens of Lincoln Township were part of Protestant religions. The first church was Lincoln Christian Church, organized by Reverend William Ashley in 1843. The group held meetings in log cabins until 1858 when the first church building was constructed.

Fulton is one of the more prominent settlements in Lincoln Township. While Morrow County is mainly an agricultural community, Fulton sprung up quickly because of the presence of a stone quarry and a railroad station along the Toledo and Ohio Central Railroad. Fulton had two post offices, two general stores, and two Protestant churches (Baughman & Bartlett 1911). The town hall also housed an Independent Order of Oddfellows group.

South Bloomfield Township History

South Bloomfield Township was organized in the year 1817. It is located in the southeast corner of Morrow County. Neighboring townships include Chester to the north, Liberty to the east, Hilliar to the south and Bennington to the west. The topography in South Bloomfield Township is primarily level with little to rolling or hilly areas (Howe 1888).

Dense forests populated the land before the arrival of European settlers. Thousands of acres of forested land were cut down and logged in the effort to farm and gain materials for construction. The timber was used to build barns, schools, churches, homes and for other various purposes. Early immigrants who moved to South Bloomfield Township came from surrounding states such as Pennsylvania, New York, and Virginia. Many of whom have ancestry that can be traced back to France, England and Germany (Howe 1888).

During the early years of settlement, agriculture was the most viable way to secure economic success for one's family. The main crops were wheat, barley, corn and potatoes. South Bloomfield has a rich, fertile soil that allows for the growth of successful crops. If children were not at school attending lessons, they were back at home helping with household duties and tending the crops. This trend often led to low graduation rates (Baskin 1880).

Chester Township History

Chester Township was organized in the year 1812. It is located in the southeast portion of Morrow County. Neighboring townships include Franklin to the north, Wayne to the east, South Bloomfield to the south and Harmony to the west. The topography in Chester Township is primarily level with little to no rolling or hilly areas (Howe 1888).

Before the arrival of European influence, the township was covered in dense forests. These were later cleared during early settlement for agricultural and construction purposes. The timber was used to build homes, barns, schools and for other various crafting. Goods were transported on roads that were laid over trails set by the Native Americans. Many of the early European settlers immigrated from surrounding states such as Indiana, Pennsylvania and Virginia. Their ancestries could be traced back to Germany, England and France (Baskin 1880).

Agriculture was the leading source of economic stability in Chester Township during it's infancy. The main crops were buckwheat, broom corn and potatoes. During this time many families relied upon the success of their crops for sustenance and financial gain. Children often helped tend to the land and helped with other various household duties. Education took a backseat to assisting one's parents back at home. In many cases, children did not graduate from school at all, dropping out at an early age. School houses during this period were typically one-room log constructions with a singular fireplace implemented for the winter months. School houses were also used for religious gatherings as well (Howe 1888).

Spiritual practice was very common in Chester Township. The gatherings at the church allowed for the residents to seek spiritual solace, discuss local issues and organize community events. The doctrine of the church was not only used to guide one's personal life, but to structure public policy and society as a whole (Howe 1888).

Harmony Township History

Harmony Township was organized in the year 1820. It is located in the south-central portion of Morrow County. Neighboring townships include Franklin to the north, Chester to the east, Bennington to the south and Lincoln to the west. The topography is primarily level with little to no rolling areas (Howe 1888).

Before the arrival of European influence, Harmony Township was populated with dense forests. Thousands of acres were cleared during early settlement in for agricultural and construction purposes. The timber was used to build homes, barns, schools and for other various crafting. Many of the settlers in Harmony Township immigrated from surrounding states such as Pennsylvania and Indiana and Virginia in the year 1812 (Baskin 1880).

Agriculture was the leading source of economic success during the early period of settlement. The main crops were corn, tobacco, wheat and rye. Children during this time were essential for the success of their family's crops. Education often came second when

work needed to be done. Many students did not finish school due to the burden placed upon them by their household duties. Schoolhouses during this period were typically one room constructions with a fire place implemented for warmth during winter sessions. The schools also served as a place of worship when classes were not in (Howe 1888).

Research Design

The purpose of a Phase I survey is to locate and identify archaeological resources that will be affected by the planned electric structure replacement project. This report is being prepared to address only the archaeological concerns regarding this project. Once these resources are identified and sampled, they are evaluated for their eligibility or potential eligibility to the NRHP. These investigations are directed to answer or address the following questions:

1) Did the literature review reveal anything that suggests the project area 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?

Archaeological Field Methods

The survey conducted within the project used four methods of sampling and testing to identify and evaluate cultural resources. These included surface collection, shovel test unit excavation, shovel probe excavation, and visual inspection.

Surface Collection. Surface collection was conducted when suitable conditions were encountered. This pertains to agricultural fields that have a minimum of 50 percent bare ground surface visibility. Pedestrian transects were spaced at 7.5 m intervals. Artifacts that are identified in this manner are typically plotted using a Trimble GeoXT global positioning system.

Shovel test unit excavation. Shovel test units were placed at 15-m intervals. Shovel test units measure 50 cm on a side and are excavated to 5 cm below the topsoil/subsoil interface. Individual shovel test units were documented regarding their depth, content and color (Munsell). Wherever sites are encountered, Munsell color readings are taken per shovel test unit. All of the undisturbed soil matrices from shovel test units are screened using .6 cm hardware mesh. When sites are encountered, additional shovel test units will be excavated at 7.5 m intervals extending on grid and in the two cardinal directions within the corridor from the positive locations.

Shovel probe excavation. Shovel probes were excavated during these investigations to document the extent of the disturbance associated with modern construction activities. These probes were excavated similarly to shovel test units. They had the same dimensions of 50 cm on a side, but were not screened. They were excavated at 15-m intervals and to a depth of 15-20 cm or deep enough to establish lack of soil integrity.

Visual inspection. Locations where cultural resources were not expected, such as sloped, wetlands, or disturbed areas were walked over and visually inspected. This method was used to verify the absence or likelihood of any cultural resources being located in these areas. 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.

Prehistoric Artifact Analysis

An artifact inventory was accomplished upon completion of the fieldwork. This involved identifying the functional attributes of individual artifacts, as well as the artifact cluster(s) or site assemblage collectively. The prehistoric artifact types and material were identified during the inventory process. The lithic artifact categories are modeled after Flenniken and Garrison (1975) and include the following:

Biface. A biface is defined as an artifact that has been culturally modified on two faces (ventral and dorsal). Complete and fragmentary preforms, manufacturing rejects, projectiles, or knives are included in this category.

Blocky Irregular. These are chunks and amorphous chert fragments that are produced during core reduction. These frequently occur during the creation of a striking platform or by accident. They represent a transitional core reduction stage similar to that of primary thinning.

Broken Flake. This flake type is common. Flakes for this investigation are considered broken when diagnostic attributes (e.g., flake scarring or platform) are absent from the artifact. Therefore, a flake that is broken in half and retains the platform is considered complete because the function can be ascertained regardless of its obvious fragmentary nature.

Core. A core represents the initial stage of chert procurement and reduction. A core has evidence of flake removal or checking present to delineate that the object has been culturally modified. Cores can be recovered from bedded outcrops or gathered from alluvial and glacial deposits.

Primary Decortication Flake. This flake type represents the initial reduction of a core. Generally, these flakes have a natural patina or cortex over most of the dorsal side and are void of other flake scars. Artifact assemblages with chert resources obtained from bedded resources usually do not have decortication flakes of any kind because there is no patina/cortex formation.

Primary Thinning Flake. This flake type represents a transitional mode of chert reduction. The intent of this reduction activity is to reduce a core to a crude biface. Flakes have a steep platform angle (i.e., >65°) and lack cortex. However,

occasional small remnants of cortex are prevalent at this point, especially on the striking platform.

Secondary Decortication Flake. These flakes occur as a by-product of patina/cortex removal of a core. They are differentiated from the previous flake type by a lesser amount of cortex evident on the dorsal side and at least one or part of one previous flake scar. These flakes have steep flake platform angles (>75°).

Secondary Thinning Flake. These flake types represent a reduction mode that is a direct result of the previous reduction activities (i.e., primary thinning). Soft, antler billet percussion and pressure flaking are used for this mode of reduction. At this point, the chert artifact being reduced or thinned is a biface rather than a core. The striking platform for this flake type is commonly represented by the edge of the biface. The platform angle is typically acute but can range from 30° to 65°. Previously removed flake scars are common on the dorsal side.

Shatter or Angular Shatter. These artifacts most frequently occur during percussion flake reduction of cores. These artifacts lack striking platforms, are thin, narrow, and triangular. They cannot be definitively associated with a specific functional category of chert reduction due to their ubiquity.

Uniface. A uniface only has evidence of use-wear on one side of the artifact. Unifacial artifacts include utilized flakes, end and side scrapers, and bladelets. However, bladelets are typically categorized as blades or lamellar flakes and are diagnostic of the Middle Woodland period.

Identification of the material type of individual artifacts is based on several attributes, including color, inclusions, and luster. Several resources were used to aid in the inventory of the material types, including Converse (1994), DeRegnaucourt and Georgiady (1998), and Stout and Schoenlaub (1945).

Curation

The landowner was sent a letter regarding artifacts and it has not been received by the time this report was compiled. 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 0.8 km (0.5 mi) study area from the center of the project (Figures 2-5). In conducting the literature review, the following resources were consulted at SHPO and the State Library of Ohio:

1) *Archeological 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 CRM/contract archaeology files; and
7) SHPO consensus determination of eligibility files;
8) Morrow County atlases, histories, historic USGS 15'series topographic map(s), and current USGS 7.5' series topographic map(s); and
9) Genealogical and cemetery resources.

A review of the *Archeological Atlas of Ohio* (Mills 1914) was conducted (Figure 6). There is a square enclosure noted on the east side of Alum Creek that appears to be just south of the project; this is indicated as being excavated. A mound is indicated in the eastern part of the project and in Section 2 of South Bloomfield Township. This is depicted in close proximity to the project area, but is likely to the south of it and opposite a drainage (Mile Run).

The SHPO topographic maps indicated that there are no archaeological sites in the study area.

The OHI files did indicate that there is one recorded resource in the study area. This is the Samual P. Brown House (MRW0000813) and is located to the north of the western terminus of the project area by about 0.8 km (0.5 mi). This is between Worthington-New Haven Road and Alum Creek.

A review of the NRHP/DOE files did not indicate any associated resources within the project or its study area.

A review of the CRM surveys was conducted and this indicated that there was one Phase I survey conducted in the study area. This survey was conducted at several interchanges along Interstate 71 (I-71) (Aument and Randall 2001). This survey did not identify any cultural resources in the study area and is not directly involved in the project area.

The *Atlas of Morrow, Ohio* (Lake 1871) indicates buildings/structures are in the vicinity of the project area, but nothing that is definitively within it. The USGS *1915 Marengo* and the *1915 Fredericktown, Ohio 15 Minute Series (Topographic)* maps indicates that there are some buildings located near the project, but none are within it (Figure 7). Inspection of the *1988 Marengo* and the*1984 Chesterville, Ohio 7.5 Minute Series (Topographic)* maps did not indicate any buildings or structures within the project area (Figure 2 and 3).

The study area was inspected for cemeteries. There are three cemeteries located within the study area including: Bethel, Dejolsvay, and Biggs. None of these are near the project area.

Evaluation of Research Questions 1 and 2

There were two questions presented in the research design that will be addressed at this point. These are:

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

These investigations were conducted for the existing electric line right-of-way that traverses some stream valleys, but these are small as the corridor cuts through upland terrain. There have been few sites or surveys identified in this setting, but it is expected that prehistoric period cultural materials will be identified on the slight rises/elevations that are intercepted. Sites are expected to be reflective of short-termed/transient and logistical behavior. This will be reflected by few amounts of artifacts per site along with functionally limited assemblages. Historic period materials are deemed less likely based on inspection of atlas maps and cartographic/topographic resources.

Fieldwork Results

The field investigations for this project were completed on May 26, 2016 (Figures 8-27). The fieldwork took place sporadically from its initiation in early April of 2016. Weller started the fieldwork in the agricultural fields to take advantage of the locations that offered conditions that were amiable with surface collection. This was to attempt to surface collect the winter wheat prior to its maturing and to sample areas prior to being planted. At the same time, the field conditions for the project and the general conditions were addressed. All of the work that is currently being conducted for this project was within the electric line corridor easement. Weller was allotted time to complete this work, so it was accomplished when weather and conditions were suitable. Most of the project corridor was suitable for testing; however, there are some areas that were either inundated/wetlands, steeply sloped, or severely disturbed. These areas were subject to visual inspection. Subsurface testing methods were applicable in the areas where relatively denser ground cover was identified. The archaeological investigations resulted in the identification of 23 previously unrecorded sites including 33MW0202-224.

Most of the project area is located in rural farm country and was contained in active crop fields. Since these investigations were conducted in the spring, surface collection methods were applicable in soybean stubble, winter wheat, tilled areas, and occasionally cornfields. Pedestrian transects were paced throughout these conditions provided at least 50 percent bare ground surface visibility was available. The winter wheat fields were investigated first as they have active crops that would not be suitable for surface collection by the middle to late April. Harvested cornfields were occasionally suitable for surface collection. This was determined in the field and was often relative to the productivity of the corn and whether the fields were in a no-till rotation. Cornfields that were cut for silage and those with poor stands of crops had bare ground surface visibility that ranged from 50-80 percent. All of the soybean stubble fields that were subject to these investigations were suitable for surface collection methods. These fields

offered bare ground surface visibility that averaged 75-80 percent. Additionally, these fields are very weathered, which increases the likelihood of identifying cultural materials. The majority of the sites identified during these investigations were the results of surface collection sampling methods. The areas that were not readily recognized as being severely disturbed, fallow, and not deemed adequate for surface collection were subject to shovel testing methods of investigation.

Areas that precluded archaeological investigations were identified sporadically during these investigations. Severe disturbance accounts for minimal areas and generally involved historic period transportation-based constructions. This includes roads, railroads, grading for residential buildings, etc. Saturated conditions like streams, ponds, and possible wetlands were identified repeatedly. These situations inhibited testing, but it was recognized that these would likely be poorly suited for occupation or cultural use. Many of the larger wetland areas were identified along the relatively larger streams (the streams in this area are typically not very sizeable) and where the electric line corridor easement cuts through wooded lots. Steep slope (>15 percent) was identified infrequently, but documented accordingly as it was encountered. These inhibitive survey conditions were not a predominant factor throughout this survey area.

Shovel testing methods were appropriate in the generally intact situations that were ill-suited for surface collection (Figures 8-27). This pertains to fallow fields or pastures, corn stubble fields, bisected and cleared former woods, and manicured lawns. The vast majority of the project corridor had been farmed, was being farmed, or had been in the past. The amount of area contained in farm fields decreased from west to east as the terrain become for more rolling and there were more imperfectly drained situations. Most of the shovel testing that was conducted identified the topsoil being consistent with the plowzone; the topsoil deposits ranged in depth from 14-34 cm below ground surface. The project area is within glaciated conditions and does not have great topographic diversity. The elevations have a lighter hue of topsoil versus the low-lying areas. A typical shovel test unit excavated in and elevated area identified topsoil that was brown (10YR4/3) silt loam with subsoil that was dark yellowish brown (10YR4/6). Some areas were typically wetter than others and is reflected by the soil hue. The topsoil in this particular area was dark grayish brown (10YR4/2) silt loam and the subsoil was dark yellowish brown (10YR4/4) silt loam; the interface is clear, but somewhat broken by rutting. There were 929 shovel test units and 18 shovel probes excavated during these investigations.

There was one location that was subject to shovel test unit excavation that was aberrant to the other investigated areas. Shovel testing was conducted in a corn stubble field that was west of SR 314. This is an upland area that is not unlike those of the surrounding setting; it has low, gently rises with interspersed low-lying areas. The shovel testing conducted in the western part of this field, about 183 m (600 ft) east of where the electric line bisects a woods, identified site 33MW0223. This is currently regarded as an isolated find and was identified from sub-plowzone contexts in one of the low-lying areas. The plowzone depth at this location was at 26 cm below ground surface and it was recognized that the base of the plowzone was not the interface between the topsoil and subsoil. Instead, what appears to be a paleosol was identified. The Late Paleo-Indian projectile point that was identified from this shovel test unit was identified about 5 cm

below the plowzone and within the paleosol. Excavation continued to the topsoil/subsoil interface that was identified at 35 cm below ground surface. These conditions and this situation was not identified throughout the remainder of the project.

Archaeological Site Descriptions

The field investigations identified 23 previously unrecorded archaeological sites (33MW0202-224). All of these sites date from the prehistoric period and include isolated find spots and lithic scatters. The following text describes the archaeological deposits in greater detail and evaluates them per the NRHP.

33MW0202

This site is a lithic scatter that was identified during surface collection of a soybean stubble field (Figure 9) that is within an electric line corridor. The bare ground surface visibility at the time of survey was near 80 percent and the field was well-weathered. The artifacts were individually plotted with a Trimble GeoXT global positioning system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals. The artifacts were identified from a slight, upland elevation that gradually slopes eastward to a stream. The site is located between Worthington-New Haven Road and Alum Creek, south of the Community of Fulton. Alum Creek is the nearest drainage which is part of the Scioto River watershed. The site size is considered to be 30 sq m and its dimensions are about 58 m north-south by 4 m east-west.

There were three prehistoric artifacts identified from this site (Table 2) and they are all of Upper Mercer chert. These artifacts are functionally indicative of middle stage lithic reduction, such as latter stage core reduction and bifacial thinning. None of the artifacts recovered from this site are regarded as being temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

Table 2. Artifact Inventory for Sites MW0202-MW0224.

Bag	Site	Artifact	Material	Count
1	MW0202	Primary Thinning Flake	Upper Mercer	1
2		Secondary Thinning Flake	Upper Mercer	1
3		Primary Thinning Flake	Upper Mercer	1
4	MW0203	Secondary Thinning Flake	Upper Mercer	1
5		Primary Thinning Flake	Upper Mercer	1
6		Primary Thinning Flake	Upper Mercer	1
7		Secondary Thinning Flake	Upper Mercer	1
		Secondary Thinning Flake	Delaware	1
8		Primary Thinning Flake	Upper Mercer	1

9		Primary Thinning Flake	Upper Mercer	1
10		Primary Thinning Flake	Upper Mercer	1
11		Secondary Thinning Flake	Upper Mercer	1
12		Primary Thinning Flake	Upper Mercer	1
13		Angular Shatter	Upper Mercer	1
14		Secondary Thinning Flake	Upper Mercer	1
15		Primary Thinning Flake	Upper Mercer	1
16		Secondary Thinning Flake	Upper Mercer	1
17		Biface	Upper Mercer	1
18		Secondary Thinning Flake	Upper Mercer	2
19		Primary Thinning Flake	Upper Mercer	1
20		Primary Thinning Flake	Upper Mercer	1
21		Primary Thinning Flake	Upper Mercer	2
22		Secondary Thinning Flake	Upper Mercer	1
23		Primary Thinning Flake	Upper Mercer	1
24		Primary Thinning Flake	Upper Mercer	3
		Secondary Thinning Flake	Upper Mercer	2
25		Secondary Thinning Flake	Upper Mercer	1
26		Secondary Thinning Flake	Upper Mercer	1
27		Angular Shatter	Upper Mercer	1
28		Secondary Thinning Flake	Upper Mercer	1
29		Primary Thinning Flake	Upper Mercer	1
		Secondary Thinning Flake	Upper Mercer	1
30		Secondary Thinning Flake	Upper Mercer	1
31		Biface Fragment	Flint Ridge	1
32		Primary Thinning Flake	Upper Mercer	1
32a	MW0204	Primary Thinning Flake	Upper Mercer	1
33		Secondary Thinning Flake	Upper Mercer	1
34		Primary Thinning Flake	Upper Mercer	1
35		Primary Thinning Flake	Upper Mercer	1
36		Secondary Thinning Flake	Upper Mercer	1
37		Secondary Thinning Flake	Upper Mercer	1
38		Secondary Thinning Flake	Upper Mercer	1
39		Primary Thinning Flake	Delaware	1
40		Primary Thinning Flake	Upper Mercer	1
41		Primary Thinning Flake	Upper Mercer	1
42		Secondary Thinning Flake	Upper Mercer	1
43		Primary Thinning Flake	Upper Mercer	1
44	MW0205	Secondary Thinning Flake	Upper Mercer	1
45	MW0206	Primary Thinning Flake	Upper Mercer	1
46	MW0207	Secondary Thinning Flake	Upper Mercer	1
47		Secondary Thinning Flake	Flint Ridge	1
48		Secondary Thinning Flake	Upper Mercer	1

49		Primary Thinning Flake	Upper Mercer	1
50		Secondary Thinning Flake	Upper Mercer	1
51		Secondary Thinning Flake	Flint Ridge	1
52		Secondary Thinning Flake	Upper Mercer	1
53		Primary Thinning Flake	Upper Mercer	1
54		Secondary Thinning Flake	Flint Ridge	1
55		Secondary Thinning Flake	Upper Mercer	1
56		Primary Thinning Flake	Flint Ridge	1
57		Secondary Thinning Flake	Upper Mercer	1
58		Secondary Thinning Flake	Flint Ridge	1
59		Primary Thinning Flake	Upper Mercer	1
60		Primary Thinning Flake	Upper Mercer	1
61	MW0208	Primary Thinning Flake	Upper Mercer	1
62	MW0209	Secondary Thinning Flake	Upper Mercer	1
63		Primary Thinning Flake	Upper Mercer	1
64	MW0210	Primary Thinning Flake	Upper Mercer	1
65	MW0211	Primary Thinning Flake	Upper Mercer	1
		Primary Thinning Flake	Upper Mercer	1
		Biface Fragment	Upper Mercer	1
66	MW0212	Primary Thinning Flake	Upper Mercer	1
		Biface Fragment	Pipe Creek	1
67	MW0213	Utilized Flake	Flint Ridge	1
		Biface Fragment	Unidentified	1
68	MW0214	Secondary Thinning Flake	Upper Mercer	1
69		Secondary Thinning Flake	Upper Mercer	1
72	MW0215	Primary Thinning Flake	Upper Mercer	1
73	MW0216	Primary Thinning Flake	Upper Mercer	1
74	MW0217	Primary Thinning Flake	Flint Ridge	1
75		Primary Thinning Flake	Upper Mercer	2
		Secondary Thinning Flake	Upper Mercer	3
76		Primary Thinning Flake	Upper Mercer	1
77		Secondary Thinning Flake	Flint Ridge	1
78	MW0218	Big Sandy Point	Upper Mercer	1
79	MW0219	Primary Thinning Flake	Flint Ridge	1
		Secondary Thinning Flake	Flint Ridge	1
80		Secondary Thinning Flake	Flint Ridge	1
81	MW0220	Primary Thinning Flake	Upper Mercer	1
82	MW0221	Endscraper	Upper Mercer	1
		Primary Thinning Flake	Pipe Creek	1
		Primary Thinning Flake	Upper Mercer	1
		Primary Thinning Flake	Flint Ridge	1
		Secondary Thinning Flake	Upper Mercer	1
83	MW0222	Primary Thinning Flake	Upper Mercer	1

		Secondary Thinning Flake	Upper Mercer	2
84		Primary Thinning Flake	Upper Mercer	1
		Secondary Thinning Flake	Upper Mercer	3
85	MW0223	Lanceolate Point	Nellie	1
86	MW0224	Secondary Thinning Flake	Upper Mercer	1

33MW0203

This site is a lithic scatter that was identified during surface collection of a soybean stubble field (Figure 9) that is within an electric line corridor. There is a wooden electric line structure in the central part of the site. The bare ground surface visibility at the time of survey was near 80 percent and the field was well-weathered. The artifacts were individually plotted with a Trimble GeoXT global positioning system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals. The artifacts were identified from a slight, upland elevation that gradually slopes eastward to a stream. The site is located between Worthington-New Haven Road and Alum Creek, south of the Community of Fulton. Alum Creek is the nearest drainage which is part of the Scioto River watershed. The site size is considered to be 847 sq m and its dimensions are about 22 m north-south by 63 m east-west.

There were 37 prehistoric artifacts identified from this site (Table 2). The material assemblage includes Upper Mercer (n=35), Flint Ridge (n=1), and Delaware (n=1) chert. The majority of these artifacts are functionally indicative of middle stage lithic reduction, such as latter stage core reduction and bifacial thinning. There were two artifacts from this assemblage that are either finished or nearly completed forms. One is a crude and rejected biface of Upper Mercer chert. This has a roughly oval-shaped form with irregular flaking and edges. It is thick and was not finished due to flaws in the chert. The other artifact is a Flint Ridge biface fragment that has been potlidded (incidentally fragmented by excessive heat). This is too fragmented to be functionally distinctive. None of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0204

This site is a lithic scatter that was identified during surface collection of a soybean stubble field (Figure 9) that is within an electric line corridor. The bare ground surface visibility at the time of survey was near 80 percent and the field was well-weathered. The artifacts were individually plotted with a Trimble GeoXT global positioning system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals. The artifacts were identified from a gently sloping landform

that is just west of a narrow, treed riparian corridor. The site is located between Worthington-New Haven Road and Alum Creek, south of the Community of Fulton. Alum Creek is the nearest drainage which is part of the Scioto River watershed. The site size is considered to be 495 sq m and its dimensions are about 15 m north-south by 40 m east-west.

There were 12 prehistoric artifacts identified from this site (Table 2). The material assemblage includes Upper Mercer (n=11) and Delaware (n=1) chert. These artifacts are functionally indicative of middle stage lithic reduction, such as latter stage core reduction and bifacial thinning. None of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0205

This site is an isolated find that was identified during surface collection of an immature winter wheat field that is within an electric line corridor (Figure 11). The bare ground surface visibility at the time of survey was 50 percent. Pedestrian transects were spaced at 5 m intervals and then reduce to 2 m intervals upon site identification, but additional materials were not identified. The artifact was obtained from an upland elevation and its location was plotted with a GPS system. This site is located to the south of Kaufman Road and to the east of OH-61. This landform is drained by an unnamed tributary of Alum Creek, which is part of the Scioto River watershed. The site size of isolated finds is considered to be 1 sq m.

The artifact is a secondary thinning flake of Upper Mercer chert (Table 2). This is functionally indicative of bifacial reduction activities. This artifact is not considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0206

This site is an isolated find that was identified during surface collection of an immature winter wheat field that is within an electric line corridor (Figure 11). The bare ground surface visibility at the time of survey was 50 percent. Pedestrian transects were spaced at 5 m intervals and then reduce to 2 m intervals upon site identification, but

additional materials were not identified. The artifact was obtained from an upland elevation and its location was plotted with a GPS system. This site is located to the south of Kaufman Road and to the east of OH-61. This landform is drained by an unnamed tributary of Alum Creek, which is part of the Scioto River watershed. The site size of isolated finds is considered to be 1 sq m.

The artifact is a primary thinning flake of Upper Mercer chert (Table 2). This is functionally indicative of core reduction activities. This artifact is not considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0207

This site is a lithic scatter that was identified during surface collection of a soybean stubble field (Figure 12) that is within an electric line corridor. The bare ground surface visibility at the time of survey was near 80 percent and the field was well-weathered. The artifacts were individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals. The artifacts were identified from an upland elevation that was gently sloping to the west. This site was identified to the west of County Road 28 and is south of Kaufman Road. This landform is drained by an unnamed tributary of Alum Creek, which is part of the Scioto River watershed. The site size is considered to be 66.3 sq m and its dimensions are about 5 m north-south by 16.6 m east-west.

There were 15 prehistoric artifacts identified from this site (Table 2). The material assemblage includes Upper Mercer (n=10) and Flint Ridge (n=5) chert. These artifacts are functionally indicative of middle stage lithic reduction, such as latter stage core reduction and bifacial thinning. None of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0208

This site is an isolated find that was identified during surface collection of a soybean stubble field (Figure 18). The bare ground surface visibility at the time of survey was near 75 percent and the field was well-weathered. The artifacts were

individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals. The artifact was identified from an upland elevation that was gently sloping to the west and is just east of a low and wet swale. The site is located to the west of County Road 184 and is north of Jones Roads. This landform is drained by an unnamed tributary of Castro Run. This drains westward to Big Walnut Creek, which is part of the Scioto River watershed. The site size of isolated finds is considered to be 1 sq m.

The artifact is a primary thinning flake of Upper Mercer chert (Table 2). This is functionally indicative of core reduction activities. This artifact is not considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0209

This site is a lithic scatter that was identified during surface collection of a tilled field (Figure 23). The bare ground surface visibility at the time of survey was 90 percent and the field was well-weathered. The artifacts were individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals. The site is located to the east of SR 314 and is north of Bennington-S. Bloomfield Road N. The artifacts were identified from an upland, linear elevation. This landform is drained by an unnamed tributary of the Kokosing River, which is part of the Muskingum River watershed. The site size is reflective of the distance between the two artifacts and is 1.31 sq m.

There were two prehistoric artifacts identified from this site (Table 2). The material assemblage is limited to only Upper Mercer chert. These artifacts are functionally indicative of middle stage lithic reduction, such as latter stage core reduction and bifacial thinning. None of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0210

This site is an isolated find spot that was identified during surface collection of a tilled field (Figure 23). The bare ground surface visibility at the time of survey was 90

percent and the field was well-weathered. The artifacts were individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals to verify the extent of the deposit. The site is located to the east of SR 314 and is north of Bennington-S. Bloomfield Road N. The artifact was identified from an upland, linear elevation. This landform is drained by an unnamed tributary of the Kokosing River, which is part of the Muskingum River watershed. The site size of isolated finds is considered to be 1 sq m.

The artifact is a primary thinning flake of Upper Mercer chert (Table 2). This is functionally indicative of core reduction activities. This artifact is not considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0211

This site is a lithic scatter that was identified during surface collection of a corn stubble field (Figure 25). The bare ground surface visibility at the time of survey was 50 percent and the field was well-weathered. The artifacts were individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals to attempt to identify additional material and verify the extent of the deposit. The site is located to the east of Sparta-Chesterville Road. The artifacts were identified from an upland, till plain elevation. This landform is drained by an unnamed tributary of Mile Run, which flows northeasterly to the Kokosing River. This is part of the Muskingum River watershed. The dimensions of this site size are 12 m north-south by 2.5 m east-west; the site size is 13.6 sq m.

There were three prehistoric artifacts identified from this site (Table 2). The material assemblage is limited to only Upper Mercer chert. There are two artifacts are functionally indicative of core reduction or thinning. The other artifact is a distal biface fragment. The edges exhibit worn serrations and bifacial beveling. This would have functioned as a knife, and likely dates from the Archaic period; however, this cannot be definitively determined. None of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0212

This site is a lithic scatter that was identified during surface collection of a corn stubble field (Figure 25). The bare ground surface visibility at the time of survey was 50 percent and the field was well-weathered. The artifacts were individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals to attempt to identify additional material and verify the extent of the deposit. The site is located to the east of Sparta-Chesterville Road. The artifacts were identified from an upland, till plain elevation. This landform is drained by an unnamed tributary of Mile Run, which flows northeasterly to the Kokosing River. This is part of the Muskingum River watershed. The site size is reflective of the distance between the two artifacts and is 11 sq m.

There were two prehistoric artifacts identified from this site (Table 2). The material assemblage includes Upper Mercer and Pipe Creek chert. The Upper Mercer artifact is a flake that is functionally indicative of late stage core reduction. The Pipe Creek artifact is a broken biface that is too fragmented to be regarded as functionally distinctive. Neither of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0213

This site is a lithic scatter that was identified during surface collection of a corn stubble field (Figure 25). The bare ground surface visibility at the time of survey was 50 percent and the field was well-weathered. The artifacts were individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals to attempt to identify additional material and verify the extent of the deposit. The site is located to the east of Sparta-Chesterville Road. The artifacts were identified from an upland, till plain elevation. This landform is drained by an unnamed tributary of Mile Run, which flows northeasterly to the Kokosing River. This is part of the Muskingum River watershed. The site size is reflective of the distance between the two artifacts and is 4.8 sq m.

There were two prehistoric artifacts identified from this site (Table 2). The material assemblage includes Flint Ridge and unidentified chert. The Flint Ridge artifact is a utilized flake that is functionally indicative of expedient cutting and scraping activity. The other artifact is a distal biface fragment of deep, reddish/orange chert. It is a dart-sized, symmetrical point that was fractured just below its prominent shoulders. It likely functioned as a projectile point and from the Archaic period based on its evident remaining characteristics; however, this cannot be certain without the hafting element. Neither of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0214

This site is a lithic scatter that was identified during surface collection of a tilled field (Figure 19). The bare ground surface visibility at the time of survey was 90 percent and the field was well-weathered. The artifacts were individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals to attempt to identify additional material and verify the extent of the deposit. The site is located to the north of County Road 187 and west of Bennington Eastern Road. The artifacts were identified from an upland, till plain elevation. This landform is drained by the South Branch Kokosing River, which flows northerly to the Kokosing River. This is part of the Muskingum River watershed. The site size is reflective of the distance between the two artifacts and is 2 sq m.

There were two prehistoric artifacts identified from this site (Table 2). The material assemblage includes Upper Mercer chert. These artifacts are functionally indicative of bifacial reduction. Neither of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0215

This site is an isolated find that was identified during surface inspection of a corn stubble field (Figure 15); shovel test units were excavated through this area as the bare ground surface visibility was 40 percent or less. The artifact was identified during inspection of surface between shovel test units. The artifacts were individually plotted with a GPS system. The site is located to the east of Bennington-Harmony Central Road and is south of Penlan Road. The artifact was identified from an upland elevation within an end moraine area. The nearest drainage is an unnamed tributary of Big Walnut Creek, which is part of the Scioto River watershed. The site size of isolated finds is considered to be 1 sq m.

The artifact is a primary thinning flake of Upper Mercer chert (Table 2). This is functionally indicative of core reduction activities. This artifact is not considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0216

This site is an isolated find that was identified during surface inspection of a corn stubble field (Figure 15). The bare ground surface visibility in the field was at 50 percent and pedestrian transects were initially spaced at 7.5 m intervals. Inspection of the surrounding area at 2 m intervals was conducted, but failed to identify any additional materials. The artifacts were individually plotted with a GPS system. The site is located to the east of Bennington-Harmony Central Road and is south of Penlan Road. The artifact was identified from an upland elevation within an end moraine area. The nearest drainage is an unnamed tributary of Big Walnut Creek, which is part of the Scioto River watershed. The site size of isolated finds is considered to be 1 sq m.

The artifact is a primary thinning flake of Upper Mercer chert (Table 2). This is functionally indicative of core reduction activities. This artifact is not considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0217

This site is lithic scatter that was identified during shovel test unit excavation within a nearly mature winter wheat field (Figure 16). The artifacts were identified from plowzone context. The surface visibility at the time of survey was no more than 25 percent. Shovel testing was conducted through this area, along with additional inspection. The culturally positive shovel test unit locations were plotted using a GPS system. The site is located about midway between Penlan and Jones Roads. This is a nearly level, but elevated upland landform that is drained by Castro Run. This drains westward to Big Walnut Creek, which is part of the Scioto River watershed. The site size is considered to be 23.49 sq m and its dimensions are about 7.6 m north-south by 7.6 m east-west.

There were eight prehistoric artifacts identified from this site (Table 2). The material assemblage includes Upper Mercer (n=6) and Flint Ridge (n=2) chert. These artifacts are functionally indicative of late stage core reduction and bifacial reduction. None of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0218

This site is an isolated find that was identified during surface inspection of a bare area within a nearly mature winter wheat field. The bare ground surface visibility at the time of survey was no more than 25 percent. Shovel testing was conducted through this area, along with additional inspection, but no additional materials were identified. The artifact location was plotted using a GPS system. The site is located about midway between Penlan and Jones Roads. This is a nearly level, but elevated upland landform that is drained by Castro Run. This drains westward to Big Walnut Creek, which is part of the Scioto River watershed. The site size of isolated finds is considered to be 1 sq m.

A nearly complete Big Sandy point was identified from this site (Table 2; Figure 16 and 69). The blade is slightly beveled and has deep, somewhat worn serrations. This artifact has a diamond-shaped cross-section that was created by repeated thinning and re-sharpening of the lateral blade edges. Functionally, this artifact would have served as a hafted knife. The widest aspect of this biface is the expanding base. Aberrant to the type, there does not appear to be any grinding evident on the base. The metric attributes include: max. thickness (n=7.5 mm), length (n=42.1 mm), max. width (n=17.8 mm), blade length (n=30.4 mm). Big Sandy points date from the Early Archaic period from about 8000-6000 BC (Justice 1987:61).

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited artifact assemblage. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0219

This site is lithic scatter that was identified during shovel test unit excavation within a nearly mature winter wheat field (Figure 16). The artifacts were identified from plowzone context. The surface visibility at the time of survey was no more than 25 percent. Shovel testing was conducted through this area, along with additional inspection. The culturally positive shovel test unit locations were plotted using a GPS system. The site is located about midway between Penlan and Jones Roads. This is a nearly level, but elevated upland landform that is drained by Castro Run. This drains westward to Big Walnut Creek, which is part of the Scioto River watershed. The site size is considered to be 1 sq m and its dimensions are about 1 m north-south by 1 m east-west.

There were three prehistoric artifacts identified from this site (Table 2). The material assemblage includes Flint Ridge chert. These artifacts are functionally indicative of bifacial reduction and late stage core reduction. None of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0220

This site is an isolated find that was identified during surface collection of a tilled field (Figure 20). The bare ground surface visibility at the time of survey was near 100 percent and the field was well-weathered. The artifacts were individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals to attempt to identify additional material and verify the extent of the deposit. The site is located to east of Bennington Eastern Road and just south of a woods. The artifacts were identified from an upland, till plain elevation that slopes northward. This landform is drained by an unnamed tributary of the South Branch Kokosing River, which flows northerly to the Kokosing River. This is part of the Muskingum River watershed. The site size of isolated finds is considered to be 1 sq m.

The artifact is a primary thinning flake of Upper Mercer chert (Table 2). This is functionally indicative of core reduction activities. This artifact is not considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0221

This site is lithic scatter that was identified during surface collection of a tilled field (Figure 20). The bare ground surface visibility at the time of survey was near 100 percent and the field was well-weathered. The artifacts were individually plotted with a GPS system. Pedestrian transects were initially spaced at 7.5 m intervals and then reduced to 3 m intervals to attempt to identify additional material and verify the extent of the deposit. The site is located to east of Bennington Eastern Road and just south of a woods. The artifacts were identified from an upland, till plain elevation that slopes northward. This landform is drained by an unnamed tributary of the South Branch Kokosing River, which flows northerly to the Kokosing River. This is part of the

Muskingum River watershed. The dimensions of the site are 15 m north-south by 12 m east-west; the site size is 120.8 sq m.

There were five prehistoric artifacts identified from this site (Table 2). The material assemblage includes Upper Mercer (n=3), Pipe Creek (n=1), and Flint Ridge (n=1) chert. There are four artifacts that are functionally indicative of bifacial reduction and late stage core reduction. One artifact is a unifacial tool regarded as an endscraper. This artifact was likely hafted and would have been used for general scraping activities (i.e., hide scraping, wood, etc.). None of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0222

This site is lithic scatter that was identified during shovel test unit excavation within a fallow, deforested strip that was cleared for an electric line (Figure 18). The artifacts were identified from plowzone-depth context. The culturally positive shovel test unit locations were plotted using a GPS system. The site is located to the west of County Road 184 and is north of Jones Roads. This is a slight, upland elevation that is just east of a low and wet swale. This landform is drained by an unnamed tributary of Castro Run. This drains westward to Big Walnut Creek, which is part of the Scioto River watershed. The site size is considered to be 7.6 sq m and its dimensions are about 1 m north-south by 7.6 m east-west.

There were seven prehistoric artifacts identified from this site (Table 2). The material assemblage includes Upper Mercer chert. These artifacts are functionally indicative of bifacial reduction and late stage core reduction. None of the artifacts from this assemblage are considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, diffuse artifact assemblage, and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33MW0223

This site is an isolated find that was identified during shovel test unit excavation in a corn stubble field (Figure 22). The excavation of four radial shovel test units failed to identify any additional artifacts. The artifact was identified from a small, low swale that is between upland slight elevations. Importantly, the artifact was identified from

sub-plowzone contexts and from deposits that have a darker hue and more organic content that the plowzone, it is a paleosol. This artifact was identified from what is interpreted as *in situ* context. The site is located to the west of SR 314 and is within an electric line corridor easement that is north of South Bloomfield North Road. The nearest drainage is an unnamed tributary of the Kokosing River, which is part of the Muskingum River watershed. The site size of isolated finds is considered to be 1 sq m.

This site is represented by a complete Late Paleo-Indian lanceolate point (Figure 22 and 69). This artifact is manufactured from Nellie chert, but there are three hues evident. The distal portion of the biface is black, siliceous material that is more akin to what is generally regarded as Upper Mercer chert. The central part is slightly grainier material. The base is duller gray/black and slaty, which is more indicative of what is regarded as Nellie (Converse 1994). The most apt visual correlate to the is particular specimen is evident in Converse (1994:30-31) and is termed as a 'Plano Lanceolate'. He notes that "Dull Nellie chert was especially favored…", which is reflective of this artifact. Lanceolate Plano/Plano Lanceolate points date from the Late Paleo-Indian period from about 10,000-8000 BC (Justice 1987:30; Converse 1994:30-31).

Based on the symmetry and evident characteristics, this artifact would have been used as a projectile/spear point. The lateral edges have been bifacially beveled. There is no evident attrition, reworking, or use on the blade portion that is above the hafting element. The blade makes a gentle, outward curve from the tip to the base. The artifact has a nearly uniform thickness that is 7.6 mm. Light grinding is evident along the edges extending about 2/5 up the sides from the base. The base is slightly concave with minimal thinning. There are two small ears that define the juncture of the lateral sides and the base. The grinding terminates at these ears and there is no grinding evident in the slight basal concavity. This artifact is 115.4 mm long and is 32.0 mm at its widest. The base is 22.1 mm wide. The hafting element (the extent of the lateral edge grinding) is 47.5 mm in length.

This site was evaluated for its eligibility for the NRHP. This site has demonstrated some important aspects of integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and may have the ability to yield further and important information regarding prehistory. The artifact was identified from sub-plowzone contexts and dates from the Late Paleo-Indian period; a very rare and infrequently identified set of combined contexts. Additional work is considered necessary at this site to determine it significance, if it cannot be effectively avoided.

33MW0224

This site is an isolated find that was identified during shovel test unit excavation in a corn stubble field (Figure 22). The excavation of four radial shovel test units failed to identify any additional artifacts. The artifact was identified from an elevation that is bordered to the east and west by low-lying depressions. The site is located to the west of SR 314 and is within an electric line corridor easement that is north of South Bloomfield North Road. The nearest drainage is an unnamed tributary of the Kokosing River, which

is part of the Muskingum River watershed. The site size of isolated finds is considered to be 1 sq m.

The artifact is a secondary thinning flake of Upper Mercer chert (Table 2). This is functionally indicative of bifacial reduction activities. This artifact is not considered to be temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited artifact assemblage and lacks temporally diagnostic materials. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

Fieldwork Summary

The field investigations for this project utilized several means of sampling and documentation to address archaeological concerns. The work resulted in the identification of 23 sites, 33MW0202-224. These are all prehistoric period components, which are expected in nearly all suitable settings in this area. However, site 33MW0223 is unlike the other sites that were identified. These investigations identified what is generally regarded as being short-termed occupations that likely transpired through logistical, transient hunting-foraging behavior (Binford 1980). There is an increase in the amount of Upper Mercer/Nellie chert in this area, which can be expected since the outcrops are not too far from the survey area and within the same watershed. A couple specimens of Pipe Creek (or Prout) chert were identified. This chert outcrops in north-central Ohio and reportedly in Huron County. Encountering this chert type in Morrow County is not too surprising and, expectedly, it was not identified outside of a single artifact in a couple sites.

Site 33MW0223 diverges from normalcy in regards to its context and temporal affiliation. This site is represented by a single artifact, a Paleo-Indian spear point of Nellie chert. Unlike the other sites that were identified on the surface and/or within the plowzone, this artifact was identified from what is considered to be an intact sub-plowzone context. The context and the temporal component are both rarely identified archaeological attributes. Despite being a single artifact, Phase II archaeological assessment was recommended for this deposit if it could not be avoided.

The Mills Atlas (1914) indicated that there are two resources in the vicinity of the project corridor. This refers to a square earthen enclosure and a mound. Mills noted that the enclosure had been excavated; this was noted on the west side of Alum Creek and just south of the project. The mound is indicated in the eastern aspect of the project area and was likely to the south of the investigated corridor. The mound was likely to the south of the project area and south of Mile Run. There were no Mills-related sites identified during these investigations.

There have been very few sites identified in this part of Ohio. This is primarily because amateurs tend to not record them and this area has not been the subject of much

development that would involve professional cultural resource surveys. These investigations provided useful information regarding the types of sites, conditions, and prehistoric land use in this area.

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. This project involves the replacement of structures within an existing electric line corridor. The archaeological APE for this project is considerate of the footprint of the planned construction. This will include access corridors and laydown yards, etc. once they are defined; however, the current body of work was conducted within the existing electric line easement that is 30.5 m (100 ft) wide. The work is to be conducted in a lowly populated area that is south of Fulton and extending eastward to about the Knox County line. The project involves the removal of older wooden H-frame structures that are in a state of disrepair and replacing them with newer metal structures.

These investigations identified 23 archaeological sites, 33MW0202-224. Most of these sites are isolated finds and lithic scatters that are contained within the plowzone and/or lack temporally diagnostic materials; these are not regarded as being significant archaeological deposits. Site 33MW0223 is an isolated find that dates from the Late Paleo-Indian period and was identified in a sub-plowzone context during shovel test unit excavation. This site may be significant and it is being considered for additional, assessment level work if it cannot be effectively avoided. Intact Late Paleo-Indian sites are very rare. The archaeological aspect of this project addressed the footprint of the planned construction areas. Provided 33MW0223 can be avoided, then no further archaeological work is deemed necessary for this project.

These investigations did not involve structures or buildings, these were addressed in a separate and stand-alone document.

Recommendations

From March to May of 2016, Weller & Associates, Inc. conducted Phase I archaeological investigations for the approximately 21.9 km (13.6 mi) Hedding Road Switch-Fulton Station 138kV Rebuild Project in Lincoln, Harmony, Chester, and South Bloomfield Townships, Morrow County, Ohio. The archaeological investigations involved surface, subsurface testing, and visual inspection and resulted in the identification of 23 sites, 33CS0202-224. No further work is considered to be necessary for 33MW0202-222 and 224 as they do not meet the minimum requirements to be regarded as significant/eligible for the NRHP; they are not landmarks. Site 33MW0223 dates from the Late Paleo-Indian period, a poorly understood prehistoric period component, and it is being recommended for further assessment to determine its significance, if it cannot be avoided. If avoidance of the site is possible, an appropriate finding of 'no historic properties affected' is considered appropriate for the project area. If 33MW0223 can be avoided, no further work is recommended for this project.

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Figures

Figure 1. Political map of Ohio showing the approximate location of the project.

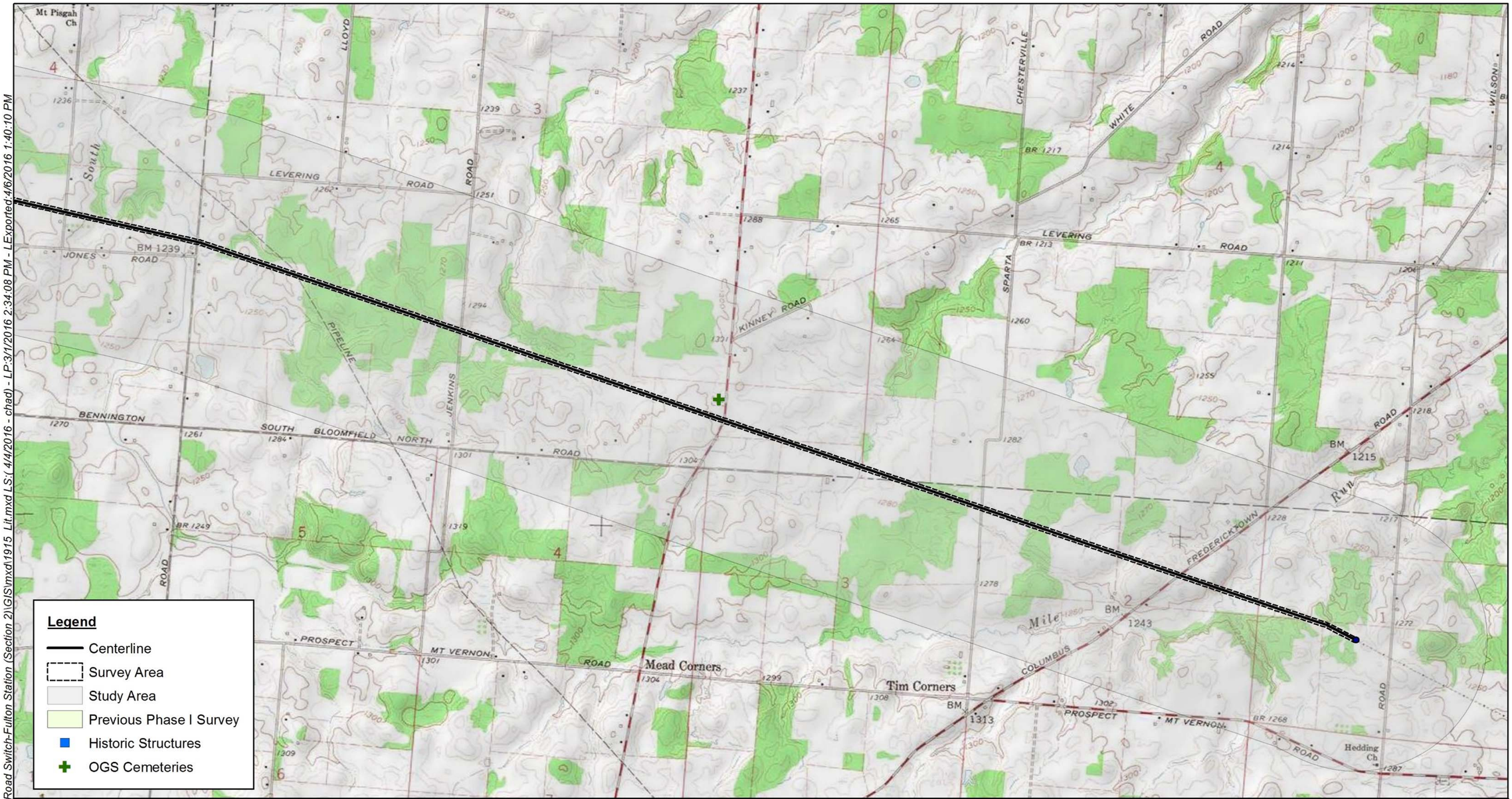

Figure 2. Portion of the USGS *1988 Marengo*, and the *1984 Chesterville, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

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Figure 3. Portion of the USGS *1988 Marengo*, and the *1984 Chesterville, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

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Figure 4. Aerial map indicating the location of the eastern portion of the project and previously recorded resources in the study area.

Scale in Feet
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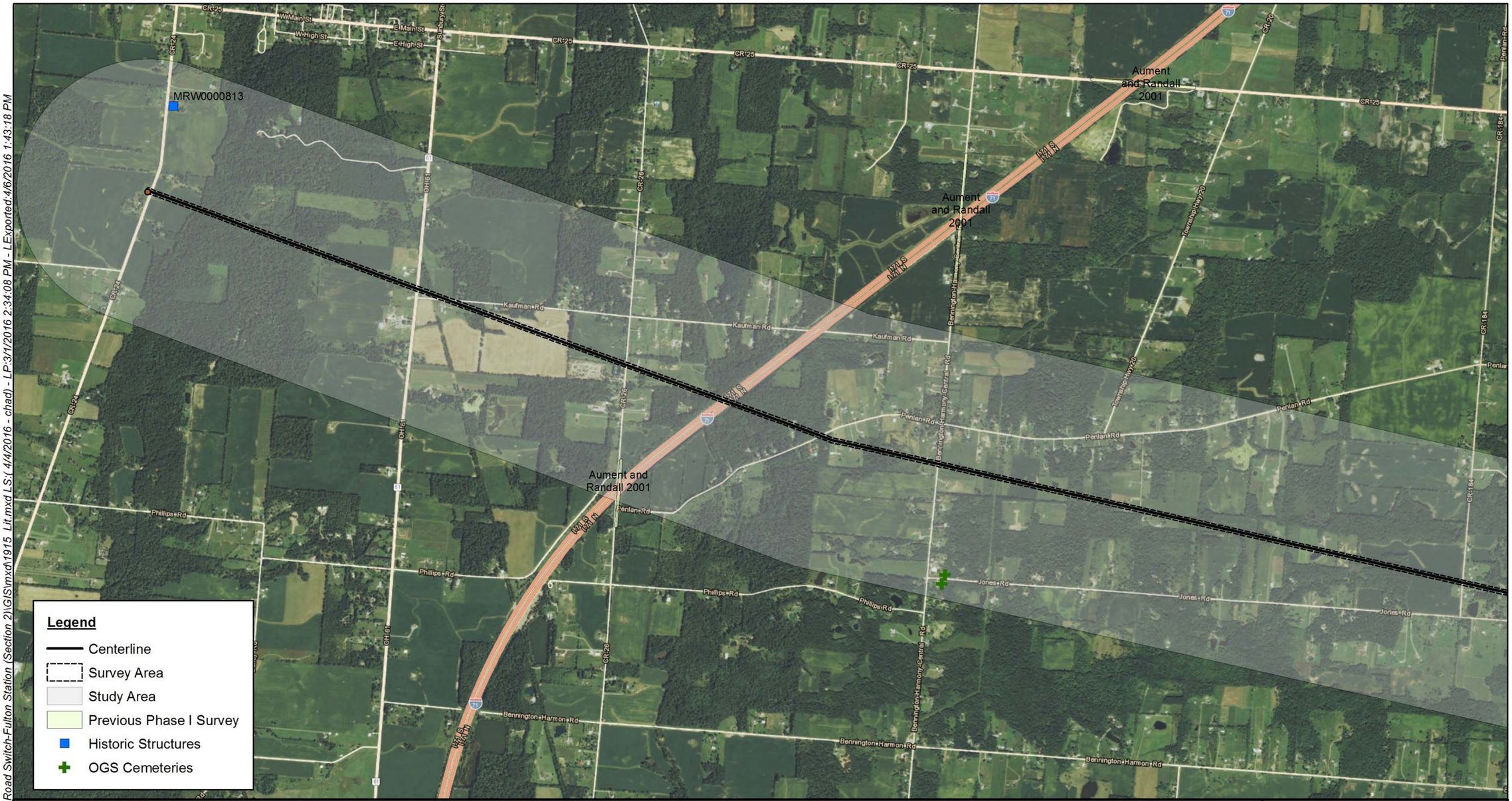

Figure 5. Aerial map indicating the location of the western portion of the project and previously recorded resources in the study area.

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Figure 6. Portion of the *Archeological Atlas of Ohio* (Mills' 1914) indicating the location of the project.

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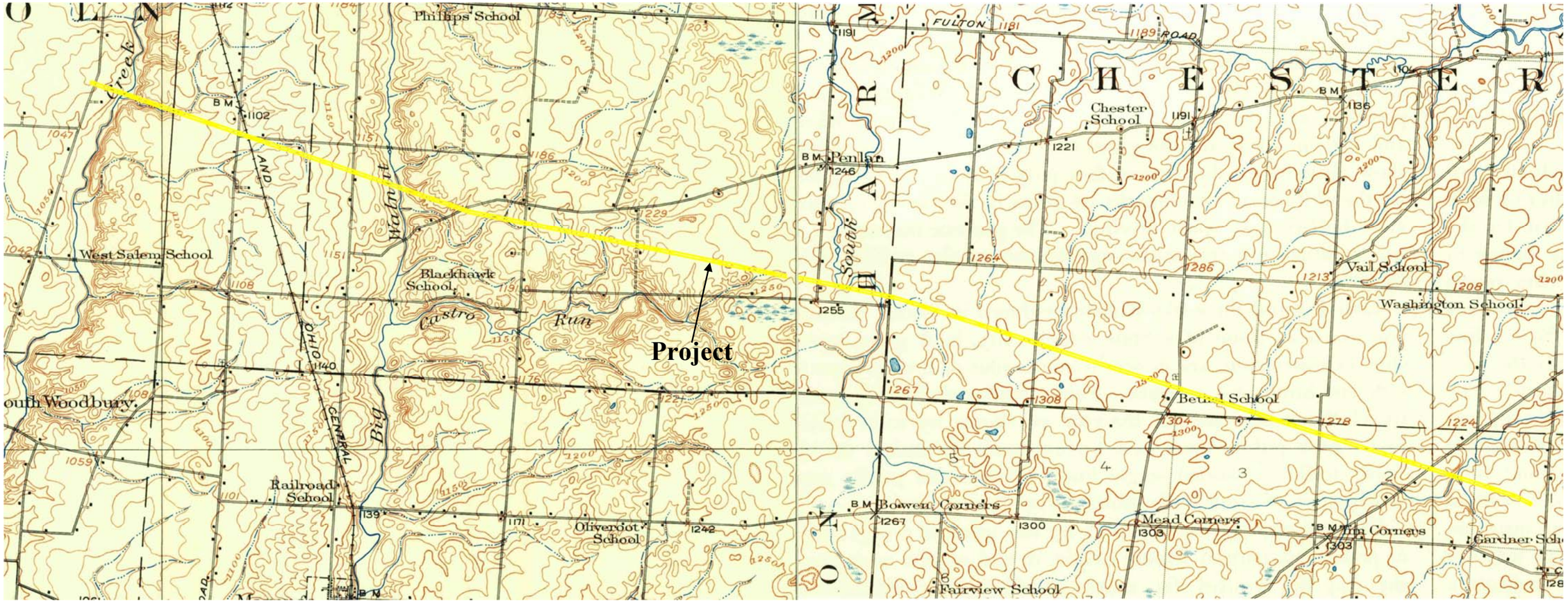
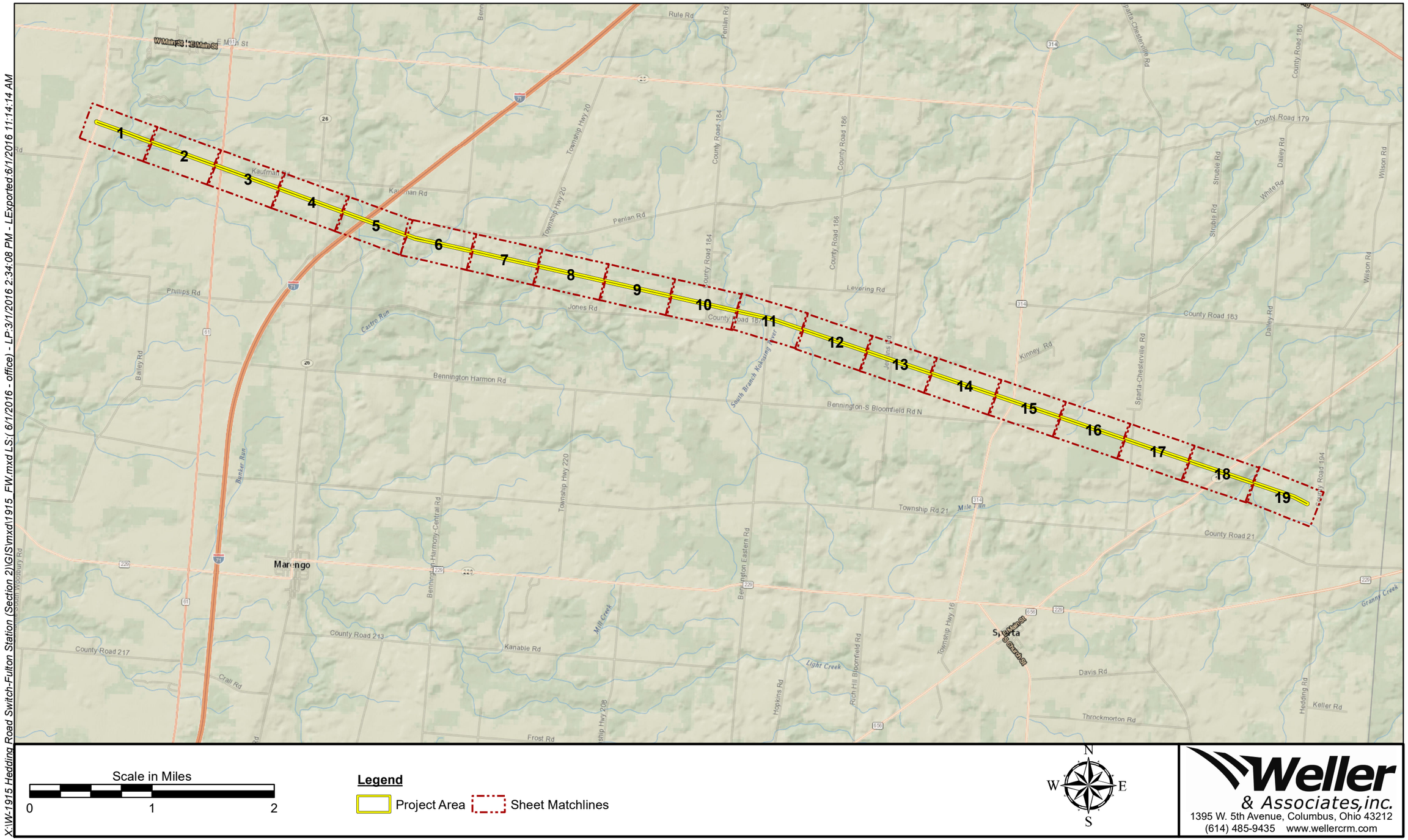


Figure 7. Portions of the *1915 Marengo* and the *1915 Fredericktown, Ohio 15 Minute Series (Topographic)* maps indicating the location of the project.



X:\W-1915 Hedding Road Switch-Fulton Station (Section 2)\GIS\mxd\1915_FW.mxd LS:(6/1/2016 - office) - LP:3/1/2016 2:34:08 PM - LExported:6/1/2016 11:14:14 AM

Figure 8. Fieldwork overview index map.

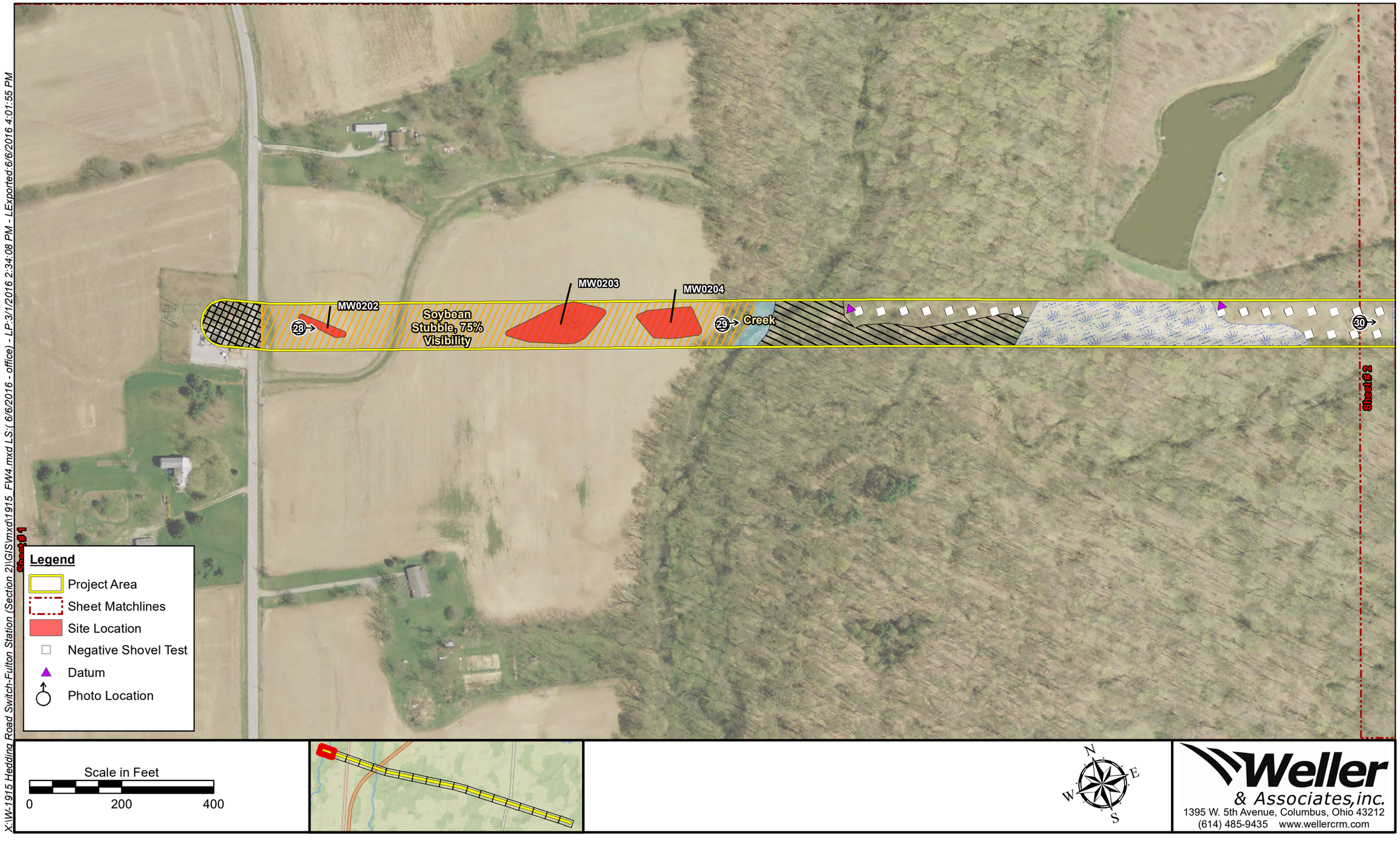


Figure 9. Fieldwork results and photo orientations for Sheet 1.

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Case No(s). 16-1531-EL-BLN

Summary: Letter of Notification Part 4 electronically filed by Mr. Hector Garcia on behalf of AEP Ohio Transmission Company