

## **Appendix F: Cultural Resource Report**

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**Phase I Cultural Resource Management Investigations for the  
Approximately 12.1 ha (30 ac) Lallendorf Road Development  
in Oregon Township, Lucas County Ohio**

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**November 12, 2012**

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Approximately 12.1 ha (30 ac) Lallendorf Road Development  
in Oregon Township, Lucas County Ohio**

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**November 12, 2012**

## **i. Abstract**

In October of 2012, Weller & Associates, Inc. conducted Phase I Archaeological Investigations for the Approximately 12.1 ha (30 ac) Lallendorf Road Development in Oregon Township, Lucas County, Ohio. The lead agency for this undertaking is the Ohio Power Siting Board. A cultural resources management survey was deemed necessary to identify any sites or properties and to evaluate them for the National Register of Historic Places (NRHP) and per the requirements for the associated agency. The work involved a literature review and field investigations. The archaeological investigations for this project identified two previously unrecorded archaeological sites, 33LU801 and 802 as well as two architectural sites, LUC-[4628-4629]-10. None of the identified cultural resources are considered to be significant.

The project area is located in the upland, flat Lake Plains Region that is to the east of the Maumee River at Toledo and south of Lake Erie. The area is located on the north side of an existing railroad easement and is to the east of Lallendorf Road. There are two residences situated on lots that have frontage on this road and are within the project area. The remainder of the project includes two named ditches (Driftmeyer and Johlin) and agricultural fields. The terrain with the project area and its surroundings is nearly flat. The surrounding landscape consists of large-scale industrial development, single-family residential homes, and occasionally farmsteads. Toledo and Oregon –associated developments are to the west about 3.2 km (2 mi).

In accordance with OPSB guidelines, an 8 km (5 mi) study radius was considered for the area of potential effect (APE). The literature review was focused within this area; the field investigations supplemented the information from the literature review to further evaluate the effect of the project on any historic resources that were identified in the study radius. The nature of the setting and type of construction were important factors in refining and consideration of the APE. The type of development and construction that is planned in this area is amiable within this setting. The surrounding terrain is, and has been, the subject of industrialization since the late nineteenth century. Oil, gas, radio, and electric facilities and constructs surround this project with little for its preceding agricultural present or past.

These investigations involved surface and subsurface testing as well as visual inspection. The cultural resources identified within the project area are not considered to be significant. This project is not considered to have an adverse affect on any historic properties including those identified within the 8 km (5 mi) study radius. No further work is deemed necessary for this project.

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## **Introduction**

In October of 2012, Weller & Associates, Inc. (Weller) conducted Phase I cultural resource management investigations for the approximately 12.1 hectare (ha) (30 acre [ac]) Oregon Clean Energy Center (the Project) site located on Lallendorf Road in Oregon Township, Lucas County Ohio (Project Area; Figures 1-3). The work was completed for ARCADIS U.S., Inc. These investigations were necessary to identify any sites or properties and to evaluate them for the National Register of Historic Places (NRHP) pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (16 United States Code [U.S.C.] 470 [36 Code of Federal Regulations [CFR] 800]). The lead agency for this undertaking is the Ohio Power Siting Board (OPSB). This report summarizes the results of the fieldwork and literature review. The report format and design is similar to that established in *Archaeology Guidelines* (Ohio Historic Preservation Office [OHPO] 1994).

The Project Area is located to the north of a Norfolk & Western Railroad spur and is east of Lallendorf Road. There are two ditches that cut through the Project Area to facilitate drainage to its otherwise flat terrain. These investigations were conducted for the development and construction of a proposed power generating facility, with the potential for the tallest features to be two stacks presumed to be a maximum height of 84 meters (m) (275 feet [ft]) and its tallest building approximately 33.5 m (110 ft) tall.. The 12.1 ha (30 ac) site is narrow and mostly comprised of upland, agricultural lands. There are two residences located in the western portion of the Project Area, with associated lawn and outbuildings. The surrounding area is mixed in use, largely consisting of extensive industrial developments.

This study encompasses two distinct elements: a Phase I assessment to determine the potential presence of cultural resources within the Project Area, and a historic structures assessment that considers potential impact within a 5-mile radius of the Project Area. Chad Porter conducted the literature review for the Phase I assessment in October of 2012. Ryan Weller served as the Principal Investigator and project manager. The field crew included Chad Porter, Justin Zink, Ashley Howder (ARCADIS), and Ryan Weller. The report preparation was by Ryan, with Chad completing the figures. The historic structures assessment is provided as Appendix A to this report.

The following sections provide an overview of the environmental setting of the Project Area and its surroundings to provide a physical context for the assessment; a description of the cultural setting; a discussion of the research design for the Phase I assessment; a summary of literature supporting field efforts for the Phase I assessment; findings of the field reconnaissance; and an analysis of the potential effects associated with the Project for both assessments.

## **Environmental Setting**

### ***Climate***

Lucas County, like all of Ohio, has a continental climate with hot and humid summers and cold winters. About 79 centimeters (cm) (31 inches [in]) of precipitation

falls annually on the county with the average monthly precipitation about 6.6 cm (2.6 in). February is the driest month, while June is the wettest month (United States Department of Agriculture, Soil Conservation Service [USDA, SCS] 1980).

### ***Physiography, Relief, and Drainage***

Lucas County is located within the Huron-Erie Lake Plains physiographic region of Ohio (Brockman 1998). According to Brockman (1998), the Project Area is located on the Maumee Lake Plains. This region is characterized by “flat-lying Ice-age lake basin with beach ridges, bars, dunes, deltas, and clay flats; contained the former Black Swamp, slightly dissected by modern streams; elevation 570-800 ft” [Brockman 1998].

The major watersheds in the county are Lake Erie and the Maumee River. Other larger streams that flow through the county include the Ottawa River, Ten Mile Creek, Duck Creek, Otter Creek, Swan Creek, and Crane Creek. The Project Area is drained by Driftmeyer Ditch and Johlin Ditch.

### ***Geology***

Lucas County is comprised of Late Wisconsinan-age sand over clay till and lacustrine deposits. Below the till and lacustrine deposits are Devonian-age carbonate rocks and shales. The Project Area is contained within an area of Silurian and Devonian-age carbonate rocks (Brockman 1998; USDA, SCS 1980).

### ***Soils***

The Project Area is located in the Latty-Toledo-Fulton association. This association is characterized by “level to gently sloping, very poorly drained and somewhat poorly drained soils that formed in clayey glacial lake sediment” (USDA, SCS 1980). There are two specific soils encountered within the Project Area (Table 1).

<b>Table 1. Soils in the Project.</b>			
<b>Soil Symbol</b>	<b>Soil Name</b>	<b>% Slope</b>	<b>Location</b>
FuA	Fulton silty clay loam	0-2	Lake Plains
Lc	Latty silty clay	0-2	Lake Plains

### ***Flora***

There is or at least was great floral diversity in Ohio. This diversity is relative to the soils and the terrain that generally includes the till plain, lake plain, terminal glacial margins, and unglaciated plateau (Forsyth 1970). Three major glacial advances, including the Kansan, Illinoian, and Wisconsinan, have affected the landscape of Ohio. The effects of the Wisconsin glaciation are most pronounced and have affected more than half of the state (Pavey et al. 1999). The following provides comparable context to demonstrate how the Project Area is similar or differentiated within the framework to that of Ohio as a whole.

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 Project Area is located in northwestern Ohio. 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, entrenched stream valleys and drier, elevated areas from beach deposits would contain mixed forests of oak and hickory (Gordon 1966, 1969). There was little upland floral diversity in the lake plains (Black Swamp region) except for the occasional patches of oak and hickory. Floral variety was most evident in narrow sleeves along larger stream valleys where there is relief.

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

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

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

Northeastern Lucas County, including the project area, is generally within what is considered to be an elm-ash swamp and mixed oak forest area (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 diversity 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, while the Ohio naiad mollusc, butterfly's shell, long solid, common bullhead, knob rockshell, and cod shell were the major varieties of shellfish. Reptiles and amphibians, such as several varieties of snakes, frogs, and turtles, were also part of the prehistoric diet (Trautman 1981; Lafferty 1979; Mahr 1949).

## **Cultural Setting**

The first inhabitants of Ohio were probably unable to enter this land until the ice sheets of the Wisconsin glacier melted around 14,000 B.C. Paleoindian sites are considered rare due to the age of the sites and the effects of land altering activities such as erosion. Such sites were mostly used temporarily and thus lack the accumulation of human occupational deposits that would have been created by frequent visitation. Paleoindian artifact assemblages are characteristic of transient hunter-gatherer foraging activity and subsistence patterns. In Ohio, major Paleoindian sites have been documented along large river systems and near flint outcrops in the Unglaciaded Plateau (Cunningham 1973). Otherwise, Paleoindian sites in the glaciaded portions of Ohio are encountered infrequently and are usually represented by isolated finds or surface 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, graters, and spokeshaves (Tankersley 1994). The most diagnostic artifacts associated with this period are fluted points that exhibit a groove or channel positioned at the base to facilitate hafting. The projectiles dating from the late Paleoindian period generally lack this trait; however, the lance form of the blade is retained and is often distinctive from the following Early Archaic period (Justice 1987).

The Archaic period has been broken down into three sub-categories, including the Early, Middle, and Late Archaic. During the Early Archaic period (ca. 10,000-8000 B.P.), the environment was becoming increasingly arid as indicated by the canopy (Shane 1987). This period of dryness allowed for the exploitation of areas that were previously inaccessible or undesirable. The Early Archaic period does not diverge greatly from the Paleoindian regarding the type of settlement. Societies still appear to be largely mobile with reliance on herding animals (Fitting 1963). For these reasons, Early Archaic artifacts can be encountered in nearly all settings throughout Ohio. Tool diversity increased at this time, including hafted knives that are often re-sharpened by the process of beveling the utilized blade edge and intense basal grinding (Justice 1987). There is a basic transition from lance-shaped points to those with blades that are triangular. Notching becomes a common hafting trait. Another characteristic trait occurring almost exclusively in the Early and Middle Archaic periods is basal bifurcation and large blade

serrations. Tool forms begin to vary more and may be a reflection of differential resource exploitation. Finished tools from this period can include bifacial knives, points, drills/perforators, utilized flakes, and scrapers.

The Middle Archaic period (8000-6000 B.P.) is poorly known or understood in archaeological contexts within Ohio. Some (e.g., Justice 1987) regard small bifurcate points as being indicative of this period. Ground stone artifacts become more prevalent at this time. Other hafted bifaces exhibit large side notches with squared bases, but this same trait can extend back to the Paleoindian period. The climate at this time is much like that of the modern era. Middle Archaic period subsistence tended to be associated with small patch foraging that involved a consistent need for mobility with a shift towards stream valleys (Stafford 1994). Demographic mobility was necessary, but there was an increased reliance upon resources associated with riparian-related and ecotones systems. 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. Cultural and artifactual phenotypes seem to become cohesive within a specific area and differentiate themselves from others.

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. This allowed longer occupation and land use of areas that were previously undesirable or inhabited on a logistically and functionally limited basis.

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

It is during the Terminal Archaic period (ca 3500-2500 B.P.) that extensive and deep burials are encountered. Cultural regionalism within Ohio is evident in the presence of Crab Orchard (southwest), Glacial Kame (northern), and Meadowood (central to Northeastern). In northern and northwestern Ohio, the Glacial Kame culture dominates the Terminal Late Archaic period. Pottery makes its first appearance during the Terminal Late Archaic.

The Early Woodland period (ca 3000-2100 B.P.) in Ohio is often associated with the Adena culture and the early mound builders (Dragoo 1976). Early and comparably simple geometric earthworks first appear with mounds more spread across the landscape. Pottery at this time is thick and tempered with grit, grog, or limestone; however, it becomes noticeably thinner towards the end of the period. There is increased emphasis on gathered plant resources, including maygrass, chenopodium, sunflower, and squash. Habitation sites have been documented that include structural evidence. Houses that were constructed during this period were circular, having a diameter of up to 18.3 m

(Webb and Baby 1963) and often with paired posts that define the walls (Cramer 1989). Artifacts dating from this period include leaf-shaped blades with parallel to lobate hafting elements, drilled slate pieces, ground stone, thick pottery, and increased use of copper. Early Woodland artifacts can be recovered from every region of Ohio.

In northwest and north-central Ohio, there are not very many mounds or village sites that indicate an Early Woodland occupation. Artifacts from these areas often are reflective of seasonal hunting excursions. Adena-like bifaces and tools are commonly found in river and stream valleys that drain into Lake Erie as well as in the uplands. It is assumed that Early Woodland inhabitants used these areas for little more than a transient hunting-collecting subsistence. One of the best-known Early Woodland sites is the Leimbach site. This site is located where the Huron River empties into Lake Erie (Shane 1975). Early Woodland ceramics and lugged vessels have been recovered from this site. Evidence of Early Woodland activity, such as ceramics, has been encountered infrequently at locations across north central and northwestern Ohio.

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

Little information is known about the Middle Woodland period of western and northwestern Ohio. This may be due to a poor representation of artifacts from this period or because the area is not directly associated with the Hopewell culture. The loosely associated patterns of earthworks to habitation sites that have been identified in central and southern Ohio areas are not present in this region. Sites associated with this period have been identified along the south and western shores of Lake Erie, but they are not common (Stothers et al. 1979; Stothers 1986).

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

Evidence suggests that the Late Woodland occupations in northern Ohio developed from the Western Basin Middle Woodland tradition. The Late Woodland period in northern Ohio is best defined by ceramic traditions. Western Basin Late Woodland sites have been identified in most of the river valleys in northwestern Ohio such as the Maumee, Auglaize, and the Sandusky Rivers. Radiocarbon dating establishes this Late Woodland occupation at the first century B.C. to A.D. 500 (Pratt and Bush 1981: 88). The Western Basin tradition consists of three primary phases, which include the Riviere au Vase, the Younge (Fitting 1965), and the Springwells phase. Influence from the Cole complex may extend into the area from the south, but this remains theoretical and not well researched.

The Late Prehistoric period in northwest and northern Ohio is often associated with an intensification of the use of plant resources, the presence of large villages, and a steady population increase. Permanent villages were associated with a heavy dependence on farming. These villages were often located on the meander belt zones of river valleys (Stothers et al. 1984: 6). Subsistence of these farming communities relied upon maize, beans, and squash as the major cultigens. Villages were often strategically located on bluff tops. There is a change in social structure to a chiefdom-based society. The Late Prehistoric period in northwest Ohio has been segregated into the Sandusky tradition and smaller phases based largely on age and ceramic assemblage traits.

The Sandusky tradition has been broken up into four phases. These phases are identified (in chronological order) as Eiden, Wolf, Fort Meigs, and Indian Hills. These are often associated with a style of ceramic referred to as Mixter Tool Impressed, Mixter Dentate, Mixter Cordmarked, and Parker Festooned. The Eiden and Wolf phases show a dependence upon fishing, and villages are usually associated with large cemeteries (Schneider 2000; Shane 1967).

The Fort Meigs and Indian Hills phases occur late in the Late Prehistoric period. The Fort Meigs phase may be related to the Wolf phase in that the pottery is similar. Fort Meigs phase occupations are identified by specific rim and neck motifs that are applied to their pottery. The Indian Hills phase is associated with shell-tempered pottery. Some villages show evidence of defensive features such as stockade lines, ditches, or earthen walls (Pratt and Bush 1981: 155). There is little evidence to support inter-village

relationships, such as trade; this lack may have been due to competition for localized resources.

### *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.

### *Lucas County History*

The history of Euroamerican settlement in Lucas County begins with the French. Sometime near 1680, the French are supposed to have built a fort, which acted as a trading post, at the falls of the Maumee River. This may be nothing more than tradition in order to bolster French claims to the region, but certainly the French were active along the Maumee River and used it extensively during the 1700s as a trade route. The first settlers in the county were Jean Baptiste Beaugrand and Gabriel Godfrey, who opened a trading house at the foot of the Maumee rapids in 1790. Other French traders, primarily from Detroit, traded along the Maumee, such as Peter Navarre who lived at the mouth of the river (Killits 1923; Knapp 1872; Scribner 1910; Waggoner 1888; Winter 1917).

The first American families arrived in 1807 and settled on the Maumee River. These early pioneers mainly traded with the Indians just like the French. American settlement of the region did not really grow until after the War of 1812. Increased settlement of the region led to concerns over the state boundaries of the Michigan Territory and the State of Ohio. The disputed boundary was Lucas County's northern border. As Michigan applied for statehood, they claimed land into what were Henry, Wood, and Sandusky Counties, Ohio. In retaliation, Ohio organized a new county named for the incumbent Governor of Ohio, Robert Lucas. This issue, which became a dispute between the two states, was called both "The Toledo War" and the Ohio-Michigan War and almost led to an armed conflict. The lands located in Lucas County that were

disputed included Richfield, Sylvania, Washington, Oregon and Jerusalem townships and the northern parts of the townships of Spencer, Springfield and Adams. The disputed boundaries were peacefully resolved on June 20, 1835, on which day Lucas County was formed and Toledo was made the county seat (Scribner 1910; Waggoner 1888). President Andrew Jackson found in favor of the established state and in reparation, accepted Michigan's bid for admission to the Union (Andreas and Baskin 1875; Howe 1888; Killits 1923; Knapp 1872; Scribner 1910; Waggoner 1888; Way 1896; Winter 1917).

Settlement of Lucas County was hampered throughout the 1800s by the Black Swamp and epidemics of malaria and cholera. Transportation was limited to improved Indian trails and to the principal watercourses, the Maumee, Ottawa, and Swan Rivers. New road construction began in the 1820s. In 1839, work on the canal along the Maumee River began. By 1842, the canal was opened between Toledo and Grand Rapids. The Miami and Erie Canal link up with the Maumee River occurred the following year. Railroads became an increasingly important means of transportation and means of importing and exporting goods after the 1850s. Between 1835 and 1836, a rail line was built between Toledo and Adrian, Michigan. In 1853, the Cleveland and Toledo (Lake Shore) Railroad was completed. By 1910, Toledo was ranked fourth in the nation as a railroad center, having fourteen lines running through it (Scribner 1910).

Toledo is the economic center of the county. The city has grown dramatically in the nineteenth and twentieth centuries and much of this has been caused by its position as an important link between canal traffic, railroads, and lake shipping (Killits 1923; Scribner 1910; Waggoner 1888; Winter 1917).

### ***Oregon Township History***

Oregon Township was created on June 11, 1837 from Port Lawrence and Manhattan Townships. In 1840, seven sections from the northwest portion of the township were annexed to the township of Manhattan. Then, both in 1856 and 1872, the township had its area further reduced, ceding land to the city of Toledo and the township of Port Lawrence. However, in 1874, a portion of Manhattan Township outside of Toledo was annexed back to Oregon Township increasing its size. Again in 1893, more land was taken to create Jerusalem Township (Scribner 1910; Waggoner 1888). In 1957, Oregon Township became the City of Oregon by way of popular vote. This action allowed the City of Oregon to own and operate its own wastewater treatment plant (City of Oregon 2012).

The City lies in the area once known as the "Black Swamp" and is located in the Maumee Lake Plains physiographic region. The topography is nearly level with a slight slope north toward Lake Erie (Waggoner 1888). The earliest documented occupation of present-day City of Oregon was an Ottawa village near the mouth of the Maumee River. The French had a trading post in the same vicinity as the Native American village with French settlers coming to the area around the year 1808. Among the French families to come to the area, the Navarre family still had descendents living in the county in 1910. The next Euro-Americans to settle the area were of English descent. This occurred during the 1820s and 1830s. Joseph Prentice came to the area and settled on the east side

of the Maumee River in 1825. Luther Whitmore arrived next in 1829, then Robert Gardner in 1830 (Waggoner 1888).

Early Euro-American inhabitants found valuable timber in the Black Swamp area. The land was cleared and was subsequently drained by the creation of ditches in order to make it suitable for agriculture (Scribner 1910). Charles Jenison built the first steam powered saw mill in Oregon in the year 1836 on the Maumee River. The first road in the area ran from the Maumee River at Toledo to Woodville where it met up with the Maumee and Western Reserve Road. This road was known as the Woodville Road. At the road's intersection with the Maumee River, Herman Crane operated a flat-bottomed scow ferry. The first school in the City was built in 1834 on the Woodville Road. It was a log structure with classes taught by Elizur Stevens (Scribner 1910).

In the late 19<sup>th</sup> Century and early 20<sup>th</sup> Century, the oil industry began to develop in the area. The area possesses oil resources as well as a broad range of transportation resources including the Maumee River, extensive railroads, canals, and highways. These circumstances lead to two large oil refineries being established in the city and becoming the two largest employers in the area in recent years (City of Oregon 2012).

## **Phase I Survey Research Design**

The purpose of a Phase I survey is to locate and identify cultural resources that will be affected by the planned power plant. This includes archaeological deposits that may be found on the site, as well as architectural properties within the Area of Potential Effect (APE) that are older than 50 years. No surrounding buildings will be directly affected by the Project; however, the residences currently located within the Project Area will be demolished prior to construction of the Project. These were also considered for potential significance.

Once cultural resources are identified and sampled, they are evaluated for their eligibility or potential eligibility to the National Register of Historic Places (NRHP). These investigations are directed to answer or address the following questions:

- 1) Did the literature review reveal anything that suggests the Project Area had been previously surveyed and, if so, what is the relationship of previously recorded properties to the Project?
- 2) Are cultural resources likely to be encountered in the Project Area?
- 3) Will the planned undertaking affect any archaeological or architectural properties?
- 4) Will any NRHP eligible sites or properties be affected by the Project?

### ***Archaeological Field Methods***

The survey conducted within the Project Area used three methods of sampling and testing to identify and evaluate cultural resources. The literature review did not indicate that any areas had been previously surveyed and there are no previously recorded sites in this area. Atlas review indicated that a residence was formerly located in the central part of the Project Area. Standard methods of survey and documentation are

appropriate for the archaeological investigation of this area. These included shovel test unit/shovel probe excavation, surface collection, and visual inspection.

*Shovel test unit excavation.* This method was used [where], as shown in Figure 6. 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 were encountered, Munsell color readings were taken per shovel test unit. All of the undisturbed soil matrices from shovel test units were screened using 0.6 cm hardware mesh. When sites were encountered, additional shovel test units were excavated at 7.5 m intervals extending on grid and in the four cardinal directions within the Project Area from the positive locations.

*Shovel probe excavation.* Shovel probes were excavated during these investigations to document the extent of any disturbances. 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.

*Surface collection.* This method was conducted in the central and eastern part of the Project Area, within the area in active agricultural use as soybean fields. Pedestrian transects were spaced at 5 m intervals throughout this area as the bare ground surface visibility ranged from 25-70 percent. The closer interval was selected to increase the coverage despite the unlikelihood of identifying significant prehistoric cultural deposits in this upland, lake plain setting. Historic period materials were anticipated as there are residences depicted on cartographic map resources. Associated materials were identified during this method of survey. The boundaries of this site were demarcated with a Trimble GeoXT global positioning system (GPS). The artifacts were grab sampled with focus on temporally diagnostic materials and obtaining a suitable sample for intra- and inter-site comparison (if necessary).

*Visual inspection.* Locations where cultural resources were not expected, such as disturbed areas and low/wet 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 and inspect the buildings and nature of the APE.

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

### ***Historic Period Artifact Analysis***

The artifacts recovered during these investigations were inventoried and analyzed once they were returned to the lab. The inventory will be specific to type and age if the artifact is temporally diagnostic. The functional inventory technique of the site will be

similar to that of South (1977) where artifacts are segregated into categories such as kitchen, arms, architecture, and etcetera. South's (1977) theoretical approach also emphasizes the development and interpretation of artifact patterns found at sites. This method can be used to understand depositional patterning on the intra- and inter-site level. Ball (1984) modified this approach, making it applicable for use in the Ohio Valley.

Artifacts recovered from the subsurface testing were be inventoried and the results analyzed to identify differential patterning of functionally specific artifact groups within areas of high and low artifact density. The specific historic period temporal affiliation of the artifacts will be determined by relative dating. The identification of historic artifacts for purposes of determining age is guided by ceramic/artifact analyses or source books by Carskadden et al. (1985); Cushion (1980); Dalrymple (1989); Deiss (1981); Esary (1982); Ewins (1997); Greer (1981); Hughes and Lester (1981); Hume (1991); Lang (1995); Majewski and O'Brien (1987); Mansberger (1981); Manson and Snyder (1997); McConnell (1992); McCorvie (1987); Miller (1987); Newman (1970); Ramsay (1976); Sonderman (1979); Spargo (1926); Sprague (2002); Stelle (2001); Sunbury (1979); Sussman (1977); Visser (1997); and Zimler (1987).

### ***Architectural History***

On-site physical examination was undertaken for the two buildings located on the property, as both were older than 50 years, including documentation on an Ohio Historic Inventory form. This included photographic documentation of each building, visual inspection of the structure(s), and an on-site interview with the owner and/or resident, when possible. Photographic documentation of each resource included views of at least two elevations of the buildings. Visual inspection identified the necessary characteristics of each building and associated structure. These two buildings were documented, recorded, and evaluated by Weller & Associates, Inc.

The potential for impact to historic structures surrounding the Project Area was reviewed and addressed by Tom Barrett of Vintage Resource Studies (Appendix A). This assessment was conducted for the five-mile study radius that is pertinent to the OPSB regulations. This study was also considerate of the surrounding setting, distance from the prospective Project, and resource types. This study detailed the surroundings and evaluated the possible impact of the proposed development to this designated area.

### ***Curation***

A letter regarding the disposition of the cultural materials identified and collected during survey for this project was sent to the developer. A return letter outlining the disposition of these materials had not been received at the time of this report. 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 an 8 km (5 mile) radius from the center of the project, which is per the guidelines for the OPSB application. The OPSB

study radius was utilized to tabulate the sites/resources/properties within the 5 mile radius; however, the detailed study area was reduced upon consideration of the project's surroundings (Appendix A) as confirmed by field reconnaissance. Based on the conditions in the area (i.e., modern development such as industrial complexes, high-voltage power lines, radio towers, urban development, etc.), the study radius was customized for the specific project and its potential effects. In regards to historic resources, the customization of the study radius was completed by Tom Barrett and is discussed in Appendix A. Concerning archaeological resources, the study radius was decreased to the standard 2 km (1.2 mile) radius acceptable to the State Historic Preservation Office (SHPO). In conducting the literature review, the following resources were consulted at OHPO and the State Library of Ohio:

- 1) *An Archaeological Atlas of Ohio* (Mills 1914);
- 2) OHPO 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) Determinations of Eligibility (DOE) files;
- 7) OHPO Cultural Resource Management (CRM)/contract archaeology files; and
- 8) Lucas County atlases, histories, historic USGS 15' series topographic map(s), and current USGS 7.5' series topographic map(s).

A review of the *Atlas* (Mills 1914) was conducted. There were no resources situated within or adjacent to the project site.

The OHPO topographic maps did not indicate any previously recorded archaeological sites within the project site; however there are 171 sites located within the OPSB study radius. When the study radius is reduced to the SHPO 2 km (1.2 mile) study radius, this is reduced to 24 archaeological sites (Table 2). None of these sites are within or adjacent to the project site, nor will they be impacted by the proposed undertaking.

<b>Table 2. Previously recorded OAI forms filed within the 2 km study radius.</b>		
<b>OAI #</b>	<b>Site Type</b>	<b>Temporal Affiliation</b>
LU0528	Unknown	Late Archaic, Late Woodland
LU0529	Unknown	Early Woodland
LU0530	Unknown	Late Woodland
LU0531	Unknown	Unassigned Prehistoric
LU0532	Unknown	Unassigned Prehistoric
LU0533	Unknown	Unassigned Archaic
LU0534	Unknown	Unassigned Prehistoric
LU0535	Unknown	Late Archaic
LU0536	Unknown	Early Archaic
LU0549	Unknown	Unassigned Prehistoric
LU0550	Unknown	Unassigned Prehistoric
LU0551	Unknown	Unassigned Prehistoric
LU0558	Unknown/Historic	Unassigned Prehistoric/Historic
LU0559	Unknown	Unassigned Prehistoric
LU0560	Historic	Historic
LU0561	Historic	Historic

LU0562	Historic	Historic
LU0570	Unknown	Unassigned Prehistoric
LU0617	Unknown	Unassigned Prehistoric
LU0618	Unknown	Early Archaic
LU0619	Unknown	Unassigned Prehistoric
LU0620	Unknown	Unassigned Prehistoric
LU0621	Historic	Historic
LU0634	Historic	Historic

The OHI files did not indicate any previously recorded OHIs within the Project Area; however there are nearly 2,100 within the OPSB study radius. The vast majority of these resources is located to the west of the Project Area within Toledo and its adjoining suburbs and will not be impacted by the proposed undertaking, as existing structures would obstruct the line-of-sight. Resources located within the customized APE (adjusted to reflect potential visibility of the Project) are enumerated and discussed in Appendix A by Tom Barrett.

A review of the NRHP files and OHPO consensus DOE files was conducted. There were no NRHP properties or DOE resources located within the project site; however, there are 34 NRHP properties/districts and 36 DOE resources within the OPSB study radius. As for the OHI resources, the vast majority of these properties/districts are located to the west of the project within Toledo and its adjoining suburbs and will similarly not be impacted by the proposed undertaking. Resources within the customized APE are enumerated and discussed in Appendix A by Tom Barrett.

A review of the CRM surveys was conducted for this Project. There were 26 previously conducted CRM surveys within the OPSB study radius. When the study radius is reduced to 2 km (1.2 mile), there are six surveys within the SHPO study radius (Hayfield and Rutter 2009; Gibbs and O'Donnell 1996; Dobson-Brown et al. 1994; Pratt 1980; Latham 2010; Mustain et al. 1997). None of these surveys incorporate any aspects of the current project area.

Cartographic/atlas resources were reviewed for the project. *An Illustrated Historical Atlas of Lucas and part of Wood Counties, Ohio* (Andreas & Baskin 1875) indicates that John Haase was the property owner and there was one residence indicated within the central aspect of the Project Area (Figure 5). The USGS *1900 Maumee Bay, Ohio Quadrangle 15 Minute Series (Topographic)* map does not indicate any residences on the project site; however, there are several oil wells indicated within the western part of the project site (Figure 5). A more recent topographic map (Figure 2) indicates that there are two residences and one outbuilding located within the project site along Lallendorf Road. A modern aerial indicates the aforementioned three structures along Lallendorf Road as still being extant (Figure 3), as was confirmed through field reconnaissance.

### ***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 site had been previously surveyed and, if so, what is the relationship of previously recorded properties to the project?
- 2) Are cultural resources likely to be identified in the project site?

The literature review indicated that a 19th century residence was once situated in the central part of the site and that there are residences in the far western part of the Project Area. There have not been any surveys or previously identified sites within or immediately adjacent to this area. Oil wells are noted within the site as well as in the surrounding area. The topography in the upland aspect of this region is very flat, which is reflective to this project. It is not well drained. It is considered unlikely prehistoric materials would be identified in this setting. Historic period materials are expected from the western and central part of the project site.

## **Fieldwork Results**

The field investigations for this project were conducted on October 9<sup>th</sup>, 2012. The conditions of the project at the time of survey included the two residential structures and residential lawn in the western part and agricultural fields in the central and eastern part. The weather during field survey efforts was warm and sunny with Fahrenheit temperatures in 60s; therefore, weather was not a factor in the completion of the fieldwork. These investigations involved surface collection, subsurface testing, and visual inspection, as noted above.

Two historic period sites and two archaeological sites were identified during the investigations. One residence and outbuilding (LUC-4628-10) had an associated historic site (33LU802). The other residence was identified and recorded as LUC-4629-10. In addition, surface collection identified a historic period site (33LU801).

The project site is a 12.1 ha (30 ac) somewhat rectangular-shaped parcel that is on the north side of a spur of the Norfolk & Western Railroad tracks and is east of Lallendorf Road. The western part of the area is lawn associated with LUC-[4628-4629]-10 and extends about 70 m (230 ft) to Driftmeyer Ditch. The remaining part of the project site included mature soybean fields extending from Driftmeyer Ditch to Johlin Ditch and terminating at the western extent of the project site. The soybeans were nearly ready for harvest at the time of survey; bare-ground visibility was not optimal, but was suitable for completion of these investigations. Shovel testing was conducted in the yard areas, and surface collection was undertaken in the soybean fields.

Surface collection was conducted in the central and eastern part of the project site (Figures 6-21). This includes areas that are currently in active agricultural use as mature soybean fields. The terrain in this area, as well as the entirety of the project site, is very flat. Visual inspection confirmed the absence of even the slightest landform elevations that might have been associated with the anticipated former residence that was in this area; however, none were identified. The location of this residence coincides with a small 'pocket' of Fulton soils noted within an expansive area of Latty soils. Fulton soils are on very slightly elevated locations in this setting and Latty soils are prone to seasonal inundation and/or ponding as they are low-lying. Though the elevations that would have



represented the Fulton soils (and subsequently the site location for 33LU801) were not apparent as elevations, they were recognized as drier, browner, and siltier soils when traversing across them.

A total of 20 shovel test units and 10 shovel probes were excavated in the yard area and extending eastward to Driftmeyer Ditch. The shovel testing in the yard area identified dark grayish brown (10YR 4/2) sub-angular blocky silt clay loam topsoil with dark yellowish brown (10YR 4/6) silty clay subsoil (Figure 22). The topsoil was angular and blocky, as it contained a high amount of clay. It extended to a depth of about 30 cm below ground surface. These investigations did not identify any dense or buried historic period deposits. There were few artifacts identified and they were scattered. These are described in greater detail in the following text. The datum for these investigations was established at the southeastern corner of one of the residences (Figure 7). The testing involved shovel test units at 7.5 m and 15 m intervals around the residences.

These investigations identified two archaeological sites (33LU801 and 802) and two architectural resources (LUC-4628-10 and LUC-4629-10) within the project site. The following is a description of these resources.

### **Archaeological Site Descriptions**

#### ***33LU801***

This site was identified during surface collection of a mature soybean field (Figures 23-24). The site is located to the east of Lallendorf Road and is north of existing railroad tracks. This is upland, flat Lake Plain terrain. The site is located on a very slight elevation that is consistent with Fulton soils versus the poorly drained Latty soils that account for the majority of the surrounding terrain. The artifacts identified from this site were grab sampled with a focus on recovering a suitable comparative assemblage and temporally diagnostic materials. The boundary of the site was plotted using a GPS system. The dimensions of the site are 494 feet east-west by 154 feet north-south and it is basically oval-shaped. The site size is considered to be about 65,000 square feet (sq feet) (6,039 square meters [sq m]).

Review of the atlas information indicated that a residence was apparent at this location circa 1875 (Figure 4). The landowner at that time was John Haase; no particular importance was assigned to this individual in accordance with the county histories. There is no residence apparent on the 1900 15-minute topographic map (Figure 5); however, its location may have been masked by the marked oil wells on that map. There are several oil wells shown as located in the proximity of the previously noted position of the residence.

The artifacts that were identified from this site date from several historic periods (Table 3). Ceramic artifacts were found that were manufactured during the 19<sup>th</sup> century including hand-painted, blue-edged whiteware, and possibly Majolica and Rockingham (Majewski and O'Brien 1987). There was spongeware identified, but it is on thick whiteware that may have been part of a cookie jar. It likely dates from the 20<sup>th</sup> century. Olive-green bottle glass (Newman 1970) likely dates from the 19<sup>th</sup> century. Otherwise,

the majority of the artifacts is generic and can date from either century. This includes such items as canning jar pieces, clear bottle glass, and stoneware. Some of the artifact assemblage has more definitive ties to the 20<sup>th</sup> century, such as a plastic button, toothbrush handle, screw-top bottle, Coke brand bottle top, and Depression glass.

Artifacts that were observed, but not collected, include brick and brick fragments. There were three large brick pieces observed that were larger than half-sized. They were formed of composite and possibly regionally obtained clay that was likely hand-made. This would date the manufacture of the brick to the 19<sup>th</sup> (Greer 1980).

<b>Table 3. Historic period artifact inventory for 33LU801.</b>					
<b>Provenience</b>	<b>Artifact</b>	<b>Material</b>	<b>Class</b>	<b>Function</b>	<b>Count</b>
Surface Grab Sample	Spongeware	Ceramic	Kitchen	Serving	2
	Hand-painted polychrome ware	Ceramic	Kitchen	Serving	1
	Blue-edged whiteware	Ceramic	Kitchen	Serving	1
	Molded whiteware	Ceramic	Kitchen	Serving	2
	Majolica ware	Ceramic	Kitchen	Serving	1
	Rockingham ware	Ceramic	Kitchen	Serving	1
	Plain whiteware	Ceramic	Kitchen	Serving	27
	Porcelain	Ceramic	Kitchen	Serving	2
	Stoneware	Ceramic	Kitchen	Storage	4
	Milk glass	Glass	Kitchen	Leisure	2
	Blue glass	Glass	Kitchen	Storage	2
	Olive-green bottle glass	Glass	Kitchen	Storage	2
	Aqua bottle glass	Glass	Kitchen	Storage	9
	Coke bottle top	Glass	Kitchen	Storage	1
	Brown screw top bottle	Glass	Kitchen	Storage	1
	Green Depression Glass	Glass	Kitchen	Serving	2
	Canning jar seal	Porcelain	Kitchen	Storage	2
	Clear bottle glass	Glass	Kitchen	Storage	13
	Pane Glass	Glass	Architecture	Hardware	1
	Plating	Lead	Kitchen	Storage	1
	Button	Plastic	Clothing	Personal	1
	Toothbrush handle	Plastic/Bakelite ?	Toiletry	Personal	1

This site was evaluated for its suitability for listing on the NRHP. Based on that evaluation, this site is considered to lack integrity and is not considered to be significant. The site is not associated with a landowner of noteworthy importance or particular event. The artifacts and their context are scattered throughout a plowzone and are lacking integrity regarding their specific temporal affinity and location. This site does not meet the necessary requirements to be regarded as eligible under any of the criteria (Little et al.

2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45). No further work is considered to be necessary at this site.

### **33LU802**

The archaeological component of this site was identified during shovel test unit excavation in a residential yard setting (Figures 23) and visual inspection. The archaeological site consists of a few artifacts and foundation remnants that are associated with LUC-4628-10. The address for the house is 816 Lallendorf Road. It is located immediately to the east of Lallendorf Road and extends to the backyard of the small farm. This is an area is very flat and extends to Driftmeyer Ditch. The site is considered to be 200 feet east-west by 75 feet north-south. Its site size is regarded as being 15,000 sq feet (1,393 sq m).

Review of atlas and cartographic maps do not depict this residence as of circa 1875 or 1900 (Figures 4 and 5). The Lucas County Auditor site indicates this residence was constructed in 1887, which is consistent with its type and style.

The few artifacts that were identified from this site were recovered from the front yard of the residence (Figure 7). These artifacts are not considered to be diagnostic of any specific temporal period (Table 4).

<b>Table 4. Historic period artifact inventory for 33LU802.</b>					
<b>Provenience</b>	<b>Artifact</b>	<b>Material</b>	<b>Class</b>	<b>Function</b>	<b>Count</b>
TU 50W, 25N	Pane glass	Glass	Architecture	Hardware	2
TU 50W, 0	Riveted button	Iron/steel	Clothing	Personal	1

Another archaeological component of this site is a concrete former building foundation. The foundation is a concrete pad that measures 22 x 22 feet and has a single layer of cinder block in a broken line along three sides. It appears to have been used as a garage.

This site was evaluated for its suitability for listing on the NRHP. This site is considered to lack integrity and is not considered to be significant. The site is not associated with a landowner of noteworthy importance or particular event. There were few artifacts identified from this site. This site does not meet the necessary requirements to be regarded as eligible under any of the criteria (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45). No further work is considered to be necessary at this site.

### **Architectural Site Descriptions**

#### ***816 North Lallendorf Road, House 1 (LUC-4628-10)***

This two-story residence and its associated outbuildings are located in the northwestern part of the Project Area and dates from the late 19<sup>th</sup> century. This house is Parcel 44-05547 and has 167 feet of frontage on N. Lallendorf Road. It is located

between this road and Driftmeyer Ditch, with a spur of the Norfolk & Western Railroad to the south. Immediately to the north is a mid-20<sup>th</sup> century residence with an identical address and mutual driveway. This residence, located on a 12.47 acre lot, is of an Upright and Wing type (ca. 1830-1890). The County Auditor indicates that it dates from about 1887. At the time of this survey, the house was being rented. The dimensions of the Upright are 26 x 16 feet, with the Wing being 26 x 22 feet.

The house is within a gravel loop drive that has an extension to one of its outbuildings, the garage. There is a concrete-capped cistern along the eastern façade. It has vinyl siding that covers former wooden shiplap siding set on a wooden, western frame. The foundation is comprised of brick that is set in an American bond style. The foundation exhibits a raised basement, which is a common characteristic in this region due to poor drainage and low-lying conditions. Half of the basement door entry on the eastern façade is above ground level. The roof and windows have been replaced/rebuilt in the modern era with asphalt shingle and 1/1 double-hung varieties.

The western façade has a porch that extends from the wing with its gable meeting midway into the wing's roofline. This is a small, verandah-style porch that measures 8 x 21 feet. The chimney is placed off-center, but within the ridgeline of the two-story section. The cornice return is simple and undecorated.

There are two outbuildings associated with this site, including a garage and barn. The garage is square and measures 20.5 x 20.5 feet. It has a concrete foundation, shiplap siding, and standing seam metal roof. It is a 1.5 story building with lightning rod apertures on the roof.

The barn is a Three-Bay type with foundation of formed concrete and brick. The brick may be associated with repairs. One of the bricks is impressed with the word "Belden" of the Belden Brick Company. This brick manufacturer began around 1895 in Canton, Ohio and is still in operation. The barn has a gambrel roof and measures 32 x 22 feet. A brief inspection of the interior of the barn noted native lumber and simple joint configuration.

The residence is not noted on any of the atlas/cartographic maps indicated from 1875 to 1900 (Figures 4 and 5). It is on modern topographic maps and, as previously mentioned, noted as being constructed in 1887. In 1875, this was the John Haase property, and his house was noted on mapping as being to the east of this structure's location. The buildings are associated with archaeological site 33LU802.

This building has no evident associations with individuals or events that have made a significant impact to the broad patterns of history, the property does not meet National Register criterion under A, B or C. This building has been substantially modified from its original materials.

### ***816 North Lallendorf Road, House 2 (LUC-4629-10)***

This residence is located in the northwestern part of the project area and dates from the mid-20<sup>th</sup> century. This house is Parcel 44-05581, and has 115 feet of frontage on

N. Lallendorf Road. It is located between the road and Driftmeyer Ditch, with a driveway that is shared with the abutting small farm to the south that has the same address. This is a one-story, vernacular residence dating circa 1954 that sits on a 0.5 acre lot. At the time of this survey, the house was not occupied. The dimensions are basically 52 feet north-south by 34 feet east-west.

This residence is the only building on this lot. It has an irregular, but basically rectangular form. The walls are formed from wooden frames that are overlain with wood shiplap siding. The asphalt shingle roof has multiple slope lines and grades that are derived from its central gable area. The chimney is placed in the southern part of the roofline and is located just off gable. The central part of the western elevation (front) of the house has a picture window bay. There is a rear addition that served as a back hallway. The house appeared to have a basement and the foundation is formed from cinder block. Most of the windows are simple 1/1 double-hung varieties with one 6/6 double-hung window observed.

This building has no evident associations with individuals or events that have made a significant impact to the broad patterns of history, the property does not meet National Register criterion under A, B or C. This building does not exhibit distinguishing architectural features from other similar types in the same condition.

### ***Evaluations of Research Questions 3 & 4***

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

- 3) Will the planned undertaking affect any archaeological or architectural properties?
- 4) Will any NRHP eligible sites or properties be affected by the project?

The testing for this project area identified two historic period archaeological sites (33LU801 and 802). These sites date from the latter part of the 19<sup>th</sup> century and the 20<sup>th</sup> century. There were two architectural sites identified during these investigations (LUC-4628-10 and LUC-4629-10). The cultural resources that were identified within the project area are not regarded as being significant.

### **APE Definition and NRHP Determination**

The APE is a term that must be applied and determined 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 also includes consideration of the APE (a 5-mile radius) that is identified in OPSB regulations. Although these investigations considered this guideline, characteristics of the Project and its surroundings were considered to support a reduction in the APE. The height of the proposed Project used in establishing a project-specific APE was 275 feet, associated with two proposed stacks, and 110 feet (the tallest industrial structure proposed).

The APE outside of the Project Area was determined and addressed by Tom Barrett (Vintage Resource Studies) (Figures 25-51; Appendix A).

Weller addressed the cultural resources – two residences and two archaeological sites – that are contained within the footprint of the Project Area. As noted above, these resources were not considered to be eligible for the NRHP and no further work was considered necessary. Tom Barrett’s analytical approach, in consideration of the type of construction and the surrounding terrain, concluded that this undertaking would not have any visual impacts to historic sites (Appendix A). A finding of no historic properties affected is deemed appropriate.

## **Recommendations**

In October of 2012, Weller & Associates, Inc. conducted Phase I archaeological investigations for the approximately 12.1 ha (30 ac) Lallendorf Road development in Oregon Township, Lucas County Ohio. These investigations involved surface collection, subsurface testing, and visual inspection. The work resulted in the identification of two previously unrecorded archaeological sites, 33LU801 and 802. These are historic period deposits that lack sufficient integrity to be regarded as significant. No further work is recommended for the archaeological sites in the Project Area; they are not eligible for the NRHP.

Architectural resources, LUC-4628-10 and LUC-4629-10, were identified in western part of the Project Area. These resources have been severely modified or are of a common construction type to be regarded as significant; they lack integrity. These resources are not considered to be eligible for the NRHP.

The APE was considered and justified. This undertaking is not out of place in this setting and industrial environment. It is Weller’s and Barrett’s opinion that this undertaking will not adversely affect any historic properties. If the agency is in agreement with these findings, then a recommendation of no further work is considered and “no historic properties affected” is appropriate.

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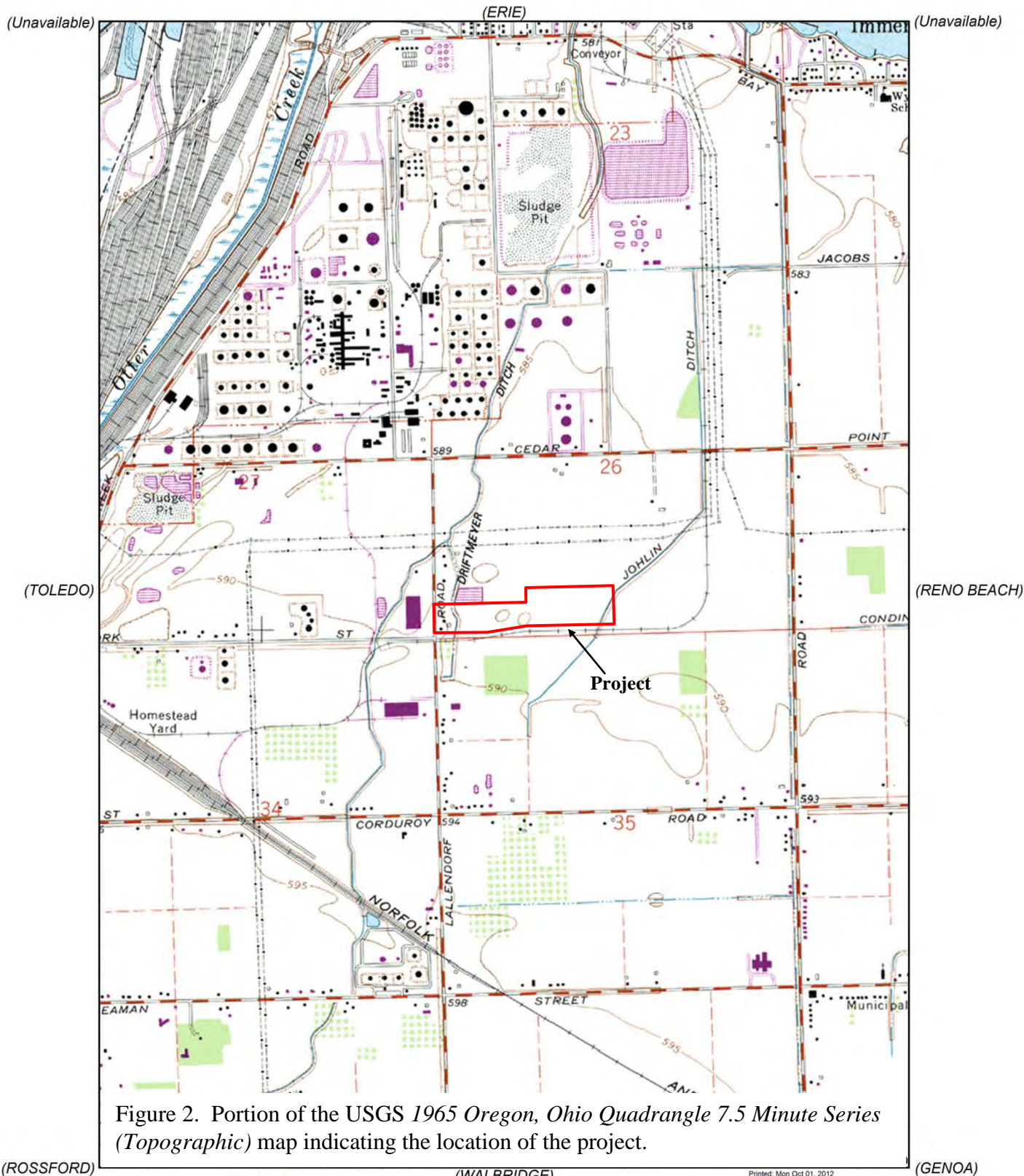
## **Figures**





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





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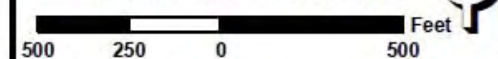




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Figure 3. Aerial photograph showing the location of the project.

Notes: The Lucas county photography, dated April 2010, is provided by OGRIP as part of the Ohio Statewide Imagery Program.



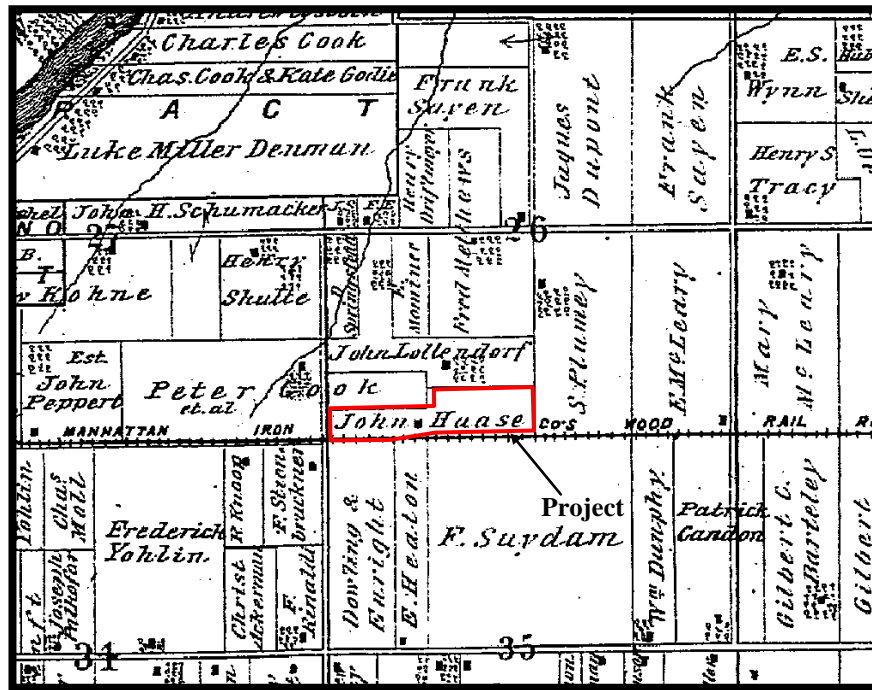


Figure 4. Portion of the *Illustrated Historical Atlas of Lucas and Part of Wood Counties, Ohio* (Andreas & Baskin 1875) showing the approximate location of the project area.

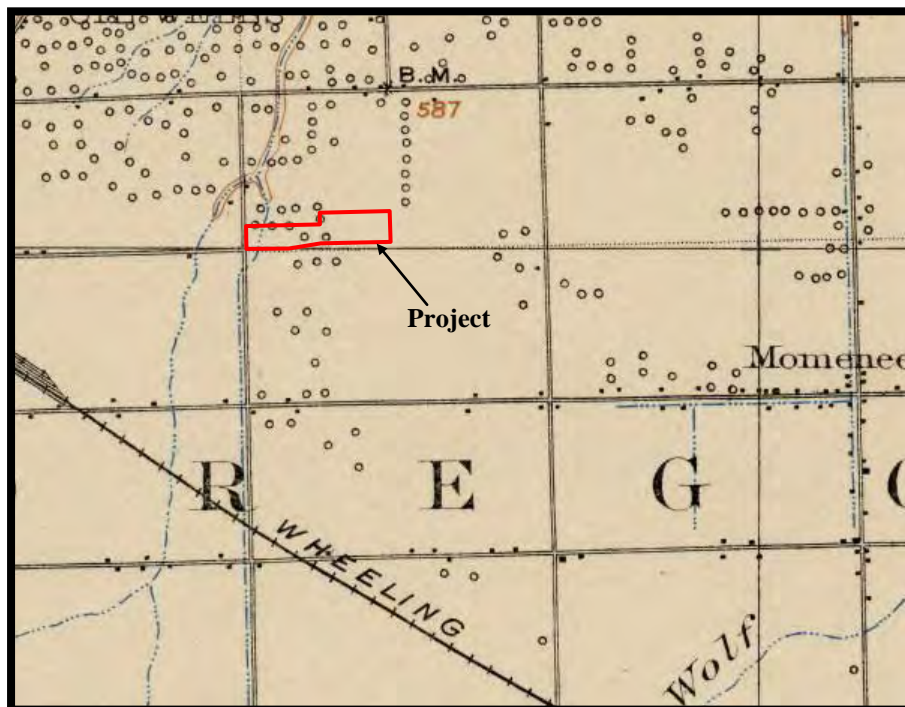


Figure 5. Portion of the 1900 Maumee Bay, Ohio Quadrangle 15 Minute Series (*Topographic*) map showing the approximate location of the project area.



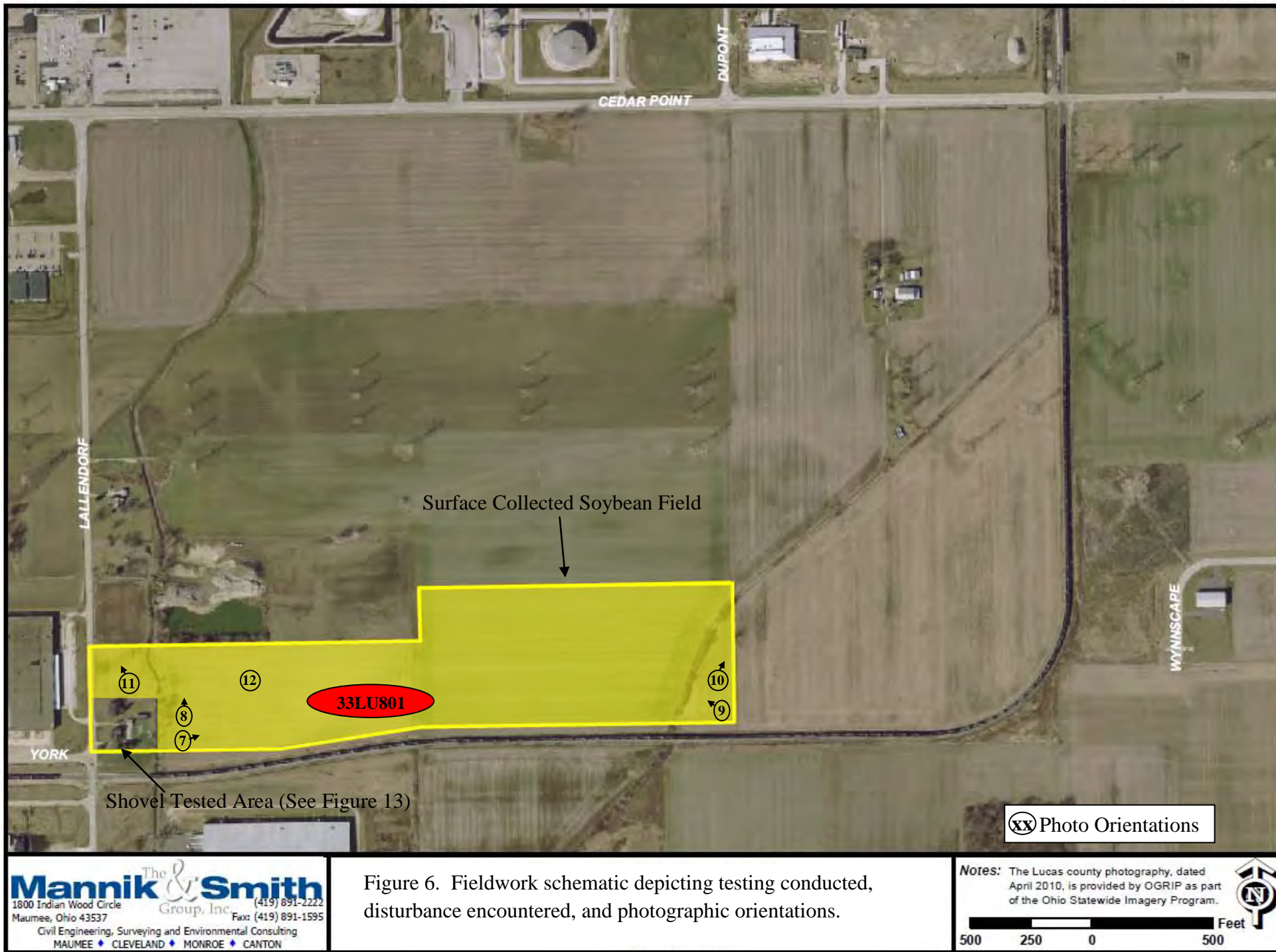


Figure 6. Fieldwork schematic depicting testing conducted, disturbance encountered, and photographic orientations.



Figure 7. View of the conditions encountered within the surface collected soybean field portion of the project.



Figure 8. Another view of the conditions encountered within the surface collected soybean field portion of the project.





Figure 9. View of the conditions encountered within the eastern aspect of surface collected soybean field portion of the project.



Figure 10. Another view of the conditions encountered within the eastern aspect of surface collected soybean field portion of the project.



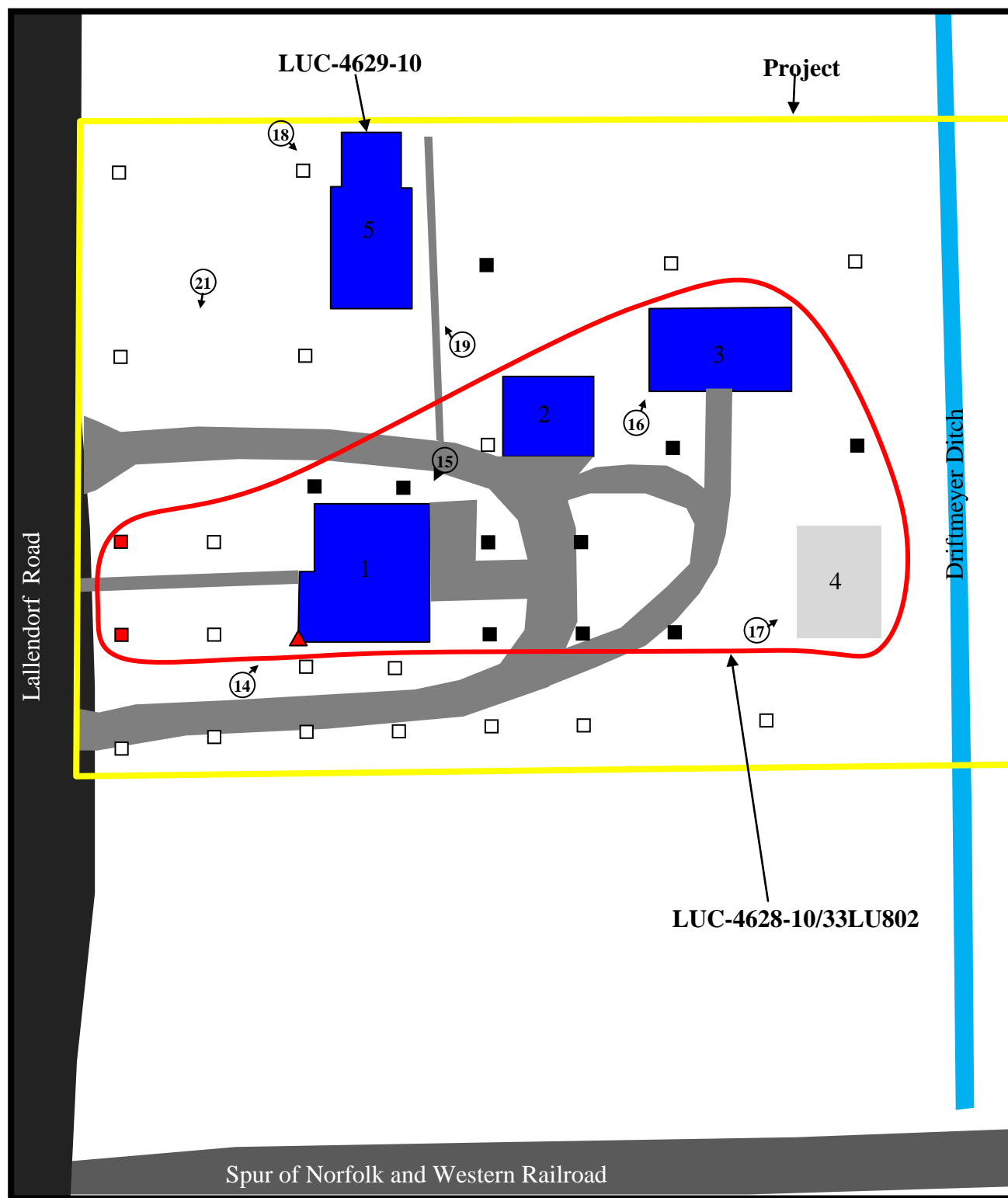


Figure 11. View of the conditions encountered within the western aspect of surface collected soybean field portion of the project.



Figure 12. Typical surface visibility encountered within the surface collected portions of the project.





- ▲ Datum
- Negative Shovel Test Unit
- Positive Shovel Test Unit
- Disturbed Shovel Probe
- Gravel Access Drives/Paths
- ⊗ Photo Orientations

Scale  
0' 25'

- 1. Residence LUC-4628-10/33LU802
- 2. Garage LUC-4628-10/33LU802
- 3. Outbuilding LUC-4628-10/33LU802
- 4. Concrete Pad LUC-4628-10/33LU802
- 5. Residence LUC-4629-10

Figure 13. Fieldwork schematic depicting the testing conducted within the house lot portion of the project and photo orientations.



Figure 14. View of the southwest elevation residence affiliated with LUC-4628-10/33LU802.



Figure 15. A view of the northeast elevation of the residence affiliated with LUC-4628-10/33LU802.





Figure 16. View of the southwest elevation of the barn affiliated with LUC-4628-10/33LU802.



Figure 17. A view of the concrete pad affiliated with LUC-4628-10/33LU802.





Figure 18. View of the northwest elevation of the residence affiliated with LUC-4629-10.



Figure 19. View of the southeast elevation of the residence affiliated with LUC-4629-10.





Figure 20. View of a typical disturbed shovel probe excavated within the project.



Figure 21. View of the conditions encountered along Lallendorf Road.

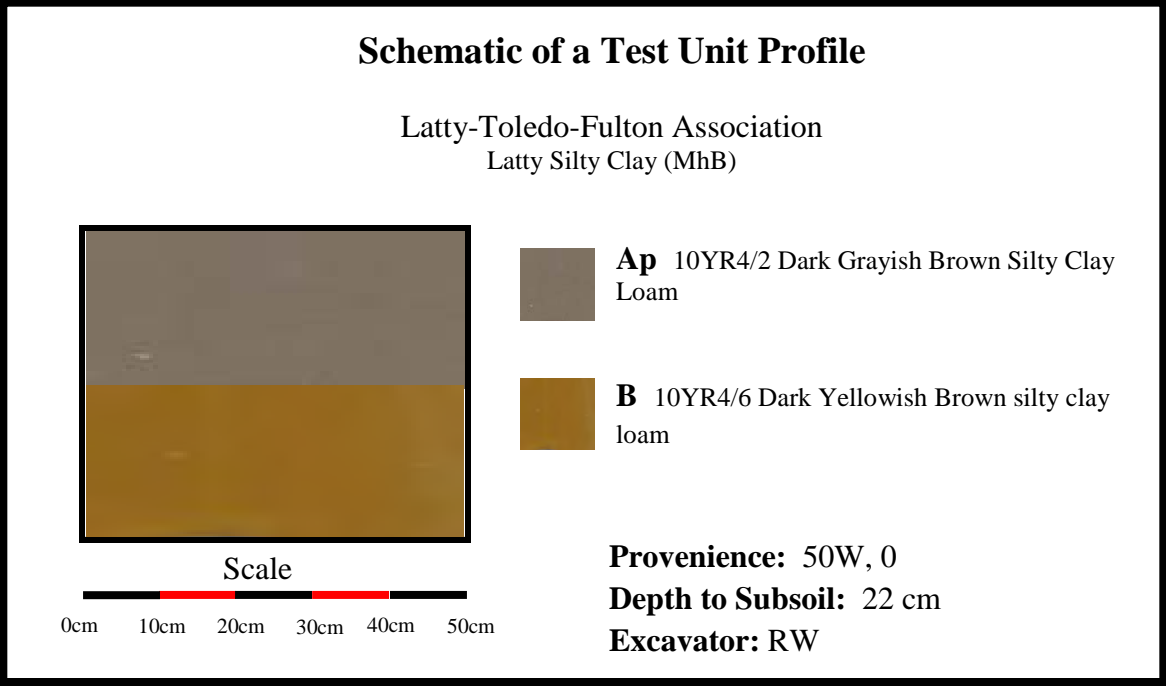
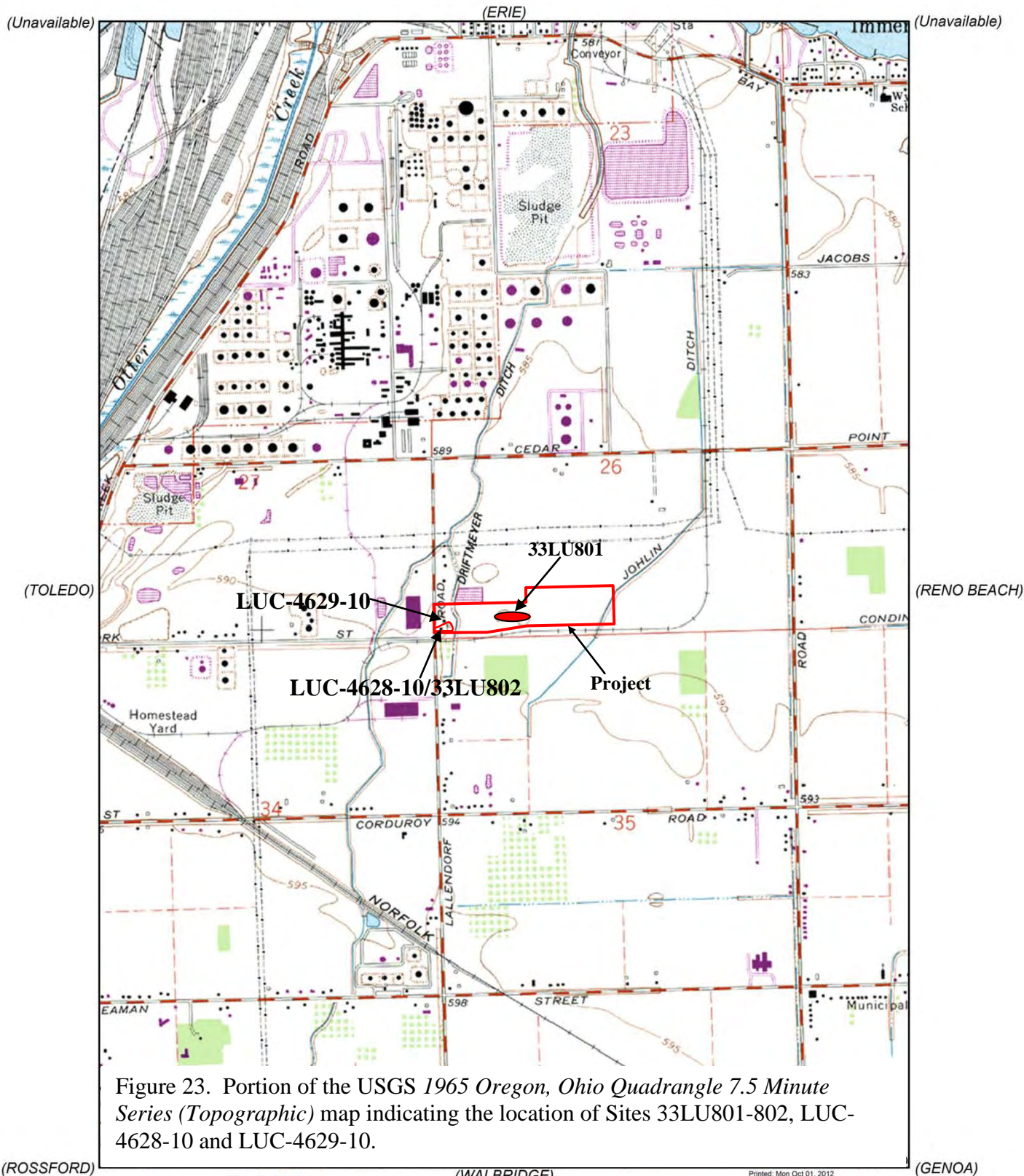


Figure 22. A typical shovel test unit excavated within the project.



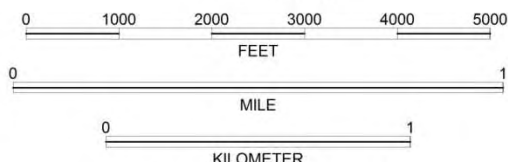


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Declination

GN 1.62° W  
MN 6.80° W

(WALBRIDGE)  
SCALE 1:24000



CONTOUR INTERVAL 5 FEET  
NATIONAL GEODETIC VERTICAL DATUM 1929

OREGON, OH  
1965



Scale

0 12.7mm 25.4mm

0 1/2" 1"

Figure 24. Some artifacts from Site 33LU801.



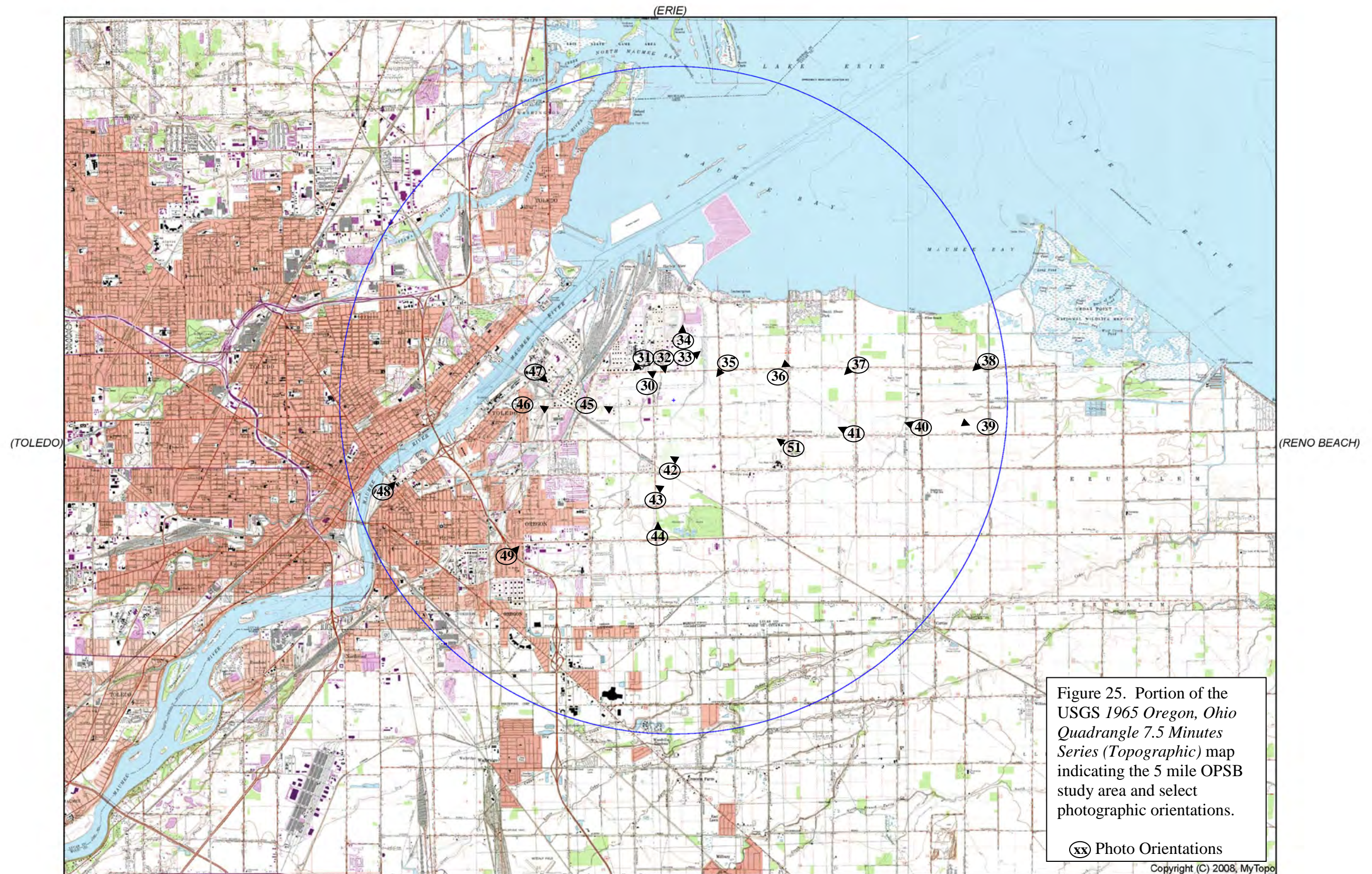


Figure 25. Portion of the USGS 1965 *Oregon, Ohio Quadrangle 7.5 Minutes Series (Topographic)* map indicating the 5 mile OPSB study area and select photographic orientations.

ⓧ Photo Orientations





Figure 26. View of an industrial complex located to the north of the project.



Figure 27. View of an industrial complex, radio tower, and high voltage power lines located to the west of the project.



Figure 28. View of a landfill located to the west of the project.



Figure 29. View of an industrial complex and radio tower located to the west of the project.





Figure 30. View of some industrial components within the 5-mile OPSB study radius for the project.



Figure 31. Another view of some industrial components within the 5-mile OPSB study radius for the project.



Figure 32. View from north of the project within the 5-mile OPSB study radius showing some high-voltage power lines.



Figure 33. Another view of some industrial components to the north of the project within the 5-mile OPSB study radius.





Figure 34. A view of some industrial components to the north of the project within the 5-mile OPSB study radius.

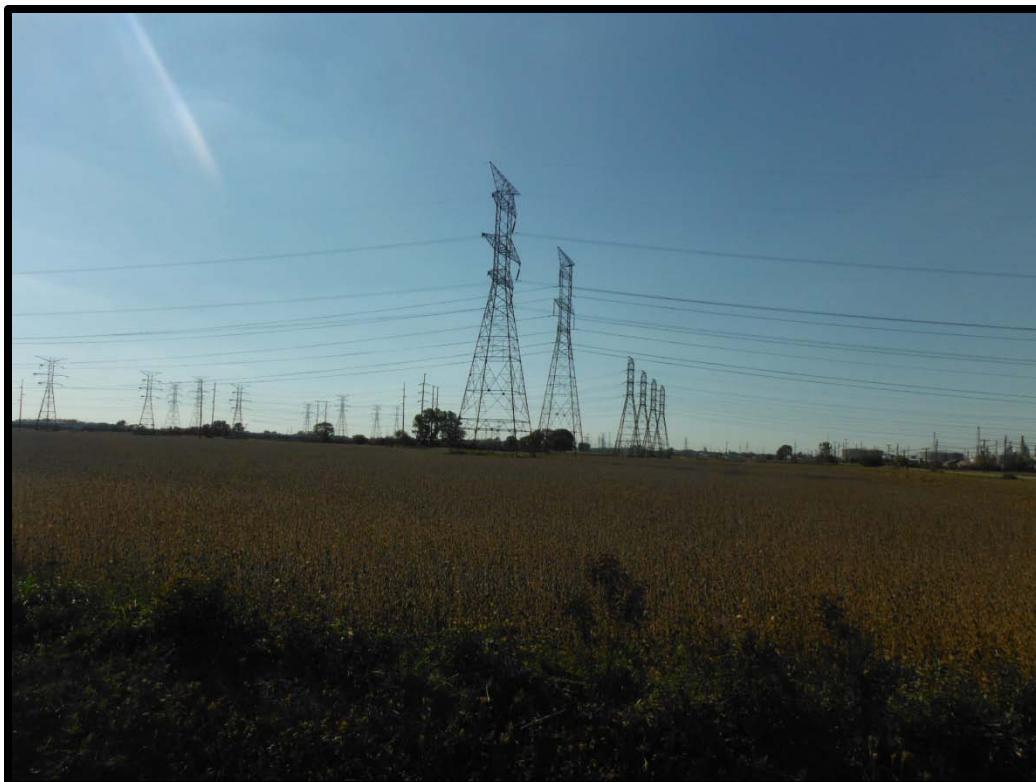


Figure 35. Another view of some high-voltage power lines to the northeast of the project within the 5-mile OPSB study radius.



Figure 36. A view an older residence to the northeast of the project within the 5-mile OPSB study radius.



Figure 37. View from within the 5-mile OPSB study radius to the northeast of the project.





Figure 38. View from within the 5-mile OPSB study radius to the northeast of the project.



Figure 39. View from within the 5-mile OPSB study radius to the east of the project.





Figure 40. A view from within the 5-mile OPSB study radius to the east of the project.



Figure 41. View from within the 5-mile OPSB study radius to the east of the project.



Figure 42. A view from within the 5-mile OPSB study radius to the south of the project.



Figure 43. View from within the 5-mile OPSB study radius to the south of the project.





Figure 44. A view from within the 5-mile OPSB study radius to the south of the project.



Figure 45. View from within the 5-mile OPSB study radius to the west of the project.



Figure 46. A view from within the 5-mile OPSB study radius to the west of the project.



Figure 47. View from within the 5-mile OPSB study radius to the northwest of the project.





Figure 48. A view from within the 5-mile OPSB study radius to the southwest of the project.



Figure 49. View from within the 5-mile OPSB study radius to the southwest of the project from the parking lot of the Brandville School (NRHP).



Figure 50. A view of LUC-258-10 located to the southeast of the project within Momeneetown.



Figure 51. View from within the 5-mile OPSB study radius to the southeast of the project within Momeneetown.

## **Appendix A**

History Architecture Area of Potential Visual Effects (APE) Survey

By

Tom Barrett

## Introduction

A review for the potential for historic structures to be effected by the proposed Oregon Clean Energy Center (the Project) has been conducted to support coordination with the Ohio Historic Preservation Office (OHPO) as well as to respond to the requirements of the Ohio Power Siting Board (OPSB) in considering the full range of Project impacts. Structures located on the Project site have been addressed by Weller & Associates; this assessment considers potential architectural features surrounding the Project site.

The following sections set forth the methodology utilized to determine an appropriate Area of Potential Effect (APE) for the Project, followed by information describing the historic context of the Project's location. In consideration of both the APE and the historic context, relevant resources are identified and described, and an assessment of potential impact to historic structures is provided.

Based on the historical land use throughout almost half of the Project area, characterized by refineries, industrial development, transportation corridors and utilities; as well as on the result of field investigations, the proposed Project is not anticipated to result in no visual impact to historic sites.

## Methodology

The Ohio Power Siting Board (OPSB) identifies a 5-mile radius for which the potential effect on cultural resources should be considered. However, the area of potential visual effect for this Project has been adjusted to account for the land uses and visual obstructions that characterize a significant portion of the 5-mile radius. The area of potential visual effects is greatly minimized by the vast urban/industrial areas of east Toledo, where the city spans across the Maumee River, deep into Oregon Township.

Field investigations plus mapping review (as can be seen in Figure A-1) were conducted throughout the 5-mile radius to determine the appropriate APE. Based upon this review, areas to the west, north and south were eliminated from further consideration, based upon the following:

- The immediate vicinity to the west of the Project site is composed of railroad yards and vast industrial complexes. Field investigations confirmed that visual impacts on the *west side* of the 5-mile radius were further limited, due to urbanization of the city and visual obstructions. The visual buffer created would block viewshed from National Register properties toward the Project.
- Within one half mile *north of the site*, the BP refinery can be seen; the Bay Shore power plant is further north, and the northern portion of the 5 mile radius continuing past Maumee Bay and Ohio's northern shore on Lake Erie. The coastal railroad yard is located to the northeast. The presence of these features serves to block viewsheds toward the Project from the north.
- The *southern* portions of the 5-mile radius contain highway and other transportation corridors (Interstate 280; U.S. 2; Interstate 75; and the Norfolk and Southern Railroad Line). In addition, industrial develop that follows Otter Creek Road to Corduroy Road to the southwest provides an additional visual barrier. The presence of these features serves to block viewsheds toward the Project from the south.

The analysis for potential impact to historic structures, therefore, focused on the potential for views within the eastern quadrant of the 5-mile radius. The eastern quadrant of the 5-mile radius is comprised of the flat rural lands that extend into Jerusalem Township, characterized by rural landscapes and small villages. The potential for visual impacts for this Project are more likely from this direction, as noted above. However, field reconnaissance found the eastern portion of the 5-mile radius contains a



considerable amount of development with massive aerial utility lines and industrial parks, obscuring most of the visual potential that this Project will have. Nonetheless, a review of historic context and potential structures located within the eastern portion of the 5-mile radius has been conducted to specifically consider the Project's impact potential. The potential for visual effects for the Project presumes a maximum height of approximately 275 feet for the tallest structures (two emissions stacks) and 110 feet for the tallest buildings.

Based on the diversity of the built environment found within the 5 mile visual APE, our survey bisected the area to examine the potential for visual impacts, taking into account the various conditions throughout the region.

## **Historic Context**

### **Lucas County**

Urban areas comprise 18 percent of Lucas County's land mass. Most residents find employment in service-oriented and sales positions, with manufacturing jobs ranking a distant third. During the late nineteenth century, Toledo was known as the "City of Glass" for its numerous glass-producing facilities. The city was also the home of the Willys-Overland Company, the largest manufacturer of jeeps during World War II in the United States ("Lucas County", *Ohio History Central*, July 1, 2005, <http://www.ohiohistorycentral.org/entry.php?rec=1965>).

### **City of Toledo**

The canal opening in 1845 made the town a growing seaport along Lake Erie, and much commerce traveled through Toledo. In addition to the Wabash and Erie Canal, Toledo was connected to the city of Cincinnati by way of the Miami and Erie Canal.

When railroads began to emerge as a key form of transportation in Ohio in the second half of the nineteenth century, Toledo became a destination for a number of railroad lines. In addition, a number of industries began to emerge in the city, including furniture companies, carriage makers, breweries, railroad manufacturing companies, and glass companies, among others. The Libbey Glass Works was located in Toledo and helped to make the community known as the "City of Glass." By 1880, Toledo boasted a population of more than 50,000 people, making it one of the largest cities in the state.

Many immigrants began to settle in Toledo by the late nineteenth century, attracted to the city because of the factory jobs available and the city's accessibility by rail and by water. Toledo continued to grow, both in terms of population and industry, in the early twentieth century ("Toledo, Ohio", *Ohio History Central*, July 1, 2005, <http://www.ohiohistorycentral.org/entry.php?rec=808>).

### **Oregon Township**

Oregon Township, the largest in the county, includes all settlement lying east of the Maumee River and the City of Toledo. The township was incorporated as a city in 1957, when the City of Toledo sought to annex the industrial area. Settlements existed as early as 1808, at the mouth of the river, and the French had temporary trading posts throughout the middle of the eighteenth century. A very large amount of the eastern portion of the township is historically held by E. B. Ward, of Detroit. Ward has a shipyard at the east end of the township, connected by a canal with Lake Erie. In 1875 there were three little corners (although not with distinct postal codes) in eastern Oregon called, respectively, *New Jerusalem*, *Cedar Point* and *Jamestown* (Figure A-2). As of 1875, the township was still largely covered with the original forest, and there was also quite an extensive marsh bordering upon Lake Erie. Business, at that time, was principally focused on cutting lumber and cooper stuff. The western part of the township, adjoining Toledo, is more thickly settled and more aggressively farmed due to drainage.

Several Indian reservations were originally wholly, or in part, within the limits of Oregon numbering 30,000 acres or more (*Atlas of Lucas & Part of Wood County*, Andreas & Baskin, 1875, p. 23 [Figure A-2]).

The Norfolk and Western Railroad runs diagonally through the township from the northwest to the southwest. In the northwest corner near the mouth of the Maumee River are rail yards, gas and oil fields, and sludge pits (Figure A-3). As one leaves the area of the Maumee River and Maumee Bay, farm fields take over and only two small towns appear on the map: Momeneetown and Booth (*Memoirs of Lucas County and the City of Toledo*, vol. I. Western Historical Association, Madison, Wisconsin, Scribner, Harvey, editor, 1910).

## Previously Surveyed Areas

On October 24, 1996, a Phase I Literature Review and Reconnaissance Survey was completed for the Seaman Street/Norfolk Southern Grade Separation in Oregon Township, Lucas County by ASC Group (*Phase I Literature Review and Reconnaissance Survey for the Proposed Improvement of the Seaman Street/Norfolk Southern Grade Separation in Oregon Township, Lucas County, Ohio*; ASC; 1996). The survey covered approximately 74 hectares around the intersection of Seaman Street and Lallendorf Road. Eleven 50-year-old structures were identified in the survey; none of the properties were recommended NRHP-eligible.

*A Cultural Resources Survey of Proposed BP Husky Toledo Refinery 138/69 kV Substation in Oregon Township, Lucas County, Ohio*; the 21.3-acre survey was completed in 2010 by Burns & McDonald Engineering Company Inc. No NRHP-qualified properties were identified within the study area, which is approximately 500 feet west of the Project site.

A Cultural Resources Reconnaissance Survey of the Maumee River Crossing in Lucas and Wood Counties, Ohio (PID 10718) was completed by ASC Group Inc. in 1994. The survey was comprised of 4,216 acres, which encompasses much of the southwestern quadrant of the 5-mile radius around the Project site and contains one NRHP property (Birmingham Historic District) and one known DOE site (2353 Caledonia Ave.). Both of these resources are on the east side of the Maumee River.

*An Assessment of the Prehistoric and Historic Archaeological Resources of the Ten Mile Creek Sewer Area (in the City of) Toledo, Lucas County, Ohio*; was completed by G. Michael Pratt in 1978. No NRHP properties have been recorded in the 2-acre survey area, which is approximately 3 miles west of the Project, across the Maumee River, and beyond many acres of industrial sites.

*An Assessment of the Prehistoric and Historic Archaeological Resources of the Willowbrook Subdivision, Toledo, Lucas County, Ohio*; was completed by G. Michael Pratt in 1978. No NRHP properties have been identified in the 26.3-acre survey area, which is approximately 4 miles west of the Project, across the Maumee River, and beyond many acres of industrial sites.

## Ohio Historic Inventory Sites

A total of 29 Ohio Historic Inventory (OHI) sites were identified within the eastern study area APE. Most of the sites were recorded by the Northwest Ohio Preservation Office (L-NWOHPO) in a 1979 survey of Oregon Township. Based on the historic dependence and association agriculture and rural setting of this region, an investigation of each property was considered for potential visual impacts by the Project.

**LUC-254-10**

Formerly located at 910 N Lallendorf Road was the Joseph Schmidt farmhouse. The circa 1850's two-story, four-bay, gabled ell, framed dwelling surrounded by open farm fields and industrial development that was inventoried for the Ohio Historic Inventory in 1979, is no longer present.

**LUC-202-10**

Located at 5808 Cedar Point Road, at the corner of Stadium Road, is a circa 1860 dwelling with Italianate window elements. Once partially used as the Thomas J. McCullough Store and later the S.B. Tobias Store; the front-gable, two-bay house has been heavily altered. The property is surrounded by trees, modern development, and multiple aerial utility lines. No impacts to this property are anticipated by the installation of the Project, which is located approximately 2 miles southwest of this location.

**LUC-261-10**

Our field investigations found the two-story, circa 1910 bungalow at this location (3516 York St.) is no longer extant, and is now occupied by an industrial site with large storage tanks and heavy land alterations.

**LUC-249-10**

Located at 3935 Corduroy Road, is the Johlin Residence and Winery. The Italianate, brick, gabled ell, house built circa 1870 by Jacob Johlin, is associated with two large barns and surrounded by agricultural fields. Most of the buildings are currently obscured by trees from the south elevation. The Johlin Century Winery is currently under its fifth generation of ownership according to their website ([johlincenturywinery.com](http://johlincenturywinery.com)). The house and winery are located approximately 1 mile southwest of the Project area and are visually buffered by the Carastar industrial complex northeast of the Johlin property. The surrounding areas beyond the winery are comprised of mostly industrial and manufacturing facilities interspersed with aerial utility lines, a radio tower and storage tanks. The vineyards historically associated with this property are no longer extant.

No visual impacts that would disqualify the Johlin Century Winery house and associated outbuildings for National Register of Historic Places (NRHP) consideration will be impacted by the Project. No historical viewshed component at this site has been documented in the past, or was observed in the field by our staff.

**LUC-248-10**

Located at 3825 Corduroy Road, west of LUC-249-10 is a house and associated outbuildings of a former farmstead once associated with Jacob Johlin circa 1867. The house was inventoried in 1979 as a front-gable, two-story, Greek revival with a one-story wing, that contained a log structure, but appears to have been replaced or heavily altered, circa 2007. The outbuildings are in poor condition and the vineyard associated with this property is no longer extant. An assessment of the historical integrity of this property is outside the scope of this Project. However, based on the surrounding industrial structures and utility lines adjacent to the parcel, no visual impacts are anticipated by the Project, which is located one mile northeast of the property.

**LUC-258-10**

Located at 3409 Seaman Road at the northeast corner of Seaman Road and Coy Road is the 1907-built, brick one-room schoolhouse (Homestead School). The building was heavily altered in the 1940's and its original windows are now boarded up, but it appears to be still used as a church since the American Romanian Orthodox Church took ownership in 1947. We are not confident that the original windows are intact. The building is buffered by trees on the north side, toward the Project site, which is approximately

2 miles north of this building. No historic view sheds are associated with this property and no adverse visual impacts are anticipated by the Project from this location.

#### **LUC-216-10**

Located at 5749 Seaman Road is the 1893 Clay Chapel Methodist Protestant Church Parsonage. The small side-gable one and a half story cottage with Queen Anne elements is located behind the associated church on the corner of Seaman and Stadium Roads. The Parsonage and church which are associated with the early settlement of Oregon Township, are located approximately 1.5 miles east of the Project site. Views toward the Project site are obstructed by the adjacent modern school buildings and trees. No visual impacts are anticipated.

#### **LUC-217-10**

Situated on the northwest corner of Seaman Road and Stadium Road is the 1893 Clay Chapel Methodist Protestant Church. The 1893 rural church with Greek revival elements has been heavily altered with the installation of modern materials, although the overall massing that reflects the older additions to the cross-gabled structure. Being located on the same lot as the Parsonage, the church has the same association with early settlers of the area and has no scenic viewshed toward the Project site. None of the elements that would qualify this religious property for evaluation under the National Park Service's *Criteria Consideration for Cultural and Religious Properties* will be affected by the Project, 1.5 miles east of this intersection.

#### **LUC-215-10**

Located at 5507 Seaman Road is the circa 1900-built Ai Ransom Fassett Jr. House. The house is a four square with hipped roof, dormer windows, and wraparound porch. The house and associated outbuildings are buffered by a wood lot on the west side and modern High School facilities on the east side. None of the architectural Queen Anne elements that would make this property a candidate for NRHP consideration under Criterion C will be impacted by the proposed Project.

#### **LUC-259-10**

Located at 212 North Stadium Road is the St. Ignatius Roman Catholic Church. The church was constructed in 1927, and is a brick Romanesque Revival building. The church is surrounded by modern development and features a massive rear addition. There are no visual impacts anticipated to any of the characteristics that would qualify this religious property for consideration for the NRHP. Views toward the Project site, which is over a 1 mile northwest of this site, are obstructed by existing utilities and tree growth.

#### **LUC-252-10**

Located at 5764 Corduroy Road, at the southwest corner of Corduroy and Stadium Roads; the Momeneetown Store and Tavern is a circa 1860's, massive, rough course stone building. It was originally used as a general store, tavern and meeting hall. The building was later used as a night club. The structure is no longer extant.

#### **LUC-251-10**

Located at 5734 Corduroy Road is a one-and-a-half story, wood frame structure/residence, with a lean-to addition to the rear. The circa 1860's, side-gable house has been heavily altered in massing and new materials since it was first recorded for the OHI in 1979. The Navarre residence is buffered from view toward the Project site by utility lines and trees. None of the elements that would qualify this property for NRHP consideration for its associations with the settlement of Momeneetown and early development of the local education system will be impacted by the Project.

**LUC-323-10**

Located at 5637 Corduroy Road, the circa 1860 vernacular wood frame Condon Residence is no longer extant.

**LUC-250-10**

The Ai Fassett Sr. Residence; a circa 1860 brick Italianate farmhouse, situated on the south side of the road at 5502, had a setback of approximately 125 feet, is no longer extant.

**LUC-253-10**

The Ecville School is located at 6601-6603 Corduroy Road is an 1879 one-room schoolhouse. The building is heavily altered in massing and materials. Due to the heavy loss of integrity and multiple visual intrusions from this site toward the proposed Project, this includes aerial power lines and other utilities. No visual impacts to this site are anticipated.

**LUC-324-10**

The circa 1860 Warnke Farm dwelling is located on the west side of Norden Road at 938. The small, side-gable dwelling may have been a log structure. This lot and the adjacent lot to the north both feature large modern houses. The 1860 structure appears to have been demolished since it was recorded in the OHI in 1979.

**LUC-203-10**

The Jacob M. Berger Residence, located at 6118 Cedar Point Road, is a circa 1890's, two-story, brick gabled ell home. The house has been altered with an enclosed porch and modern materials. The outbuildings are mostly comprised of modern steel pole-buildings. The agricultural landscape and view shed from this property toward the Project site is obscured by the existing power grid to the southwest and an existing 400 foot radio tower to the northwest; along with multiple utility lines along Cedar Point Road. No visual impacts to this altered farmhouse are anticipated by the Project, which is approximately 4 miles west of this site.

**LUC-320-10**

Formerly located at 5424 Bay Shore Road was a circa 1940 "bungaloid" or Bungalow-style residence. The house is no longer extant, as the area has been redeveloped with modern suburban homes and golf course.

**LUC-321-10**

Located at 5452 Bay Shore Road was a circa 1870, vernacular, one-and-a-half-story house with Italianate features. The house is no longer extant and there is a modern duplex at this location, with modern homes and multiplexes, such as apartment complexes, in the surrounding vicinity.

**LUC-322-10**

Located at 5520 Bay Shore Road, the Tompkins farm residence was a circa 1860 gabled ell farmhouse. The farmhouse appears to be no longer extant. This section of Bay Shore Road is characterized by modern houses and golf course.

**LUC-272-10**

Located at 5224 Bay Shore Road is the Bay Shore Church, a circa 1880 Queen Anne-influenced, wood framed church that once featured an open belfry. The church has been converted into a dwelling with an attached garage at the rear elevation. The belfry has been removed but some of the architectural window elements and gable ornamentation remain. No visual impacts to this altered church building are anticipated. The Project site is located approximately 3 miles south of this Bay Village area and obscured



by the adjacent modern school complex and the Eagles Nest Golf Course on the east and south sides of the property respectively.

**LUC-201-10**

Formerly located at 5451 Bay Shore Road was the circa 1917 La Tabernilla Inn. The former Prairie-influenced inn, patterned after a Panama inn of the same name, with prohibition associations, is no longer extant. The area is characterized by modern suburban-style homes and multiplex properties.

**LUC-271-10**

Formerly located at 4960 Bay Shore Road was a circa 1860 story and residence. The building appears to be no longer extant.

**LUC-1285-10**

Located at 4701 Bay Shore Road is the Bay Shore Generating Plant. The industrial energy-generating complex was established in 1955 and has been evolving architecturally since. The coal burning facilities would not be impacted visually by the introduction of the Project, which is located approximately 2 miles south of the plant. No impacts would occur to this industrial area, which covers most of the northern quadrants of the 5-mile radius from the Project. It occupies the northern areas of the APE. It is one of the large visual obstructions in the western section of the APE.

**LUC-244-10**

Located at 4516 Bay Shore Road is the Edwin Case Residence. The house is a circa 1900, two-and-a-half-story, four-square, Craftsman, side gable house, with shallow dormer window at the roofline, which was moved when the railroad expanded. The house is surrounded by industrial complexes and adjacent to the BP refinery complex to the south, obstructing all views toward the Project site.

**LUC-245-10**

Located at 4526 Bay Shore Road, is the Thomas E. Dunn Residence, a cross-gabled, vernacular house with Greek revival elements. The undistinguished house is surrounded by industrial development and no impacts are anticipated.

**LUC-243-10**

Located at 4454 Bay Shore Road is the Peter Momany Residence, a vernacular front-gabled, two story, framed house. The house is surrounded by trees, industrial development and utility lines. No visual impacts to this property or the surrounding area are anticipated. The BP refining facilities are located south of this area, which obscure any potential visual impacts by the Project.

**LUC-242-10**

The Louis Dupont Residence at 4400 Bay Shore Road is a circa 1900 two-and-a-half-story, hipped roof, with dormer, Craftsman foursquare home. The plain foursquare house is surrounded by industrial development and utility lines. No visual impact potential to this area is anticipated by the Project, which is located over 2 miles south of Bay Shore Road.

**LUC-241-10**

Located at 4328 Bay Shore Road is a circa 1870 gabled-ell, two-story, wood framed house. The Louis Momany Residence has no distinguishing architectural features and has been altered with modern materials. The house is situated in a mostly industrial area with no anticipated visual impacts from the Project anticipated.

It is our assessment that none of the sites recorded by the L-NWOHPO in their 1979 survey of Oregon Township will be affected by the Project. No rural landscape features were documented or noted, nor

were any observed when revisited by our team. No historic agriculture landscape features were identified that would constitute a negative visual impact to any of the aforementioned properties by the proposed Project. The property is not part of an established or potential rural landscape.

## **National Register Sites**

All National Register properties located within the 5 mile study radius of the project site were evaluated for potential visual impact.

### **Toledo Harbor Light**

The Toledo Harbor Light is located about five miles north of Maumee Bay. The lighthouse marks the entrance to the Toledo Shipping Channel where Lake Erie and Maumee Bay meet. Due to the sight distance from this NRHP-listed lighthouse across the bay and the BP Refinery's obstruction of views toward the Project site; no visual impacts to the historic 1901 lighthouse are anticipated. Bayshore serves as a buffer in regard to the setting of this particular resource.

### **Toledo Yacht Club**

The circa 1906 Spanish Revival clubhouse is located a little over two miles northwest of the Project at 3900 Summit Street. The viewshed from the clubhouse are presently obscured by the adjacent water tower and industrial sites across the Maumee River toward the Project. No visual impacts to the historic yacht club are anticipated.

### **Riverview Apartments**

Located at 1829-1837 Summit Street in Toledo is the 1875-built, brick, Italianate apartment building known as Riverview Apartments. The viewshed across from the apartment building toward the Project site is obscured by a line of trees across Summit Street, industrial sites on the west and east sides of the Maumee River, and the nearby 300-foot center pylon of the Maumee River Crossing I-280 Bridge. No visual impacts to this historic apartment building will be impacted by the Project.

### **Birmingham Historic District**

The district is roughly bounded by Genesee, York, Esther, Magyar, Consaul Streets, and railroad tracks on the west side. This early twentieth century eastern European neighborhood is located approximately 2.5 miles west of the Project area and is visually blocked from trees along York Street and overhead utility lines. None of the architectural or cultural elements that qualified the Birmingham Historic District for the NRHP will be impacted by the Project.

### **East Toledo Historic District; Spring Grove Historic District; Yondota Historic District**

The districts are clustered approximately 3 miles southwest of the proposed Project. It is our assessment that their proximity to I-280, in the immediate northeast, precludes further investigation for visual impacts on these districts. Our field investigations confirmed that there are typically no unobstructed views from this part of the city toward the Project site. None of the elements that make these districts historically significant for their nineteenth and twentieth century architecture; commercial and trade; and cultural influences, will be affected by the Project.

## **Determinations of Eligibility**

The records of Determinations of Eligibility (DOEs) that have been identified within 5 miles of the Project have been reviewed to determine whether any Project effect is anticipated.

**2353 CALEDONIA (Ser. No. 935747)**

This site is located over 2 miles west of the Project and visually buffered by adjacent buildings and trees. No visual impacts to this area are anticipated by the Project.

**1838 CHASE (Ser. No. 933051)**

This site is located approximately 4 miles west of the Project, across the Maumee River, well within the city limits, and visually buffered by adjacent buildings and trees. No visual impacts to this area are anticipated by the Project.

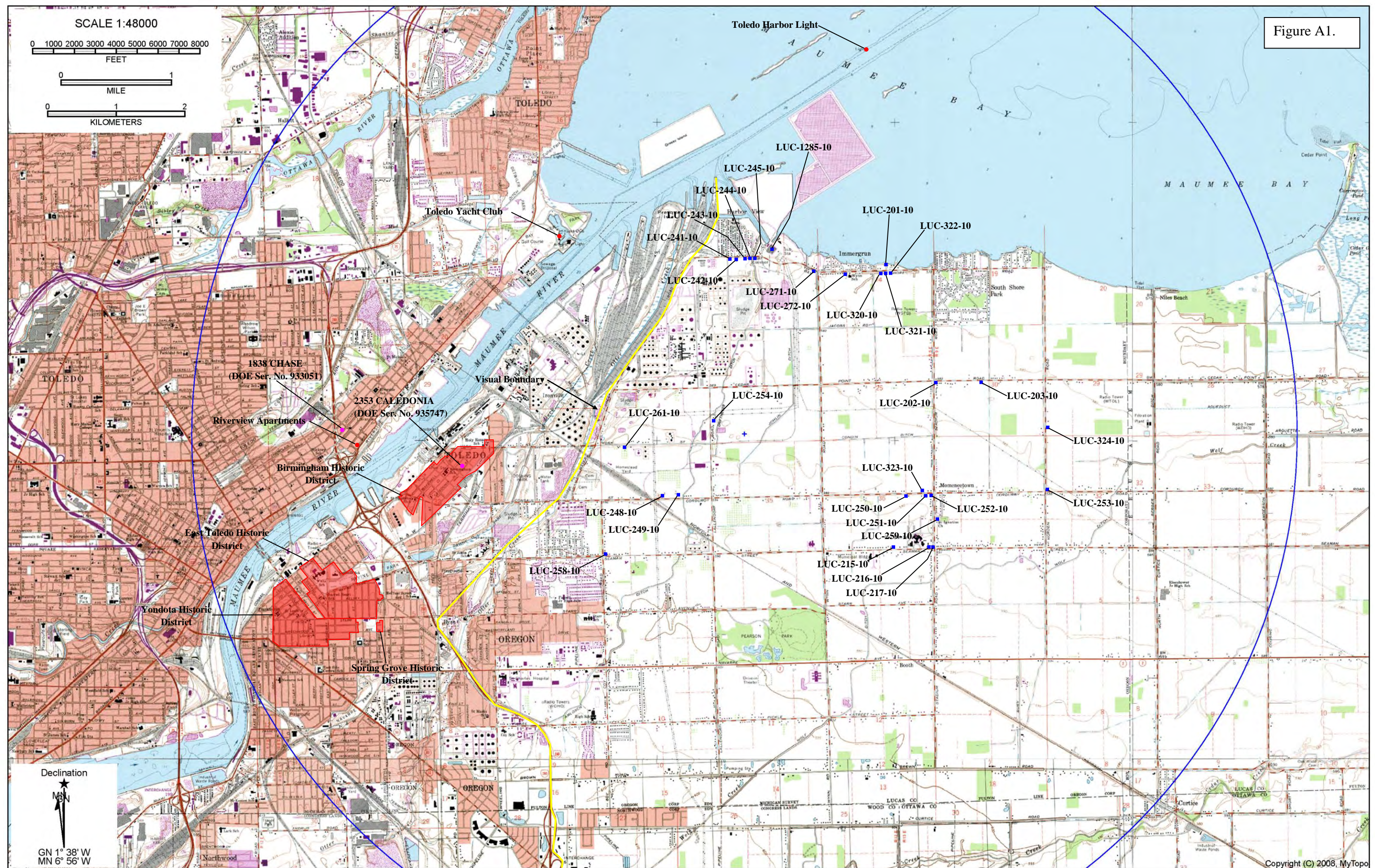
Numerous DOEs are located within the city of Toledo, beyond our previously defined visual buffer that essentially follows Interstate 280 in throughout the southwestern quadrant of the 5-mile visual APE. Given the urbanized environment and existing obstructions within the immediate vicinity, further investigations for visual impacts were not recommended for those sites.

## **Summary and Recommendations**

Based on the diversity of the built environment found within the 5 miles of the Project site visual APE, our survey bisected the area to examine the potential for visual impacts, taking into account the various conditions throughout the region. This bisection considered two sections essentially including a rural east side and urban west half. Our field investigations confirmed that visual impacts on the west side of the APE were limited, due to urbanization of the city and visual obstructions. The potential for visual impacts for this project are more likely in the eastern, rural spaces. However, we found the eastern region contains a considerable amount of development with massive aerial utility lines and industrial parks, obscuring most of the visual potential that this project will have. This study determined that the following areas: BP Refinery to the adjacent north; coastal railroad yard at the northeast; the industrial development that follows Otter Creek Road to Corduroy Road to the southwest; the Interstate 280 and Interstate 75 corridors; and urban/industrial sections of Toledo's east side, spanning the Maumee River; all impede any potential visual impacts to historic properties throughout most of the western half of the study radius. They all serve as a collective buffer that would block any viewshed elements from National Register properties toward the proposed Project, beyond these areas.

Based on the historical land use throughout almost half of the Project area, characterized by refineries, industrial development, transportation corridors and utilities; and through field investigations, which considered parts of eastern Toledo, no visual impact to historic sites by the proposed Project is anticipated in the 5 mile study radius.







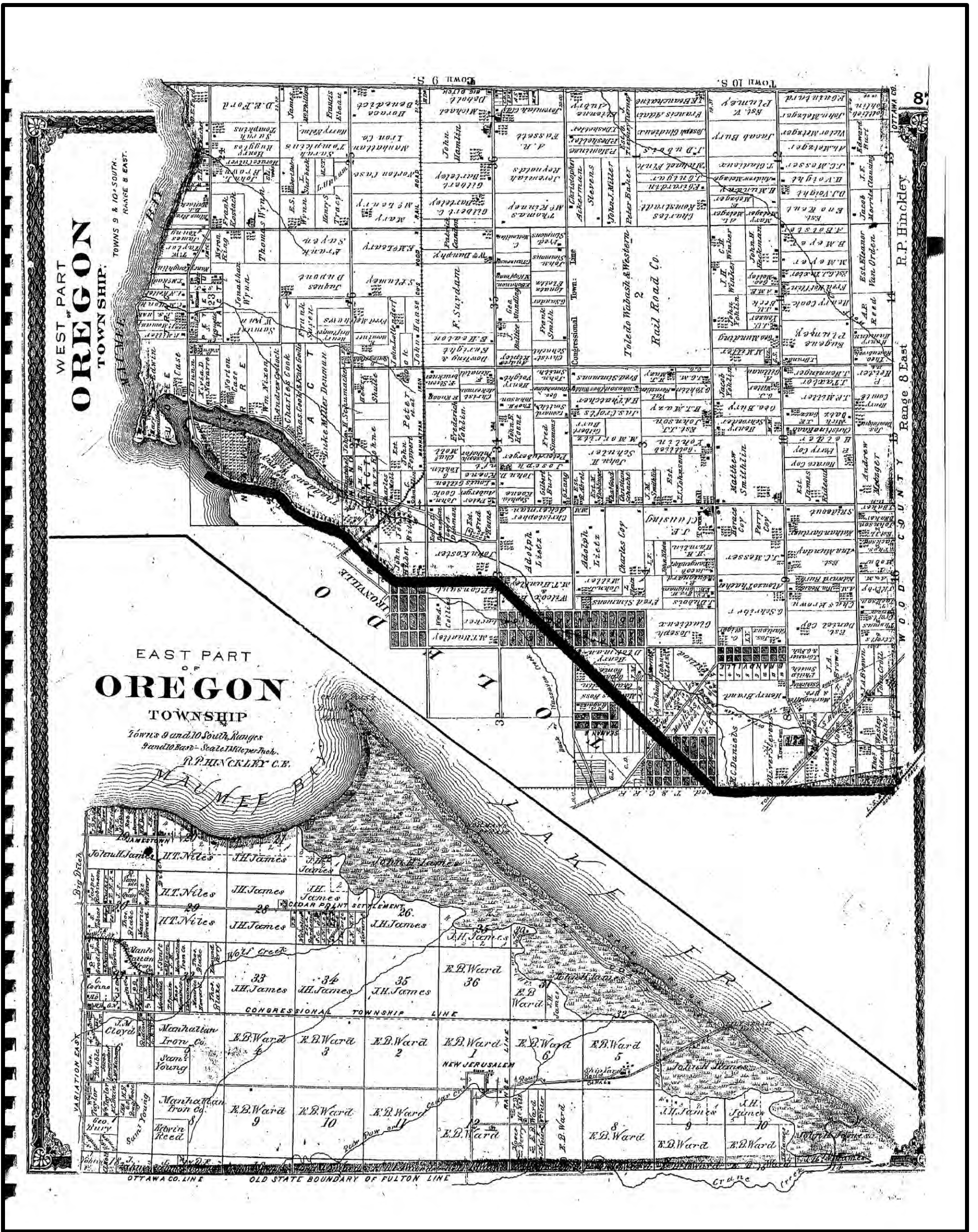


Figure A2. Illustrated Historical Atlas of Lucas and Part of Wood Counties, Ohio (Andreas & Baskin 1875)





Figure A3. USGS 1900 Maumee Bay, Ohio Quadrangle 15 Minute Series (Topographic) map



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Summary: Application Appendix F: Cultural Resource Report electronically filed by Teresa Orahod on behalf of Oregon Clean Energy, LLC