



Legal Department

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

February 3, 2017

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

Erin C. Miller
Contract Counsel –
(614) 716-2942 (P)
(614) 716-2014 (F)
ecmiller1@aep.com

**Re: PUCO Case No. 17-0172-EL-BLN Request for Expedited Treatment
In the Matter of the Letter of Notification for the
Waverly-Ware Road 138kV Transmission Line Project**

Dear Chairman Haque,

Attached please find a copy of the Letter of Notification for the Waverly-Ware 138 kV Transmission Line Project by AEP Ohio Transmission Company, Inc. This filing and notice is in accordance with O.A.C. 4906-6-05.

A copy of this filing will also be submitted to the executive director or the executive director's designee. A copy will be provided to the Board Staff via electronic message. AEP Ohio Transco will also submit a check in the amount of \$2,000 to the Treasurer, State of Ohio, for Fund 5610 for the expedited review fee.

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

Respectfully Submitted,

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

cc: Jon Pawley, OPSB Staff

Letter of Notification for Waverly-Ware Road 138 KV Transmission Line Project



PUCO Case No. 17-0172-EL-BLN

Submitted to:
The Ohio Power Siting Board
Pursuant to OAC 4906-6-05

Submitted by:
AEP Ohio Transmission Company, Inc.

February 3, 2017

**LETTER OF NOTIFICATION FOR
WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT**

February 3, 2017

Letter of Notification

**AEP Ohio Transmission Company, Inc.'s
Waverly-Ware Road
138 kV Transmission Line Project**

4906-6-05

**AEP Ohio Transmission Company, Inc. ("AEP Ohio Transco") provides the following
information in accordance with the requirements of Ohio Administrative
Code Section 4906-6-05.4906-6-5(B) General Information**

B(1) Project Description

**The name of the project and applicant's reference number, names and reference
number(s) of resulting circuits, a brief description of the project, and why the project
meets the requirements for a Letter of Notification.**

AEP Ohio Transco proposes to construct the Waverly to Ware Road 138 kV Transmission Line Project ("Project") in Pike County, Ohio. The Project will begin just east of Markham Road in Pee Pee Township and end at the Ware Road Station, which is owned by AEP Ohio Transco and is located between Ware Road and State Route 772 in Pebble Township. The length of the proposed Project is approximately 4.6 miles. Twenty-nine existing wood pole structures will be replaced with new steel structures. This Project is a subset of a larger 32.8-mile rebuild project (Waverly-Adams-Seaman). This Project involves pole structure numbers twenty-two to fifty of the Waverly-Adams-Seaman 138kV Transmission Line. All of the transmission line rebuild work for this Project will occur within AEP Ohio Transco's existing transmission line right-of-way ("ROW"). Figure 1.1 (Appendix A) shows the location of the Project. Figures 1.2 and 1.3 in Appendix A show the existing AEP Ohio Transco ROW corridor and substations, structure locations, and planned access road locations. Technical transmission line and structure information are provided in Section B(9).

The Project meets the requirements for a Letter of Notification (LON) because it is within the types of projects defined by item 2(b) of Ohio Administrative Code Section 4906-1-01 Appendix A of the Application Requirement Matrix For Electric Power Transmission Lines:

(2) Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled conductors, adding structures to an existing transmission line, or replacing structures with a different type of structure for a distance of:

(b) More than two miles.

The Project has been assigned PUCO Case No. 17-0172-EL-BLN.

LETTER OF NOTIFICATION FOR WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT

February 3, 2017

B(2) Statement of Need

If the proposed project is an electric power transmission line or gas or natural gas transmission line, a statement explaining the need for the proposed facility.

The proposed Project is part of a series of improvements planned for AEP Ohio Transco's 32.8-mile Waverly-Adams-Seaman 138 kV transmission line project to improve the reliability of electric service in Pike County, Ohio. The proposed facility replacement/upgrade is required to alleviate voltage concerns and replace aging (1952-vintage) wood pole structures. Many customer outages have been attributed to line defects such as crossarm failures and insect damage to knee braces and poles. The Waverly-Adams-Seaman transmission circuit has experienced four sustained outages over the past three years. Two of the outages exceeded 24 hours--one of which was directly attributed to crossarm structure failures. A complete line rebuild is necessary to address these concerns. The Project will improve the reliability of the transmission network in south-central Ohio and provide adequate voltage on the local 138 kV system under N-1 contingency conditions per applicable system planning criteria.

B(3) Project Location

The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the project area.

Figures 1.1, 1.2, and 1.4 in Appendix A shows the location of the proposed Project in relation to existing AEP Ohio Transco facilities, including existing substations and other AEP Ohio Transco transmission lines.

B(4) Alternatives Considered

The applicant shall describe the alternatives considered and reasons why the proposed location or route is best suited for the proposed facility. The discussion shall include, but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

All of the proposed transmission line rebuild work will occur within existing AEP Ohio Transco ROW (see Figure 1.2 in Appendix A) on the existing transmission line centerline. As the Project is a complete rebuild of an existing asset, the most economically viable solution is to utilize existing ROW. No other primary alternatives were considered. The proposed Project will not incur any significant socioeconomic, ecological, or construction impacts as the proposed Project will be within AEP Ohio Transco's current easement.

B(5) Public Information Program

LETTER OF NOTIFICATION FOR WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT

February 3, 2017

The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

AEP Ohio Transco informs affected property owners and tenants about its projects through several different mediums. Within seven days of filing this LON, AEP Ohio Transco will issue a public notice in a newspaper of general circulation in the project area. The notice will comply with all requirements under O.A.C. Section 4906-6-08(A)(1-6). Further, AEP Ohio Transco mailed a letter, via first class mail, to affected landowners, tenants, contiguous owners and any other landowner AEP Ohio approached for an easement necessary for the construction, operation, or maintenance of the facility. The letter complies with all the requirements of O.A.C. Section 4906-6-08(B). AEP Ohio Transco also maintains a website (<http://aeptransmission.com/ohio/>) which provides the public access to an electronic copy of this LON and the public notice for this LON. A paper copy of the LON will be served to the public library in each political subdivision affected by this Project. Lastly, AEP Ohio Transco retains ROW land agents who discuss project timelines, construction and restoration activities with affected owners and tenants. As this project remains entirely on existing AEP Ohio Transco ROW, mail notifications were not sent to land owners, as there was no landowner impact.

B(6) Construction Schedule

The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.

AEP Ohio Transco anticipates that construction of the Project will begin in March 2017, and the in-service date (completion date) of the Project will be approximately December 2019.

B(7) Area Map

The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.

Figure 1.1 in Appendix A identifies the location of the proposed Project on the Summithill and Piketon 7.5' USGS quadrangle maps. Figure 1.2 (Appendix A) shows the location of the Project on an aerial photograph base map. Figure 1.4 (Appendix A) shows the general location of the Project relative to local communities and the primary road network. To visit the Project from Columbus, drive south on United States (US) Route 23 for approximately 60 miles to Waverly, Ohio. In Waverly, turn right (west) on State Route (SR) 220. Drive west on SR 220 for approximately 1.8 miles and turn right (northwest) on Pleasant Hill Road (Township Road 36). Drive northwest on Pleasant Hill Road for approximately 2.2 miles and turn right (north) on Dick Road (Township Road 407). Drive north on Dick Road for approximately 0.5 mile and turn right (northeast) on Markham Road. Drive northeast on Markham Road for approximately 0.5 mile to the north terminus of the Project (Structure 22 - located along the east side of Markham Road). The 138 kV transmission line rebuild project extends southwest approximately 4.6 miles to an existing AEP Ohio Transco substation located between Ware Road and SR 772.

**LETTER OF NOTIFICATION FOR
WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT**

February 3, 2017

B(8) Property Agreements

The applicant shall provide a list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained.

All of the proposed transmission line rebuild work for the Project will occur within existing AEP Ohio Transco ROW (see Figure 1.2 in Appendix A). AEP Ohio Transco has reached agreements with adjacent property owners to access AEP Ohio Transco ROW during construction (AEP Ohio Transco's planned access road locations are shown on Figures 1.1, 1.2, and 1.3 in Appendix A). No other property easements, options, or land use agreements are necessary to construct the Project or operate the transmission line.

B(9) The applicant shall describe the following information regarding the technical features of the Project:

(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

The Project will include the replacement of 29 existing H-frame wood pole structures with new steel pole structures (single circuit H-frame pole structures, guyed three-pole angle structures, guyed three-pole dead end structures, and self-supporting custom pole structures). The Project also will include the installation of new 1033.5 KCM 54/7 "Curlew" conductors, along with a 7#8 alumoweld shield wire and 0.646 diameter OPGW. The existing conductor type is 336.4 KCM ACSR 30/7 and the existing shield wire is 3#5 EHS copperweld. The design and operating voltage will be 138 kV. All of the proposed transmission line rebuild work will occur within existing AEP Ohio Transco ROW. No other property easements, options, or land use agreements are necessary to construct the Project or operate the transmission line.

(b) For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line. The discussion shall include:

(i) Calculated Electric and Magnetic Field Strength Levels

The Electric and Magnetic Field Level calculations pursuant to this section have not been finalized. Final numbers will be filed under separate cover in this docket.

(ii) A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

LETTER OF NOTIFICATION FOR WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT

February 3, 2017

Because transmission line rebuild work associated with the Project will occur within the existing AEP Ohio Transco ROW, no alternatives were considered.

(c) The estimated capital cost of the project.

The capital costs estimate for the proposed Project, comprised of applicable tangible and capital costs, is approximately \$12,500,000.

B(10) The applicant shall describe the social and ecological impacts of the project.

(a) Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

The Project is located within Pee Pee and Pebble Townships, Pike County, Ohio. According to the Pike County Planning Commission (phone correspondence, January 24, 2017) Pebble Township and Pee Pee Township are not zoned.

The Project vicinity is rural in nature, comprised primarily of agricultural pasture/row crop, early successional woodland, old field, and scattered rural residential land uses (see Figures 1.2 and 1.3 in Appendix A). Appendix C contains photographs and descriptions of specific ecological habitat types within AEP Ohio Transco's ROW. Old field (36.4 acres) and agricultural row crop (9.2 acres) are the primary habitats in AEP Ohio Transco's ROW, together comprising approximately 80 percent of the total 56.8-acre Project area. There are currently 37 occupied residences within 1,000 feet of the centerline of the Project. No churches, schools, parks, preserves, or wildlife management areas are located within 1,000 feet of the centerline of the Project (see Figure 1.3 in Appendix A). One cemetery (Dick Cemetery) is located adjacent to the southern edge of the existing ROW. More information regarding this cemetery is provided below and in Appendix B. No other cemeteries are located within 1,000 feet of the centerline of the Project.

(b) Provide the acreage and a general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.

Based on field surveys, there are approximately 10.7 acres of agricultural land in the Project area, comprised primarily of pasture and row crop (see Figure 1.3, Appendix A). According to the Pike County Auditor's Office (January 2017), there are no registered agricultural district parcels located in the Project area.

(c) Provide a description of the applicant's investigation concerning the presence or absence of significant archeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

LETTER OF NOTIFICATION FOR WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT

February 3, 2017

In January 2017, AEP Ohio Transco's consultant completed Phase I cultural resources investigations for the proposed Project (see Appendix B) in accordance with the guidelines set forth by the Ohio State Preservation Office and Ohio Administrative Code Chapter 4906-15-06(F).

The Project is located in rural, south-central Pike County in the vicinity of the small community of Buchanan. A literature review conducted for this Project did not identify any previous surveys, archaeological, architectural, or National Register listed/eligible resources in the Project vicinity. The only recorded resource is the Dick Cemetery (#9789). Per the literature review, the location of this small cemetery was approximately 500 feet to the north of the AEP Ohio Transco ROW. However, field surveys confirmed the location of the cemetery along the south edge of the AEP Ohio Transco ROW (see Appendix B, Figures 7 and 33). GPS data points were taken at each grave site in the cemetery and a 10-foot buffer was applied to the overall site for site mapping purposes (see Appendix B, Figure 7). As shown in Appendix B, Figure 7, the cemetery is located along the outside edge of AEP Ohio Transco's ROW. Therefore, proposed construction activities within AEP Ohio Transco ROW (adjacent structure replacement, transmission line rebuild, access roads) are not expected to impact this cemetery.

The Project will not impact or affect any archaeological sites and no further archaeological work is recommended by AEP Ohio Transco's consultant. The architectural field survey identified four individual resources 50 years of age or older within the survey area. Photographs and structural data for each property were collected in the field. None of the identified resources are considered to be historic properties. Therefore, AEP Ohio Transco's consultant recommends that no historic properties will be affected by the Project.

(d) Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

A Notice of Intent will be filed with the Ohio Environmental Protection Agency (OEPA) for authorization of construction storm water discharges under General Permit OHCD00004. AEP Ohio Transco will also coordinate storm water permitting needs with local government agencies, as necessary. AEP Ohio Transco will implement and maintain best management practices as outlined in the project-specific Storm Water Pollution Prevention Plan to minimize erosion and control sediment to protect surface water quality during storm events.

There is a 100-year floodplain mapped at one location within the Project area along Pee Pee Creek (see Appendix C). No transmission line structures or proposed access roads are located within this floodplain. Therefore, a floodplain permit will not be required for this project.

Project fills within streams or wetlands (features will be avoided or crossed using timber mats, as construction activities, including access roads, are not expected to require the placement of any permanent necessary), or require any mechanical tree clearing within forested or scrub-shrub wetlands (see Appendix C). Therefore, the Project is not expected to require a Clean Water Act

LETTER OF NOTIFICATION FOR WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT

February 3, 2017

Section 404 Permit from the U.S. Army Corps of Engineers (USACE). A discussion of threatened and endangered species is provided in Section B(10)(e). There are no other known local, state or federal requirements that must be met prior to commencement of the proposed Project.

(e) Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The United States Fish and Wildlife Service (USFWS) *Federally Listed Species by Ohio Counties October 2015* (available at www.fws.gov/midwest/ohio/pdf/OhioTEListByCountyOct2015.pdf) was reviewed to determine the threatened and endangered species known to occur in Pike County. This USFWS publication lists Indiana bat (*Myotis sodalis*; endangered), northern long-eared bat (*Myotis septentrionalis*; threatened), rayed bean (*Villosa fabalis*; endangered), clubshell (*Pleurobema clava*; endangered), and northern riffleshell (*Epioblasma torulosa rangiana*; endangered), as occurring, or potentially occurring, in Pike County. The bald eagle (*Haliaeetus leucocephalus*; species of concern) and timber rattlesnake (*Crotalus horridus horridus*; species of concern) are also on this list of species for Pike County. As part of the ecological study completed for the Waverly-Ware Road 138 kV Transmission Line Project, a coordination letter was submitted to the USFWS Ohio Ecological Services Field Office seeking an environmental review for potential impacts to threatened or endangered species. This request was submitted for the entire 32.8-mile Waverly-Adams-Seaman 138 kV line rebuild project. The December 19, 2016 response letter from USFWS (see Appendix C) indicates that the Project is within the range of the Indiana bat and northern long-eared bat in Ohio and recommends saving trees ≥ 3 inches diameter at breast height whenever possible. The USFWS response letter also discussed the federally endangered running buffalo clover (*Trifolium stoloniferum*) since it is known to occur in neighboring Adams County, though this species is not currently listed in Pike County by USFWS. The USFWS response letter indicates that, due to the project type, size, and location, if caves and mines (potential bat hibernacula) will not be disturbed and seasonal tree cutting (clearing of trees ≥ 3 inches diameter at breast height between October 1 and March 31) to avoid impacts to Indiana bats and northern long-eared bats is implemented, they do not anticipate adverse effects to any federally endangered, threatened, proposed, or candidate species.

As summarized in Appendix C, ecological field surveys conducted by AEP Ohio Transco's consultant did identify several potentially suitable Indiana bat/northern long-eared bat roost trees within the Project area, though no potential winter hibernacula were encountered. No suitable habitat for federally-listed mussels was identified in the Project area and no in-water work is proposed by AEP Ohio Transco. Some marginal timber rattlesnake habitat was observed within the Project area. However, no optimum habitat was identified and no adverse effects to timber rattlesnake are anticipated. No bald eagle nests were observed within the Project area or within the vicinity of the Project area.

LETTER OF NOTIFICATION FOR WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT

February 3, 2017

As part of the ecological study completed for this Project, coordination letters were also submitted to the Ohio Department of Natural Resources (ODNR) Division of Wildlife (DOW) Natural Heritage Program (NHP) and ODNR-Office of Real Estate. These requests were also submitted for the entire 32.8-mile Waverly-Adams-Seaman rebuild project. Correspondence received from ODNR-NHP (Appendix C) indicated that there are no known occurrences of any state-listed species, scenic rivers, unique ecological communities, significant geological features, or federal/state parks, preserves, or other managed areas within one mile of the Waverly-Ware Road Project area (all of the mapped locations in Appendix C, as provided by ODNR-NHP, are not within a one-mile radius of the Project area).

A response from the ODNR-Office of Real Estate has not yet been received. However, numerous state threatened and endangered species are currently listed by the ODNR-DOW as occurring, or potentially occurring in Pike County (<http://wildlife.ohiodnr.gov/species-and-habitats/state-listed-species/state-listed-species-by-county>). As summarized in Appendix C, potentially suitable habitat for several state-listed species was observed in the Project area. However, no adverse impacts to these species are anticipated.

(f) Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

Correspondence received from USFWS (see Appendix C) indicates that there are no federal wilderness areas, wildlife refuges, or designated critical habitat in the vicinity of the Project. Correspondence from ODNR-NHP (Appendix C) indicates that they are unaware of any scenic rivers, unique ecological communities, significant geological features, or federal/state parks, preserves, or other managed areas within one mile of the Waverly-Ware Road 138 kV Transmission Line Project area (all of the mapped locations in Appendix C, as provided by ODNR-NHP, are not within a one-mile radius of the Project area).

There is a 100-year floodplain mapped at one location within the Project area along Pee Pee Creek (see Appendix C). No transmission line structures or proposed access roads are located within this floodplain. Therefore, a floodplain permit will not be required for this project.

From December 7 through December 13, 2016, and on January 20, 2017, wetland and stream delineation surveys were completed by AEP Ohio Transco's consultant within the Waverly-Adams-Seaman 138 kV transmission line ROW corridor and proposed access roads (which included the Waverly-Ware Road 138 kV Transmission Line Project area). Five (5) emergent wetlands and 15 streams were identified (see Figure 2 in Appendix C). Project construction activities are not

**LETTER OF NOTIFICATION FOR
WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT**

February 3, 2017

expected to require the placement of permanent fills in any streams or wetlands (these features will either be avoided or crossed with temporary timber mats). Therefore, the Project is not expected to require a Clean Water Act Section 404 Permit from the USACE.

(g) Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of AEP Ohio Transco's knowledge, there are no known unusual conditions that would result in significant environmental, social, health, or safety impacts.

**LETTER OF NOTIFICATION FOR
WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT**

Appendix A Project Maps
February 3, 2017

Appendix A Project Maps

Figure No.

1.1

Title

Project Location Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

Prepared by: HBS on 2017-05-18

Technical Review by: JDO on 2017-05-24

Indep. Approval: JDO on 2017-05-24

13870-0862

Prepared by: HBS on 2017-05-18

Technical Review by: JDO on 2017-05-24

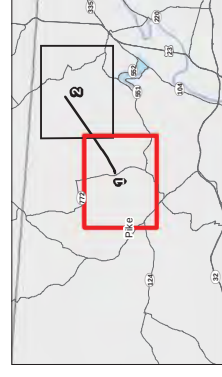
Indep. Approval: JDO on 2017-05-24



124,000 (At original document size of 11x17)

Legend

- Structure to be Replaced
- AEP Substation
- 138KV Transmission Line Rebuild
- - - Proposed Access Road



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, NADS
3. Background: USGS 1:50,000 Topographic Quadrangles - Pekton (OH, 2547), Summit (OH, 2547)

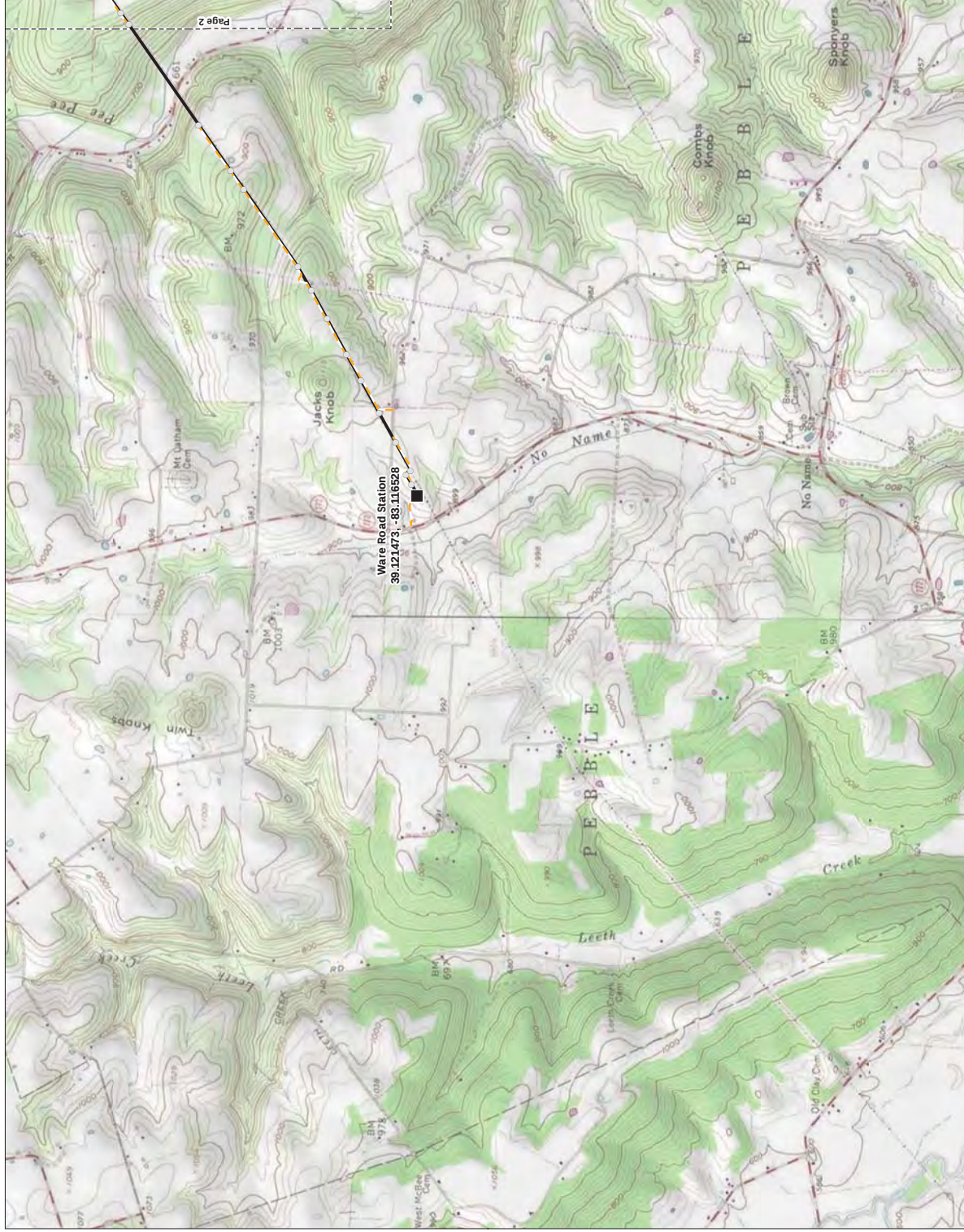
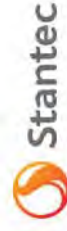


Figure No.

1.1

Title

Project Location Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

Prepared by: HBS on 2017-05-18

Technical Review by: JDO on 2017-05-24

138705662

124,000 (At original document size of 11x17)

0 1,000 2,000 Feet

124,000 (At original document size of 11x17)

Legend

Structure to be Replaced

AEP Substation

138KV Transmission Line Rebuild

Proposed Access Road

Notes

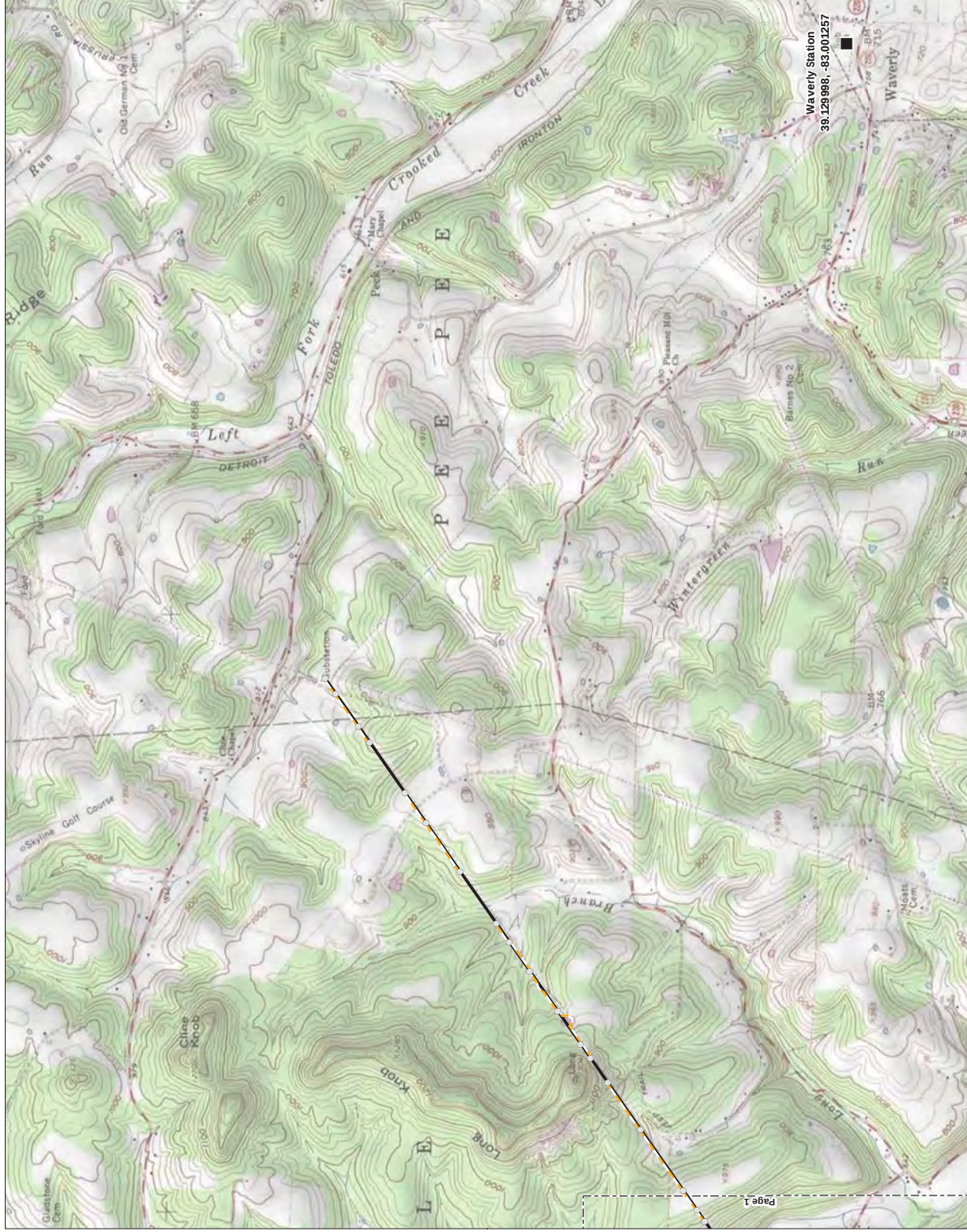
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet

2. Data Sources include: Stantec, AEP, NADS

3. Background: USGS 1:50,000 Topographic Quadrangles - Pkton (OH, 1874), Summit (OH, 1874)

Stantec

Page 2 of 2



Disclaimer: Stantec assumes no responsibility for data applied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.

1.2

Title

Project Layout Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

Prepared by: HBS on 2017-09-18

Technical Review by: JDO on 2017-09-24

Indep. Peer Review by: JDO on 2017-09-24

138705862

12,400 (At original document size of 11x17)

0 100 200 Feet

N

Legend

Structure to be Replaced

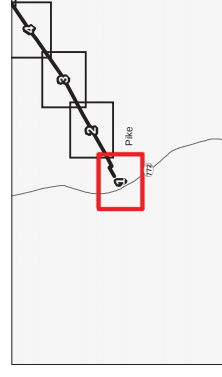
AEP Substation

Proposed Access Road

138KV Transmission Line Rebuild

Existing Transmission Line

Existing 100-foot Right-Of-Way



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, NADS, OGRIP
3. Orthophotography: 2015 NAD imagery

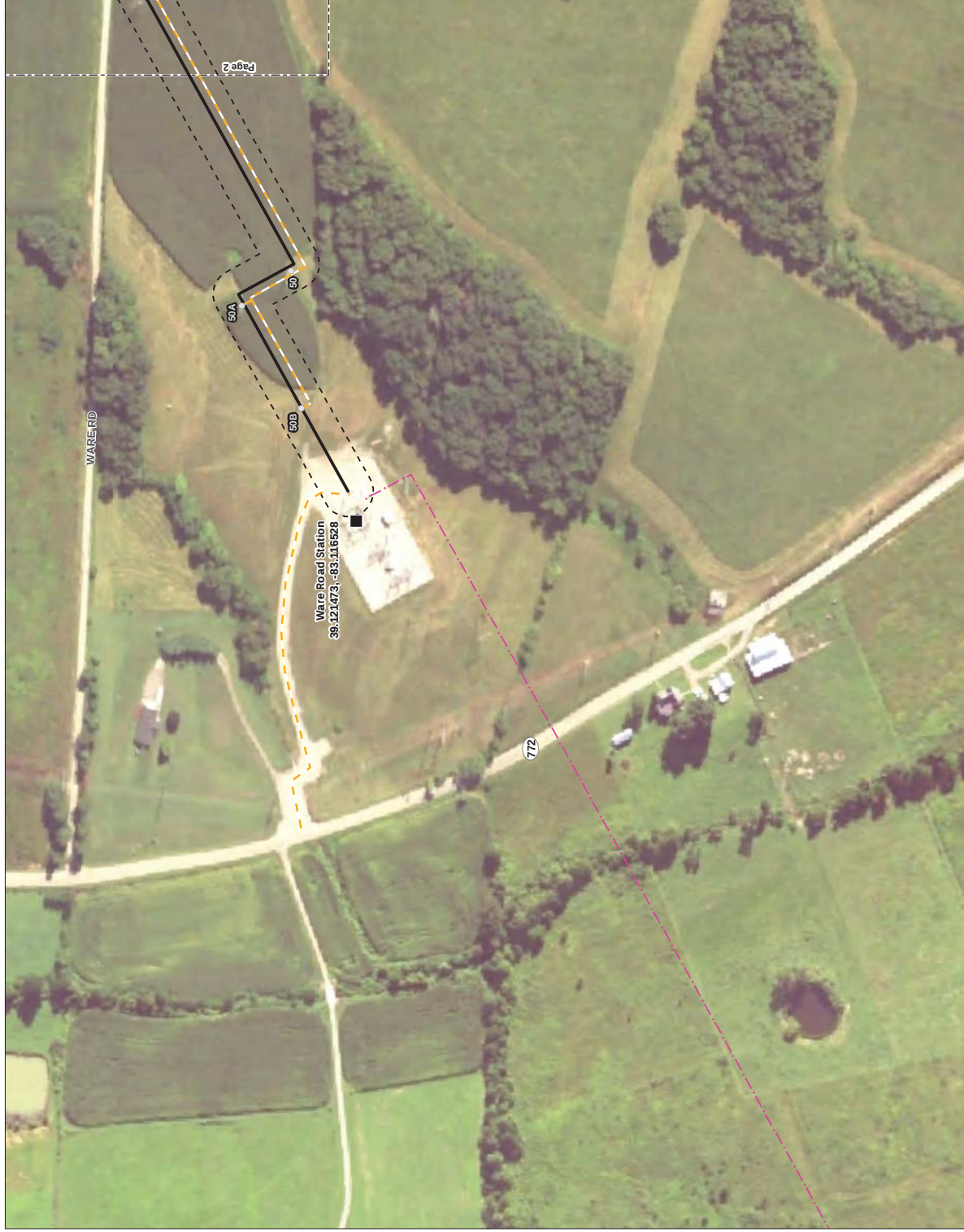


Figure No.

1.2

Title

Project Layout Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

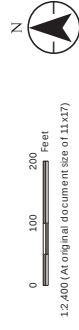
Paul County, Ohio

138705862

Prepared by HBS on 2017-09-18

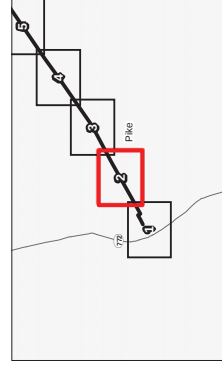
Technical Review by JDO on 2017-09-24

Independent Review by JDO on 2017-09-26



Legend

- Structure to be Replaced
- AEP Substation
- Proposed Access Road
- 138KV Transmission Line Rebuild
- Existing Transmission Line
- Existing 100-foot Right-Of-Way



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, NADS, OGRIP
3. Orthophotography: 2015 NAD imagery



Figure No.

1.2

Title

Project Layout Map

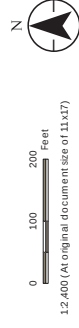
Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

Project Location

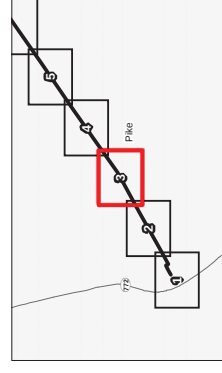
Paul County, Ohio

138705862
Prepared by HBS on 2017-01-18
Technical Review by JO on 2017-01-24
Independent Review by JLS on 2017-01-24



Legend

- Structure to be Replaced
- AEP Substation
- Proposed Access Road
- 138kV Transmission Line Rebuild
- Existing Transmission Line
- Existing 100-foot Right-Of-Way



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP
3. Orthophotography: 2015 NAD imagery

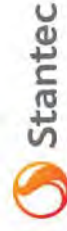


Figure No.

1.2

Title

Project Layout Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

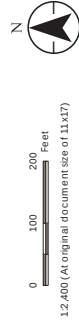
Project Location

Paul County, Ohio

13870-0862

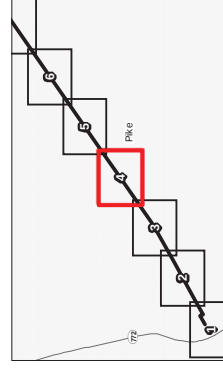
Technical Review by JG on 2017-02-18

Indep. Peer Review by JG on 2017-02-18



Legend

- Structure to be Replaced
- AEP Substation
- Proposed Access Road
- 138kV Transmission Line Rebuild
- Existing Transmission Line
- Existing 100-foot Right-Of-Way



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP
3. Orthophotography, 2015 NAD imagery

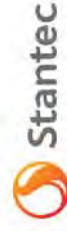


Figure No.

1.2

Title

Project Layout Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

Project Location

Prepared by H&B on 2017-02-18

Technical Review by JO on 2017-02-24

Indep. Peer Review by JTB on 2017-02-28

13870-0862

12,400 (At original document size of 11x17)

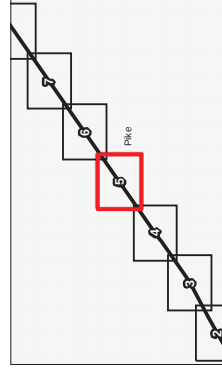
0 100 200 Feet

12,400 (At original document size of 11x17)

N

Legend

- Structure to be Replaced
- AEP Substation
- Proposed Access Road
- 138kV Transmission Line Rebuild
- Existing Transmission Line
- Existing 100-foot Right-Of-Way



Notes

- Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
- Data Sources include: Stantec, AEP, NADS, OGRIP
- Orthophotography, 2015 NAD imagery



Figure No.

1.2

Title

Project Layout Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

Project Location

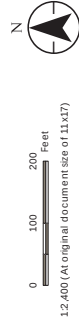
Paul County, Ohio

13070-0860

Prepared by HBS on 2017-01-18

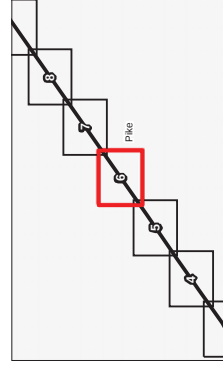
Technical Review by JO on 2017-01-24

Independent Review by JLS on 2017-01-24



Legend

- Structure to be Replaced
- AEP Substation
- Proposed Access Road
- 138kV Transmission Line Rebuild
- Existing Transmission Line
- Existing 100-foot Right-Of-Way



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP
3. Orthophotography, 2015 NAD imagery



Figure No.

1.2

Title

Project Layout Map

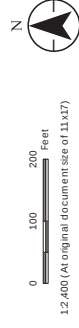
Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

Project Location

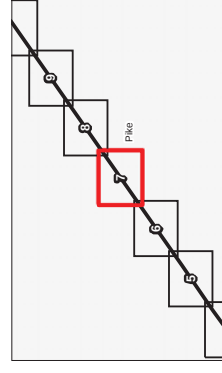
Paul County, Ohio

130705860
Prepared by HBS on 2017-05-18
Technical Review by JO on 2017-05-24
Independent Review by JLS on 2017-05-24



Legend

- Structure to be Replaced
- AEP Substation
- Proposed Access Road
- 138kV Transmission Line Rebuild
- Existing Transmission Line
- - - Existing 100-foot Right-Of-Way



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP
3. Orthophotography: 2015 NAD imagery



Page 7 of 10



Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.

1.2

Title

Project Layout Map

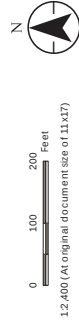
Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

Project Location

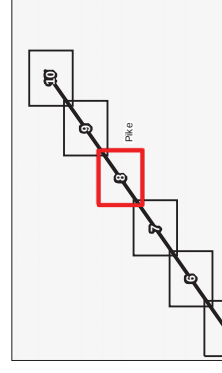
Paul County, Ohio

138705860
Prepared by HBS on 2017-09-18
Technical Review by JO on 2017-09-28
Independent Review by JLS on 2017-09-29



Legend

- Structure to be Replaced
- AEP Substation
- Proposed Access Road
- 138kV Transmission Line Rebuild
- Existing Transmission Line
- - - Existing 100-foot Right-Of-Way



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP
3. Orthophotography, 2015 NAD imagery



Page 8 of 10



Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.

1.2

Title

Project Layout Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

Project Location

Prepared by HBS on 2017-02-18

Technical Review by JO on 2017-02-24

Indep. Peer Review by JLS on 2017-02-28

13870-0862

Prepared by HBS on 2017-02-18

Technical Review by JO on 2017-02-24

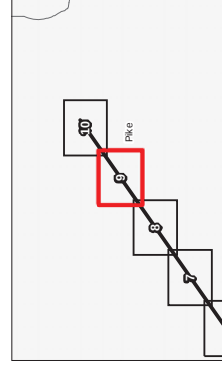
Indep. Peer Review by JLS on 2017-02-28



12,400 (At original document size of 11x17)

Legend

- Structure to be Replaced
- AEP Substation
- Proposed Access Road
- 138kV Transmission Line Rebuild
- Existing Transmission Line
- Existing 100-foot Right-Of-Way



Notes

- Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
- Data Sources include: Stantec, AEP, NADS, OGRIP
- Aerial photography, 2015 NAD imagery



Page 9 of 10



Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.

1.2

Title

Project Layout Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

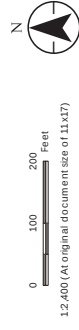
Paul County, Ohio

13870-0662

Prepared by HBS on 2017-02-18

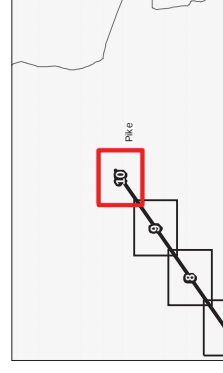
Technical Review by JDO on 2017-02-24

Indep. Peer Review by JDO on 2017-02-24



Legend

- Structure to be Replaced
- AEP Substation
- Proposed Access Road
- 138KV Transmission Line Rebuild
- Existing Transmission Line
- - - Existing 100-foot Right-Of-Way



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP
3. Orthophotography: 2015 NAD imagery



Figure No.

1.3

Title

Land Use Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

Project Location

Paul County, Ohio

13270-0662

Prepared by: HBS on 2017-09-18

Technical Review by: JDO on 2017-09-18

Independent Review by: JDO on 2017-09-18

12,400 (At original document size of 11x17)

0 100 200 Feet

N

Legend

Structure to be Replaced

AEP Substation

Proposed Access Road

138kV Transmission Line

Rebuild

Existing Transmission Line

Existing 100-foot Right-Of-Way

Residence

School*

Cemetery**

Church**

National Land Cover Database

Open Water

Developed, Open Space

Developed, Low Intensity

Deciduous Forest

Evergreen Forest

Shrub/Scrub

Grassland/Herbaceous

Pasture/Hay

Cultivated Crops

Ware Road Station

38.121473, -83.116528

Ware Rd

772

50A

50B

50

Page 2

Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet

2. Data Sources include: Stantec, AEP, NADs, OGRIP, NISD

3. Orthophotography 2015 NAD imagery

*No feature within map extents

** See Appendix B for Dick Cemetery location

Ware Rd

772

50A

50B

50

Page 2

Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet

2. Data Sources include: Stantec, AEP, NADs, OGRIP, NISD

3. Orthophotography 2015 NAD imagery

*No feature within map extents

** See Appendix B for Dick Cemetery location

Ware Rd

772

50A

50B

50

Page 2

Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet

2. Data Sources include: Stantec, AEP, NADs, OGRIP, NISD

3. Orthophotography 2015 NAD imagery

*No feature within map extents

** See Appendix B for Dick Cemetery location

Ware Rd

772

50A

50B

50

Page 2

Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet

2. Data Sources include: Stantec, AEP, NADs, OGRIP, NISD

3. Orthophotography 2015 NAD imagery

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.

1.3

Title

Land Use Map

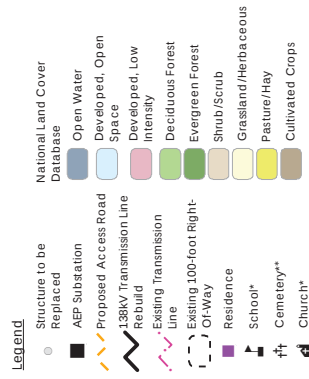
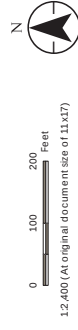
Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

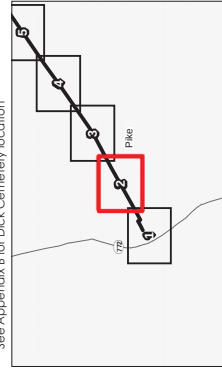
Project Location

Paul County, Ohio

13870-0662
Prepared by: HBS on 2017-09-18
Technical Review by: JDO on 2017-09-18
Information Review by: JDO on 2017-09-18



*No feature within map extents
** See Appendix B for Dick Cemetery location



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, NADs, OGRIP, NCD
3. Orthophotography 2015 NAD imagery



Figure No.

1.3

Title

Land Use Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

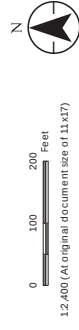
Dear County, Ohio

13070-0862

Prepared by: HBS on 2017-09-18

Technical Review by: JDO on 2017-09-24

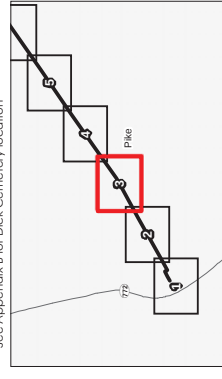
Indep. Peer Review by: JDO on 2017-09-29



Legend

- | | |
|-----------------------------------|--------------------------------|
| ● Structure to be Replaced | ● National Land Cover Database |
| ■ AEP Substation | ■ Open Water |
| — Proposed Access Road | ■ Developed, Open Space |
| — 138KV Transmission Line Rebuild | ■ Developed, Low Intensity |
| — Existing Transmission Line | ■ Deciduous Forest |
| — Existing 100-foot Right-Of-Way | ■ Evergreen Forest |
| ■ Residence | ■ Shrub/Scrub |
| ■ School* | ■ Grassland/Herbaceous |
| ■ Cemetery** | ■ Pasture/Hay |
| ■ Church* | ■ Cultivated Crops |

*No feature within map extents
** See Appendix B for Dick Cemetery location



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP, NICD
3. Orthophotography 2015 NAD imagery

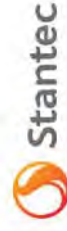


Figure No.

1.3

Title

Land Use Map

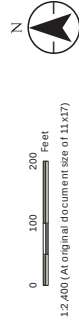
Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

Project Location

Paul County, Ohio

13870-0662
Revised by HBS on 2017-09-18
Technical Review by JDO on 2017-09-18
Initial Design Review by JDO on 2017-09-18

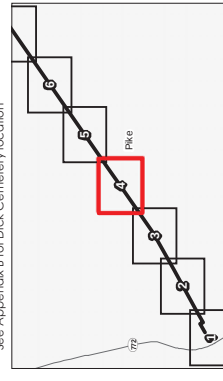


Legend

Structure to be Replaced	National Land Cover Database
AEP Substation	Open Water
Proposed Access Road	Developed, Open Space
138kV Transmission Line Rebuild	Developed, Low Intensity
Existing Transmission Line	Deciduous Forest
Existing 100-foot Right-Of-Way	Evergreen Forest
Residence	Shrub/Scrub
School*	Grassland/Herbaceous
Cemetery**	Pasture/Hay
Church*	Cultivated Crops

*No feature within map extents

** See Appendix B for Dick Cemetery location



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP, NICD
3. Orthophotography, 2015 NAD imagery



Figure No.

1.3

Title

Land Use Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

Paul County, Ohio

130704862

Prepared by HES on 2017-09-18

Technical Review by JDO on 2017-09-18

Independent Review by JDO on 2017-09-18



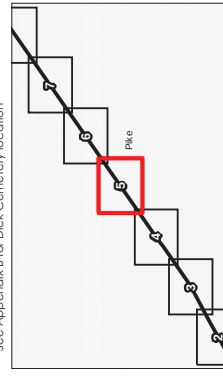
12,400 (At original document size of 11x17)

Legend

- | | |
|---------------------------------|------------------------------|
| Structure to be Replaced | National Land Cover Database |
| AEP Substation | Open Water |
| Proposed Access Road | Developed, Open Space |
| 138KV Transmission Line Rebuild | Developed, Low Intensity |
| Existing Transmission Line | Deciduous Forest |
| Existing 100-foot Right-Of-Way | Evergreen Forest |
| Residence | Shrub/Scrub |
| School* | Grassland/Herbaceous |
| Cemetery** | Pasture/Hay |
| Church* | Cultivated Crops |

*No feature within map extents

** See Appendix B for Dick Cemetery location



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, NADs, OGRIP, NLCD
3. Orthophotography 2015 NAD imagery



Page 5 of 10



Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.

1.3

Title

Land Use Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

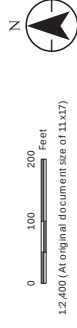
Paul County, Ohio

130705862

Prepared by HES on 2017-02-18

Technical Review by JDO on 2017-02-24

Independent Review by JDO on 2017-02-24



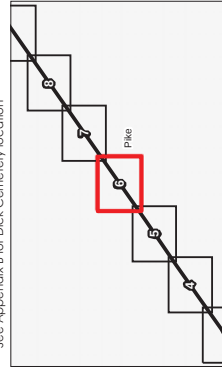
12,400 (At original document size of 11x17)

Legend

Structure to be Replaced	National Land Cover Database
AEP Substation	Open Water
Proposed Access Road	Developed, Open Space
138KV Transmission Line Rebuild	Developed, Low Intensity
Existing Transmission Line	Deciduous Forest
Existing 100-foot Right-Of-Way	Evergreen Forest
Residence	Shrub/Scrub
School*	Grassland/Herbaceous
Cemetery**	Pasture/Hay
Church*	Cultivated Crops

*No feature within map extents

** See Appendix B for Dick Cemetery location



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP, NLCD
3. Orthophotography 2015 NAD imagery

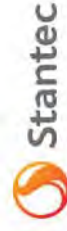


Figure No.

1.3

Title

Land Use Map

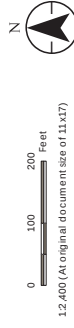
Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

Dear County, Ohio

13070-0862
Prepared by HBS on 2017-08-18
Technical Review by JDO on 2017-08-18
Indep. Professional Review by JDO on 2017-08-18

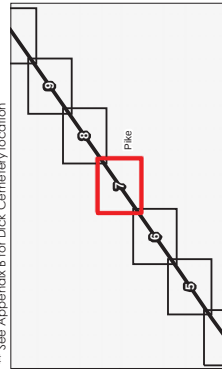


Legend

- | | |
|---------------------------------|------------------------------|
| Structure to be Replaced | National Land Cover Database |
| AEP Substation | Open Water |
| Proposed Access Road | Developed, Open Space |
| 138KV Transmission Line Rebuild | Developed, Low Intensity |
| Existing Transmission Line | Deciduous Forest |
| Existing 100-foot Right-Of-Way | Evergreen Forest |
| Residence | Shrub/Scrub |
| School* | Grassland/Herbaceous |
| Cemetery** | Pasture/Hay |
| Church* | Cultivated Crops |

*No feature within map extents

** See Appendix D for Dick Cemetery location



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP, NICD
3. Orthophotography: 2015 NAD imagery



Figure No.

1.3

Title

Land Use Map

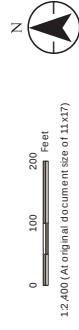
Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

Paul County, Ohio

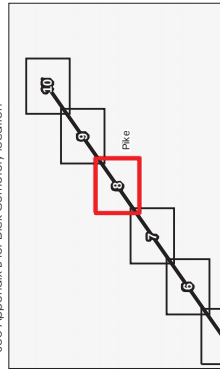
130704862
Prepared by HBS on 2017-09-18
Technical Review by JDO on 2017-09-18
Information Review by JDO on 2017-09-18



Legend

- | | |
|---------------------------------|------------------------------|
| Structure to be Replaced | National Land Cover Database |
| AEP Substation | Open Water |
| Proposed Access Road | Developed, Open Space |
| 138KV Transmission Line Rebuild | Developed, Low Intensity |
| Existing Transmission Line | Deciduous Forest |
| Existing 100-foot Right-Of-Way | Evergreen Forest |
| Residence | Shrub/Scrub |
| School* | Grassland/Herbaceous |
| Cemetery** | Pasture/Hay |
| Church* | Cultivated Crops |

*No feature within map extents
** See Appendix B for Dick Cemetery location



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, MADS, OGRIP, NCD
3. Orthophotography, 2015 NAD imagery



Figure No.

1.3

Title

Land Use Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138kV Transmission Line Project

Project Location

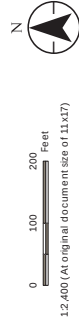
Paul County, Ohio

13070-0662

Prepared by HES on 2017-09-18

Technical Review by JDO on 2017-09-28

Information Review by JDO on 2017-09-28

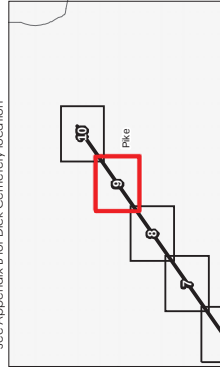


Legend

- | | |
|---------------------------------|------------------------------|
| Structure to be Replaced | National Land Cover Database |
| AEP Substation | Open Water |
| Proposed Access Road | Developed, Open Space |
| 138kV Transmission Line Rebuild | Developed, Low Intensity |
| Existing Transmission Line | Deciduous Forest |
| Existing 100-foot Right-Of-Way | Evergreen Forest |
| Residence | Shrub/Scrub |
| School* | Grassland/Herbaceous |
| Cemetery** | Pasture/Hay |
| Church* | Cultivated Crops |

*No feature within map extents

**See Appendix D for Dick Cemetery location



Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources include: Stantec, AEP, NADs, OGRIP, NCD
3. Orthophotography, 2015 NAD imagery



Figure No.

1.3

Title

Land Use Map

Client/Project

AEP Ohio Transmission Company, Inc.
Waverly-Ware Road
138KV Transmission Line Project

Project Location

Paul County, Ohio

13070-0602

Prepared by HBS on 2017-06-18

Technical Review by JDO on 2017-06-18

Information Review by JDO on 2017-06-18

12,400

(At original document size of 11x17)

0 100 200 Feet

N

Legend

Structure to be Replaced

AEP Substation

Proposed Access Road

138KV Transmission Line

Rebuild

Existing Transmission Line

Existing 100-foot Right-Of-Way

Residence

School*

Cemetery**

Church*

National Land Cover Database

Open Water

Developed, Open Space

Developed, Low Intensity

Deciduous Forest

Evergreen Forest

Shrub/Scrub

Grassland/Herbaceous

Pasture/Hay

Cultivated Crops

*No feature within map extents

**See Appendix D for Dick Cemetery location

Notes

1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet

2. Data Sources include: Stantec, AEP, MAPS, OGRIP, NCD

3. Orthophotography 2015 NAD imagery

Page 10 of 10

Stantec

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

13070-0602

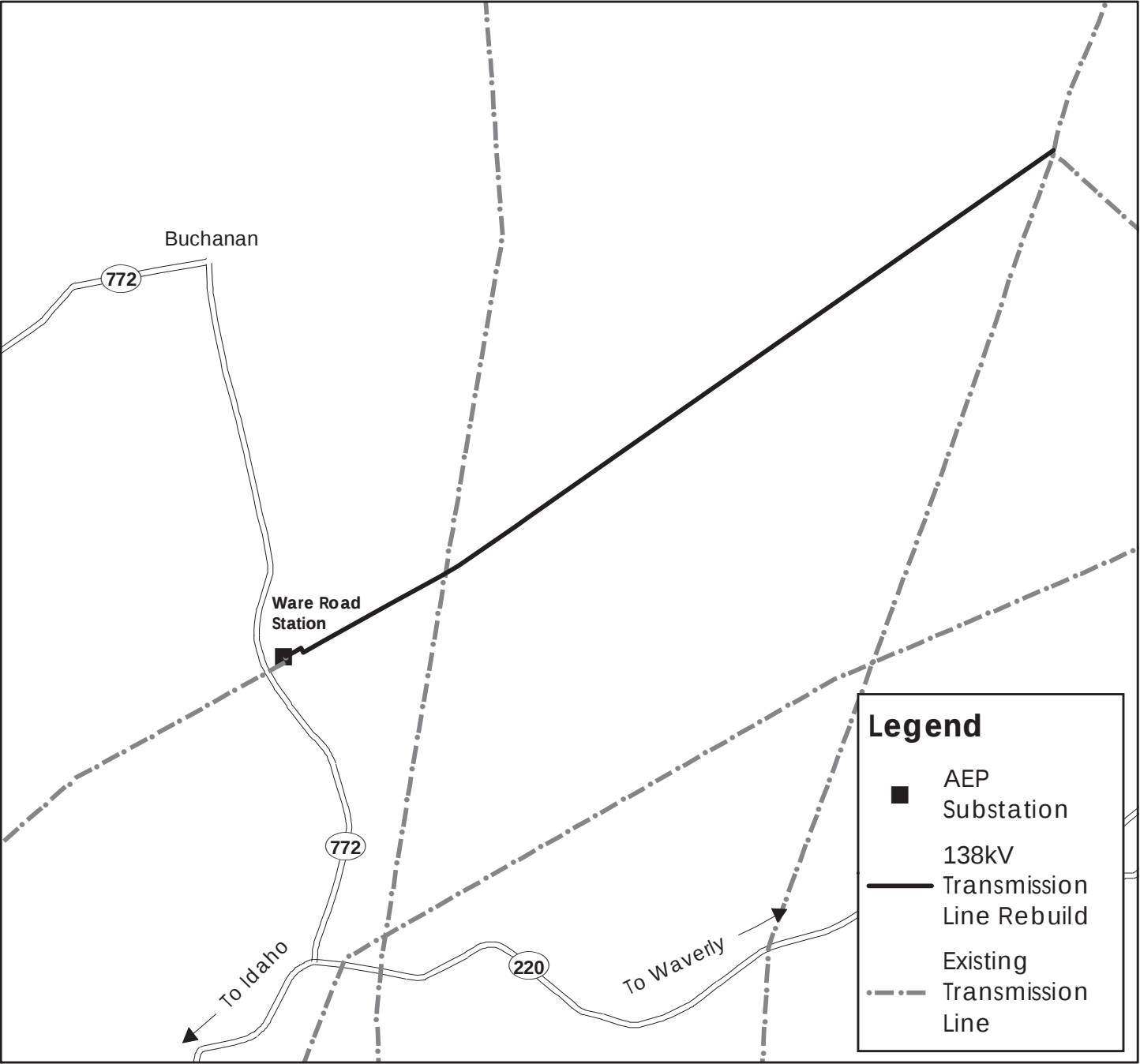
13070-0602

13070-0602

13070-0602

13070-0602

Figure 1.4 - Concept Map



**LETTER OF NOTIFICATION FOR
WAVERLY-WARE ROAD 138 KV TRANSMISSION LINE PROJECT**

Appendix B Cultural Resources Survey Report
February 3, 2017

Appendix B Cultural Resources Survey Report



**Phase I Cultural Resource Management Investigations for the
7.5 km (4.7 mi) Waverly-Ware Road 138kV Transmission Line
Project in Pebble and Pee Pee Townships, Pike County, Ohio**

**Ryan J. Weller
Jacquelyn Lehmann**

January 25, 2017

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

**Phase I Cultural Resource Management Investigations for the
7.5 km (4.7 mi) Waverly-Ware Road 138kV Transmission Line
Project in Pebble and Pee Pee Townships, Pike County, Ohio**

By

**Ryan J. Weller
Jacquelyn Lehmann**

Submitted By:

**Ryan J. Weller, P.I
Weller & Associates, Inc.
1395 West Fifth Ave.
Columbus, OH 43212
Phone: 614.485. 9435 Fax: 614.485. 9439**

Prepared For:

**American Electric Power
700 Morrison Road
Gahanna, OH 43230**

Lead Agency:

Ohio Power Siting Board (OPSB)



Ryan Weller, P.I.

January 25, 2017

Copyright © 2017 by Weller & Associates, Inc. All rights reserved.

W-2066

Abstract

In January of 2017, Weller & Associates, Inc. completed Phase I Cultural Resource Management Investigations for the 7.5 km (4.7 mi) Waverly-Ware Road 138kV Transmission Line Project in Pebble and Pee Pee Townships, Pike County, Ohio. These investigations were conducted under contract with AEP Ohio Transco and they were prepared for submission to the Ohio Power Siting Board. The survey was conducted in a manner that is suitable for submission to the Ohio Power Siting Board in consultation with the Ohio History Connection. The work involved a literature review and field investigations as appropriate and standard for Ohio. There were no archaeological sites identified during this survey. There were no significant history/architecture sources identified.

The Waverly-Ware Road 138kV line corridor is in the rural countryside that is in the north central part of Pike County and in the vicinity of the community of Buchanan. This is rugged upland countryside that is remote/lowly populated. However, the vast majority of the project is contained in rural south-central Pike County. This electric line corridor is 7.5 km (4.7 mi) long and the survey was conducted for the planned access corridors as well as the entirety of the existing 30.5 m (100 ft) wide existing easement. Access to the structures is largely contained within the existing easement.

A literature review conducted for this project did not identify any previous surveys, archaeological, architectural, or National Register listed/eligible resources within the study area. The only recorded resource in the study area is the Dick Cemetery; which is located to the north of the project and will not be involved.

The work involved archaeological and architectural investigations. There were no archaeological sites identified. No historic properties were identified within the survey APE. There is an unnamed cemetery within the electric line corridor that will require avoidance. The project will have no affect to any historic properties or landmarks. An appropriate finding similar to 'no historic properties affected' regarding the cultural resources for this project is considered and no further work is deemed necessary.

Table of Contents

Abstract.....	i
List of Tables and Figures.....	iv
Introduction.....	1
Environmental Setting.....	1
Cultural Setting.....	4
Research Design.....	11
Literature Review.....	14
Archaeological Fieldwork Results.....	15
Architectural Fieldwork Results.....	15
APE Definition and NRHP Determination.....	17
Recommendations.....	18
References Cited.....	19
Figures.....	24

List of Tables and Figures

List of Tables

1. Soils in the Project.
2. Summary Data on Survey Results.

List of Figures

1. Political map of Ohio showing the approximate location of the project.
2. Portions of the USGS 1976 *Summithill*, 1976 *Latham*, 1976 *Piketon*, and 1963 *Morgantown, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.
3. Aerial map indicating the location of project and previously recorded resources in the study area.
4. Portion of the USGS 1915 *Piketon, Ohio 7.5 Minute Series (Topographic)* map indicating the location of the project.
5. Fieldwork results and photo orientation map.
6. Fieldwork results and photo orientation map.
7. Fieldwork results and photo orientation map.
8. Fieldwork results and photo orientation map.
9. Fieldwork results and photo orientation map.
10. Fieldwork results and photo orientation map.
11. Fieldwork results and photo orientation map.
12. View of the sloped area surrounding structure 50B, with the existing station in the background.
13. View of the graveled road leading to the existing station in the western portion of the project.
14. View of the shovel tested areas around structure 49.
15. View of the surface collected area around structure 48.
16. View of flagged wetland near structure 44.
17. View of the sloped area near structure 42.
18. View of the cemetery, adjacent to the project area, in the vicinity of structure 42.
19. View of the sloped area leading to structure 37.
20. View of the wooded area surrounding the existing access road leading to structure 36.
21. View of the disturbed area within the proposed access corridor near structure 32.
22. View of the shovel tested areas around structure 30.
23. View of the sloped area leading towards structure 28.
24. View of the sloped area near structure 27.
25. View of the surface collected area around structure 46.
26. View of the shovel probed area near structure 23.

27. View of the surface visibility in the soybean stubble portion of the project around structure 24.
28. A typical shovel test unit excavated within the project.
29. View of S-1 property.
30. View of S-2 property.
31. View of S-3 property.
32. View of S-4 property.
33. Portions of the USGS *1976 Summithill, 1976 Latham, 1976 Piketon, and 1963 Morgantown, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and the location of OGS cemetery 9789.

Introduction

In January of 2017, Weller & Associates, Inc. (Weller) completed Phase I Cultural Resource Management Investigations for the 7.5 km (4.7 mi) Waverly-Ware Road 138kV Transmission Line Project in Pebble and Pee Pee Townships, Pike County, Ohio (Figures 1-3). The work was completed under contract with American Electric Power (AEP) for submittal to the Ohio Power Siting Board pursuant to their guidelines. The survey is to identify any sites or properties and to evaluate them in a manner that is reflective of the National Register of Historic Places (NRHP), Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 [36 CFR 800]). This report summarizes the results of the archaeological and history/architecture fieldwork and literature review. The report format and design are similar to that established in *Archaeology Guidelines* (Ohio Historic Preservation Office [OHPO] 1994).

John Walker conducted the literature review on December 7, 2016. Ryan Weller served as the Principal Investigator and Josh Engle as the Project Manager. The field crew included Craig Schaefer, Abraham Ledezma, Craig Picka, and Daniel Salas. The report preparation was by Ryan Weller, Chad Porter, and Alex Thomas. The architectural component of this report was prepared by Jacquelyn Lehmann and Timothy Miller.

Project Description

The project area is the eastern part of the Waverly-Adams-Seaman 138 kV transmission line, which is about 67.6 km (42 mi) long and extends from the Seaman Station in Adams County to the Waverly Station just north of Waverly in Pike County, Ohio. This report and project is considerate of the eastern 7.5 km (4.7 mi) segment that extends westward from the Waverly Station to Ware Road. The survey was conducted for the entire 30.5 m (100 ft) wide electric line corridor as well as its access roads (most of which are within the existing easement. This document is being prepared to address the archaeological and architectural aspect of the project.

Environmental Setting

Climate

Pike County, not unlike all of Ohio, have a continental climate with hot and humid summers and cold winters. About 109 cm (43 in) of precipitation falls annually. The wettest time of year is during growing season from about March to August (United States Department of Agriculture, Soil Conservation Service [USDA, SCS] 1990).

Physiography, Relief, and Drainage

The project area traverses three physiographic provinces. The eastern part of the project is located in the Shawnee-Mississippian Plateau. This region is characterized by “highly dissected plateau of coarse and fine grained rock sequences; most rugged area in Ohio; remnants of ancient lacustrine clay-filled Teays drainage system are extensive in lowlands, absent in uplands”. The western part is within the Outer Bluegrass region of

Ohio (Brockman 1998). According to Brockman (1998), this region is characterized by “moderately high relief dissected plateau of carbonate rocks, with elevations ranging from 455-1,120 ft”. The project area is within the Scioto River watershed and is drained by: Left Fork Crooked Creek, Long Branch, Pee Pee Creek, and No Name Creek.

Geology

The project crosses through two different and general underlying bedrock formations. The project area extends into broken areas of Devonian and Mississippian-aged materials. Sinkholes and what appears to be semi-karst topographic features become more apparent as the project corridor extends towards Adams County (Brockman 1998).

Soils

The project area is located in north central part of Pike County. The soil associations include the Coolville-Rarden-Tilsit and the Shelocta-Brownsville types. There are 13 individual soil series types involved in this project (USDA, SCS 1990 (2017)). The soils are indicative of a widely varying setting with steeply sloping terrain accounting for a sizeable part of the overall project. The soils become increasingly loamier going from east to west as the project begins to enter the Illinoisan glaciated area. The soils are consistent with that of stream valleys, uplands, till plains, and brief upland floodplains. None of the soils identified in the project are prone to having deep, buried alluvial deposits.

Table 1. Soils in the Project.			
	Soil Type	Slope	Landform
Cf	Cliffy silt loam	-0-	Modern floodplains
CoB	Coolville silt loam	1-8	Terraces
CpC	Coolville-Blairton association	rolling	Side slopes
GpC	Gilpin silt loam	8-15	Side slopes
GpD	Gilpin silt loam	15-25	Side slopes
LhW1D1	Latham-Wharton silt loams	15-25	Steep slopes
Omu1B1	Omurga silt loam	2-6	Ancient terraces
RdC	Rarden silt loam	8-15	Side slopes
RdD	Rarden silt loam	15-25	Side slopes
SnF	Shelocta-Brownsville	Steep	Steep slopes
SpF	Shelocta-Latham association	Steep	Steep slopes
SrA	Skidmore Variant gravelly loam	0-3	Floodplains
TkA	Tilsit silt loam	0-3	Ridge tops

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, Illinoisan, and Wisconsinan, have affected the landscape of Ohio. The effects of the Wisconsin glaciation are most pronounced and have affected more than half of the state (Pavey et al. 1999).

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

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

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

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

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

The project area is located in north central Pike County. This is an area where the uplands are considered as predominately mixed mesophytic forestation (Gordon 1966).

Fauna

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

Cultural Setting

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

The Paleoindian period is characterized by tool kits and gear utilized in hunting Late Pleistocene megafauna and other herding animals including but not limited to short-faced bear, barren ground caribou, flat-headed peccary, bison, mastodon, and giant beaver (Bamforth 1988; Brose 1994; McDonald 1994). Groups have been depicted as being mobile and nomadic (Tankersley 1989); Paleoindian 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 exhibited 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 to include hafted knives that were 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 triangular blades. Notching becomes a common hafting technique. Other characteristic traits occurring almost exclusively in the Early and Middle Archaic periods are 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 understood in 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 considered to be modern. The Middle Archaic period subsistence tended to be associated with small patch foraging involving a consistent need for mobility with a shift towards stream valleys (Stafford 1994). Sites encountered from this time period through most of Ohio tend to be lithic scatters or isolated finds. The initial appearance of regional traits seems to occur at this time.

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

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

It is during the Terminal Archaic period (ca 3500-2500 B.P.) that extensive and deep burials are encountered. Regional Terminal Archaic expressions within Ohio include Crab Orchard in the southwest, Glacial Kame in the north, and Meadowood in central to northeastern Ohio. Along the Ohio River, the intensive Riverton culture occupations have been documented. 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 often 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 material, including maygrass, chenopodium, sunflower, and squash.

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

The Middle Woodland period (ca 2200-1600 B.P.) is often considered to be equivalent to the Hopewell culture. The largest earthworks in Ohio date from this time 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 grit-tempered and thinner 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 with 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 (EAC) 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 focus 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 the mounds and earthworks. Utilitarian items are more frequently encountered outside of funerary/ritual contexts. The artifact most diagnostic of this period is the bladelet (and core), a prismatic and thin razor-like tool. Middle Woodland remains are more commonly recovered from central Ohio south and are lacking from most areas in the northern and southeastern part of the state.

The Late Woodland period (ca A.D. 400-900) is separable 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 EAC crop plants that 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.

Newtown is an early Late Woodland phase in the Miami River Valley that has been dated to A.D. 450-800 (Seeman 1981). The geographic range of this phase is southern Ohio and northern Kentucky. Typical artifacts recovered from Newtown phase sites include Chesser Notched projectile points, flint and ground stone celts, rectangular slate gorgets, and limestone and shale discs. There is an absence of any triangular points

or bladelets. Newtown phase pottery is typically vertically cord-marked with angular shoulders.

The Late Prehistoric period (ca A.D. 1000-1550) is distinctive from former periods. At this time, regions were a major focus of specific groups. Large and sometimes palisaded villages were usually tied to a regional focus such as Fort Ancient (southern half of Ohio) or Monongahela (east and southeast Ohio). There is a marked increase of evidence supporting residential sedentism. Population density rose sharply with new and more effective means of resource and land exploitation. Communal aggregations such as villages are comparably marked after 700 AD (Fuller 1981; Pollack and Henderson 2000). Maize or corn agriculture as well as other cultigens made up a significant portion of the prehistoric diet. There appears to be an increase in domestic pottery production. Social organization is presumed to have become more complex and possibly moved towards a chiefdom model during the Late Prehistoric period. Artifact types are similar to those from the previous period; however, pottery is often thinner with differing decorative treatments that express regional differences. Structures can be round or elongated ovals with larger sites often being located in large stream valleys.

In southwestern Ohio, the descendant of the Late Woodland Newtown culture was the Fort Ancient culture (A.D. 1000-1670) [Pollack and Henderson 2000: 195]. There were three distinct phases within the culture: the Turpin phase, the Shomaker phase, and the Mariemont phase. Type sites for the culture include the Turpin site along the Little Miami River in Hamilton County and the Shomaker site in the lower Great Miami River Valley. Artifacts commonly associated with Fort Ancient sites include shell-tempered pottery, spatula-shaped celts, stone discoids, triangular projectile points, antler harpoon heads, spades, and wall trench architecture. Fort Ancient villages often have central plazas, as well as stockades that encircled the villages (Cowan 1987).

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 encounter by the explorers occurred in 1652 at 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 (1754-1763) affected many Ohio Native Americans; however, no battles were recorded in Ohio (Tanner 1987). Although the French and Indian War ended in 1763, 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, which was being fought between France and Britain, had finally ended. The Treaty of Paris in 1763 granted the entire Ohio region to the British. In 1783, the second Treaty of Paris ending the American Revolution granted the entire Ohio region to the Americans; however, Ohio was specifically described as Native American territory. Native Americans were not to move south of the Ohio River (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.

Pike County History

The history of Pike County extends well past its political organization in 1815. Because of its location straddling the Scioto River, Pike contains prime land and resources and was therefore a draw for natives and settlers alike. The earliest white settlers, who came in the late 1700's noted many mounds along the bluffs overlooking the river. Pike County can boast some of Ohio's first settlers. Three Chenoweth brothers, Arthur, John, and Abraham, and John Noland were the first of these. These men came in 1796 and established themselves in the prairie near where Peter Dunnon would found Piketon just a few years later in 1814. They were not alone long, and by the time Pike's lines were drawn, carving out land formerly belonging to Ross, Highland, Adams, Scioto, and Jackson, there were a little less than 4,000 inhabitants. Interstate Publishing's 1884 history has a respectable record of many of these county pioneers (AppalachianOhio 2007; Howe 1888; Interstate Publishing Co. 1884; McCormick 1958; Ohio Historical Society 2008; Pike County Genealogy Society 2003).

Zebulon Pike was the American hero who had explored the west and discovered Pike's Peak. It was for this man that the citizens of the new county named it Pike in 1815. Robert Lucas is another famous name associated with Pike County. He lived in Piketon after having served in the War of 1812 and later served as Governor of Ohio, and later still as Governor of Iowa Territory. James Emmitt was a man of local fame. Apparently, he was a tenacious businessman who captured the respect of all who knew him in the county – a widely admired, “self-made-man.” The last notable resident was a hermit named William Hewitt who lived in a cave just outside of Waverly for 14 years and was something of a local pet-project for Christian minded folk in town (Howe 1888; Interstate Publishing Co. 1884; McCormick 1958).

Zane's Trace passed through the county and in 1797, Andrew Ellison and John Beasley built an inn along that way which operated for many years. In later years, the Eager Inn would be an important stopover in a different but equally important path; it was a station on the Underground Railroad. Ironically, Howe's history of 1888 specifically devotes a small section to “Race Hatred” particularly in Waverly. In 1832, Pike became a canal county and as the rest benefited greatly during the canal era. Piketon, the original county seat, did not benefit however. Because of the canal being routed through the rival city of Waverly, Piketon diminished and eventually Waverly gained all county prominence. The county seat removed there in 1861. Today Waverly is still the largest in the county, but is actually a small town compared to those in surrounding counties. Only one percent of the county population lives in what could loosely be termed urban areas. Manufacturing is the driving force of the county economy and it is mostly found in Waverly. There are several other small towns in Pike however, namely Beaver, Buchanan, Byington, Cynthiana, Elm Grove, Idaho, Jasper, Latham, Morgantown, Omega, Stockdale, and Wakefield. One of the most important pieces of industry in Pike County is the Portsmouth Gaseous Diffusion Plant which the US Atomic Energy Commission built there in 1952 (AppalachianOhio 2007; Howe 1888; Interstate Publishing Co. 1884; McCormick 1958; Ohio Historical Society 2008; Pike County Genealogy Society 2003).

Pee Pee Township History

Pee Pee Township was organized in the year 1798 and is named after Pee Pee Creek (Ohio Genealogical Society 1989). It is in the northern portion of Pike County. Neighboring townships include Franklin (Ross County) to the northeast, Jackson to the east, Seal to the southeast, Newton to the southwest and Pebble to the west. The topography in Pee Pee Township is primarily hilly with little to no rolling or level areas (Howe 1854).

Before the arrival of European influence, Pee Pee Township was populated with dense forests. These were later removed during the infancy of the township's development to clear land for agricultural means. European immigrants came to the area from surrounding states such as Virginia and Pennsylvania. During this period hunting and trade with the Native Americans was crucial to survival before the rise of agriculture (Howe 1854).

Pee Pee Township has an abundance of rich and fertile soil that yields an excellent crop. Agriculture was a leading source of economic success during the early settlement of the township. The main products were corn, wheat, tobacco, potatoes and butter. Residents were dependent mainly upon farming until the introduction of mills, canal systems, factories and The Scioto Valley Railroad which runs southwest through the township (Ohio Genealogical Society 1989).

Pebble Township History

Pebble Township was founded in the year 1821. It is in the northern portion of Pike County. Neighboring townships include Huntington to the north, Pee Pee to the east, Newton to the south and Benton to the west. The topography in Pebble Township is primarily hilly with little to no level or rolling areas (Howe 1854). Dense forests populated the township before the arrival of European settlers. Acre upon acre was removed to clear and for agricultural fields. The timber was used to build homes, barns, schools and for other various crafting. Immigrants came into Pebble Township from surrounding states such as Pennsylvania and Virginia. Many of whom were of German Heritage (Howe 1854).

Upon arrival, the European settlers were a witness to a lush landscape booming with wild life and untapped resource potential. Hunting and trade with the Native Americans was the initial means of survival until agricultural practices came underway. A rich and fertile soil is abundant throughout the landscape. The main products in Pebble Township were wheat, corn, potatoes and tobacco. Agriculture was the primary industry during the infancy of the township (Howe 1854).

Religion played a vital role within the culture of Pebble Township. The main denomination was Methodist (Ohio Genealogical Society 1989). Residents during this period would gather at the churches for spiritual practices and in turn strengthened community ties.

Archaeology Research Design

The purpose of a Phase I survey is to locate and identify cultural resources that will be affected by the planned electric line construction activities. This includes archaeological deposits as well as architectural properties that are older than 50 years. However, the plans do not indicate that any buildings older than 50 years will be taken (i.e., razed or removed) as a result of the construction activities. Once these resources are identified and sampled, they are evaluated for their eligibility or potential eligibility to the National Register of Historic Places (NRHP). The literature review aspect of these investigations is directed to answer or address the following questions:

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

Archaeological Field Methods

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

Surface collection. Surface investigations methods involved pedestrian transects spaced at 3 m intervals or less and in areas that offer 50 percent bare ground surface visibility or greater. All artifacts that are identified during this survey method are individually plotted using a Trimble GeoXT global positioning system.

Shovel test unit excavation. Shovel test units were placed at 15-m intervals. Shovel test units measure 50 cm on a side and are excavated to 10 cm below the topsoil/subsoil interface. Individual shovel test units were documented regarding their depth, content and color (Munsell). Wherever sites are encountered, Munsell color readings are taken per shovel test unit. All of the undisturbed soil matrices from shovel test units are screened using .6 cm hardware mesh. When sites are encountered, additional shovel test units will be excavated at 7.5 m intervals extending on grid and in the two cardinal directions within the corridor from the positive locations.

Shovel probes. These are excavated in locations where disturbance is not obvious at the surface. They are initiated as shovel test units and are excavated to about 20 cm at a minimum before they are abandoned due to severe disturbance. If the soil is not disturbed, the shovel probe becomes a shovel test unit.

Visual inspection. The locations where cultural resources were not expected, such as disturbed or low/wet areas, were walked over and visually inspected. This also pertains to small segments that are immediately adjacent to the road right-of-way

or were in steeply sloping conditions. This method was used to verify the absence or likelihood of any cultural resources being located in these areas. It was also utilized to document the general terrain and the surrounding area.

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

Curation

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

Architecture Research Design

The purpose of the history/architecture portion of the project was to identify any historic properties in the area that may be affected by the proposed development of the project. These effects may be direct or indirect. Direct effects occur within the boundaries of the project, while indirect effects can occur for areas outside the direct boundaries and can include visual, audible, and atmospheric effects that are associated with the development of the project. Based on the nature of the project, the cultural historic investigations consisted of a systematic survey of all properties 50 years of age or older that are situated within 1,000 feet of the centerline of the proposed project.

METHODS

This survey was conducted following the guidelines established in *Archeology and Preservation: Secretary of the Interior's Standards and Guidelines* (National Park Service 1983) and *Guidelines for Local Surveys: A Basis for Preservation Planning, National Register Bulletin No. 24* (National Park Service 1997). When properties are identified, they are subjected to the guidelines outlined in *National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation* (National Park Service 1996).

There are four criteria for eligibility to be listed in the National Register of Historic Places (NRHP). Only one of these criteria must be met to be considered eligible for listing; however, oftentimes more than one of the criteria is met. The criteria for significance include:

- A. Association with historic events or patterns of events;
- B. Association with persons important to our past;
- C. Exceptional or important architectural characteristics; and/or
- D. Data potential.

Architectural properties typically qualify under Criteria A, B, or C. Criterion D is typically reserved for archaeological sites.

In addition to meeting at least one of the established criteria, the appropriate integrity must also be retained by the resource. There must be integrity of location, design, workmanship, setting, materials, feeling, and association.

Prior to commencing fieldwork, a literature review was conducted to determine if any previously recorded architectural properties, NRHP properties, or Ohio Genealogical Society cemeteries were present within the APE. Historic maps were also reviewed to aid in guiding the fieldwork and detecting the possible presence of properties 50 years of age or older within the APE. Background research was also conducted in order to establish a historic context of the region. The context was compiled by utilizing materials from the SHPO, archival materials at the respective county courthouses, local libraries, and several online resources. The establishment of the historic context helped to guide the interpretation of the field survey results.

The field survey included a systematic approach to identifying all properties 50 years of age or older within the survey APE (1,000 feet to either side of project) of the proposed project. Some areas will be blocked from having a direct line-of-sight to the proposed project by topography and forested areas. The areas that did not have a direct line-of-sight to the project were visually verified in the field and the survey did not include all of these areas. An advantage for this project is the presence of an existing line to gauge the direct line-of-sight from properties through field verification during the survey. Each property identified within the survey area that will have a direct line-of-sight was photographed and annotated on appropriate mapping and included in the report. Each property identified within the survey area was photographed and annotated on appropriate mapping and included in the report. The approach was to identify those properties with NRHP potential, followed by a more intensive documentation and evaluation of those potentially eligible aboveground resources. The comprehensive survey involved recording of each property 50 years of age or older to a baseline level of documentation.

Weller focused on the ground plan, the height, and the roof configuration of each structure, noting all visible materials, appendages, extensions, or other alterations. Housing types and structural details within the report and utilized on OHI forms follow the terminology used by geographers Jakle, Bastian, and Meyer (1988), architectural historians McAlester and McAlester (1992), and Gordon (1992). Weller then supplemented the field survey data with an examination of available tax records, aerial photographs, and cartographic sources.

A summary and analysis of the field data detailing the overall architectural character of the survey APE is included as a narrative in the report. Photographs of every resource that is 50 years of age or older that were not advanced to detailed study as discussed below are included as an appendix to the report (Appendix A). Weller historians analyzed the data and identified properties that are clearly not eligible for the NRHP due to a lack of significance or loss of integrity, as well as identified potential NRHP properties and advanced them to a more advanced level of documentation and evaluation.

Definitions

Within this report, an *architectural resource* is defined as aboveground buildings or structures that are 50 years of age or older. A *historic property* is defined as a building, structure, object, or site that is listed in, or considered eligible for listing in, the NRHP. An *effect* is defined as an activity associated with the project that alters a characteristic of a historic property that qualified it for inclusion in the NRHP.

Literature Review

The literature review study area is defined as a 305 m (1,000 ft) radius centered on the project corridor (Figure 2). In conducting the literature review, the following resources were consulted at OHPO and the State Library of Ohio:

- 1) *Archeological 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 CRM/contract archaeology files; and
- 8) Pike County atlases, histories, historic USGS 15' series topographic map(s), and current USGS 7.5' series topographic map(s);
- 9) Online Genealogical and Cemetery Records.

A review of *Archeological Atlas of Ohio* (Mills 1914) was conducted and there are no associated sites identified in the study area.

The OHPO topographic maps did not indicate that there were any archaeological sites recorded in the study area.

The Ohio Historic Inventory (OHI) files did not indicate any resources located within the project area or its study area.

A review of the DOE and NRHP files was conducted and there are no affiliated resources within or near the project area or its study area.

Review of the professional CRM survey files was conducted and there are no previous surveys that are within the study area.

Historic cartographic resources were reviewed in order to get a better understanding of past landowners and the distribution of past buildings and structures. There are structures noted in the terrain surrounding the project, but none appear to be directly involved as of the early twentieth century. The USGS 1915 *Piketon, Ohio 7.5 Minute Series (Topographic)* map (Figure 4) and the modern topographic map (Figures 2 and 3) were inspected. These map resources indicate that the project area is cutting through upland and rural farm country where there are few buildings. Historic period archaeological deposits are not expected. There is one cemetery located in the study area.

The Dick Cemetery (#9789) is indicated as being about 157 m (500 ft) to the north of the project area (Figure 2).

Literature Review Summary and Expectations

The project area is largely situated in upland terrain and does not involve any large drainages with sizeable terraces and floodplain situations. This terrain is occasionally dissected and has rolling topographic relief. These areas have not been the focus of many developments or archaeological surveys and the lack of previously recorded resources reflects this. The only recorded resource appears to be a local cemetery.

Archaeological Fieldwork Results

The archaeological field investigations for this project were conducted in December 2016 and January 2017. The field investigations were conducted during suitable weather conditions and it was unusually balmy during this period for the winter season. The field investigations involved surface collection, subsurface testing, and visual inspection (Figures 5-33). The conditions experienced during the field investigations varied, with the majority being contained in fallow land that required subsurface testing methods. Surface collection was accomplished in the few agricultural fields that offered suitable visibility. Visual inspection accounted for much of the reviewed areas as the access corridors were often associated with existing and developed paths. Disturbances and steeply sloping conditions occasionally precluded archaeological testing. There were no archaeological sites identified during these investigations.

Surface collection was accomplished in the few situations where agricultural fields were involved with this project. Surface collection was conducted in soybean stubble and corn stubble situations. The bare ground surface visibility in these areas ranged from 50-75 percent (Figures 5-11). Pedestrian transects were spaced from 3-5 m apart in these areas. There were no cultural materials identified during the surface collection for this project.

Some situations encountered included severe disturbance and steeply sloped terrain; these conditions precluded archaeological investigations (Figures 5-11). The stream valleys in the central part of the project are very entrenched and with steep side slopes. However, the ridge tops were wider and flatter, which allowed for the excavation of shovel test units. Landforms and the general terrain in this part of Ohio is considered to be the most dissected and rugged. Steeply sloped conditions pertain to those areas where the slope percentage is greater than 15 percent, which is in accordance with the state guidelines (OHPO 1994). Disturbance that was identified during this survey were not expansive and can be largely attributed to areas along roads, modern constructions, and the initial construction of the electric line. The testing for the access corridors extended to and through the existing and proposed structures locations. The areas where the existing structures are located have been substantially disturbed by their original construction. As expected, many of the access corridors that extend outside of the electric line easement make use of existing driveways and disturbed conditions.

Subsurface means of investigation were necessary in many locations where surface visibility was lacking; this accounts for the majority of the project that required testing. This includes fallow farm fields, pastures, areas with dense cover, scrubland, and yards. There were 225 shovel test units and 30 shovel probes excavated over the course of these investigations. The testing indicated that the soils have been largely incorporated into a homogeneous plowzone and at least partially altered during the original construction and maintenance of the electric line. The testing frequently identified topsoils that were consistent with a plowzone depth, that is, about 20-30 cm below ground surface. The topsoil is akin to a humus layer and is dark grayish brown (10YR4/2) silty clay loam with a gradual interface. The subsoil in this area is mixed into the topsoil and is noticeably clayey. It has a hue that is strong brown (7.5YR5/6) and extends to a gravellier and slightly more clayey subsoil that was identified about 28 cm below ground surface (Figure 28). The soils examined and excavated during these investigations were contained within a topsoil/plowzone context; there were no deep, alluvial situations identified. The subsurface testing did not result in the identification of any cultural materials.

The field reconnaissance and visual inspection of the project resulted in the re-identification of the Dick Cemetery. This cemetery is inaccurately mapped on the OHC website (see Figure 2) as being north of the project; however, the cemetery was located to the immediate south of the electric line easement (Figure 7 and 18). Online images of a gravestone fragment were confirmed to be affiliated with the Dick Cemetery (#9789); the same fragment was identified to the south of the project area and thus confirming that the cemetery is not depicted in the correct location. Weller obtained a GPS point for each observed gravestone and established a 3.3 m (10 ft) buffer for the purposes of avoidance. The closest proposed construction activity is associated with Structure #42.

Architectural Fieldwork Results

The records review for this project indicated that there are no previously recorded OHI resources, no NRHP Determination of Eligibility (DOE) properties, and no NRHP listed properties within the survey APE for this project (Figures 2 and 3; Table 2).

In total, four resources 50 years of age or older were identified within the survey APE that may have a direct line-of-sight to the project (Figures 5-11). Summarized data for all documented structures within the APE is provided in Table 2.

In light of the results of the field survey, the historic context, the condition of the resources, and larger setting, Weller concluded that the four individual architectural resources are clearly not individually eligible for the NRHP. These architectural resources are not individually eligible for inclusion in the NRHP under Criteria A, B, or C due to a lack of associative significance, a loss of integrity, or a lack of character defining features. A large portion of these resources have experienced multiple alterations that have compromised their historic integrity (Figures 29-32).

The houses dated to an age range of ca.1900 to ca.1930. Each of the houses were of Vernacular style and have experienced alterations and most had additions. The homes lacked integrity either through replacement of their historic materials, significant

alterations, or physical deterioration. Most of the resources lacked character defining features or have since otherwise undergone significant alterations.

Table 2. Summary Data on Survey Results.

S-1	Pike	Figure 5	Building	Ca.1900	Vernacular	L Plan Cottage	Not Eligible
S-2	Pike	Figure 5	Building	Ca.1910	Vernacular	Front Gable	Not Eligible
S-3	Pike	Figure 7	Building	Ca.1930	Vernacular	Side Gable	Not Eligible
S-4	Pike	Figure 8	Building	Ca.1910	Vernacular	Side Gable	Not Eligible

APE Definition and NRHP Determination

The APE is a term that must be applied on an individual project basis. The nature of the project or undertaking is considered in determining the APE. This may include areas that are off the property or outside of the actual project's boundaries to account for possible visual impacts. When construction is limited to underground activity, the APE may be contained within the footprint of the project. The APE includes the footprint of the project construction activities. The rebuilding of this existing electric line and their associated access corridors are located in rural farm country. Frequently, the access corridors make use of existing drives. Other than the access corridors, the planned work is largely affiliated within an existing electric line corridor and the replacement of its associated structures.

The archaeological field investigations did not result in the identification of any archaeological deposits within the project area. The Dick Cemetery (#9789) is located to the south of the project area, but is close enough to require avoidance. This resource was not evaluated per its significance as it is likely not eligible for the NRHP or a landmark, but it is the type of cultural resource that should be avoided. The project corridor extends along the northern limits of this cemetery with Structure 42 being the closest. If prudent, construction activities near Structure 42 should be limited to the northern side and timber matting may be appropriate to ensure minimized impact or possible impact to this cemetery. Otherwise, the testing did not result in the identification of any significant archaeological or architectural resources. A finding of 'no historic properties affected' is deemed appropriate. The work will not result in the identification of any historic period buildings or structures.

Recommendations

In January of 2017, Weller & Associates, Inc. completed Phase I Cultural Resource Management Investigations for the 7.5 km (4.7 mi) Waverly-Ware Road 138kV Transmission Line Project in Pebble and Pee Pee Townships, Pike County, Ohio. The archaeological investigations involved subsurface and surface sampling methods; there were no archaeological sites identified. There was an unnamed cemetery identified that is adjacent to the electric line corridor. This resource is avoidable and it does not appear to be within the easement. The project will not impact or affect any archaeological site and no further archaeological work is considered to be necessary.

The results of the architectural field survey identified four individual resources 50 years of age or older within the survey APE for potential effects. Photographs and structural data for each property were collected in the field. None of the identified resources are considered to be historic properties. It is Weller's opinion that this project will not affect any significant archaeological or architectural resources. A recommendation of no further work is considered and 'no historic properties affected' is appropriate.

References Cited

AppalachianOhio

2007 "Pike County History." Electronic document, Available:
<http://www.firstohio.com/main/histories.aspx?CoID=13>, accessed March 3, 2008.
Ohio University's Voinovich Center for Leadership and Public Affairs.

Bamforth, D.

1988 *Ecology and Human Organization on the Great Plains*. Plenum, New York.

Brockman, C. S.

1998 *Physiographic Regions of Ohio* (Map). Department of Natural Resources,
Division of Geological Survey, Columbus, Ohio.

Brose, D. S.

1994 "Archaeological Investigations at the Paleo Crossing Site, a Paleoindian
Occupation in Medina County, Ohio." In: *The First Discovery of America:
Archaeological Evidence of the Early Ohio Area*, edited by W. S. Dancey, pp.
61-76. The Ohio Archaeological Council, Columbus.

Core, E.

1966 *Vegetation of West Virginia*. McClain, Parsons, West Virginia.

Cowan, W. C.

1987 *First Farmers of the Middle Ohio Valley: Fort Ancient Societies, A.D.
1000-1670*. The Cincinnati Museum of Natural History, Cincinnati.

Cramer, A.

1989 *The Dominion Land Company Site: An Early Adena Mortuary Manifestation in
Franklin County, Ohio*. M.A. Thesis, Kent State University, Kent, Ohio.

Cunningham, R. M.

1973 "Paleo Hunters along the Ohio River." In: *Archaeology of Eastern North
America* 1(1): 116-118. Eastern States Archeological Federation, Bethlehem,
Connecticut.

Dancey, W. S.

1992 "Village Origins in Central Ohio: The Results and Implications of Recent Middle
and Late Woodland Research." In: *Cultural Variability in Context: Woodland
Settlements of the Mid-Ohio Valley*, edited by M. F. Seeman, pp. 24-29. Special
Papers 7, *Midcontinental Journal of Archaeology*, Kent State University Press, Kent,
Ohio.

Dragoo, D.

1976 "Some Aspects of Eastern North American Prehistory: A Review 1975." In:
American Antiquity 41(1):3-27. The Society for American Archaeology, Washington,
DC.

- Fitting, J.
1963 "The Hi-Lo Site: A Paleo-Indian Site in Western Michigan." In: *Wisconsin Archaeologist* 44:87-96. Wisconsin Historical Society, Madison, Wisconsin.
- Forsyth, J. L.
1970 "A Geologist Looks at the Natural Vegetation Map of Ohio." In: *The Ohio Journal of Science* 70(s):180-191. The Ohio Academy of Science, Columbus.
- Fuller, J.
1981 "Developmental Change in Prehistoric Community Patterns: The Development of Nucleated Village Communities in Northern West Virginia." Unpublished Ph.D. Dissertation, Department of Anthropology, University of Washington, Seattle.
- Gordon, R. B.
1969 "The Natural Vegetation of Ohio in Pioneer Days." In: *Bulletin of the Ohio Biological Survey, New Series* 3(2). Ohio State University, Columbus.

1966 *Natural Vegetation of Ohio at the Time of the Earliest Land Surveys*. Ohio Biological Survey and the Natural Resources Institute of the Ohio State University, Columbus.
- Gordon Stephen
1992 *How to Complete the Ohio Historic Inventory*. Ohio State Historic Preservation Office, Columbus, Ohio.

1997 *Guidelines for Local Surveys: A Basis for Preservation Planning*. NRHP Bulletin 24. National Park Service, Department of the Interior, Washington, D.C.
- Historic Aerials
NETR online. Electronic Document, <http://www.historicaerials.com/>, accessed January 20, 2017.

1996 *How to Apply the NRHP Criteria for Evaluation*. NRHP Bulletin 15. National Park Service, Department of the Interior, Washington, D.C.
- Howe, H.
1888 *Historical Collections of Ohio, Vol. I*. H. Howe & Son, Columbus.

1854 *Historical Collections of Ohio*. E. Morgan & Co. Cincinnati, OH.
- Interstate Publishing Company, pub.
1884 *History of Lower Scioto Valley, Ohio*. Interstate Publishing Company, Chicago.
- Lafferty, M. B.
1979 *Ohio's Natural Heritage*. Ohio Academy of Science, Columbus.

Justice, N.

1987 *Stone Age Spears and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington and Indianapolis.

Mahr, A. C.

1949 "A Chapter of Early Ohio Natural History." In: *Ohio Journal of Science* 49(1). The Ohio Academy of Science, Columbus.

McAlester, V. and L.

2003 *A Field Guide to American Houses*. Alfred A. Knopf, New York.

McCormick, H.

1958 *History of Pike County*. Commissioners of Pike County, Waverly, Ohio.

McDonald, H.

1994 "The Late Pleistocene Vertebrate Fauna in Ohio: Coinhabitants with Ohio's Paleoindians." In: *The First Discovery of America: Archaeological Evidence of the Early Ohio Area*, edited by W. S. Dancey, pp. 23-41. The Ohio Archaeological Council, Columbus.

Mills, W.

1914 *Archeological Atlas of Ohio*. Ohio State Archaeological and Historical Society, Columbus.

National Park Service

1983 *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. National Park Service, Department of the Interior, Washington, D.C.

1996 *How to Apply the NRHP Criteria for Evaluation*. NRHP Bulletin 15. National Park Service, Department of the Interior, Washington, D.C.

1997 *Guidelines for Local Surveys: A Basis for Preservation Planning*. NRHP Bulletin 24. National Park Service, Department of the Interior, Washington, D.C.

Ohio Historic Preservation Office

1994 *Archaeology Guidelines*. The Ohio Historical Society, Columbus.

Ohio Genealogical Society

1989 *Pee Pee Township's History*. Ohio Genealogical Society. Waverly, OH.

Ohio Historical Society

2008 "Pike County." Electronic document, Available:

<http://www.ohiohistorycentral.org/entry.php?rec=1999>, accessed March 3, 2008. Ohio Historical Society, Columbus.

Pacheco, P.

1996 "Ohio Hopewell Regional Settlement Patterns." In: *A View From The Core: A Synthesis of Ohio Hopewell Archaeology*, edited by P. Pacheco, pp. 16-35. The Ohio Archaeological Council, Columbus.

Pavey, R.R., R.P. Goldthwait, C.S. Brockman, D.N. Huyll, E. MacSwinford, and R.G. Van Horn

1999 *Quaternary Geology of Ohio*. Ohio Division of Geological Survey Map No. 2. The Ohio Department of Natural Resources, Division of Geological Survey, Columbus.

Pike County Genealogy Society

2003 "Pike County History." Electronic document, Available: <http://www.rootsweb.com/~ohpcgs/id94.htm>, accessed March 3, 2008. Pike County Genealogy Society, Waverly, Ohio.

Pollack, D. and A. Henderson

2000 "Insights into Fort Ancient Culture Change: A View from South of the Ohio River." In: *Cultures Before Contact: The Late Prehistory of Ohio and Surrounding Regions*, edited by R. Genheimer, pp. 194-227. The Ohio Archaeological Council, Columbus.

Prufer, O. H., and D. A. Long

1986 "The Archaic of Northeastern Ohio." In: *Kent Research Papers in Archaeology*, No. 6, Kent State University Press, Kent, Ohio.

Seeman, M.

1981 *Archaeological Resource Management in Ohio: A State Preservation Plan for Archaeology*, edited by G.M. Pratt and D.R. Bush. Prepared for the Ohio Historic Preservation Office by the Ohio Archaeological Council, Columbus.

Shane, L.

1987 "Late-glacial Vegetational and Climatic History of the Allegheny Plateau and the Till Plains of Ohio and Indiana, U.S.A." In: *Boreas* 16:1-20. The Boreas Collegium, Blackwell Publishing Ltd., Edinburgh.

Sheaffer, C., and M. A. Rose

1998 *The Native Plants of Ohio, Bulletin 865*. The Ohio State University Extension (College of Food, Agricultural & Environmental Sciences) Department of Horticulture. Electronic document, http://ohioline.osu.edu/b865/b865_01.html, accessed November 28, 2005.

Stafford, R.

1994 "Structural Changes in Archaic Landscape Use in the Dissected Uplands of Southwestern Indiana." In: *American Antiquity*, 59:219-237. The Society for American Archaeology, Washington, DC.

Tankersley, K.

1994 "Was Clovis a Colonizing Population in Eastern North America?" In: *The First Discovery of America: Archaeological Evidence of the Early Ohio Area*, edited by W. S. Dancey, pp. 95-116. The Ohio Archaeological Council, Columbus.

1989 "Late Pleistocene Lithic Exploitation and Human Settlement Patterns in the Midwestern United States." Unpublished Ph.D. dissertation, Department of Anthropology, Indiana University, Bloomington.

Tanner, H.

1987 *Atlas of Great Lakes Indian History*. University of Oklahoma Press, Norman.

Trautman, M. B.

1981 *The Fishes of Ohio*. The Ohio State University Press, Columbus.

United States Department of Agriculture, Soil Conservation Service

1990(2017) *Soil Survey of Pike County, Ohio*. United States Department of Agriculture, Soil Conservation Service in cooperation with the Ohio Department of Natural Resources, Division of Lands and Soil, and Ohio Agricultural Research and Development Center, Washington D.C.

Webb, W. S., and R. S. Baby

1963 *The Adena People No. 2*. The Ohio Historical Society, The Ohio State University Press, Columbus.

Weller, R. J.

2005 *Data Recovery at the Haven Site (33DL1448) Located in Liberty Township, Delaware County, Ohio*. Weller & Associates, Inc.. Submitted to the Delaware County Sanitary Engineer's Office. Copy available for review at the Ohio Historic Preservation Office.

Figures



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

\\S220D34F\share\W-2066 Waverly-Adams-Seaman 138K\GIS\mxd\1x17 Lf.mxd L5 (\125\2017 - Alex) - LP:never never - L5:exported \125\2017 1:53:38 PM

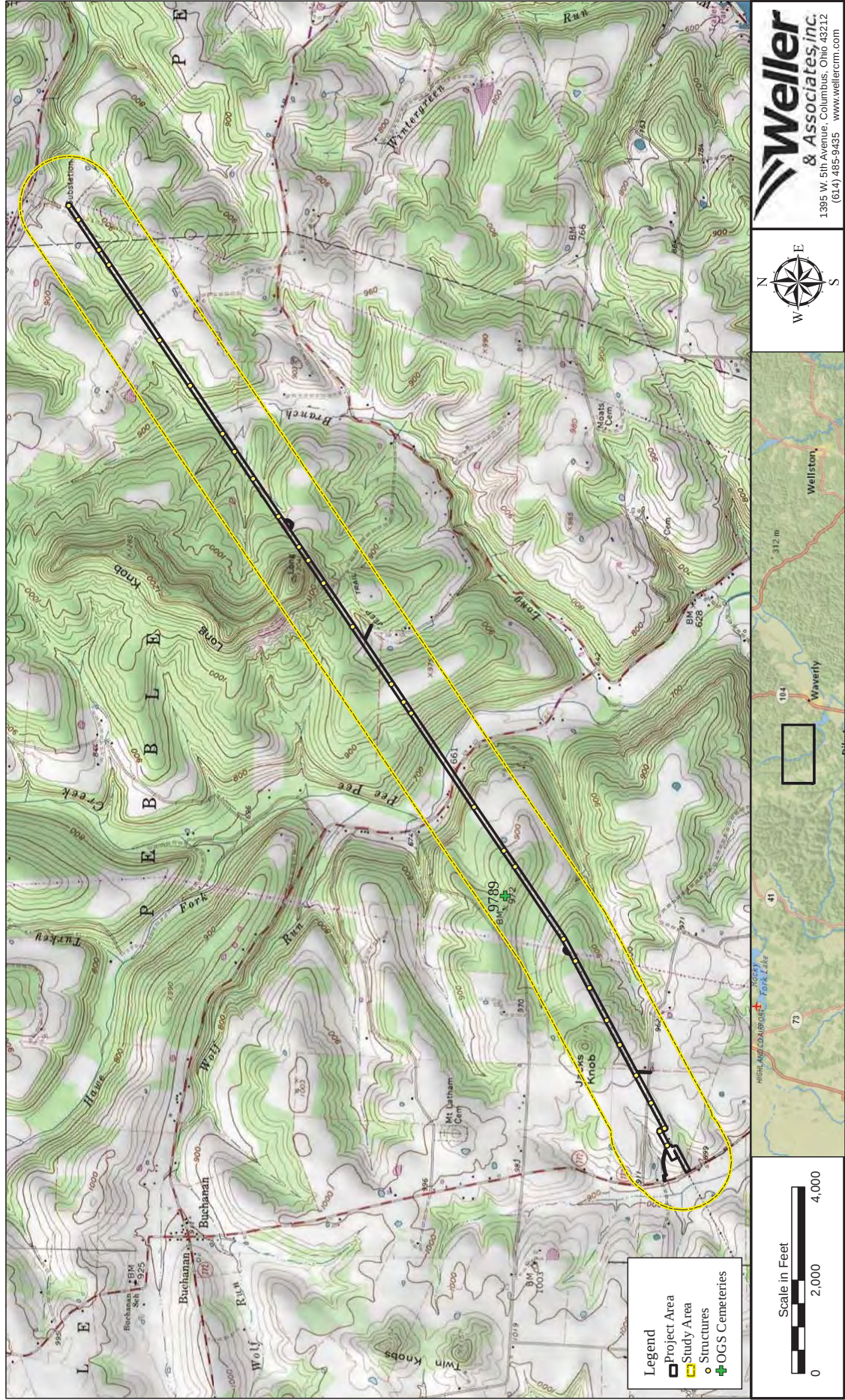


Figure 2. Portions of the USGS 1976 Summithill, 1976 Pikeham, 1976 Latham, 1976 Morgantown, Ohio 7.5 Minute Series (Topographic) maps indicating the location of the project and recorded resources within the study area.

\\S220D34F\share\W-2066 Waverly-Adams-Seaman 138KV\Waverly-Ware Road 138KV\GIS\mxd\11x17 Lit.mxd L.S. (1/25/2017 - Alex) - L.P: never never - L: exported 1/25/2017 1:54:31 PM

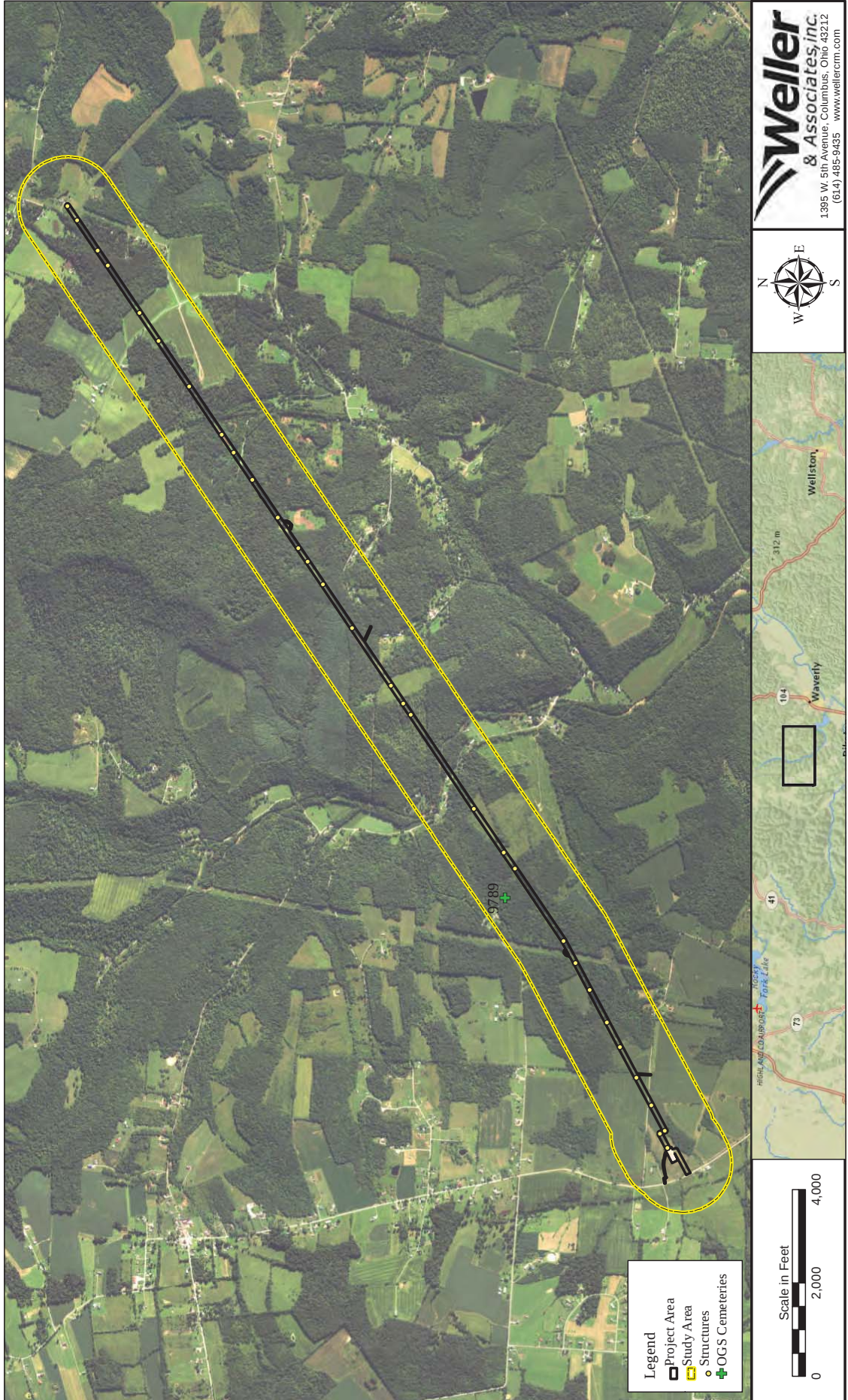


Figure 3. Aerial map indicating the location of the project and previously recorded resources in the study area.

\\S220D34F\share\W-2066 Waverly-Ware Road 138K\GIS\mxd\11x17 FW.mxd LS (-) 1/24/2017 - Alex) - LP: never never - LExported:1/24/2017 11:26:41 AM

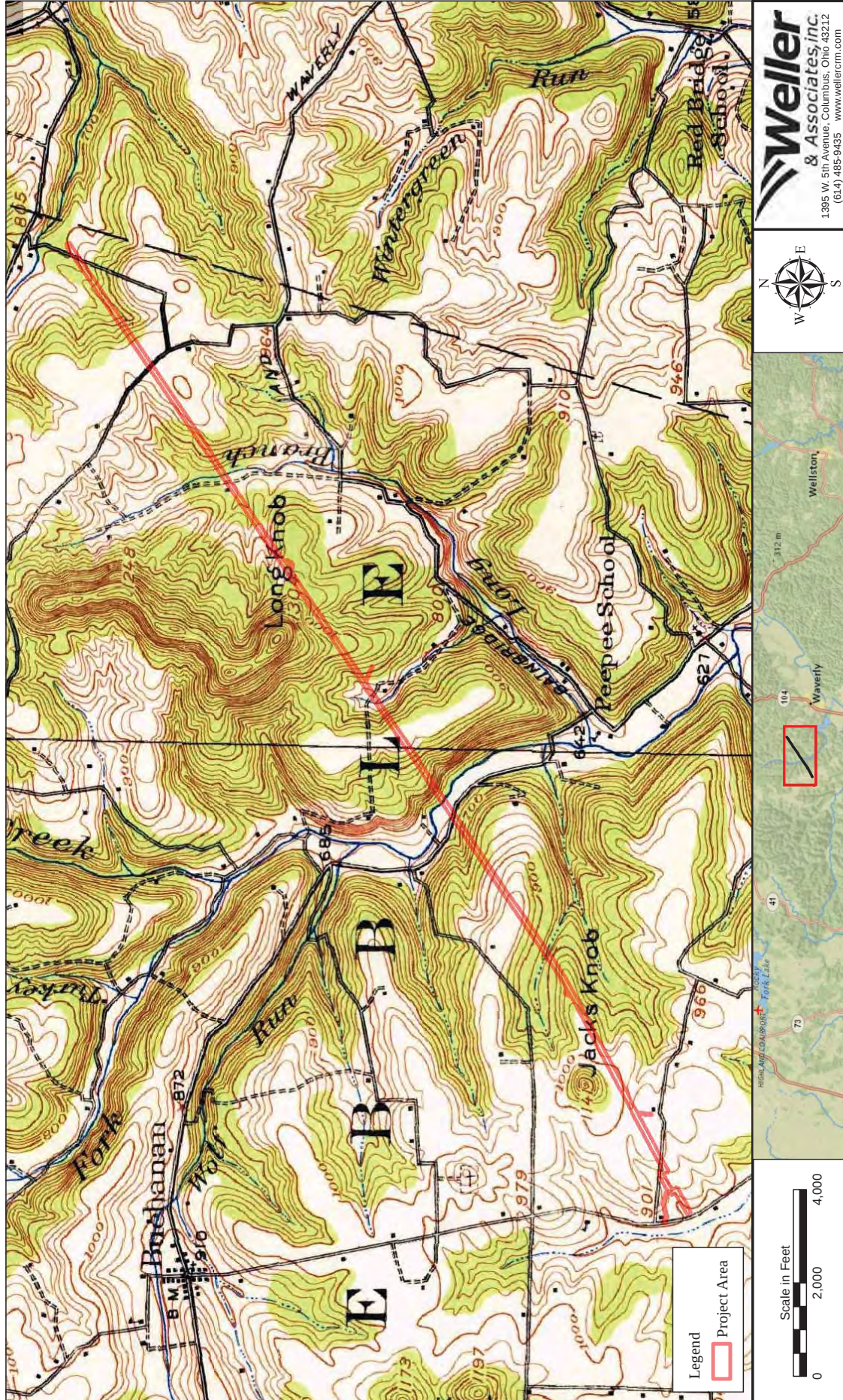


Figure 4. Portion of the USGS 1915 Pikeston, Ohio 15 Minute Series (Topographic) map indicating the approximate location of the project.

\\S22034\F\Share\W-2066 Waverly-Adams-Seaman 138KV\GIS\mxd\11x17 FW.mxd LS (.1/24/2017 - Alex) - LP:never never - LExported:1/25/2017 1:36:24 PM

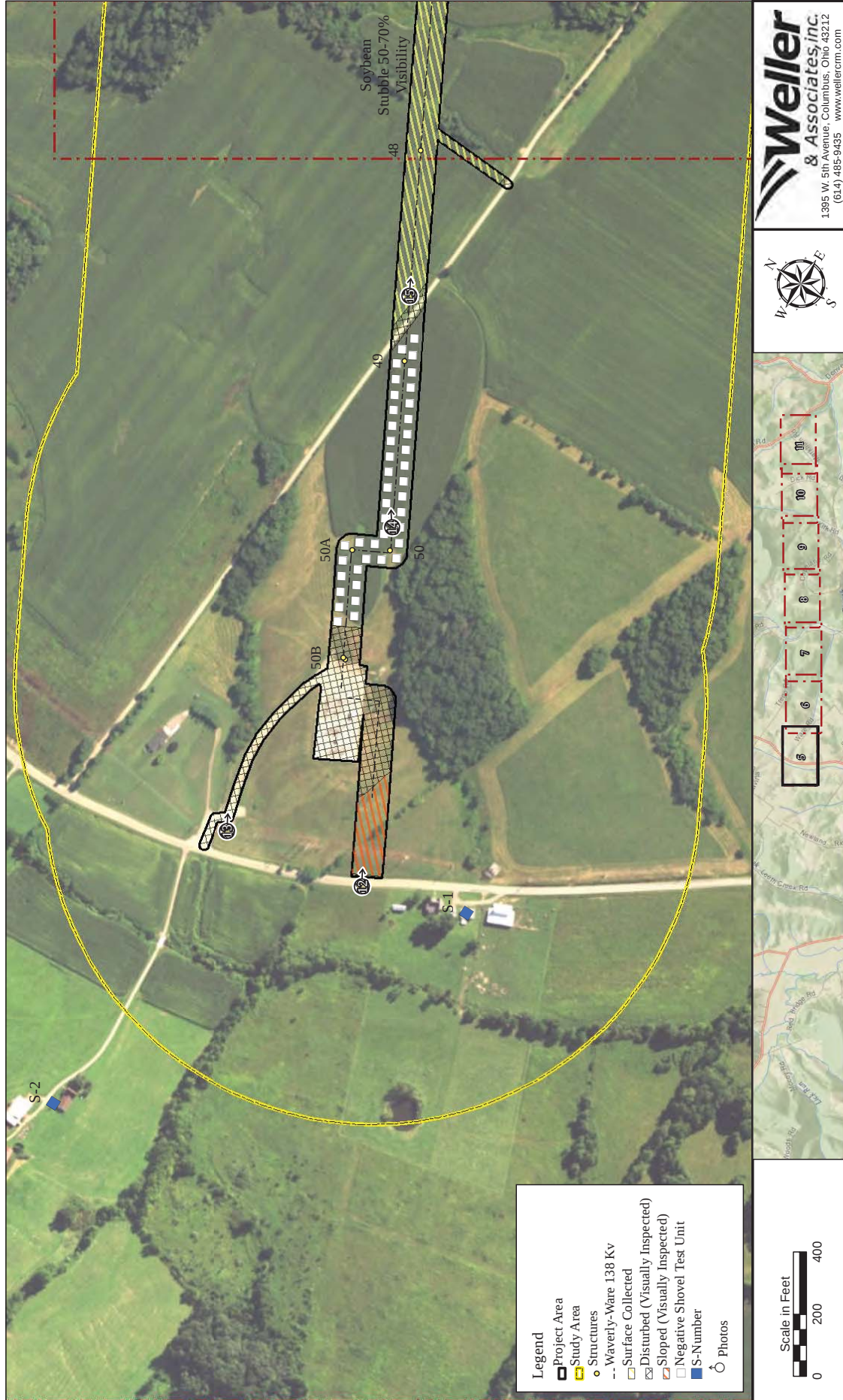


Figure 5. Fieldwork results and photo orientation map.

\\S22034\F\Share\W-2066 Waverly-Adams-Seaman 138KV\GIS\mxd\11x17 FW.mxd LS (.1/24/2017 - Alex) - LP:never never - LExported:1/25/2017 1:36:29 PM

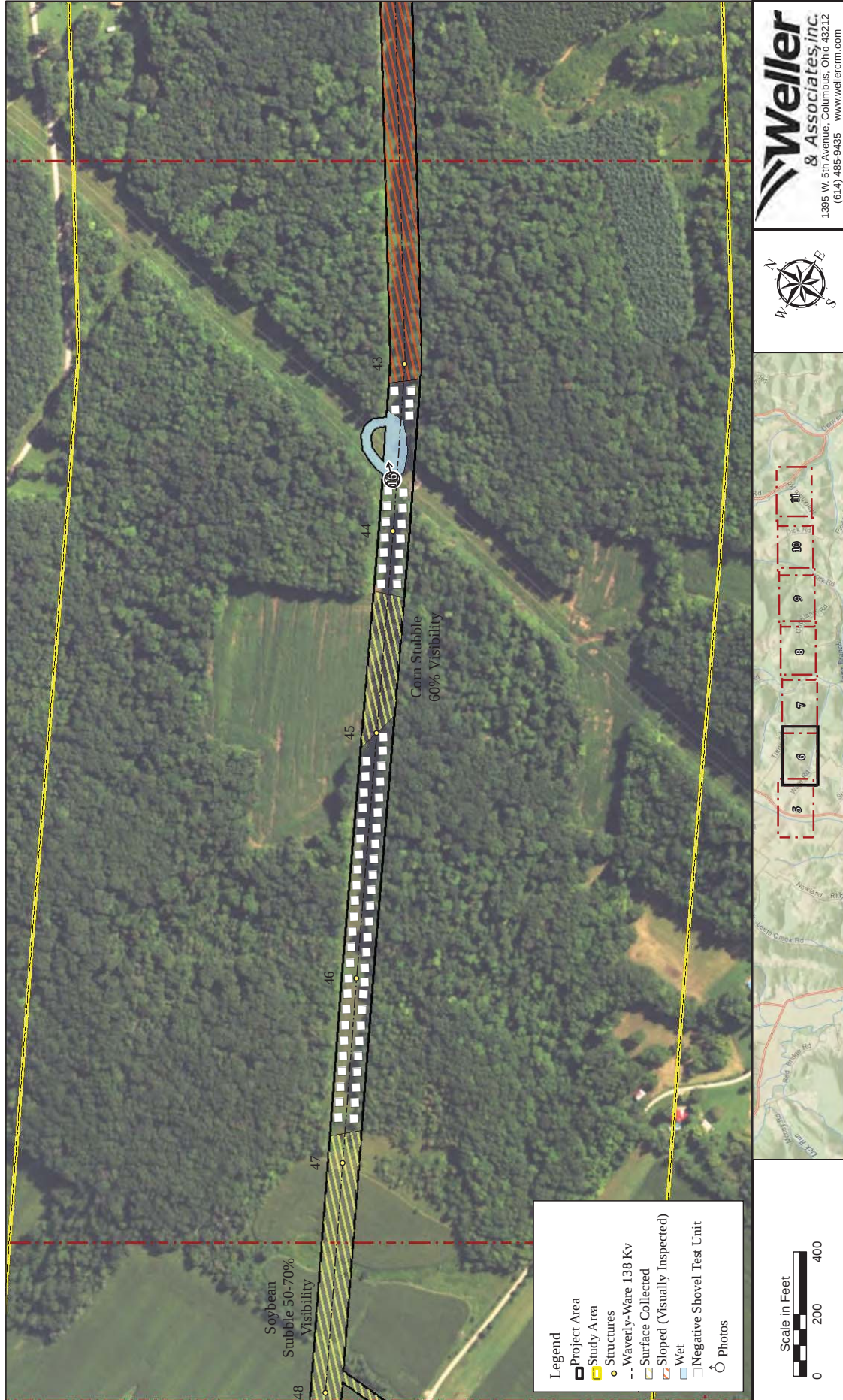
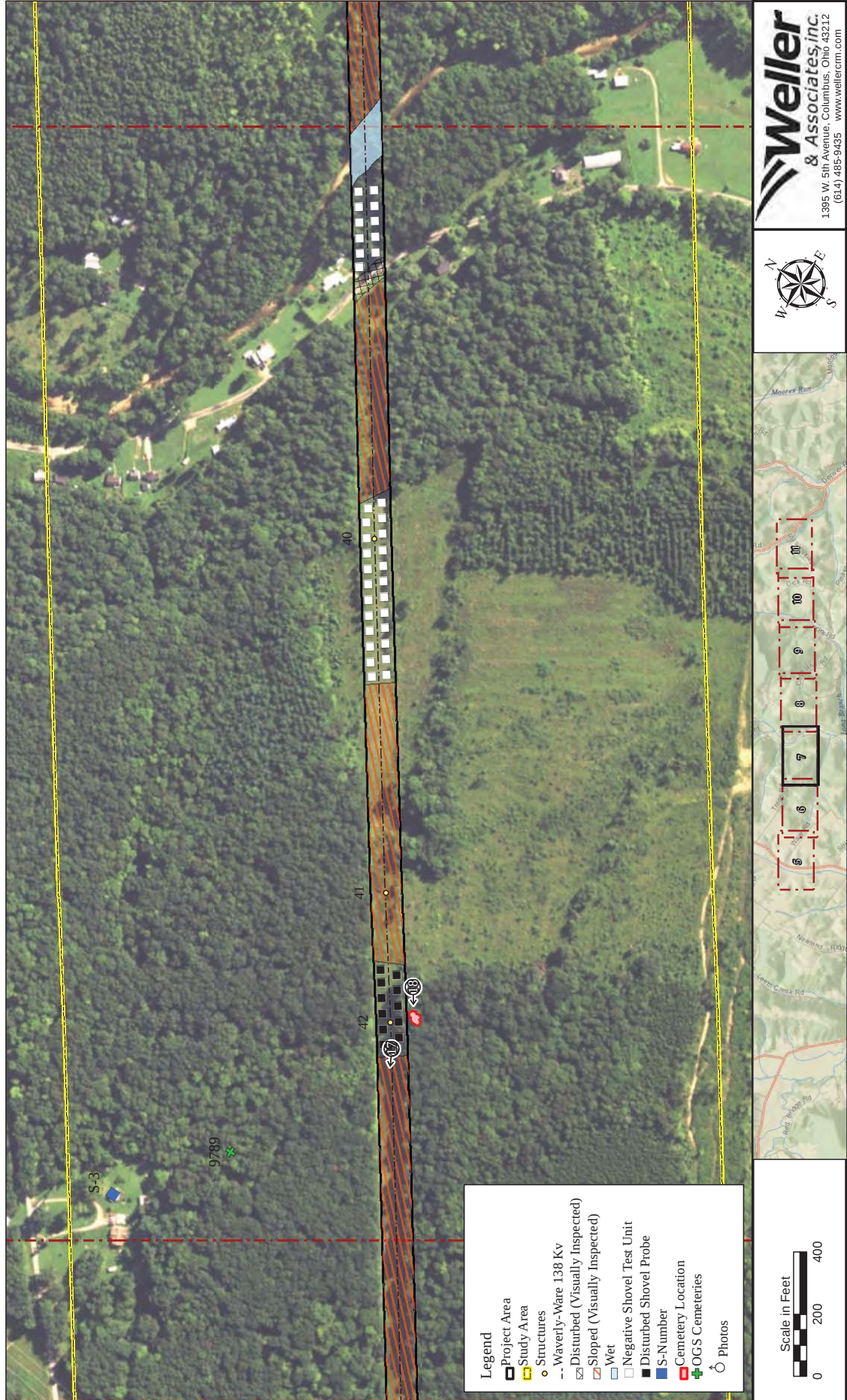


Figure 6. Fieldwork results and photo orientation map.



\\S22034\F\Share\W-2066 Waverly-Adams-Seaman 138KV\GIS\mxd\11x17 FW.mxd LS (.1/24/2017 - Alex) - LP: never never - LExported:1/25/2017 1:36:40 PM

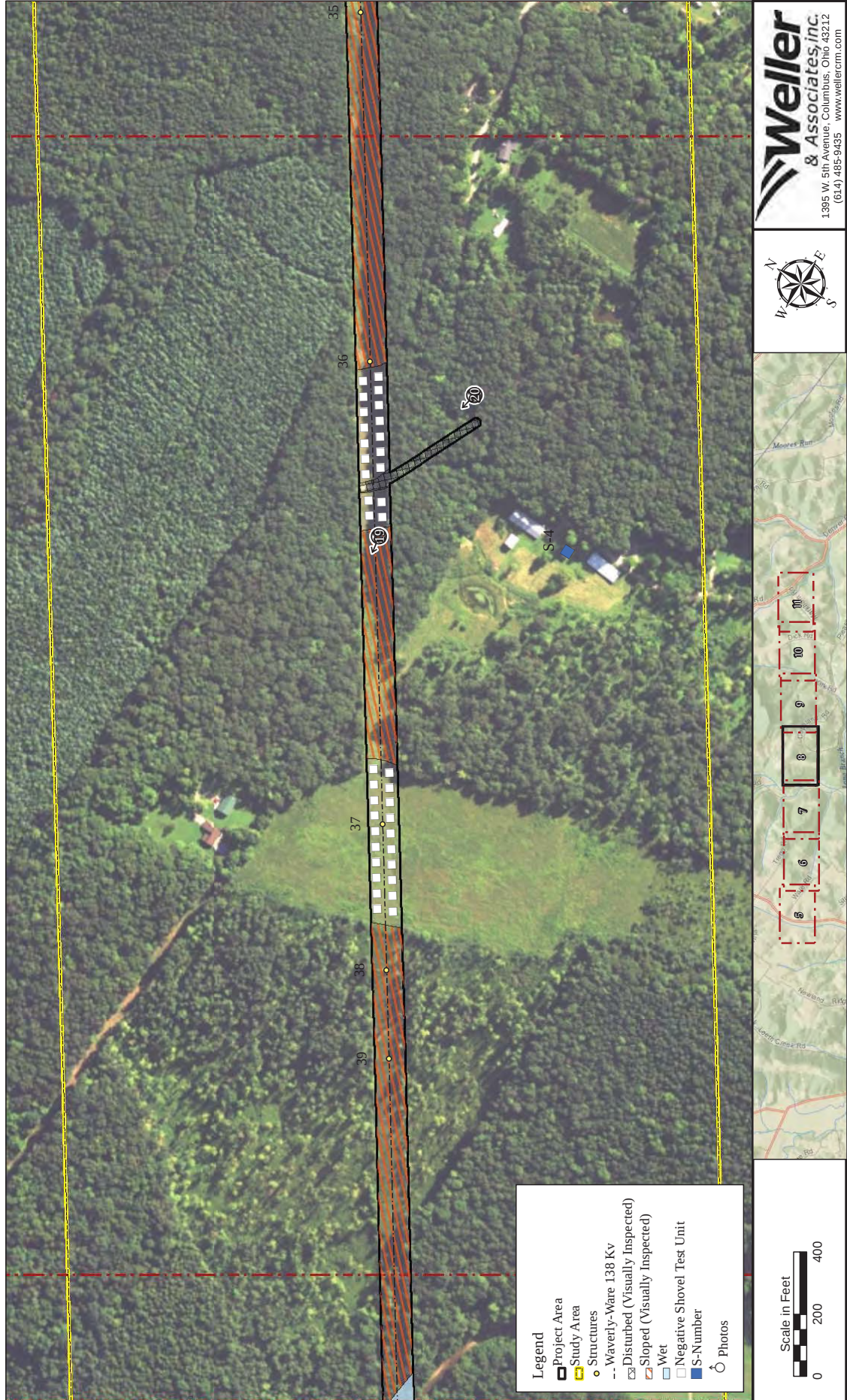


Figure 8. Fieldwork results and photo orientation map.

\\S22034\F\Share\W-2066 Waverly-Adams-Seaman 138KV\GIS\mxd\11x17 FW.mxd LS (.1/24/2017 - Alex) - LP:never never - LExported:1/25/2017 1:36:48 PM

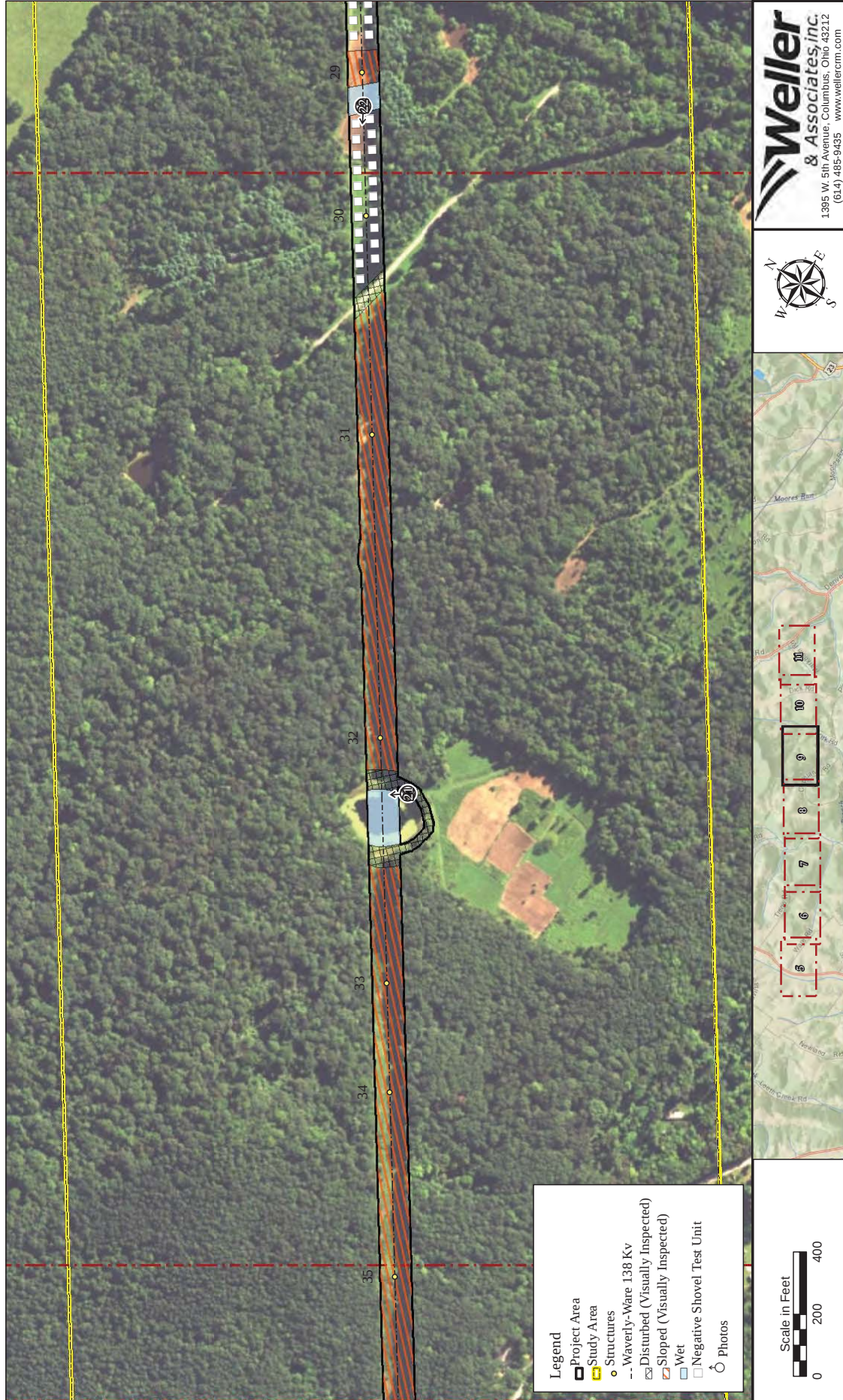


Figure 9. Fieldwork results and photo orientation map.



Figure 10. Fieldwork results and photo orientation map.

\\S22034\F\Share\W-2066 Waverly-Adams-Seaman 138KV\GIS\mxd\11x17 FW.mxd LS (-1/24/2017 - Alex) - LP:never never - LExported:1/25/2017 1:37:03 PM





Figure 12. View of the sloped area surrounding structure 50B, with the existing station in the background.



Figure 13. View of the graveled road leading to the existing station in the western portion of the project.



Figure 14. View of the shovel tested areas around structure 49.



Figure 15. View of the surface collected area around structure 48.



Figure 16. View of flagged wetland near structure 44.



Figure 17. View of the sloped area near structure 42.



Figure 18. View of the cemetery, adjacent to the project area, in the vicinity of structure 42.



Figure 19. View of the sloped area leading to structure 37.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

2/3/2017 3:31:14 PM

in

Case No(s). 17-0172-EL-BLN

Summary: Letter of Notification electronically filed by Mrs. Erin C Miller on behalf of AEP Ohio Transmission Company