CONSTRUCTION NOTICE FOR THE

Duke Energy Ohio, Inc.
Pierce Substation Transmission Line Installation Project

PUCO Case No. 20-1487-EL-BNR

Submitted to:

The Ohio Power Siting Board

Pursuant to OAC 4906-06

Submitted by:

Duke Energy Ohio, Inc.

September 2020

TABLE OF CONTENTS

ATTACHMENTS

CONSTRUCTION NOTICE

This Construction Notice has been prepared by Duke Energy Ohio, Inc. (hereafter "Duke Energy Ohio") in accordance with Ohio Administrative Code (OAC) Section 4906-6-05 for the review of Accelerated Certificate Applications for the Duke Energy Ohio Pierce Substation Transmission Line Installation Project (Project). The following section corresponds to the administrative code sections for the requirements of a Construction Notice.

4906-6-05(B) GENERAL INFORMATION

4906-6-05(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 Construction Notice application.

Name of Project:

Duke Energy Pierce Substation Transmission Line Installation

Reference Numbers:

PUCO Filing Number:	The Project has been assigned Public Utilities Commission of Ohio (PUCO) Case Number 20-1487-EL-BNR.
PJM Number:	This Project is a PJM Baseline Project and was assigned project number b2977.
2020 LTFR:	This project was included in the 2020 LTFR. The FE-T9 form is presented on page 91.
Circuit Reference:	This is not assigned as a transmission circuit within Duke Energy Ohio and is a substation asset. No circuit number or name is available.

Brief Description of the Project:

Duke Energy Ohio requires the installation of an approximate 0.117-mile of 345-kV line in support of the Pierce Substation Expansion Project (PUCO Case #: 20-262-EL-BNR). The completed substation expansion will allow for reconfiguration and installation of new equipment within the fence; however, the proposed installation of two (2) steel monopole structures will be located outside of the expanded substation fence. This transmission line installation is to create a bus for operations and allow for reconfiguration of equipment within the expanded Pierce Substation. The installation of the aforementioned structures is the second phase of necessary upgrades at the Pierce Substation to connect the reconfigured equipment within the expanded substation. The Project is located in Pierce Township near New Richmond, within Clermont County, Ohio, at the existing Pierce Substation site.

Construction Notice Requirement:

This Project qualifies as a Construction Notice filing because it meets the requirements of OAC 4906-1-01, Appendix A, item (4)(a), *Application Requirement Matrix for Electric Power Transmission Lines*:

> *1. New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:*
>
> *(a) Line(s) not greater than 0.2 miles in length.*

4906-6-05(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 Duke Energy Ohio Pierce Substation Transmission Line is the second phase of the substation expansion project that will allow for the installation of additional equipment to improve reliability, improve service to existing and future utility customers in the service area and addresses NERC criteria violations found for certain contingencies at Pierce substation.

This project is part of Duke Energy's long-range planning to identify and carry out enhancements to the electrical framework that will address reliability for our communities now and in the years ahead. This substation expansion project will provide the additional space required to reconfigure equipment within the Pierce Substation and install new equipment to modernize the substation. The expanded substation and subsequent transmission line installation will help increase the reliability of the energy network, as well as meet regulatory standards to serve electricity to homes, schools, hospitals and businesses in the area.

4906-6-05(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.

The location of the Project is depicted in Attachment A – Project Details. Figure 1 shows the general project vicinity depicted on a USGS quadrangle topographic map. Figure 2 depicts the planned transmission line location, compared to existing transmission lines in the Project vicinity and additional details depicted on an aerial imagery map.

4906-6-05(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.

The proposed Project will occur entirely within Duke Energy property and existing Duke Energy Ohio right-of-way (ROW) within Ohio Valley Electric Corporation (OVEC) property. No additional

long-term impacts to adjacent properties are anticipated as a result of the Pierce Substation Expansion Project. Therefore, the current alignment is the only reasonable alternative available and no alternatives were considered.

4906-6-05(B)(5) Public Information Program

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.

Information on the ongoing status of this Project and other Duke Energy Ohio projects can be found at the following website: https://www.duke-energy.com/our-company/about-us/electrictransmission-projects. Duke Energy Ohio is working with OVEC on the Project details and will provide written notice prior to beginning construction activities.

4906-6-05(B)(6) Construction Schedule

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

The first Phase of the Pierce substation project (PUCO Case #: 20-262-EL-BNR), consisting of the expansion of the substation fencing and associated grading activities, is anticipated to be completed by December of 2020. Construction activities associated with the installation of the two proposed structures for the transmission line installation and reconfiguration of equipment, the second phase, is tentatively planned to begin in December 2020 and anticipated to be completed by July 2022.

4906-6-05(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.

Attachment A – Project Details depicts the general location of the Project. Figure 1 shows the general Project vicinity depicted on a USGS quadrangle topographic map. Figure 2 shows the planned transmission line location and additional details depicted on an aerial imagery map.

4906-6-05(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.

This Project is located at the existing Pierce Substation, which is located on Duke Energy Ohio property and property owned by OVEC. Duke Energy Ohio has existing agreements in place with OVEC to complete this Project and continue operating from this substation on Parcel IDs 272802C018 and 272802C019.

4906-6-05(B)(9) Technical Features

The applicant shall describe the following information regarding the technical features of the project:

Duke Energy Ohio proposes to install two (2) steel monopole structures with concrete foundations. The structures will connect two existing 345-kilovolt (kV) substation buses and new and

reconfigured equipment within the expanded Pierce substation. The construction involves installing 0.117 miles (616 feet) of new conductor, two (2) static wires and 345-kV glass insulators.

4906-6-05(B)(9)(a) Operating Characteristics
Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

This project consists of a physical expansion of the existing Pierce Substation. This is the second phase of improvements to be made at the Pierce Substation once the expansion has been completed.

Voltage:	345 kV
Structure Type:	Two (2) Steel monopole structures with concrete foundations.
Conductors:	0.117 miles (616 feet) of conductor (Bundled 1590 AAC "Coreopsis" [6 conductors; 2 conductors per phase])
Static Wire:	Two (2) 7#8 Alumoweld
Insulators:	345-kV Glass insulators
Height:	STR 1: 180' / STR 2: 130'
ROW:	Within existing Duke Energy Ohio and OVEC property.

4906-6-05(B)(9)(b) Electric and Magnetic Fields
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.

4906-6-05(B)(9)(b)(i) Calculated Electric and Magnetic Field Levels
Calculated electric and magnetic field strength levels at one meter above ground under the lowest conductors and at the edge of the right-of-way.

No occupied residences or institutions are located within 100 feet of the proposed Project; therefore, no Electric and Magnetic Field (EMF) calculations are required by this code provision.

4906-6-05(B)(9)(b)(ii) Design Alternatives for EMF
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.

No occupied residences or institutions are located within 100 feet of the proposed Project; therefore, no design alternatives were considered for the Project.

4906-6-05(B)(9)(c) Project Cost
The estimated capital cost of the project.

The estimated capital cost of the Project is $6.5 million. This estimate includes vegetation clearing, installation equipment within the expanded substation, installation of the two new structures and associated conductor/linework to relocate the 345-kV line into the Pierce Substation.

4906-6-05(B)(10) Social and Ecological Impacts

The applicant shall describe the social and ecological impacts of the project:

4906-6-05(B)(10)(a) Land Use Characteristics

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 Pierce Township within Clermont County. Pierce Township does not currently have a land use plan, but the Project is located adjacent to the existing Pierce Substation. New Richmond is to the south and west of the existing substation. On the other side (west) of State Route 52 is Duke Energy Ohio's Beckjord Generation Substation, which is located adjacent to the Beckjord generation station that is no longer owned or operated by Duke Energy Ohio.

4906-6-05(B)(10)(b) Agricultural Land Information

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.

The project is located directly northwest of the existing substation, on the existing OVEC property and Duke Energy Ohio property. None of this area has been used for agricultural purposes. There will be no anticipated impacts to agricultural land as a result of the Project.

4906-6-05(B)(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant's investigation concerning the presence or absence of significant archaeological 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.

A Cultural Resources Desktop Review was completed on July 10, 2019, for the area within a 2-mile radius of the previous Substation Expansion Project. No cultural or historic resources were identified within the limits of the initial phase of the Pierce Substation Expansion Project. As this proposed Transmission Line Installation project is immediately adjacent to and overlaps the initial phase of the Pierce Substation Expansion project study area, the same 2-mile study area from the previous OPSB submittal was used to determine if any cultural or historic resources are located in the project vicinity. As stated in the previously completed Cultural Resources Desktop Review, no cultural resources were identified within the project area. A new desktop review would result in the same results; therefore, no cultural or historic resources are anticipated to be impacted from this project's activities (Transmission Line Installation). Refer to Attachment D – Cultural Resources Desktop Review.

4906-6-05(B)(10)(d) Local, State, and Federal Agency Correspondence

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.

As the Project is expected to disturb greater than one acre, a National Pollutant Discharge Elimination System (NPDES) Construction Site General Permit from the Ohio Environmental Protection Agency (Ohio EPA) for the relocation is required. In addition to the Ohio EPA permit, a Clermont County Building Permit may be required due to the proposed disturbance area.

Temporary impacts are proposed to one stream (Stream 004) in order to accommodate a construction matting work pad for the installation of one structure. A temporary culvert will be installed within the stream in order to facilitate normal flow conditions during active construction. These temporary impacts are anticipated to be covered under a United States Army Corps of Engineers (USACE) Section 404 Nationwide Permit #12 (NWP12) for Utility Lines and a pre-approved Water Quality Certification (WQC) for NWP12 from the Ohio Environmental Protection Agency (OEPA) while meeting all Regional General Terms and Conditions.

4906-6-05(B)(10)(e) Rare, Threatened, and Endangered Species

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.

Coordination with the U.S. Fish and Wildlife Service (USFWS) was initiated on July 17, 2020, in an effort to identify the Project's potential effect on any federally listed threatened or endangered species or critical habitat within a one-mile radius of the Study Area. A response from the USFWS was received July 24, 2020, regarding rare, threatened, and endangered (RTE) species located within the Study Area vicinity. The response from the USFWS indicated the federally listed endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) are found within the Project vicinity. However, due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the federally listed bat species, no adverse effects to any federally endangered, threatened, proposed or candidate species are expected to occur. A copy of the USFWS response can be found in Attachment B – Rare, Threatened, and Endangered Species Correspondence and is summarized below.

4906-6-05(B)(10)(f) Areas of Ecological Concern

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.

As a part of the investigation, GAI also conducted an investigation for areas of ecological concern. As a part of GAI's investigation, a request was submitted to the ODNR Natural Heritage Program on July 17, 2020, to research the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forest, national wildlife refuges, or other protected areas within one mile of the Project area, using the ODNR Natural Heritage Database. A response from the ODNR – Office of Real Estate is currently pending.

As a part of the field investigation and ecological assessment, GAI conducted a Regulated Waters Assessment of the Project Area. GAI's investigation included approximately 0.12-mile by 200-foot wide Study Area around the proposed centerline, access roads, and additional workspace areas. During the investigation, GAI identified five (5) likely jurisdictional streams within the Project's Study Area. Results from GAI's field investigation can be found in Attachment C – Regulated Waters Assessment (RWA). A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) revealed that no portion of the Project Area lies within a 100-year floodplain and/or floodway.

4906-6-05(B)(10)(g) Unusual Conditions

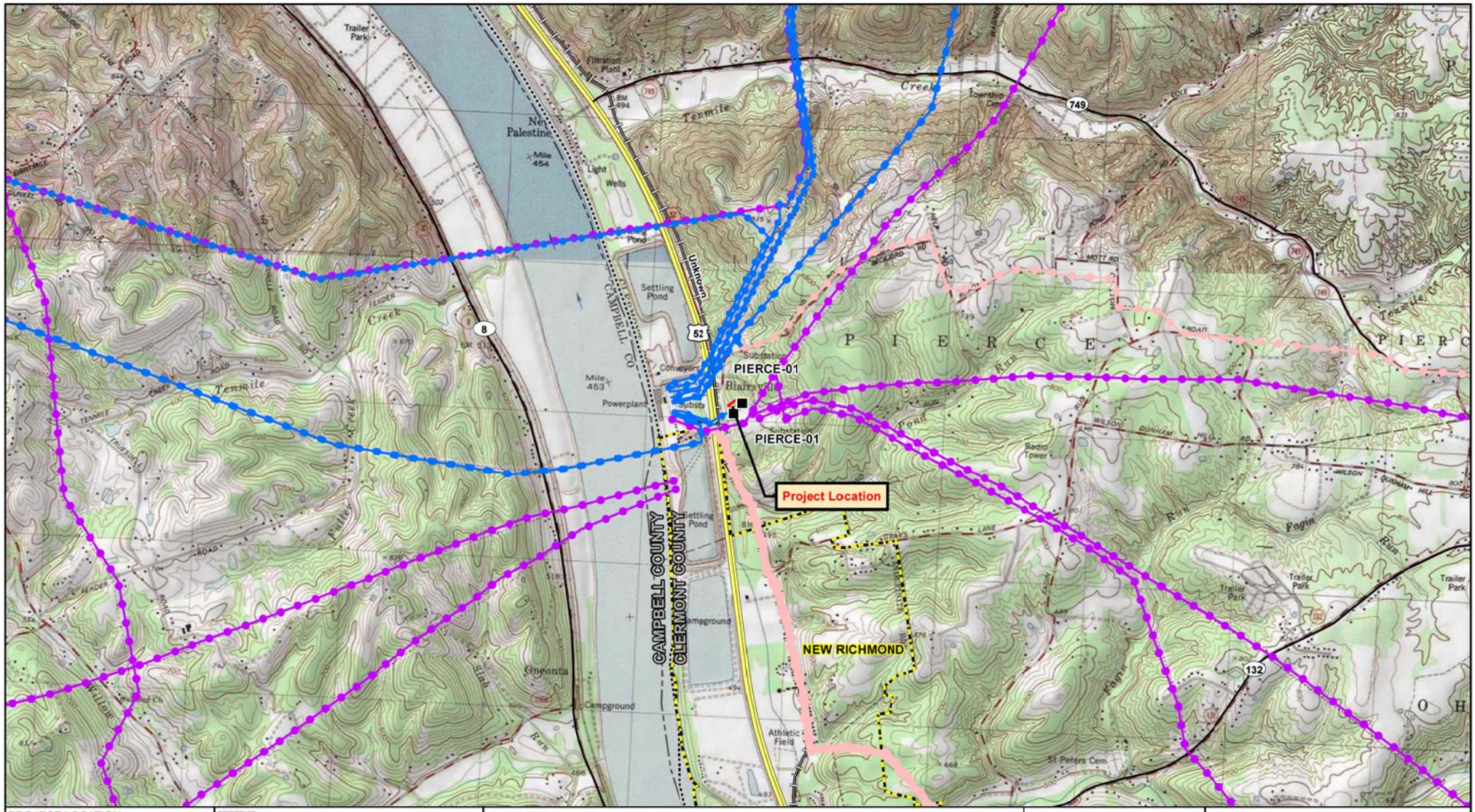
Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of Duke Energy Ohio's knowledge, no unusual conditions exist that would result in environmental, social, health, or safety impacts. Construction and operation of the proposed Project will meet all applicable safety standards established by the Occupational Safety and Health Administration and will be in accordance with the requirements specified in the latest revision of the National Electric Code as adopted by the PUCO.

CONSTRUCTION NOTICE TRANSMITTAL AND AVAILABILITY FOR PUBLIC REVIEW

Copies of the Construction Notice have been sent to the appropriate public officials for Clermont County and Pierce Township, as well as to the Clermont County Public Library.

Attachment A – Figures



PROJECT LOCATION

CLERMONT COUNTY, OH

REFERENCE:
TOPOGRAPHIC MAP:
- Esri's USA Topo Map, Accessed: 9/17/2020.

INCORPORATED AREA:
- Ohio Department of Transportation's Cities, 9/11/2018.

COUNTY BOUNDARY:
- Ohio Department of Transportation's Counties, 9/11/2018.

HIGHWAY:
- Esri's U.S. Major Roads, 5/10/2018.

RAILWAY:
- Ohio Department of Transportation's Railroads, 9/11/2018.

PROJECT DETAILS:
- Duke Energy.

US Highway
State Highway
Railway
Incorporated Area
County Boundary
Existing Facility
Route Centerline
Existing 69 KV Transmission Line
Existing 138 kV Transmission Line
Existing 345 kV Transmission Line

DUKE ENERGY.

gai consultants

0 1,000 2,000 Feet
1 in = 2,000 feet

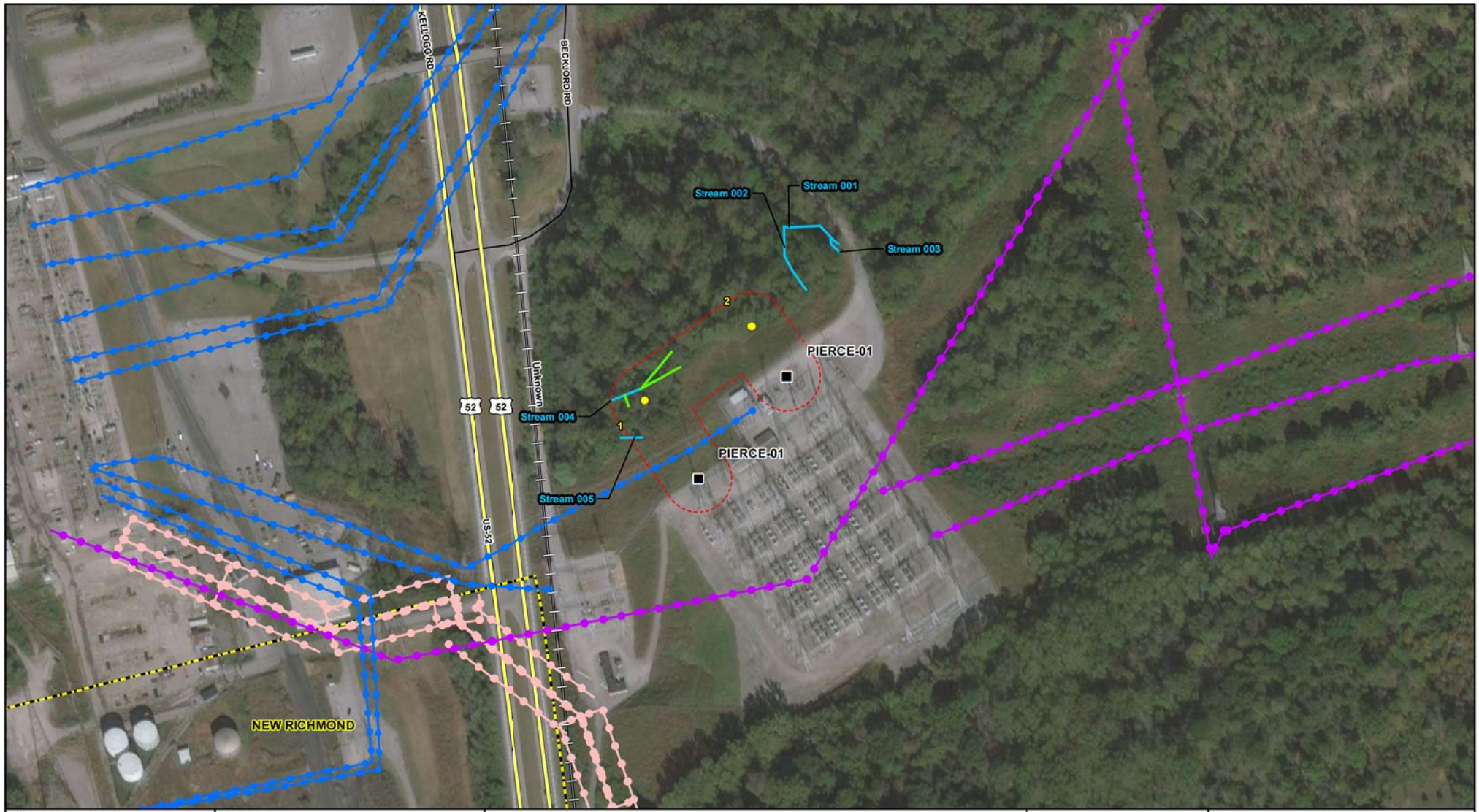
FIGURE 1
PROJECT LOCATION

Ohio Power Siting Board Construction Notice

Pierce Substation Transmission Line Installation Project

DRAWN BY: PPD
CHECKED: TDB
DATE: 9/17/2020
APPROVED: MRW

G:\R200570.00 - GIS\MXD\OPSB\R200570_00_Pierce_Substation_OPSB_FIG1_Project_Location_2020_09_17.mxd



PROJECT LOCATION

CLERMONT COUNTY, OH

REFERENCE:
AERIAL PHOTOGRAPH:
- Esri's World Imagery 2019, Accessed: 9/17/2020.
INCORPORATED AREA:
- Ohio Department of Transportation's Cities, 9/11/2018.
HIGHWAY:
- Esri's U.S. Major Roads, 5/10/2018.
LOCAL ROAD:
- Ohio Department of Transportation's Roads, 9/11/2018.
RAILWAY:
- Ohio Department of Transportation's Railroads, 9/11/2018.
DELINEATED FEATURE:
- GAI Consultants.
PROJECT DETAILS:
- Duke Energy.

US Highway
Local Road
Railway
Incorporated Area
Existing Facility
Proposed Structure
Surface Drainage
Delineated Stream
Approximate Right-of-Way
Existing 69 KV Transmission Line
Existing 138 kV Transmssion Line
Existing 345 kV Transmssion Line

DUKE ENERGY.

gai consultants

0 100 200 Feet
1 in = 200 feet

FIGURE 2
PROJECT LAYOUT

Ohio Power Siting Board Construction Notice

SHEET 1 of 1

Pierce Substation Transmission Line Installation Project

DRAWN BY: PPD
CHECKED: TDB
DATE: 9/17/2020
APPROVED: MRW

G:\R200570.00 - GIS\MXD\OPSB\R200570_00_Pierce_Substation_OPSB_FIG2_Project_Layout_2020_09_17.mxd

Attachment B – Rare, Threatened, and Endangered Species Correspondence

Tyler Rankin

From: Ohio, FW3 <ohio@fws.gov>
Sent: Friday, July 24, 2020 3:08 PM
To: Bradley Rolfes
Cc: Tyler Rankin
Subject: Duke Energy, Pierce Substation T-line Relocation Project, Clermont Co.

Follow Up Flag: Flag for follow up
Flag Status: Flagged

EXTERNAL E-MAIL MESSAGE

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994

TAILS #03E15000-2020-TA-1881

Dear Mr. Rolfes,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. We recommend that proposed activities minimize water quality impacts, including fill in streams and wetlands. Best management practices should be utilized to minimize erosion and sedimentation.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the federally listed endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*), we do not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service (Service) should be initiated to assess any potential impacts.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing should occur on any portion of the project area until consultation under section 7 of the Endangered Species Act (ESA), between the Service and the federal action agency, is completed. We recommend that the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or

state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Patrice M. Ashfield
Field Office Supervisor

Tyler Rankin

To: environmentalreviewrequest
Cc: Tyler Rankin
Subject: Environmental Review Request - Duke Energy Pierce Substation T-Line Relocation Project
Attachments: Duke_Energy_Pierce_Substation_T-Line_.zip; R200570_00_Pierce_Substation_Field_2020_07_14.pdf

Dear Staff,

On behalf of Duke Energy, I am submitting this email as an Environmental Review Request concerning any endangered, threatened, or candidate species and their critical habitat in the vicinity of the Duke Energy Pierce Substation T-Line Relocation Project located in Clermont County, Ohio. Attached to this email is a shapefile of a 0.5-mile buffer and a vicinity map of the project study area for your reference.

The proposed Project involves The realignment will include relocation of an approximate 0.22-miles of 345kV line in support of the Pierce Substation Expansion Project. Two (2) steel monopole structures will be installed near the existing Pierce Substation.

The habitat within the Project area consists of existing Duke Energy Substation Property, Road Right-of-way, and forested land uses. Any forested clearing is planned to occur within the seasonal Bat Tree Clearing window (October 1 and March 31).

At your earliest convenience, please provide a formal response on the formal ODNR letterhead of results of the Environmental Review within the Project area so this information can be included with other required materials specific to Ohio Power Siting Board requirements.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you,
Brad Rolfes

Bradley J. Rolfes
Environmental Specialist

GAI Consultants, 11 Spiral Drive, Suite 8, Florence, KY 41042
T 859.647.6647 **D** 859.795.2979 **M** 859.321.1058

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GAI Consultants
ENGINEERING, PLANNING, AND ENVIRONMENTAL CONSULTING SINCE 1958

Attachment C – Regulated Waters Assessment

gai consultants

Northern Kentucky Office
11 Spiral Drive
Suite #8
Florence, Kentucky 41042

T 859.795.2550
F 859.647.6685

August 27, 2020

GAI Project No. R200570.00

Mr. Dane Vandewater
Senior Permitting Specialist
Duke Energy
139 East 4th Street
Cincinnati, OH 45202

Regulated Waters Assessment
Duke Energy Pierce Substation 345 kV T-Line Relocation Project
Duke Energy Project No. TOH2348
Clermont County, Ohio

Dear Mr. Vandewater:

This report presents the findings of the regulated waters assessment and identifies the resulting anticipated regulatory permitting compliance requirements for the Pierce Substation 345 kV T-Line Relocation Project (Project), located in Clermont County, Ohio **(Appendix A, Figure 1)**. This field survey effort was done in support of due diligence as required for a Construction Notice (CN), submitted to The Ohio Power Sitting Board (OPSB). Results from the regulated waters field survey are summarized below:

Project Summary

The Project will require the relocation of an approximate 0.12-mile (630 feet) span of 345kV line in support of the Pierce Substation Expansion Project. The re-alignment will include the installation of two (2) steel monopole structures with concrete foundations **(Appendix A, Figure 2)**. Photos of the Project Area can be found in **Appendix B**.

Work Summary

A remote environmental screening review followed by an on-site field survey was completed by GAI Consultants Inc. (GAI) on July 17, 2020 in order to evaluate potential regulated waters impacts associated with the Project. These investigations were limited to an approximate 200-foot-wide corridor along the proposed realignment and proposed substation expansion area.

It is anticipated that grading improvements will take place for substation expansion and structure installation activities and aquatic resources may be impacted as a result of these grading activities.

Environmental Survey Results

National Wetland Inventory (NWI)

The United States Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) maps were reviewed for potential wetland locations within the Project Area. The NWI maps were prepared from high altitude photography and, in most cases, were not field verified. As a result, wetlands are sometimes erroneously identified, missed, or misidentified within this data set. The presence of an NWI wetland does not necessarily constitute the presence of a wetland meeting USACE criteria. The NWI map of the area identified no NWI features within the study area (See Figure 2).

100-Year Floodplain and Floodway

A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) revealed that the Project Area is not located within a mapped 100-year floodplain or floodway (see Figure 2).

Wetlands

No likely jurisdictional wetlands were identified within the Project Area.

Waterbodies

To evaluate potential streams within the study area, GAI reviewed existing United States Geological Survey (USGS) topographic maps, aerial photography, National Hydrography Dataset (NHD) stream data, and site contour data. Five (5) likely jurisdictional streams (2 intermittent, 3 ephemeral), totaling 444 feet, were identified within the vicinity of study area. Locations of the identified streams can be found in Appendix B - Figure 2, Resource Location. The identified stream features are summarized in Table 1. Photos of the identified streams can be found in Appendix C.

Temporary impacts are proposed to one stream (Stream 004) in order to accommodate a construction matting work pad for the installation of one structure. A temporary culvert will be installed within the stream in order to facilitate normal flow conditions during active construction. This temporary impacts are anticipated to be covered under a United States Army Corps of Engineers (USACE) Section 404 Nationwide Permit #12 (NWP12) for Utility Lines and a pre-approved Water Quality Certification (WQC) for NWP12 from the Ohio Environmental Protection Agency (OEPA) while meeting all Regional and General Terms and Conditions.

Sincerely,
GAI Consultants, Inc.

Tyler E. Rankin, MS, CNRP
Senior Project Environmental Specialist

Attachments: Appendix A - Tables
Appendix B - Figures
Appendix C - Photographs

Table 1.

Streams Identified Within the Project Study Area

Feature Designation[1]	Latitude[2]	Longitude[2]	Name	Stream Flow Regime	OHWM Width (feet)	OHWM Depth (feet)	BFW (feet)	BFD (feet)	TOB Width (feet)	TOB Depth (feet)	Length Within Study Area[3] (feet)	Ohio or Federal Special Listing[4,5,6,7]	Open Ended	OEPA Stream Eligibility
Stream 001	38.992471	-84.290522	UNT to Ohio River	Intermittent	4	0.5	6	1.5	7	2	125.1	N	Y	Eligible
Stream 002	38.992267	-84.290746	UNT to Ohio River	Intermittent	8	0.5	10	2	12	3	165.3	N	Y	Eligible
Stream 003	38.992352	-84.290383	UNT to Ohio River	Ephemeral	1	0.25	2.5	0.5	3.5	1	38.4	N	Y	Eligible
Stream 004	38.991426	-84.291973	UNT to Ohio River	Ephemeral	1.5	0.25	3	0.5	4	1	66.9	N	Y	Eligible
Stream 005	38.991171	-84.291918	UNT to Ohio River	Ephemeral	2	0.5	4	1	5	1.5	48.0	N	Y	Eligible
Total Stream Length (feet) within Study Area											**443.7**			

Notes:

1 GAI map designation.

2 Decimal degrees; Coordinates provided in NAD 83.

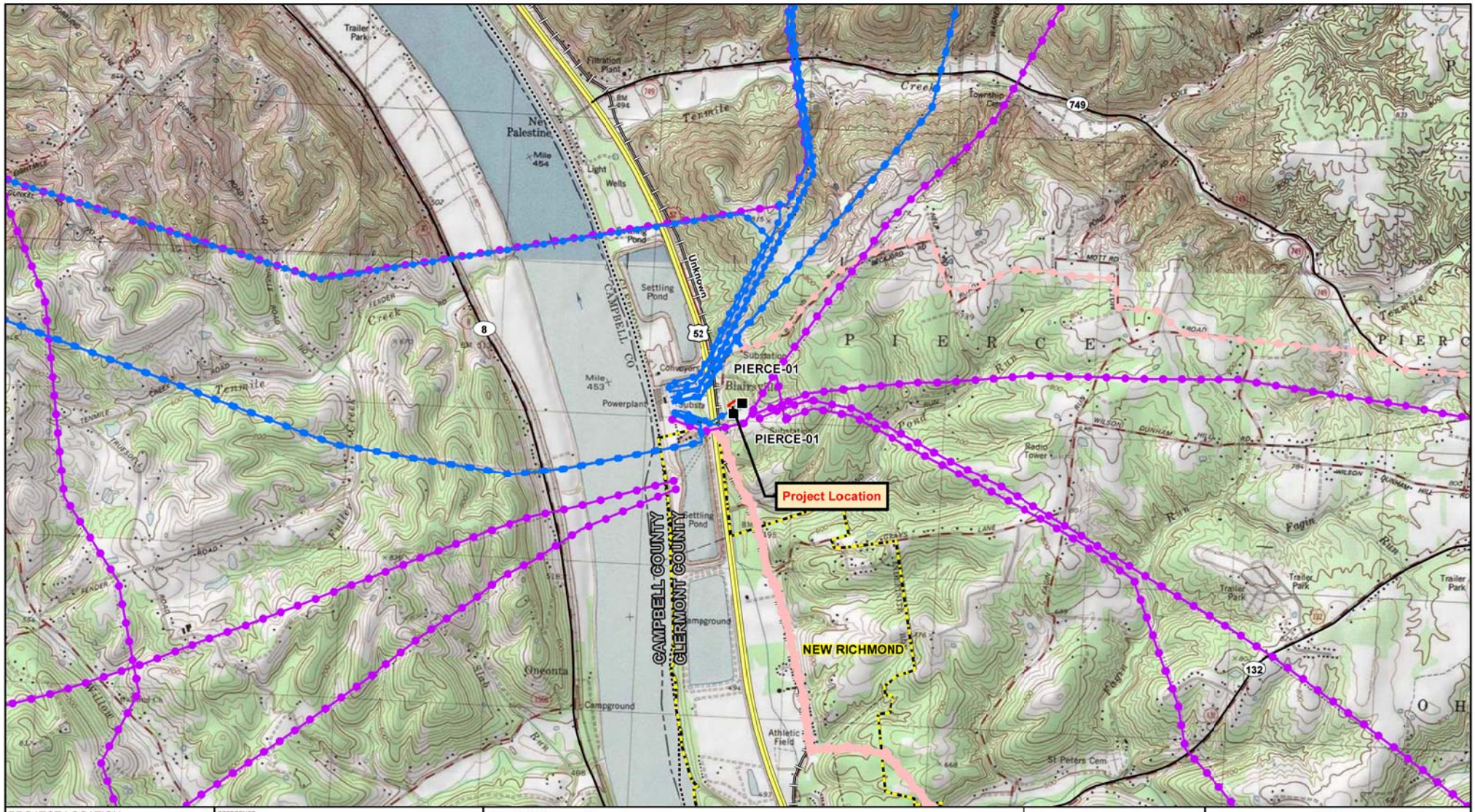
3 Extent of stream or open water within study area. Stream or open water may extend beyond these limits if noted as open ended. A length of 0 indicates a stream was delineated but exists entirely outside the study area.

4 USACE Navigable Streams in Ohio Listing (Section 10 Waters) Huntington District.

5 OEPA Aquatic Life Use Designation of Exceptional Warmwater Habitat (EWH), Cold Water Habitat (CWH), Warmwater Habitat (WWH), Seasonal Salmonid Habitat (SSH), Modified Warmwater Habitat (MWH), or any equivalent per OAC 3745-1-21.

6 OEPA Antidegradation Category of Superior High Quality Water, Outstanding National Resource Water, or Outstanding State Water.

7 ODNR Listing of State Wild and Scenic Rivers.



PROJECT LOCATION

CLERMONT COUNTY, OH

REFERENCE:
TOPOGRAPHIC MAP:
- Esri's USA Topo Map, Accessed: 9/17/2020.

INCORPORATED AREA:
- Ohio Department of Transportation's Cities, 9/11/2018.

COUNTY BOUNDARY:
- Ohio Department of Transportation's Counties, 9/11/2018.

HIGHWAY:
- Esri's U.S. Major Roads, 5/10/2018.

RAILWAY:
- Ohio Department of Transportation's Railroads, 9/11/2018.

PROJECT DETAILS:
- Duke Energy.

- US Highway
- State Highway
- Railway
- Incorporated Area
- County Boundary
- Existing Facility
- Route Centerline
- Existing 69 KV Transmission Line
- Existing 138 kV Transmission Line
- Existing 345 kV Transmission Line

DUKE ENERGY.

gai consultants

0 1,000 2,000 Feet

1 in = 2,000 feet

FIGURE 1
PROJECT LOCATION

Ohio Power Siting Board Regulated Waters Assessment Report

Pierce Substation Transmission Line Installation Project

DRAWN BY: PPD
CHECKED: TDB

DATE: 9/17/2020
APPROVED: MRW

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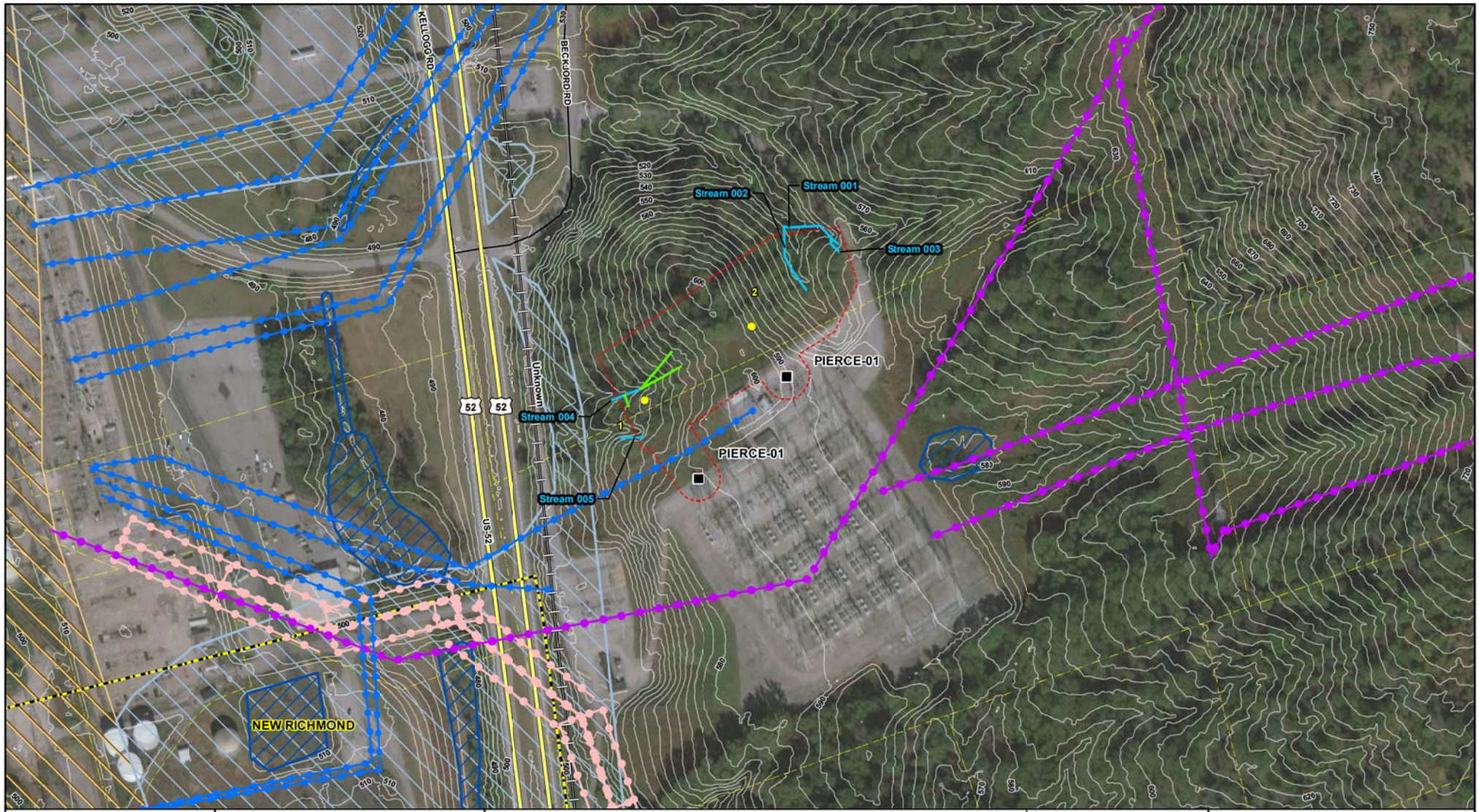

PROJECT LOCATION

CLERMONT COUNTY, OH

REFERENCE:
AERIAL PHOTOGRAPH:
- Esri's World Imagery 2019, Accessed: 9/17/2020.
INCORPORATED AREA:
- Ohio Department of Transportation's Cities, 9/11/2018.
HIGHWAY:
- Esri's U.S. Major Roads, 5/10/2018.
LOCAL ROAD:
- Ohio Department of Transportation's Roads, 9/11/2018.
RAILWAY:
- Ohio Department of Transportation's Railroads, 9/11/2018.
NHD FLOWLINE:
- United States Geological Survey's National Hydrography Dataset, 1/1/2019.
NWI WETLAND:
- United States Geological Survey's National Hydrography Dataset, 1/1/2019.
FLOODPLAIN AND FLOODWAY:
- Federal Emergency Management Agency's National Flood Hazard Layer, 8/28/2019.
PARCEL BOUNDARY:
- Received from Clermont County GIS Department.
5-FOOT CONTOUR:
- Ohio Geographically Referenced Information Program (OGRIP), Clermont County, 2006.
DELINEATED FEATURE:
- GAI Consultants.
PROJECT DETAILS:
- Duke Energy.

US Highway
Local Road
Railway
Incorporated Area
Existing Facility
Proposed Structure
Surface Drainage
Delineated Stream
Approximate Right-of-Way
Existing 69 KV Transmission Line
Existing 138 kV Transmission Line
Existing 345 kV Transmission Line
NHD Flowline
NWI Wetland
Floodway
100-Year Floodplain
Parcel Boundary
5-Foot Contour

DUKE ENERGY.

gai consultants

0 100 200 Feet
1 in = 200 feet

FIGURE 2
PROJECT LAYOUT

Ohio Power Siting Board Regulated Waters Assessment Report

SHEET 1 of 1

Pierce Substation Transmission Line Installation Project

DRAWN BY: PPD
CHECKED: TDB
DATE: 9/17/2020
APPROVED: MRW

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Photographs

Photograph 1. Stream 001. Intermittent. Downstream Looking North. (July 17, 2020)

Photograph 2. Stream 001. Intermittent. Upstream. Looking South. (July 17, 2020)

Photograph 3. Stream 002. Intermittent. Downstream. Looking Northeast. (July 17, 2020)

Photograph 4. Stream 002. Intermittent. Upstream. Looking Southwest. (July 17, 2020)

Photograph 5. Stream 003. Ephemeral. Downstream. Looking North. (July 17, 2020)

Photograph 6. Stream 003. Ephemeral. Upream. Looking South. (July 17, 2020)

Photograph 7: Stream 004. Ephemeral. Downstream. Looking West. (July 17, 2020)

Photograph 8: Stream 004. Ephemeral. Upstream. Looking East. (July 17, 2020)

Photograph 9: Stream 005. Ephemeral. Downstream. Looking West. (July 17, 2020)

Photograph 10: Stream 005. Ephemeral. Upstream. Looking East. (July 17, 2020)

Photograph 11: View of proposed location of 345 kV bus. Looking South. (July 17, 2020)

Photograph 12: View of proposed location of 345 kV bus. Looking West. (July 17, 2020)

Photograph 13: View of Proposed new 345 kV bus from existing Pierce Substation. Looking Northwest. (July 17, 2020)

Photograph 14: View of existing Pierce Substation expansion area. Looking Northeast. (July 17, 2020)

Attachment D – Cultural Resources Desktop Review

Terracon

February 28, 2020

Mr. Michael Minoughan
Duke Energy
139 East Fourth Street
Cincinnati, Ohio 45202

Re: Cultural Resources Desktop Review for the
Pierce Substation Expansion
Clermont County, Ohio
Terracon Project No. N1195186

Dear Mr. Minoughan:

Terracon Consultants, Inc. (Terracon), on behalf of Duke Energy, has completed a cultural resources desktop review for the approximately 16,000 sq. ft. Pierce Substation expansion located in New Richmond, Pierce Township, Clermont County, Ohio. The project area is located at the Pierce Substation on Beckjord Road. This work was done under contract to Duke Energy in general accordance with Terracon Proposal No. PN1195186, dated June 17, 2019.

1.0 BACKGROUND RESEARCH

1.1 Previously Recorded Sites

Background research for the cultural resources desktop review was conducted on July 1, 2019, using the Ohio State Historic Preservation Office's (OHPO) Online Mapping System, a GIS program depicting Ohio's previously recorded archaeological resources, inventoried structures, National Register properties, National Historic Landmarks, cemeteries, and Historic Bridges. The area examined was a 2.0-mile radius around the project area.

Based on the results of the background research, there are 13 previously recorded archaeological sites, 10 historic resources, and six cemeteries within a 2.0-mile radius of the project area (Figure 1, Table 1). None of these are within the project area. In addition, six previous archaeological surveys have been conducted within a 2.0-mile radius of the project area (Warwick 2009; Adderley and Martin 2001; Norris 1984; Skinner 1981; Wymer 1978). None of these surveys have been conducted within the current project boundary.

The 13 archaeological resources include sites with Archaic through Mississippian prehistoric components and early to middle twentieth century historic components (Table 1). Six of the sites were not assessed for NRHP eligibility, while information about the NRHP status for seven sites was unavailable. Of the 10 historic structures within a 2.0-mile radius of the project area, the Nelp House (Resource No. CLE25009) was determined to be eligible for the NRHP, while the

remaining eight structures were determined to be ineligible for the NRHP. None of these resources will be impacted by the proposed project.

Table 1. Previously Recorded Cultural Resources within a 2.0-mile Radius of the Project Area.

Resource ID	Description	NRHP Eligibility	Source
33CT21	Late Prehistoric.	Not Assessed	OHPO
33CT23	Archaic, Middle Woodland	Not Available	OHPO
33CT33	Archaic, Early Woodland, Middle Woodland	Not Available	OHPO
33CT47	Archaic, Woodland, Mississippian	Not Available	OHPO
33CT54	Early, Middle Woodland.	Not Available	OHPO
33CT300	Archaic	Not Available	OHPO
33CT529	Unknown Prehistoric	Not Assessed	OHPO
33CT530	Middle 20th c.	Not Assessed	OHPO
33CT531	Early 20th c.	Not Assessed	OHPO
33CT532	Early 20th c.	Not Assessed	OHPO
33CT534	Unknown Prehistoric	Not Assessed	OHPO
33CT662	Unknown Prehistoric	Not Available	OHPO
33CT663	Archaic	Not Available	OHPO
CLE6909	Mott Farm ca. 1820	Not Eligible	OHPO
CLE69910	Beckjord Power Station ca. 1952	Not Eligible	OHPO
CLE22709	Durham Mott House, ca.1840	Not Eligible	OHPO
CLE23509	Nelp House, ca. 1870	Eligible	OHPO
CLE23909	Single Dwelling, ca. 1875	Not Eligible	OHPO
CLE24209	Martha Green House ca. 1860	Not Eligible	OHPO
CLE24309	Store, ca. 1870	Not Eligible	OHPO
CLE25009	Single Dwelling, ca. 1865	Not Eligible	OHPO
CLE25209	J. Mathews House ca. 1860	Not Eligible	OHPO
CLE48010	Gray Farm, ca. 1849	Not Eligible	OHPO
1832	Atkinson-Williamson Cemetery	Not Available	OHPO
1839	Light -Springer Cemetery	Not Available	OHPO
1843	Cemetery	Not Available	OHPO
1856	Pierce Township Ten Mile Road Cemetery	Not Available	OHPO
14495	Good Samaritan Cemetery	Not Available	OHPO
1849	Donham Cemetery	Not Available	OHPO

2.0 CONCLUSIONS

Based on the available data reviewed, no previously recorded archaeological sites or historic resources have been identified within or immediately adjacent to the project. The majority of the Project is adjacent to an existing substation and transmission lines. Due to the previous disturbance from the existing development of the Pierce Substation and limited amount of ground disturbance related to the placement of additional fill to increase the elevation to match the existing substation ground surface, there is little potential to affect unrecorded cultural resources within the Project area. Based on this, it is Terracon's opinion that no historic properties will be affected by the proposed undertaking and that additional cultural resource investigations are unwarranted. If, however, the project was to trigger compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, by needing a federal permit, license, money, or

approval, or if compliance with other applicable state or local cultural resource laws was required, then consultation with the State Historic Preservation Office (SHPO) and other consulting/interested parties would be required.

3.0 CLOSING

Terracon appreciates the opportunity to provide you with this report. If you have any questions, please do not hesitate to contact Bill Green at (803) 403-1256.

Sincerely,
Terracon Consultants, Inc.

Doug Sain, Ph.D., RPA /t 17527
Senior Archaeologist

Reviewed By:

William Green, M.A., RPA #10387
Principal / Department Manager
Natural and Cultural Resource Services

REFERENCES

Adderley, Anthony W., and Andrew V. Martin
2001 Archaeological Records Review and Phase I Field Reconnaissance for the Aleshire Site (Trinity Wireless Site #OH00405A) 1041 Cobra Road, Ohio Township, Clermont County, Ohio.

Norris, Rae
1984 Phase I and II Archaeological Survey for the Proposed Fly Ash Pond in Beckjord, Clermont County, Ohio.

Skinner, Shaune
1981 Phase I (Literature Review) Archaeological Survey for the Proposed New Richmond Marina Near New Richmond, Clermont County, Ohio.

Warwick, Jaclyn Lillis
2009 Phase I Archaeological Survey of the Pond Run Landfill Re-Permitting Project, Beckjord Station, Pierce Township, Clermont County, Ohio.

Wymer, Dee Ann
1978 The Prather Site: The Testing of Spatial Patterning of Archaeological Material.

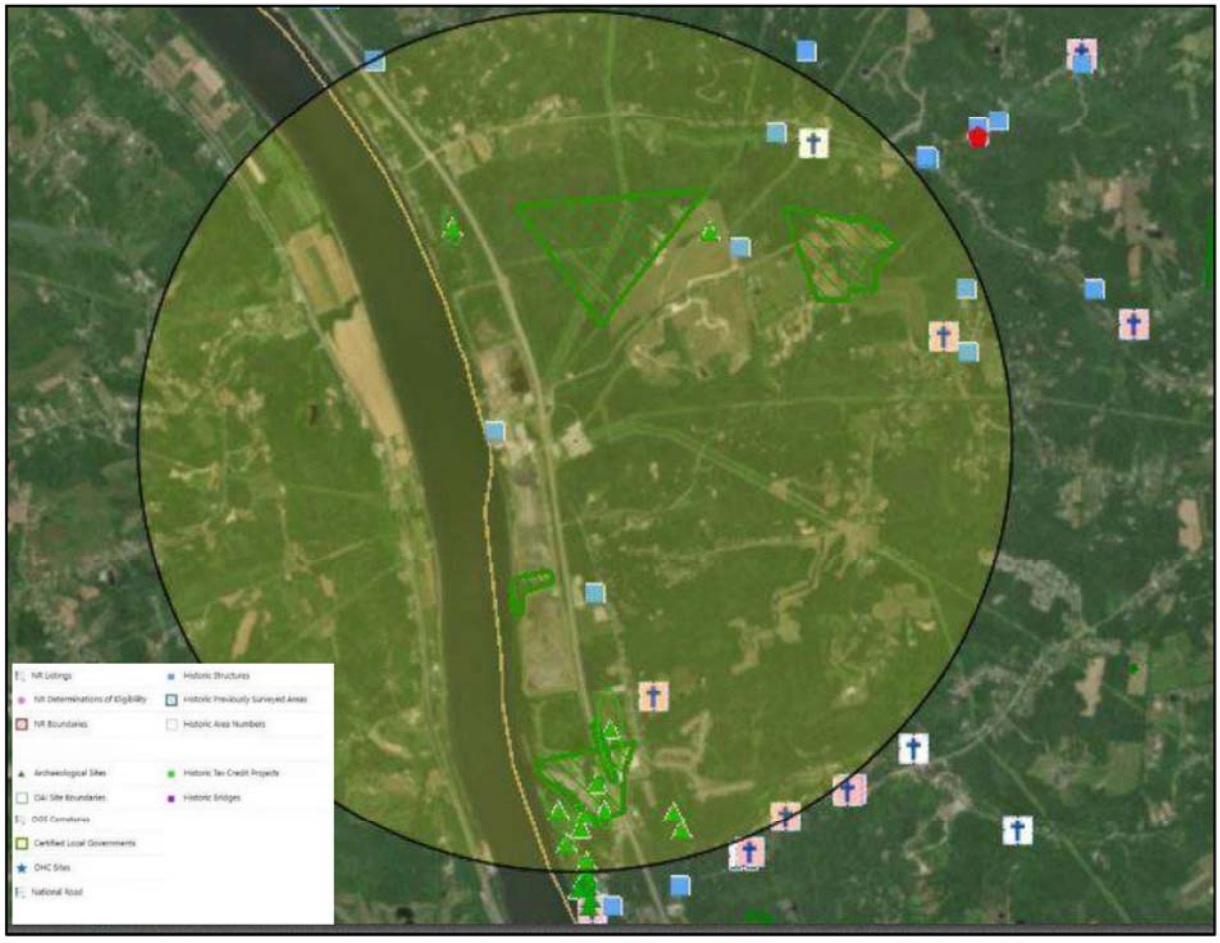

Figure 1. OHPO map showing cultural resources within a 2.0-mile radius.