CONSTRUCTION NOTICE FOR THE

Duke Energy Ohio, Inc.
Duke Energy 2381 Line GLT Project

PUCO Case No. 20-1611-EL-BNR

Submitted to:

The Ohio Power Siting Board

Pursuant to OAC 4906-06

Submitted by:

Duke Energy Ohio, Inc.

November 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 2381 Line GLT Project (Project). The following section headings correspond 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 2381 Line GLT Project

Reference Numbers:

PUCO Filing Number:	The Project has been assigned Public Utilities Commission of Ohio (PUCO) Case Number 20-1611-EL-BNR.
2020 LTFR and PJM Reference:	The Project will not change the model significantly, therefore does not need reporting.
Circuit Reference:	This project is a part of the Duke Energy F2381 138 kV transmission circuit.

Brief Description of the Project:

Duke Energy Ohio requires the installation of four (4) 3-pole structures located along the existing F2381 138 kV transmission line in support of the Duke Energy 2381 Line GLT Pole Replacement Project. These four (4) 3-pole structures will require the removal of the existing direct embed wood structures (three [3] 2-pole H-frame structures and one [1] 3-pole structure to be removed) and the installation of steel structures at the same location. Three (3) of the new steel structures will require concrete foundations (W50-253, WRO-9617 and WRO-9615); the fourth new steel 3-pole structure will be direct embed (WRO-9611). These replacements are a part of the larger 2381 Line GLT Project, to replace a total of 41 deficient existing structures along the existing line that are at risk of failure. However, the remaining 37 structures are like-for-like replacements (i.e., direct embed) and the conductor is being transferred to the replacement structures; therefore, they are not subject to OPSB regulations. The Project is located within Harlan and Salem Townships near the village of Morrow, within Warren County, Ohio.

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*:

> *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:*
>
> *(a) Two (2) miles or less.*

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.

These replacements and maintenance repairs are required to maintain the safety and integrity of the line and are subject to regulatory deadlines for completion of the structure and conductor replacement. This project is part of Duke Energy's long-term 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 replacement project will provide increased 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 existing Duke Energy Ohio right-of-way (ROW) and all proposed structure replacements are like-for-like, with the exception of those requiring foundations, in approximately the same location as the existing structures. No additional long-term impacts to adjacent properties are anticipated as a result of the 2381 Line GLT 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.

A letter will be mailed in January 2021, in advance of February 2021 vegetation removal. The list of parcel owners was selected in a Geographic Information System (GIS) to identify the property owners and tenants who are to be notified of the project. First, in GIS, the parcels that were directly affected by the project were selected and then properties adjacent to those directly affected were also selected. After the parcels were identified, a second step was completed to develop a mailing list that included both the property owner and tenants. A letter will be sent to the physical address of the property and also to the owner's address of the property if they are not identical. A website outlining the project will be posted the day of the filing on November 12: www.duke-energy.com/warren.

Information on the ongoing status of this Project and other Duke Energy projects can be found at the following website:

https://www.duke-energy.com/our-company/about-us/electric-transmission-projects

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

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

All identified structures to be replaced were deemed deficient and pose a risk to the electrical grid. The proposed Project is anticipated to take place within the predetermined outage, scheduled between February 2021 – December 2021.

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 within the existing 2381 transmission line ROW. All proposed structure replacements are anticipated to be installed in the exact location (+/- 5 ft.) of the existing deficient structure.

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

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

Duke Energy proposes to install three (3) steel 3-pole structures with concrete foundations (WRO-9615, WRO-9617, and 50W-253) and one (1) steel 3-pole structure direct embed (WRO-9611) within the existing 2381 Line ROW. Construction will involve the replacement of the previously mentioned structures and transferring of the conductor along this segment of the Circuit as part of the 2381 Line GLT Project.

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 multiple structure replacements within existing ROW of the 2381 transmission line.

Voltage:	138 kV
Structure Type:	Three (3) 3-pole Steel Structures (W50-253, WRO-9617 and WRO-9615) with concrete foundations. One (1) 3-pole steel structure direct embed (WRO-9611).
Conductors:	0.39 miles (2,100 feet) of existing conductor transfer (477ACSR 26X7)
Insulators:	138D-G
Height:	60ft
ROW:	Within existing Duke Energy Ohio ROW

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 $125,997. This estimate includes vegetation clearing, grading, installing the four (4) new structures, and associated linework to replace all deficient structures on the 2381 Line.

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 Harlan and Salem Townships within Warren County, Ohio. Salem Township does not currently have a land use plan, but Harlan county has a Comprehensive Plan – a Vision for 2030. That Comprehensive Plan includes three main goals pertaining to land use; Goal 1: Enable commercial and light industrial development in strategic areas. Goal 2: Conserve and protect the natural environment and the scenic character of the river corridors. Goal 3: Maintain a low density, rural character. The Duke Energy 2381 Line GLT Project supports goals 1 and 2 by enhancing electric reliability service while limiting environmental impact and maintaining the natural environmental character of the region. The proposed Project centerline spans Todd Fork and is due east of the village of Morrow, Ohio. The project is entirely within existing, routinely maintained Duke Energy transmission line ROW, consisting of land uses including but not limited to agricultural, rural residential, riparian corridor, and upland woodlots.

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 entirely within existing Duke Energy transmission line ROW. Minimal out-of-ROW areas will be utilized to facilitate construction access. A majority of the land use within the existing 2381 ROW and immediately adjacent to the ROW consists of active agricultural land uses. Impacts to agricultural lands will occur as a result of the Project, as overland access through active till agricultural lands are expected. It is conservatively estimated that 1.67 acres of disturbance to agricultural lands will occur, as a result of overland access and temporary workspaces around proposed structure locations. However, temporary construction matting and perimeter sediment and erosion controls will be utilized to limit the potential for compaction to soil and potential for soil loss due to erosion. No known agricultural district lands are located in the project vicinity.

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 September 23, 2020, for the area within 0.8 kilometer (0.5 mile) of the Project Area (the Study Area). The OHPO records check indicates that three historic structures (WAR0147409, WAR0046912, and WAR0047012) and two archaeological sites (WA0991 and WA0992) have been previously recorded in the Study Area. None of these resources are listed on the National Register of Historic Places (NRHP); however, structures WAR0046912 and WAR0047012, located at the eastern edge of the Study Area, are recorded as eligible. None of these resources are located within the Project Area footprint.
In addition, one Phase I archaeological and historical survey was done within the Study Area (BU20783) for the Hillsboro-Hutchings Tap 138kV Rebuild Project. This survey area runs

concurrent with and overlapping the proposed Project alignment. It does not appear that impacts to significant cultural resources will occur as a result of the Project. The minimal impacts associated with the Project do not warrant additional cultural resource surveys based on the proposed scope of work. 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.

4906-6-05(B)(10)(e) Threatened, Endangered, and Rare 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 August 25, 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 USFWS was received September 1, 2020, regarding rare, threatened, and endangered (RTE) species located within the Study Area vicinity. The response from 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. The response letter from USFWS can be found in Attachment B – Rare, Threatened, and Endangered Species Correspondence.

Additionally, a request was submitted to the Ohio Department of Natural Resources (ODNR) Environmental Review Program on August 25, 2020, in an effort to identify the Project's potential effect on any state-listed threatened or endangered species or critical habitat within the vicinity of the Study Area. A response from ODNR – Division of Wildlife (DOW) was received on October 28, 2020.

The ODNR-DOW noted the presence of the state-endangered Indiana bat, northern long-eared bat, the little brown bat (*Myotis lucifugus*), and the tricolored bat (*Perimyotis subflavus*) within the vicinity of the Project area and recommended the same seasonal tree clearing timeframe as the USFWS. Additionally, the ODNR-DOW also indicated that the Project is within the range of one (1) state-endangered and three (3) state-threatened mussel species as well as five (5) state-endangered and three (3) state-threatened fish species. Due to the location, and the fact that there is no in-water work proposed in a perennial stream, this Project is not going to impact these species. ODNR-DOW also indicated that the Project is within range of one (1) state-endangered reptile, two (2) state-threatened reptiles, four (4) state-endangered birds, and two (2) state-threatened bird species. Due to the location, the type of habitat present at the Project site and within the vicinity of the Project area, and the type of work proposed, this Project is not likely to impact these species.

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 August 25, 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 was received on October 28, 2020, which indicated that there are no unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, or other protected areas within one mile of the Project Area. Response letters from ODNR can be found in Attachment B – Rare, Threatened, and Endangered Species Correspondence.

As a part of the field investigation and ecological assessment, GAI conducted a Regulated Waters Assessment of the Project Area. GAI's investigation was limited to an approximate 75-foot-wide buffer around the proposed structure replacements and a 50-foot-wide study area along proposed access. During the investigation, GAI identified one (1) likely jurisdictional regulated water within the Project's Study Area. No impacts to regulated waters or RTE habitat are anticipated by the Project. 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 the Project alignment crosses the 100-year floodplain of Todd Fork. However, no overland access or grading/fill activities are anticipated to occur within the mapped 100-year floodplain of Todd Fork.

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

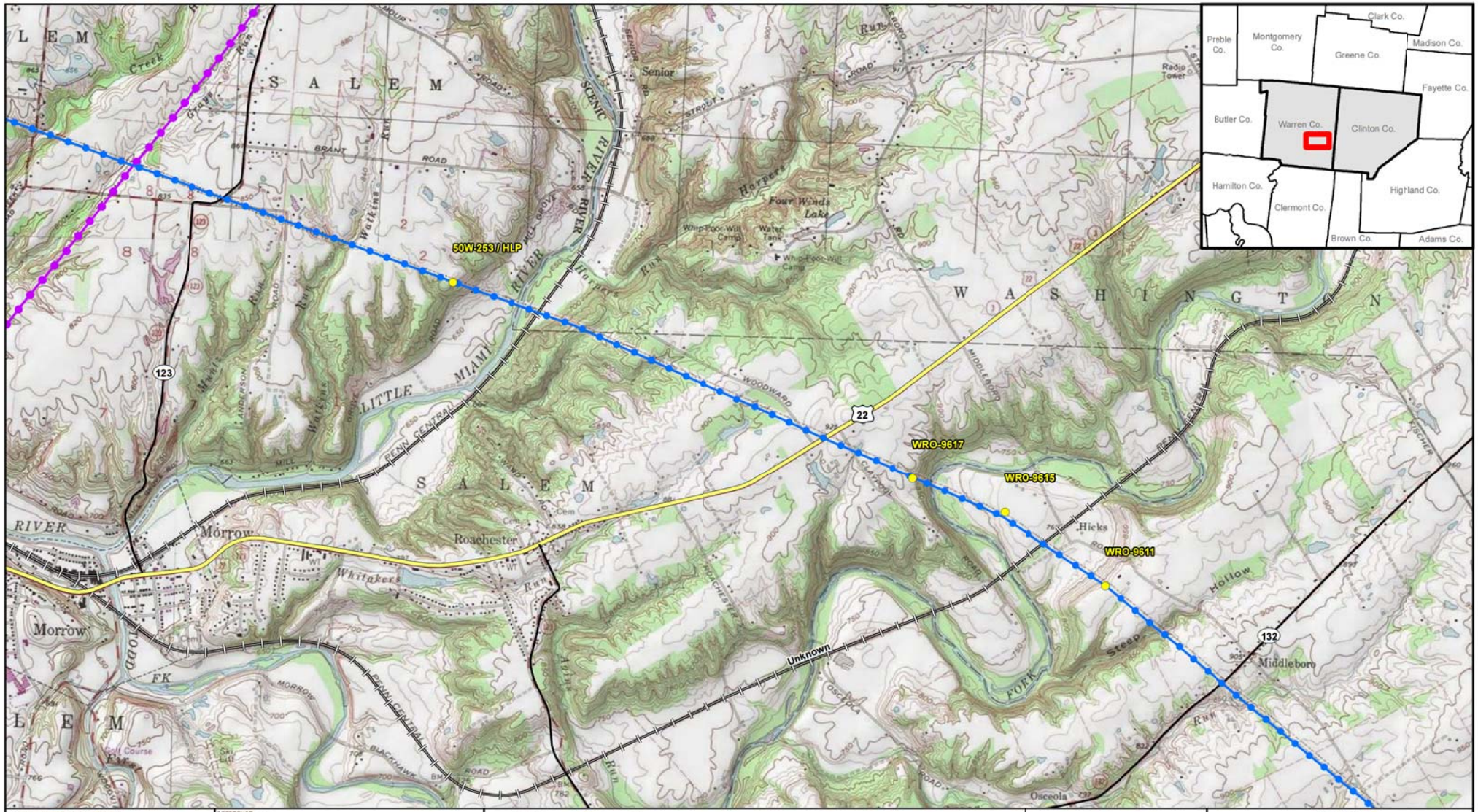
Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of Duke Energy'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 Warren County and Harlan and Salem Townships, as well as to the Salem Township Public Library.

Attachment A – Project Details



PROJECT LOCATION

WARREN AND
CLINTON COUNTY, OH

REFERENCE:
TOPOGRAPHIC MAP:
- Esri's USA Topo Map. Accessed: 11/10/2020.
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
County Boundary
Proposed Structure
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

2381 Line GLT Project

DRAWN BY: PPD DATE: 11/10/2020
CHECKED: TDB APPROVED: MRW

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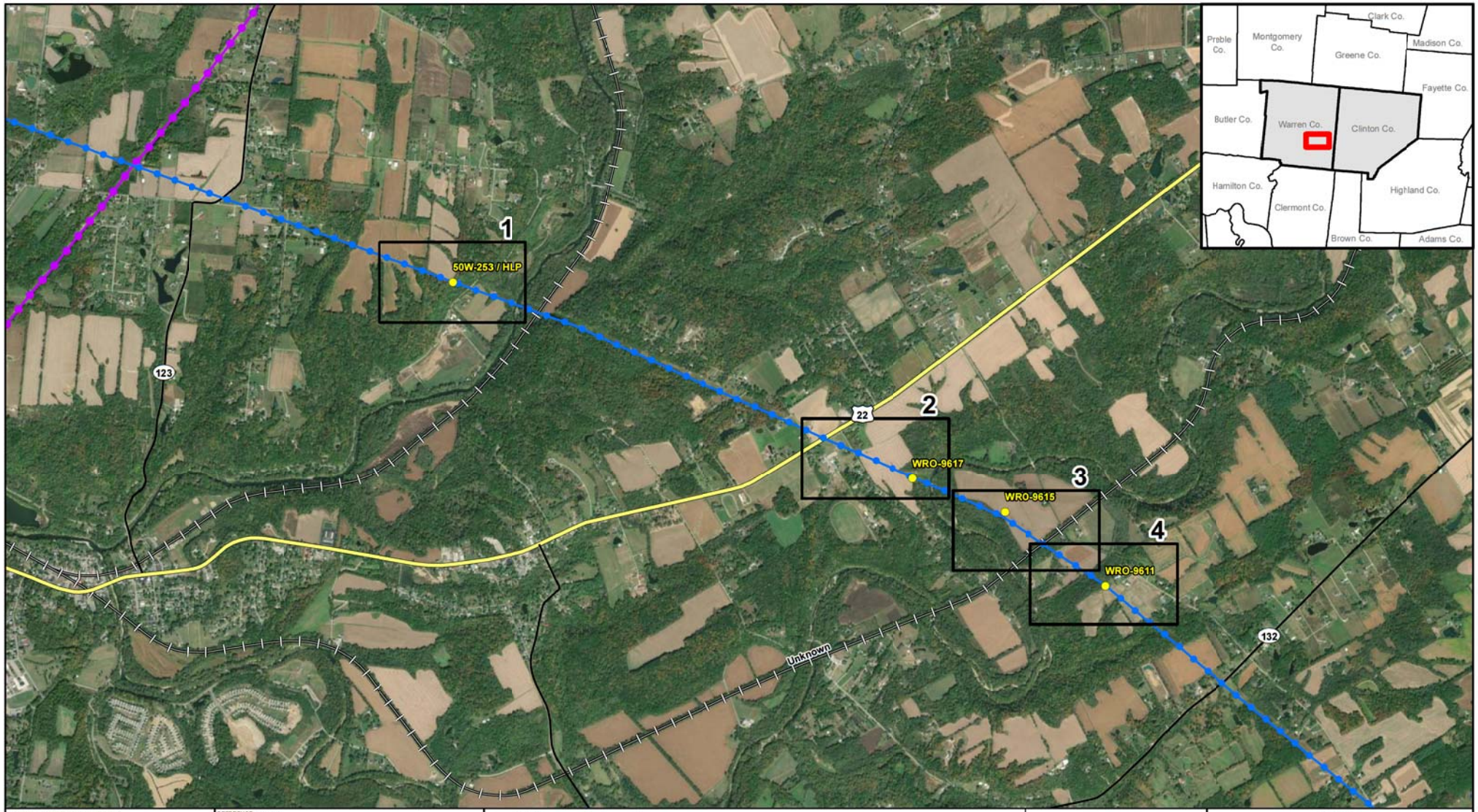

PROJECT LOCATION

WARREN AND CLINTON COUNTY, OH

REFERENCE:
AERIAL PHOTOGRAPH:
- Esri's World Imagery 2021, Accessed: 11/10/2020.

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
County Boundary
Proposed Structure
Sheet Index
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 2
PROJECT LAYOUT

Ohio Power Siting Board Construction Notice

SHEET INDEX

2381 Line GLT Project

DRAWN BY: PPD
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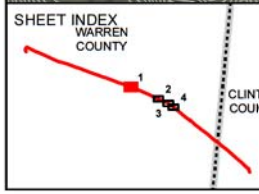
SHEET INDEX



REFERENCE:
AERIAL PHOTOGRAPH:
- Esri's World Imagery 2021, Accessed: 11/10/2020.
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.
5-FOOT CONTOUR:
- Ohio Geographically Referenced Information Program (OGRIP), Warren and Clinton County, 2007.
DELINEATED FEATURE:
- GAI Consultants.
PROJECT DETAILS:
- Duke Energy.

US Highway
Local Road
Railway
Proposed Structure
Fence
Existing 138 kV Transmission Line
5-Foot Contour

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 4

2381 Line GLT Project

DRAWN BY: PPD
CHECKED: TDB
DATE: 11/10/2020
APPROVED: MRW

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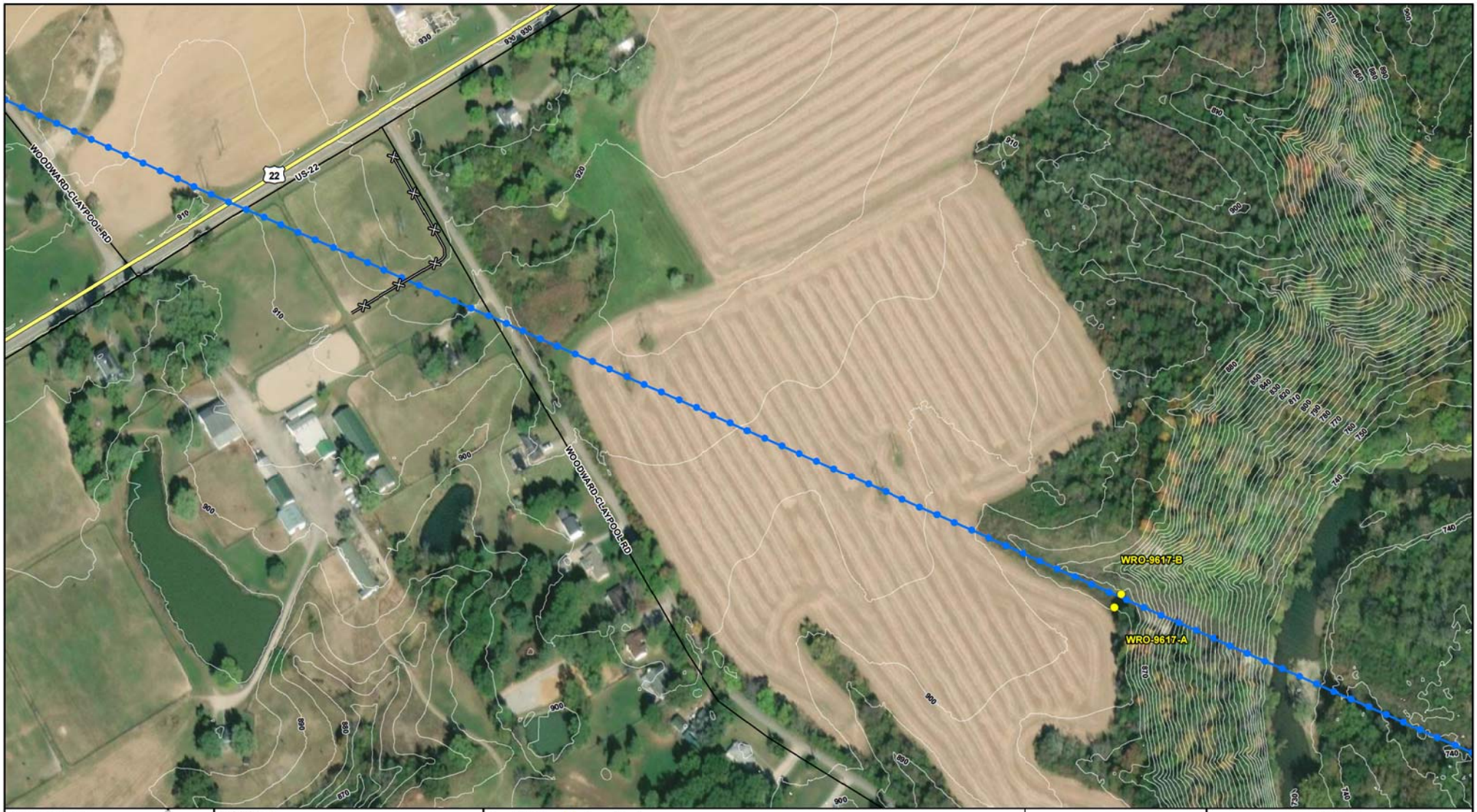

SHEET INDEX

WARREN COUNTY

CLINTON COUNTY

1 2 3 4

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DUKE ENERGY.

gai consultants

0 100 200 Feet

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FIGURE 2
PROJECT LAYOUT

Ohio Power Siting Board Construction Notice

SHEET 2 of 4

2381 Line GLT Project

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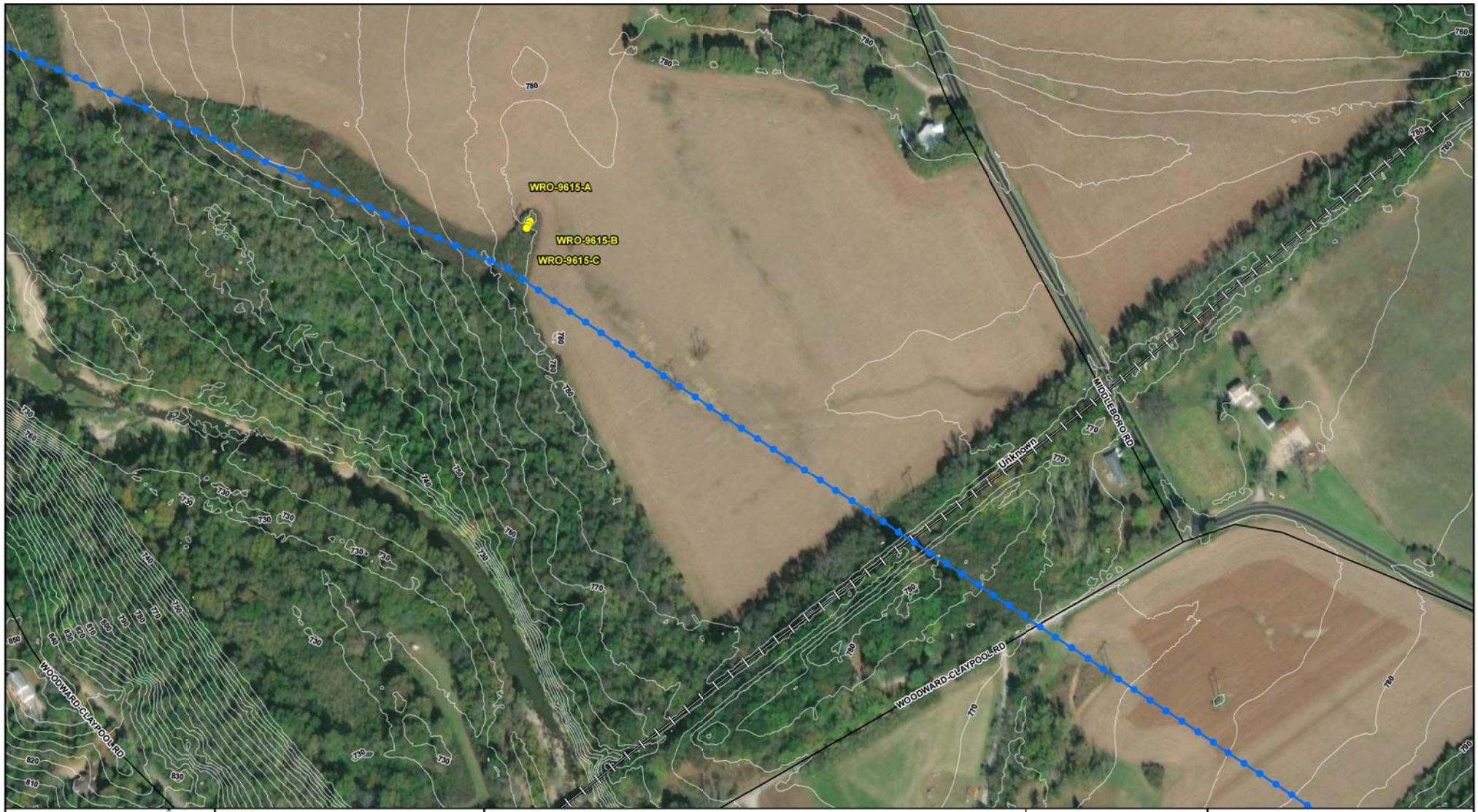

SHEET INDEX

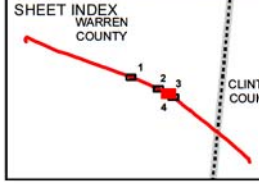

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FIGURE 2
PROJECT LAYOUT

Ohio Power Siting Board Construction Notice

SHEET 3 of 4

2381 Line GLT Project

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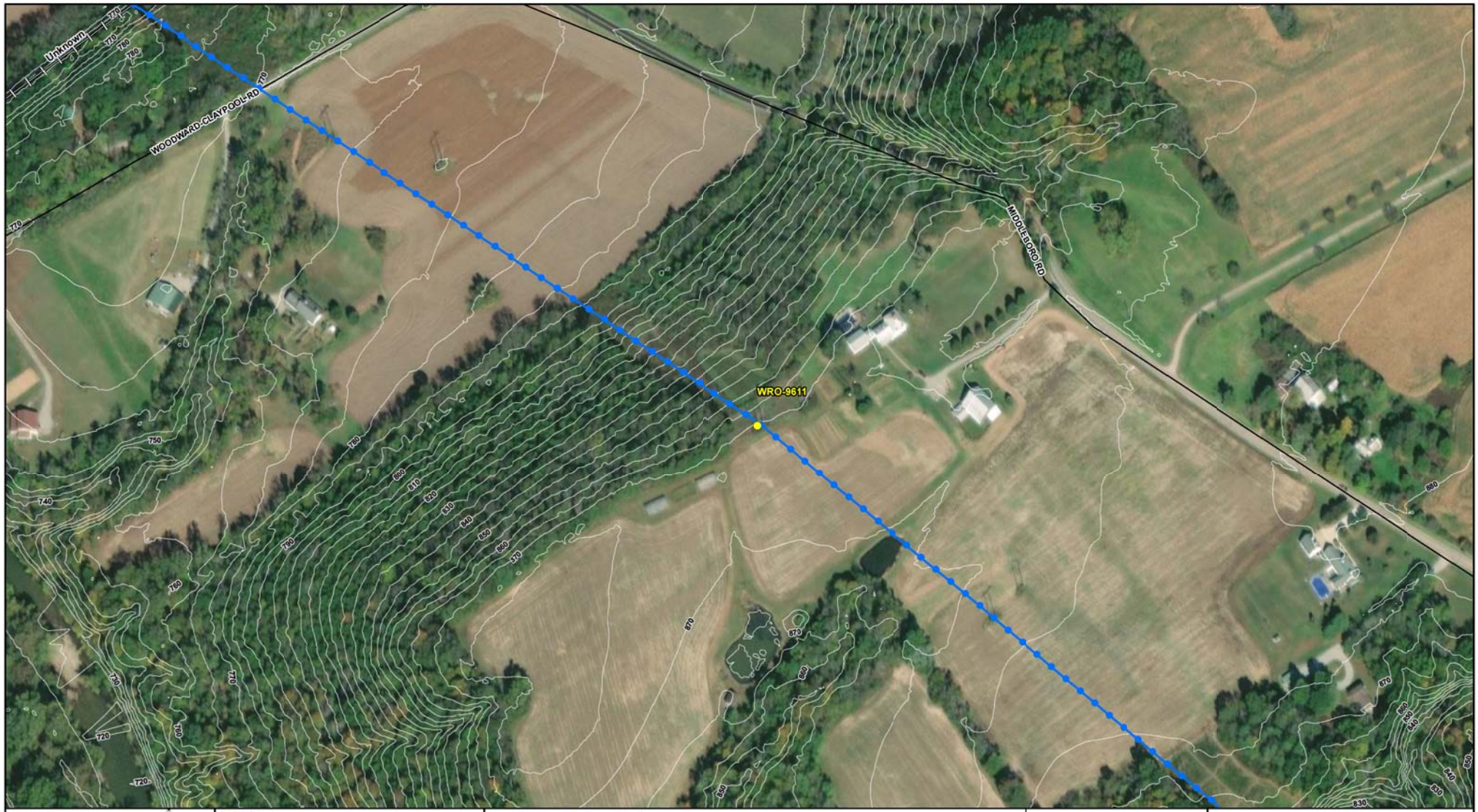

SHEET INDEX

WARREN COUNTY

CLINTON COUNTY

1 2 3 4

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FIGURE 2
PROJECT LAYOUT

Ohio Power Siting Board Construction Notice

SHEET 4 of 4

2381 Line GLT Project

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Attachment B – Rare, Threatened, and Endangered Species Correspondence

Tyler Rankin

From: Ohio, FW3 <ohio@fws.gov>
Sent: Tuesday, September 1, 2020 11:08 AM
To: Anthony T. Glenn
Cc: nathan.reardon@dnr.state.oh.us; Parsons, Kate; Tyler Rankin; Bradley Rolfes
Subject: Duke Energy, F 2381 Line GLT, Warren Co.

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-2222

Dear Mr. Glenn,

The U.S Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees >3 inches dbh cannot be avoided, we recommend removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see http://www.fws.gov/midwest/endangered/mammals/nleb/index.html), incidental take of Indiana bats is still

prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.
If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend 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. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or 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, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed 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 Ashfield
Ohio Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW

Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR MARY MERTZ, DIRECTOR

Office of Real Estate
John Kessler, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6621
Fax: (614) 267-4764

October 28, 2020

Anthony Glenn
GAI Consultants
6000 Town Center Blvd., Suite 300
Canonsburg, PA 15317

Re: 20-841; Duke Energy F2381 Line GLT Project

Project: The proposed project involves the placement of two (2) deficient wood pole structures on the F2381 Transmission Line spanning Todd Fork.

Location: The proposed project is located in Warren County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. 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.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following record at or within a one-mile radius of the project area:

Fawnsfoot (*Truncilla donaciformis*), State threatened

The review was performed on the project area specified in the request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity. Additional comments on some of the features may be found in pertinent sections below.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH $\geq$ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "*OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING*". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31, however, limited summer tree cutting may be acceptable after consultation with DOW (contact Sarah Stankavich, sarah.stankavich@dnr.state.oh.us).

The DOW also recommends that a desktop habitat assessment, followed by a field assessment if needed, is conducted to determine if there are potential hibernaculum(a) present within the project area. Information about how to conduct habitat assessments can be found in the current USFWS "*Range-wide Indiana Bat Survey Guidelines*." If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the project area, please send this information to Sarah Stankavich, sarah.stankavich@dnr.state.oh.us for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species:

Federally Endangered
clubshell (*Pleurobema clava*)
rayed bean (*Villosa fabalis*)
snuffbox (*Epioblasma triquetra*)

State Endangered
washboard (*Megalonaias* nervosa)

State Threatened
black sandshell (*Ligumia recta*)
fawnsfoot (*Truncilla donaciformis*)
threehorn wartyback (*Obliquaria reflexa*)

It appears that in-water work within Todd Fork is unnecessary to complete this project. Therefore, impacts to mussels are not likely. However, if in-water work is necessary, mussel assessments and/or surveys would likely be recommended.

The project is within the range of the following listed fish species:

State Endangered
bigeye shiner (*Notropis boops*)
goldeye (*Hiodon alosoides*)
mountain brook lamprey (*Ichthyomyzon greeleyi*)
northern brook lamprey *(Ichthyomyzon fossor*)
northern madtom (*Noturus stigmosus*)

State Threatened
American eel (*Anguilla rostrata*)
mountain madtom (*Noturus eleutherus*)
paddlefish (*Polyodon spathula*)

The DOW recommends no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as drier upland habitat. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but is also known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet meadows and other wetlands. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the cattle egret (*Bubulcus ibis*), a state endangered bird. Cattle egrets are not strictly wetland birds. They often forage in dry pastures and fields. Egrets nest in colonies and will build a nest out of sticks and other materials wherever it can be supported. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 15 to August 15. If no wetland habitat will be impacted, the project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. In the Oak Openings area west of Toledo, lark sparrows occupy open grass and shrubby fields along sandy beach ridges. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to June 30. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges,

sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the loggerhead shrike (*Lanius ludovicianus*), a state endangered bird. The loggerhead shrike nests in hedgerows, thickets and fencerows. They hunt over hayfields, pastures, and other grasslands. If thickets or other types of dense shrubbery habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 to August 1. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 15 to August 1. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the sandhill crane (*Grus canadensis*), a state threatened species. Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds, they require a rather large tract of wet meadow, shallow marsh, or bog for nesting. If grassland, prairie, or wetland habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 to September 1. If this habitat will not be impacted, this project is not likely to have an impact on this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or Sarah.Tebbe@dnr.state.oh.us if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator (Acting)

OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING
JUNE 2020

Agency Contacts:

ODNR-DOW Permit Coordinator: Wildlife.Permits@dnr.state.oh.us, (614) 265-6315
ODNR-DOW Bat Survey Coordinator: Sarah Stankavich, sarah.stankavich@dnr.state.oh.us, (614) 265-6764

Due to the evolving situation with COVID-19, we are temporarily suspending bat-handling activities until more is known about the risk to North American bats. This document has been updated with new state guidance for the 2020 field season only, or until bat-handling activities are reinstated. These guidelines replace previous guidelines released in March 2020.

This guidance applies to state recommendations only. Contact the USFWS to determine if federal consultation is also necessary to comply with federal law.

Ohio Mist Net Surveys:
Mist-netting for presence/absence surveys, education events, or research activities will not be authorized for the 2020 season.

Ohio Acoustic Surveys:
Acoustic bat surveys for presence/absence will be accepted by ODNR for the 2020 season. Surveys should follow guidelines laid out in the USFWS Range-wide Indiana Bat Survey Guidelines (March 2020) with the following exceptions:

- Ohio survey dates are June 1 – August 15, 2020
- After conducting automated analyses using one or more of the currently available 'approved' acoustic bat ID programs[1], qualitative analysis (i.e., manual vetting) of any calls recorded from state-endangered species (*Myotis sodalis, M. septentrionalis*[2]*, M. lucifugus*[2]*,* and *Perimyotis subflavus*[2]) must be completed.
    - At a minimum, for each detector site/night a program considered presence of state-listed bats likely, review all files (including no IDs) from that site/night. If more than one acoustic bat ID program is used, qualitative analysis must also include a comparison of the results of each program by site and night.

During Field Season:

- **Prior to initiation of field work (a minimum of two weeks in advance)**, permittees must provide proposed survey plans to ODNR-DOW via e-mail. **Plans must be reviewed and approved by ODNR-DOW before ANY surveys take place**. Study plans must specify objectives, location details, dates of proposed work, and all other relevant details.

[1] https://www.fws.gov/midwest/Endangered/mammals/inba/surveys/inbaAcousticSoftware.html
[2] State listing as endangered effective July 1, 2020

After Field Season:

- By March 15, you must submit your final ODNR-DOW report(s) from the previous summer. You are not required to fill out the ODNR-DOW Wildlife Diversity Bat Excel Spreadsheet; instead, please forward your USFWS Midwestern US Spreadsheet (found here: http://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html) to the ODNR-DOW Bat Survey Coordinator and ODNR-DOW Permit Coordinator and include your state permit number along with an electronic copy of the project report. Electronic summaries emailed during the field season are NOT considered as full compliance of this reporting requirement.

Ohio Environmental Review Recommendations for projects involving disturbance near potential/known bat hibernacula (cliffs, caves, mines) or tree cutting:

Step 1: Coordinate with Ohio Division of Wildlife (DOW) regarding existing records for state-listed endangered bat summer and/or winter occurrence information.

If project site contains a known bat hibernaculum(a) –

- For state-listed endangered species other than the Indiana bat, a recommendation of 0.25-mile tree cutting buffer around all known entrances to protect existing conditions at the hibernaculum(a). If the project involves subsurface disturbance, consultation with DOW is required.
- Limited summer and winter tree cutting may be permitted within the buffer following guidelines detailed below. Coordinate with DOW before cutting.

If a project site does not contain known bat hibernaculum(a)

- Conduct a habitat assessment (desktop or field-based, using methods detailed in current USFWS Range-wide Indiana Bat Guidelines) to determine if a potential hibernaculum(a) is present within the action area.

Step 2: When conducted, a presence/absence survey must follow current DOW guidelines.

Step 3: If a state-listed endangered bat is captured or recorded during the survey:

- Recommendation of no summer tree cutting, or limited cutting following guidelines detailed below, within 5 miles of the capture site if a roost is not located.
- Recommendation of no summer tree cutting, or limited cutting following guidelines detailed below, within 2.5 miles of a roost tree if located.

If no state-listed endangered bat is captured or recorded during the survey:

- Summer tree cutting may proceed for 5 years before a new survey is needed under state guidance.

Limited summer tree cutting guidance for bats that are only state-listed endangered: Limited tree cutting in summer may be permitted after consultation with DOW, but clearing trees with the following characteristics should be avoided unless they pose a hazard: dead or live trees of any size with loose, shaggy bark; crevices, holes, or cavities; live trees of any species with DBH $\geq$ 20.

FREQUENTLY ASKED QUESTIONS

When does the Bat Survey protocol have to be used?

This protocol should be used anytime Indiana bat, northern long-eared bat, little brown bat, or tricolored bat summer presence/probable absence surveys are conducted in the state of Ohio. For 2020 only, acoustic surveys will meet the ODNR-DOW requirements unless new guidance allowing for the handling of bats during presence/absence surveys is released from USFWS.

How many net surveys are required for presence/probably absence?

As described in the current USFWS Range-wide Indiana Bat Guidelines: Linear projects: a minimum of 2 detector nights per km (0.6 miles) of suitable summer habitat
Non-linear projects: a minimum of 8 detector nights per 123 acres (0.5 km^2) of suitable summer habitat. At least 2 detector locations per 123 acre "site" shall be sampled until at least 8 detector nights has been completed over the course of at least 2 calendar nights (may be consecutive). For example:

- 4 detectors for 2 nights each (can sample the same location or move within the site)
- 2 detectors for 4 nights each (can sample the same location or move within the site)
- 1 detector for 8 nights (must sample at least 2 locations and move within the site)

How long are the results of the surveys valid for an assessment of an area?

Mist-net or acoustic surveys documenting probable absence of state-listed endangered bats are valid for five years.

When can acoustic surveys occur in Ohio?

In Ohio, acoustic surveys may only be conducted from June 1 through August 15 unless indicated otherwise in your state permit. Any surveys outside of the June 1 - August 15 timeframe cannot be used in Ohio to assess the presence/probable absence of state-listed bats.

Can a presence/probable absence survey be conducted within a known Indiana bat and/or northern long-eared bat capture/detection buffer?

Surveys generally cannot be used to document presence/probable absence of state-listed endangered bats bat where presence of the species has already been confirmed by prior surveys.

What if a project is proposing to clear trees between April 1 and September 30 when bats may be present but no bat records exist in the project area?

Any Ohio project that is not within a known bat record buffer, and tree clearing between April 1 and September 31 is being proposed, may have a presence/absence survey conducted between June 1 and August 15 following the range-wide guidance. If a presence/absence survey is not performed, presence of listed bats is assumed.

How does take of northern long-eared bats differ from Indiana bats?

Under Ohio law, there is no exemption for take of any listed bat species.

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

November 10, 2020

GAI Project No. R200567.00

Mr. Dustin Giesler
Permitting Specialist
Duke Energy
139 East 4th Street
Cincinnati, OH 45202

Regulated Waters Assessment
Duke Energy 2381 Line GLT Project
Duke Energy Project No. M190130
Warren and Clinton Counties, Ohio

Dear Mr. Giesler:

This report presents the findings of the regulated waters assessment and identifies the resulting anticipated regulatory permitting compliance requirements for the 2381 Line GLT Project (Project), located within Harlan and Salem Townships Warren 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 replacement of four (4) existing wood pole structures with new 3-pole steel structures with concrete foundations or direct embed and associated overhead work, spanning an approximately 0.39-mile (2,100 feet) span of 138kV line in support of the 2381 Line GLT Project **(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 August 8, 2020 in order to evaluate potential regulated waters impacts associated with the Project. These investigations were limited to an approximate 75-foot-wide buffer around the proposed structure replacements and a 50-foot-wide study area along proposed access.

It is anticipated that minimal grading improvements will take place to facilitate construction access. However, no impact any aquatic resources are anticipated to result from grading activities. Additionally, sediment and erosion controls will be implemented and maintained, in order to reduce the possibility of sediment from construction activities leaving the Project site.

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 alignment area crosses the 100-year floodplain/floodway of Todd Fork. However, no overland access or grading/fill activities are anticipated to occur within the mapped 100-year floodplain/floodway of Todd Fork (see Figure 2).

Wetlands

No likely jurisdictional wetlands were identified within the Project study Area. One (1) likely jurisdictional Palustrine Emergent (PEM) Wetland, was identified adjacent to the Project study area and was documented for reference purposes. The identified wetland is located within an Ineligible area for coverage under the 401 WQC for NWPs. Location of the identified wetland can be found in Appendix B - Figure 2, Resource Location. However, no impacts are anticipated to this feature as a result of construction activities.

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. One (1) likely jurisdictional ephemeral stream totaling 93.9 feet, was identified within the study area. The identified stream segment is located within an Ineligible area for coverage under the 401 WQC for NWPs. Additionally, the delineated stream was not identified as USACE Section 10 navigable. Location of the identified stream can be found in Appendix B - Figure 2, Resource Location. No impacts are anticipated to this feature as a result of construction activities. The identified stream feature is summarized in Table 1. Photos of the identified stream can be found in Appendix C.

It is GAI's opinion that construction activities as a result of this this Project will not affect any regulated waters and no additional permitting will be required.

Sincerely,
GAI Consultants, Inc.

Tyler E Rankin

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

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

APPENDIX A
Tables

Table 1.

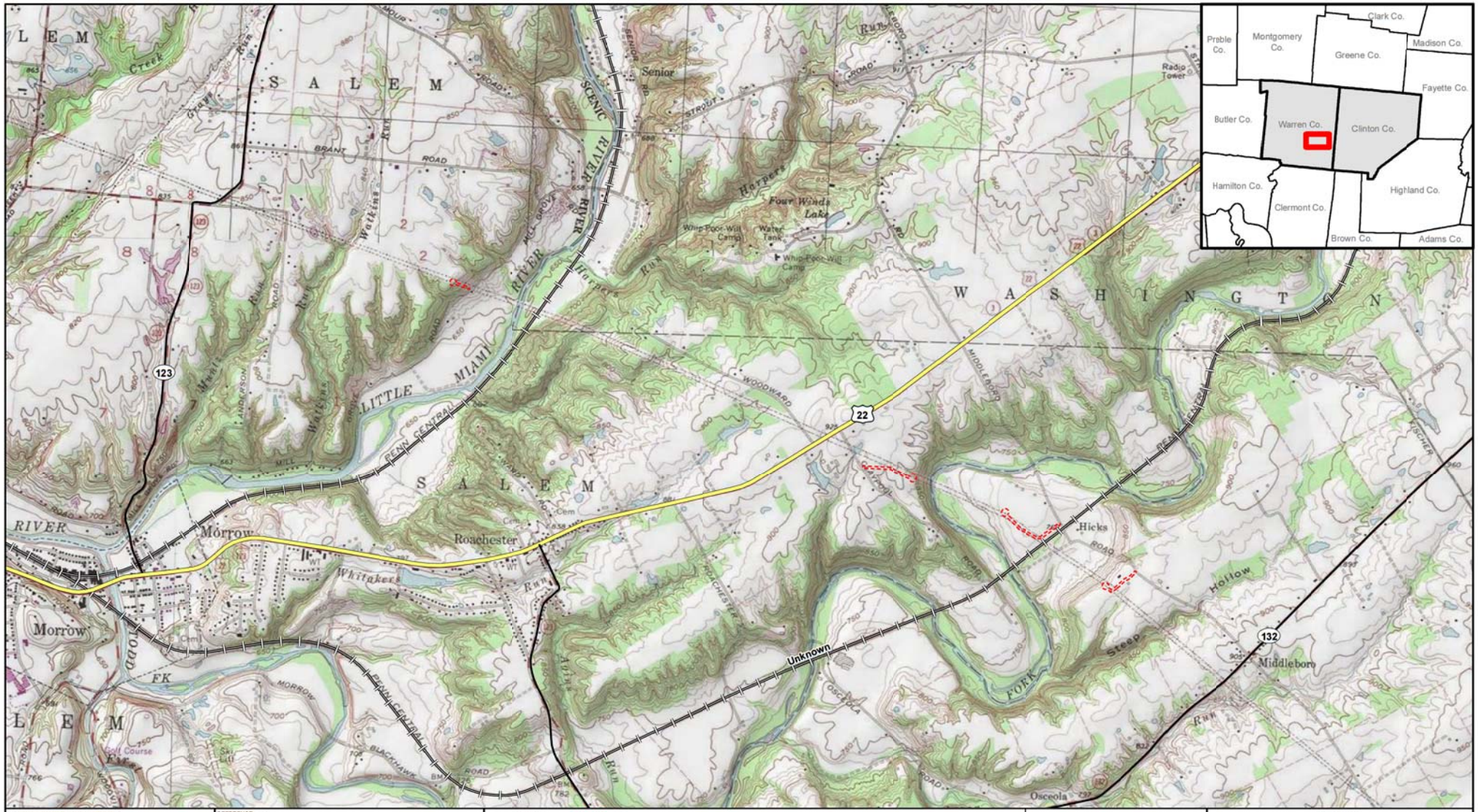
Streams Identified Within the Project Study Area

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 004	39.361527	-84.067411	UNT to Todd Fork	Ephemeral	2	1	2.5	1.5	4	2	93.9	N	Y	Ineligible
Total Stream Length (feet) within Study Area											**93.9**			

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.

APPENDIX B
Figures



PROJECT LOCATION

WARREN AND CLINTON COUNTY, OH

REFERENCE:
TOPOGRAPHIC MAP:
- Esri's USA Topo Map. Accessed: 11/11/2020.
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
County Boundary
Study Area

DUKE ENERGY.

gai consultants

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

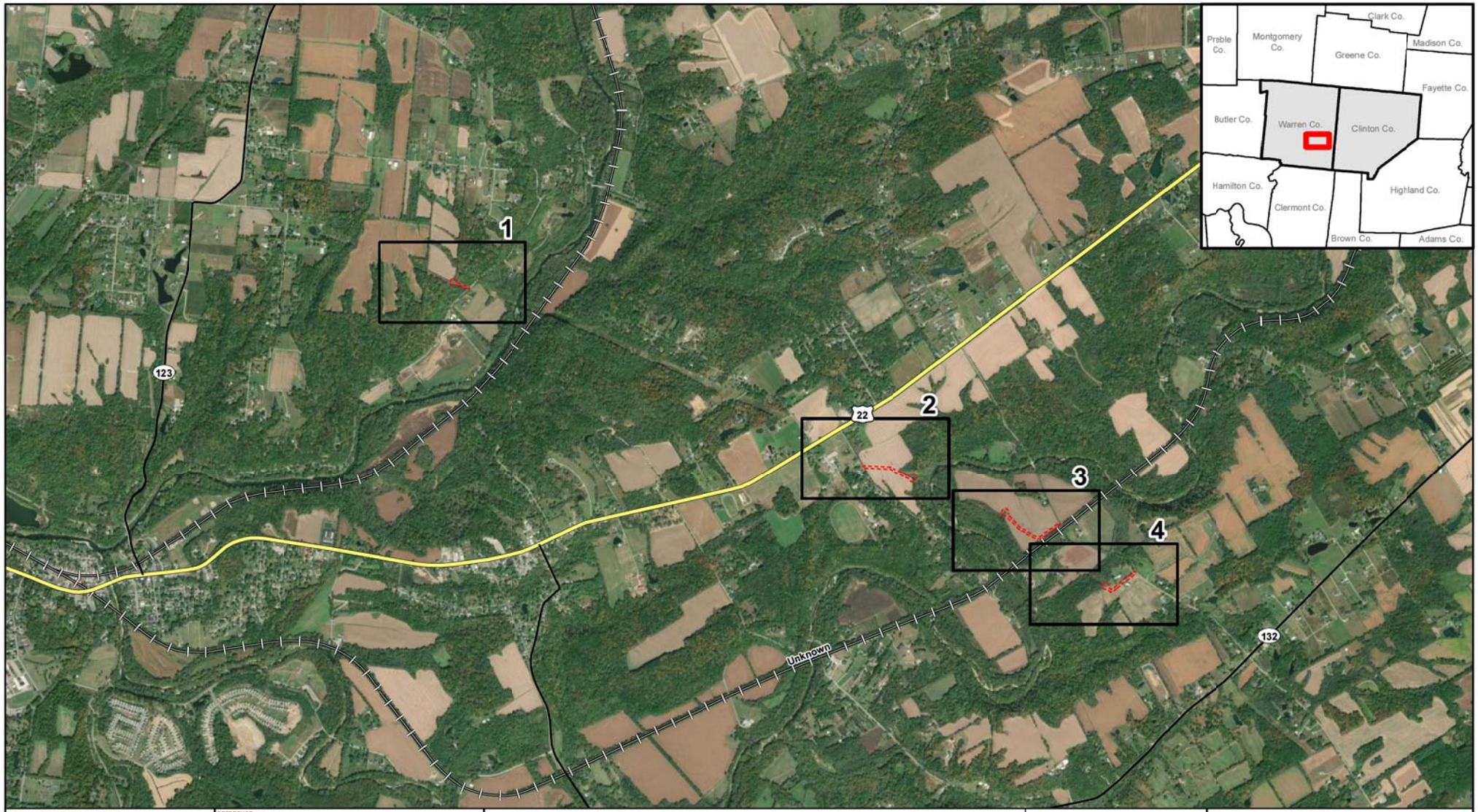
FIGURE 1
PROJECT LOCATION

Ohio Power Siting Board Regulated Waters Assessment Report

2381 Line GLT Project

DRAWN BY: PPD DATE: 11/11/2020
CHECKED: TDB APPROVED: MRW

G:\R200567.00 - GIS\MXD\OPSB\R200567_00_GLT_2381_OPSB_RWA_FIG1_Project_Location_2020_11_09.mxd



PROJECT LOCATION

WARREN AND
CLINTON COUNTY, OH

REFERENCE:
AERIAL PHOTOGRAPH:
- Esri's World Imagery 2021, Accessed: 11/11/2020.
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
County Boundary
Sheet Index
Study Area

DUKE ENERGY.

gai consultants

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

FIGURE 2
PROJECT LAYOUT
Ohio Power Siting Board Regulated Waters Assessment Report
SHEET INDEX
2381 Line GLT Project

DRAWN BY: PPD
CHECKED: TDB
DATE: 11/11/2020
APPROVED: MRW

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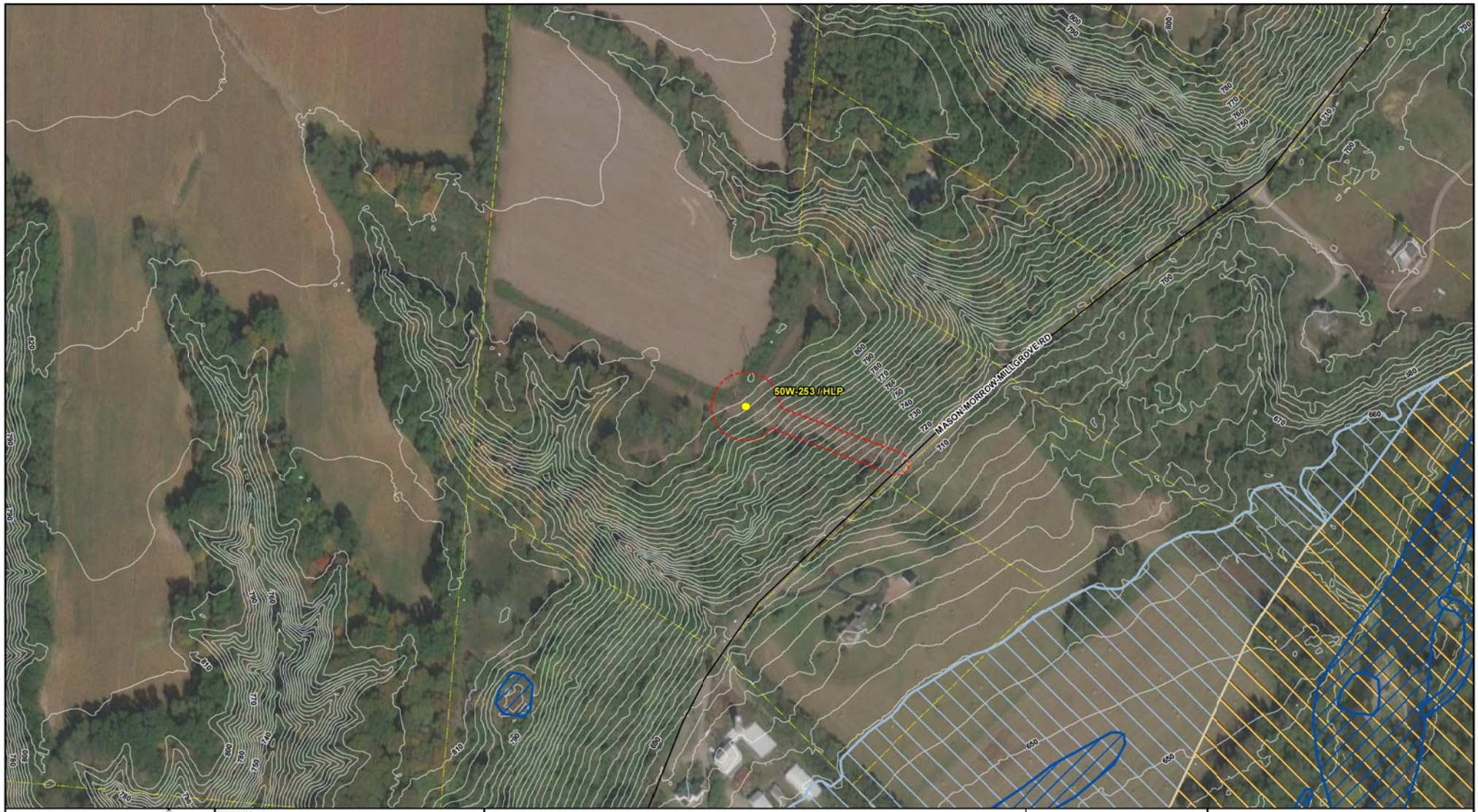

SHEET INDEX

WARREN COUNTY

CLINTON COUNTY

1 2 3 4

REFERENCE:
AERIAL PHOTOGRAPH:
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HIGHWAY:
- Esri's U.S. Major Roads, 5/10/2018.
LOCAL ROAD:
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RAILWAY:
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NHD FLOWLINE:
- United States Geological Survey's National Hydrography Dataset Best Resolution, 1/01/2018.
NWI WETLAND:
- United States Fish and Wildlife Service's National Wetland Inventory, 1/1/2019.
FLOODPLAIN AND FLOODWAY:
- Federal Emergency Management Agency's National Flood Hazard Layer, 8/28/2019.
PARCELS:
- Downloaded from Cincinnati Area Geographic Information System (CAGIS), 7/07/2020.
5-FOOT CONTOUR:
- Ohio Geographically Referenced Information Program (OGRIP), Warren and Clinton County, 2007.
DELINEATED FEATURE:
- GAI Consultants.
PROJECT DETAILS:
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US Highway
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Railway
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Fence
Surface Drainage
Delineated Stream
Delineated Wetland - PEM
Delineated Open Water
Study Area
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 4

2381 Line GLT Project

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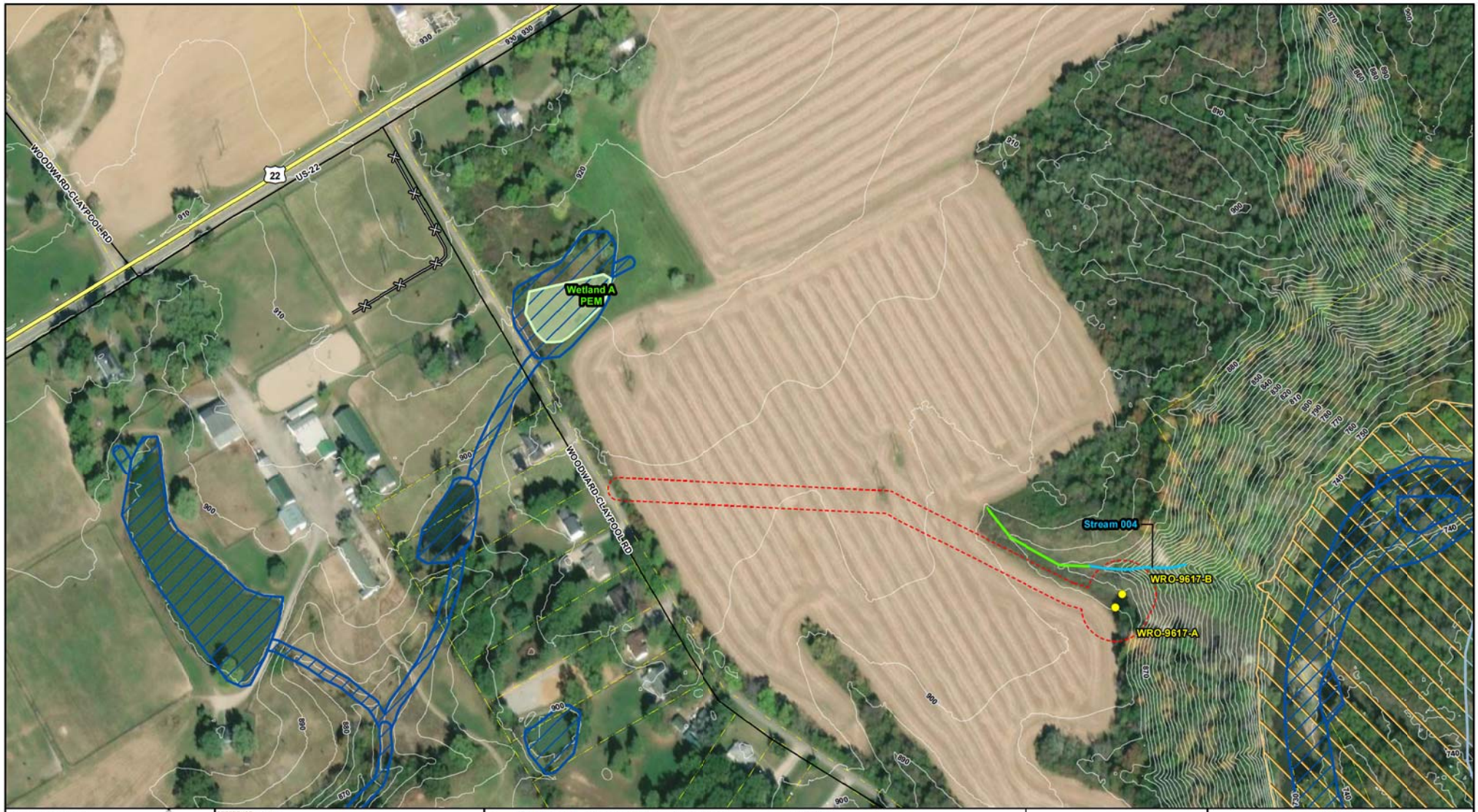

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CLINTON COUNTY

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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 2 of 4
2381 Line GLT Project

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SHEET INDEX

WARREN COUNTY

CLINTON COUNTY

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gai consultants

0 100 200 Feet
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FIGURE 2
PROJECT LAYOUT

Ohio Power Siting Board Regulated Waters Assessment Report

SHEET 3 of 4

2381 Line GLT Project

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SHEET INDEX
WARREN COUNTY
CLINTON COUNTY
1
2
3
4

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gai consultants

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FIGURE 2
PROJECT LAYOUT
Ohio Power Siting Board Regulated Waters Assessment Report
SHEET 4 of 4
2381 Line GLT Project

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APPENDIX C
Photographs

Photographs

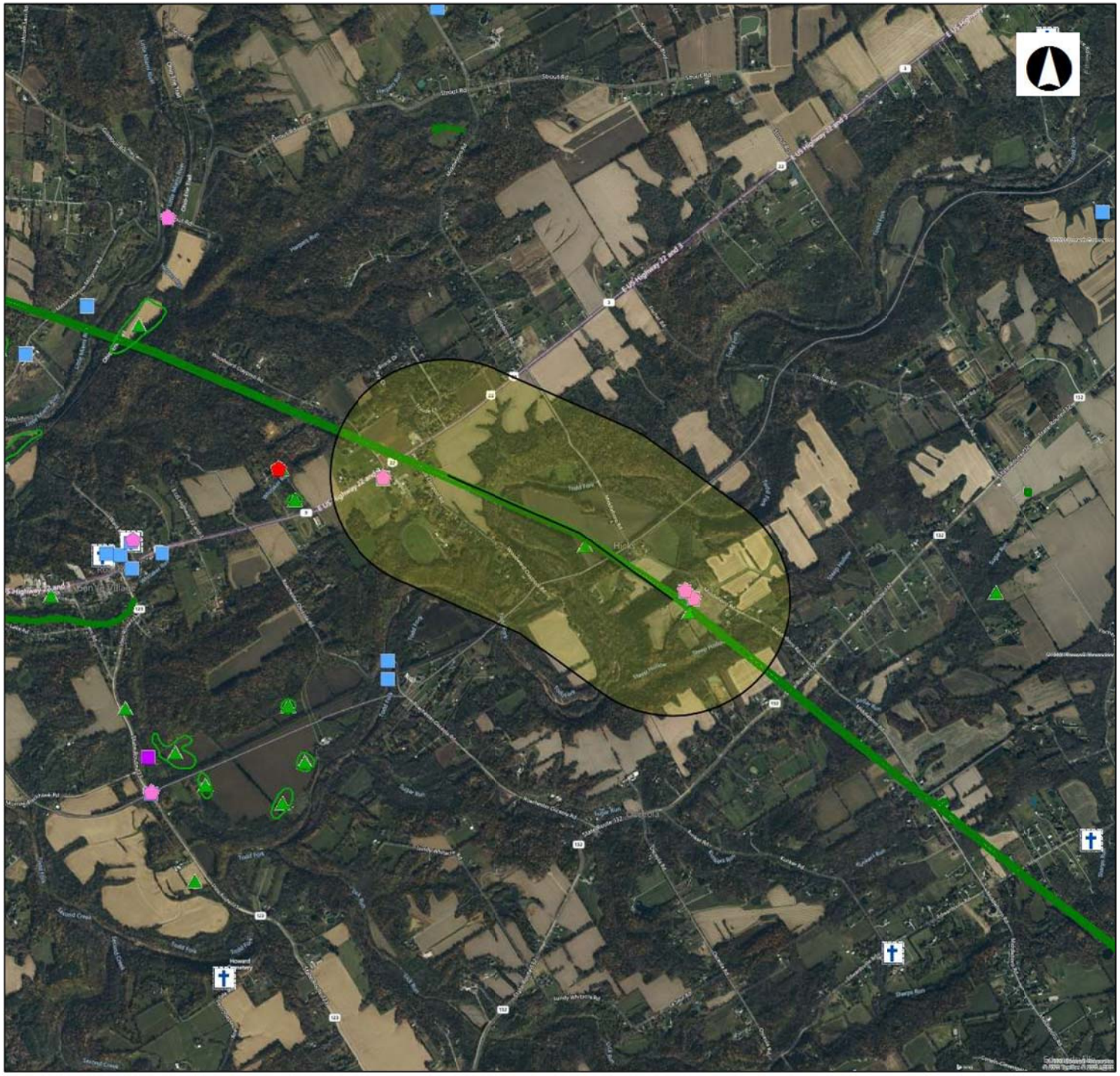
Photograph 1. Stream 004. Ephemeral. Upstream Looking West. (August 8, 2020)

Photograph 2. Stream 004. Ephemeral. Downstream. Looking East. (August 8, 2020)

Photograph 3. STR WRO-9617, in distance of ROW. Looking Northwest. (August 8, 2020)

Photograph 4. STR WRO-9615 (3-pole), in distance of ROW. Looking Southeast. (August 8, 2020)

Attachment D – Cultural Resources Desktop Review



OHIO HISTORY CONNECTION

State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- OGS Cemeteries
  - Confident
  - Not Confident
- Historic Markers
- Dams
- UTM Zone Split
- NR Boundaries

0 0.64 1.28 Miles

1: 50,655

Copyright/Disclaimer

Datum: [Datum]

Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere