AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY

LETTER OF NOTIFICATION

Brookside-Longview East 138 kV Transmission Line,
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project

Case No.: 25-0018-EL-BLN

October 15, 2025

American Transmission Systems, Incorporated
341 White Pond Drive
Akron, Ohio 44320

IN THE OHIO POWER SITING BOARD
CASE NO. 25-0018-EL-BLN
LETTER OF NOTIFICATION
BROOKSIDE-LONGVIEW EAST 138 KV TRANSMISSION LINE,
BROOKSIDE-MADISON 138 KV TRANSMISSION LINE,
LONGVIEW-MADISON 138 KV TRANSMISSION LINE
STRUCTURE REPLACEMENT PROJECT

The following information is being provided in accordance with the procedures in the Ohio Administrative Code Chapter 4906-6 for the application and review of Accelerated Certificate Applications. Based upon the requirements found in Appendix A to Adm.Code 4906-1-01, this Project qualifies for submittal to the Ohio Power Siting Board ("OPSB") as a Letter of Notification application.

4906-6-05(B): LETTER OF NOTIFICATION REQUIREMENTS

4906-6-05(B)(1): Name and Reference Number

Name of Project: Brookside-Longview East 138 kV Transmission Line,
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project

Reference Numbers: 2093 - Brookside-Longview East 138 kV Transmission Line,
2094-1 - Brookside-Madison 138 kV Transmission Line,
2094-2 - Longview-Madison 138 kV Transmission Line

4906-6-05(B)(1): Brief Description of Project

In this Project, American Transmission Systems, Incorporated, ("ATSI"), a FirstEnergy company, is proposing to replace six (6) existing steel lattice structures that support multiple 138 kV transmission lines within a combined right-of-way ("ROW"). Four (4) existing double circuit suspension lattice structures that support the Brookside-Longview East 138 kV Transmission Line and the Longview-Madison 138 kV Transmission Line, will be replaced with new double circuit steel pole suspension structures on concrete foundations. One (1) double circuit suspension lattice structure that currently supports the

Brookside-Longview East 138 kV and Brookside-Madison 138 kV Transmission Lines will be replaced with a double circuit steel pole strain structure on a concrete foundation. Lastly, one (1) double circuit tangent deadend lattice tower that supports the Brookside-Longview East 138 kV and Brookside-Madison 138 kV Transmission Lines will be replaced with a double circuit steel pole strain structure on a concrete foundation.

The general location of the Project is shown in **Exhibit 1**, a partial copy of the United States Geologic Survey, Richland and Ashland Counties, OH, Quad Map. **Exhibit 2** is a copy of ESRI aerial imagery of the Project area. The general layout of the Project is shown in **Exhibit 3**. The Project is located in the City of Mansfield; Madison and Mifflin Townships in Richland County, Ohio; and in the City of Ashland; Mifflin, Milton, and Montgomery Townships in Ashland County, Ohio.

4906-6-05(B)(1): Letter of Notification Requirement

The Project meets the requirements for a Letter of Notification application because the Project is within the types of projects defined by Item (2)(b) of the Application Requirement Matrix for Electric Power Transmission Lines, Appendix A of Adm.Code 4906-1-01. This item states:

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

(b) More than two miles.

The proposed Project is within the requirements of Item (2)(b) because it involves the replacement of structures with a different type of structure for a distance greater than 2 miles.

4906-6-05(B)(2): Need for the Project

As a part of ATSI's Right-Of-Way ("ROW") Assurance Program, a program that assesses existing transmission lines and their associated ROWs for clearance issues that violate the National Electric Reliability Corporation ("NERC") design and operating field condition requirements; and the National Electrical Safety Code ("NESC") minimum transmission line conductor-to-ground clearance requirements, multiple clearance concerns throughout the existing Brookside-Longview East 138 kV Transmission Line, Brookside-Madison 138 kV Transmission Line, and the Longview-Madison 138 kV Transmission Line have been identified. After modeling the circuits with LiDAR data, ATSI found that actual measured field clearances did not match the design clearances for the operation of the circuits.

Upon discovery of the clearance concern, immediate action was taken to reduce the allowable ratings of the Brookside-Longview East 138 kV Transmission Line, Brookside-Madison 138 kV Transmission Line, and the Longview-Madison 138 kV Transmission Line ("de-rate") and to begin developing permanent mitigation to achieve adequate clearances at the transmission lines' maximum operating temperature.

The proposed permanent solution consists of replacing six (6) existing structures. These proposed structures will reestablish adequate clearances for the conductors.

4906-6-05(B)(3): Location of the Project Relative to Existing or Proposed Lines

The location of the Project relative to existing or proposed lines is shown in the ATSI Transmission Network Map, included as part of the confidential portion of the FirstEnergy Corp. 2025 Long-Term Forecast Report. This map was submitted to the Public Utilities Commission of Ohio ("PUCO") in Case No. 25-0504-EL-FOR under Adm.Code 4901:5-5-04(C)(2)(b). This map is incorporated by reference only. The Project was not included in the 2025 LTFR as this Project does not entail any topology or rating change. The general location of the Project area is shown in **Exhibits 1 and 2**. The general layout is shown in **Exhibit 3**.

4906-6-05(B)(4): Alternatives Considered

Due to the nature of the identified clearance issue, there were no alternatives considered for this project.

This project was not presented to PJM because it will not cause any topology or ratings changes.

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

ATSI will publish notice of the Project in the Ashland Times Gazette and the Mansfield News Journal within 7 days of filing this Letter of Notification application. The notice will comply with Adm.Code 4906-6-08(A)(1)-(6). In addition to the public notice, ATSI will mail letters in accordance with Adm.Code 4906-6-08(B) explaining the Project to affected property owners and tenants within and contiguous to the planned Project area. ATSI has also established a Project website: https://www.firstenergycorp.com/about/transmission_projects/ohio.html.

ATSI's manager of External Affairs will advise local officials of the features and the status of the proposed Project as necessary.

Finally, during all phases of this Project, ATSI will maintain the transmission projects hotline at 1-888-311-4737 and respond to questions submitted via email at: transmissionprojects@firstenergycorp.com. The public may use either the hotline or email to ask questions or leave comments on the Project for ATSI.

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

Construction on the Project is expected to begin as early as February 2026 and be completed/in-service by December 2026.

4906-6-05(B)(7): Area Map

Exhibit 1 depicts the general location of the Project. This Exhibit provides a partial copy of the United States Geologic Survey, Richland County and Ashland County, OH, Quad Map. **Exhibit 2** is a partial copy of ESRI aerial imagery of the Project area.

4906-6-05(B)(8): Properties List

The Project is located on existing right-of-way. No new easements or right-of-way will need to be acquired. **Exhibit 4** contains a list of properties affected by the Project.

4906-6-05(B)(9): TECHNICAL FEATURES OF THE PROJECT

4906-6-05(B)(9)(a): Operating Characteristics

The transmission line construction will have the following characteristics:

Voltage:	138 kV
Conductors:	336.4 kcmil 30/7 ACSR
Static Wire:	Optical Ground Wire 24/48/504 (OPGW)
Insulators:	Polymer, Glass
ROW Width:	150 feet
Land Requirements:	Existing
Structure Types:	**Exhibit 5**: 138kV Double Circuit Steel Pole Tangent Structure (4 structures) **Exhibit 6**: 138 kV Double Circuit Steel Pole Strain Structure (2 Structures)

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

As there are no occupied residences or institutions within 100 feet from the existing transmission line centerline, Electric and Magnetic Field ("EMF") calculations are not required by this code provision.

4906-6-05(B)(9)(c): Estimated Cost

The estimated cost for the proposed Project is $3,325,000. Although not statutorily required for approval, at the request of OPSB Staff, ATSI confirms that ATSI's costs will be captured and allocated via FERC formula rates for the ATSI Transmission Zone, Attachment H-21 in the PJM OATT.

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

4906-6-05(B)(10)(a): Land Uses

The Project is located in the City of Mansfield; Madison and Mifflin Townships in Richland County, Ohio; and in the City of Ashland; Mifflin, Milton, and Montgomery Townships in Ashland County, Ohio. There are various land uses along the route of the line, mainly agricultural uses, with residential, commercial and industrial uses to a lesser extent.

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

A list of all agricultural land and acreage, including agricultural district land, is provided in **Exhibit 4**.

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

As part of the investigation for this Letter of Notification, TRC Companies, Inc. ("TRC") submitted a request to the Ohio State Historic Preservation Office ("SHPO") on behalf of ATSI to review the Project Study Area (Area of Potential Effects or "APE") within a one (1)-mile search radius . On October 17, 2024, SHPO replied to the request and the response is attached as **Exhibit 7**. SHPO concurred that the Project, as proposed, will not affect any historic properties. No further coordination is required unless the scope of work changes or archaeological deposits are discovered during the course of the Project.

The OHPO database includes a catalog of all historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP), including districts, sites, building, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The results of the search identified that there are four (4) above-ground historic resources that are listed in the NHRP. These resources include the Ashland County Children's Home (Ref No.: SG100004059), located 0.78-mile north of Section 2 of the Study Area; the Arthur Street School (Ref No.: SG100006147), located

0.96-mile west of Section 1 of the Study Area; the Samuel Lewis House (Ref No.: 82003636), recorded 0.78 mi southeast of the Study Area; and the Ohio State Reformatory (Ref No.: 83002039), located 0.77 mi northwest of the Study Area. Additionally, there is one (1) above-ground historic resource (DOE ID: 714) mapped 0.77-mile southeast of Section 2 of the Study Area. There are 31 above-ground historic resources that have been recorded but not yet evaluated for NRHP eligibility and 10 Ohio Genealogical Society (OGS) Cemeteries mapped within one (1)-mile of the proposed Project.

There have been 16 official archaeological surveys conducted within one (1)-mile of the proposed Project. Through these surveys and efforts of local collectors, 26 archaeological sites have been mapped within one (1) mile of the Study Area. The sites include 19 pre-contact sites, four (4) historic sites, and three (3) multi-component historic and pre-contact sites. The nearest of the sites is situated 0.06-mile southeast of the Project Area.

The Project Study Area consists of an existing utility ROW located within an area of existing industrial land use. The APE will correspond to the Limit of Disturbance (LOD), which is entirely within the Study Area and will include all areas in which construction activities associated with the proposed Project will take place. All work will be performed within the existing utility corridor. Currently, as proposed, no tree clearing is anticipated. The proposed Project is not expected to have any adverse effects on known historic properties. To date, TRC has not conducted any on-site cultural resources surveys.

4906-6-05(B)(10)(d): Construction Filings with Local, State and Federal Governmental Agencies

Coordination with Milton Township to obtain a right-of-way permit, if necessary, for work within the right-of-way of Township Rd 1656 and Township Road 1153 will be required. Coordination with Mifflin Township to obtain a right-of-way permit, if necessary, for work within the right-of-way of Bowen Rd and Township Rd 1706 will be required. Coordination with Richland County to obtain a right-of-way permit, if necessary, for work within the right-of-way of CR-92 Crider Rd will be required. If overweight hauling is required, coordination with Madison, Milton and Mifflin Townships, as well as Ashland

and Richland Counties will be initiated to confirm special hauling permits and/or Road Use Maintenance Agreements (RUMA). More than 1 acre of earth disturbance is proposed based on review of the preliminary construction plans. Therefore, the submittal of a Notice of Intent application with the Ohio EPA is required for coverage under the general construction stormwater permit (OHC000006). A Storm Water Pollution Prevention Plan (SWPPP) submittal is required for review by Richland County Soil and Water Conservation and coordination to confirm review by Ashland County Soil and Water Conservation District. In addition, the Project is not proposed within any 100-year floodplains, therefore, coordination is not required with the local floodplain administrator. Table 1 shows the list of government agency requirements for the Project.

Table 1. List of Government Agency Requirements

Ohio Environmental Protection Agency (OEPA)	General NPDES Construction Storm Water Permit OHC000006
Milton Township Mifflin Township Richland County Engineer Madison Township	Right of Way Permit (Coordination)
Richland County Soil and Water Conservation District	SWPPP Review
Ashland County Soil and Water Conservation District	SWPPP Review (Coordination)
Milton Township Mifflin Township Madison Township Ashland County Richland County	Special Hauling Permit and Road Use Maintenance Agreement (RUMA) (Coordination)

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

As part of the investigation, ASTI retained TRC to conduct the necessary environmental surveys. TRC submitted two requests to the Ohio Department of Natural Resources (ODNR) Office of Real Estate to conduct an Environmental Review. As part of the Environmental Review, the ODNR Office of Real Estate conducted a search of the ODNR Division of Wildlife's (DOW) Natural Heritage Database to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project Study Area. The ODNR's Office of Real Estate's responses dated September 27, 2024, indicated that there

are six (6) records of state and/or federally listed plants, animals, and/or communities located within a one-mile radius of the Project area. A list of all state and/or federally listed species within one (1) mile of the Project area is provided in Table 2. The Project is also within the range of eight (8) state and/or federally listed plants or animal species. A copy of ODNR's Office of Real Estate's response is included as **Exhibit 8**. A list of all endangered, threatened, and rare species, as identified by ODNR, within the range of the Project is provided in Table 3.

Table 2. List of Endangered, Threatened, and Rare Species within 1 mile radius of Project Area

Common Name	Scientific Name	Federal Listed Status	State Listed Status	Affected Habitat
Plants				
American Sweet-flag	*Acorus americanus*	N/A	Potentially Threatened	Shallow water and wetland edges.
Marsh Five-finger	*Comarum palustre*	N/A	Threatened	Wet meadows and marshy streambanks.
Canada Yew	*Taxus canadensis*	N/A	Potentially Threatened	Damp woods, wooded swamps, along banks and bog margins.
Fish				
Iowa Darter	*Etheostoma exile*	N/A	Endangered	Perennial streams.
Birds				
Sandhill Crane	*Antigone canadensis*	N/A	Threatened	Wetlands. grasslands and prairie.
Mussels				
Slippershell Mussel	*Alasmidonta viridis*	N/A	Threatened	Perennial streams with fine gravel or sand

Table 3. List of Endangered, Threatened, and Rare Species within range of Project Area

Common Name	Scientific Name	Federal Listed Status	State Listed Status	Affected Habitat
Mammals				
Indiana Bat	*Myotis sodalis*	Endangered	Endangered	Trees, forests, caves, and caverns.
Little Brown Bat	*Myotis lucifugus*	N/A	Endangered	Trees, forests, caves, and caverns.
Northern Long-eared Bat	*Myotis septentrionalis*	Endangered	Endangered	Trees, forests, caves, and caverns.
Tricolored Bat	*Perimyotis subflavus*	N/A	Endangered	Trees, forests, caves, and caverns.
Fish				
Iowa Darter	*Etheostoma exile*	N/A	Endangered	Perennial streams.

Common Name	Scientific Name	Federal Listed Status	State Listed Status	Affected Habitat
Greater Redhorse	*Moxostoma valenciennesi*	N/A	Threatened	Perennial streams.
Birds				
Northern Harrier	*Circus hudsonius*	N/A	Endangered	Large marshes and grasslands.
Sandhill Crane	*Antigone canadensis*	N/A	Threatened	Wetlands. grasslands and prairie.
Upland Sandpiper	*Bartramia longicauda*	N/A	Endangered	Grasslands, pastures and hayfields.

The response from ODNR, DOW indicated that the Project is within the vicinity and the range of the federally and state endangered Indiana bat (*Myotis sodalis*), the federally and state endangered northern long-eared bat (*Myotis septentrionalis*), and the state endangered little brown bat (*Myotis lucifugus*). In addition, DOW indicated that the Project is within the range of the state endangered tricolored bat (*Perimyotis subflavus*). These bat species predominantly roost in trees behind loose, exfoliating bark, in crevices, and cavities, or in the leaves. These species are dependent on the forest structure surrounding the roost trees. The DOW recommended a desktop bat hibernaculum assessment be completed for the Project, which TRC completed for ATSI and submitted to ODNR for concurrence on October 16, 2024. ODNR responded on October 16, 2024, attached as **Exhibit 8A,** concurring that no caves, cliffs, or mine openings occur in the Project Area. Therefore, the Project is not likely to impact hibernating bats. No tree cutting or subsurface impacts to a hibernaculum are proposed, therefore this Project is not likely to impact these species.

The response from ODNR, NHD indicated records of the Slippershell Mussel *(Alasmidonta viridis)* within one (1) mile of the Project area. The Slippershell Mussel is found in perennial streams with fine gravel or sand. Since no in-water work is proposed in a perennial stream, this Project will not impact this species.

The response from ODNR, DOW and NHD indicate that the Project is within the range of the state threatened Sandhill Crane *(Antigone canadensis),* and that records of the Sandhill Crane exist within a one (1) mile radius of the Project area. DOW also indicated that the Project is within the range of the Northern Harrier *(Circus hudsonius),* and the Upland

Sandpiper (Bartramia longicauda), state endangered bird species. These listed bird species and their potential habitat are included in Table 2 and Table 3, respectively. Since no work is proposed in the listed habitats, this Project will not impact these species.

The response from ODNR, DOW and NHD indicate that the Project is within the range of the state endangered Iowa Darter (*Etheostoma exile*), and that records of the Iowa Darter exist within a one (1) mile radius of the Project area. DOW also indicated that the Project is within the range of the state threatened Greater Redhorse (*Moxostoma valenciennesi)*. These fish species are found within perennial streams. Since no in-water work is proposed in a perennial stream, this Project will not impact these species.

The response from ODNR, NHD also indicated records of three (3) state-listed plant species within a one (1) mile radius of the Project. The listed plant species and their potential habitats are included in Table 2. Since no work is proposed in any of the listed habitats, this Project is not likely to impact these species.

As part of the investigation, TRC submitted two requests to the US Fish and Wildlife Service (USFWS) to research the presence of any endangered, threatened, rare, or designated species within one (1) mile of the Project Area. A copy of USFWS's Ecological Review responses, dated September 10 and 18, 2024, are included as **Exhibit 9**. The responses indicated that due to the Project type, size, and location, no adverse effects are anticipated to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.

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

TRC conducted two (2) wetland and waterway delineations for this Project on September 11, 2024. The Project Study Areas included a total of 27.76 acres and 9.28 acres. The wetland and water delineation reports and photographic records are included in **Exhibit 10**. The area consists of an existing maintained utility right-of-way within agricultural and residential land use, developed open space, and forested habitat. During the field investigations, TRC did not observe the presence of any ODNR listed species due to the highly maintained nature of the utility right-of-way and surrounding agricultural and residential land use. During field investigations, a total of three (3) palustrine emergent wetlands were identified (W-EVN-1, W-EVN-2, and W-EVN-3). In addition, one (1)

perennial stream (S-EVN-1, Jamison Creek) and one (1) intermittent stream (S-EVN-2, Unnamed Tributary to Jamison Creek) were identified and delineated within the Project Study Area. No permanent impacts are anticipated to any potentially jurisdictional features within the Project Study Area.

The LOD will be completely within the Project Study Area as part of FirstEnergy's ROW Assurance Program. Access to install new structures will utilize timber matting and span bridges to avoid impacts to any potentially jurisdictional features. Nationwide Permit (NWP) 57 - Electric Utility Line and Telecommunications Activities (effective March 15, 2021, valid through March 14, 2026), authorizes the construction of access roads for the construction and maintenance of electric utility lines or telecommunication lines, including overhead lines and substations, in nontidal waters of the United States, provided the activity does not cause the loss of greater than 0.5-acre of waters of the United States. Nationwide Permit Regional General Conditions were reviewed regarding this Project.

It is anticipated that due to the nature of the Project, jurisdictional resources will not be permanently impacted by the proposed Project activities. If the scope of the Project changes to permanently impact potentially jurisdictional features, it is TRC's understanding that this Project would fall under NWP 57. This Project is located within the USACE Huntington Regulatory District. The Project locations are not listed in Appendix 1 to Regional General Condition 5(a) (Endangered Species and Threatened Species), which would trigger the need for a Section 404 Pre-Construction Notification (PCN). A PCN may be required if NWP 57 conditions are not met and/or thresholds are exceeded. Additionally, the Project is located within "Eligible" areas according to Ohio EPA's Stream Eligibility for the Nationwide Permit Program; however, Ohio EPA's 401 Water Quality Certification for NWP 57 is currently waived. No additional screening procedures are required for the Project regarding compliance with Ohio EPA's 401 Water Quality Certification. A review of the National Conservation Easement Database (www.conservationeasement.us) revealed no conservation easements within the Project Study Area.

4906-6-05(B)(10)(g): Other Information

Construction and operation of the proposed Project will be in accordance with the requirements specified in the latest revision of the NESC as adopted by the Public Utilities Commission of Ohio (PUCO) and will meet all applicable safety standards established by the Occupational Safety and Health Administration. No other or unusual conditions are expected that will result in significant environmental, social, health or safety impacts.

4906-6-07: Documentation of Letter of Notification Transmittal and Availability for Public Review

This Letter of Notification application is being provided concurrently with its docketing with the Board to the following officials.

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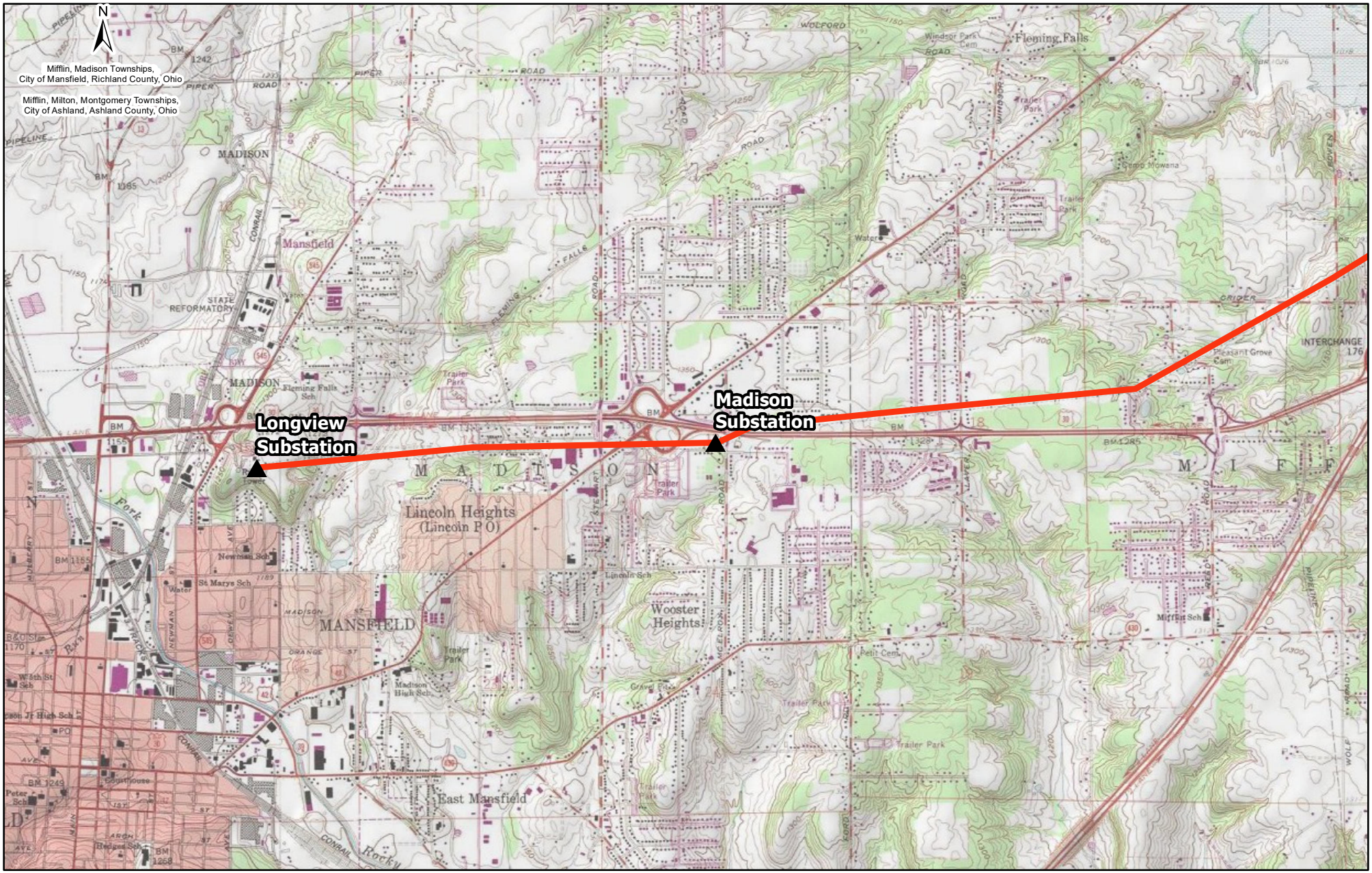
Copies of the transmittal letters to these officials have been included with this application as proof of compliance under Adm.Code 4906-6-07(B) to provide the Board with proof of notice to local officials as required by Adm.Code 4906-6-07(A)(1) and to libraries per Adm.Code 4906-6-07(A)(2).

Information is posted at:
www.firstenergycorp.com/about/transmission_project/ohio.html on how to request an electronic or paper copy of this Letter of Notification application. The link to this website is being provided to meet the requirements of Adm.Code 4906-6-07(B) and to provide the Board with proof of compliance with the notice requirements in Adm.Code 4906-6-07(A)(3).



LEGEND:

- ▲ Substations
- Transmission Line

0 1,450 2,900 5,800

Feet

Reference:
USGS Topographical Overlay

Coordinate System:
NAD_1983_StatePlane_Ohio_North_FIPS_3401_Feet
WKID: 3734 Authority: EPSG

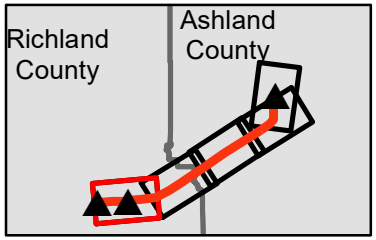
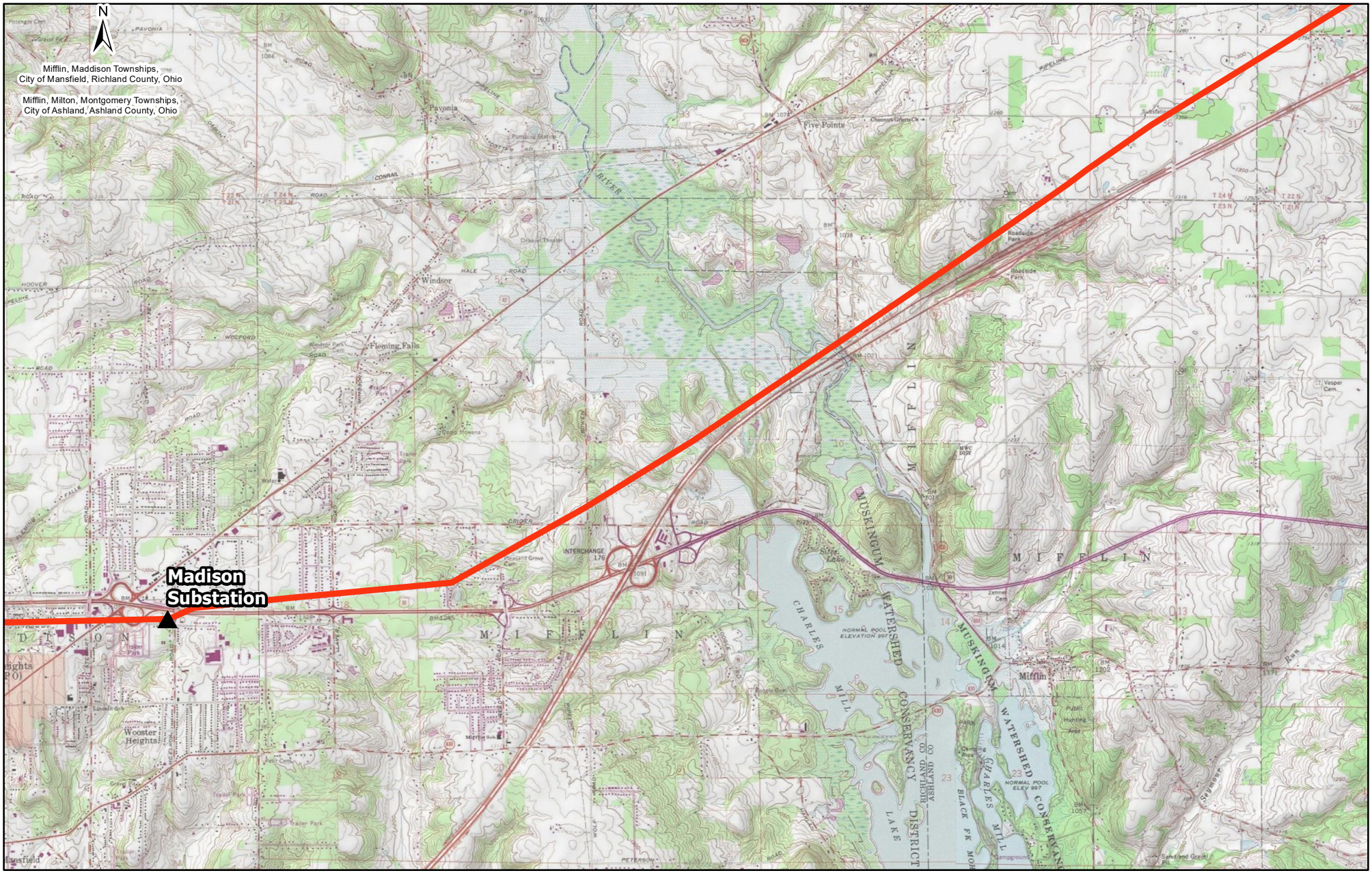


EXHIBIT 1

ATSI®
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

**Brookside-Longview East 138 kV Transmission Line,
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project**



LEGEND:

- ▲ Substations
- Transmission Line

0 2,150 4,300 8,600

Feet

Reference:
USGS Topographical Overlay

Coordinate System:
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WKID: 3734 Authority: EPSG

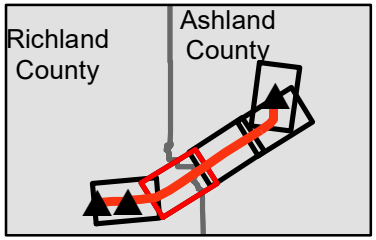

EXHIBIT 1

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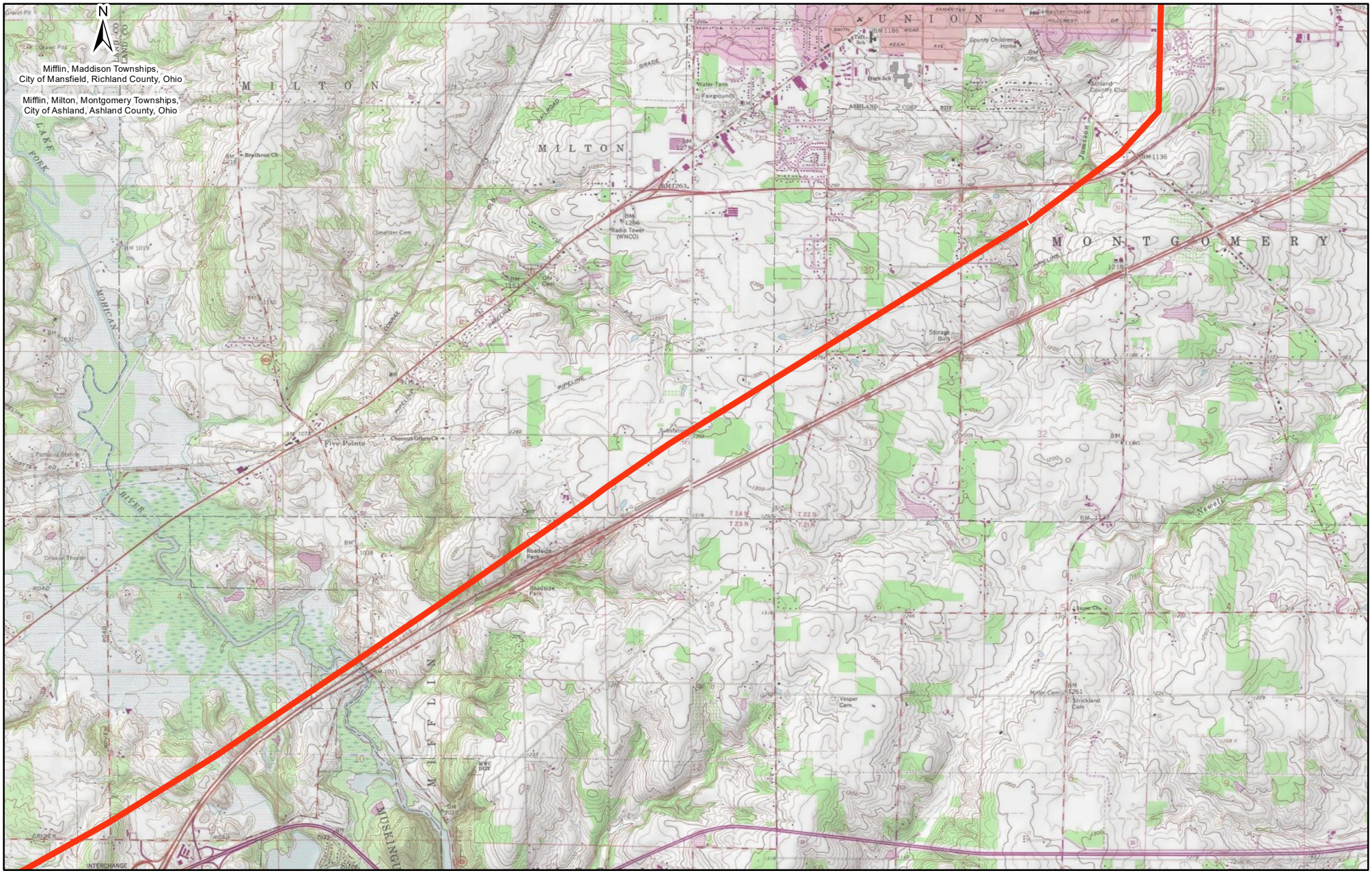
**Brookside-Longview East 138 kV Transmission Line,
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project**



LEGEND:

- ▲ Substations
- Transmission Line

0 2,150 4,300 8,600

Feet

Reference:
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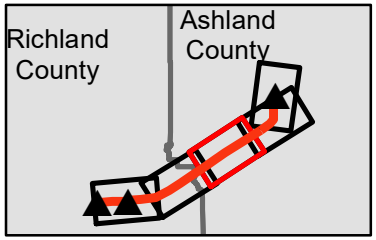

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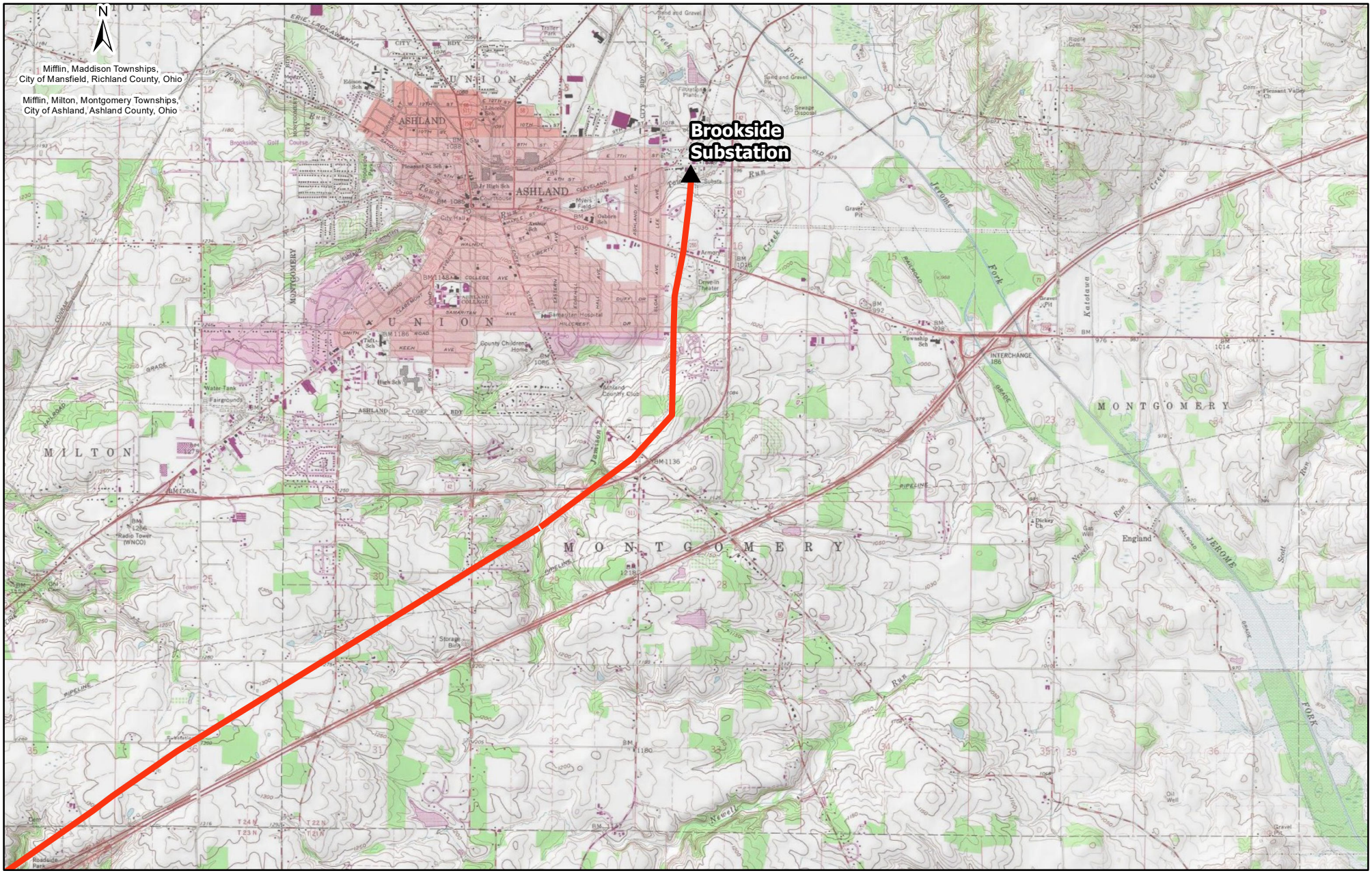

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- Transmission Line

0 2,150 4,300 8,600

Feet

Reference:
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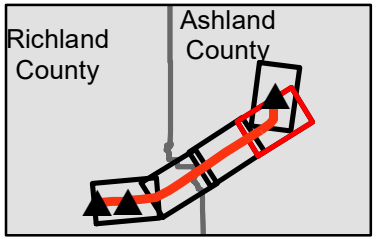

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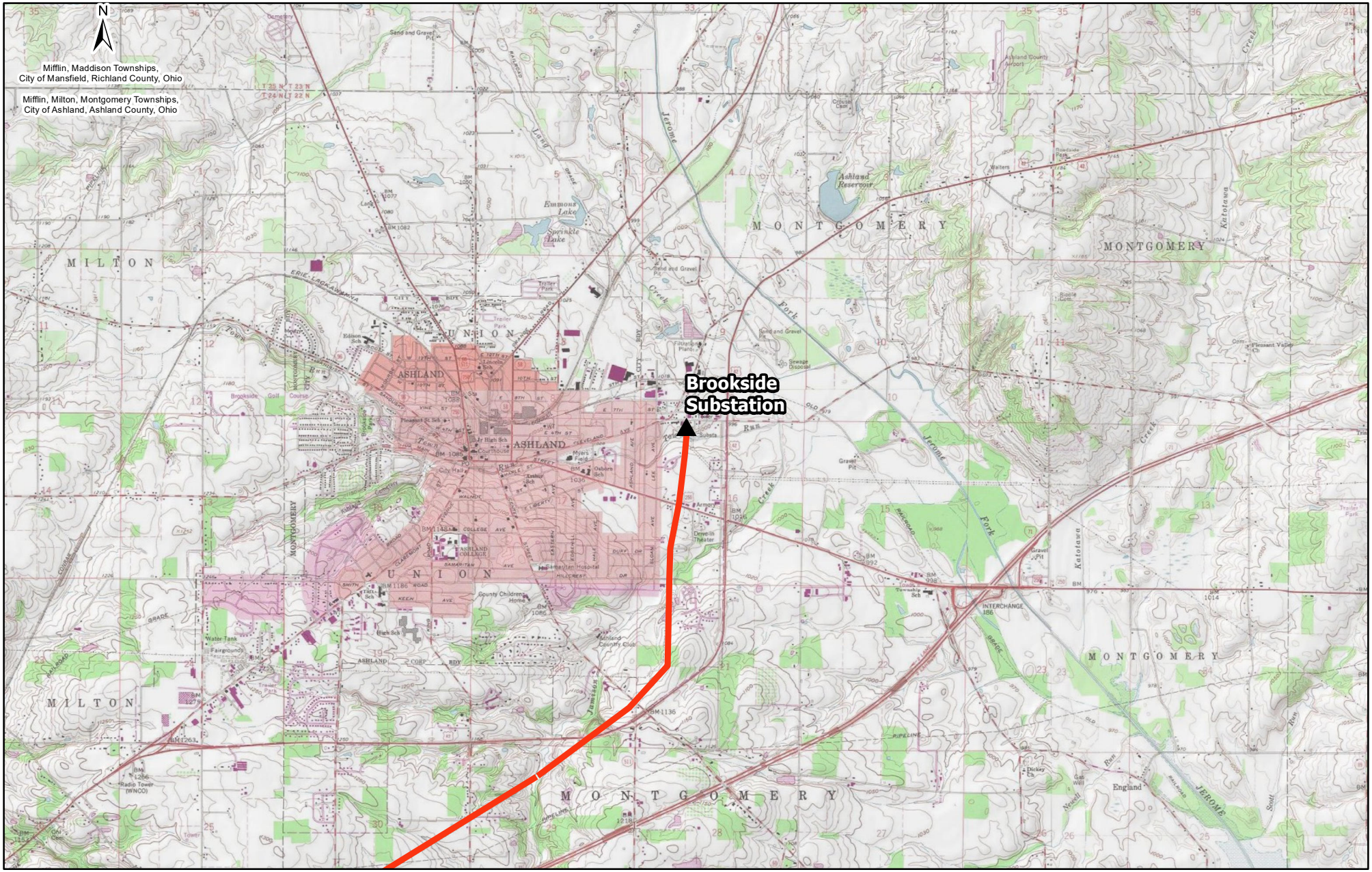
Structure Replacement Project**



LEGEND:

- ▲ Substations
- Transmission Line

0 2,150 4,300 8,600

Feet

Reference:
USGS Topographical Overlay

Coordinate System:
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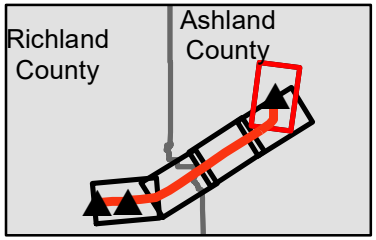

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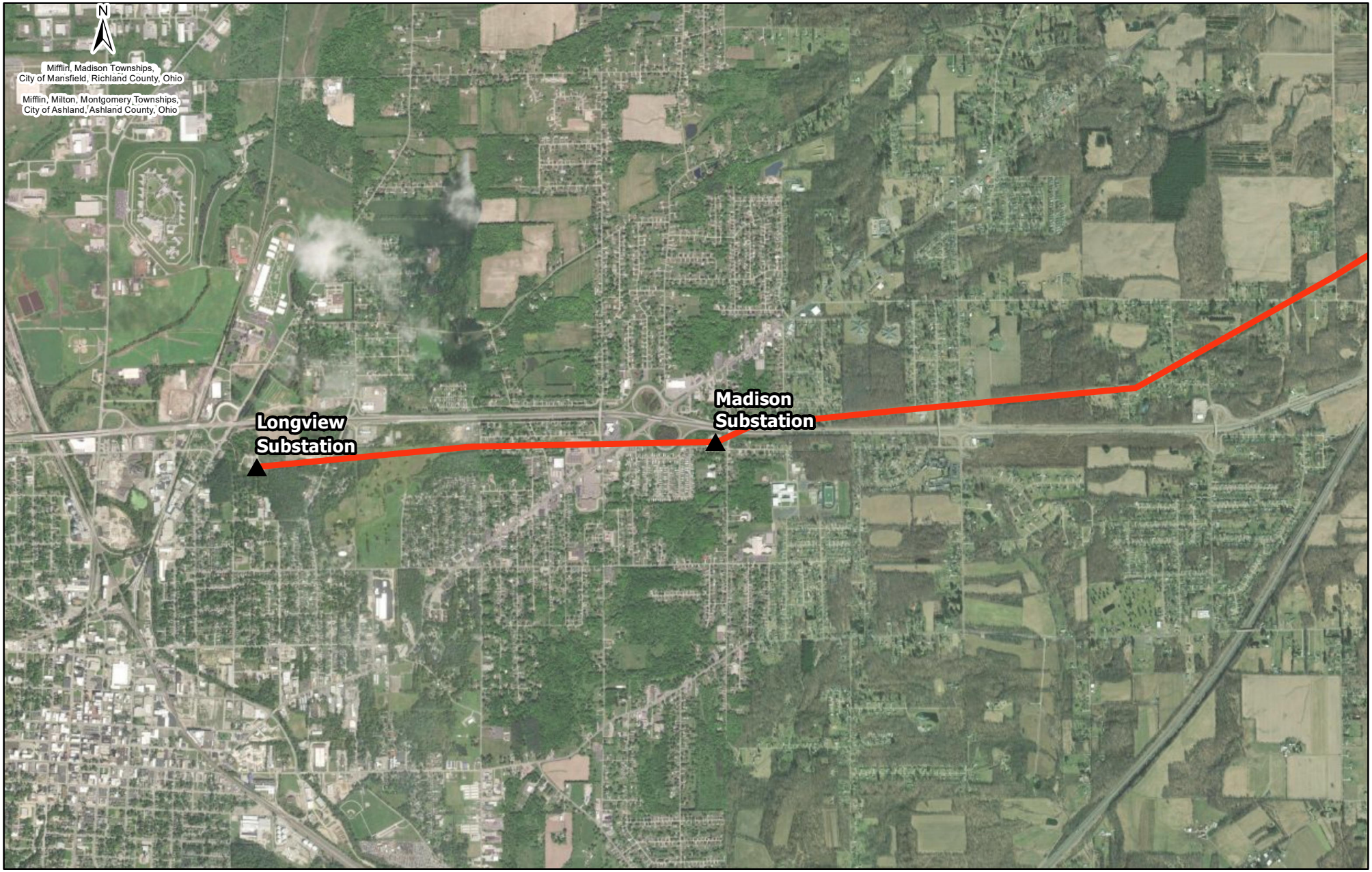
Longview-Madison 138 kV Transmission Line
Structure Replacement Project**



LEGEND:

- ▲ Substations
- Transmission Line

0 1,450 2,900 5,800

Feet

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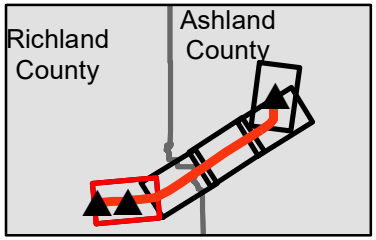

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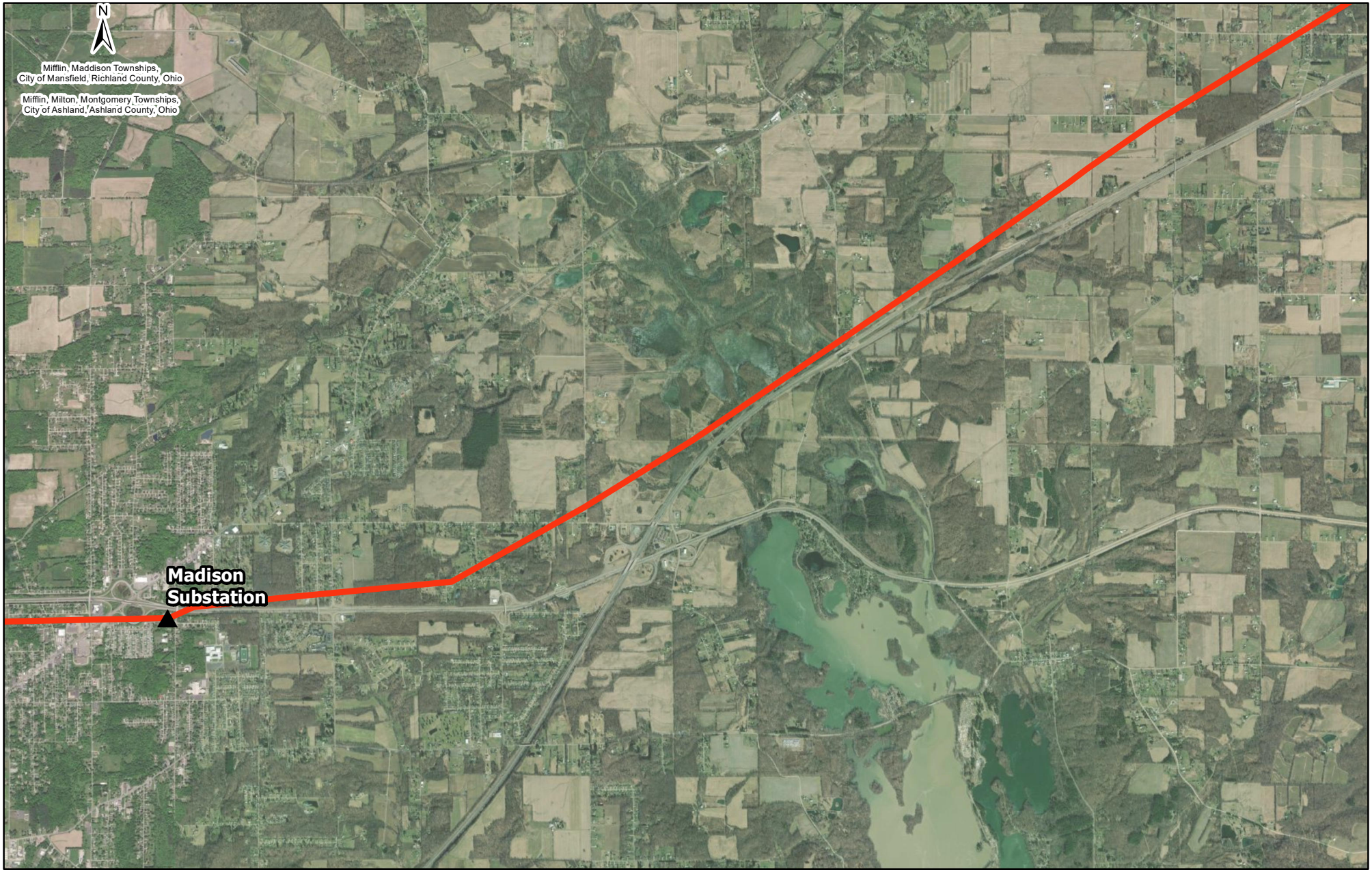
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project**



LEGEND:

- ▲ Substations
- Transmission Line

0 2,150 4,300 8,600

Feet

Reference:
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Coordinate System:
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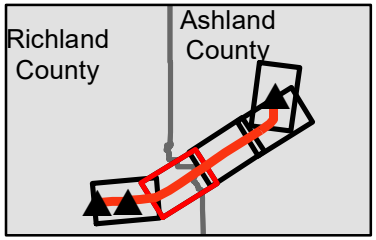

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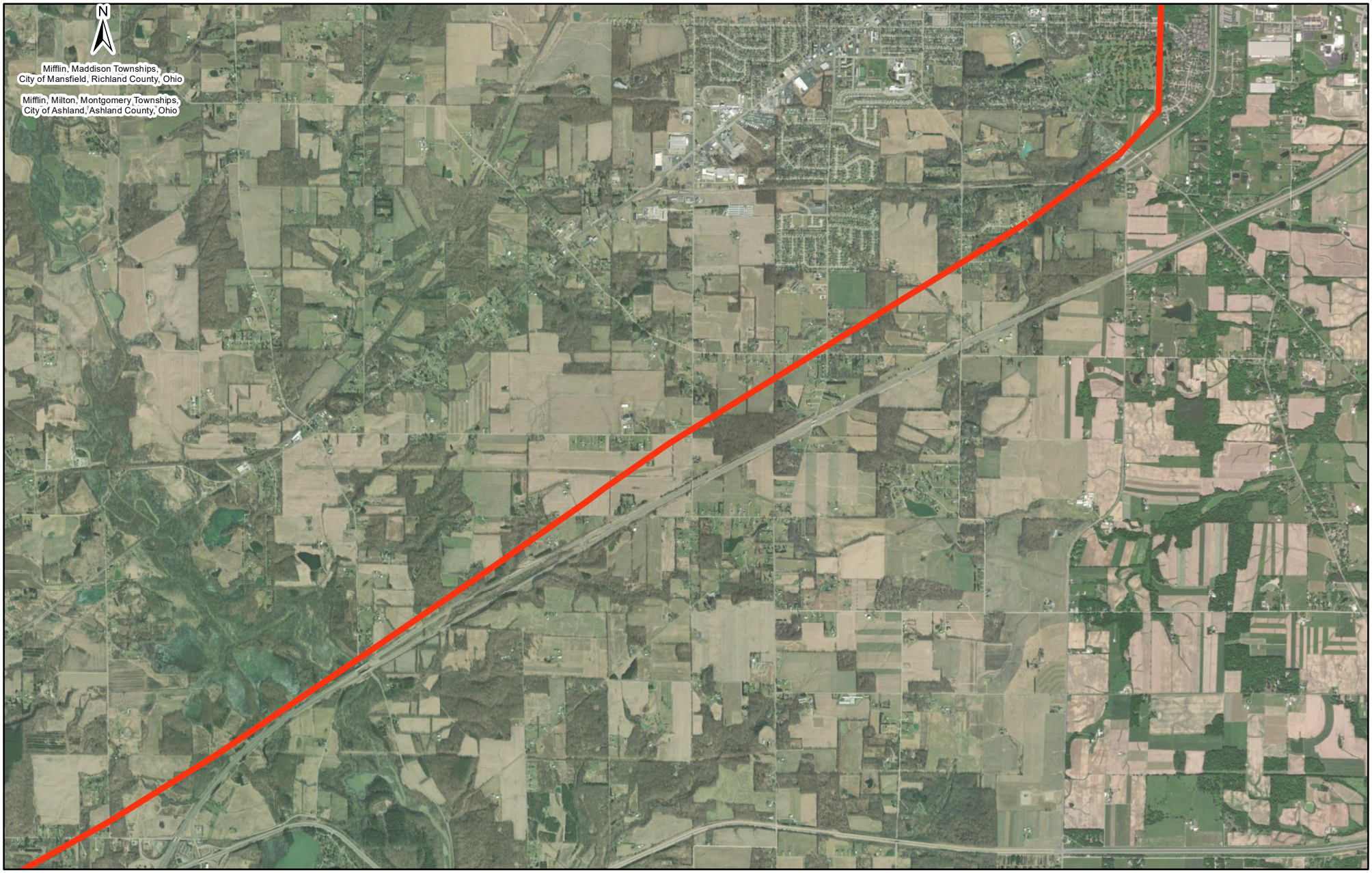
Longview-Madison 138 kV Transmission Line
Structure Replacement Project



LEGEND:

- ▲ Substations
- Transmission Line

0 2,150 4,300 8,600

Feet

Reference:
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Coordinate System:
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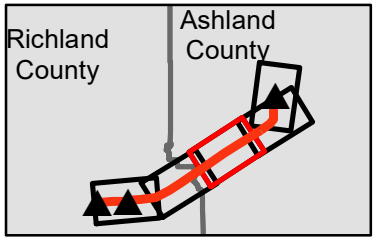

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Longview-Madison 138 kV Transmission Line
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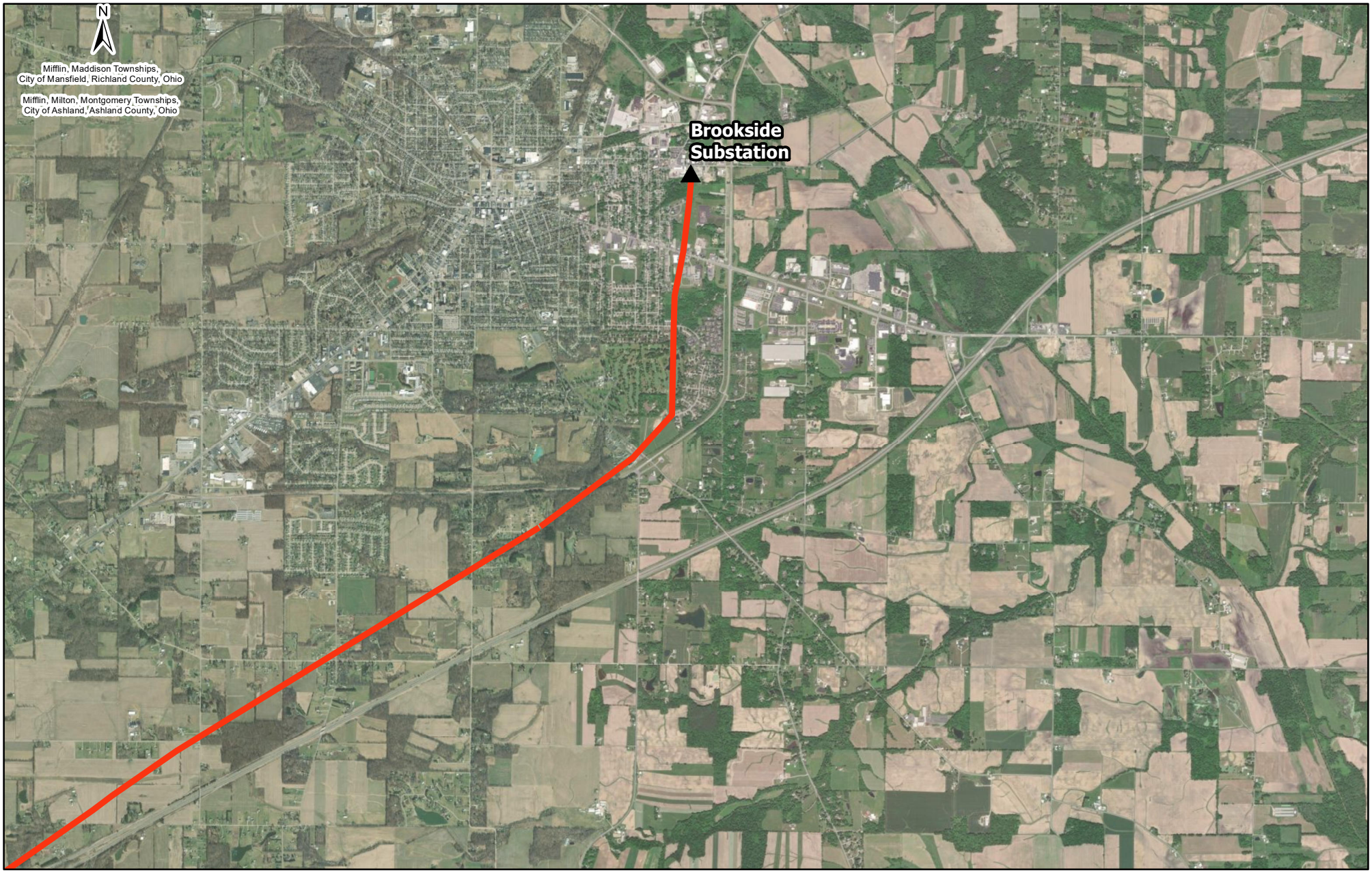

LEGEND:

- ▲ Substations
- Transmission Line

0 2,150 4,300 8,600

Feet

Reference:
USGS Topographical Overlay

Coordinate System:
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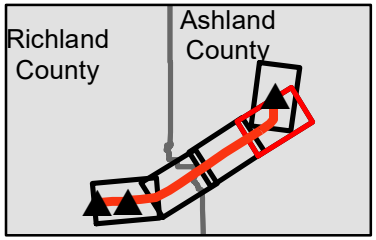

EXHIBIT 2

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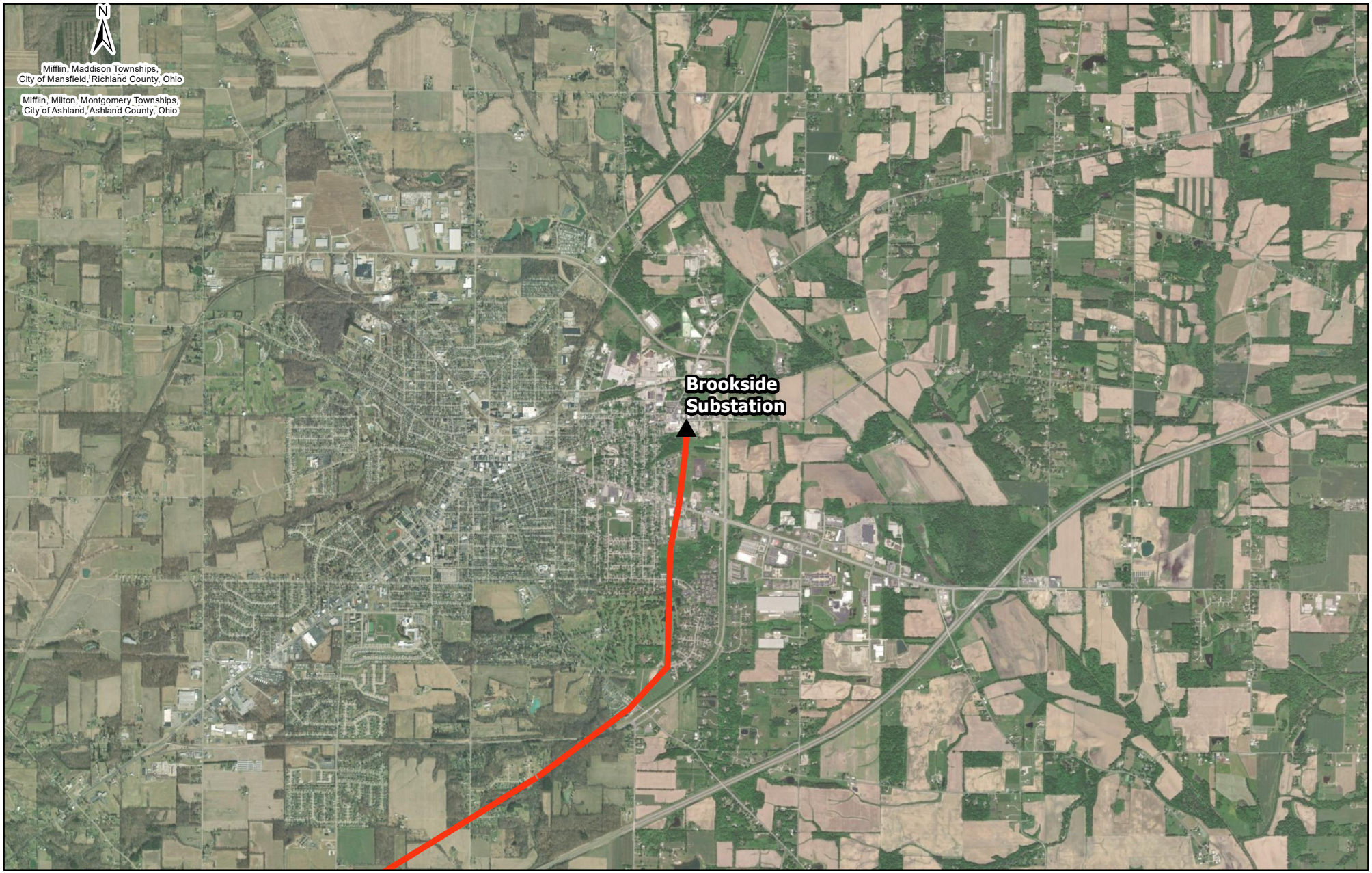
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project**



LEGEND:

- ▲ Substations
- Transmission Line

0 2,150 4,300 8,600

Feet

Reference:
USGS Topographical Overlay

Coordinate System:
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WKID: 3734 Authority: EPSG

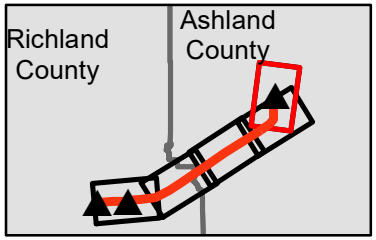

EXHIBIT 2

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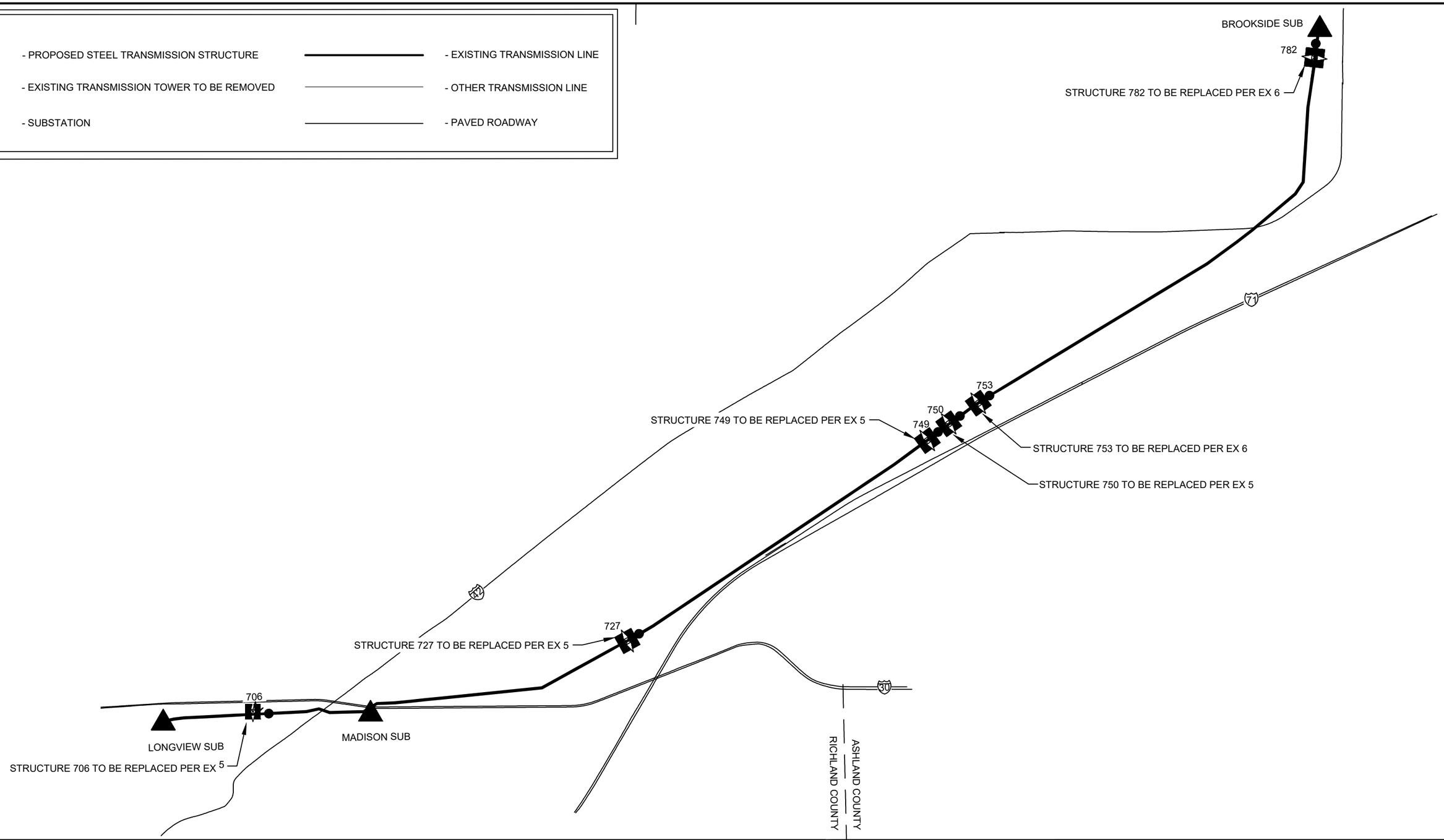
**Brookside-Longview East 138 kV Transmission Line,
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project**

- PROPOSED STEEL TRANSMISSION STRUCTURE
- EXISTING TRANSMISSION TOWER TO BE REMOVED
- SUBSTATION
- EXISTING TRANSMISSION LINE
- OTHER TRANSMISSION LINE
- PAVED ROADWAY



Mifflin, Madison Townships, City of Mansfield, Richland County, Ohio
Mifflin, Milton, Montgomery Townships, City of Ashland, Ashland County, Ohio

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Brookside-Longview East 138 kV Transmission Line,
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project

GENERAL PROJECT LAYOUT

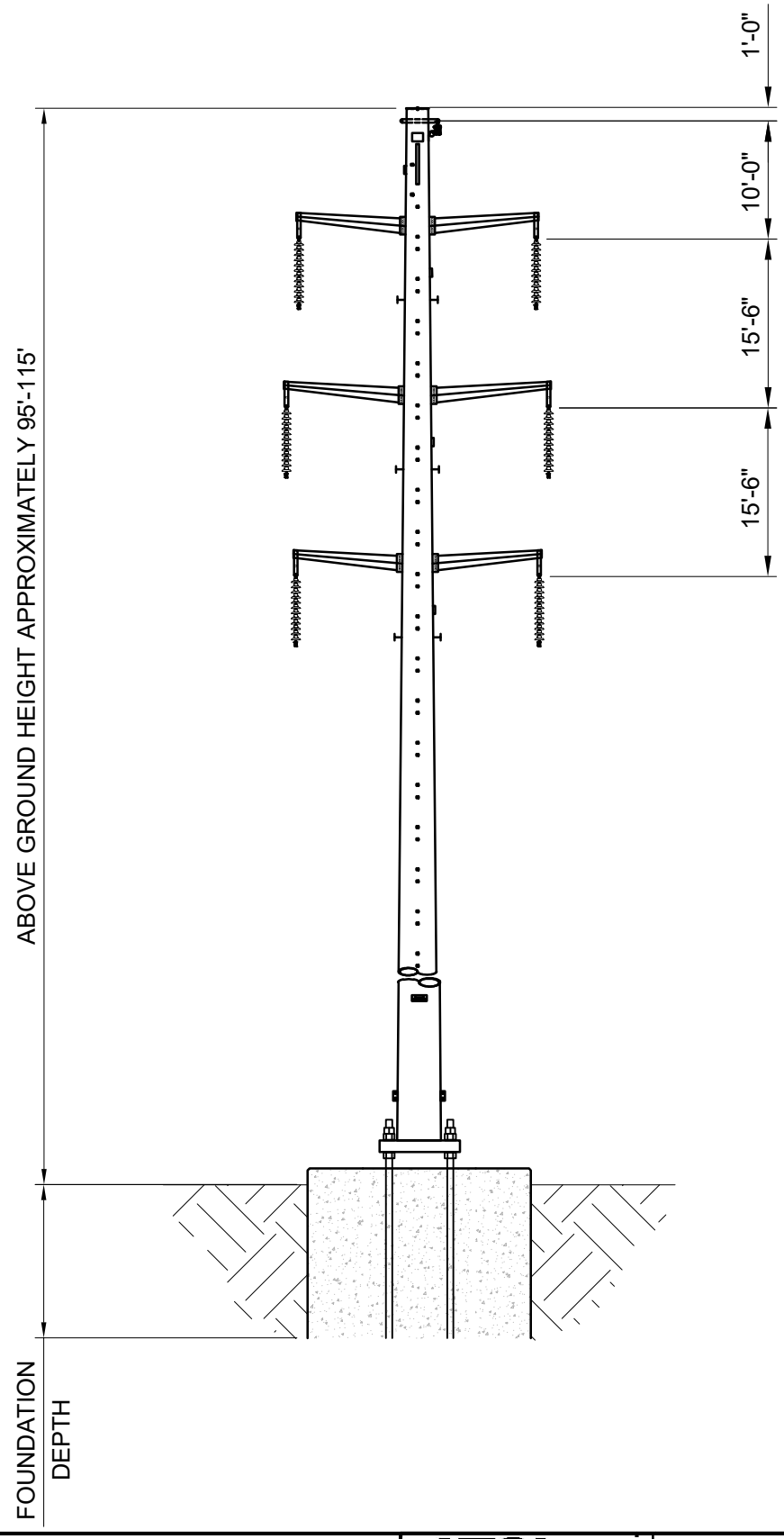
EXHIBIT 3

BROOKSIDE-LONGVIEW EAST 138KV, BROOKSIDE-MADISON 138KV, LONGVIEW-MADISON 138KV MITIGATION PROJECT, EX 3

Exhibit 4

APN	Acreage	Easement Status	Agricultural District (Yes/No)	Expiration Year
028-90-041-08-000	26.45	Existing	No	N/A
021-17-030-06-000	130.514	Existing	Yes	2028
G22-035-0-0003-13	5.05	Existing	No	N/A
G22-035-0-0003-01	102.3510	Existing	No	N/A
G22-036-0-0015-01	19.3780	Existing	No	N/A
I25-029-0-0029-41	0.854	Existing	No	N/A
I25-029-0-0029-43	8.859	Existing	No	N/A
P43-121-0-0005-03	14.739	Existing	No	N/A

*Note: This list of affected landowners is for “impacted” parcels only and the subject list is NOT for mailing purposes.



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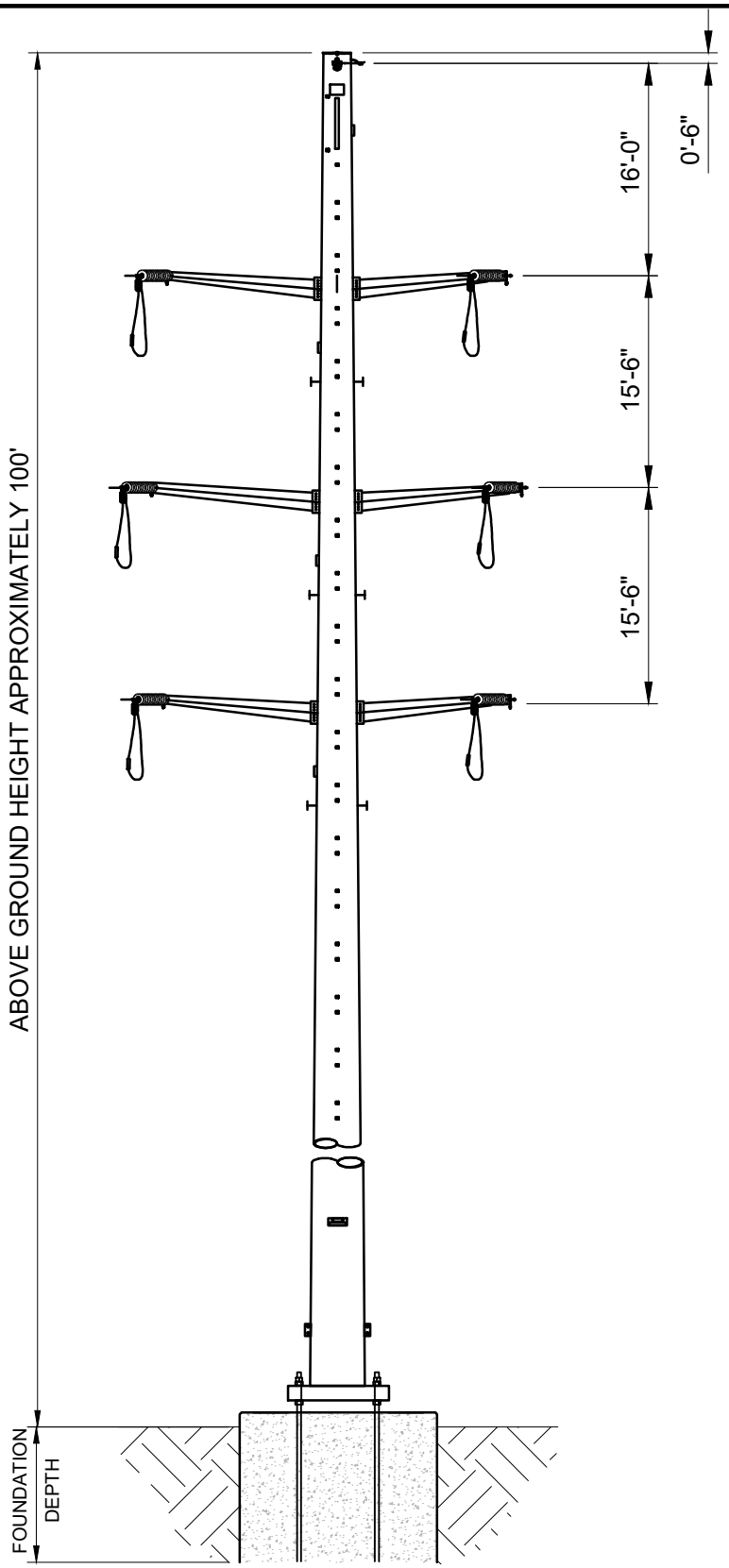
Brookside-Longview East 138 kV Transmission Line,
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project

138KV DOUBLE CIRCUIT STEEL POLE TANGENT STRUCTURE

EXHIBIT 5

SCALE: N.T.S



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Brookside-Longview East 138 kV Transmission Line,
Brookside-Madison 138 kV Transmission Line,
Longview-Madison 138 kV Transmission Line
Structure Replacement Project

138KV DOUBLE CIRCUIT STEEL POLE STRAIN STRUCTURE

EXHIBIT 6

SCALE N.T.S

Exhibit 7

In reply refer to:
2024-ASD-62391

October 17, 2024

Justin McKissick, MA, RPA
Project Archaeologist/Field Director
TRC Environmental Corporation
317 E Carson Street, Suite 113
Pittsburgh, PA 15219
Email: JMcKissick@trccompanies.com

RE: Section 106 Review: Brookside-Madison ROW Assurance Project, Ashland and Richland Counties, Ohio

Dear Mr. McKissick:

This letter is in response to the correspondence received on September 18, 2024, regarding the above reference project in Ashland and Richland Counties, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code (O.R.C.) and the Ohio Power Siting Board rules for siting this project. The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The proposed project includes the service and replacement of existing structures and lines along the Brookside-Madison 138kV transmission line. Based on information submitted by you, which included a Project Summary Form, no historic properties, districts, or archaeological sites are located within the direct Area of Potential Effect (APE), as defined by you. New infrastructure will not exceed existing infrastructure height, and no new visual impacts are anticipated. Therefore, based on this information, it is the SHPO's opinion that no cultural resource studies are warranted for the project. Furthermore, as proposed, the project will have no effect on historic properties. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted. If you have any questions concerning this review, please contact me via email at sbiehl@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Stephen M. Biehl

Stephen M. Biehl, Project Reviews Manager-Archaeology
Resource Protection and Review
State Historic Preservation Office

RPR Serial No. 1104882

OHIO HISTORIC PRESERVATION OFFICE:
RESOURCE PROTECTION AND REVIEW

Section 106 Review - Project Summary Form

For projects requiring a license from the Federal Communications Commission, please use FCC Forms 620 or 621. DO NOT USE THIS FORM.

SECTION 1: GENERAL PROJECT INFORMATION

All contact information provided must include the name, address and phone number of the person listed. Email addresses should also be included, if available. Please refer to the Instructions or contact an OHPO reviewer (mailto:Section106@ohiohistory.org) if you need help completing this Form. Unless otherwise requested, we will contact the person submitting this Form with questions or comments about this project.

Date: 09/17/2024

Name/Affiliation of person submitting form: Justin McKissick, MA, RPA

Mailing Address: 317 E. Carson Street, Suite 113, Pittsburgh, PA 15219

Phone/Fax/Email: 412.660.7937/jmckissick@trccompanies.com

A. Project Info:

1. This Form provides information about:
   New Project Submittal:
   YES

   Additional information relating to previously submitted project:
   NO

   OHPO/RPR Serial Number from previous submission:

2. Project Name (if applicable): **Brookside-Madison ROW Assurance Project**

3. Internal tracking or reference number used by Federal Agency, consultant, and/or applicant to identify this project (if applicable): **550808.0021.0000**

Project Address or vicinity: **The Project Study Area is comprised of several sections along an existing utility line corridor with approximate centroids extending from the northeastern to southwestern areas as follows:**

Section 1: 40.869206, -82.292549
Section 2: 40.840407, -82.310431
Section 3: 40.822249, -82.349601
Section 4: 40.820755, -82.352584
Section 5: 40.817000, -82.359892
Section 6: 40.814421, -82.364455
Section 7: 40.787392, -82.418005
Section 8: 40.785385, -82.411807

The proposed Project extends from just east of the City of Ashland to points just north and northwest of the intersection of Interstate 71 and U.S. Route 30 (Figure 1).

B. City/Township: **Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County**

C. County: **Richland and Ashland Counties**

D. Federal Agency and Agency Contact. *If you do not know the federal agency involved in your project, please contact the party asking you to apply for Section 106 Review, not OHPO, for this information*. *HUD Entitlement Communities acting under delegated environmental review authority should list their own contact information*. **N/A**

E. Type of Federal Assistance. *List all known federal sources of federal funding, approvals, and permits to avoid repeated reviews.* **N/A**

F. State Agency and Contact Person (if applicable): **Ohio Power Siting Board (OPSB)**

G. Type of State Assistance: **N/A**

H. Is this project being submitted at the direction of a state agency **solely** under Ohio Revised Code 149.53 or at the direction of a State Agency? *Answering yes to this question means that you are sure that no federal funding, permits or approvals will be used for any part of your project, and that you are seeking comments only under ORC 149.53.*

NO

I. Public Involvement- Describe how the public has been/will be informed about this project and its potential to affect historic properties. Please summarize how they will have an opportunity to provide comments about any effects to historic properties. (This step is required for all projects under 36 CFR § 800.2):

J. Please list other consulting parties that you have contacted/will contact about this project, such as Indian Tribes, Certified Local Governments, local officials, property owners, or preservation groups. (See 36 CFR § 800.2 for more information about involving other consulting parties). Please summarize how they will have an opportunity to provide comments: **N/A**

SECTION 2: PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Provide a description of your project, its site, and geographical information. You will also describe your project's Area of Potential Effects (APE). Please refer to the Instructions or contact an OHPO reviewer if you need help with developing the APE or completing this form.

For challenging projects, provide as much information as possible in all sections, and then check the box in Section 5.A. to ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties or if there may be challenging procedural issues related to your project. Please note that providing information to complete all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

A. Does this project involve any Ground-Disturbing activity: YES

(If **Yes**, you must complete all of Section 2.A. If **No**, proceed directly to Section 2. B.)

1. General description of width, length and depth of proposed ground disturbing activity:

The Limits of Disturbance (LOD), which corresponds to the Area of Potential Effects (APE) for direct effects, will be completely within the Project Study Area, which measures 27.79 acres (ac) in size (Figure 2). The minimal ground disturbance will be limited to the replacement of existing infrastructure at the location.

2. Narrative description of previous land use and past ground disturbances, if known:

Historically, the landscape likely featured agricultural fields or wooded landscapes with regional development occurring predominately throughout the twentieth and into the twenty-first centuries.

3. Narrative description of current land use and conditions:

The modern aerial imagery shows the current landscape comprised of semi-suburban to rural terrain with the entire of Study Area situated within existing overhead utility line corridor, disturbed landscapes, or existing access roads. The Study Area crosses active agricultural fields, wooded landscapes, a golf course, and overgrown fields. General overview photographs are provided as Attachment 1.

4. Does the landowner know of any archaeological resources found on the property?
YES NO If yes, please describe: **Unknown**

B. Submit the exact project site location on a USGS 7.5-minute topographic quadrangle map for all projects. Map sections, photocopies of map sections, and online versions of USGS maps are acceptable as long as the location is clearly marked. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map:

1. USGS Quad Map Name: Pavonia and Ashland South, OH

2. Township/City/Village Name: **Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County**

C. Provide a street-level map indicating the location of the project site; road names must be identified and legible. Your map must show the exact location of the boundaries for the project site. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map: **See Figure 2**

D. Provide a verbal description of the APE, including a discussion of how the APE will include areas with the potential for direct and indirect effects from the project. Explain the steps taken to identify the project's APE, and your justification for the specific boundaries chosen:

The APE will correspond to the LOD, which will be entirely within the Study Area and will include all areas in which construction activities associated with the proposed Project will take place. The undertaking involves the service and replacement of structures on the Brookside-Madison 138kV line, as part of FirstEnergy's ROW Assurance Program. It is anticipated that all existing structures will be replaced in the same locations and new lines will be at the same height. The APE may also include a viewshed that will be based on LIDAR data, vegetation, topography, and buildings, which will reduce the APE to areas with positive visibility of the Project infrastructure within 0.25 mi of the undertaking. The new infrastructure will be at similar heights to the existing, therefore, no new visual impacts are anticipated.

E. Provide a detailed description of the project. This is a critical part of your submission. Your description should be prepared for a cold reader who may not be an expert in this type of project. The information provided must help support your analysis of effects to historic properties, not other types of project impacts. Do not simply include copies of environmental documents or other types of specialized project reports. If there are multiple project alternatives, you should include information about all alternatives that are still under active consideration:

The proposed Project will involve the service and replacement of structures on the Brookside-Madison 138kV line, as part of FirstEnergy's ROW Assurance Program. As currently proposed, no tree clearing is anticipated. The proposed Project Study Area consists of an existing utility ROW located within an area of existing industrial land use (Figure 2).

SECTION 3: IDENTIFICATION OF HISTORIC PROPERTIES

Describe whether there are historic properties located within your project APE. To make that determination, use information generated from your own Background Research and Field Survey. Then choose one of the following options to report your findings. Please refer to the Instructions and/or contact an OHPO reviewer if you are unsure about how to identify historic properties for your project.

A review of information received from the Ohio Historic Preservation Office's (OHPO's) Ohio History Connection (OHC) online mapping system files on September 10, 2024, was performed to identify the presence of previously recorded significant historic properties, including above-ground historic resources and/or archeological sites, that are mapped within one (1)-mile (mi) of the Study Area. See Figure 3.

The results of the search indicate two (2) National Register of Historic Places (NRHP) listed resources recorded within one (1)-mi of the proposed Project: the Ashland County Children's Home (Ref No.: SG100004059), located 0.78 mi north of Section 2 of the Study Area and the Arthur Street School (Ref No.: SG100006147), located 0.96 mi west of Section 1 of the Study Area.

In addition, there has been one (1) above-ground historic resource that has been recommended eligible for listing in the NRHP: the unnamed resource (DOE ID: 714) is mapped 0.77 mi southeast of Section 2 of the Study Area. There are an additional 27 above-ground historic resources recorded within one (1)-mi of the Study Area sections. The nearest of these resources is mapped 0.32 mi southeast of Section 1. There have been nine (9) Ohio Genealogical Society (OGS) cemeteries recorded within one (1)-mi of the Study Area: the nearest of which is situated 0.19 mi west of Section 6.

Fourteen (14) archaeological surveys have been conducted within one (1)-mi of the proposed Project. Through these surveys and efforts of local collectors, 23 archaeological sites have been mapped within one (1)-mi of the Study Area. The sites include 18 pre-contact sites, two (2) historic sites, and three (3) multi-component historic and pre-contact sites. Three (3) of the pre-contact sites and one (1) historic site are documented as open isolated finds. The remaining pre-contact and pre-contact component sites are open sites of unknown function with dates that include Early and Late Archaic, Early through Late Woodland, and Late Prehistoric Periods. The historic and historic component sites all date to the nineteenth and twentieth centuries. The nearest of the sites is situated 0.06 mi southeast of Section 2 and 0.08 mi northwest of Section 7.

A review of available historic maps was conducted to determine the presence of historic structures and buildings (50 years of age or older) and other possible historic features within or adjacent to the Study Area that may be impacted by the proposed Project. By 1856/1861, both Ashland and Richland Counties had been settled with residential buildings and farmland denoted primarily along the established roadways. In Ashland County, the City of Ashland was established and contained the densest population in the region (Attachment 2, Image 1). On the historic 1856/1861 map, the proposed Project crossed a number of parcels attributed to various owners, with no buildings denoted directly within the Study Area. Several parcels did have nearby structures mapped. In Richland County, the Study Area is recorded on three (3) parcels, of which one (1) contained recorded structures (Attachment 2, Image 2). Windsor, to the northwest, is the most populated area. The 1908 historic USGS shows an overall region that has remained relatively the same (Attachment 2, Images 3a and 3b). The City of Ashland displayed signs of growth as additional streets and structures are mapped. While several buildings are mapped in the area on the 1908 map, none are directly within the Study Area. Throughout the early and into the mid-twentieth century, the region grew substantially as the regional population increased (Attachment 2, Image 4a and 4b). The City of Ashland continued to expand, as did the town of Windsor. Route 30 and Interstate 75 were constructed south of the Project and Charles Mill Lake was formed at the Ashland/Richland County border. Development continued throughout the mid to late twentieth century and into the twenty-first century. Overall, outside of the City of Ashland, the area has remained rural, comprised predominately of agricultural fields and pastures.

If you read the Instructions and you're still confused as to which reporting option best fits your project, or you are not sure if your project needs a survey, you may choose to skip this section, but provide as much supporting documentation as possible in all other Sections, then check the box in Section 5.A. to request preliminary comments from OHPO. After reviewing the information provided, OHPO will then offer comments as to which reporting option is best suited to document historic properties for your project. Please note that providing information to complete this Section will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

Recording the Results of Background Research and Field Survey:

A. **Summary of discussions and/or consultation with OHPO** about this project that demonstrates how the Agency Official and OHPO have agreed that no Field Survey was necessary for this project (typically due to extreme ground disturbance or other special circumstances). Please **attach copies** of emails/correspondence that document this agreement. You must explain how the project's potential to affect both archaeological and historic resources were considered. **N/A**

B. **A table that includes the minimum information** listed in the OHPO Section 106 Documentation Table (which is generally equivalent to the information found on an

inventory form). This information must be printed and mailed with the Project Summary Form. To provide sufficient information to complete this Section, you must also include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated in the project APE. **N/A**

C. **OHI (Ohio Historic Inventory) or OAI (Ohio Archaeological Inventory) forms**- New or updated inventory forms may be prepared using the OHI pdf form with data population capabilities, the Internet IForm, or typed on archival quality inventory forms. To provide sufficient information to complete this Section, you must include summary observations from your field survey and background research. You must also include eligibility determinations for each property that was evaluated in the project APE. **N/A**

D. **A historic or archaeological survey report** prepared by a qualified consultant that meets professional standards. The survey report should meet the Secretary of the Interior's Standards and Guidelines for Identification and OHPO Archaeological Guidelines. You may also include new inventory forms with your survey or update previous inventory forms. To complete this section, your survey report must include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated within the APE. **N/A**

E. **Project Findings**. Based on the conclusions you reached in completing Section 3, please choose one finding for your project. There are (mark one):

Historic Properties Present in the APE: **N/A**

No Historic Properties Present in the APE: **N/A**

SECTION 4: SUPPORTING DOCUMENTATION

This information must be provided for all projects.

A. Photographs must be keyed to a street-level map and should be included as attachments to this application. Please label all forms, tables, and CDs with the date of your submission and project name, as identified in Section 1. You must present enough documentation to clearly show existing conditions at your project site and convey details about the buildings, structures or sites that are described in your submission. Faxed or photocopied photographs are not acceptable. See Instructions for more info about photo submissions or 36 CFR § 800.11 for federal documentation standards.

1. Provide photos of the entire project site and take photos to/from historic properties from/towards your project site to support your determination of effect in Section 5. **See Attachment 1 - Photographs**

2. Provide current photos of all buildings/structures/sites described.

B. Project plan, specifications, site drawings and any other media presentation that conveys detailed information about your project and its potential to affect historic properties.

C. Copies or summaries of any comments provided by consulting parties or the public.

SECTION 5: DETERMINATION OF EFFECT

A. **Request Preliminary Comments.** For challenging projects, provide as much information as possible in previous sections and ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties, if the public has concerns about your project's potential to affect

historic properties, or if there may be challenging procedural issues related to your project. Please be aware that providing information in all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

1. We request preliminary comments from OHPO about this project:
   YES

2. Please specify as clearly as possible the particular issues that you would like OHPO to examine for your project (for example- help with developing an APE, addressing the concerns of consulting parties, survey methodology, etc.):

Please review the provided information and respond with your determination relative to the potential effects to cultural resources, if any.

B. **Determination of Effect.** If you believe that you have gathered enough information to conclude the Section 106 process, you may be ready to make a determination of effect and ask OHPO for concurrence, while considering public comments. Please select and mark one of the following determinations, then explain the basis for your decision on an attached sheet of paper:

No historic properties will be affected based on 36 CFR § 800.4(d) (1). Please explain how you made this determination:

No Adverse Effect [36 CFR § 800.5(b)] on historic properties. This finding cannot be used if there are no historic properties present in your project APE. Please explain why the Criteria of Adverse Effect, [36 CFR Part 800.5(a) (1)], were found not to be applicable for your project:

Adverse Effect [36 CFR § 800.5(d) (2)] on historic properties. Please explain why the criteria of adverse effect, [36 CFR Part 800.5(a) (1)], were found to be applicable to your project. You may also include an explanation of how these adverse effects might be avoided, reduced or mitigated:

Please send completed form and supporting documentation to our office through the section106@ohiohistory.org e-mail address. Note that file size is limited to 30 MB. The Ohio SHPO has a federally mandated review time of 30 calendar day. To check your submission was received and logged in for our review, please visit https://www.ohiohistory.org/preserve/state-historic-preservation-office/hpreviews/section-106-project-status.

REFERENCES

Nunan, Philip and H.S. Plumb

1861 **Nunan's** Map of Ashland Co., Ohio. Published by Nunan Philip. Electronic document, chhttps://historicmapworks.com/Map/US/1638409/Ashland+County+1861/Ashland+County+1861/Ohio/, accessed September 6, 2024.

O'Beirne, P.

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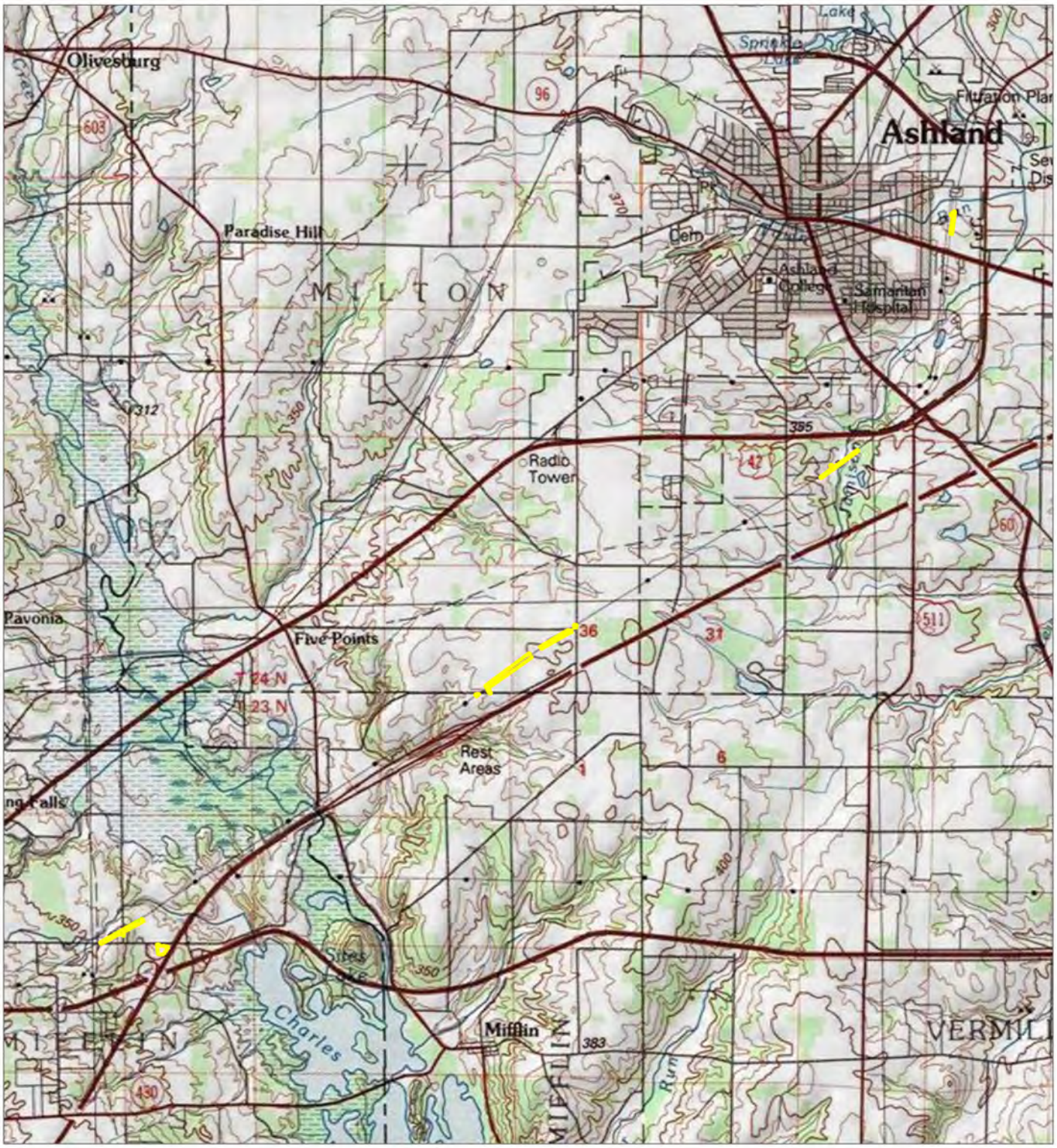
United States Geographical Survey

1908 Ashland *Defiance, OH,* 15-minute series topographic series. Electronic document, https://ngmdb.usgs.gov/topoview/viewer/#12/40.8606/-82.4093, accessed September 6, 2024.

1960 *Pavonia, OH* 7.5-minute series topographic series. Electronic document, https://ngmdb.usgs.gov/topoview/viewer/#12/40.8606/-82.4093, accessed September 6, 2024.

1961 *Ashland South, OH* 7.5-minute series topographic series. Electronic document, https://ngmdb.usgs.gov/topoview/viewer/#12/40.8606/-82.4093, accessed September 6, 2024.



PROJECT STUDY AREA

BASE MAP: USA TOPO MAPS MAP SERVICE, PAVONIA & ASHLAND SOUTH QUADS

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FEET

1:72,000 1" = 6,000'

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: PROJECT LOCATION MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	J. MCKISSICK		
APPROVED BY:	B. FALKINBURG		FIGURE 1
DATE:	SEPTEMBER 2024		

TRC

1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: SECTION106

PROJECT STUDY AREA
EXISTING STRUCTURE
MAPPED SOIL UNITS
DELINEATED STREAM
DELINEATED WETLAND
PHOTO LOCATION

BASE MAP: GOOGLE MAPS.

1:1,800
1" = 150'
0 150 300 FEET

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: AERIAL BASEMAP WITH PHOTO LOCATIONS

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	J. MCKISSICK		
APPROVED BY:	B. FALKINBURG		FIGURE 2 (PAGE 1 OF 7)
DATE:	SEPTEMBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Section106.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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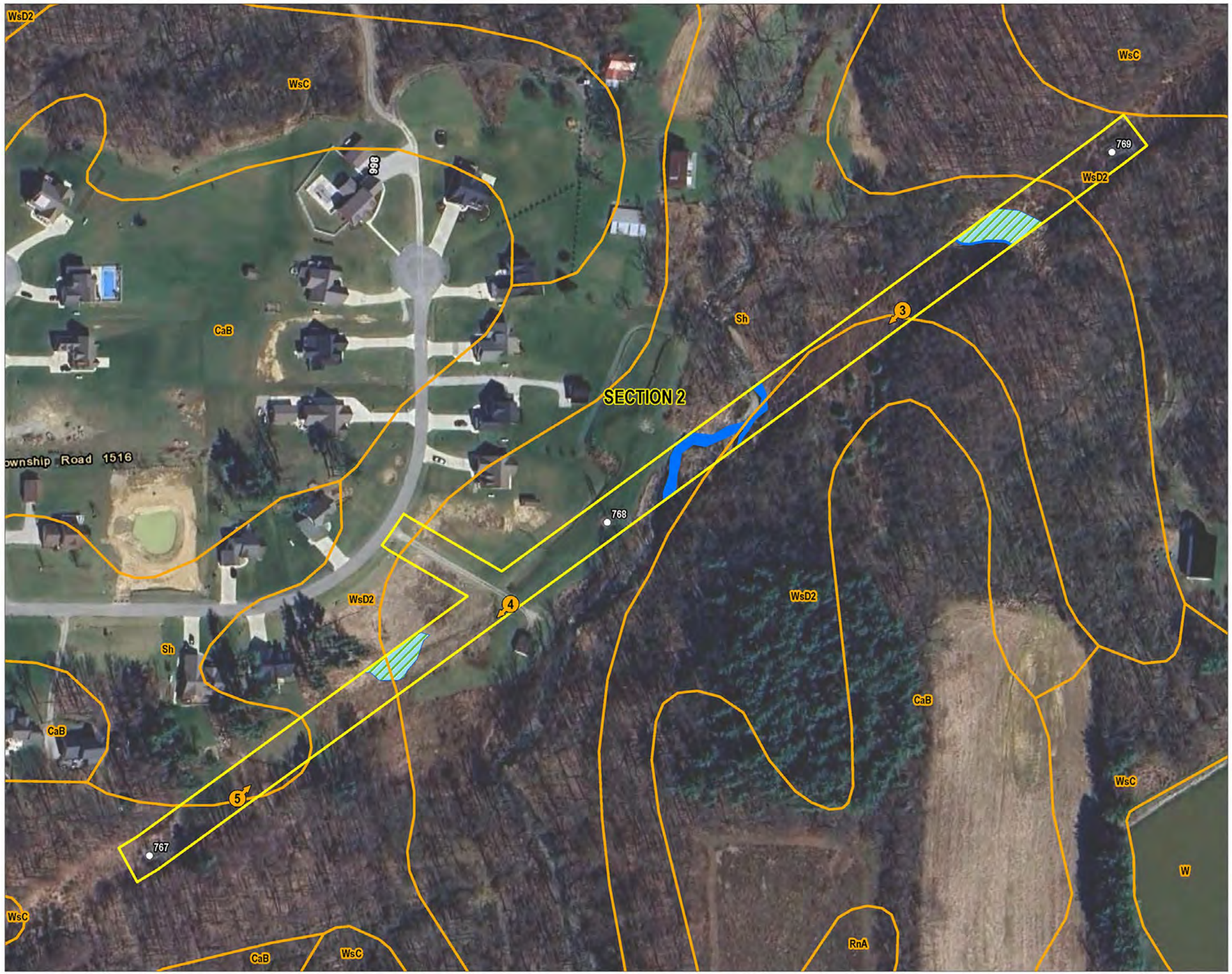

PROJECT STUDY AREA
EXISTING STRUCTURE
MAPPED SOIL UNITS
DELINEATED STREAM
DELINEATED WETLAND
PHOTO LOCATION

BASE MAP: GOOGLE MAPS.

1:1,800
1" = 150'
0 150 300 FEET

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON
ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE:
AERIAL BASEMAP WITH PHOTO LOCATIONS

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	J. MCKISSICK		
APPROVED BY:	B. FALKINBURG		**FIGURE 2**
DATE:	SEPTEMBER 2024		(PAGE 2 OF 7)

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Section106.aprx

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RnB
CaB
RnA
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RnB
RnA
CaB
RnA
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RnA
CaB
SECTION 3
SECTION 4
6
754
7
753
755
1399
Township Rd 1656
Township Rd 1153
1664
Township Rd 1153

PROJECT STUDY AREA
EXISTING STRUCTURE
MAPPED SOIL UNITS
DELINEATED STREAM
DELINEATED WETLAND
PHOTO LOCATION

BASE MAP: GOOGLE MAPS.

1:1,800
1" = 150'
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FEET

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON
ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE:
AERIAL BASEMAP WITH PHOTO LOCATIONS

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	J. MCKISSICK		
APPROVED BY:	B. FALKINBURG		FIGURE 2 (PAGE3 OF 7)
DATE:	SEPTEMBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Section106.aprx

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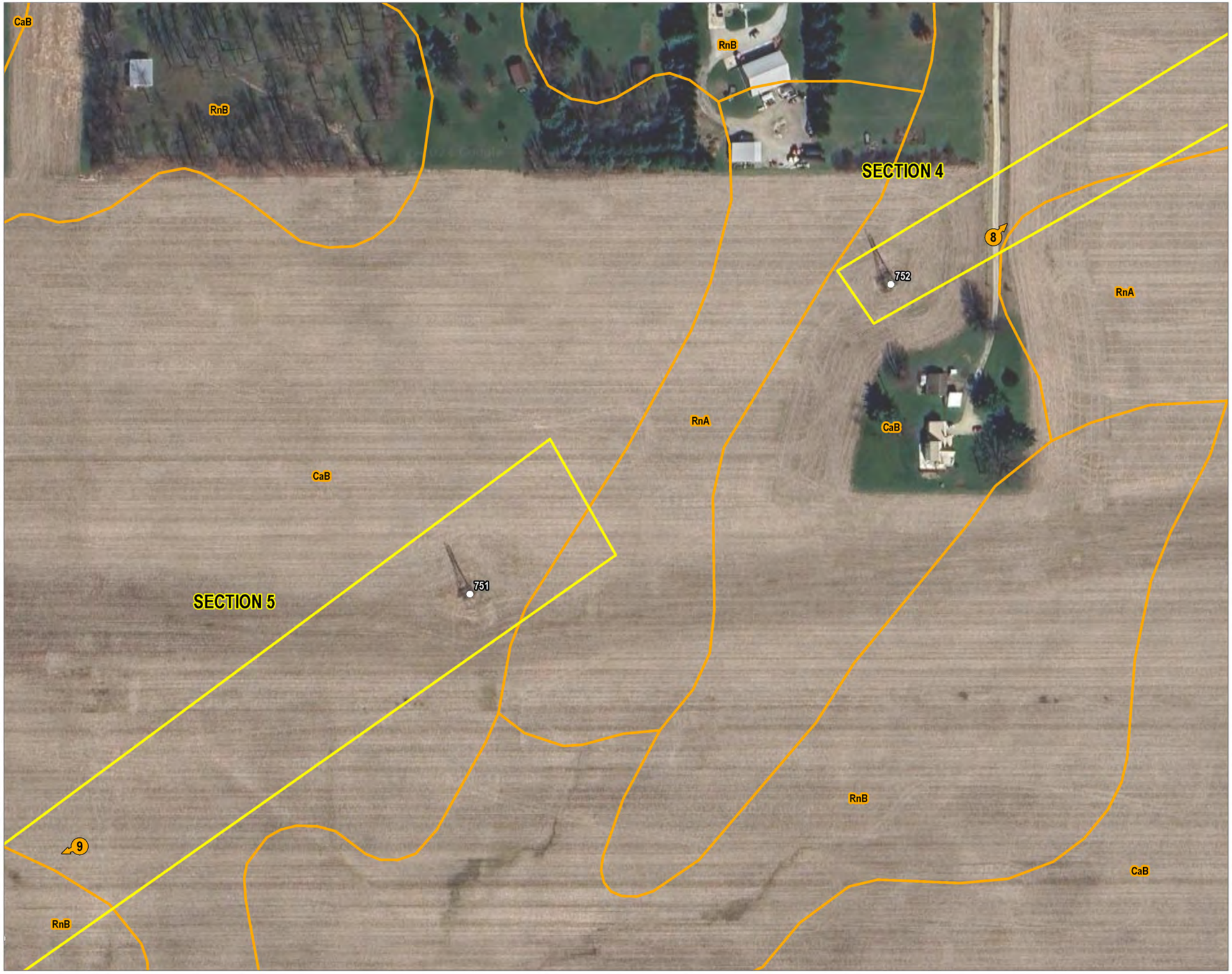

PROJECT STUDY AREA
EXISTING STRUCTURE
MAPPED SOIL UNITS
DELINEATED STREAM
DELINEATED WETLAND
PHOTO LOCATION

BASE MAP: GOOGLE MAPS.

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1" = 150'

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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON
ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE:
AERIAL BASEMAP WITH PHOTO LOCATIONS

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	J. MCKISSICK		
APPROVED BY:	B. FALKINBURG		**FIGURE 2** (PAGE 4 OF 7)
DATE:	SEPTEMBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Section106.aprx

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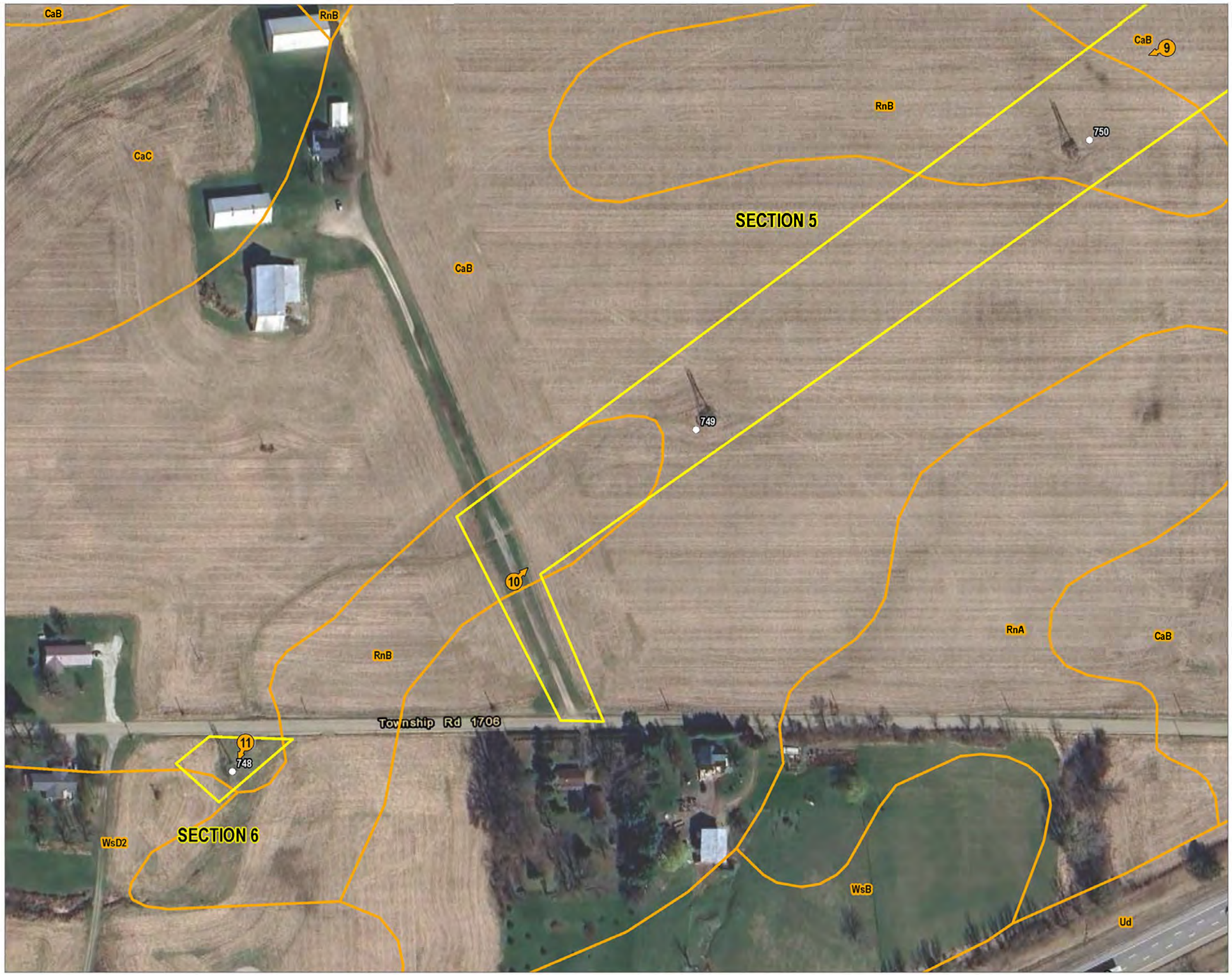

PROJECT STUDY AREA
EXISTING STRUCTURE
MAPPED SOIL UNITS
DELINEATED STREAM
DELINEATED WETLAND
PHOTO LOCATION

BASE MAP: GOOGLE MAPS.

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1" = 150'
0 150 300 FEET

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON
ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE:
AERIAL BASEMAP WITH PHOTO LOCATIONS

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	J. MCKISSICK		
APPROVED BY:	B. FALKINBURG		**FIGURE 2**
DATE:	SEPTEMBER 2024		(PAGE5 OF 7)

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Section106.aprx

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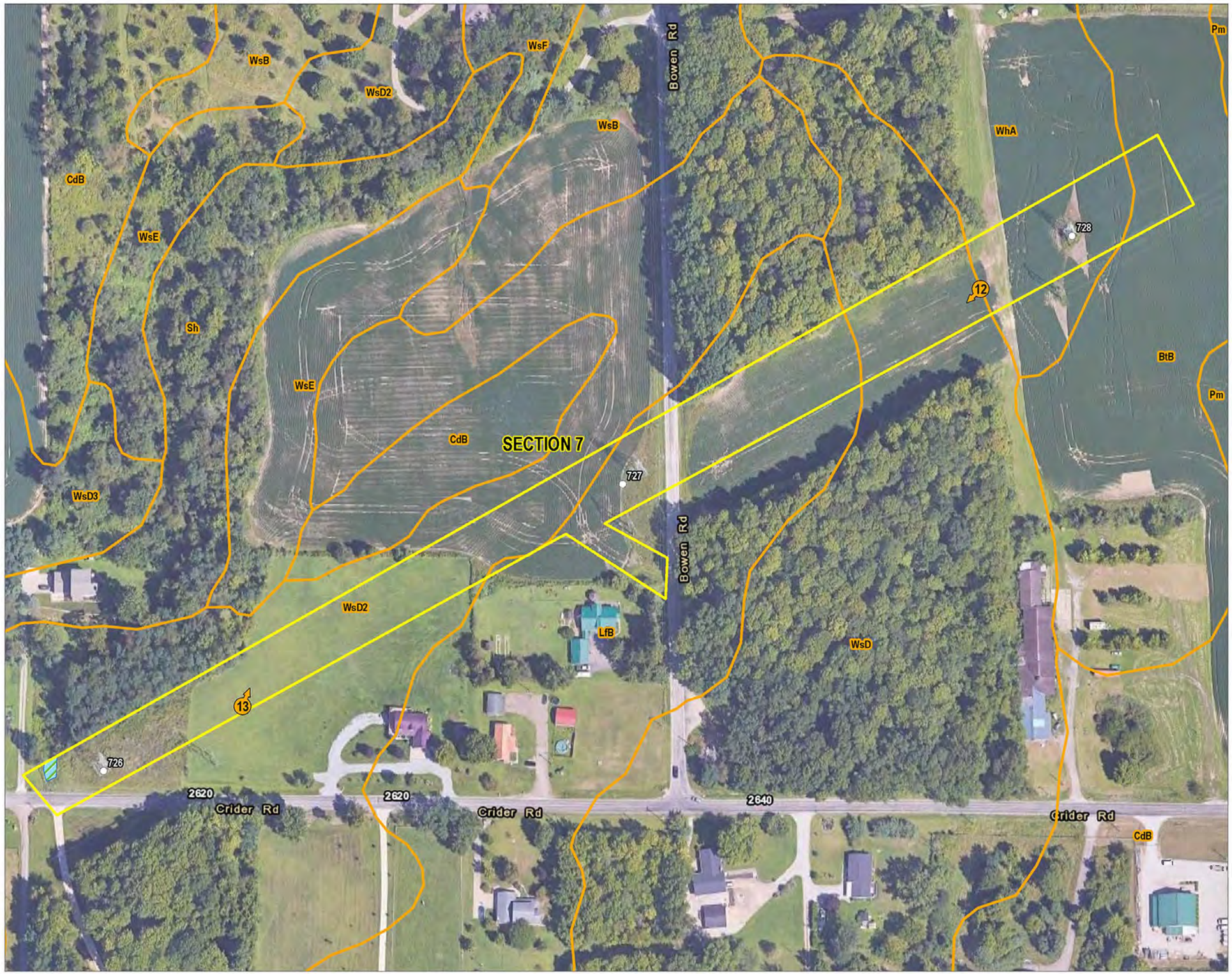

PROJECT STUDY AREA
EXISTING STRUCTURE
MAPPED SOIL UNITS
DELINEATED STREAM
DELINEATED WETLAND
PHOTO LOCATION

BASE MAP: GOOGLE MAPS.

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1" = 150'
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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON
ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE:
AERIAL BASEMAP WITH PHOTO LOCATIONS

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	J. MCKISSICK		
APPROVED BY:	B. FALKINBURG		
DATE:	SEPTEMBER 2024		

FIGURE 2
(PAGE 6 OF 7)

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Section106.aprx

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PROJECT STUDY AREA
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MAPPED SOIL UNITS
DELINEATED STREAM
DELINEATED WETLAND
PHOTO LOCATION

BASE MAP: GOOGLE MAPS.

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1" = 150'
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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE: AERIAL BASEMAP WITH PHOTO LOCATIONS

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APPROVED BY:	B. FALKINBURG		FIGURE 2 (PAGE 7 OF 7)
DATE:	SEPTEMBER 2024		

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1382 WEST NINTH STREET
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CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Section106.aprx

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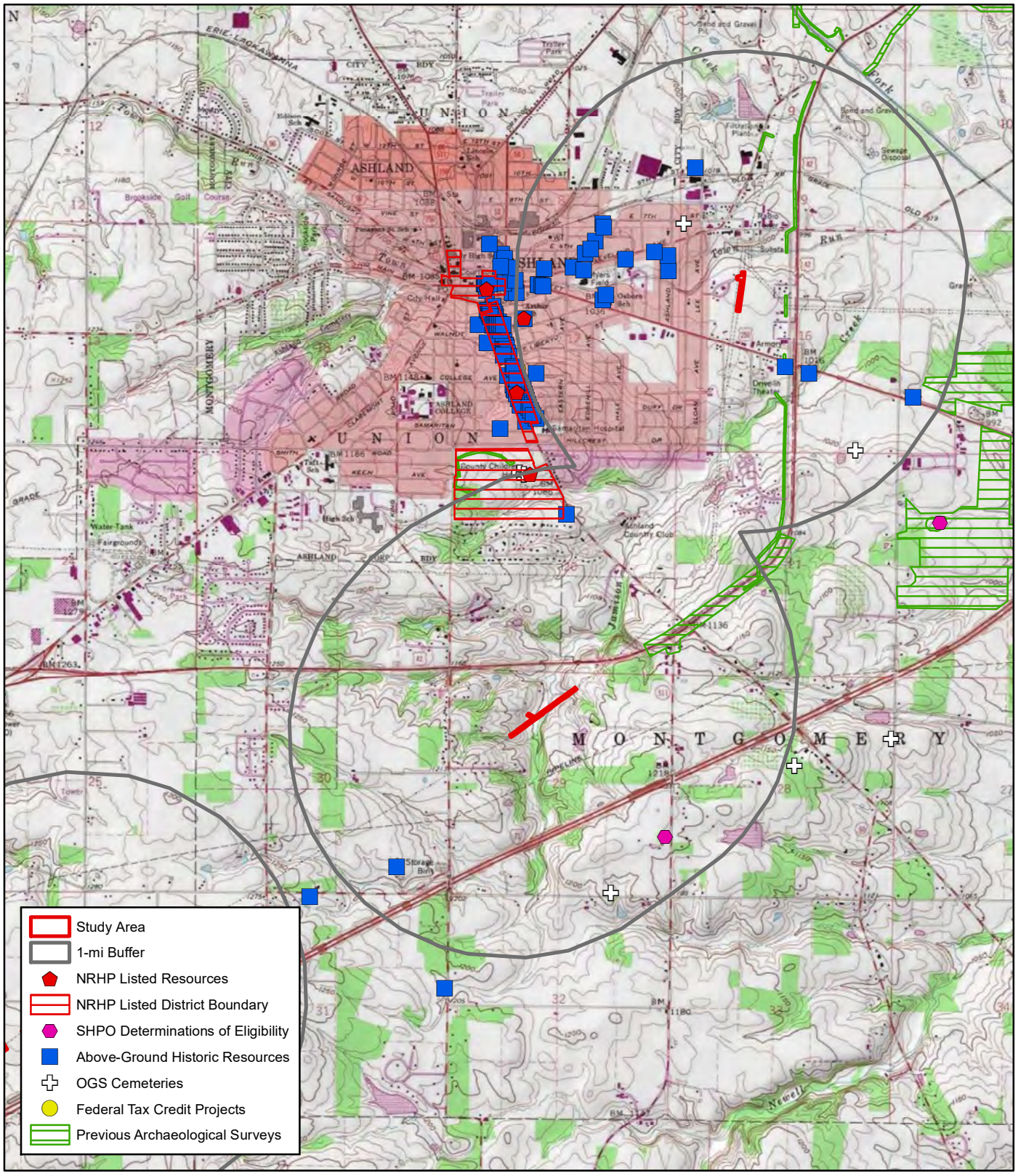

BASEMAP FROM USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLE

Sheet 1

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Miles

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Brookside-Madison ROW Assurance Project

TITLE:

OHC Database Search Results Map

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0021.0000
FILE:	Brookside_Madison.mxd

Figure 3

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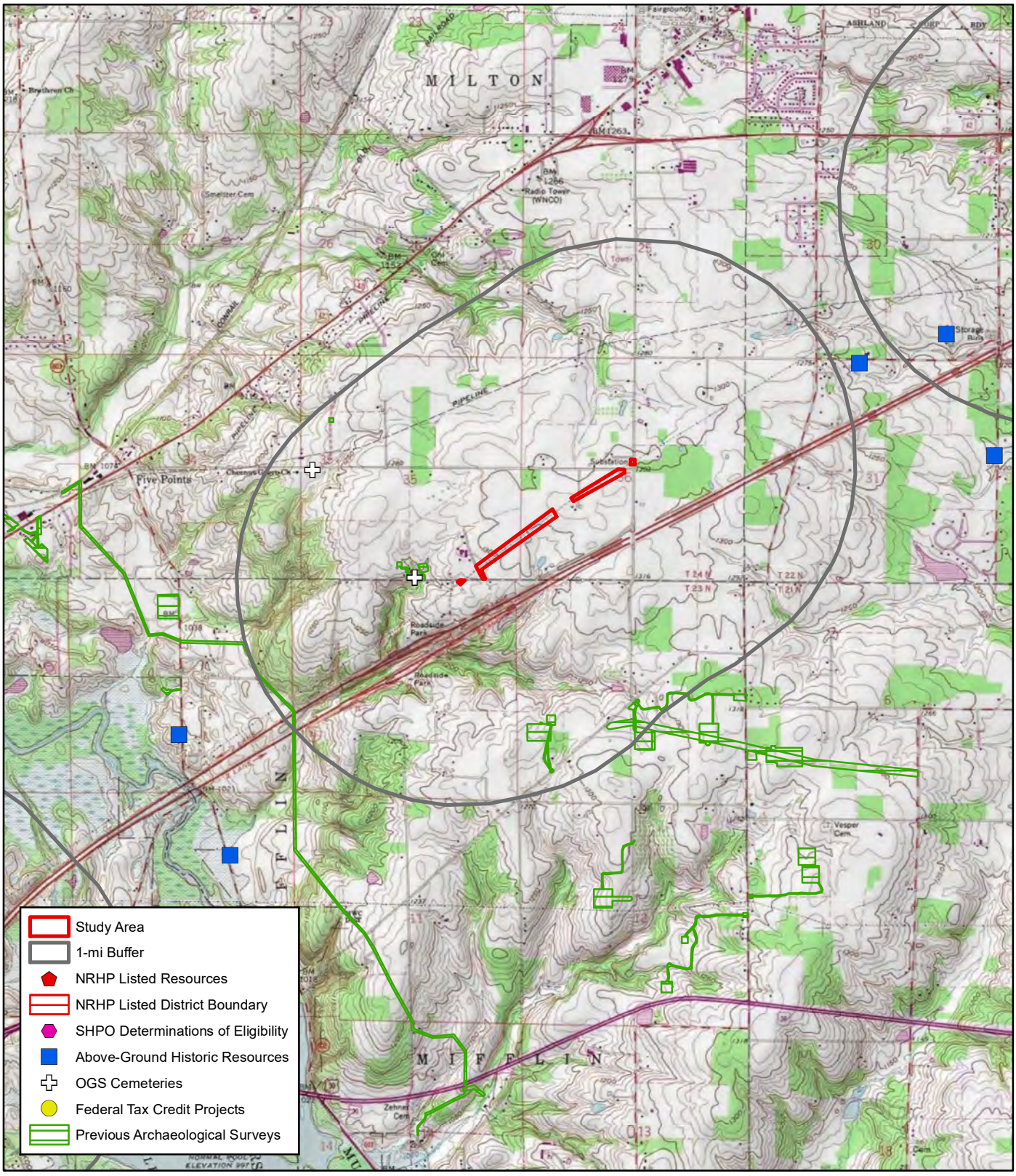

BASEMAP FROM USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLE

Sheet 2

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Miles

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Brookside-Madison ROW Assurance Project

TITLE:

OHC Database Search Results Map

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0021.0000
FILE:	Brookside_Madison.mxd

Figure 3

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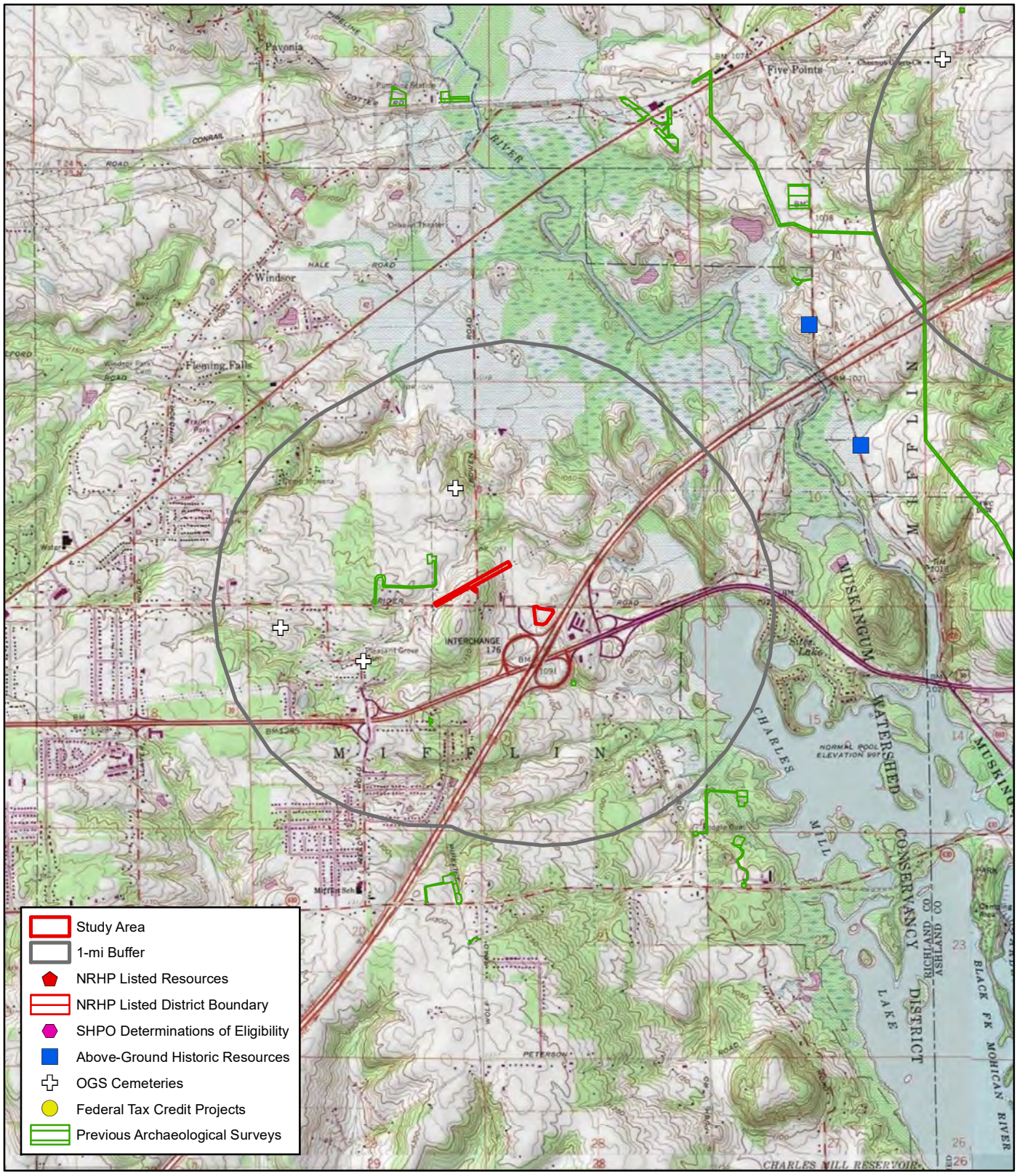

BASEMAP FROM USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLE

Sheet 3

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Miles

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Brookside-Madison ROW Assurance Project

TITLE:

OHC Database Search Results Map

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0021.0000
FILE:	Brookside_Madison.mxd

Figure 3

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ATTACHMENT 1

Photographs

PHOTOGRAPHIC RECORD

Brookside-Madison ROW Assurance Project

Client Name:	**Site Location:**	**Project No.**
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County	550808.0021.0000

Photo No. 1.
Photo Date: 09/12/2024
Description: Overview of the northern portion of Section 1 within the Study Area, facing south.

Photo No. 2.
Photo Date: 09/12/2024
Description: Overview of the southern portion of Section 1 within the Study Area, facing north.

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County	550808.0021.0000

Photo No. 3.
Photo Date: 09/12/2024
Description: Overview of the northeastern portion of Section 2 within the Study Area, facing southwest.

Photo No. 4.
Photo Date: 09/12/2024
Description: Overview of the central portion of Section 2 within the Study Area, facing southwest.

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County	550808.0021.0000

Photo No. 5.
Photo Date: 09/12/2024
Description: Overview of the southwestern portion of Section 2 within the Study Area, facing northeast.

Photo No. 6.
Photo Date: 09/12/2024
Description: Overview of Section 3 within the Study Area, facing south.

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County	550808.0021.0000

Photo No. 7.
Photo Date: 09/12/2024
Description: Overview of the northeastern portion of Section 4 within the Study Area, facing southwest.

Photo No. 8.
Photo Date: 09/12/2024
Description: Overview of the southwestern portion of Section 4 within the Study Area, facing northeast.

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County	550808.0021.0000

Photo No. 9.
Photo Date: 09/12/2024
Description: Overview of the northeastern portion of Section 5 within the Study Area, facing west-southwest.

Photo No. 10.
Photo Date: 09/12/2024
Description: Overview of the southwestern portion of Section 5 within the Study Area, facing northeast.

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County	550808.0021.0000

Photo No. 11.
Photo Date: 09/12/2024
Description: Overview of Section 6 within the Study Area, facing south-southwest.

Photo No. 12.
Photo Date: 09/12/2024
Description: Overview of the northeastern portion of Section 7 within the Study Area, facing southwest.

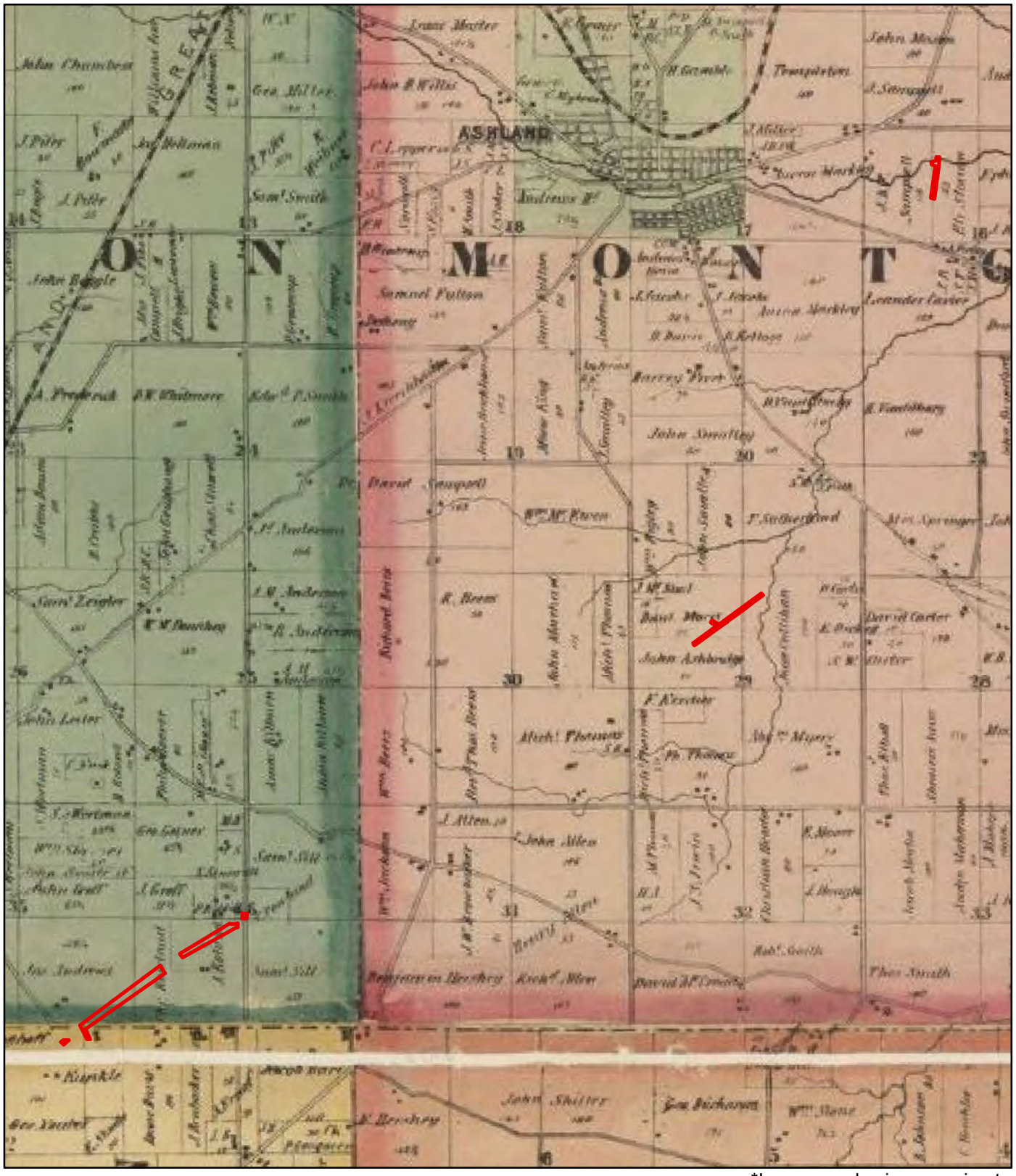
Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County	550808.0021.0000

Photo No. 13.
Photo Date: 09/12/2024
Description: Overview of the southwestern portion of Section 7 within the Study Area, facing north-northeast.

Photo No. 14.
Photo Date: 09/12/2024
Description: Overview of Section 8 within the Study Area, facing north.

ATTACHMENT 2

Historic Map Images



BASEMAP FROM NUNAN'S MAP of ASHLAND CO., OHIO

*Image overlay is approximate

N

1 " = 3,167 '
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Miles

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Brookside-Madison ROW Assurance Project

TITLE:

Study Area in Ashland County circa 1861 (Nunan and Plumb)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0021.0000
FILE:	Brookside_Madison.mxd

Attachment 2 - Image 1

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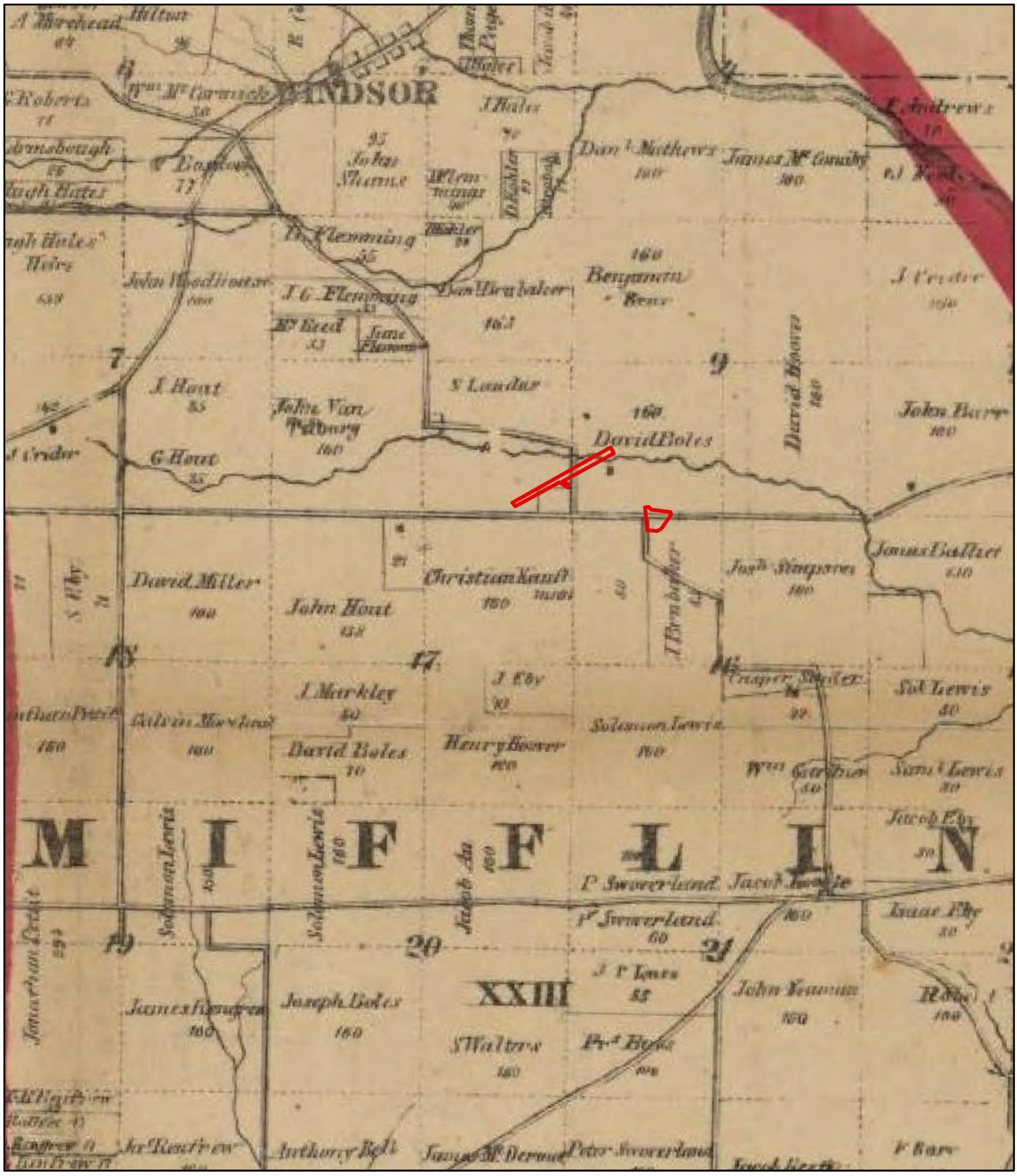

BASEMAP FROM MAP of RICHLAND CO., OHIO

*Image overlay is approximate

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TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Brookside-Madison ROW Assurance Project

TITLE:

Study Area in Richland County circa 1856 (O'Beirne)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0021.0000
FILE:	Brookside_Madison.mxd

Attachment 2 - Image 2

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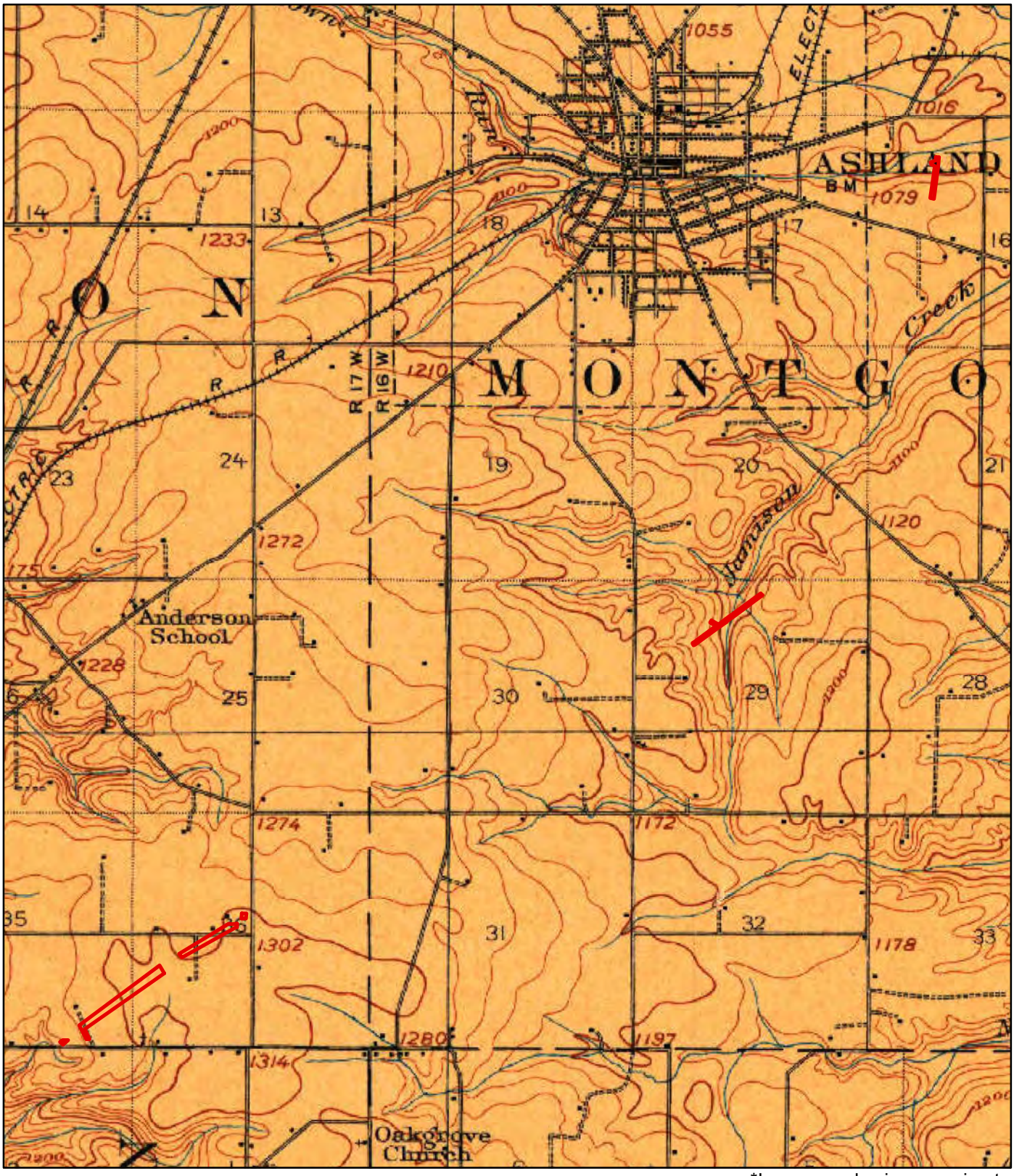

BASEMAP FROM USGS 15-MINUTE SERIES TOPOGRAPHIC QUADRANGLE

*Image overlay is approximate

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Miles

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Brookside-Madison ROW Assurance Project

TITLE:

Study Area circa 1908 (USGS)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0021.0000
FILE:	Brookside_Madison.mxd

Attachment 2 - Image 3a

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BASEMAP FROM USGS 15-MINUTE SERIES TOPOGRAPHIC QUADRANGLE

*Image overlay is approximate

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1:40,000

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Brookside-Madison ROW Assurance Project

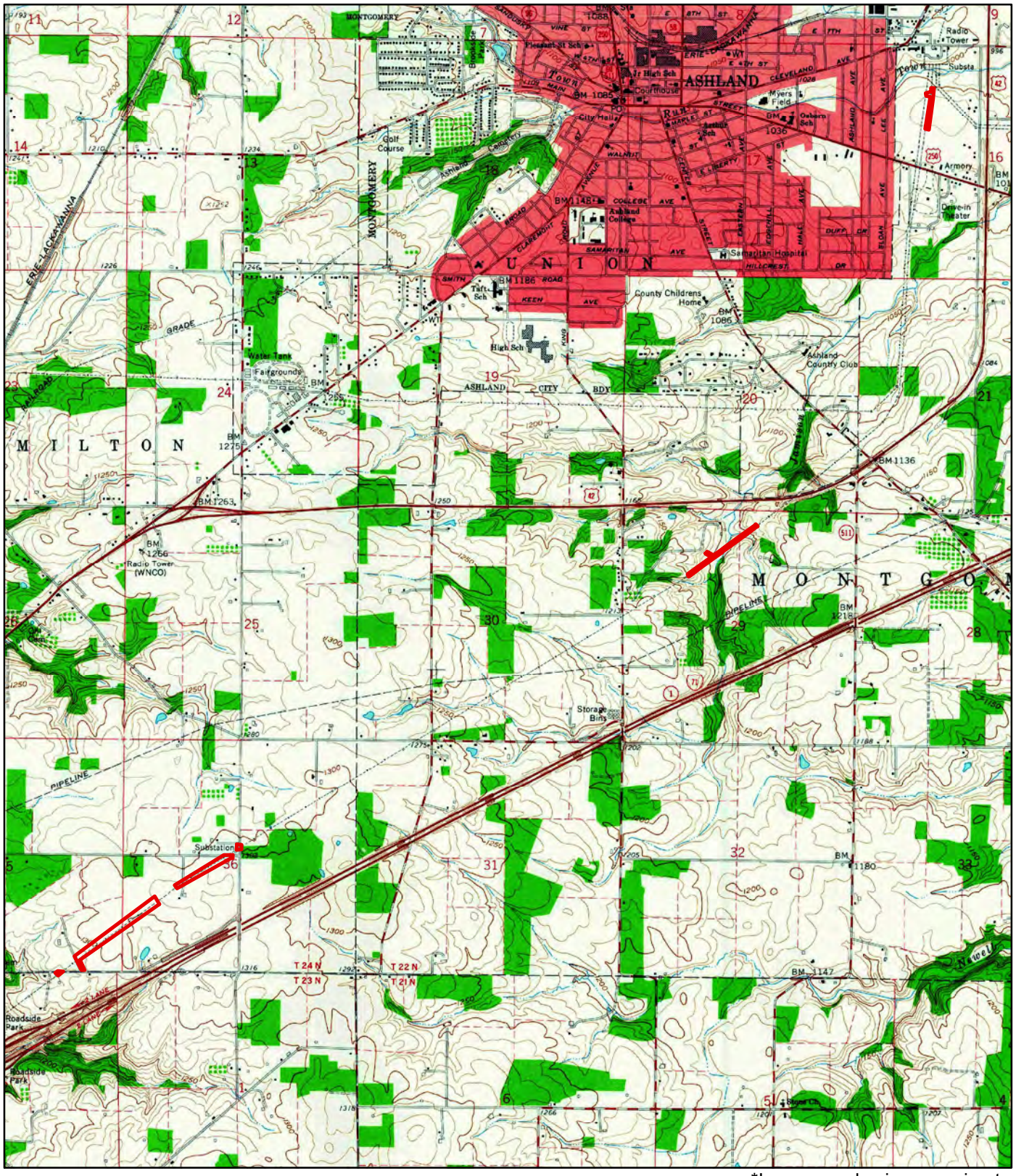
TITLE:

Study Area circa 1908 (USGS)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0021.0000
FILE:	Brookside_Madison.mxd

Attachment 2 - Image 3b

C:\Users\jmckissick\OneDrive - TRC\Documents\Projects\Various\Shapefiles\Brookside-Madison\Brookside_Madison.mxd -- Saved By: JMCKISSICK on 9/5/2024, 10:18:07 AM



BASEMAP FROM USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLE

*Image overlay is approximate

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1 " = 3,167 '

1:38,000

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Miles

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Brookside-Madison ROW Assurance Project

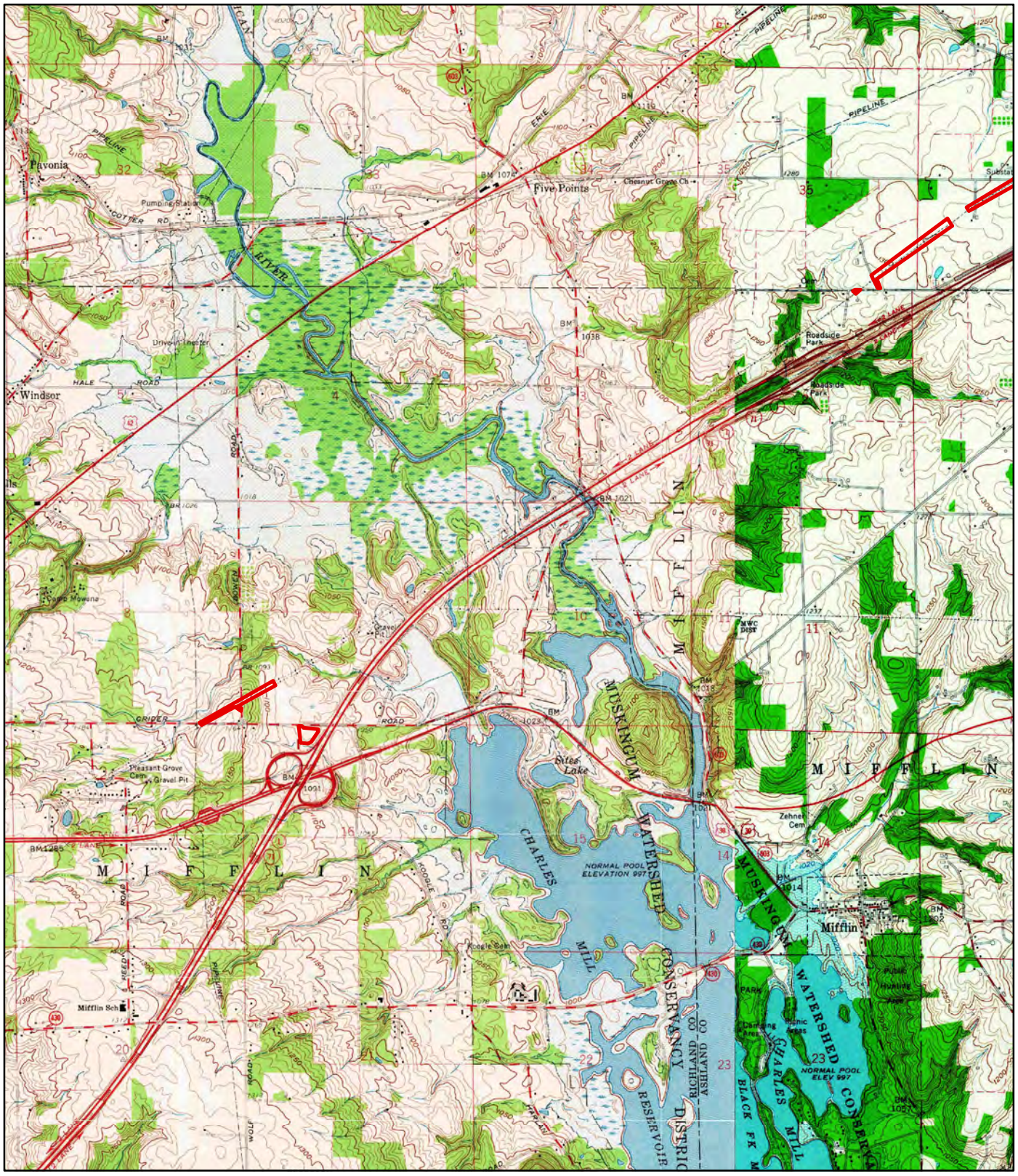
TITLE:

Study Area circa 1960/1961 (USGS)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0021.0000
FILE:	Brookside_Madison.mxd

Attachment 2 - Image 4a

C:\Users\jmckissick\OneDrive - TRC\Documents\Projects\Various\Shapefiles\Brookside-Madison\Brookside_Madison.mxd -- Saved By: JMCKISSICK on 9/17/2024, 10:09:22 AM



BASEMAP FROM USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLE

*Image overlay is approximate

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1 " = 3,333 ' 0 5001,000

1:40,000 FEET

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Brookside-Madison ROW Assurance Project

TITLE:

Study Area circa 1961/1961 (USGS)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0021.0000
FILE:	Brookside_Madison.mxd

Attachment 2 - Image 4b

C:\Users\jmckissick\OneDrive - TRC\Documents\Projects\Various\Shapefiles\Brookside-Madison\Brookside_Madison.mxd -- Saved By: JMCKISSICK on 9/5/2024, 10:18:07 AM

In reply refer to:
2024-RIC-62385

October 17, 2024

Justin McKissick, MA, RPA
Project Archaeologist/Field Director
TRC Environmental Corporation
317 E Carson Street, Suite 113
Pittsburgh, PA 15219
Email: JMcKissick@trccompanies.com

RE: Section 106 Review: Longview-Madison ROW Assurance Project, Mansfield and Madison Township, Richland County, Ohio

Dear Mr. McKissick:

This letter is in response to the correspondence received on September 17, 2024, regarding the above reference project in Richland County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code (O.R.C.) and the Ohio Power Siting Board rules for siting this project. The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The proposed project includes the service and replacement of existing structures along the Longview-Madison 138kV transmission line. Based on information submitted by you, which included a Project Summary Form, no historic properties, districts, or archaeological sites are located within the direct Area of Potential Effect (APE), as defined by you. New infrastructure will not exceed existing infrastructure height, and no new visual impacts are anticipated. Therefore, based on this information, it is the SHPO's opinion that no cultural resource studies are warranted for the project. Furthermore, as proposed, the project will have no effect on historic properties. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted. If you have any questions concerning this review, please contact me via email at sbiehl@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Stephen M. Biehl

Stephen M. Biehl, Project Reviews Manager-Archaeology
Resource Protection and Review
State Historic Preservation Office

RPR Serial No. 1104876

OHIO HISTORIC PRESERVATION OFFICE:
RESOURCE PROTECTION AND REVIEW

Section 106 Review - Project Summary Form

For projects requiring a license from the Federal Communications Commission, please use FCC Forms 620 or 621. DO NOT USE THIS FORM.

SECTION 1: GENERAL PROJECT INFORMATION

All contact information provided must include the name, address and phone number of the person listed. Email addresses should also be included, if available. Please refer to the Instructions or contact an OHPO reviewer (mailto:Section106@ohiohistory.org) if you need help completing this Form. Unless otherwise requested, we will contact the person submitting this Form with questions or comments about this project.

Date: 09/17/2024

Name/Affiliation of person submitting form: Justin McKissick, MA, RPA

Mailing Address: 317 E. Carson Street, Suite 113, Pittsburgh, PA 15219

Phone/Fax/Email: 412.660.7937/jmckissick@trccompanies.com

A. Project Info:

1. This Form provides information about:
   New Project Submittal:
   YES

   Additional information relating to previously submitted project:
   NO

   OHPO/RPR Serial Number from previous submission:

2. Project Name (if applicable): **Longview-Madison ROW Assurance Project**

3. Internal tracking or reference number used by Federal Agency, consultant, and/or applicant to identify this project (if applicable): **550808.0022.0000**

Project Address or vicinity: **The Project Study Area is located south of U.S. Route 30 and west of the intersection of Illinois Avenue North and Duke Avenue in the City of Mansfield and Madison Township, Richland County (approximate centroid coordinates: 40.7774, -82.4851) (Figure 1).**

B. City/Township: **City of Mansfield and Madison Township**

C. County: **Richland County**

D. Federal Agency and Agency Contact. *If you do not know the federal agency involved in your project, please contact the party asking you to apply for Section 106 Review, not OHPO, for this information*. *HUD Entitlement Communities acting under delegated environmental review authority should list their own contact information*. **N/A**

E. Type of Federal Assistance. *List all known federal sources of federal funding, approvals, and permits to avoid repeated reviews.* **N/A**

F. State Agency and Contact Person (if applicable): **Ohio Power Siting Board (OPSB)**

G. Type of State Assistance: **N/A**

H. Is this project being submitted at the direction of a state agency **solely** under Ohio Revised Code 149.53 or at the direction of a State Agency? *Answering yes to this question means that you are sure that <u>no</u> federal funding, permits or approvals will be used for any part of your project, and that you are seeking comments only under ORC 149.53.*

NO

I. Public Involvement- Describe how the public has been/will be informed about this project and its potential to affect historic properties. Please summarize how they will have an opportunity to provide comments about any effects to historic properties. (This step is required for all projects under 36 CFR § 800.2):

J. Please list other consulting parties that you have contacted/will contact about this project, such as Indian Tribes, Certified Local Governments, local officials, property owners, or preservation groups. (See 36 CFR § 800.2 for more information about involving other consulting parties). Please summarize how they will have an opportunity to provide comments: **N/A**

SECTION 2: PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Provide a description of your project, its site, and geographical information. You will also describe your project's Area of Potential Effects (APE). Please refer to the Instructions or contact an OHPO reviewer if you need help with developing the APE or completing this form.

For challenging projects, provide as much information as possible in all sections, and then check the box in Section 5.A. to ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties or if there may be challenging procedural issues related to your project. Please note that providing information to complete all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

A. Does this project involve any Ground-Disturbing activity: YES

(If **Yes**, you must complete all of Section 2.A. If **No**, proceed directly to Section 2. B.)

1. General description of width, length and depth of proposed ground disturbing activity:

The Limits of Disturbance (LOD), which corresponds to the Area of Potential Effects (APE) for direct effects, will be completely within the Project Study Area, which measures 9.28 acres (ac) in size (Figure 2). The minimal ground disturbance will be limited to the replacement of existing infrastructure at the location.

2. Narrative description of previous land use and past ground disturbances, if known:

Historically, the landscape likely featured agricultural fields or wooded landscapes with regional development occurring predominately throughout the twentieth and into the twenty-first centuries. The portion of the Project outside of the existing utility line is within a former automobile junkyard that appears to have operated throughout the late twentieth century into the early twenty-first century, ceasing operation sometime between April 2006 and July 2006. The utility line corridor portion of the Project has been maintained since its original construction in the mid-twentieth century.

3. Narrative description of current land use and conditions:

The modern aerial imagery shows the current landscape comprised of a highly disturbed landscape of a former automobile junkyard and an existing overhead utility corridor. The surrounding regional landscape includes a high concentration of residential, commercial, and industrial properties surrounding a small pocket of open, overgrown fields and wooded areas. Agricultural fields are also present, over one (1) mi to the north, outside of the City of Mansfield limits. General overview photographs are provided as Attachment 1.

4. Does the landowner know of any archaeological resources found on the property?
YES NO If yes, please describe: **Unknown**

B. Submit the exact project site location on a USGS 7.5-minute topographic quadrangle map for all projects. Map sections, photocopies of map sections, and online versions of USGS maps are acceptable as long as the location is clearly marked. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map:

1. USGS Quad Map Name: Pavonia, OH

2. Township/City/Village Name: **City of Mansfield/Madison Township in Richland County**

C. Provide a street-level map indicating the location of the project site; road names must be identified and legible. Your map must show the exact location of the boundaries for the project site. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map: **See Figure 2**

D. Provide a verbal description of the APE, including a discussion of how the APE will include areas with the potential for direct and indirect effects from the project. Explain the steps taken to identify the project's APE, and your justification for the specific boundaries chosen:

The APE will correspond to the LOD, which will be entirely within the Study Area and will include all areas in which construction activities associated with the proposed Project will take place. The undertaking involves the service and replacement of

structures on the Longview-Madison 138kV line, as part of FirstEnergy's ROW Assurance Program. It is anticipated that all existing structures will be replaced in the same locations and new lines will be at the same height. The APE may also include a viewshed that will be based on LIDAR data, vegetation, topography, and buildings, which will reduce the APE to areas with positive visibility of the Project infrastructure within 0.25 mi of the undertaking. The new infrastructure will be at similar heights to the existing; therefore, no new visual impacts are anticipated.

E. Provide a detailed description of the project. This is a critical part of your submission. Your description should be prepared for a cold reader who may not be an expert in this type of project. The information provided must help support your analysis of effects to historic properties, not other types of project impacts. Do not simply include copies of environmental documents or other types of specialized project reports. If there are multiple project alternatives, you should include information about all alternatives that are still under active consideration:

The proposed Project will involve the service and replacement of structures on the Longview-Madison 138kV line, as part of FirstEnergy's ROW Assurance Program. As currently proposed, no tree clearing is anticipated. The proposed Project Study Area consists of a combination of an existing utility ROW and the disturbed landscape of a former automobile junkyard (Figure 2).

SECTION 3: IDENTIFICATION OF HISTORIC PROPERTIES

Describe whether there are historic properties located within your project APE. To make that determination, use information generated from your own Background Research and Field Survey. Then choose one of the following options to report your findings. Please refer to the Instructions and/or contact an OHPO reviewer if you are unsure about how to identify historic properties for your project.

A review of information received from the Ohio Historic Preservation Office's (OHPO's) Ohio History Connection (OHC) online mapping system files on September 10, 2024, was performed to identify the presence of previously recorded significant historic properties, including above-ground historic resources and/or archeological sites, that are mapped within one (1)-mile (mi) of the Study Area. See Figure 3.

The results of the search indicate two (2) NHRP-listed resources recorded within one (1)-mi of the Study Area: the Samuel Lewis House (Ref No.: 82003636), recorded 0.78 mi southeast of the Study Area and the Ohio State Reformatory (Ref No.: 83002039), located 0.77 mi northwest of the Study Area. There are an additional four (4) above-ground historic resources that have not yet been assessed for NRHP eligibility within one (1)-mi of the Study Area. The nearest of these is 0.82 mi to the southwest. A single Ohio Genealogical Society (OGS) cemetery is mapped 0.66 mi southwest of the western extent of the Study Area.

Two (2) archaeological surveys have been conducted within one (1)-mi of the proposed Project. One (1) of these surveys overlaps a small portion of the western extent of the Study Area. Through these surveys and efforts of local collectors, three (3) archaeological sites have been mapped within one (1)-mi of the Study Area. The sites include one (1) pre-contact site and two (2) historic sites. The pre-contact site is a Woodland Period open site of unknown function. The two (2) historic sites are residential and date to the nineteenth and twentieth centuries. The nearest of the sites is located 0.92 mi west of the western Study Area extent.

A review of available historic maps was conducted to determine the presence of historic structures and buildings (50 years of age or older) and other possible historic features within or adjacent to the Study Area that may be impacted by the proposed Project. By 1856, Richland County had been settled with residential buildings and

farmland denoted primarily along the established roadways (Attachment 2, Image 1). The proposed Project crosses a parcel attributed to *A. G. Hetrick* and contained no buildings. The City of Mansfield had been established southwest of the Study Area and had the densest population in the region. By 1873, the *A.G. Hetrick* parcel had been divided into several parcels with the Study Area situated on those attributed to *Louis Vonhof, Cyrus Wallace, and Henry Hursh* (Attachment 2, Image 2). Buildings were situated on all three (3) parcels; however, none are within or directly adjacent to the Study Area. Overall, the region displayed signs of growth as the population continued to increase. The City of Mansfield had increased in size as the regional population continued to increase. Overall, the region remained relatively rural through the turn of the century. In 1908/1915, a farmstead is first mapped east of the Project with buildings within the eastern Project extent that would eventually become the overhead utility line corridor. In addition, a new railroad line is first mapped north of the Study Area during the early twentieth century. Between 1908/1915 and 1960, significant development occurred throughout the area (Attachment 2, Image 4). The existing utility line had been constructed, as had U.S. Route 30 across the northern edge of the Study Area. Additionally, a number of new residential developments occurred as regional population increased. Development continued throughout the mid to late twentieth century and into the twenty-first century. Overall, outside of the City of Mansfield, the area has remained rural, comprised predominately of agricultural fields and pastures.

If you read the Instructions and you're still confused as to which reporting option best fits your project, or you are not sure if your project needs a survey, you may choose to skip this section, but provide as much supporting documentation as possible in all other Sections, then check the box in Section 5.A. to request preliminary comments from OHPO. After reviewing the information provided, OHPO will then offer comments as to which reporting option is best suited to document historic properties for your project. Please note that providing information to complete this Section will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

Recording the Results of Background Research and Field Survey:

A. **Summary of discussions and/or consultation with OHPO** about this project that demonstrates how the Agency Official and OHPO have agreed that no Field Survey was necessary for this project (typically due to extreme ground disturbance or other special circumstances). Please **attach copies** of emails/correspondence that document this agreement. You must explain how the project's potential to affect both archaeological and historic resources were considered. **N/A**

B. **A table that includes the minimum information** listed in the OHPO Section 106 Documentation Table (which is generally equivalent to the information found on an inventory form). This information must be printed and mailed with the Project Summary Form. To provide sufficient information to complete this Section, you must also include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated in the project APE. **N/A**

C. **OHI (Ohio Historic Inventory) or OAI (Ohio Archaeological Inventory) forms**- New or updated inventory forms may be prepared using the OHI pdf form with data population capabilities, the Internet IForm, or typed on archival quality inventory forms. To provide sufficient information to complete this Section, you must include summary observations from your field survey and background research. You must also include eligibility determinations for each property that was evaluated in the project APE. **N/A**

D. **A historic or archaeological survey report** prepared by a qualified consultant that meets professional standards. The survey report should meet the Secretary of the Interior's

Standards and Guidelines for Identification and OHPO Archaeological Guidelines. You may also include new inventory forms with your survey or update previous inventory forms. To complete this section, your survey report must include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated within the APE. **N/A**

E. **Project Findings**. Based on the conclusions you reached in completing Section 3, please choose one finding for your project. There are (mark one):

Historic Properties Present in the APE: **N/A**

No Historic Properties Present in the APE: **N/A**

SECTION 4: SUPPORTING DOCUMENTATION

This information must be provided for all projects.

A. Photographs must be keyed to a street-level map and should be included as attachments to this application. Please label all forms, tables, and CDs with the date of your submission and project name, as identified in Section 1. You must present enough documentation to clearly show existing conditions at your project site and convey details about the buildings, structures or sites that are described in your submission. Faxed or photocopied photographs are not acceptable. See Instructions for more info about photo submissions or 36 CFR § 800.11 for federal documentation standards.

1. Provide photos of the entire project site and take photos to/from historic properties from/towards your project site to support your determination of effect in Section 5. **See Attachment 1 - Photographs**

2. Provide current photos of all buildings/structures/sites described.

B. Project plan, specifications, site drawings and any other media presentation that conveys detailed information about your project and its potential to affect historic properties.

C. Copies or summaries of any comments provided by consulting parties or the public.

SECTION 5: DETERMINATION OF EFFECT

A. **Request Preliminary Comments.** For challenging projects, provide as much information as possible in previous sections and ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties, if the public has concerns about your project's potential to affect historic properties, or if there may be challenging procedural issues related to your project. Please be aware that providing information in all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

1. We request preliminary comments from OHPO about this project:
   YES

2. Please specify as clearly as possible the particular issues that you would like OHPO to examine for your project (for example- help with developing an APE, addressing the concerns of consulting parties, survey methodology, etc.):

Please review the provided information and respond with your determination

relative to the potential effects to cultural resources, if any.

B. **Determination of Effect.** If you believe that you have gathered enough information to conclude the Section 106 process, you may be ready to make a determination of effect and ask OHPO for concurrence, while considering public comments. Please select and mark one of the following determinations, then explain the basis for your decision on an attached sheet of paper:

No historic properties will be affected based on 36 CFR § 800.4(d) (1). Please explain how you made this determination:

No Adverse Effect [36 CFR § 800.5(b)] on historic properties. This finding cannot be used if there are no historic properties present in your project APE. Please explain why the Criteria of Adverse Effect, [36 CFR Part 800.5(a) (1)], were found not to be applicable for your project:

Adverse Effect [36 CFR § 800.5(d) (2)] on historic properties. Please explain why the criteria of adverse effect, [36 CFR Part 800.5(a) (1)], were found to be applicable to your project. You may also include an explanation of how these adverse effects might be avoided, reduced or mitigated:

Please send completed form and supporting documentation to our office through the section106@ohiohistory.org e-mail address. Note that file size is limited to 30 MB. The Ohio SHPO has a federally mandated review time of 30 calendar day. To check your submission was received and logged in for our review, please visit https://www.ohiohistory.org/preserve/state-historic-preservation-office/hpreviews/section-106-project-status.

REFERENCES

Andreas, A.T.
1873 "Madison **Township"** in *Atlas of Richland County, Ohio*. Published by A.T. Andreas, Chicago, Illinois. Electronic document, https://historicmapworks.com/Map/US/20016/Madison+Township/Richland+County+1873/Ohio/, accessed September 6, 2024.

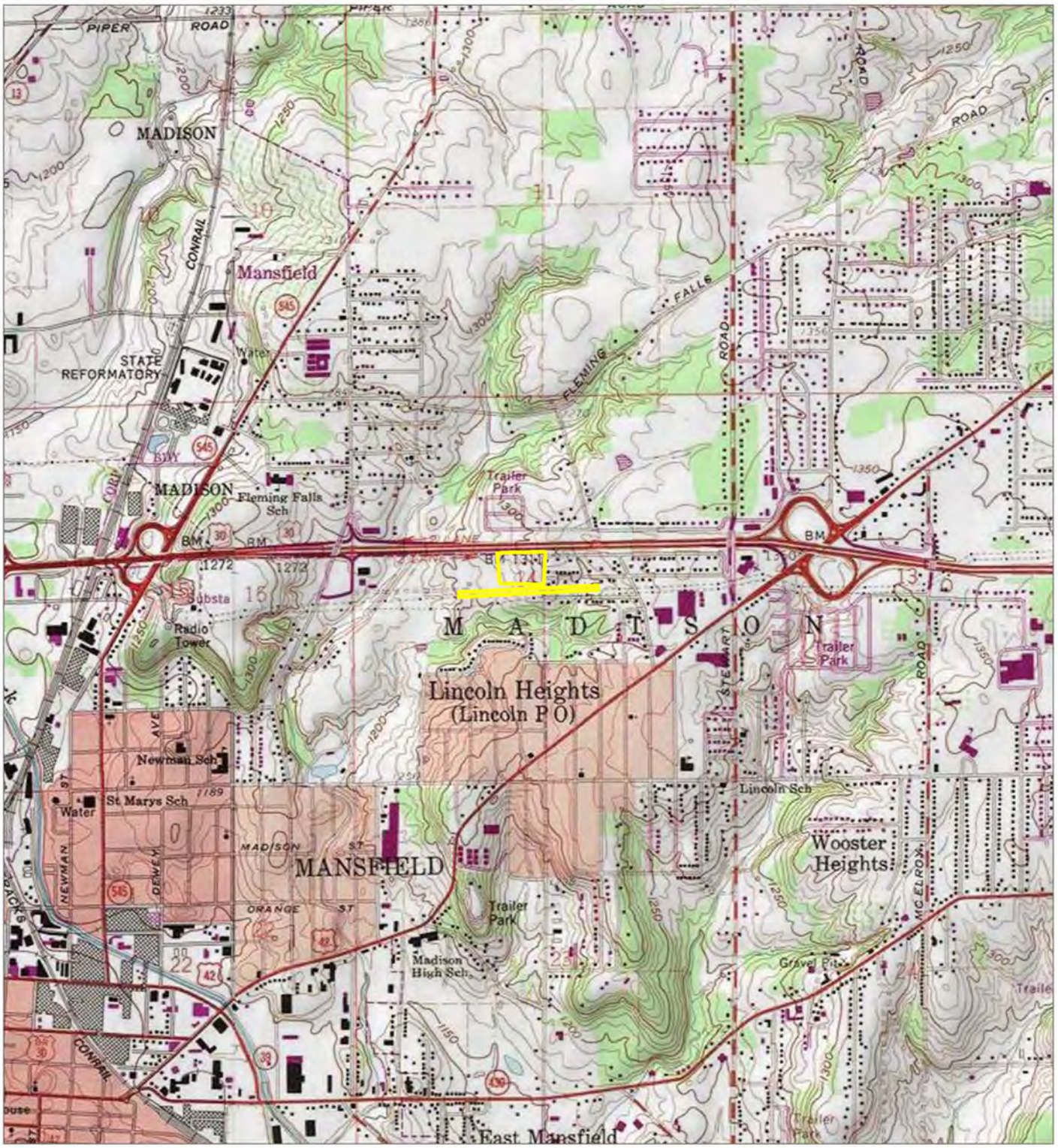
O'Byrne, P.
1856 Map of Richland Co., Ohio. Published by Matthews and Taintor, Philadelphia, Pennsylvania. Electronic document, https://www.loc.gov/resource/g4083r.la000668/?r=0.552,0.165,0.431,0.27,0, accessed September 6, 2024.

United States Geographical Survey
1908 Ashland Defiance, OH, 15-minute series topographic series. Electronic document, https://ngmdb.usgs.gov/topoview/viewer/#12/40.8606/-82.4093, accessed September 6, 2024.

1915 Crestline, OH, 15-minute series topographic series. Electronic document, https://ngmdb.usgs.gov/topoview/viewer/#12/40.8606/-82.4093, accessed September 6, 2024.

1960 Pavonia, OH 7.5-minute series topographic series. Electronic document, https://ngmdb.usgs.gov/topoview/viewer/#12/40.8606/-82.4093, accessed September 6, 2024.

1961 Ashland South, OH 7.5-minute series topographic series. Electronic document, https://ngmdb.usgs.gov/topoview/viewer/#12/40.8606/-82.4093, accessed September 6, 2024.



PROJECT STUDY AREA

BASE MAP: USA TOPO MAPS MAP SERVICE, PAVONIA QUAD

N

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FEET

1:24,000 1" = 2,000'

PROJECT: FIRSTENERGY - LONGVIEW-MADISON ROW ASSURANCE PROJECT RICHLAND COUNTY, OH

TITLE: **PROJECT LOCATION MAP**

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0022
CHECKED BY:	J. MCKISSICK		
APPROVED BY:	B. FALKINBURG		**FIGURE 1**
DATE:	SEPTEMBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: SECTION106

PROJECT STUDY AREA
EXISTING STRUCTURE
DELINEATED STREAM
MAPPED SOIL UNITS
PHOTO LOCATION

BASE MAP: GOOGLE MAPS.

1:2,400
1" = 200'

0 200 400 FEET

PROJECT: FIRSTENERGY - LONGVIEW-MADISON ROW ASSURANCE PROJECT RICHLAND COUNTY, OH

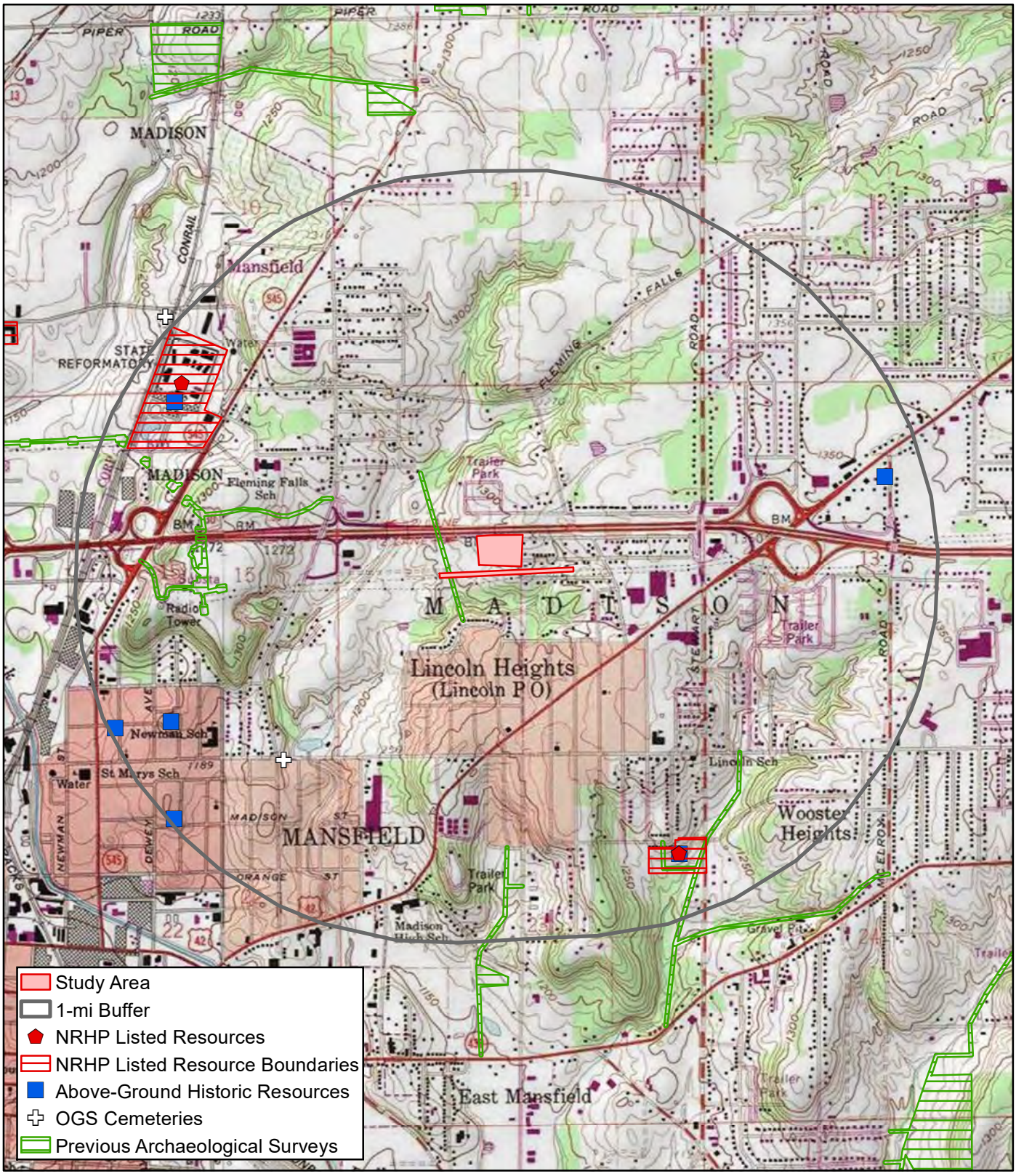
TITLE: AERIAL BASEMAP WITH PHOTO LOCATIONS

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0022
CHECKED BY:	J. MCKISSICK		
APPROVED BY:	B. FALKINBURG		FIGURE 2
DATE:	SEPTEMBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Section106.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
Stored By: MOPEL on 9/13/2024 10:09:40 AM; File Path: T:\1-PROJECTS\First Energy\550808.0022_LongviewMadison\2-aRPA\XS\Section106.aprx; Layout Name: Fig02_Aerial



BASEMAP FROM USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLES

N

1 " = 2,019 ' 0 500 1,000

1:24,225 FEET

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Longview-Madison ROW Assurance Project

TITLE:

OHC Database Search Results Map

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0022.0000
FILE:	Longview_Madison.mxd

Figure 3

C:\Users\jmckissick\OneDrive - TRC\Documents\Projects\Various\Shapefiles\Longview-Madison\Longview_Madison.mxd -- Saved By: JMCKISSICK on 9/11/2024, 12:14:59 PM

ATTACHMENT 1

Photographs

PHOTOGRAPHIC RECORD

Longview-Madison ROW Assurance Project

Client Name:	Site Location:	Project No.
FirstEnergy	City of Mansfield and Madison Township, Richland County, Ohio	550808.0022.0000

Photo No. 1. **Photo Date:** 09/11/2024 **Description:** Overview of the northern portion of the Study Area, facing east, showing existing disturbance.	

Photo No. 2. **Photo Date:** 09/11/2024 **Description:** Overview of the northern portion of the Study Area, facing north, showing existing disturbance.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Mansfield and Madison Township, Richland County, Ohio	550808.0022.0000

Photo No. 3. **Photo Date:** 09/11/2024 **Description:** Overview of the western portion of the existing utility corridor portion of the Study Area, facing west.	

Photo No. 4. **Photo Date:** 09/11/2024 **Description:** Overview of the western portion of the existing utility corridor portion of the Study Area, facing west.	

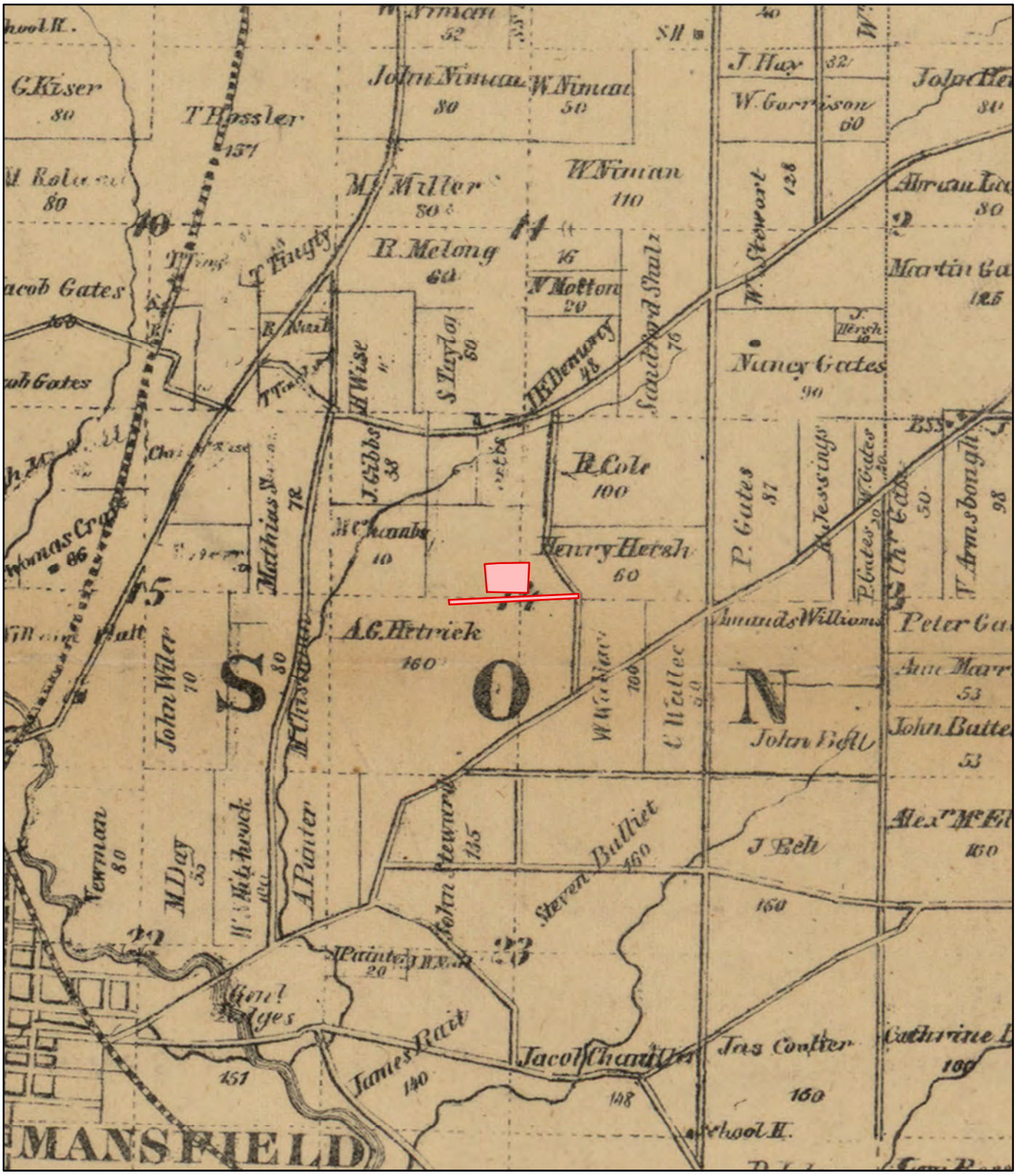
Client Name:	Site Location:	Project No.
FirstEnergy	City of Mansfield and Madison Township, Richland County, Ohio	550808.0022.0000

Photo No. 5. **Photo Date:** 09/11/2024 **Description:** Overview of the central portion of the existing utility corridor portion of the Study Area, facing east.	

Photo No. 6. **Photo Date:** 09/11/2024 **Description:** Overview of the eastern portion of the existing utility corridor portion of the Study Area, facing west.	

ATTACHMENT 2

Historic Map Images



BASEMAP FROM MAP OF RICHLAND CO., OHIO

*Image overlay is approximate

N

1 " = 2,083 ' 0 500 1,000

1:25,000 FEET

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Longview-Madison ROW Assurance Project

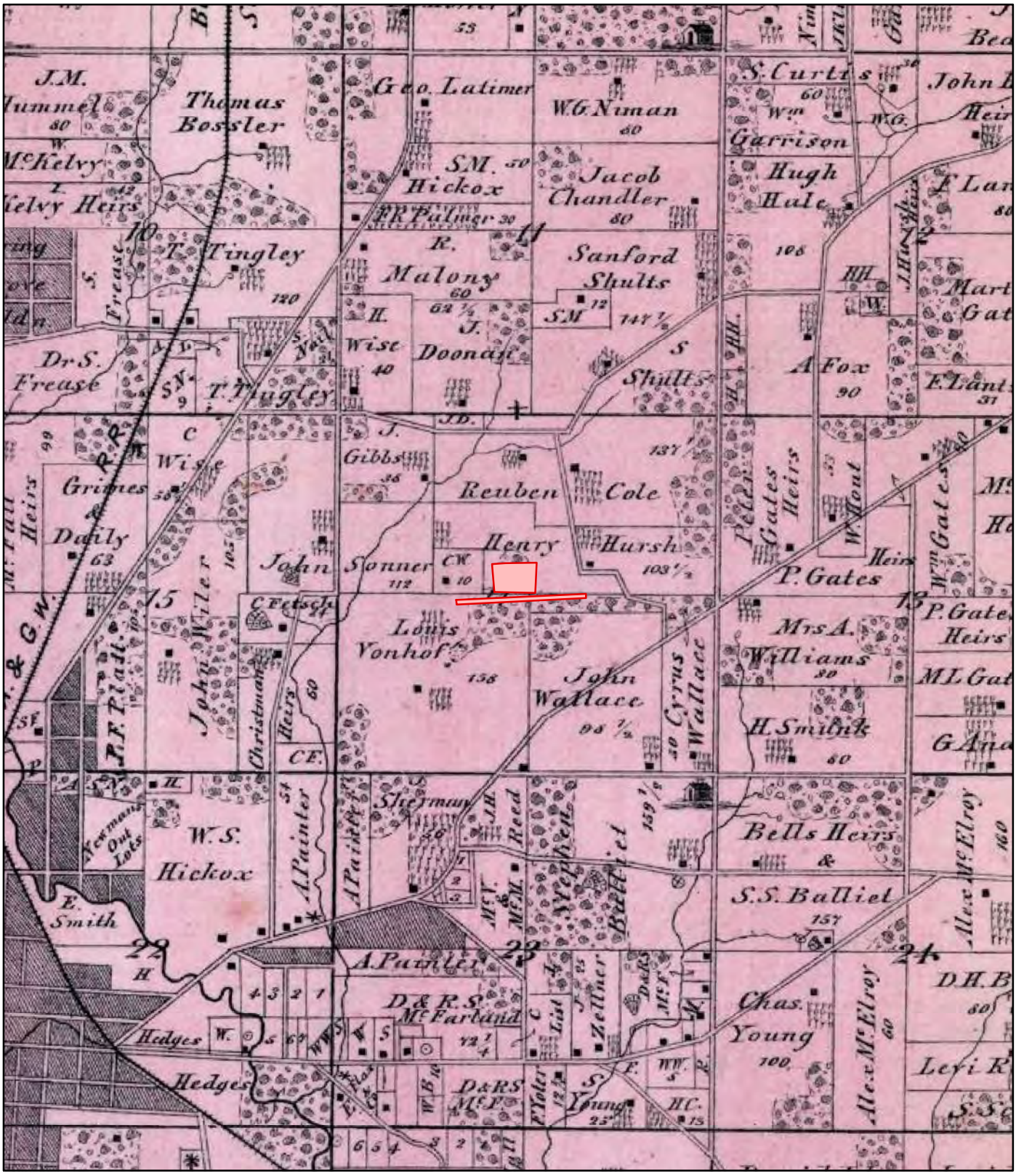
TITLE:

Study Area circa 1856 (O'Byrne)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0022.0000
FILE:	Longview_Madison.mxd

Attachment 2 - Image 1

C:\Users\jmckissick\OneDrive - TRC\Documents\Projects\Various\Shapefiles\Longview-Madison\Longview_Madison.mxd -- Saved By: JMCKISSICK on 9/6/2024, 10:42:05 AM



BASEMAP FROM ATLAS MAP of RICHLAND COUNTY, OHIO

*Image overlay is approximate

N

1 " = 2,083 ' 0 500 1,000

1:25,000 FEET

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Longview-Madison ROW Assurance Project

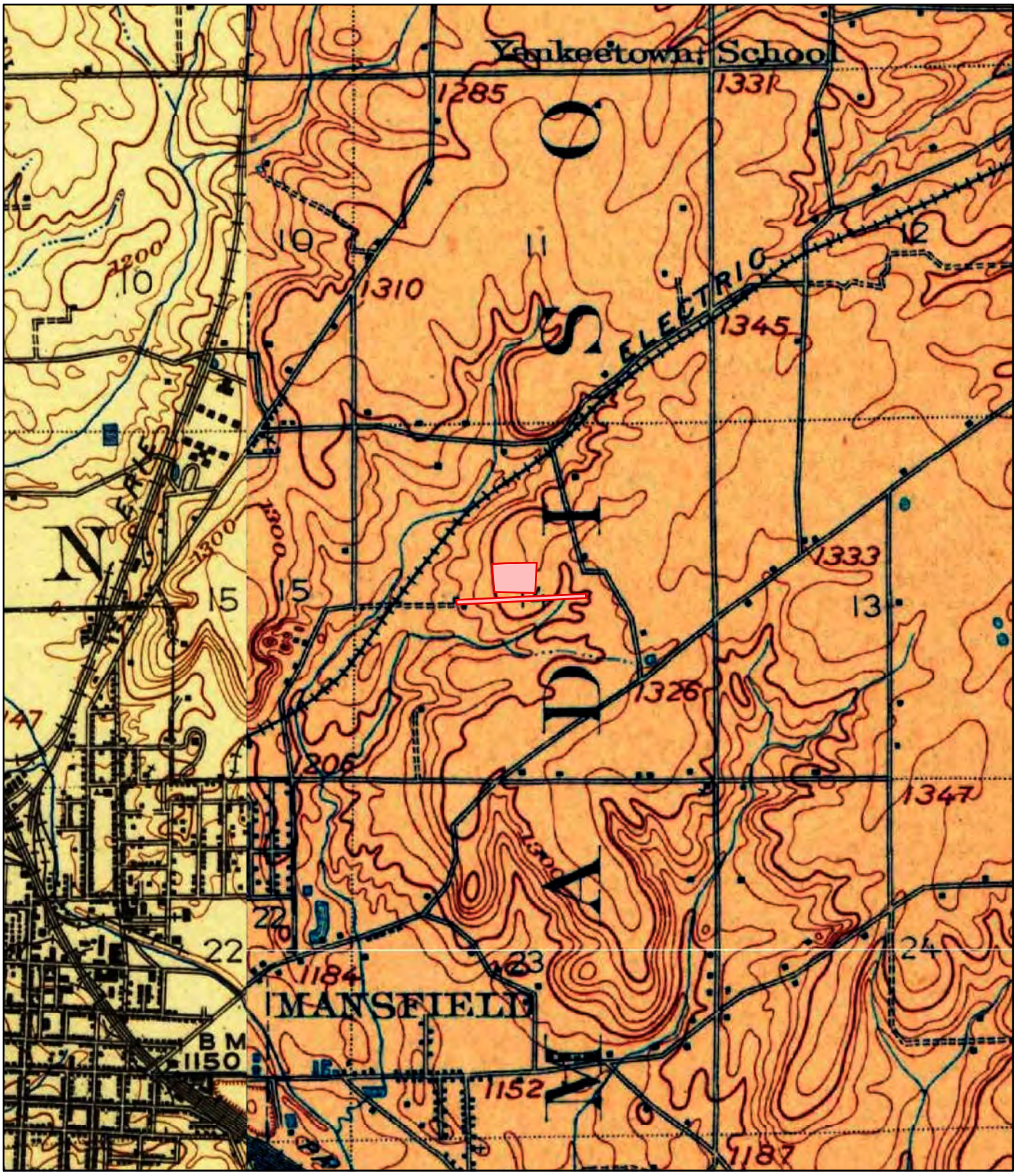
TITLE:

Study Area circa 1873 (Andreas)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0022.0000
FILE:	Longview_Madison.mxd

Attachment 2 - Image 2

C:\Users\jmckissick\OneDrive - TRC\Documents\Projects\Various\Shapefiles\Longview-Madison\Longview_Madison.mxd -- Saved By: JMCKISSICK on 9/6/2024, 10:42:05 AM



BASEMAP FROM USGS 15-MINUTE SERIES TOPOGRAPHIC QUADRANGLES

*Image overlay is approximate

N

1 " = 2,083 ' 0 500 1,000

1:25,000 FEET

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Longview-Madison ROW Assurance Project

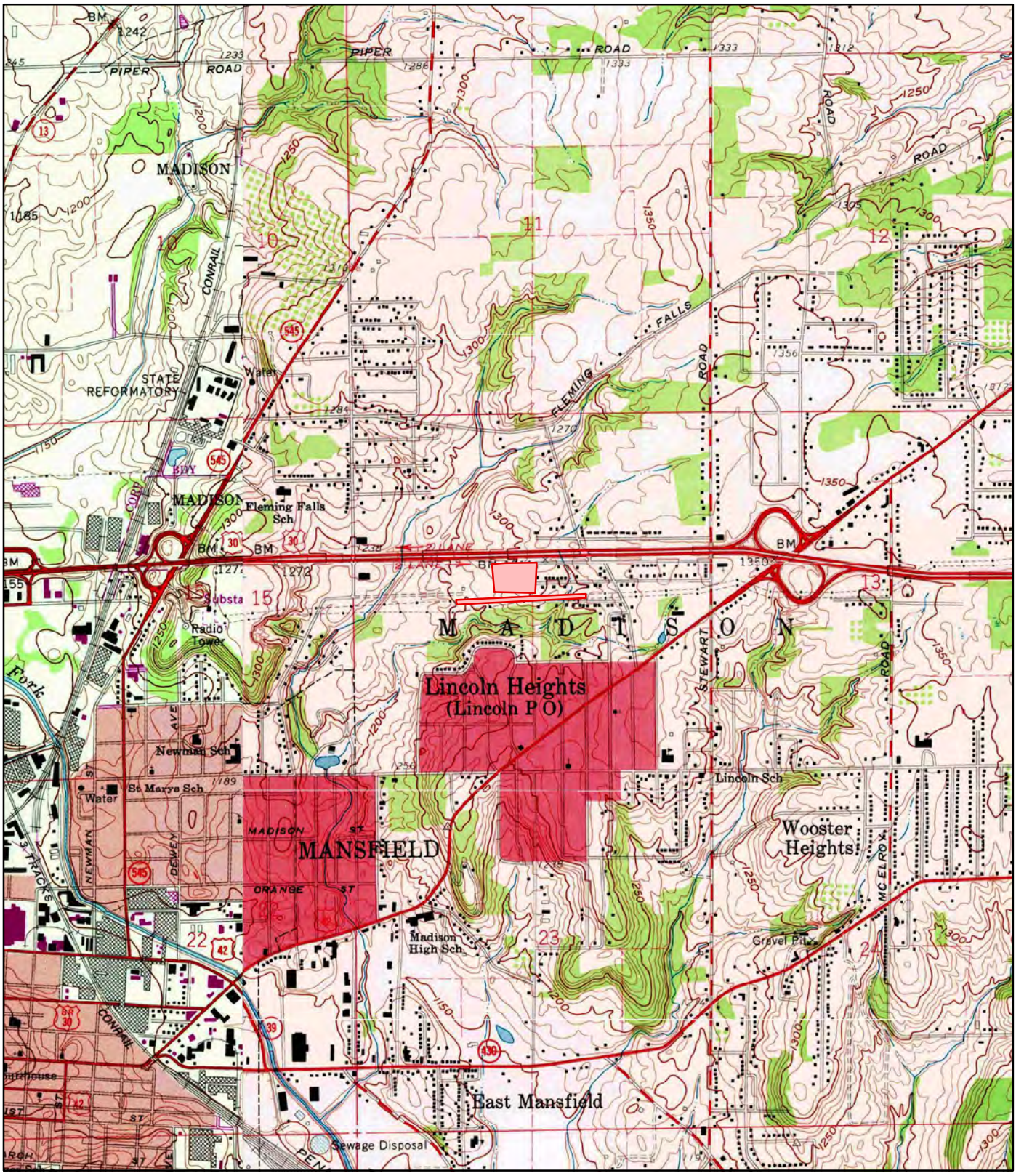
TITLE:

Study Area circa 1908/1915 (USGS)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0022.0000
FILE:	Longview_Madison.mxd

Attachment 2 - Image 3

C:\Users\jmckissick\OneDrive - TRC\Documents\Projects\Various\Shapefiles\Longview-Madison\Longview_Madison.mxd -- Saved By: JMCKISSICK on 9/6/2024, 10:42:05 AM



BASEMAP FROM USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLES

*Image overlay is approximate

N

1 " = 2,083 ' 0 500 1,000

1:25,000 FEET

TRC

317 E. Carson Street
Suite 113
Pittsburgh, PA 15219

TRC - GIS

PROJECT:

Longview-Madison ROW Assurance Project

TITLE:

Study Area circa 1960 (USGS)

DRAWN BY:	JUSTIN MCKISSICK
CHECKED BY:	CURTIS BIONDICH
APPROVED BY:	CURTIS BIONDICH
DATE:	SEPTEMBER 2024
PROJ. NO.:	550808.0022.0000
FILE:	Longview_Madison.mxd

Attachment 2 - Image 4

C:\Users\jmckissick\OneDrive - TRC\Documents\Projects\Various\Shapefiles\Longview-Madison\Longview_Madison.mxd -- Saved By: JMCKISSICK on 9/6/2024, 10:42:05 AM

Exhibit 8

Department of Natural Resources
ohiodnr.gov

Mike DeWine, *Governor*
Jon Husted, *Lt. Governor*
Mary Mertz, *Director*

Office of Real Estate & Land Management
Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

September 27, 2024

Jenna Slabe
TRC Companies, Inc.
1382 West 9th Street, Suite 400
Cleveland, Ohio 44113

Re: 24-1350 - Brookside-Madison ROW Assurance

Project: The proposed project involves the service and replacement of structures on the Brookside-Madison 138kV line, as part of FirstEnergy's ROW Assurance Program.

Location: The proposed project is located in Mifflin and Milton Townships, Richland and Ashland Counties, 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 data within one mile of the project area:

American Sweet-flag (*Acorus americanus*), P
Marsh Five-finger (*Comarum palustre*), T
Canada Yew (*Taxus canadensis*), P
Sandhill Crane (*Antigone canadensis*), T
Iowa Darter (*Etheostoma exile*), E
Slippershell Mussel (*Alasmidonta viridis*), T

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

The species listed above are not recorded within the boundaries of the specified project area. However, please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

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 project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, and the little brown bat (*Myotis lucifugus*), a state endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, 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 endangered 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 bat species 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. The DOW recommends tree 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 ≥ 20 if possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "*RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES*." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza 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 the 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 Iowa darter *(Etheostoma exile),* a state endangered fish, and the greater redhorse *(Moxostoma valenciennesi*), a state threatened fish. The DOW recommends no in-water work in perennial streams from March 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 northern harrier (*Circus hudsonius*), 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 April 15 through July 31. 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 (*Antigone 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 through August 31. 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 US Fish & Wildlife Service.

Thank you for affording us the opportunity to comment.

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.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew (Environmental Services Administrator) at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Expiration: *ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.*

Department of Natural Resources
ohiodnr.gov

Mike DeWine, *Governor*
Jon Husted, *Lt. Governor*
Mary Mertz, *Director*

Office of Real Estate & Land Management
Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

September 27, 2024

Maggie Molnar
TRC Companies, Inc.
1382 West 9th Street, Suite 400
Cleveland, Ohio 44113

Re: 24-1357 - Longview-Madison ROW Assurance

Project: The proposed project involves the service and replacement of structures on the Longview-Madison 138kV line, as part of FirstEnergy's ROW Assurance Program.

Location: The proposed project is located in Madison Township, Richland 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 data within one mile of the project area:

Indiana Myotis (*Myotis sodalis*), E, FE

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

The species listed above is not recorded within the boundaries of the specified project area. However, please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

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 project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, and the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, 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 endangered 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 bat species 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. The DOW recommends tree 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 ≥ 20 if possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "*RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES*." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza 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 the 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 Iowa darter *(Etheostoma exile),* a state endangered fish, and the greater redhorse *(Moxostoma valenciennesi*), a state threatened fish. The DOW recommends no in-water work in perennial streams from March 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 northern harrier (*Circus hudsonius*), 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 April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this type of habitat will not be impacted, this project is not likely to impact 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 US 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.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew (Environmental Services Administrator) at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Expiration: *ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.*

Exhibit 8A

Stolarski, Adrianna

From: Eileen.Wyza@dnr.ohio.gov
Sent: Wednesday, October 16, 2024 12:52 PM
To: Slabe, Jenna
Cc: Falkinburg, Brad M (Ruszala, Amy M); Molnar, Maggie; Stolarski, Adrianna
Subject: [EXTERNAL] RE: Desktop Hibernacula Assessment: FirstEnergy's Brookside-Madison ROW Assurance Project

External Sender, use caution with links/attachments. Click 'Report Message' in Outlook if suspicious.

Hello Jenna,

Per review of the desktop survey provided for FirstEnergy's Brookside-Madison ROW Assurance Project, the Ohio Division of Wildlife concurs with your assessment that no caves, cliffs, or mine openings occur in the project area. Therefore, the project is not likely to impact hibernating bats.

Should any reported conditions change before or during construction, please contact me for additional guidance.

Thank you,

Eileen Wyza, Ph.D.
(she/her/hers)
Wildlife Biologist
Ohio Division of Wildlife
Phone: 614-265-6764
Email: Eileen.Wyza@dnr.ohio.gov

Support Ohio's wildlife. Buy a license at wildohio.gov.

From: Slabe, Jenna <JSlabe@trccompanies.com>
Sent: Wednesday, October 16, 2024 12:07 PM
To: Wyza, Eileen <Eileen.Wyza@dnr.ohio.gov>
Cc: Falkinburg, Brad <BFalkinburg@trccompanies.com>; Molnar, Maggie <MMolnar@trccompanies.com>; Stolarski, Adrianna <astolarski@firstenergycorp.com>
Subject: Desktop Hibernacula Assessment: FirstEnergy's Brookside-Madison ROW Assurance Project

Eileen,

In response to ODNR's DOW recommendations (attached), TRC completed a desktop hibernacula assessment to determine if potential hibernaculum is present within FirstEnergy's proposed Brookside-Madison ROW Assurance Project located in Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County.

Please let us know if you have any questions on the provided desktop assessment or require any additional information, thank you!

Jenna Slabe
Ecologist
Planning, Permitting, and Licensing

1382 W 9th St, Suite 400, Cleveland, OH 44113
C 330.998.0481
LinkedIn | TRCcompanies.com

Stolarski, Adrianna

From: Eileen.Wyza@dnr.ohio.gov
Sent: Monday, October 21, 2024 8:47 AM
To: Slabe, Jenna
Cc: Falkinburg, Brad M (Ruszala, Amy M); Molnar, Maggie; Stolarski, Adrianna
Subject: [EXTERNAL] RE: Desktop Hibernacula Assessment: FirstEnergy's Longview-Madison ROW Assurance Project

Hello Jenna,

Per review of the desktop survey provided for FirstEnergy's Longview-Madison ROW Assurance Project, the Ohio Division of Wildlife concurs with your assessment that no caves, cliffs, or mine openings occur in the project area. Therefore, the project is not likely to impact hibernating bats.

Should any reported conditions change before or during construction, please contact me for additional guidance.

Thank you,

Eileen Wyza, Ph.D.
(she/her/hers)
Wildlife Biologist
Ohio Division of Wildlife
Phone: 614-265-6764
Email: Eileen.Wyza@dnr.ohio.gov

From: Slabe, Jenna <JSlabe@trccompanies.com>
Sent: Friday, October 18, 2024 4:21 PM
To: Wyza, Eileen <Eileen.Wyza@dnr.ohio.gov>
Cc: Falkinburg, Brad <BFalkinburg@trccompanies.com>; Molnar, Maggie <MMolnar@trccompanies.com>; Stolarski, Adrianna <astolarski@firstenergycorp.com>
Subject: Desktop Hibernacula Assessment: FirstEnergy's Longview-Madison ROW Assurance Project

Eileen,

In response to ODNR's DOW recommendations (attached), TRC completed a desktop hibernacula assessment to determine if potential hibernaculum is present within FirstEnergy's proposed Longview-Madison ROW Assurance Project located in the City of Mansfield and Madison Township in Richland County, Ohio.

Please let us know if you have any questions on the provided desktop assessment or require any additional information, thank you!

Jenna Slabe
Ecologist
Planning, Permitting, and Licensing

1382 W 9th St, Suite 400, Cleveland, OH 44113
C 330.998.0481
LinkedIn | TRCcompanies.com

Exhibit 9

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

September 10, 2024

Project Code: 2024-0135306

Dear Jenna Slabe:

The U.S. Fish and Wildlife Service (Service) 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 effects 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: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat. If there are any project modifications during the term of this action, or additional information for listed or proposed species or their critical habitat becomes available, or if new information reveals effects of the action that were not previously considered, then please contact us for additional project review.

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,

Erin Knoll
Field Office Supervisor

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

September 18, 2024

Project Code: 2024-0135781

Dear Maggie Molnar:

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: 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 endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*), and the proposed endangered tricolored bat (*Perimyotis subflavus*) 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.

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.

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, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

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,

Erin Knoll
Field Office Supervisor

1382 West Ninth St.
Suite 400
Cleveland, OH 44113

T 216.344.3072
TRCcompanies.com

October 17, 2024

Adrianna Stolarski
FirstEnergy Corporation
341 White Pond Drive
Akron, OH 44320

Reference: Technical Memorandum for the Surface Water Delineation of the Brookside-Madison ROW Assurance Project located in Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio. **(TRC Project No. 550808.0021.0000)**

Dear Adrianna Stolarski:

On behalf of FirstEnergy Corporation (FirstEnergy), TRC Environmental Corporation (TRC) conducted a surface water delineation for the Brookside-Madison ROW Assurance Project (Project). The Project is located in Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio and is 27.76 acres in size (**Attachment A, Figures 1 and 2**). The Project Study Area comprises several plots with the following centroid location: 40.821701, -82.350121. The proposed Project involves the service and replacement of structures along the Brookside-Madison 138kV line, as part of FirstEnergy's ROW Assurance Program.

The delineation was conducted by qualified wetland scientists on September 11th and 12th, 2024, in accordance with the United States Army Corps of Engineers (USACE) parameters. The objective was to evaluate and delineate potential surface water resources within the Project Study Area, such that the resources could be considered during each phase of the Project. Prior to the site visit, TRC reviewed available secondary source information such as the National Wetlands Inventory (NWI), National Hydrography Dataset (NHD), United States Geological Survey (USGS) topographic maps, County Soil Survey maps, and aerial imagery of the Project Study Area to use in addition to field investigations.

The Project Study Area is shown on the attached map (**Attachment A, Figure 1**), which was derived from the USGS Pavonia, Ohio and Ashland South, Ohio 7.5-minute quadrangle topographic maps. Soil mapped within the Project Study Area includes hydric and non-hydric soils (**Attachment A, Figure 3**). The proposed Project Study Area includes three (3) mapped NWI riverine features and three (3) mapped NHD features (including Jamison Creek) (**Attachment A, Figure 4**). According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panels, 39139C0175E (eff. 4/4/2011), 39005C0235E (eff. 8/18/2009), 39005C0231E (eff. 8/18/2009), 39005C0230E (eff. 8/18/2009), and 39005C0225E (eff. 8/18/2009), the proposed Project is not located within a FEMA-mapped 100-Year Flood Zone.

During the field investigation, land use within the Project Study Area was observed to be existing, maintained utility right-of-way within agricultural and residential land use, developed open space, and forested habitat. See the attached mapping in **Attachment A** and the Photographic Record in **Attachment B** for further details of the Project Study Area.

During the field investigation, three (3) wetlands (W-EVN-1, W-EVN-2, and W-EVN-3) and two (2) streams (S-EVN-01 [Jamison Creek] and S-EVN-2) were identified and delineated within the Project Study Area. No other ecological resources were observed within the Project Study Area. See **Table 1** and **Table 2** below for a summary of the observed resources. The delineated wetland boundaries and sample points are shown on **Figure 5** in **Attachment A**. Wetland data was collected and recorded on the USACE Wetland Determination Data Forms – Northcentral Northeast Region and Midwest Region.

A wetland functional assessment was completed for each wetland using the Ohio Environmental Protection Agency (OEPA) Ohio Rapid Assessment Method (ORAM) data form. Stream data was collected and recorded on the OEPA Qualitative Habitat Evaluation Index (QHEI) data form for streams with a drainage area greater than one (1) square mile or which have pools with maximum depths over 15.8 inches (40.0 centimeters) and the OEPA Headwater Habitat Evaluation Index (HHEI) data form for streams with a drainage area less than one (1) square mile. All wetland and stream data forms are provided in **Attachment C.**

Table 1. Delineated Wetland Features Summary Table

Wetland ID	Cowardin Classification[1]	Connection[2]	ORAM Score and Category[3]	Delineated Area within Project Study Area (acres)
W-EVN-1	PEM	Adjacent	28 (Cat.1)	0.013
W-EVN-2	PEM	Adjacent	37 (Cat.2)	0.102
W-EVN-3	PEM	Adjacent	21 (Cat.1)	0.075

Note: See Delineated Resources Map and Photographic Record for more details.
[1] Cowardin Wetland Classification within the Project Study Area (based upon field identification and delineation) (Cowardin, et al., 1979): PEM – Palustrine Emergent.
[2] Wetland connection is pending an update from OEPA and USACE based on the USA vs. Sackett case.
[3] Wetland scores falling within the "Modified" category were rounded up to a Category 2.

Table 2. Delineated Stream Features Summary Table

Stream ID	Resource Name[1]	Flow Regime	QHEI	HHEI	OEPA Use Designation[2]	Narrative Rating/ Classification[3]	Delineated Length within the Project Study Area (linear feet)
S-EVN-1	Jamison Creek	Perennial	61.5	-	WWH, AWS, IWS, PCR	Good	300
S-EVN-2	UNT to Jamison Creek	Intermittent	-	29	NA	Class I PHW	93

Note: See Delineated Resources Map and Photographic Record for more details.
[1]UNT= Unnamed tributary
[2]WWH= Warm Water Habitat, AWS= Agricultural Water Supply, IWS= Industrial Water Supply, PCR= Primary Contact Recreation (Determined by OEPA and listed in OAC §3745-1-24 Muskingum River drainage basin (Ohio Administrative Code, 2020)).
[3]PHW= Primary Headwater

This Technical Memorandum represents the conditions within the Project Study Area identified herein, as of the inspection dates. Should you require any additional information or have any questions concerning this letter, please feel free to contact me at (440) 666-2890 or by email at BFalkinburg@TRCCompanies.com.

Kind Regards,

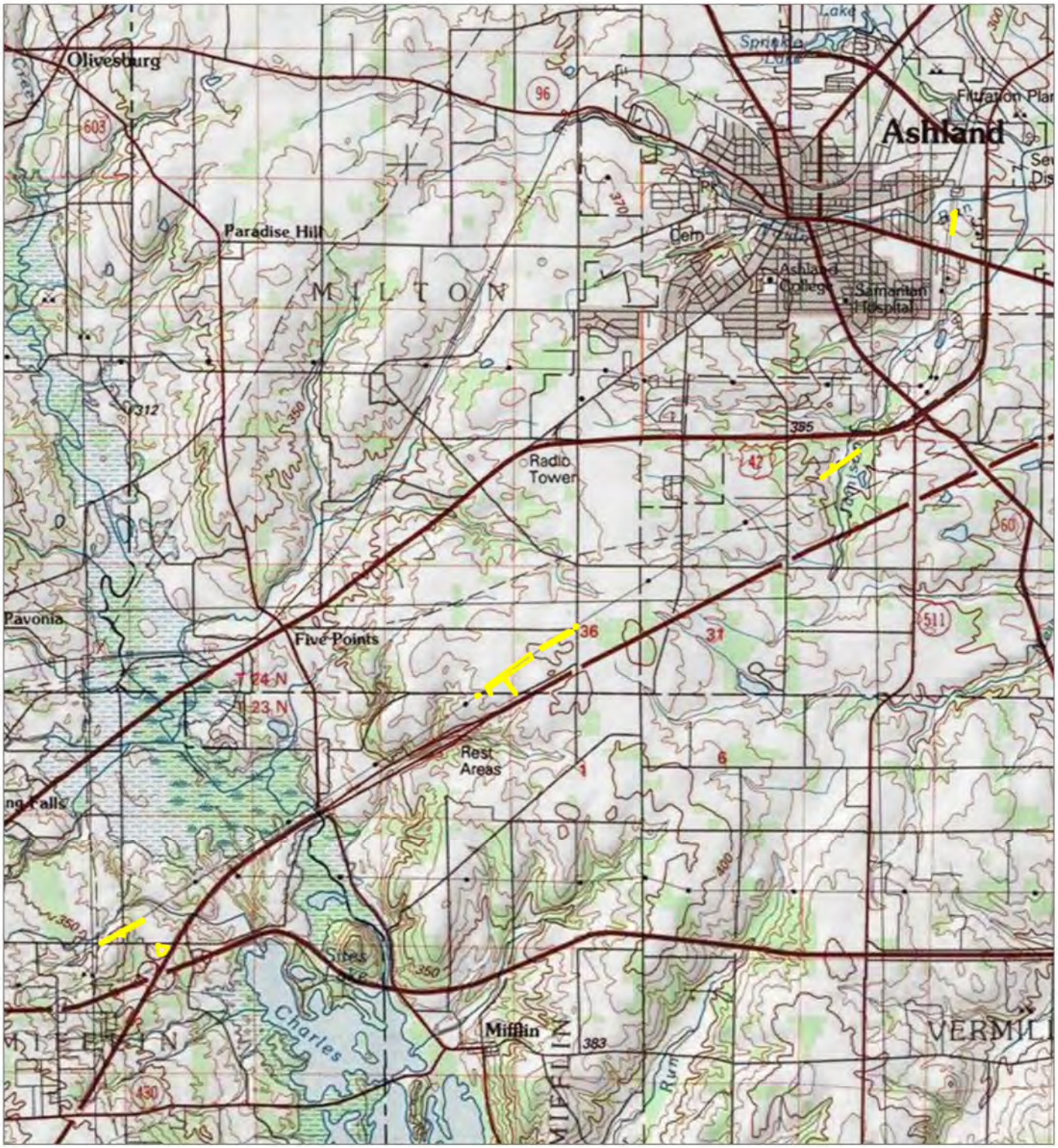
TRC

Brad M. Falkinburg, PWS
Ecological Office Practice Leader

cc: Maggie Molnar, PWS – TRC

Attachments
Attachment A: Figures
Attachment B: Photographic Record
Attachment C: Data Sheets

ATTACHMENT A – Figures



PROJECT STUDY AREA

BASE MAP: USA TOPO MAPS MAP SERVICE, PAVONIA & ASHLAND SOUTH QUADS

0 3,000 6,000
FEET
1:72,000 1" = 6,000'

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: SITE LOCATION MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 1
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR

PROJECT STUDY AREA

EXISTING STRUCTURE

BASE MAP: GOOGLE MAPS.

1:1,800
1" = 150'

0 150 300 FEET

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: AERIAL MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 2 (PAGE 1 OF 7)
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet Map Rotation: 0
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PROJECT STUDY AREA

EXISTING STRUCTURE

BASE MAP: GOOGLE MAPS.

1:1,800

1" = 150'

0 150 300 FEET

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: AERIAL MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 2 (PAGE 2 OF 7)
DATE:	OCTOBER 2024		

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PHONE: 216-344-3072

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PROJECT STUDY AREA

EXISTING STRUCTURE

BASE MAP: GOOGLE MAPS.

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1" = 150'

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PROJECT: **FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH**

TITLE: **AERIAL MAP**

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APPROVED BY:	B. FALKINBURG		
DATE:	OCTOBER 2024		

FIGURE 2
(PAGE 3 OF 7)

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CLEVELAND, OH 44113
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PROJECT STUDY AREA

EXISTING STRUCTURE

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FIGURE 2
(PAGE 4 OF 7)

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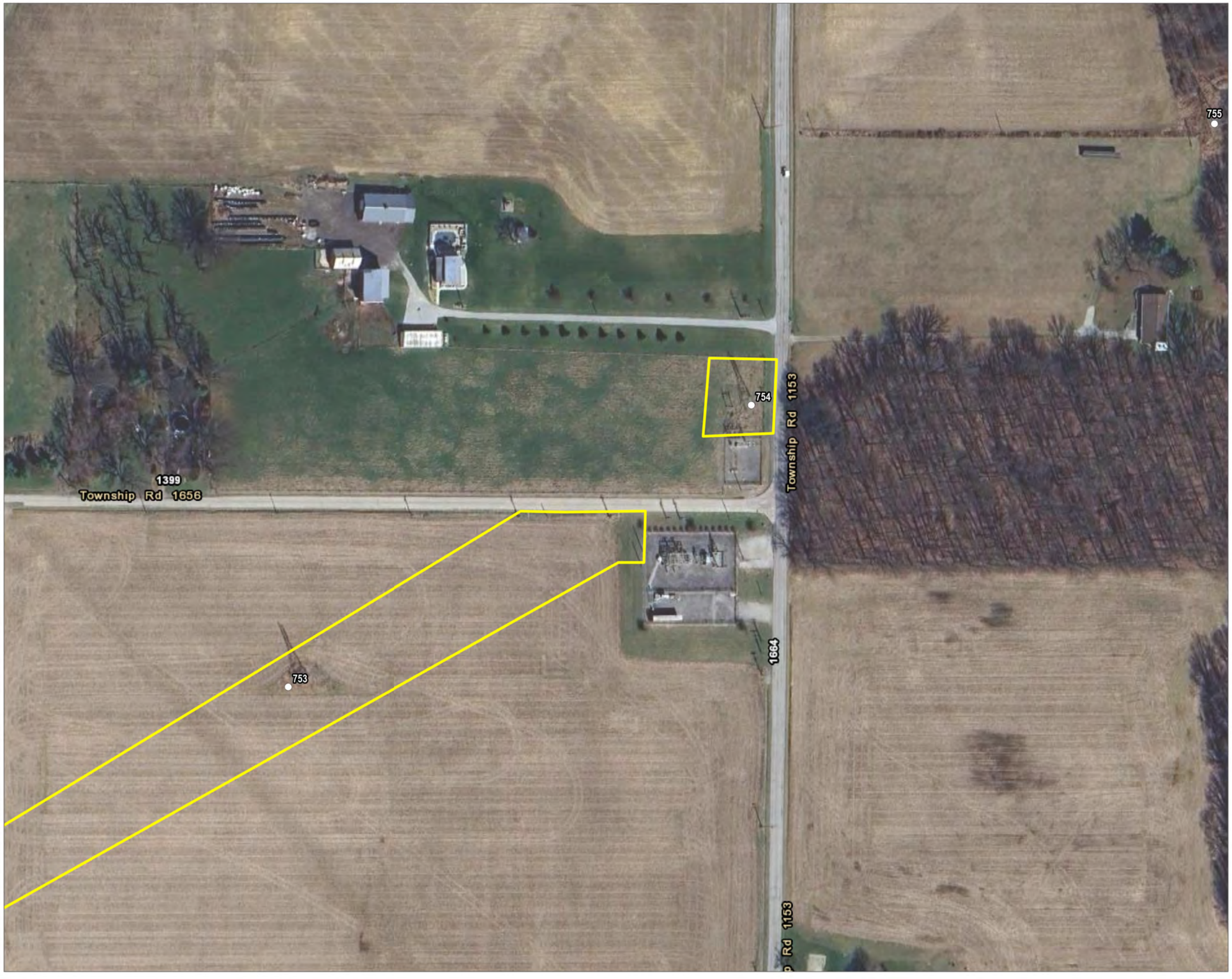

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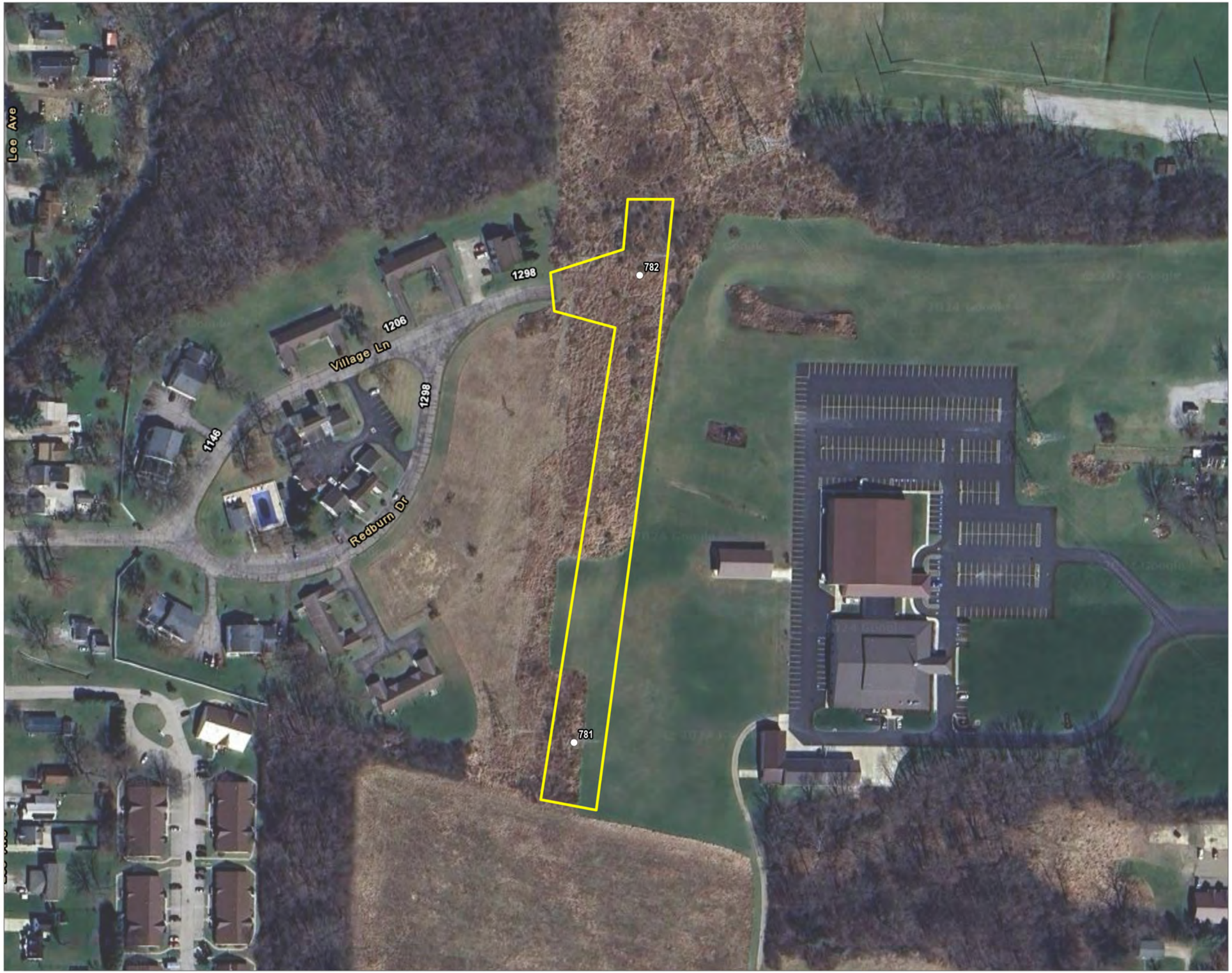

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BASE MAP: GOOGLE MAPS.

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DATE:	OCTOBER 2024		

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PROJECT STUDY AREA
EXISTING STRUCTURE
HYDRIC SOIL
NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
NON-HYDRIC SOIL

BASE MAP: GOOGLE MAPS.
DATA SOURCES: SOILS DATA ACQUIRED FROM USDA/NRCS SSURGO DATABASE.

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1" = 150'
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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: SOILS MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
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APPROVED BY:	B. FALKINBURG		FIGURE 3 (PAGE 1 OF 7)
DATE:	OCTOBER 2024		

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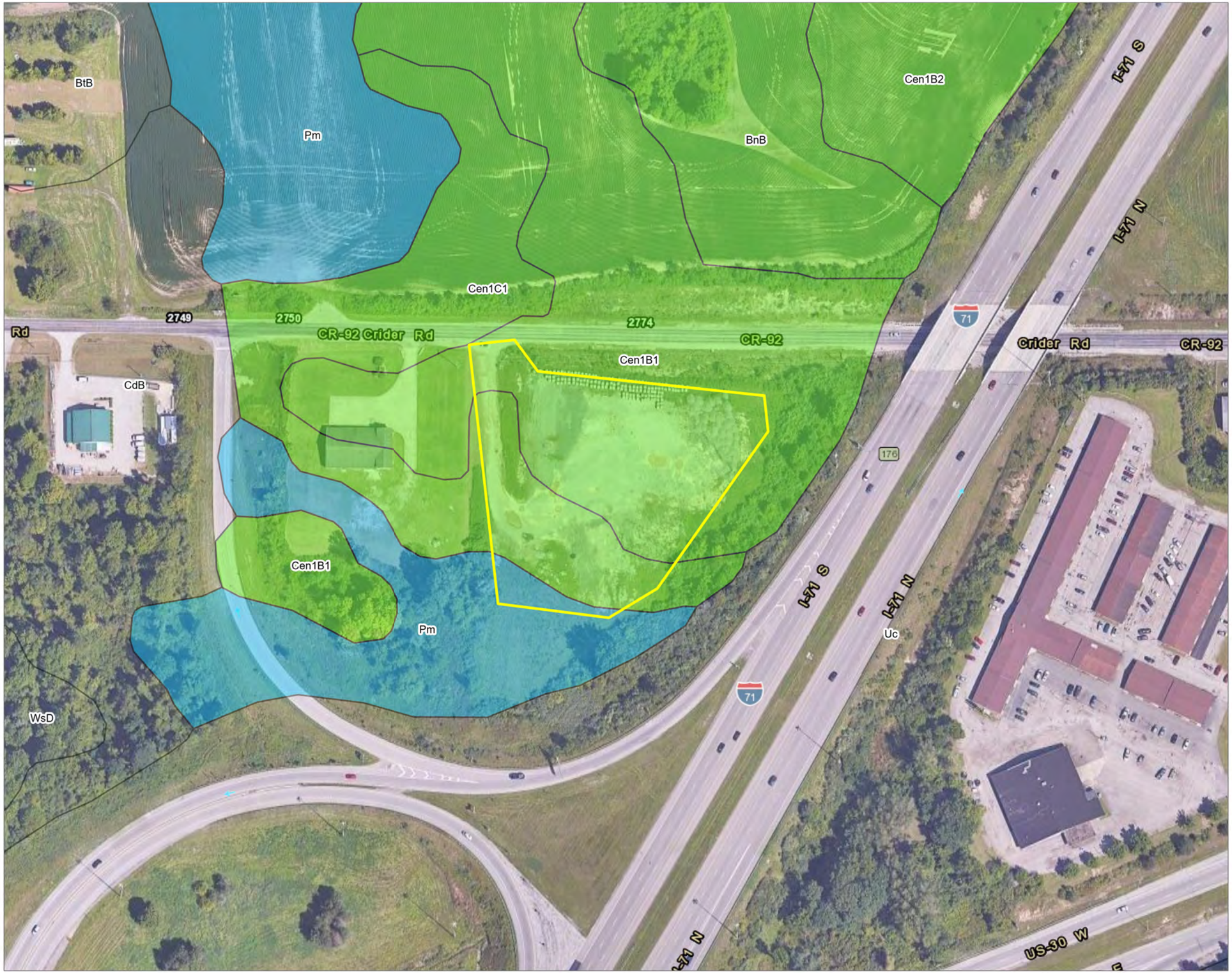

PROJECT STUDY AREA
EXISTING STRUCTURE
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NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
NON-HYDRIC SOIL

BASE MAP: GOOGLE MAPS.
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APPROVED BY:	B. FALKINBURG		FIGURE 3 (PAGE 2 OF 7)
DATE:	OCTOBER 2024		

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PROJECT STUDY AREA
EXISTING STRUCTURE
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NON-HYDRIC SOIL

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FIGURE 3
(PAGE 4 OF 7)

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PROJECT STUDY AREA
EXISTING STRUCTURE
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NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

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FIGURE 3
(PAGE 5 OF 7)

TRC
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PROJECT STUDY AREA
EXISTING STRUCTURE
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NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
NON-HYDRIC SOIL

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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE: SOILS MAP

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DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
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PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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PROJECT STUDY AREA
EXISTING STRUCTURE
HYDRIC SOIL
NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
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PROJECT STUDY AREA
EXISTING STRUCTURE
NATIONAL HYDROGRAPHY DATASET (NHD) STREAM
NATIONAL WETLANDS INVENTORY (NWI) FEATURE
100-YEAR FLOOD ZONE

BASE MAP: GOOGLE MAPS.
DATA SOURCES: WETLAND DATA ACQUIRED FROM U.S. FISH & WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY (NWI). STREAM DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD). FLOOD DATA ACQUIRED FROM FEMA, NATIONAL FLOOD HAZARD LAYER (NFHL).

1:1,800
1" = 150'
0 100 200
FEET

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

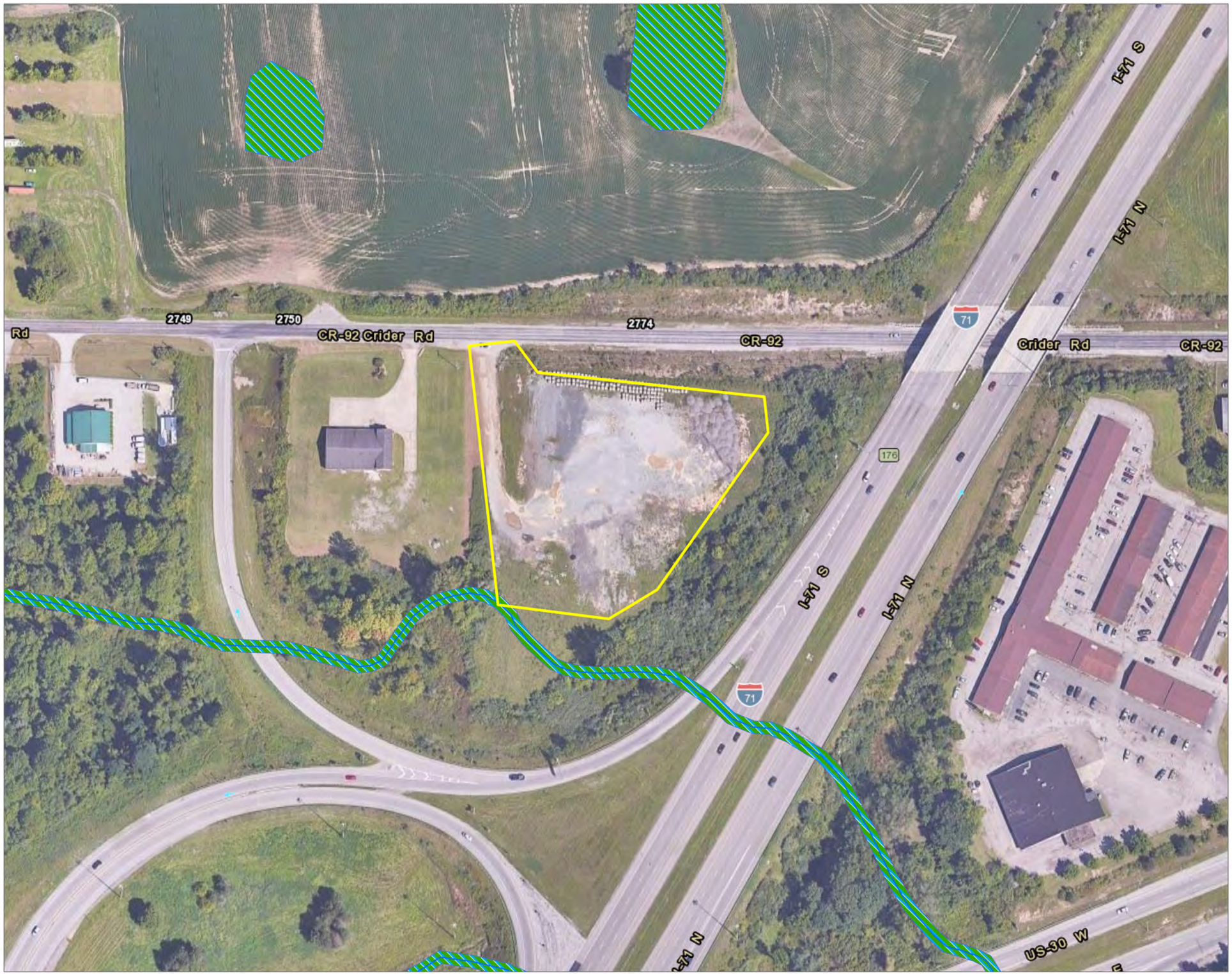
TITLE: NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 4 (PAGE 1 OF 7)
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
Saved By: MOPEL on 10/15/2024 8:58:44 AM; File Path: T:\PROJECTS\First Energy\550808_0021_BrooksideMadison\3-APRV\WDR.aprx; Layout Name: Fig04_Hydro



PROJECT STUDY AREA
EXISTING STRUCTURE
NATIONAL HYDROGRAPHY DATASET (NHD) STREAM
NATIONAL WETLANDS INVENTORY (NWI) FEATURE
100-YEAR FLOOD ZONE

BASE MAP: GOOGLE MAPS.
DATA SOURCES: WETLAND DATA ACQUIRED FROM U.S. FISH & WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY (NWI). STREAM DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD). FLOOD DATA ACQUIRED FROM FEMA, NATIONAL FLOOD HAZARD LAYER (NFHL).

1:1,800
1" = 150'
0 100 200 FEET

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
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APPROVED BY:	B. FALKINBURG		FIGURE 4 (PAGE 2 OF 7)
DATE:	OCTOBER 2024		

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PROJECT STUDY AREA
EXISTING STRUCTURE
NATIONAL HYDROGRAPHY DATASET (NHD) STREAM
NATIONAL WETLANDS INVENTORY (NWI) FEATURE
100-YEAR FLOOD ZONE

BASE MAP: GOOGLE MAPS.
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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON
ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE: NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
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APPROVED BY:	B. FALKINBURG		
DATE:	OCTOBER 2024		

FIGURE 4
(PAGE 3 OF 7)

TRC
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PROJECT STUDY AREA
EXISTING STRUCTURE
NATIONAL HYDROGRAPHY DATASET (NHD) STREAM
NATIONAL WETLANDS INVENTORY (NWI) FEATURE
100-YEAR FLOOD ZONE

BASE MAP: GOOGLE MAPS.
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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON
ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE: NHD, NWI AND FEMA FLOODPLAIN MAP

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DATE:	OCTOBER 2024		

FIGURE 4
(PAGE 4 OF 7)

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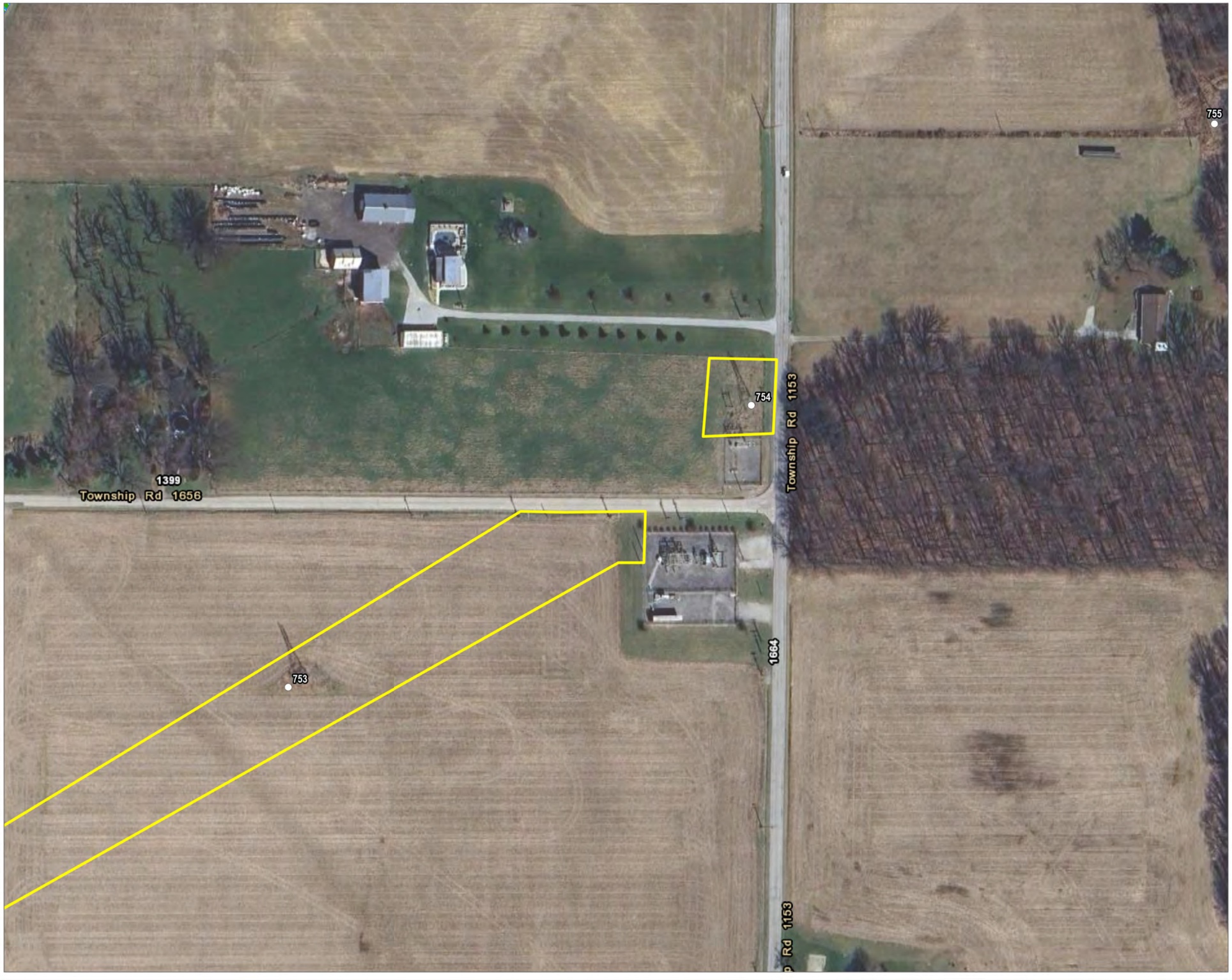

PROJECT STUDY AREA
EXISTING STRUCTURE
NATIONAL HYDROGRAPHY DATASET (NHD) STREAM
NATIONAL WETLANDS INVENTORY (NWI) FEATURE
100-YEAR FLOOD ZONE

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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 4 (PAGE 5 OF 7)
DATE:	OCTOBER 2024		

TRC
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PHONE: 216-344-3072

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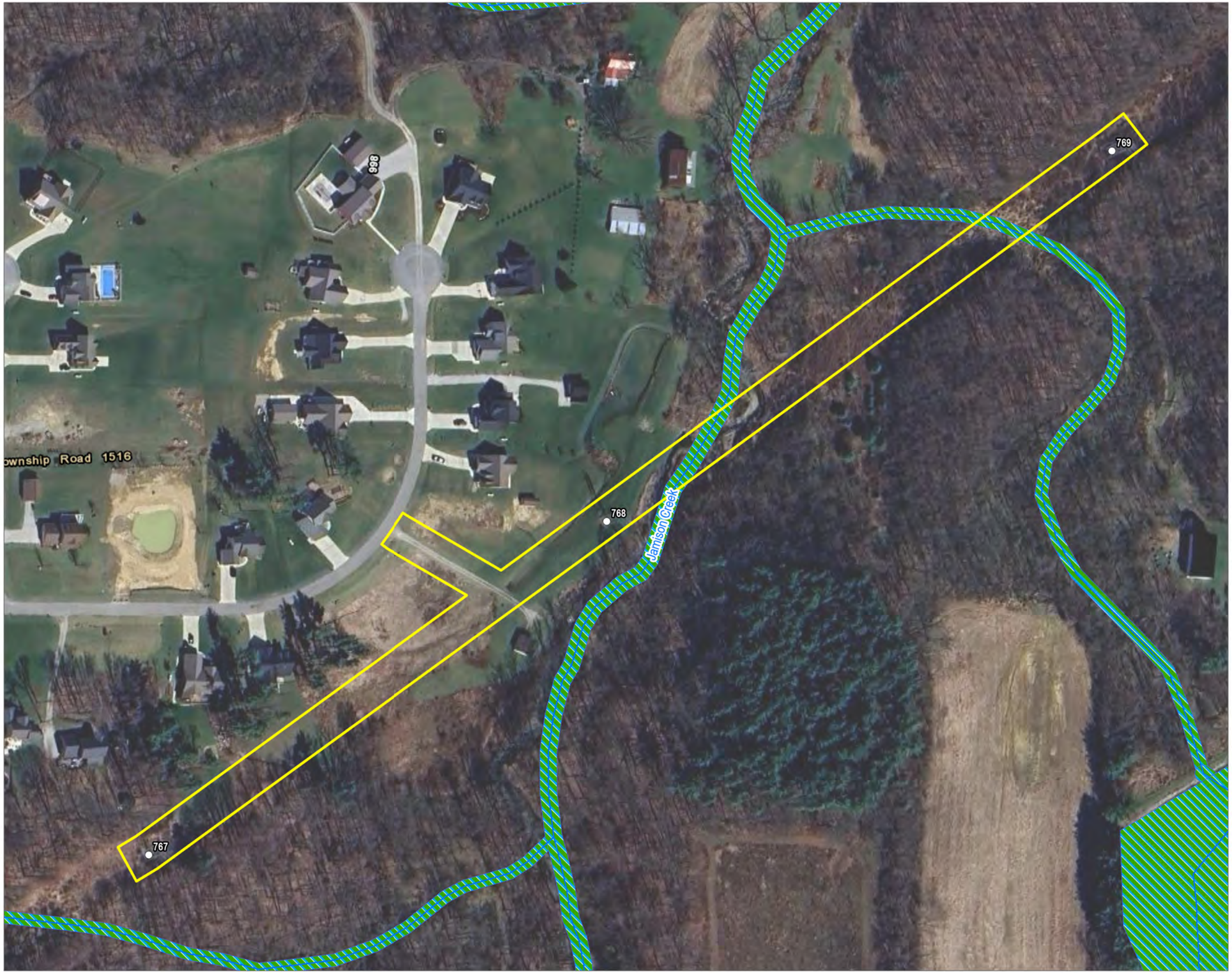

BASE MAP: GOOGLE MAPS.
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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 4 (PAGE 6 OF 7)
DATE:	OCTOBER 2024		

TRC
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PROJECT STUDY AREA
EXISTING STRUCTURE
NATIONAL HYDROGRAPHY DATASET (NHD) STREAM
NATIONAL WETLANDS INVENTORY (NWI) FEATURE
100-YEAR FLOOD ZONE

BASE MAP: GOOGLE MAPS.
DATA SOURCES: WETLAND DATA ACQUIRED FROM U.S. FISH & WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY (NWI). STREAM DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD). FLOOD DATA ACQUIRED FROM FEMA, NATIONAL FLOOD HAZARD LAYER (NFHL).

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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
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APPROVED BY:	B. FALKINBURG		FIGURE 4 (PAGE 7 OF 7)
DATE:	OCTOBER 2024		

TRC
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PHONE: 216-344-3072

FILE: WDR.aprx

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- PROJECT STUDY AREA
- EXISTING STRUCTURE
- CULVERT
- NON-JURISDICTIONAL DRAINAGE
- INTERMITTENT STREAM
- PERENNIAL STREAM
- PEM WETLAND
- WETLAND CONTINUES
- WETLAND DATA POINT
- UPLAND DATA POINT

BASE MAP: GOOGLE MAPS.
DATA SOURCES: TRC WETLAND DELINEATION COMPLETED SEPTEMBER 11-12, 2024.

1:1,800
1" = 150'

0 150 300 FEET

PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

TITLE: DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0021
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 5 (PAGE 1 OF 7)
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet Map Rotation: 0
Saved By: MOPEL on 10/15/2024 8:58:44 AM File Path: T:\PROJECTS\First Energy\550808_0021_BrooksideMadison\3-APRV\WDR.aprx Layout Name: Fig05_Delineation

PROJECT STUDY AREA
EXISTING STRUCTURE
CULVERT
NON-JURISDICTIONAL DRAINAGE
INTERMITTENT STREAM
PERENNIAL STREAM
PEM WETLAND
WETLAND CONTINUES
WETLAND DATA POINT
UPLAND DATA POINT

BASE MAP: GOOGLE MAPS.
DATA SOURCES: TRC WETLAND DELINEATION COMPLETED SEPTEMBER 11-12, 2024.

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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT RICHLAND & ASHLAND COUNTIES, OH

TITLE: DELINEATED RESOURCES MAP

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DATE:	OCTOBER 2024		

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PROJECT STUDY AREA
EXISTING STRUCTURE
CULVERT
NON-JURISDICTIONAL DRAINAGE
INTERMITTENT STREAM
PERENNIAL STREAM
PEM WETLAND
WETLAND CONTINUES
WETLAND DATA POINT
UPLAND DATA POINT

BASE MAP: GOOGLE MAPS.
DATA SOURCES: TRC WETLAND DELINEATION COMPLETED SEPTEMBER 11-12, 2024.

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PROJECT: FIRSTENERGY - BROOKSIDE-MADISON ROW ASSURANCE PROJECT
RICHLAND & ASHLAND COUNTIES, OH

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FIGURE 5
(PAGE 3 OF 7)

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PROJECT STUDY AREA
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INTERMITTENT STREAM
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BASE MAP: GOOGLE MAPS.
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FIGURE 5
(PAGE 4 OF 7)

TRC
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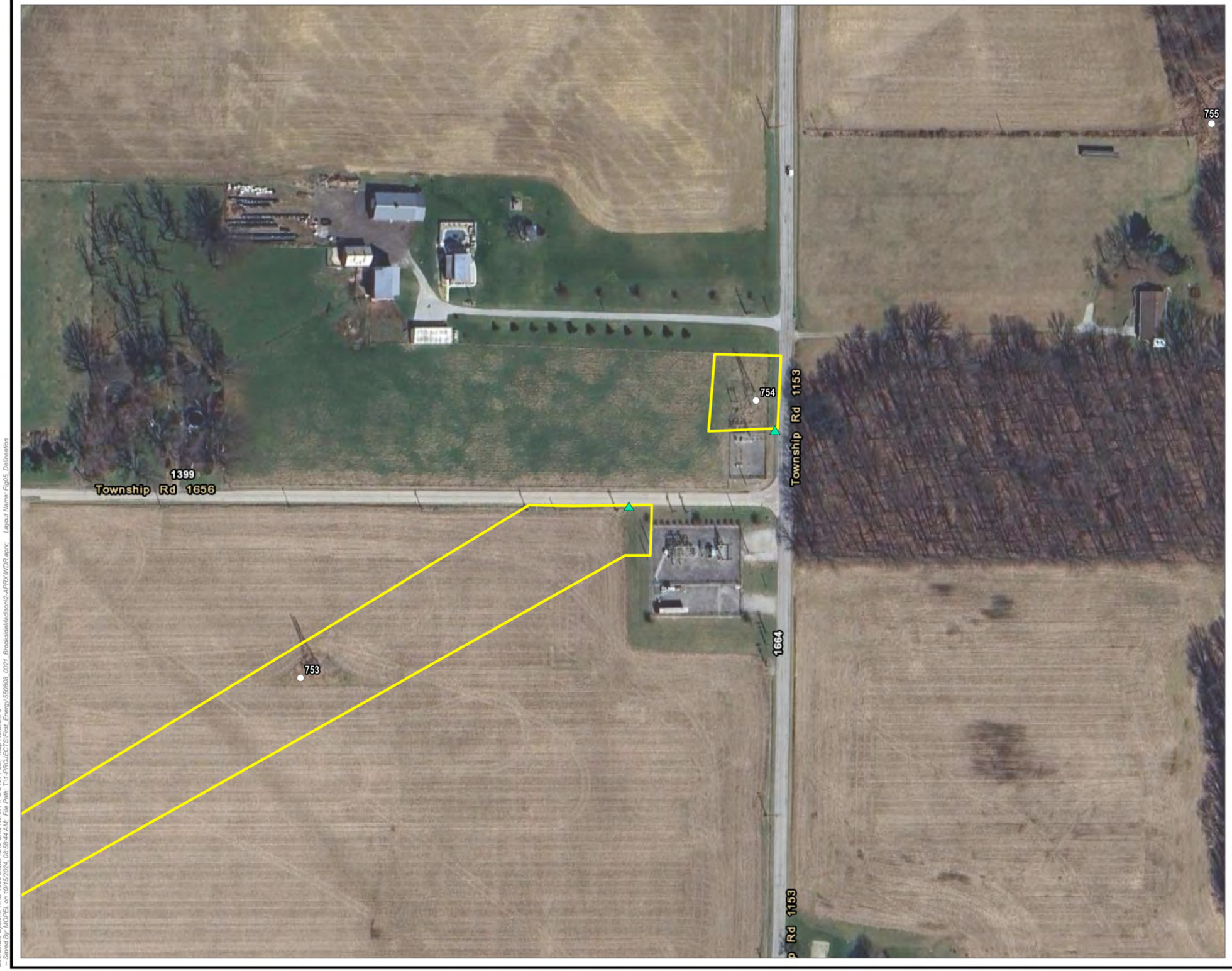

PROJECT STUDY AREA
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CULVERT
NON-JURISDICTIONAL DRAINAGE
INTERMITTENT STREAM
PERENNIAL STREAM
PEM WETLAND
WETLAND CONTINUES
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TITLE: DELINEATED RESOURCES MAP

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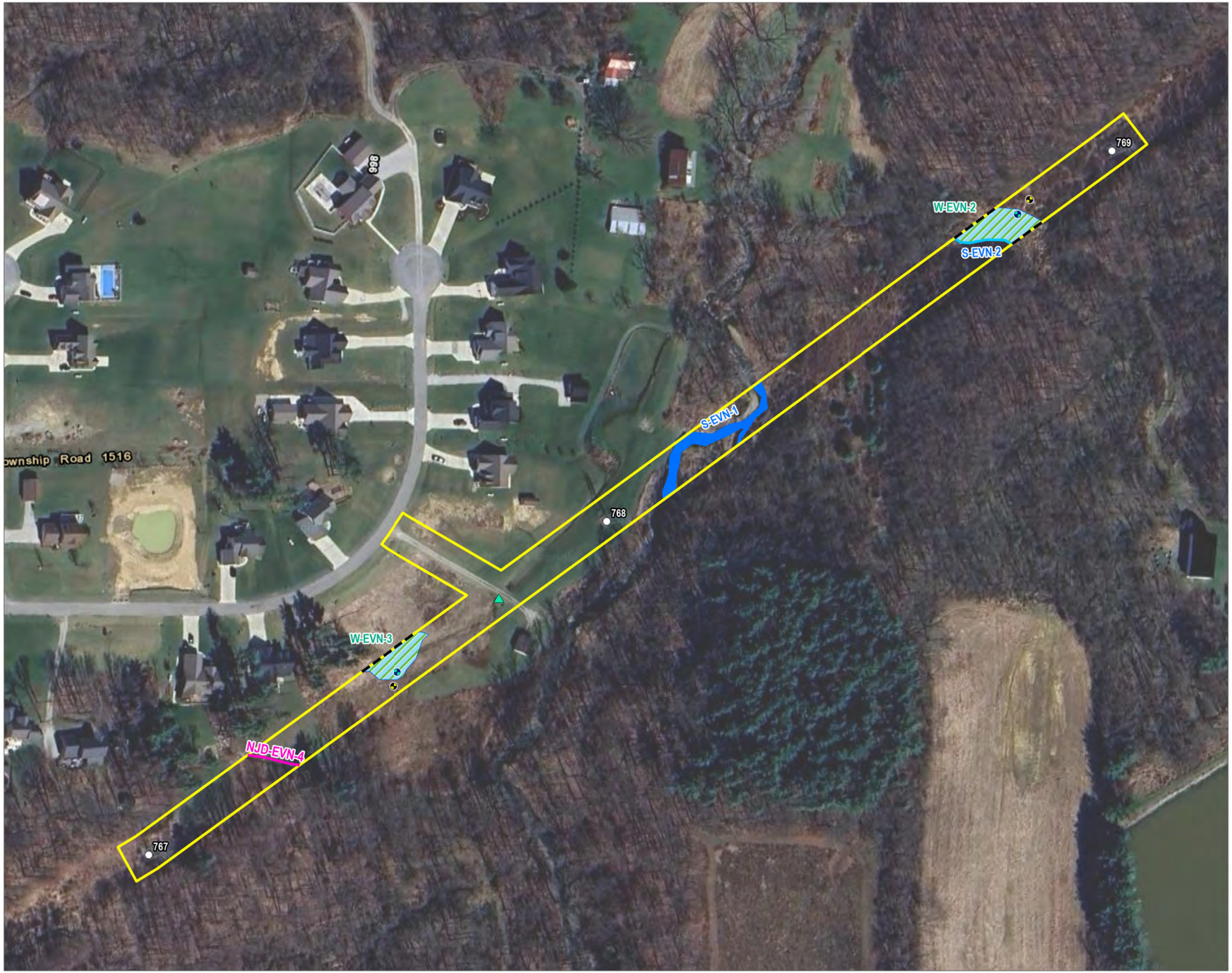

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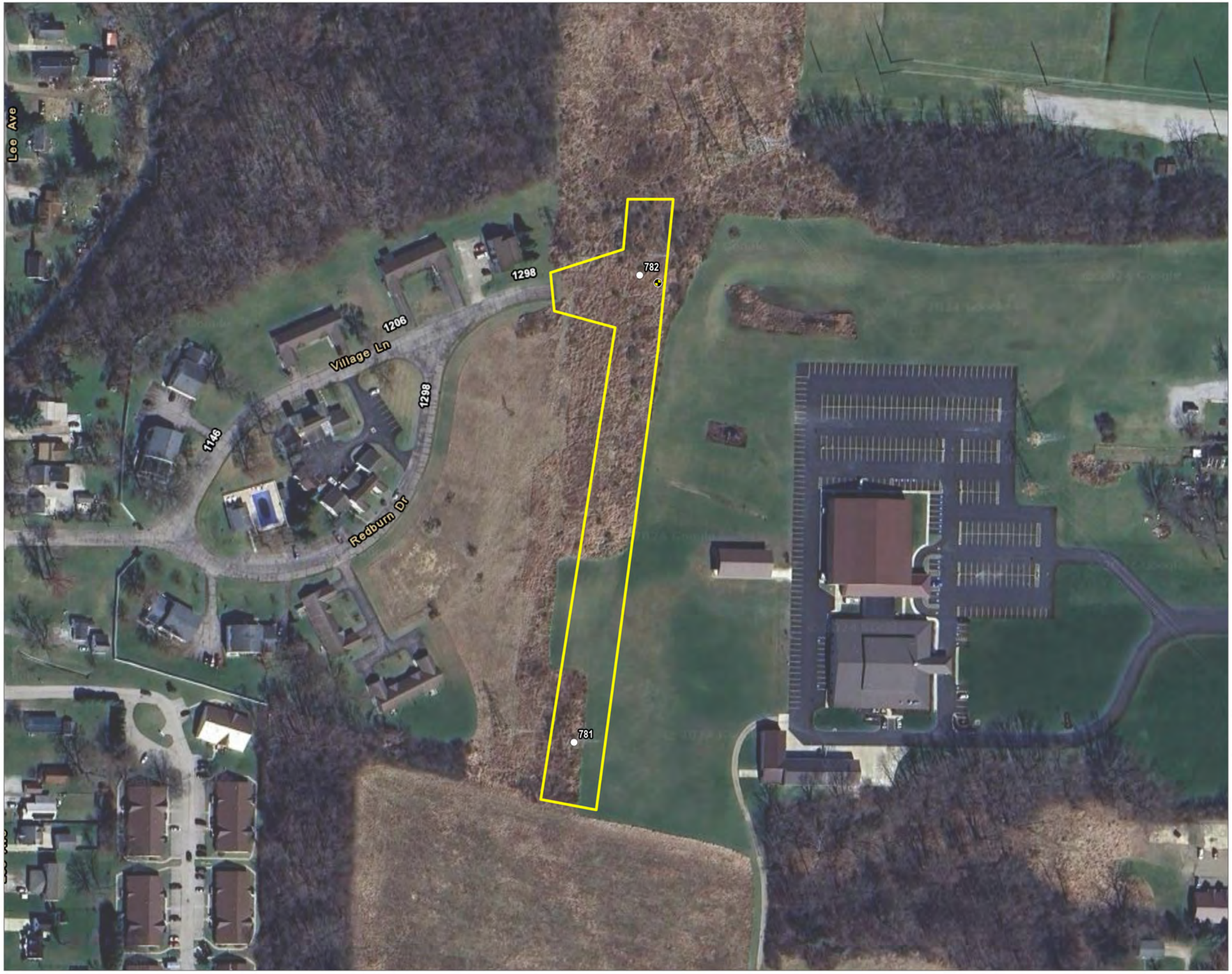

PROJECT STUDY AREA
EXISTING STRUCTURE
CULVERT
NON-JURISDICTIONAL DRAINAGE
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PERENNIAL STREAM
PEM WETLAND
WETLAND CONTINUES
WETLAND DATA POINT
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ATTACHMENT B – Photographic Record

PHOTOGRAPHIC RECORD

Brookside-Madison ROW Assurance Project

Client Name:	**Site Location:**	**Project No.**
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 1.	
Photo Date: 9/11/2024	
Description: Photo of Wetland W-EVN-1, facing north.	

Photo No. 2.	
Photo Date: 9/11/2024	
Description: Photo of Wetland W-EVN-1, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 3.
Photo Date: 9/11/2024
Description: Photo of Wetland W-EVN-1, facing south.

Photo No. 4.
Photo Date: 9/11/2024
Description: Photo of Wetland W-EVN-1, facing west.

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 5.	
Photo Date: 9/12/2024	
Description: Photo of Wetland W-EVN-2, facing north.	

Photo No. 6.	
Photo Date: 9/12/2024	
Description: Photo of Wetland W-EVN-2, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 7. **Photo Date:** 9/12/2024 **Description:** Photo of Wetland W-EVN-2, facing south.	

Photo No. 8. **Photo Date:** 9/12/2024 **Description:** Photo of Wetland W-EVN-2, facing west.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 9.
Photo Date: 9/12/2024
Description: Photo of Wetland W-EVN-3, facing north.

Photo No. 10.
Photo Date: 9/12/2024
Description: Photo of Wetland W-EVN-3, facing east.

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 11.
Photo Date: 9/12/2024
Description: Photo of Wetland W-EVN-3, facing south.

Photo No. 12.
Photo Date: 9/12/2024
Description: Photo of Wetland W-EVN-3, facing west.

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 13.
Photo Date: 9/12/2024
Description: Photo of Stream S-EVN-1 (Jamison Creek) looking downstream, facing northeast.

Photo No. 14.
Photo Date: 9/12/2024
Description: Photo of Stream S-EVN-1 (Jamison Creek) looking upstream, facing west.

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 15.	
Photo Date: 9/12/2024	
Description: Photo of the substrate within Stream S-EVN-1 (Jamison Creek).	

Photo No. 16.	
Photo Date: 9/12/2024	
Description: Photo of Stream S-EVN-2 looking downstream, facing west.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 17.	
Photo Date: 9/12/2024	
Description: Photo of Stream S-EVN-2 looking upstream, facing east.	

Photo No. 18.	
Photo Date: 9/12/2024	
Description: Photo of the substrate within Stream S-EVN-2.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 19.	
Photo Date: 9/11/2024	
Description: Representative photo of the agricultural land use within the Project Study Area, facing northeast.	

Photo No. 20.	
Photo Date: 9/11/2024	
Description: Representative photo of the agricultural land use within the Project Study Area, facing southwest.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 21.	
Photo Date: 9/11/2024	
Description: Representative photo of the Project Study Area south of Crider Road, facing north.	

Photo No. 22.	
Photo Date: 9/11/2024	
Description: Representative photo of the Project Study Area south of Crider Road, facing south.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 23.	
Photo Date: 9/11/2024	
Description: Representative photo of the Project Study Area south of Township Road 1656, facing northeast.	

Photo No. 24.	
Photo Date: 9/11/2024	
Description: Representative photo of the Project Study Area south of Township Road 1656, facing southwest.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 25.	
Photo Date: 9/12/2024	
Description: Representative photo of the Project Study Area near structure 768, facing northeast.	

Photo No. 26.	
Photo Date: 9/12/2024	
Description: Representative photo of the Project Study Area near structure 768, facing southwest.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 27. **Photo Date:** 9/12/2024 **Description:** Representative photo of the Project Study Area west of North Davis Road, facing north.	

Photo No. 28. **Photo Date:** 9/12/2024 **Description:** Representative photo of the Project Study Area west of North Davis Road, facing south.	

Client Name:	Site Location:	Project No.
FirstEnergy	Mifflin Township in Richland County and the City of Ashland and Milton, Mifflin, and Montgomery Townships in Ashland County, Ohio	550808.0021.0000

Photo No. 29.	
Photo Date: 9/12/2024	
Description: Representative photo of the Project Study Area north of Township Road 1706, facing east.	

Photo No. 30.	
Photo Date: 9/12/2024	
Description: Representative photo of the Project Study Area north of Township Road 1706, facing south.	

ATTACHMENT C – Data Sheets

USACE Wetland Determination Data Forms – Northcentral Northeast Region

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brookside- Madison ROW Assurance Project City/County: Mifflin Township, Richland County Sampling Date: 2024-9-11
Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-01_PEM-1
Investigator(s): Erin Van Nort, Jenna Slabe Section, Township, Range: 08 23N 17W
Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): None Slope (%): 1 to 3
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 40.7862109 Long: -82.4210105833 Datum: WGS84
Soil Map Unit Name: Wooster silt loam, 12 to 18 percent slopes, moderately eroded NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No _____ (If no, explain in Remarks.)
Are Vegetation _____ , Soil _____ , or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No _____
Are Vegetation _____ , Soil _____ , or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✘ No _____
Hydric Soil Present? Yes ✘ No _____
Wetland Hydrology Present? Yes ✘ No _____

Is the Sampled Area within a Wetland? Yes ✘ No _____
If yes, optional Wetland Site ID: W-EVN-01

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is PEM. Based on the presence of all three parameters, this area is a wetland.

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)

- ✘ Surface Water (A1)
- ✘ High Water Table (A2)
- ✘ Saturation (A3)
- _____ Water Marks (B1)
- _____ Sediment Deposits (B2)
- _____ Drift Deposits (B3)
- _____ Algal Mat or Crust (B4)
- _____ Iron Deposits (B5)
- _____ Inundation Visible on Aerial Imagery (B7)
- _____ Sparsely Vegetated Concave Surface (B8)
- _____ Water-Stained Leaves (B9)
- _____ Aquatic Fauna (B13)
- _____ Marl Deposits (B15)
- _____ Hydrogen Sulfide Odor (C1)
- ✘ Oxidized Rhizospheres along Living Roots (C3)
- _____ Presence of Reduced Iron (C4)
- _____ Recent Iron Reduction in Tilled Soils (C6)
- _____ Thin Muck Surface (C7)
- _____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- _____ Surface Soil Cracks (B6)
- ✘ Drainage Patterns (B10)
- _____ Moss Trim Lines (B16)
- _____ Dry-Season Water Table (C2)
- _____ Crayfish Burrows (C8)
- _____ Saturation Visible on Aerial Imagery (C9)
- _____ Stunted or Stressed Plants (D1)
- ✘ Geomorphic Position (D2)
- _____ Shallow Aquitard (D3)
- _____ Microtopographic Relief (D4)
- ✘ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ✘ No _____ Depth (inches): 1
Water Table Present? Yes ✘ No _____ Depth (inches): 0
Saturation Present? (includes capillary fringe) Yes ✘ No _____ Depth (inches): 0

Wetland Hydrology Present? Yes ✘ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is met.

VEGETATION ─ Use scientific names of plants. Sampling Point: W-EVN-01_PEM-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	65	Yes	FACW
2. *Persicaria perfoliata*	15	No	FAC
3. *Impatiens capensis*	10	No	FACW
4. *Onoclea sensibilis*	10	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		215 (B)

Prevalence Index = B/A = 2.2

Hydrophytic Vegetation Indicators:

✘ 1 - Rapid Test for Hydrophytic Vegetation

✘ 2 - Dominance Test is >50%

✘ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree ─ Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub ─ Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb ─ All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines ─ All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ✘ **No** __

Remarks: (Include photo numbers here or on a separate sheet.)

The criterion for hydrophytic vegetation is met.

SOIL Sampling Point: W-EVN-01_PEM-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 4	10YR 3/2	85	10YR 6/6	15	C	PL	Silty Clay Loam	
4 to 20	N 4/	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ✘ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✘ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: Not present
Depth (inches): ___

Hydric Soil Present? Yes ✘ **No** ___

Remarks:
The criterion for hydric soil is met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brookside- Madison ROW Assurance Project City/County: Mifflin Township, Richland County Sampling Date: 2024-9-11
Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-01_UPL-1
Investigator(s): Erin Van Nort, Jenna Slabe Section, Township, Range: 08 23N 17W
Landform (hillslope, terrace, etc): Mid slope Local relief (concave, convex, none): None Slope (%): 1 to 3
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 40.78619345 Long: -82.4209069833 Datum: WGS84
Soil Map Unit Name: Wooster silt loam, 12 to 18 percent slopes, moderately eroded NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No _____ (If no, explain in Remarks.)
Are Vegetation _____ , Soil _____ , or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No _____
Are Vegetation _____ , Soil _____ , or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No ✘
Hydric Soil Present? Yes _____ No ✘
Wetland Hydrology Present? Yes _____ No ✘

Is the Sampled Area within a Wetland? **Yes** _____ **No** ✘

If yes, optional Wetland Site ID: W-EVN-01

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is UPL. Based on the absence of all three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres along Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ Microtopographic Relief (D4)
- __ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes _____ No ✘ Depth (inches): _____
Water Table Present? Yes _____ No ✘ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No ✘ Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** ✘

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is not met.

VEGETATION ─ Use scientific names of plants. Sampling Point: W-EVN-01_UPL-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Poa annua*	30	Yes	FACU
2. *Symphyotrichum ericoides*	20	Yes	FACU
3. *Solidago altissima*	15	Yes	FACU
4. *Solidago canadensis*	15	Yes	FACU
5. *Vernonia gigantea*	15	Yes	FAC
6. *Daucus carota*	5	No	UPL
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	80	x 4 =	320
UPL species	5	x 5 =	25
Column Totals:	100 (A)		390 (B)

Prevalence Index = B/A = 3.9

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree ─ Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub ─ Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb ─ All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines ─ All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** ✘

Remarks: (Include photo numbers here or on a separate sheet.)

The criterion for hydrophytic vegetation is not met.

SOIL Sampling Point: W-EVN-01_UPL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 10	10YR 4/3	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7) **(LRR R, MLRA 149B)**
- __ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- __ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- __ Loamy Mucky Mineral (F1) **(LRR K, L)**
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- __ Coast Prairie Redox (A16) **(LRR K, L, R)**
- __ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- __ Dark Surface (S7) **(LRR K, L)**
- __ Polyvalue Below Surface (S8) **(LRR K, L)**
- __ Thin Dark Surface (S9) **(LRR K, L)**
- __ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- __ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- __ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Fill

Depth (inches): 10

Hydric Soil Present? Yes ____ **No** ✘

Remarks:

The criterion for hydric soil is not met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brookside- Madison ROW Assurance Project City/County: Ashland, Ashland County Sampling Date: 2024-9-12
Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-02_PEM-1
Investigator(s): Erin Van Nort, Jenna Slabe Section, Township, Range: 29 22N 16W
Landform (hillslope, terrace, etc): Valley Local relief (concave, convex, none): Undulating Slope (%): 1 to 3
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 40.841926 Long: -82.30767855 Datum: WGS84
Soil Map Unit Name: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded NWI Classification: Riverine
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No ____ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✘ No ____
Hydric Soil Present? Yes ✘ No ____
Wetland Hydrology Present? Yes ✘ No ____

Is the Sampled Area within a Wetland? Yes ✘ No ____
If yes, optional Wetland Site ID: W-EVN-02

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is PEM. Based on the presence of all three parameters, this area is a wetland.

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)

- ✘ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ✘ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ✘ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✘ Microtopographic Relief (D4)
- ✘ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ✘ No ____ Depth (inches): 1
Water Table Present? Yes ____ No ✘ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No ✘ Depth (inches): ____

Wetland Hydrology Present? Yes ✘ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is met.

VEGETATION ─ Use scientific names of plants. Sampling Point: W-EVN-02_PEM-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 ft radius)				
1.	*Phalaris arundinacea*	60	Yes	FACW
2.	*Impatiens capensis*	20	Yes	FACW
3.	*Leersia oryzoides*	10	No	OBL
4.	*Euthamia graminifolia*	10	No	FAC
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		100	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	80	x 2 =	160
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

✘ 1 - Rapid Test for Hydrophytic Vegetation

✘ 2 - Dominance Test is >50%

✘ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree ─ Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub ─ Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb ─ All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines ─ All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ✘ **No** __

Remarks: (Include photo numbers here or on a separate sheet.)

The criterion for hydrophytic vegetation is met.

SOIL Sampling Point: W-EVN-02_PEM-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 18	10YR 5/1	90	10YR 4/6	10	C	PL	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ✘ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Not present

Depth (inches): ___

Hydric Soil Present? Yes ✘ **No** ___

Remarks:

The criterion for hydric soil is met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brookside- Madison ROW Assurance Project City/County: Ashland, Ashland County Sampling Date: 2024-9-12
Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-02_UPL-1
Investigator(s): Erin Van Nort, Jenna Slabe Section, Township, Range: 29 22N 16W
Landform (hillslope, terrace, etc): Toe Local relief (concave, convex, none): None Slope (%): 1 to 3
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 40.84198405 Long: -82.3076082167 Datum: WGS84
Soil Map Unit Name: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded NWI Classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No ____ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No ✘
Hydric Soil Present? Yes ____ No ✘
Wetland Hydrology Present? Yes ____ No ✘

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✘

If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is UPL. Based on the absence of all three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No ✘ Depth (inches): ____
Water Table Present? Yes ____ No ✘ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No ✘ Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** ✘

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is not met.

VEGETATION – Use scientific names of plants. Sampling Point: W-EVN-02_UPL-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Rosa multiflora*	25	Yes	FACU
2. *Rubus allegheniensis*	15	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Solidago canadensis*	15	Yes	FACU
2. *Solidago altissima*	10	Yes	FACU
3. *Symphyotrichum ericoides*	10	Yes	FACU
4. *Agrostis perennans*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	80 (A)		320 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** ✘

Remarks: (Include photo numbers here or on a separate sheet.)

The criterion for hydrophytic vegetation is not met.

SOIL Sampling Point: W-EVN-02_UPL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 4	10YR 4/3	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7) **(LRR R, MLRA 149B)**
- __ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- __ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- __ Loamy Mucky Mineral (F1) **(LRR K, L)**
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- __ Coast Prairie Redox (A16) **(LRR K, L, R)**
- __ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- __ Dark Surface (S7) **(LRR K, L)**
- __ Polyvalue Below Surface (S8) **(LRR K, L)**
- __ Thin Dark Surface (S9) **(LRR K, L)**
- __ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- __ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- __ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Gravel

Depth (inches): 4

Hydric Soil Present? Yes ____ **No** ✘

Remarks:

The criterion for hydric soil is not met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brookside- Madison ROW Assurance Project City/County: Ashland, Ashland County Sampling Date: 2024-9-12
Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-03_PEM-1
Investigator(s): Erin Van Nort, Jenna Slabe Section, Township, Range: 29 22N 16W
Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): None Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 40.839988 Long: -82.311153 Datum: WGS84
Soil Map Unit Name: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No ____ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✘ No ____
Hydric Soil Present? Yes ✘ No ____
Wetland Hydrology Present? Yes ✘ No ____

Is the Sampled Area within a Wetland? Yes ✘ No ____

If yes, optional Wetland Site ID: W-EVN-03

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is PEM. Based on the presence of all three parameters, this area is a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ✘ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✘ Microtopographic Relief (D4)
- ✘ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✘ Depth (inches): ____
Water Table Present? Yes ____ No ✘ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No ✘ Depth (inches): ____

Wetland Hydrology Present? Yes ✘ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is met.

VEGETATION – Use scientific names of plants. Sampling Point: W-EVN-03_PEM-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Glyceria striata*	20	Yes	OBL
2. *Apocynum cannabinum*	15	Yes	FAC
3. *Carex lupuliformis*	15	Yes	OBL
4. *Carex scoparia*	15	Yes	FACW
5. *Juncus effusus*	15	Yes	OBL
6. *Phalaris arundinacea*	15	Yes	FACW
7. *Scirpus atrovirens*	5	No	OBL
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	30	x 2 =	60
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		160 (B)

Prevalence Index = B/A = 1.6

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

✘ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ✘ **No** __

Remarks: (Include photo numbers here or on a separate sheet.)

The criterion for hydrophytic vegetation is met.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 10	10YR 4/1	85	10YR 4/6	15	C	PL	Silty Clay Loam	
10 to 20	10YR 7/1	65	10YR 5/8	35	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ✘ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: Not present
Depth (inches): ___

Hydric Soil Present? Yes ✘ **No** ___

Remarks:
The criterion for hydric soil is met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Brookside- Madison ROW Assurance Project City/County: Ashland, Ashland County Sampling Date: 2024-9-12
Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-03_UPL-1
Investigator(s): Erin Van Nort, Jenna Slabe Section, Township, Range: 29 22N 16W
Landform (hillslope, terrace, etc): Mid slope Local relief (concave, convex, none): None Slope (%): 1 to 3
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 40.839928 Long: -82.311181 Datum: WGS84
Soil Map Unit Name: Wooster silt loam, 12 to 18 percent slopes, eroded NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No _____ (If no, explain in Remarks.)
Are Vegetation _____ , Soil _____ , or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No _____
Are Vegetation _____ , Soil _____ , or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No ✘
Hydric Soil Present? Yes _____ No ✘
Wetland Hydrology Present? Yes _____ No ✘

Is the Sampled Area within a Wetland? Yes _____ No ✘

If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is UPL. Based on the absence of all three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres along Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ Microtopographic Relief (D4)
- __ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes _____ No ✘ Depth (inches): _____
Water Table Present? Yes _____ No ✘ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No ✘ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✘

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is not met.

VEGETATION – Use scientific names of plants. Sampling Point: W-EVN-03_UPL-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Agrostis perennans*	45	Yes	FACU
2. *Symphyotrichum ericoides*	25	Yes	FACU
3. *Plantago lanceolata*	10	No	FACU
4. *Solidago altissima*	10	No	FACU
5. *Trifolium repens*	10	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** ✘

Remarks: (Include photo numbers here or on a separate sheet.)

The criterion for hydrophytic vegetation is not met.

SOIL Sampling Point: W-EVN-03_UPL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 12	10YR 6/4	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7) **(LRR R, MLRA 149B)**
- __ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- __ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- __ Loamy Mucky Mineral (F1) **(LRR K, L)**
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- __ Coast Prairie Redox (A16) **(LRR K, L, R)**
- __ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- __ Dark Surface (S7) **(LRR K, L)**
- __ Polyvalue Below Surface (S8) **(LRR K, L)**
- __ Thin Dark Surface (S9) **(LRR K, L)**
- __ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- __ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- __ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Fill

Depth (inches): 12

Hydric Soil Present? Yes ____ **No** ✘

Remarks:

The criterion for hydric soil is not met.

USACE Wetland Determination Data Form – Midwest Region

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Brookside- Madison ROW Assurance Project City/County: Ashland, Ashland County Sampling Date: 2024-9-12
Applicant/Owner: FirstEnergy State: OH Sampling Point: ROP-EVN-01
Investigator(s): Erin Van Nort, Jenna Slabe Section, Township, Range: 16 22N 16W
Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): None
Slope (%): 0 to 1 Lat: 40.869213 Long: -82.29243 Datum: WGS84
Soil Map Unit Name: Rittman silt loam, 2 to 6 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No ____ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✘ No ____
Hydric Soil Present? Yes ____ No ✘
Wetland Hydrology Present? Yes ____ No ✘

Is the Sampled Area within a Wetland? Yes ____ No ✘

Remarks:
Covertype is UPL. Based on the absence of two of three parameters, this area is an upland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	70	Yes	FACW
2. *Solidago canadensis*	15	No	FACU
3. *Solidago altissima*	10	No	FACU
4. *Cirsium vulgare*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	100 (A)		260 (B)

Prevalence Index = B/A = 2.6

Hydrophytic Vegetation Indicators:
✘ 1 - Rapid Test for Hydrophytic Vegetation
✘ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✘ No ____

Remarks:
The criterion for hydrophytic vegetation is met.

SOIL

Sampling Point: ROP-EVN-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 12	10YR 6/4	100					Sandy Clay Loam	
12 to 20	10YR 7/2	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ 5 cm Muck Peat or Peat (S3)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ Coast Prairie Redox (A16)
- __ Dark Surface (S7)
- __ Iron-Manganese Masses (F12)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Not present

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** ✘

Remarks:

The criterion for hydric soil is not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ True Aquatic Plants (B14)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres along Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Gauge or Well Data (D9)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- ✘ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✘ Depth (inches): _____

Water Table Present? Yes _____ No ✘ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✘ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** ✘

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The criterion for wetland hydrology is not met.

OEPA ORAM Data Forms

Site: FirstEnergy, Brookside-Madison ROW Assurance Project	**Rater(s):** Erin Van Nort, Jenna Slabe	**Date:** 2024-09-11

Metric 1. Wetland Area (size).

1 (max 6 pts.) | 1 (subtotal)

Select one size class and assign score.

- [ ] >50 acres (>20.2ha) (6 pts)
- [ ] 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- [ ] 10 to <25 acres (4 to <10.1ha) (4 pts)
- [ ] 3 to <10 acres (1.2 to <4ha) (3 pts)
- [ ] 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- [x] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- [ ] <0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

5 (max 14 pts.) | 6 (subtotal)

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- [ ] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- [ ] MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- [x] NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- [ ] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- [ ] VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- [x] LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- [x] MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- [ ] HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

11 (max 30 pts.) | 17 (subtotal)

3a. Sources of Water. Score all that apply.

- [ ] High pH groundwater (5)
- [ ] Other groundwater (3)
- [x] Precipitation (1)
- [ ] Seasonal/Intermittent surface water (3)
- [ ] Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- [ ] 100 year floodplain (1)
- [ ] Between stream/lake and other human use (1)
- [x] Part of wetland/upland (e.g. forest), complex (1)
- [ ] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- [ ] >0.7 m (>27.6 in) (3)
- [ ] 0.4 to 0.7 m (15.7 to 27.6 in) (2)
- [x] <0.4 m (<15.7 in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- [ ] Semi- to permanently inundated/saturated (4)
- [x] Regularly inundated/saturated (3)
- [ ] Seasonally inundated (2)
- [ ] Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

[x]	ditch	[ ]	point source (nonstormwater)
[ ]	tile	[ ]	filling/grading
[ ]	dike	[x]	road bed/RR track
[ ]	weir	[ ]	dredging
[ ]	stormwater input	[ ]	other

Metric 4. Habitat Alteration and Development.

10 (max 20 pts.) | 27 (subtotal)

4a. Substrate disturbance. Score one or double check and average.

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [x] Recovering (2)
- [ ] Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [x] Fair (3)
- [ ] Poor to fair (2)
- [ ] Poor (1)

4c. Habitat alteration. Score one or double check and average.

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

[x]	mowing	[x]	shrub/sapling removal
[ ]	grazing	[ ]	herbaceous/aquatic bed removal
[ ]	clearcutting	[ ]	sedimentation
[ ]	selective cutting	[ ]	dredging
[ ]	woody debris removal	[ ]	farming
[ ]	toxic pollutants	[ ]	nutrient enrichment

27 (subtotal this page)

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Site: FirstEnergy, Brookside-Madison ROW Assurance Project	**Rater(s):** Erin Van Nort, Jenna Slabe	**Date:** 2024-09-11

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subtotal first page

Metric 5. Special Wetlands.

0 max 10 pts. | 27 subtotal

Check all that apply and score as indicated.

- [ ] Bog (10)
- [ ] Fen (10)
- [ ] Old growth forest (10)
- [ ] Mature forested wetland (5)
- [ ] Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- [ ] Lake Erie coastal/tributary wetland-restricted hydrology (5)
- [ ] Lake Plain Sand Prairies (Oak Openings) (10)
- [ ] Relict Wet Prairies (10)
- [ ] Known occurrence state/federal threatened or endangered species (10)
- [ ] Significant migratory songbird/water fowl habitat or usage (10)
- [ ] Category 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersion, microtopography.

1 max 20 pts. | 28 subtotal

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [ ] Aquatic Bed
- [1] Emergent
- [0] Shrub
- [ ] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other _____

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [ ] Moderately high (4)
- [ ] Moderate (3)
- [x] Moderately low (2)
- [ ] Low (1)
- [ ] None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- [ ] Extensive >75% cover (-5)
- [x] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [0] Vegetated hummucks/tussucks
- [1] Coarse woody debris >15cm (6in)
- [0] Standing dead >25cm (10in) dbh
- [0] Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

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CATEGORY 1

End of Quantitative Rating. Complete Categorization Worksheets.

Site: FirstEnergy, Brookside-Madison ROW Assurance Project	**Rater(s):** Erin Van Nort, Jenna Slabe	**Date:** 2024-09-12

Metric 1. Wetland Area (size).

2 (max 6 pts.) | 2 (subtotal)

Select one size class and assign score.

- [ ] >50 acres (>20.2ha) (6 pts)
- [ ] 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- [ ] 10 to <25 acres (4 to <10.1ha) (4 pts)
- [ ] 3 to <10 acres (1.2 to <4ha) (3 pts)
- [x] 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- [ ] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- [ ] <0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

12 (max 14 pts.) | 14 (subtotal)

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- [x] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- [ ] MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- [ ] NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- [ ] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- [ ] VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- [x] LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- [ ] MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- [ ] HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

15 (max 30 pts.) | 29 (subtotal)

3a. Sources of Water. Score all that apply.

- [ ] High pH groundwater (5)
- [ ] Other groundwater (3)
- [x] Precipitation (1)
- [x] Seasonal/Intermittent surface water (3)
- [ ] Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- [ ] 100 year floodplain (1)
- [x] Between stream/lake and other human use (1)
- [x] Part of wetland/upland (e.g. forest), complex (1)
- [ ] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- [ ] >0.7 m (>27.6 in) (3)
- [ ] 0.4 to 0.7 m (15.7 to 27.6 in) (2)
- [x] <0.4 m (<15.7 in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- [ ] Semi- to permanently inundated/saturated (4)
- [x] Regularly inundated/saturated (3)
- [ ] Seasonally inundated (2)
- [ ] Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

[ ] ditch	[ ] point source (nonstormwater)
[ ] tile	[x] filling/grading
[ ] dike	[ ] road bed/RR track
[ ] weir	[ ] dredging
[ ] stormwater input	[ ] other

Metric 4. Habitat Alteration and Development.

10 (max 20 pts.) | 39 (subtotal)

4a. Substrate disturbance. Score one or double check and average.

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [x] Recovering (2)
- [ ] Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [x] Fair (3)
- [ ] Poor to fair (2)
- [ ] Poor (1)

4c. Habitat alteration. Score one or double check and average.

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

[ ] mowing	[x] shrub/sapling removal
[ ] grazing	[ ] herbaceous/aquatic bed removal
[x] clearcutting	[ ] sedimentation
[ ] selective cutting	[ ] dredging
[ ] woody debris removal	[ ] farming
[ ] toxic pollutants	[ ] nutrient enrichment

39 subtotal this page

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Site: FirstEnergy, Brookside-Madison ROW Assurance Project	**Rater(s):** Erin Van Nort, Jenna Slabe	**Date:** 2024-09-12

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subtotal first page

0 (max 10 pts.) | 39 (subtotal)

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- [ ] Bog (10)
- [ ] Fen (10)
- [ ] Old growth forest (10)
- [ ] Mature forested wetland (5)
- [ ] Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- [ ] Lake Erie coastal/tributary wetland-restricted hydrology (5)
- [ ] Lake Plain Sand Prairies (Oak Openings) (10)
- [ ] Relict Wet Prairies (10)
- [ ] Known occurrence state/federal threatened or endangered species (10)
- [ ] Significant migratory songbird/water fowl habitat or usage (10)
- [ ] Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2 (max 20 pts.) | 37 (subtotal)

Metric 6. Plant communities, interspersion, microtopography.

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [ ] Aquatic Bed
- [1] Emergent
- [0] Shrub
- [ ] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other _____

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [ ] Moderately high (4)
- [ ] Moderate (3)
- [ ] Moderately low (2)
- [x] Low (1)
- [ ] None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- [x] Extensive >75% cover (-5)
- [ ] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [0] Vegetated hummucks/tussucks
- [1] Coarse woody debris >15cm (6in)
- [0] Standing dead >25cm (10in) dbh
- [0] Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

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CATEGORY 2

End of Quantitative Rating. Complete Categorization Worksheets.

Site: FirstEnergy, Brookside-Madison ROW Assurance Project	**Rater(s):** Erin Van Nort, Jenna Slabe	**Date:** 2024-09-12

Metric 1. Wetland Area (size).

1 (max 6 pts.) | 1 (subtotal)

Select one size class and assign score.

- [ ] >50 acres (>20.2ha) (6 pts)
- [ ] 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- [ ] 10 to <25 acres (4 to <10.1ha) (4 pts)
- [ ] 3 to <10 acres (1.2 to <4ha) (3 pts)
- [ ] 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- [x] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- [ ] <0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

4 (max 14 pts.) | 5 (subtotal)

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- [ ] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- [ ] MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- [x] NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- [ ] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- [ ] VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- [ ] LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- [x] MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- [ ] HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

9 (max 30 pts.) | 14 (subtotal)

3a. Sources of Water. Score all that apply.

- [ ] High pH groundwater (5)
- [ ] Other groundwater (3)
- [x] Precipitation (1)
- [ ] Seasonal/Intermittent surface water (3)
- [ ] Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- [ ] 100 year floodplain (1)
- [ ] Between stream/lake and other human use (1)
- [x] Part of wetland/upland (e.g. forest), complex (1)
- [ ] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- [ ] >0.7 m (>27.6 in) (3)
- [ ] 0.4 to 0.7 m (15.7 to 27.6 in) (2)
- [x] <0.4 m (<15.7 in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- [ ] Semi- to permanently inundated/saturated (4)
- [ ] Regularly inundated/saturated (3)
- [ ] Seasonally inundated (2)
- [x] Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

[x]	ditch	[ ]	point source (nonstormwater)
[ ]	tile	[x]	filling/grading
[ ]	dike	[ ]	road bed/RR track
[ ]	weir	[ ]	dredging
[ ]	stormwater input	[ ]	other

Metric 4. Habitat Alteration and Development.

9 (max 20 pts.) | 23 (subtotal)

4a. Substrate disturbance. Score one or double check and average.

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [x] Recovering (2)
- [ ] Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [ ] Fair (3)
- [x] Poor to fair (2)
- [ ] Poor (1)

4c. Habitat alteration. Score one or double check and average.

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

[x]	mowing	[x]	shrub/sapling removal
[ ]	grazing	[ ]	herbaceous/aquatic bed removal
[ ]	clearcutting	[ ]	sedimentation
[ ]	selective cutting	[ ]	dredging
[ ]	woody debris removal	[ ]	farming
[ ]	toxic pollutants	[ ]	nutrient enrichment

23 (subtotal this page)

TRC Environmental Corp.
1200 Wall Street West
Lyndhurst, NJ 07071

Site: FirstEnergy, Brookside-Madison ROW Assurance Project	**Rater(s):** Erin Van Nort, Jenna Slabe	**Date:** 2024-09-12

23
subtotal first page

0 (max 10 pts.) | 23 (subtotal)

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- [ ] Bog (10)
- [ ] Fen (10)
- [ ] Old growth forest (10)
- [ ] Mature forested wetland (5)
- [ ] Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- [ ] Lake Erie coastal/tributary wetland-restricted hydrology (5)
- [ ] Lake Plain Sand Prairies (Oak Openings) (10)
- [ ] Relict Wet Prairies (10)
- [ ] Known occurrence state/federal threatened or endangered species (10)
- [ ] Significant migratory songbird/water fowl habitat or usage (10)
- [ ] Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2 (max 20 pts.) | 21 (subtotal)

Metric 6. Plant communities, interspersion, microtopography.

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [ ] Aquatic Bed
- [1] Emergent
- [ ] Shrub
- [ ] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other _____

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [ ] Moderately high (4)
- [ ] Moderate (3)
- [ ] Moderately low (2)
- [ ] Low (1)
- [x] None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- [ ] Extensive >75% cover (-5)
- [x] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [0] Vegetated hummucks/tussucks
- [0] Coarse woody debris >15cm (6in)
- [0] Standing dead >25cm (10in) dbh
- [0] Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

21

CATEGORY 1

End of Quantitative Rating. Complete Categorization Worksheets.

OEPA QHEI Data Form

Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score: 61.5

Stream & Location: S-EVN-1 (Jamison Creek) **RM:** 3.20 **Date:** 9/12/2024

FirstEnergy, Brookside-Madison ROW Assurance Project **Scorers Full Name & Affiliation:** E. Van Nort & J. Slabe, TRC

River Code: **STORET #:** **Lat./Long.:** (NAD 83 - decimal) 40.840977 / -82.309456 **Office verified location** ☒

1] SUBSTRATE

Check ***ONLY* Two** substrate *TYPE BOXES*; estimate % or note every type present

Check ONE (*Or 2 & average*)

BEST TYPES	POOL	RIFFLE	OTHER TYPES	POOL	RIFFLE	ORIGIN	QUALITY
☐ ☐ BLDR /SLABS [10]			☐ ☐ HARDPAN [4]			☐ LIMESTONE [1]	☐ HEAVY [-2]
☐ ☐ BOULDER [9]	10		☐ ☐ DETRITUS [3]			☒ TILLS [1]	☐ MODERATE [-1]
☐ ☒ COBBLE [8]	30		☐ ☐ MUCK [2]	5		☐ WETLANDS [0]	☒ NORMAL [0]
☒ ☐ GRAVEL [7]	45		☐ ☐ SILT [2]			☐ HARDPAN [0]	☐ FREE [1]
☐ ☐ SAND [6]			☐ ☐ ARTIFICIAL [0]			☐ SANDSTONE [0]	SILT / EMBEDDEDNESS ☐ EXTENSIVE [-2]
☐ ☐ BEDROCK [5]						☐ RIP/RAP [0]	☐ MODERATE [-1]
						☐ LACUSTURINE [0]	☒ NORMAL [0]
						☐ SHALE [-1]	☐ NONE [1]
						☐ COAL FINES [-2]	

(Score natural substrates; ignore sludge from point-sources)

NUMBER OF BEST TYPES: ☐ 4 or more [2] ☒ 3 or less [0]

Comments

Substrate 16 *Maximum 20*

2] INSTREAM COVER

Indicate presence 0 to 3: **0**-Absent; **1**-Very small amounts or if more common of marginal quality; **2**-Moderate amounts, but not of highest quality or in small amounts of highest quality; **3**-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

1	UNDERCUT BANKS [1]	1	POOLS > 70cm [2]	0	OXBOWS, BACKWATERS [1]
2	OVERHANGING VEGETATION [1]	0	ROOTWADS [1]	1	AQUATIC MACROPHYTES [1]
0	SHALLOWS (IN SLOW WATER) [1]	1	BOULDERS [1]	2	LOGS OR WOODY DEBRIS [1]
0	ROOTMATS [1]				

AMOUNT

Check ONE (*Or 2 & average*)

☐ EXTENSIVE >75% [11]
☒ MODERATE 25-75% [7]
☐ SPARSE 5-<25% [3]
☐ NEARLY ABSENT <5% [1]

Comments

Cover *Maximum 20* 14

3] CHANNEL MORPHOLOGY

Check ONE in each category (*Or 2 & average*)

SINUOSITY	DEVELOPMENT	CHANNELIZATION	STABILITY
☐ HIGH [4]	☐ EXCELLENT [7]	☐ NONE [6]	☐ HIGH [3]
☒ MODERATE [3]	☒ GOOD [5]	☒ RECOVERED [4]	☐ MODERATE [2]
☐ LOW [2]	☐ FAIR [3]	☐ RECOVERING [3]	☒ LOW [1]
☐ NONE [1]	☐ POOR [1]	☐ RECENT OR NO RECOVERY [1]	

Comments

Channel *Maximum 20* 13

4] BANK EROSION AND RIPARIAN ZONE

Check **ONE** in each category for ***EACH BANK*** (*Or 2 per bank & average*)

River right looking downstream

EROSION L	EROSION R	RIPARIAN WIDTH L	RIPARIAN WIDTH R	FLOOD PLAIN QUALITY L	FLOOD PLAIN QUALITY R
☐ NONE / LITTLE [3]	☐ NONE / LITTLE [3]	☐ WIDE > 50m [4]	☐ WIDE > 50m [4]	☒ FOREST, SWAMP [3]	☐ CONSERVATION TILLAGE [1]
☒ MODERATE [2]	☒ MODERATE [2]	☒ MODERATE 10-50m [3]	☒ MODERATE 10-50m [3]	☒ SHRUB OR OLD FIELD [2]	☐ URBAN OR INDUSTRIAL [0]
☐ HEAVY / SEVERE [1]	☒ HEAVY / SEVERE [1]	☐ NARROW 5-10m [2]	☒ NARROW 5-10m [2]	☐ RESIDENTIAL, PARK, NEW FIELD [1]	☐ MINING / CONSTRUCTION [0]
		☐ VERY NARROW < 5m [1]	☐ VERY NARROW < 5m [1]	☐ FENCED PASTURE [1]	
		☐ NONE [0]	☐ NONE [0]	☐ OPEN PASTURE, ROWCROP [0]	

Indicate predominant land use(s) past 100m riparian.

Comments

Riparian *Maximum 10* 6.5

5] POOL / GLIDE AND RIFFLE / RUN QUALITY

MAXIMUM DEPTH (Check **ONE** (*ONLY!*))

☐ > 1m [6]
☐ 0.7-<1m [4]
☒ 0.4-<0.7m [2]
☐ 0.2-<0.4m [1]
☐ < 0.2m [0]

CHANNEL WIDTH (Check ONE (*Or 2 & average*))

☒ POOL WIDTH > RIFFLE WIDTH [2]
☐ POOL WIDTH = RIFFLE WIDTH [1]
☐ POOL WIDTH < RIFFLE WIDTH [0]

CURRENT VELOCITY (Check ALL that apply)

☐ TORRENTIAL [-1]
☐ VERY FAST [1]
☐ FAST [1]
☐ MODERATE [1]
☒ SLOW [1]
☒ INTERSTITIAL [-1]
☐ INTERMITTENT [-2]
☐ EDDIES [1]

Indicate for reach - pools and riffles.

Recreation Potential
Primary Contact
Secondary Contact
(circle one and comment on back)

Comments

Pool / Current *Maximum 12* 4

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (*Or 2 & average*). ☐ NO RIFFLE [metric=0]

RIFFLE DEPTH	RUN DEPTH	RIFFLE / RUN SUBSTRATE	RIFFLE / RUN EMBEDDEDNESS
☐ BEST AREAS > 10cm [2]	☐ MAXIMUM > 50cm [2]	☐ STABLE (e.g., Cobble, Boulder) [2]	☐ NONE [2]
☒ BEST AREAS 5-10cm [1]	☒ MAXIMUM < 50cm [1]	☒ MOD. STABLE (e.g., Large Gravel) [1]	☒ LOW [1]
☐ BEST AREAS < 5cm [metric=0]		☐ UNSTABLE (e.g., Fine Gravel, Sand) [0]	☐ MODERATE [0]
			☐ EXTENSIVE [-1]

Comments

Riffle / Run *Maximum 8* 4

6] GRADIENT

(67 ft/mi)

DRAINAGE AREA
(2.48 mi²)

☒ VERY LOW - LOW [2-4]
☐ MODERATE [6-10]
☐ HIGH - VERY HIGH [10-6]

%POOL: 10 **%GLIDE:**
%RUN: 85 **%RIFFLE:** 5

Gradient *Maximum 10* 4

A] SAMPLED REACH

Check ALL that apply

METHOD

- ☐ BOAT
- ☒ WADE
- ☐ L. LINE
- ☐ OTHER

STAGE

1st -sample pass-	2nd
☐ HIGH	☐
☐ UP	☐
☒ NORMAL	☐
☐ LOW	☐
☐ DRY	☐

DISTANCE

- ☐ 0.5 Km
- ☐ 0.2 Km
- ☐ 0.15 Km
- ☐ 0.12 Km
- ☒ OTHER

0.6 meters

CLARITY

1st --sample pass--	2nd
☐ < 20 cm	☐
☐ 20-<40 cm	☐
☐ 40-70 cm	☐
☐ > 70 cm/ CTB	☐
☐ SECCHI DEPTH	☐

CANOPY

- ☒ > 85%- OPEN
- ☐ 55%-<85%
- ☐ 30%-<55%
- ☐ 10%-<30%
- ☐ <10%- CLOSED

1st pass _____ cm

2nd pass _____ cm

Comment RE: Reach consistency/ Is reach typical of steam?, *Recreation/* Observed - Inferred, *Other/* Sampling observations, Concerns, Access directions, etc.

Recreation Primary Contact - flows through residential area

Temp: 8.5 C

pH: 7.75

B] AESTHETICS

- ☐ NUISANCE ALGAE
- ☐ INVASIVE MACROPHYTES
- ☐ EXCESS TURBIDITY
- ☐ DISCOLORATION
- ☐ FOAM / SCUM
- ☐ OIL SHEEN
- ☐ TRASH / LITTER
- ☐ NUISANCE ODOR
- ☐ SLUDGE DEPOSITS
- ☐ CSOs/SSOs/OUTFALLS

C] RECREATION

AREA DEPTH

POOL: ☐ >100ft² ☐ >3ft

D] MAINTENANCE

Circle some & *COMMENT*

(PUBLIC) / PRIVATE / BOTH / NA
ACTIVE / HISTORIC / BOTH / NA
YOUNG-SUCCESSION-OLD
SPRAY / SNAG / REMOVED
MODIFIED / DIPPED OUT / NA
LEVEED / ONE SIDED
RELOCATED / CUTOFFS
MOVING-BEDLOAD-STABLE
ARMOURED / SLUMPS
ISLANDS / SCOURED
IMPOUNDED / DESICCATED
FLOOD CONTROL / DRAINAGE

E] ISSUES

WWTP / CSO / NPDES / INDUSTRY
HARDENED / URBAN / DIRT&GRIME
CONTAMINATED / LANDFILL
BMPs-CONSTRUCTION-SEDIMENT
LOGGING / IRRIGATION / COOLING
BANK / EROSION / SURFACE
FALSE BANK / MANURE / LAGOON
WASH H_20 / TILE / H_20 TABLE
ACID / MINE / QUARRY / FLOW
NATURAL / WETLAND / STAGNANT
PARK / GOLF / LAWN / HOME
ATMOSPHERE / DATA PAUCITY

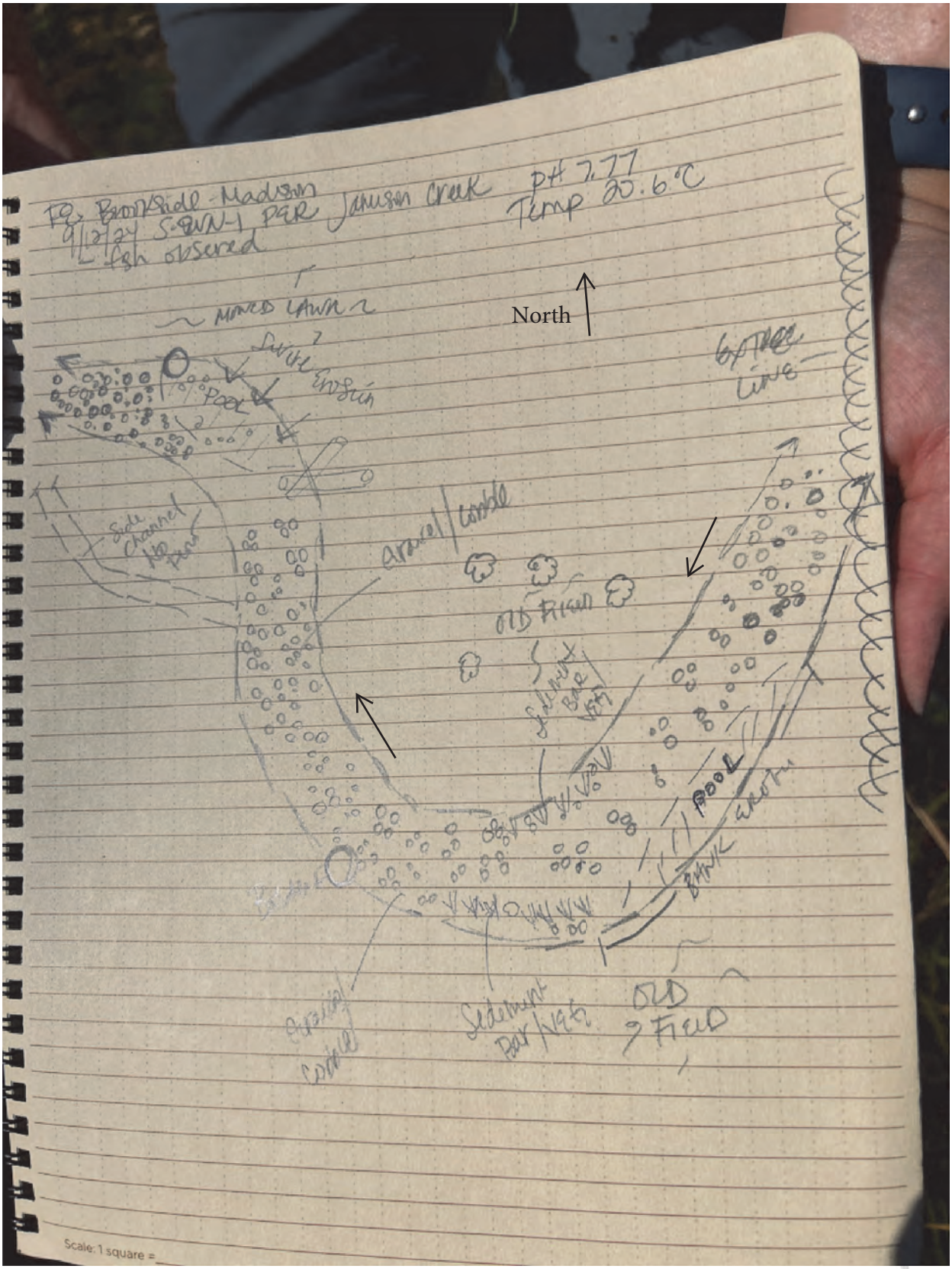
F] MEASUREMENTS

$\bar{x}$ width	4.6 meters
$\bar{x}$ depth	0.2 meter
max. depth	
$\bar{x}$ bankfull width	
bankfull $\bar{x}$ depth	
W/D ratio	
bankfull max. depth	
floodprone x^2 width	
entrench. ratio	

Legacy Tree:

Stream Drawing:

See next page


FG, Brookfield-Madison
9/2/24 S-SWN-1 PAR Jansen Creek pH 7.77
Temp 20.6°C
fish observed
North
MOWED LAWN
Pool
Riffle
Side Channel
Gravel/Cobble
OLD FIELD
Sediment Bar/Veg
Pool
Riffle
Gravel/Cobble
Sediment Bar/Veg
OLD FIELD
Scale: 1 square =

OEPA HHEI Data Form

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : **29**

SITE NAME/LOCATION S-EVN-02. FirstEnergy - Brookside-Madison ROW Assurance Project .

SITE NUMBER ____ RIVER CODE NA RIVER BASIN Muskingum River DRAINAGE AREA (mi^2) 0.161

LENGTH OF STREAM REACH (ft) 200 LAT. 40.841811 LONG. -82.307944 RIVER MILE NA

DATE 2024-09-12 SCORER EVN COMMENTS Small tributary, flowing westward through forested area and powerline ROW to Jamison Creek.

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☑ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

1. SUBSTRATE: Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate *TYPE* boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

TYPE		PERCENT	TYPE		PERCENT
☐ ☐	BLDR SLABS **[16 pts]**	____	☐ ☑	SILT **[3 pts]**	15
☐ ☐	BOULDER (>256 mm) **[16 pts]**	____	☐ ☐	LEAF PACK/WOODY DEBRIS **[3 pts]**	15
☐ ☐	BEDROCK **[16 pts]**	____	☐ ☐	FINE DETRITUS **[3 pts]**	5
☐ ☐	COBBLE (65-256 mm) **[12 pts]**	5	☐ ☐	CLAY or HARDPAN **[0 pts]**	____
☑ ☐	GRAVEL (2-64 mm) **[9 pts]**	35	☐ ☐	MUCK **[0 pts]**	15
☐ ☐	SAND (<2 mm) **[6 pts]**	10	☐ ☐	ARTIFICIAL **[3 pts]**	____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 5 **(A)**

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12

(B) **TOTAL NUMBER OF SUBSTRATE TYPES:** 7

HHEI Metric Points

Substrate Max = 40

19

A + B

2. Maximum Pool Depth ***Measure the maximum pool depth within the 61 meter (200 ft)*** evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐	> 30 centimeters **[20 pts]**	☐	> 5 cm - 10 cm **[15 pts]**
☐	> 22.5 - 30 cm **[30 pts]**	☑	< 5 cm **[5 pts]**
☐	> 10 - 22.5 cm **[25 pts]**	☐	NO WATER OR MOIST CHANNEL **[0 pts]**

COMMENTS____ **MAXIMUM POOL DEPTH (centimeters):** 0.1

Pool Depth Max = 30

5

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) **(Check *ONLY* one box):**

☐	> 4.0 meters (> 13') **[30 pts]**	☐	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") **[15 pts]**
☐	> 3.0 m - 4.0 m (> 9' 7" - 13') **[25 pts]**	☑	≤ 1.0 m (≤3' 3") **[5 pts]**
☐	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") **[20 pts]**		

COMMENTS____ **AVERAGE BANKFULL WIDTH (meters):** 0.5

Bankfull Width Max=30

5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		L	R	
☐	☐	Wide >10m	☐	☐	Mature Forest, Wetland	☐	☐	Conservation Tillage
☑	☑	Moderate 5-10m	☑	☑	Immature Forest, Shrub or Old Field	☐	☐	Urban or Industrial
☐	☐	Narrow <5m	☐	☐	Residential, Park, New Field	☐	☐	Open Pasture, Row Crop
☐	☐	None	☐	☐	Fenced Pasture	☐	☐	Mining or Construction

COMMENTS Maintained Utility ROW within study area

FLOW REGIME *(At Time of Evaluation)* (Check *ONLY* one box):

☐ Stream Flowing ☑ Moist Channel, isolated pools, no flow (Intermittent)

☐ Subsurface flow with isolated pools (Interstitial) ☐ Dry channel, no water (Ephemeral)

COMMENTS ____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

☐	None	☑	1.0	☐	2.0	☐	3.0
☐	0.5	☐	1.5	☐	2.5	☐	>3

STREAM GRADIENT ESTIMATE

☐ Flat (0.5 ft/100 ft) ☐ Flat to Moderate ☑ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? ☐ Yes ☑ No QHEI Score ____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☑ WWH Name: Jamison Creek Distance from Evaluated Stream 115 meters

☐ CWH Name: ____ Distance from Evaluated Stream ____

☐ EWH Name: ____ Distance from Evaluated Stream ____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: Ashland NRCS Soil Map Page: NA NRCS Soil Map Stream Order NA

County: Ashland Township / City: Montgomery

MISCELLANEOUS

Base Flow Conditions? (Y/N): yes Date of last precipitation: 2024-09-07 Quantity: 1.27

Photo-documentation Notes: ____

Elevated Turbidity? (Y/N): no Canopy (% open): 25

Were samples collected for water chemistry? (Y/N): no Lab Sample # or ID (attach results): _

Field Measures: Temp (°C) 23 Dissolved Oxygen (mg/l) _ pH (S.U.) 7.43 Conductivity (µmhos/cm) _

Is the sampling reach representative of the stream (Y/N) yes If not, please explain:

Additional comments/description of pollution impacts:

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) _ Species observed (if known): _

Frogs or Tadpoles Observed? (Y/N) _ Species observed (if known): _

Salamanders Observed? (Y/N) _ Species observed (if known): _

Aquatic Macroinvertebrates Observed? (Y/N) _ Species observed (if known): _

Comments Regarding Biology:

No biological survey conducted.

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

SEE PAGE 3

SKETCH OF STREAM REACH: S-EVN-02

1382 West Ninth St.
Suite 400
Cleveland, OH 44113

T 216.344.3072
TRCcompanies.com

October 10, 2024

Adrianna Stolarski
FirstEnergy Corporation
5001 Nasa Boulevard
Fairmont, WV 26554

Reference: Technical Memorandum for the Surface Water Delineation of the Longview-Madison ROW Assurance Project located in the City of Mansfield and Madison Township in Richland County, Ohio.
(TRC Project No. 550808.0022.0000)

Dear Ms. Stolarski:

On behalf of FirstEnergy Corporation (FirstEnergy), TRC Environmental Corporation (TRC) conducted a surface water delineation for the Longview-Madison ROW Assurance Project (Project). The Project is located in the City of Mansfield and Madison Township in Richland County, Ohio, and is 9.28 acres in size (**Attachment A, Figures 1 and 2**). The Project Study Area is located at the following approximate centroid coordinates: 40.7774, -82.4851. The proposed Project involves the service and replacement of structures on the Longview-Madison 138kV line, as part of FirstEnergy's ROW Assurance Program.

The delineation was conducted by qualified wetland scientists on September 11th, 2024, in accordance with the United States Army Corps of Engineers (USACE) parameters. The objective was to evaluate and delineate potential surface water resources within the Project Study Area, such that the resources could be considered during each phase of the Project. Prior to the site visit, TRC reviewed available secondary source information such as the National Wetlands Inventory (NWI), National Hydrography Dataset (NHD), United States Geological Survey (USGS) topographic maps, County Soil Survey maps, and aerial imagery of the Project Study Area to use in addition to field investigations.

The Project Study Area is shown on the attached map (**Attachment A, Figure 1**), which was derived from the USGS Pavonia, Ohio 7.5-minute quadrangle topographic map. Soil mapped within the Project Study Area includes non-hydric soil units (**Attachment A, Figure 3**). The proposed Project Study Area includes one (1) NWI riverine feature and one (1) mapped NHD feature (**Attachment A, Figure 4**). According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panel, 39139C0163E (eff. 4/4/2011), the proposed Project is not located within a FEMA mapped 100-Year Flood Zone. During the field investigation, land use within the Project Study Area was observed to be an existing utility right-of-way surrounded by residential and industrial land use. See attached mapping in **Attachment A** and the Photographic Record in **Attachment B** for further details of the Project Study Area.

During the field investigation, one (1) ephemeral stream (S-EVN-1) was identified and delineated within the Project Study Area (**Attachment A, Figure 5**). See **Table 1** below for a summary of this water resource. No other ecological resources were observed within the Project Study Area. To verify the absence of wetlands within the Project Study Area, upland data points (U-EVN-1 and U-EVN-2) were collected and are shown on **Attachment A, Figure 5.** Data was collected and recorded on the USACE Wetland Determination Data Forms – Northcentral and Northeast Region and the Ohio Environmental Protection Agency's (OEPA) Headwater Habitat Evaluation Index (HHEI) form. The Wetland Determination Data Forms and HHEI form are provided in **Attachment C.**

Table 1. Stream Summary Table

Stream ID	Resource Name[1]	Flow Regime	HHEI	Existing Use Designation[3]	Delineated Length within the Project Study Area (linear feet)
S-EVN-1	UNT to Rocky Fork	Ephemeral	33	Modified Class I PHW	78

Note: See Delineated Resources Map and Photographic Record for more details.
[1] UNT = Unnamed Tributary
[2] Regulation of ephemeral streams is pending an update from OEPA and USACE, based on the USA vs. Sackett case.
[3] PHW= Primary Headwater

This Technical Memorandum represents the conditions within the Project Study Area identified herein, as of the inspection dates. Should you require any additional information or have any questions concerning this letter, please feel free to contact me at (440) 666-2890 or by email at BFalkinburg@TRCCompanies.com.

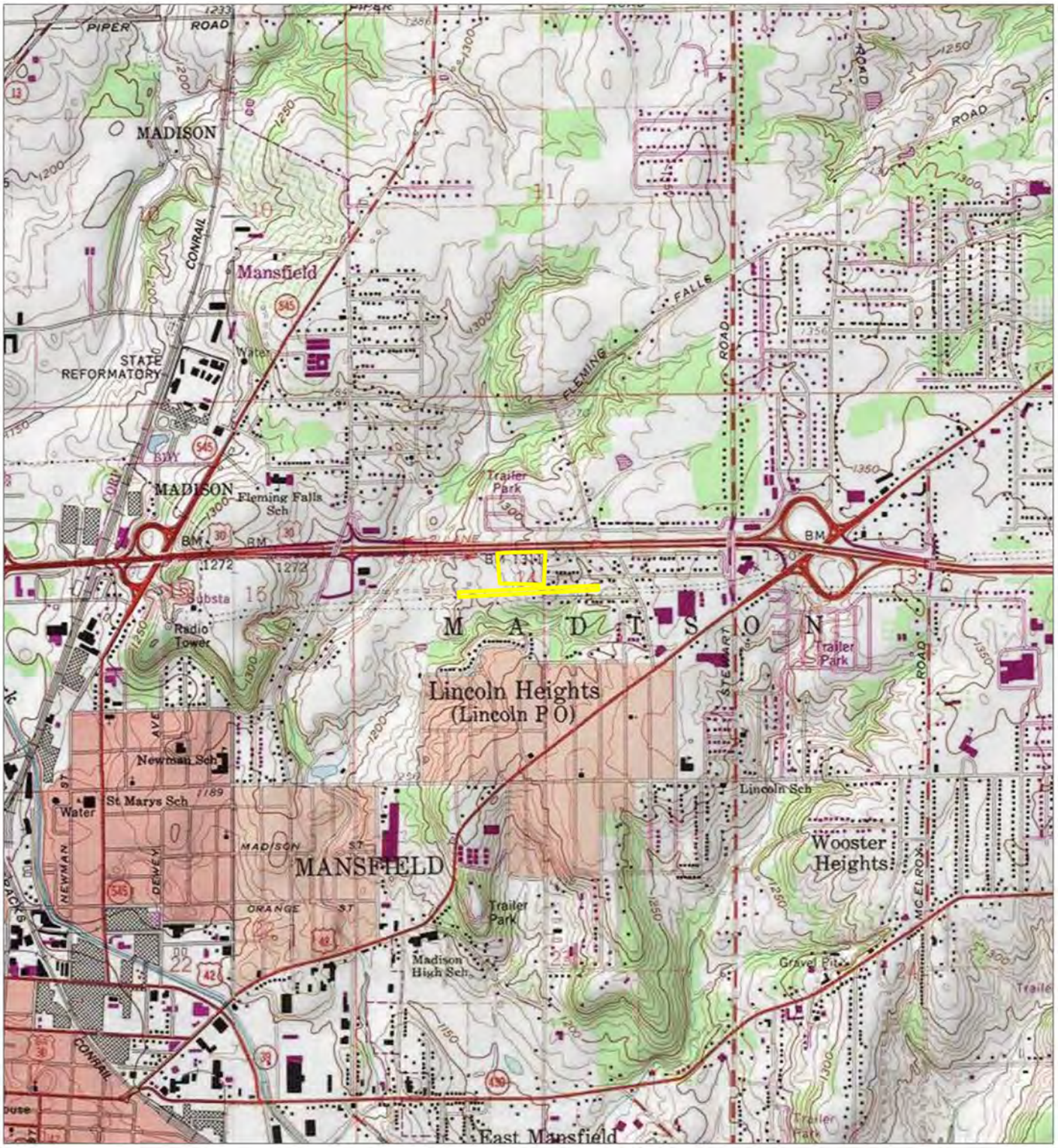
Kind Regards,
TRC Environmental Corporation

Brad M. Falkinburg, PWS
Ecological Office Practice Leader

cc: Maggie Molnar, PWS – TRC

Attachments
Attachment A: Figures
Attachment B: Photographic Record
Attachment C: Data Sheets

ATTACHMENT A – Figures



PROJECT STUDY AREA

BASE MAP: USA TOPO MAPS MAP SERVICE, PAVONIA QUAD

0 1,000 2,000
FEET
1:24,000 1" = 2,000'

PROJECT: FIRSTENERGY - LONGVIEW-MADISON ROW ASSURANCE PROJECT RICHLAND COUNTY, OH

TITLE: SITE LOCATION MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0022
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 1
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR

PROJECT STUDY AREA

EXISTING STRUCTURE

BASE MAP: GOOGLE MAPS.

1:2,400
1" = 200'

0 200 400 FEET

PROJECT: FIRSTENERGY - LONGVIEW-MADISON ROW ASSURANCE PROJECT RICHLAND COUNTY, OH

TITLE: AERIAL MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0022
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 2
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
Saved By: MOPEL on 10/4/2024 1:53:40 PM; File Path: T:\1-PROJECTS\First_Energy\550808_0022_LongviewMadison\2-ARR\WDR.aprx; Layout Name: Fig02_Aerial

PROJECT STUDY AREA
EXISTING STRUCTURE
HYDRIC SOIL
NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
NON-HYDRIC SOIL

BASE MAP: GOOGLE MAPS.
DATA SOURCES: SOILS DATA ACQUIRED FROM USDA/NRCS SSURGO DATABASE.

1:2,400
1" = 200'
0 200 400 FEET

PROJECT: FIRSTENERGY - LONGVIEW-MADISON ROW ASSURANCE PROJECT RICHLAND COUNTY, OH

TITLE: SOILS MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0022
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 3
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet - Map Rotation: 0
Saved By: MOPEL on 10/4/2024 1:53:40 PM - File Path: T:\...\PROJECTS\Final_Energy\550808.0022_LongviewMadison\3.ARP\KWDR.aprx - Layout Name: Fig03_Soils

BASE MAP: GOOGLE MAPS.
DATA SOURCES: WETLAND DATA ACQUIRED FROM U.S. FISH & WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY (NWI). STREAM DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD). FLOOD DATA ACQUIRED FROM FEMA, NATIONAL FLOOD HAZARD LAYER (NFHL).

1:2,400
1" = 200'

0 200 400 FEET

PROJECT: FIRSTENERGY - LONGVIEW-MADISON ROW ASSURANCE PROJECT RICHLAND COUNTY, OH

TITLE: NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0022
CHECKED BY:	M. MOLNAR		FIGURE 4
APPROVED BY:	B. FALKINBURG		
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
Saved By: MOPEL on 10/4/2024 1:53:40 PM; File Path: T:\PROJECTS\First_Energy\550808_0022_LongviewMadison\2-ARR\WDR.aprx; Layout Name: Fig04_Hydro

PROJECT STUDY AREA
EXISTING STRUCTURE
EPHEMERAL STREAM
NON-JURISDICTIONAL DRAINAGE
UPLAND DATA POINT

BASE MAP: GOOGLE MAPS.
DATA SOURCES: TRC WETLAND DELINEATION COMPLETED SEPTEMBER 11, 2024.

1:2,400
1" = 200'

0 200 400 FEET

PROJECT: FIRSTENERGY - LONGVIEW-MADISON ROW ASSURANCE PROJECT RICHLAND COUNTY, OH

TITLE: DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0022
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 5
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
Saved By: MOPEL on 10/4/2024 1:53:40 PM; File Path: T:\1-PROJECTS\First_Energy\550808_0022_LongviewMadison\2-ARR\WDR.aprx; Layout Name: Fig05_Delineation

PROJECT STUDY AREA

OHIO EPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY

INELIGIBLE

POSSIBLY ELIGIBLE

ELIGIBLE

BASE MAP: GOOGLE MAPS.
DATA SOURCES: NATIONWIDE PERMITS STREAM DATA ACQUIRED FROM THE OHIO EPA.

1:48,000
1" = 4,000'

0 4,000 8,000 FEET

PROJECT: FIRSTENERGY - LONGVIEW-MADISON ROW ASSURANCE PROJECT RICHLAND COUNTY, OH

TITLE: NATIONWIDE PERMITS STREAM ELIGIBILITY MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	550808.0022
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		FIGURE 6
DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet - Map Rotation: 0
Saved By: MOPEL on 10/4/2024 1:53:13 PM - File Path: T:\...\PROJECTS\Final_Energy\550808.0022_LongviewMadison\3.4\PRKWDR.aprx - Layout Name: Fig06_NWP

ATTACHMENT B – Photographic Record

PHOTOGRAPHIC RECORD

Longview-Madison ROW Assurance Project

Client Name:	**Site Location:**	**Project No.**
FirstEnergy	City of Mansfield and Madison Township in Richland County, Ohio	550808.0022.0000

Photo No. 1.	
Photo Date: 9/11/2024	
Description: Photo of Stream S-EVN-1 looking upstream, facing north.	

Photo No. 2.	
Photo Date: 9/11/2024	
Description: Photo of Stream S-EVN-1 looking downstream, facing south.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Mansfield and Madison Township in Richland County, Ohio	550808.0022.0000

Photo No. 3.
Photo Date: 9/11/2024
Description: Photo of the substrate within Stream S-EVN-1.

Photo No. 4.
Photo Date: 9/11/2024
Description: Representative photo of the utility right-of-way within the Project Study Area, facing east.

Client Name:	Site Location:	Project No.
FirstEnergy	City of Mansfield and Madison Township in Richland County, Ohio	550808.0022.0000

Photo No. 5.
Photo Date: 9/11/2024
Description: Representative photo of the utility right-of-way within the Project Study Area, facing west.

Photo No. 6.
Photo Date: 9/11/2024
Description: Representative photo of the Project Study Area north of Lincoln Terrace Drive, facing east.

Client Name:	Site Location:	Project No.
FirstEnergy	City of Mansfield and Madison Township in Richland County, Ohio	550808.0022.0000

Photo No. 7. **Photo Date:** 9/11/2024 **Description:** Representative photo of the Project Study Area north of Lincoln Terrace Drive, facing west.	

Photo No. 8. **Photo Date:** 9/11/2024 **Description:** Representative photo of the gravel parking lot within the Project Study Area, facing north.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Mansfield and Madison Township in Richland County, Ohio	550808.0022.0000

Photo No. 9.
Photo Date: 9/11/2024
Description: Representative photo of the gravel parking lot within the Project Study Area, facing east.

Photo No. 10.
Photo Date: 9/11/2024
Description: Representative photo of the gravel parking lot within the Project Study Area, facing south.

ATTACHMENT C – Data Sheets

USACE Wetland Determination Data Forms – Northcentral and Northeast Region

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Longview-Madison ROW Assurance Project City/County: Mansfield, Richland County Sampling Date: 2024-9-11
Applicant/Owner: FirstEnergy State: OH Sampling Point: U-EVN-01
Investigator(s): Erin Van Nort, Jenna Slabe Section, Township, Range: 14 21N 18W
Landform (hillslope, terrace, etc): Foot slope Local relief (concave, convex, none): None Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 40.7774918 Long: -82.48333835 Datum: WGS84
Soil Map Unit Name: Rittman silt loam, 2 to 6 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No ____ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✘ No ____
Hydric Soil Present? Yes ____ No ✘
Wetland Hydrology Present? Yes ____ No ✘

Is the Sampled Area within a Wetland? Yes ____ No ✘

If yes, optional Wetland Site ID: U-EVN-01

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is UPL. Based on the absence of two of three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✘ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No ✘ Depth (inches): ____
Water Table Present? Yes ____ No ✘ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No ✘ Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✘

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is not met.

VEGETATION – Use scientific names of plants. Sampling Point: U-EVN-01

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	60	Yes	FACW
2. *Asclepias syriaca*	15	No	UPL
3. *Solidago canadensis*	10	No	FACU
4. *Vernonia gigantea*	10	No	FAC
5. *Dipsacus laciniatus*	5	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	10	x 3 =	30
FACU species	15	x 4 =	60
UPL species	15	x 5 =	75
Column Totals:	100 (A)		285 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

✘ 1 - Rapid Test for Hydrophytic Vegetation

✘ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ✘ **No** __

Remarks: (Include photo numbers here or on a separate sheet.)

The criterion for hydrophytic vegetation is met.

SOIL Sampling Point: U-EVN-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 6	10YR 4/3	100					Silty Clay Loam	
6 to 20	10YR 4/2	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7) **(LRR R, MLRA 149B)**
- __ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- __ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- __ Loamy Mucky Mineral (F1) **(LRR K, L)**
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- __ Coast Prairie Redox (A16) **(LRR K, L, R)**
- __ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- __ Dark Surface (S7) **(LRR K, L)**
- __ Polyvalue Below Surface (S8) **(LRR K, L)**
- __ Thin Dark Surface (S9) **(LRR K, L)**
- __ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- __ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- __ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ **No** ✘

Remarks:
The criterion for hydric soil is not met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Longview-Madison ROW Assurance Project City/County: Mansfield, Richland County Sampling Date: 2024-9-11
Applicant/Owner: FirstEnergy State: OH Sampling Point: U-EVN-02
Investigator(s): Erin Van Nort, Jenna Slabe Section, Township, Range: 14 21N 18W
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): None Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 40.7774388333 Long: -82.4846115 Datum: WGS84
Soil Map Unit Name: Rittman silt loam, 2 to 6 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No _____ (If no, explain in Remarks.)
Are Vegetation _____ , Soil _____ , or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No _____
Are Vegetation _____ , Soil _____ , or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No ✘
Hydric Soil Present? Yes _____ No ✘
Wetland Hydrology Present? Yes _____ No ✘

Is the Sampled Area within a Wetland? Yes _____ No ✘

If yes, optional Wetland Site ID: U-EVN-02

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is UPL. Based on the absence of all three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes _____ No ✘ Depth (inches): _____
Water Table Present? Yes _____ No ✘ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No ✘ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✘

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is not met.

VEGETATION – Use scientific names of plants. Sampling Point: U-EVN-02

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Elaeagnus angustifolia*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	80	Yes	FACW
2. *Cirsium arvense*	10	No	FACU
3. *Solidago canadensis*	10	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	110 (A)		280 (B)

Prevalence Index = B/A = 2.5

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ____ No ✘

Remarks: (Include photo numbers here or on a separate sheet.)

The criterion for hydrophytic vegetation is not met.

SOIL Sampling Point: U-EVN-02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 4	10YR 4/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7) **(LRR R, MLRA 149B)**
- __ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- __ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- __ Loamy Mucky Mineral (F1) **(LRR K, L)**
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- __ Coast Prairie Redox (A16) **(LRR K, L, R)**
- __ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- __ Dark Surface (S7) **(LRR K, L)**
- __ Polyvalue Below Surface (S8) **(LRR K, L)**
- __ Thin Dark Surface (S9) **(LRR K, L)**
- __ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- __ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- __ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Fill,Gravel

Depth (inches): 4

Hydric Soil Present? Yes ____ **No** ✘

Remarks:

The criterion for hydric soil is not met.

OEPA HHEI Data Form

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : 33

SITE NAME/LOCATION S-EVN-01. FirstEnergy - Longview-Madison ROW Assurance Project.

SITE NUMBER ___ RIVER CODE ___ RIVER BASIN Muskingum River DRAINAGE AREA (mi^2) 0.227

LENGTH OF STREAM REACH (ft) 100 LAT. 40.7770714133 LONG. -82.4834017364 RIVER MILE N/A

DATE 2024-09-11 SCORER EVN COMMENTS UNT to Rocky Fork

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☑ RECOVERING ☐ PECENT OR NO RECOVERY

1. SUBSTRATE: Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate *TYPE* boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

TYPE		PERCENT	TYPE		PERCENT
☐	BLDR SLABS [16 pts]	___	☐	SILT [3 pts]	5
☐	BOULDER (>256 mm) [16 pts]	10	☐	LEAF PACK/WOODY DEBRIS [3 pts]	15
☐	BEDROCK [16 pts]	___	☐	FINE DETRITUS [3 pts]	___
☑	COBBLE (65-256 mm) [12 pts]	20	☐	CLAY or HARDPAN [0 pts]	10
☑	GRAVEL (2-64 mm) [9 pts]	25	☐	MUCK [0 pts]	___
☐	SAND (<2 mm) [6 pts]	15	☐	ARTIFICIAL [3 pts]	___

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 30 (A) (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 7

HHEI Metric Points

Substrate Max = 40: 28

A + B

2. Maximum Pool Depth ***Measure the maximum pool depth within the 61 meter (200 ft)*** evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☑ NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS___ MAXIMUM POOL DEPTH (centimeters): 0

Pool Depth Max = 30: 0

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☑ ≤ 1.0 m (≤3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS___ AVERAGE BANKFULL WIDTH (meters): 0.8

Bankfull Width Max=30: 5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		L	R	
☐	☐	Wide >10m	☐	☐	Mature Forest, Wetland	☐	☐	Conservation Tillage
☐	☐	Moderate 5-10m	☑	☑	Immature Forest, Shrub or Old Field	☐	☐	Urban or Industrial
☑	☑	Narrow <5m	☐	☐	Residential, Park, New Field	☐	☐	Open Pasture, Row Crop
☐	☐	None	☐	☐	Fenced Pasture	☐	☐	Mining or Construction

COMMENTS ___

FLOW REGIME *(At Time of Evaluation)* (Check *ONLY* one box):

☐ Stream Flowing	☐ Moist Channel, isolated pools, no flow (Intermittent)
☐ Subsurface flow with isolated pools (Interstitial)	☑ Dry channel, no water (Ephemeral)

COMMENTS ___

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

☐ None	☐ 1.0	☐ 2.0	☐ 3.0
☑ 0.5	☐ 1.5	☐ 2.5	☐ >3

STREAM GRADIENT ESTIMATE

☐ Flat (0.5 ft/100 ft) ☑ Flat to Moderate ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? ☐ Yes ☑ No QHEI Score ____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☑ WWH Name: Rocky Fork — Distance from Evaluated Stream 2.15 miles

☐ CWH Name: ____ — Distance from Evaluated Stream ____

☐ EWH Name: ____ — Distance from Evaluated Stream ____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: Pavonia — NRCS Soil Map Page: See Report NRCS Soil Map Stream Order See Report

County: Richland — Township / City: Mansfield

MISCELLANEOUS

Base Flow Conditions? (Y/N): yes Date of last precipitation: 2024-09-06 Quantity: .1

Photo-documentation Notes: ____

Elevated Turbidity? (Y/N): no Canopy (% open): 30

Were samples collected for water chemistry? (Y/N): no Lab Sample # or ID (attach results): _

Field Measures: Temp (°C) 0 Dissolved Oxygen (mg/l) _ pH (S.U.) 0 Conductivity (µmhos/cm) _

Is the sampling reach representative of the stream (Y/N) yes If not, please explain:

Additional comments/description of pollution impacts:
Flow diverted to downstream outlet

BIOLOGICAL OBSERVATIONS
(Record all observations below)

Fish Observed? (Y/N) _ Species observed (if known): _

Frogs or Tadpoles Observed? (Y/N) _ Species observed (if known): _

Salamanders Observed? (Y/N) _ Species observed (if known): _

Aquatic Macroinvertebrates Observed? (Y/N) _ Species observed (if known): _

Comments Regarding Biology:

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW →

See Next Page

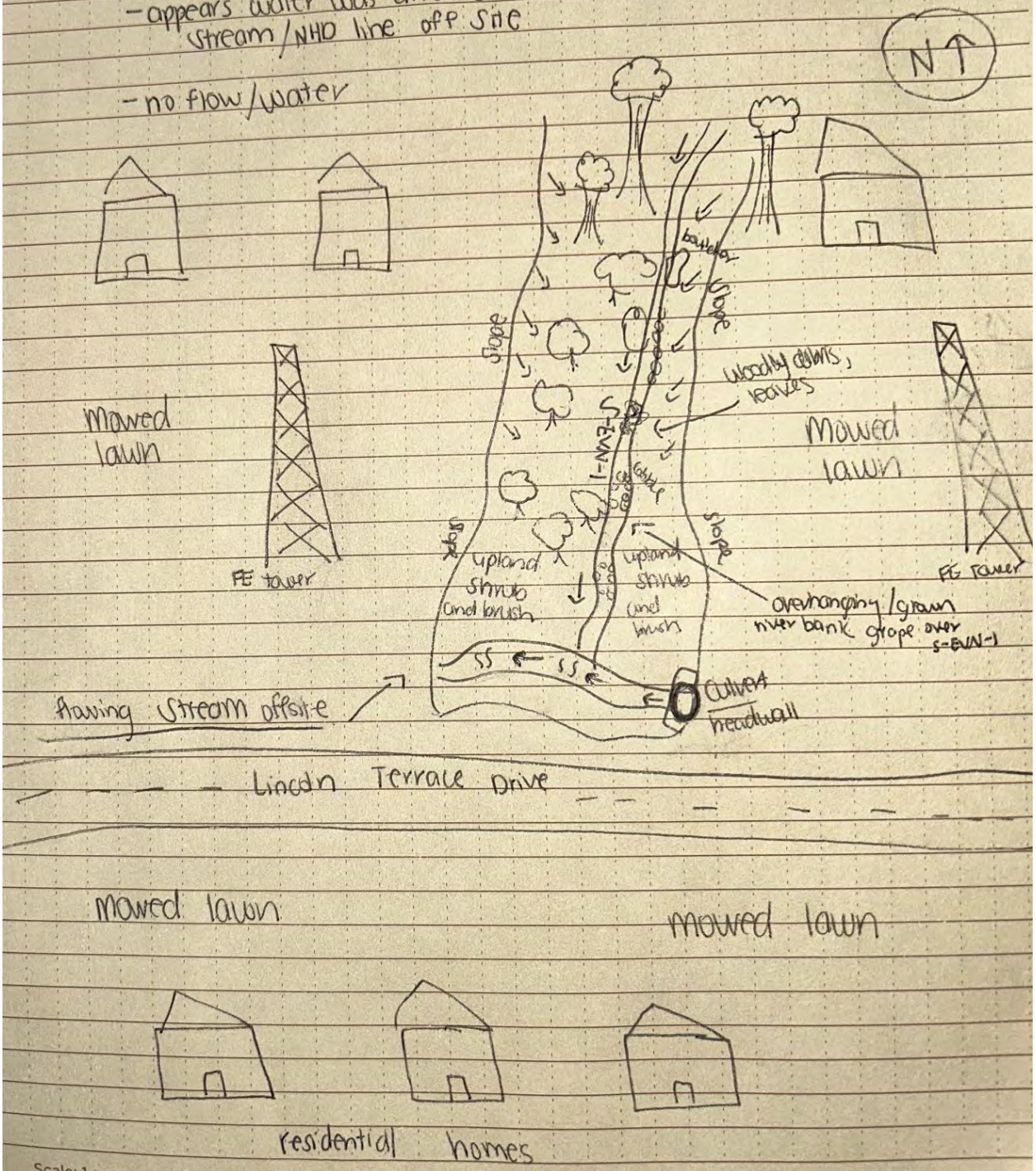
9/11/24

Longview-Madison

S-EVN-1
UNT to Rocky Fork

- appears water was diverted from this channel to another stream/NHD line off site

- no flow/water



Scale: 1 square = _____