76 South Main Street
Akron, Ohio 44308

February 28, 2023

Ms. Tanowa Troupe
Docketing Division
The Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215-3793

Letter of Notification
Holloway-Knox 138 kV Transmission Line
Rebuild Project – Holloway Sub to Nottingham Sub Segment
Case No.: 23-0141-EL-BLN

Dear Ms. Troupe:

American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, hereby transmits the enclosed Letter of Notification ("LON") application, which has been completed in accordance with the requirements of Ohio Administrative Code Chapters 4906-3 and 4906-6.

In this Project (referred to as the Holloway Sub to Nottingham Sub Segment), ATSI will rebuild the approximately 20-mile-long Holloway-Nottingham #1 138kV and Holloway-Nottingham #2 138kV transmission lines. The rebuild will convert the existing single-circuit Holloway-Nottingham #1 138 kV and #2 138 kV transmission lines into a double circuit 138 kV transmission line utilizing steel double-circuit monopole structures, with a centerline midway between the two existing circuit alignments. The Holloway-Nottingham #1 segment extends from existing structure 2530(new structure 3) to existing structure 15896 (new structure 140). The Holloway-Nottingham #2 segment extends from existing structure 3130 (new structure number 3) to existing structure 15899 (new structure 140).

Pursuant to OAC Rule 4906-2-04(A)(3), please be advised of the following:

a) Name and address of the applicants:

American Transmission Systems, Incorporated
76 South Main Street
Akron, Ohio 44308

b) Name and location of proposed facilities:

Holloway-Knox 138 kV Transmission Line Rebuild Project - Holloway Sub Nottingham Sub Segment

The Project will traverse the City of St. Clairsville, Richland Township, Mead Township, Pultney Township, and Wheeling Township in Belmont County and Athens Township, Harrison County, Ohio.

c) Applicant's representative:

Scott M. Humphrys
Transmission Siting Supervisor
Transmission and Substation Design
FirstEnergy Service Company
76 South Main Street
Akron, OH 44308-1890

Attorney for Applicant:

Devan K. Flahive (0097457)
Porter, Wright, Morris & Arthur LLP
41 South High Street, Suite 2900
Columbus, OH 43215-6194
Tel: (614) 227-1989
dflahive@porterwright.com (willing to accept service via e-mail)

d) No information that was provided in the corrected pre-application letter (filed 2/22/23) required by OAC Rule 4906-6-03 has been amended or changed in the attached Letter of Notification application.

e) A notarized statement that the information contained in the application is complete and accurate is attached as Attachment 1.

We have provided a copy of the Letter of Notification application by certified mail, with return receipt requested, to each official of the political subdivisions immediately affected by the proposed Project listed in Attachment 2. An exemplar of the transmittal letter sent to local government representatives of the City of St. Clairsville, Richland Township, Mead Township, Pultney Township, and Wheeling Township in Belmont County; and Athens Township in Harrison County is enclosed for your file. Copies of the transmittal letters to the local libraries are also enclosed.

Should staff of the Ohio Power Siting Board desire further information or discussion of this submittal, please contact me at (330) 384-2526.

Sincerely,

Scott M. Humphrys
Transmission Siting Supervisor
Transmission and Substation Design
FirstEnergy Service Company

Attachments

AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY

LETTER OF NOTIFICATION

HOLLOWAY - KNOX 138 kV TRANSMISSION LINE REBUILD PROJECT
HOLLOWAY SUB TO NOTTINGHAM SUB SEGMENT

OPSB CASE NO.: 23-0141-EL-BLN

February 28, 2023

American Transmission Systems, Incorporated
76 South Main Street
Akron, Ohio 44308

Holloway-Knox 138 kV Transmission Line
Rebuild Project – Holloway Sub to Nottingham Sub Segment
Case Number: 23-0141-EL-BLN

Date: February 28, 2023

Attachment 1
Acknowledgement of Scott M. Humphrys

CF0026B5-912B-4418-8001-4206BC17F25C --- 2023/02/28 05:43:58 -8:00 --- Remote Notary

BEFORE THE
OHIO POWER SITING BOARD

In The Matter Of:	)	
The Application of American	)	
Transmission Systems, Incorporated for a	)	
Certificate of Environmental	)	Case No.: 23-0141-EL-BLN
Compatibility and Public Need for the	)	
Holloway-Knox 138 kV Transmission	)	
Line Rebuild Project – Holloway Sub to	)	
Nottingham Sub Segment.	)	

ACKNOWLEDGMENT OF SCOTT M. HUMPHRYS

I, Scott M. Humphrys, state the following:

Pursuant to Ohio Administrative Code Rule 4906-2-04(A)(3)(e), I am the authorized representative of the Applicant in this case and I affirm that the Letter of Notification application filed in this matter is true and accurate to the best of my information and belief.

Scott M Humphrys
Signed on 2023/02/28 05:47:23 -8:00

Scott M. Humphrys
FirstEnergy Service Company

State of Ohio)
) ss:
County of Summit)

The foregoing instrument was acknowledged before me this 28th day of February, 2023.

Signed on 2023/02/28 05:47:23 -8:00

Notary Public

NOTARY PUBLIC STATE OF OHIO
Jaime E Hudson
Commission # 2017-RE-665472
Electronic Notary Public
State of Ohio
My Comm Exp. Aug 12, 2027
Notary Stamp 2023/02/28 06:47:23 PST

Notarial act performed by audio-visual communication

CF0026B5-912B-4418-8001-4206BC17F25C --- 2023/02/28 05:43:58 -8:00 --- Remote Notary
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Page 2 of 2 | 24206BC17F25C

05 H-N LON Affidavit v2.pdf

DocVerify ID:	CF0026B5-912B-4418-8001-4206BC17F25C
Created:	February 28, 2023 05:43:58 -8:00
Pages:	2
Remote Notary:	Yes / State: OH

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E-Signature Summary

E-Signature 1: Scott M Humphrys (smh)
February 28, 2023 05:47:23 -8:00 [B334F0E816D3] [148.108.100.47]
shumphrys@firstenergycorp.com (Principal) (Personally Known)

E-Signature Notary: Jaime E. Hudson (JEH)
February 28, 2023 05:47:23 -8:00 [AD09C17D8805] [173.90.206.50]
jhudson@firstenergycorp.com
I, Jaime E. Hudson, did witness the participants named above electronically sign this document.

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All visible electronic signatures contained in this document are symbolic representations of the persons signature, and not intended to be an accurate depiction of the persons actual signature as defined by various Acts and/or Laws.

Attachment 2

Officials Served Copy of Letter of the Notification
Knox-Nottingham 138 kV Transmission Line
Rebuild Project Holloway - Nottingham Segment
Case No. 23-0141-EL-BLN

Belmont County

Mr. Josh Meyer
Belmont County Commissioner
3425 Clinton St
Bellaire, OH 43906

Mr. J.P. Dutton
Belmont County Commissioner
44725 Moriah Dr
St. Clairsville, OH 43950

Mr. Terry Lively
Belmont County Engineer
101 West Main St.
St, Clairsville, OH 43950

Mr. Jerry Echemann
Belmont County Commissioner
427 Elm St
Martins Ferry, OH 43935

Wheeling Township

Mr. Steve Vcelka
Wheeling Township Trustee
71941 Barylak Rd
Flushing, OH 43977

Mr. Richard Verardi
Wheeling Township Trustee
47564 Fairpoint Maynard Rd
St. Clairsville, OH 43950

Mr. Michael Drake
Wheeling Township Trustee
71080 Gas Station Shippey Rd
St. Clairsville, OH 43950

Mr. Mike Butler
Wheeling Township Fiscal Officer
71179 Main St Fairpoint
St. Clairsville, OH 43950

Mead Township

Mr. Edward Good
Mead Township Trustee
56080 Matts LN
Shadyside, OH 43947

Mr. Paul Merryman
Mead Township Trustee
56250 Skyline Dr
Shadyside, OH 43947

Mr. Clyde Hammond
Mead Township Trustee
58970 Kirkland Hill Rd
Bellaire, OH 43906

Mr. David Albright
Mead Township Fiscal Officer
53322 Cash Ridge Rd
Shadyside, OH 43947

Attachment 2

Officials Served Copy of Letter of the Notification
Knox-Nottingham 138 kV Transmission Line
Rebuild Project Holloway - Nottingham Segment
Case No. 23-0141-EL-BLN

Pultney Township

Mr. Mark Cervelli
Pultney Township Trustee
56339 Hospital Rd
Bellaire, OH 43906

Mr. Franklin Shaffer Jr
Pultney Township Trustee
65140 Breezy Point Ln
Bellaire, OH 43906

Mr. John Laroche
Pultney Township Trustee
66245 Mcgregor Hill Rd
Bellaire, OH 43906

Ms. Marla Krupnik
Pultney Township Fiscal Officer
1410 High St
Bellaire, OH 43906

Richland Township

Mr. Greg Clark
Richland Township Trustee
64101 Clark Ln
PO Box 1255
Jacobsburg, OH 43933

Mr. Richard Ferrell
Richland Township Trustee
66609 Anna Dr
St. Clairsville, OH 43950

Mr. James Denoble
Richland Township Trustee
67761 graham Rd
St Clairsville, OH 43950

Mr. Mathew Berher
Richland Township Fiscal Officer
124 W Main St
St. Clairsville, OH 43950

St. Clairsville

Ms. Kathryn Thalman
St. Clairsville Mayor
108 Patti Ln
St. Clairsville, OH 43950

Ms. Kristi Lee Lipscomb
St. Clairsville Ward 3 Council
206 Sunset Dr.
St. Clairsville, OH 43950

Mr. Jim Velas
St. Clairsville Council President
PO Box 592
108 N Butler St
St. Clairsville Oh, 43950

Mr. Jacob DeBertand
St. Clairsville Council Clerk
100 North Market Street
St. Clairsville, OH 43950

Attachment 2

Officials Served Copy of Letter of the Notification
Knox-Nottingham 138 kV Transmission Line
Rebuild Project Holloway - Nottingham Segment
Case No. 23-0141-EL-BLN

Harrison County

Mr. Paul Coffland
Harrison County Commissioner
19 Country Club Manager
Cadiz, OH 43907

Mr. Dustin Corder
Harrison County Commissioner
38440 Brushy Fork Rd
Cadiz, OH 43907

Ms. Amy Norris
Harrison County Commissioner
700 Deersville Ave
Cadiz, OH 43907

Mr. Douglas Nelson Bachman
Harrison County Engineer
86407 North Bay Rd
Scio, OH 43988

Athens Township

Mr. Robert Applegarth
Athens Township Trustee
43270 Stumptown Rd
Cadiz, OH 43907

Mr.Michael Saffell
Athens Township Trustee
193 N Main St
P.O.Box 28
New Athens, OH 43981

Mr. David Butler
Athens Township Trustee
117 E Wheeling St
New Athens, OH 43981

Mr. David Allen Watson
Athens Township Fiscal Officer
74070 Flushing New Athens Rd.
PO Box 147
New Athens, OH 43981

Libraries

Mr. Doug Walsh, Director
St. Clairsville Public Library
108 W Main St,
St. Clairsville OH 43950

Ms. Sandi Thompson, Director
Puskarich Public Library
200 E Market St.,
Cadiz, OH 43907

76 South Main Street
Akron, Ohio 44308

"An example copy of the transmittal letter to public officials and libraries is included, copies of which were sent to each public official and public library"

February 28, 2023

Mr. Josh Meyer
Belmont County Commissioner
3425 Clinton St
Bellaire, OH 43906

Letter of Notification
Holloway-Knox 138 kV Transmission Line
Rebuild Project - Holloway Sub to Nottingham Sub Segment
Case No. 23-0141-EL-BLN

Dear Mr. Josh Meyer,

American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, has filed a Letter of Notification application ("LON") with the Ohio Power Siting Board ("OPSB") for the above-referenced Project (referred to as the Holloway Sub to Nottingham Sub Segment), in which ATSI proposes to rebuild the approximately 20-mile-long Holloway-Nottingham #1 138kV and Holloway-Nottingham #2 138kV transmission lines. The rebuild will convert the existing single-circuit Holloway-Nottingham #1 138 kV and #2 138 kV transmission lines into a double circuit 138 kV transmission line utilizing steel double-circuit monopole structures, with a centerline midway between the two existing circuit alignments. The Project will traverse the City of St. Clairsville, Richland Township, Mead Township, Pultney Township, and Wheeling Township in Belmont County and Athens Township, Harrison County, Ohio.

In accordance with Ohio Administrative Code ("OAC") Rule 4906-1-01, this Project falls within the OPSB's requirements for an LON. Therefore, in compliance with OAC Chapter OAC 4906-6-07(A)(1), ATSI herein furnishes a service copy of the LON application for this Project, which has been assigned Docket No. 23-0141-EL-BLN and contains a more detailed description of the Project for your information and review.

I will be happy to answer your questions concerning this matter. You can contact me at (330) 384-2526.

Sincerely,

Scott M. Humphrys
Transmission Siting Supervisor
Transmission and Substation Design
First Energy Service Company

76 South Main Street
Akron, Ohio 44308

February 28, 2023

Mr. Doug Walsh, Director
St. Clairsville Public Library
108 W Main St,
St. Clairsville OH43950

Dear Mr. Doug Walsh,

Enclosed please find one copy of the Letter of Notification application of American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, for the Holloway-Knox 138 kV Transmission Line Rebuild Project - Holloway Sub to Nottingham Sub Segment ("Project") that has been filed with the Ohio Power Siting Board ("Board"). Please make this Letter of Notification application available for public reference in the St. Clairsville Public Library as soon as practicable.

ATSI provides this copy of the Letter of Notification application in accordance with Ohio Administrative Code ("OAC") Rule 4906-6-07(A)(2), which requires the Letter of Notification application in to be placed and made available for public inspection in main public library of each political subdivision in which any portion of the Project is to be located.

In this Project, ATSI proposes to rebuild the approximately 20-mile-long Holloway-Nottingham #1 138kV and Holloway-Nottingham #2 138kV transmission lines. The rebuild will convert the existing single-circuit Holloway-Nottingham #1 138 kV and #2 138 kV transmission lines into a double circuit 138 kV transmission line utilizing steel double-circuit monopole structures, with a centerline midway between the two existing circuit alignments. The Project will traverse the City of St. Clairsville, Richland Township, Mead Township, Pultney Township, and Wheeling Township in Belmont County and Athens Township, Harrison County, Ohio.

Please feel free to call me with any question you have on making the Letter of Notification application available to your patrons. My phone number is (330) 384-2526.

Sincerely,

Scott M. Humphrys
Transmission Siting Supervisor
Transmission and Substation Design
FirstEnergy Service Company

LETTER OF NOTIFICATION
Holloway - Knox 138 kV Transmission Line
Rebuild Project -Holloway Sub to Nottingham Sub Segment

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

4906-6-05: ACCELERATED APPLICATION REQUIREMENTS

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

Name of Project:	Holloway-Knox 138 kV Transmission Line Rebuild Project - Holloway Sub to Nottingham Sub Segment ("Project"). Reference Numbers: 2031-3 (Holloway-Nottingham #1) and 3224-3 (Holloway-Nottingham #2)

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

In this Project, American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, proposes to rebuild the Holloway-Nottingham #1 and #2 138 kV transmission lines section (approximately 20 miles long) of the approximately 64-mile Holloway-Knox 138 kV Transmission Line Project.

The Project consists of rebuilding the existing single-circuit Holloway-Nottingham #1 138 kV and Holloway-Nottingham #2 138 kV transmission lines to a double circuit 138 kV transmission line utilizing steel double-circuit monopole structures on concrete foundations. The Holloway-Nottingham #1 segment extends from existing structure 2530 to existing structure 15898. The Holloway-Nottingham #2 segment extends from existing structure 3130 to existing structure 15899. As part of this Project, the existing conductor,

477 kcmil 24/7 ACSR, will be replaced with 795 kcmil 26/7 ACSR. The new centerline alignment will be located within existing right-of-way, midway between the two existing lines. The two existing lines will be removed once construction is complete.

The Project will traverse the City of St. Clairsville, Richland Township, Mead Township, Pultney Township, and Wheeling Township in Belmont County, Ohio, and Athens Township in Harrison County, Ohio.
The general location of the Project is shown in Exhibit 1. Exhibit 2 is a partial copy of ESRI aerial imagery. A general layout of the Project is shown in Exhibit 3.

In April 2021, representatives of ATSI met with technical and legal Staff of the Ohio Power Siting Board ("OPSB Staff") to discuss ATSI's 64-mile Holloway-Knox Project, which is divided into two sections: the 44-mile Knox-Nottingham and this Project, the 20-mile Holloway-Nottingham #1 and #2. The 44-mile Knox-Nottingham section is in turn divided into multiple segments. As noted below in section 4906-6-05(B)(2), there were several logistical aspects of the rebuild project that contributed to a joint decision between ATSI and OPSB Staff that the Project would be framed in accordance with each segment. Due to restrictions on construction, outage schedules, and the need to minimize service disruptions, the improvements required to fix deteriorating facility conditions cannot be completed in a single project and must be broken into segments. As such, there will be four segments in addition to this Project, as follows:

- Knox to Washington Segment (Approved and certificated by the OPSB in Case No. 21-0667-EL-BLN)
- Kilgore (Polo Road) – New Stacy BUC Segment (Approved and certificated by the OPSB in Case No. 22-0285-EL-BLN)
- Washington to Kilgore (Polo Road) Segment
- New Stacy BUC to Nottingham Segment

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

The Project meets the requirements for a Letter of Notification 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 OAC Rule 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) as it involves replacing structures and conductor for a distance greater than two miles.

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

ATSI needs to rebuild all 64 miles of the Holloway to Knox 138 kV Transmission Line in light of deteriorating facility conditions and the growing amount of maintenance required to maintain the line as-is. The primary benefit of the Project is to enhance system reliability through protection from unplanned outages, and to augment ATSI's operating flexibility as well as system resiliency by replacing deteriorating wood poles and by updating the existing conductor and shield wires. In turn, replacement of these facilities supports future load growth in the area for new and existing customers. Routine line inspections have shown an ever-increasing number of active conditions that require repair, leading to an overall worsened line condition. The most recent transmission line inspection conducted by a third-party contractor in April 2020, found that 133 of 276 structures (approximately 48%) of the Holloway-Nottingham #1 and #2 lines were

defective and posed reliability concerns. Table 1 summarizes the results of that inspection.[1]

Table 1– Pole Inspection Summary

Defect Type	Defect Count
Woodpecker Holes	**94**
Failed Sound Test	**20**
Decay	**17**
Crossarm or Brace Defect	**2**

Wood poles are considered rejected when defects render a pole unsafe, unreliable, or non-compliant with current code, including the rejection of wood poles when the pole strength has been reduced to 2/3rd of the original design strength. This is in line with the National Electrical Safety Code ("NESC") Table 261-1, note 2, which states: "wood and reinforced structures shall be replaced or rehabilitated when deterioration reduces the structure strength to 2/3 of that required when installed…"

The primary reasons for structure rejection on this Project are damage caused by woodpeckers (a major maintenance concern for all wood poles), failed sound test and decay. Woodpecker holes cause structural degradation of varying severity, depending where on the structure the damage takes place. The standard maintenance procedures include filling the holes and wrapping the pole in a metal mesh to prevent further damage; however, woodpeckers typically return to either a different location on the same pole or go to a different pole and the problem continues. If woodpecker damage occurs near a critical point on the structure, such as the x-brace or crossarm attachment points, the pole must be

[1] Similar structural problems are present along the entire Holloway-Knox 138 kV Transmission Line. However, the improvements required to fix these deteriorating facility conditions cannot be completed in a single project and must be broken into segments, designed to accommodate construction sequencing, outage schedules, and the need to minimize service disruptions.

replaced. Ultimately, woodpeckers may return to cause the same type of damage. For the Holloway-Nottingham #1 and #2 lines: of the 94 structures that failed inspection due to woodpecker damage, 50 of those structures have been replaced since the 1980s and exhibit significant physical damage that will require re-replacement as part of this Project. The proposed upgrade to steel structures eliminates this maintenance issue. In addition, rebuilding both transmission lines on one set of structures reduces the amount of construction materials necessary, eliminates maintenance on two separate transmission lines, and maximizes construction efficiencies in terms of one construction effort as opposed to multiple projects. This in turn reduces the amount of construction impact, such as impacts to sensitive environmental features, agricultural crop damage and overall landowner impact as well as lowers the overall cost of construction and long-term maintenance.

As part of this Project, ATSI proposes to upgrade the conductor to its standard of 795 kcmil 26/7 ACSR, which will allow for future load growth and generator connections, if any occur, while adding sufficient margins to the transmission system. The new proposed conductors meet FirstEnergy's current standard. Upgrading to the current standard will improve reliability and performance.

Lastly, the shield wires will be replaced with one 7#8 Alumoweld shield wire and one Optical Ground Wire ("OPGW") in the second position. Since 2016, it has been a FirstEnergy practice to include OPGW in one of the static wire positions for any transmission line rebuild project. This enables the modernization of grid protection and control communication between substations.

The need for the entire Holloway-Knox project was first presented at the August 31, 2018 Subregional Regional Transmission Expansion Plan (SRRTEP) Committee Western meeting. A month later, on September 28, 2018, the proposed solution was presented and was assigned PJM supplemental RTEP number s1718. Since that time, the scope of the

overall Project changed and was re-presented at the September 11, 2020 SRRTEP Committee Western meeting and assigned RTEP number s2389. The PJM SSRTEP-Western presentation slide from the 2020 meeting is included as Exhibit 4 and provides additional details of the project drivers.

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. 2022 Long-Term Forecast Report. This map was submitted to the PUCO in Case No. 22-0504-EL-FOR under Rule 4901:5-5:04 (C)(2)(b) of the Ohio Administrative Code. The map is incorporated by reference only. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations including the Knox-Nottingham 138 kV Transmission Line. The Project is included on page 39 of the Long-Term Forecast Report and is a part of the larger Holloway-Nottingham-Knox 138 kV Line Rebuild Project. The general location and layout of the project area is shown in Exhibits 1 and 2.

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

Due to the physical condition of the existing transmission line and nature of the Project, there were only two alternatives considered; replace only the identified failed structures or full rebuild.

Alternative 1:

Replace 133 failed wood H-frame structures on the Holloway-Nottingham #1 and #2 138 kV transmission lines with wood H-frame structures and re-use the existing conductor and shield wire. Includes construction of approximately 15.1 miles of access roads and restoration after replacement.

Alternative 2

Rebuild 20 miles of the existing Holloway-Nottingham #1 and #2 138 kV transmission lines into a double circuit centerline by replacing all existing wood pole structures on both

lines with one set of double circuit steel monopoles, replacing conductor with 795 kcmil 26/7 ACSR, and replacing the shield wire with 7/8# Alumoweld shield wire and OPGW. Includes construction of approximately 17.46 miles of access roads and restoration after project completion.

Several factors were considered by ATSI in opting to rebuild the entire line rather than continuing to maintain the deteriorating facilities. These factors include:

Existing Wood Pole Condition

As described in Section 4906-6-05 (B)(2), approximately 48% of the wood poles have physical damage and/or signs of deterioration. This percentage will only increase over time, resulting in multiple returns, increased impact, and greater costs. Replacing all the poles with steel eliminates damage caused by woodpeckers, reduces maintenance, and extends the life of the facilities.

Conductor Replacement and Upgrade

ATSI proposes to replace and upgrade the conductor to its current standard of 795 kcmil 26/7 ACSR as part of the Project. As stated above, this would not be completed under the Alternative 1 scenario. Not only does it upgrade the conductor to current standards, but it also increases the line rating to 275 MVA (Summer Normal). The upgrade will improve reliability and performance as well as support future load growth in the area. Replacing the conductor as part of this Project also eliminates the need for a complete reconductor project in the coming years as the conductor is aging along with the rest of the facilities.

Communications

Although outside the scope of this application, this Project will also facilitate ATSI's replacing the existing shield wire with one 7#8 Alumoweld shield wire and oneOPGW. With the addition of OPGW in the proposed Project, ATSI is able to modernize grid protection and control communications between substations. Since the installation method is identical to traditional shield wire, the cost per mile of adding OPGW is negligible

compared to the return on the investment from a reliability and communication perspective. If pole replacement is done under a maintenance approach, OPGW would not be installed, and a separate alternative fiber route may be required to meet communication enhancement needs.

Land Use and Sensitive Areas

As referenced in Section 4906-6-05 (B)(10), the land use in the area of the Project is primarily rural residential, agricultural, and mining. Disruption to landowners and/or operators are minimized in the proposed Project as opposed to the multiple number of access times that would be necessary under the maintenance alternative. In cases where crops are planted, multiple access increases the potential for crop damage and payment for the loss.

The United States Fish and Wildlife Service ("USFWS") and the Ohio Department of Natural Resources ("ODNR") identified the state and federally listed species that may potentially be affected by the Project. Seasonal restrictions, along with avoidance and minimization measures, were identified to reduce impacts to these species.

Overall land use impacts, including but not limited to crop and other environmental features, increase with multiple mobilizations as compared to a single construction project as proposed. These impacts, along with the installation of barriers or matting and adhering to seasonal restrictions, lead to increase costs and complicate construction sequencing and outage coordination.

Safe and Reliable Service

ATSI has a duty to provide safe and reliable service to its customers and the condition of the Holloway-Nottingham Segment presents a significant risk to ATSI's ability to meet this obligation. The Holloway–Nottingham #1 and #2 138 kV transmission lines serve multiple delivery points, including AEP's Nottingham and Holloway Substations.

The best approach is therefore to completely rebuild the Holloway–Nottingham #1 and #2 138 kV transmission lines. ATSI believes that the rebuild project is the most cost effective and least impactful approach to ensure its ability to continue to provide safe and reliable service to its customers.

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

ATSI's manager of External Affairs will advise local officials of features and the status of the proposed Project as necessary. ATSI will maintain a copy of this Letter of Notification, along with other Project information, on FirstEnergy's website: https://www.firstenergycorp.com/about/transmission_projects/ohio.html.

ATSI will publish notice of the Project in the Martins Ferry Times Leader and the Harrison News Herald within 7 days of filing this Letter of Notification application. The notice will comply with OAC 4906-6-08(A)(1)-(6). In addition to the public notice, ATSI will mail letters in accordance with OAC 4906-6-08(B) explaining the Project to affected landowners and tenants and informing them of the Project's anticipated construction and restoration activities sequencing, including the start date and overall time frame.

During all phases of this Project, the public may contact ATSI through the transmission projects hotline at 1-888-311-4737 or via email at: transmissionprojects@firstenergycorp.com.

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

The construction schedule for this Project is expected to begin as early as June 2023 and is proposed to be completed/in-service by September 2024.

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

Exhibit 1 depicts the general location of the Project. Exhibit 2 provides a partial copy of ESRI aerial imagery of the Project area.

4906-6-05 (B)(8): Property Owner List

The Project is located on existing right-of-way. New temporary access rights may be required as part of the Project. Exhibit 5 contains a list of properties affected by the Project, specifying whether ATSI either has obtained or has not yet acquired the necessary easement/right-of-way/land rights.

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:	477 kcmil 24/7 ACSR
Static Wire:	OPGW and 7#8 Alumoweld
Insulators:	Polymer and/or Porcelain
ROW Width:	150 feet (100-foot cleared corridor)
Land Requirements:	Access Rights
Structure Types:	Exhibit 6: 138 kV Double Circuit Steel Pole, Deadend (approximately 10 Structures) Exhibit 7: 138 kV Double Circuit Steel Pole, Strain (approximately 24 Structures) Exhibit 8: 138 kV Double Circuit Steel Pole, Suspension (approximately 102 Structures) Exhibit 9: 138 kV Double Circuit Steel Pole, Angle (approximately 2 Structures)

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

As there are occupied residences or institutions within 100 feet from the existing transmission line centerline, Electric and Magnetic Field ("EMF") calculations are required by this code provision.

4906-6-05 (B)(9)(b)(i): Calculated Electric and Magnetic Fields Strength Levels

The Project is a 20-mile double circuit transmission line located on a 325-foot right-of-way that shares right-of-way with other transmission lines; Holloway-Nottingham #3 138 kV, Holloway-Nottingham #4 138 kV, Holloway-Nottingham #5 138 kV, and Holloway-Nottingham #6 138 kV.

Table 2 itemizes the line loading of the Project. The normal line loading represents ATSI's peak system load for the transmission lines. The emergency line loading represents the maximum line loading under contingency operation.

Table 2: Transmission Line Loading

Line Name	Normal Loading Amps	Emergency Loading Amps	Winter Rating Amps
Holloway-Nottingham #1 138 kV Transmission Line	246.20	271.95	1192.39
Holloway-Nottingham #2 138 kV Transmission Line	246.20	271.95	1192.39
Holloway-Nottingham #3 138 kV Transmission Line	259.88	333	1100.34
Holloway-Nottingham #4 138 kV Transmission Line	259.88	333	1100.34
Holloway-Nottingham #5 138 kV Transmission Line	267.75	322.99	1370.90
Holloway-Nottingham #6 138 kV Transmission Line	267.75	322.99	1370.90

Table 3 provides an approximation of the magnetic and electric fields strengths of the Project between tangent-to-tangent structures. The calculations provide an approximation of the electric and magnetic fields levels based on specific assumptions utilizing the EPRI EMF Workstation 2015 program software. This program software assumes the input transmission line configuration is located on flat terrain. Also, a balanced, three-phase circuit loading is assumed for each transmission circuit. The model utilizes the normal, emergency, and winter rating of the transmission line.

Table 3: EMF Calculations for Holloway-Nottingham 138 kV Transmission Lines Tangent to Tangent Structures

Holloway-Nottingham 138kV Transmission Lines Tangent to Tangent Structures, 325-foot ROW		**Electric Field kV/m**	**Magnetic Field mG**
Normal Loading	Under Lowest Conductors	4.159	85.58
	At Right-of-Way Edges	0.175	14.80 / 21.95
Emergency Loading	Under Lowest Conductors	4.159	94.34
	At Right-of-Way Edges	0.175	17.31 / 24.92
Winter Rating	Under Lowest Conductors	4.159	415.17
	At Right-of-Way Edges	0.175	71.59 / 102.35

Table 4 provides an approximation of the magnetic and electric fields strengths of the Project between tangent-to-angle structures using the same criteria and software as the tangent-to-tangent evaluation.

Table 4: EMF Calculations for Holloway-Nottingham 138 kV Transmission Lines Tangent to Angle Structures

Holloway-Nottingham 138kV Transmission Lines Tangent to Angle Structures, 325-foot ROW		**Electric Field kV/m**	**Magnetic Field mG**
Normal Loading	Under Lowest Conductors	2.153	38.57
	At Right-of-Way Edges	0.103 / 0.112	14.13 / 17.21
Emergency Loading	Under Lowest Conductors	2.153	49.87
	At Right-of-Way Edges	0.103 / 0.112	16.89 / 20
Winter Rating	Under Lowest Conductors	2.153	160.35
	At Right-of-Way Edges	0.103 / 0.112	69.88 / 83.67

4906-6-05 (B)(9)(b)(ii): Alternative Design Consideration for Electric and Magnetic Fields

The strength of EMFs can potentially be reduced by installing the transmission line conductors in a compact configuration by selecting conductor phasing that reduces the field strengths. ATSI designs its facilities according to the requirements of the NESC. The pole heights and configuration were chosen based on NESC specifications, engineering parameters, and cost.

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

The estimated capital cost for the proposed Project is approximately $112,779,000.

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 St. Clairsville, Richland Township, Mead Township, Pultney Township, and Wheeling Township in Belmont County, Ohio, and Athens Township in Harrison County, Ohio.

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

A list of all agricultural land and acreage including agricultural district land is provided in Exhibit 5.

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

On behalf of ATSI, Jacobs Engineering Group Inc. ("Jacobs") submitted a Section 106 Review ("Review") for the entire Holloway-Knox 138kV Transmission Line Project in August 2020. The Review examined the records available through the Ohio Office of Historic Preservation's ("OHPO") online mapping database for known cultural resources within a 1-mile radius of the entire Project footprint (APE). As currently designed, all of the off-ROW preliminary access roads are within the 1-mile study area.

In a letter dated September 16, 2020 (attached as Exhibit 10), the OHPO concurred that the Project, as proposed, will not affect historic properties. Due to periodic updates to the OHPO online mapping system, an updated records review was conducted on November 22, 2022. This review identified 72 OAI (Ohio Archaeological Inventory)-listed archaeological sites, 59 OHI (Ohio Historical Inventory)-listed resources, 14 OGS (Ohio Genealogical Society)-listed cemeteries, six historic resources that have completed Determinations of Eligibility (DOE) forms, and two resources are listed on the National Register of Historic Places (NRHP) within 1 -mile of the APE. Additionally, 43 previous archaeological surveys have been documented within one mile of the Project.

The results of the records review identified 72 OAI-listed archaeological sites within 1-mile of the Project. This includes 43 prehistoric era sites, 21 historic era sites, and eight sites with prehistoric and historic components. There are no previous recorded archaeological sites within the APE.

Of the 72 OAI-listed archaeological sites, 44 sites have not been evaluated for listing on the NRHP, 23 sites are considered Not Eligible, two sites are considered Potentially Eligible, one site is considered Eligible, and two sites are listed on the NRHP. The closest site to the APE is site HN0051, an historic artifact scatter dating from the late 19th to 20th centuries approximately 500 feet southwest of the Nottingham Substation. Site HN0051 has not been evaluated for listing on the NRHP.

Two sites, BL0003 and BL0006, are listed on the NRHP. Site BL0003 (NRHP #75001323), also known as the Opatrny Village Site, is considered a multicomponent Prehistoric village site with earlier Late Archaic and Early Woodland affiliations. The site is approximately 0.52 miles southwest of the APE. Site BL0006 (NRHP #76001371), also known as the Brokaw Site, is recorded as a Middle to Late Woodland village site with some evidence of earlier Archaic and Early Woodland occupations. The site is

approximately 0.34 miles west of the APE. Neither of the sites will be affected by this Project.

None of the 59 OHI-listed structures, 14 OGS cemeteries, or six DOE historic resources are within the Project APE. The closest above ground resource to the APE is the Old Baptist Cemetery (OGS #939) located on TR 278 south of National Road (US Highway 40) and Interstate 70. The cemetery is approximately 120 feet southwest of the APE and will not be affected by the Project.

Seven of the 43 previous archaeological surveys intersect the APE. Three of the previously recorded archaeological investigations were Phase I surveys conducted for American Electric Power projects. These three previously recorded surveys intersect the APE near the Nottingham and Holloway Substations. The other investigations include a Phase I survey for mining activities, a Phase I survey for a fiber optics line, and Phase I and Phase II surveys for a pipeline project. No sites were identified during these previous investigations within the project APE.

Based upon this updated review, the Project will not impact any previously recorded archaeological sites or historic properties. Jacobs recommends that no further archaeological or architecture history investigations are required.

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

Table 5

Governmental Agency	Documents
Ohio Environmental Protection Agency (OEPA)	General NPDES Construction Storm Water Permit OHC000005
Harrison and Belmont County Soil and Water Conservation District	Storm Water Pollution Prevention Plan (SWP3) – Review Application

Belmont County	Floodplain development review
Ohio Department of Transportation; Harrison and Belmont County; Village of St, Clairsville; Athens, Wheeling, Richland, Pultney, and Mead Townships	Driveway entrance permits
Ohio Department of Transportation; Harrison and Belmont County; Village of St, Clairsville; Athens, Wheeling, Richland, Pultney, and Mead Townships	Roadway occupancy permits
Harrison and Belmont County; Village of St, Clairsville; Athens, Wheeling, Richland, Pultney, Mead, and Smith Townships	Special hauling permit
Columbus & Ohio River Railroad	Railroad crossings permits

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

Jacobs, on behalf of ATSI, submitted a request to the Ohio Department of Natural Resources ("ODNR") to conduct an Environmental Review of the Project area on January 17, 2023. As part of the Environmental Review, the ODNR conducted a search of the ODNR Division of Wildlife's Natural Heritage Database to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project area. The ODNR's response on February 7, 2023, stated that the Natural Heritage Database had two (2) state endangered species, three (3) state threatened species, two (2) state species of concern and a mussel bed within a one (1) mile radius of the Project area. The Division of Wildlife found that within range of the project area, there is one (1) state and federally endangered species, one (1) state endangered and federally threatened species, one (1) state endangered and federal species of concern, six (6) state endangered species, and three (3) state threatened species. A copy of ODNR's response is included as Exhibit 11.

Jacobs also submitted a request to the U.S. Fish and Wildlife Service ("USFWS") for an Ecological Review on January 17, 2023, to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project area. A copy of USFWS's Ecological Review response is included as Exhibit 12. The USFWS's response on January 26, 2023, indicated the federally endangered Indiana bat (Myotis sodalis) and the federally threatened northern long-eared bat (Myotis septentrionalis) are within the range of the Project. A list of all endangered, threatened, and rare species, as identified by ODNR and USFWS, is provided in Table 6.

Table 6. List of Endangered, Threatened, and Rare Species

Common Name	**Scientific Name**	**Federal Listed Status**	**State Listed Status**	**Affected Habitat**
Mammals				
Indiana bat	*Myotis sodalis*	Endangered	Endangered	Trees and forests
Northern long-eared bat	*Myotis septentrionalis*	Threatened	Endangered	Trees and forests
Little brown bat	*Myotis lucifugus*	NA	Endangered	Trees and forests
Tricolored bat	*Perimyotis subflavus*	NA	Endangered	Trees and forests
Birds				
Upland sandpiper	*Bartramia longicauda*	NA	Endangered	Grasslands
Northern harrier	*Circus cyaneus*	NA	Endangered	Marshes and grasslands
Amphibians				
Eastern hellbender	*Cryptobranchus alleganiensis*	Species of Concern	Endangered	Perennial streams
Mussels				
Butterfly	*Ellipsaria lineolata*	NA	Endangered	Perennial streams
Fish				
Western banded killifish	*Fundulus diaphanus menona*	NA	Endangered	Perennial streams
Channel darter	*Percina copelandi*	NA	Threatened	Perennial streams

Paddlefish	*Polyodon spathula*	NA	Threatened	Perennial streams
River darter	*Percina shumardi*	NA	Threatened	Perennial streams

The response from ODNR and USFWS indicated the Project is within range of four federal and/or state-listed bat species. In addition, there are records of three of these species (northern long-eared bat, little brown bat, and/or tricolored bat) within the vicinity of the majority of the entire Holloway-Knox Project (Carroll, Harrison, and Belmont Counties). Project construction will primarily occur within the existing 100-foot-wide ROW; however, minor tree clearing may be necessary for portions of the Project. Trees adjacent to the existing ROW, that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe operation of the transmission line. ATSI will utilize existing access roads and non-forested areas for any proposed access roads for the Project. Minor tree limb trimming may be needed along existing access roads in order to widen the access to the appropriate width required for construction equipment. To mitigate any potential bat roosting habitat impacts, any tree clearing needed for the Project will occur between October 1st and March 31st to minimize impacts to these species. Therefore, no adverse effect to these bat species are anticipated.

The response from ODNR indicated the Project is within the range of the butterfly, a state endangered mussel. No impact to this species is expected because no in-stream work is proposed.

The response from ODNR indicated the Project is within the range of one state endangered fish, the western banded killifish, and three state threatened fish: the channel darter, paddlefish, and river darter. No impacts to these species are expected because no in-stream work is proposed.

The response from ODNR indicated the Project is within the range of the eastern hellbender, a state endangered salamander and federal species of concern. No impacts to these species are expected due to the Project's location and because no in-stream work is proposed.

The response from ODNR indicated the Project is within range of the upland sandpiper, a state endangered bird. Impacts to dry grasslands, including native grasslands, seeded grasslands, hayfields, and grazed and un-grazed pastures, should be avoided during the nesting period of April 15th to July 31st.

The response from ODNR indicated the Project is within range of the northern harrier, a state endangered bird. Impacts to large marshes and grasslands should be avoided during the nesting period of April 15th to July 31st.

At the time of the field surveys, Jacobs' biologists documented land use and general habitats along the Project area. Based on this general assessment, Jacobs is identifying locations of grassland habitat areas that may be potential habitat for nesting bird species that were identified by ODNR. This habitat assessment will be provided to ODNR in a follow-up correspondence for the Project. ATSI has indicated that the installation of the access roads and work pads within any identified grassland habitat areas will take place outside of the corresponding seasonal nesting restrictions. If construction would be required within the seasonal restricted months, additional coordination with ODNR will be completed to determine the necessary field surveys under the current species protocols.

During the field surveys, Jacobs observed an osprey nest located on top of the existing H-frame Structure 2664 within the Nottingham-Holloway 138 kV transmission line portion (Phase 5) of the Project. The osprey was observed both in flight and nesting at the time of the survey. Although this species is not listed as threatened or endangered, FirstEnergy has coordinated with ODNR regarding the removal of the osprey nest prior to construction and

outside of the osprey nesting season of March through September. Through coordination with Laura Graber of ODNR, FirstEnergy removed the inactive osprey nest in January 2023. Prior to removal, the osprey nest was first inspected for adult osprey or eggs and none were found.

Jacobs has mapped the various habitats within the Project's disturbance area to identify any areas of concern relating to the above-listed species. Coordination with ODNR will continue to evaluate appropriate avoidance and minimization measures, including but not limited to sequencing construction activities to address seasonal restrictions to reduce potential impact or presence/absence surveys for the identified species.

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

Jacobs, on behalf of ATSI, consulted with the ODNR and the USFWS for the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forest, national wildlife refuges, or other protected natural areas within one (1) mile of the project area. The USFWS's response on January 27, 2023 and ODNR's response on February 7, 2023, indicated that there are no federal or state wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project area. A copy of ODNR's response is included as Exhibit 11. A copy of USFWS's Ecological Review response is included as Exhibit 12.

ATSI contracted with Jacobs to conduct a wetland and stream delineation of the Holloway-Nottingham #1 and #2 138 kV Transmission Lines Rebuild Project. Jacobs' assessment focused on the approximately 21 miles of existing 100-foot-wide transmission line ROW that starts in Belmont County at Holloway Station and ends in Harrison County at Nottingham Station, as shown on the Overview Maps (Exhibit 1 and 2).

Jacobs conducted an environmental survey of the Holloway-Nottingham #1 and #2 138 kV Transmission Lines Rebuild Project in May through June 2018, April 2019, and May 2020, of which the results are shown in Exhibit 13. A total of 71 wetlands, 79 streams, and

13 ponds were delineated within the environmental survey corridor (ESC) as shown in Figures 3A-3F of Exhibit 16. The 71 wetlands totaling 25.49 acres within the ESC were identified as two different wetland habitat types which included 67 PEM wetlands, and four PSS wetlands. Of the 71 wetlands, 50 wetlands were identified as Category 1 wetlands and 21 wetlands were identified as Category 2 wetlands. No Category 3 wetlands were identified within the ESC. The 79 streams totaling 23,506 linear feet identified within the ESC include 48 ephemeral streams, 21 intermittent streams, and 10 perennial streams. Seventy-three streams were assessed using the HHEI methodology (drainage area less than 1 mi^2) and six streams were assessed using the QHEI methodology (drainage area greater than 1 mi^2). Additionally, the 13 ponds were identified within the ESC totaling 8.3 acres.

All streams will be crossed above the ordinary high water mark to avoid impacts and no in-stream work is proposed for the Project. Additionally, ATSI will utilize best management practices to avoid any indirect impact to streams and wetlands through its use of erosion and sediment controls. Streams will either be avoided or bridged (no work below the ordinary high water mark), and wetlands will be traversed using low ground pressure equipment and/or matted through. Through the initial design phase, ATSI avoided the placement of structures and access roads within wetlands to the extent practical. No proposed structures will be placed within wetlands along the Project; therefore, no permanent impacts to wetlands are anticipated. There are nine unavoidable PEM wetland areas that will be temporarily disturbed by access roads and work pads. In these areas, a total of approximately 0.62 acres of wetland will be temporarily disturbed during construction by the installation of timber matting for access road crossings and work pads.

Additionally, a review of the online FEMA Flood Insurance Rate Mapping was performed. Some Project work limits in Belmont County are located within a regulated

floodplain. Jacobs will consult with Belmont County Floodplain Administrator for floodplain development review if required.

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 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 is being provided concurrently with its docketing with the Board to the following officials:

Belmont County

Mr. Josh Meyer
Belmont County Commissioner
3425 Clinton St
Bellaire, OH 43906

Mr. J.P. Dutton
Belmont County Commissioner
44725 Moriah Dr
St. Clairsville, OH 43950

Mr. Terry Lively
Belmont County Engineer
101 West Main St.
St, Clairsville, OH 43950

Mr. Jerry Echemann
Belmont County Commissioner
427 Elm St
Martins Ferry, OH 43935

Wheeling Township

Mr. Steve Vcelka
Wheeling Township Trustee
71941 Barylak Rd
Flushing, OH 43977

Mr. Michael Drake
Wheeling Township Trustee
71080 Gas Station Shippey Rd
St. Clairsville, OH 43950

Mr. Richard Verardi
Wheeling Township Trustee
47564 Fairpoint Maynard Rd
St. Clairsville, OH 43950

Mr. Mike Butler
Wheeling Township Fiscal Officer
71179 Main St Fairpoint
St. Clairsville, OH 43950

Mead Township

Mr. Edward Good
Mead Township Trustee
56080 Matts LN
Shadyside, OH 43947

Mr. Paul Merryman
Mead Township Trustee
56250 Skyline Dr
Shadyside, OH 43947

Mr. Clyde Hammond
Mead Township Trustee
58970 Kirkland Hill Rd
Bellaire, OH 43906

Mr. David Albright
Mead Township Fiscal Officer
53322 Cash Ridge Rd
Shadyside, OH 43947

Pultney Township

Mr. Mark Cervelli
Pultney Township Trustee
56339 Hospital Rd
Bellaire, OH 43906

Mr. Franklin Shaffer Jr
Pultney Township Trustee
65140 Breezy Point Ln
Bellaire, OH 43906

Mr. John Laroche
Pultney Township Trustee
66245 Mcgregor Hill Rd
Bellaire, OH 43906

Ms. Marla Krupnik
Pultney Township Fiscal Officer
1410 High St
Bellaire, OH 43906

Richland Township

Mr. Greg Clark
Richland Township Trustee
64101 Clark Ln
PO Box 1255
Jacobsburg, OH 43933

Mr. Richard Ferrell
Richland Township Trustee
66609 Anna Dr
St. Clairsville, OH 43950

Mr. James Denoble
Richland Township Trustee
67761 graham Rd
St Clairsville, OH 43950

Mr. Mathew Berher
Richland Township Fiscal Officer
124 W Main St
St. Clairsville, OH 43950

St. Clairsville

Ms. Kathryn Thalman
St. Clairsville Mayor
108 Patti Ln
St. Clairsville, OH 43950

Ms. Kristi Lee Lipscomb
St. Clairsville Ward 3 Council
206 Sunset Dr.
St. Clairsville, OH 43950

Mr. Jim Velas
St. Clairsville Council President
PO Box 592
108 N Butler St
St. Clairsville Oh, 43950

Mr. Jacob DeBertand
St. Clairsville Council Clerk
100 North Market Street
St. Clairsville, OH 43950

Harrison County

Mr. Paul Coffland
Harrison County Commissioner
19 Country Club Manager
Cadiz, OH 43907

Mr. Dustin Corder
Harrison County Commissioner
38440 Brushy Fork Rd
Cadiz, OH 43907

Ms. Amy Norris
Harrison County Commissioner
700 Deersville Ave
Cadiz, OH 43907

Mr. Douglas Nelson Bachman
Harrison County Engineer
86407 North Bay Rd
Scio, OH 43988

Athens Township

Mr. Robert Applegarth
Athens Township Trustee
43270 Stumptown Rd
Cadiz, OH 43907

Mr.Michael Saffell
Athens Township Trustee
193 N Main St
P.O.Box 28
New Athens, OH 43981

Mr. David Butler
Athens Township Trustee
117 E Wheeling St
New Athens, OH 43981

Mr. David Allen Watson
Athens Township Fiscal Officer
74070 Flushing New Athens Rd.
PO Box 147
New Athens, OH 43981

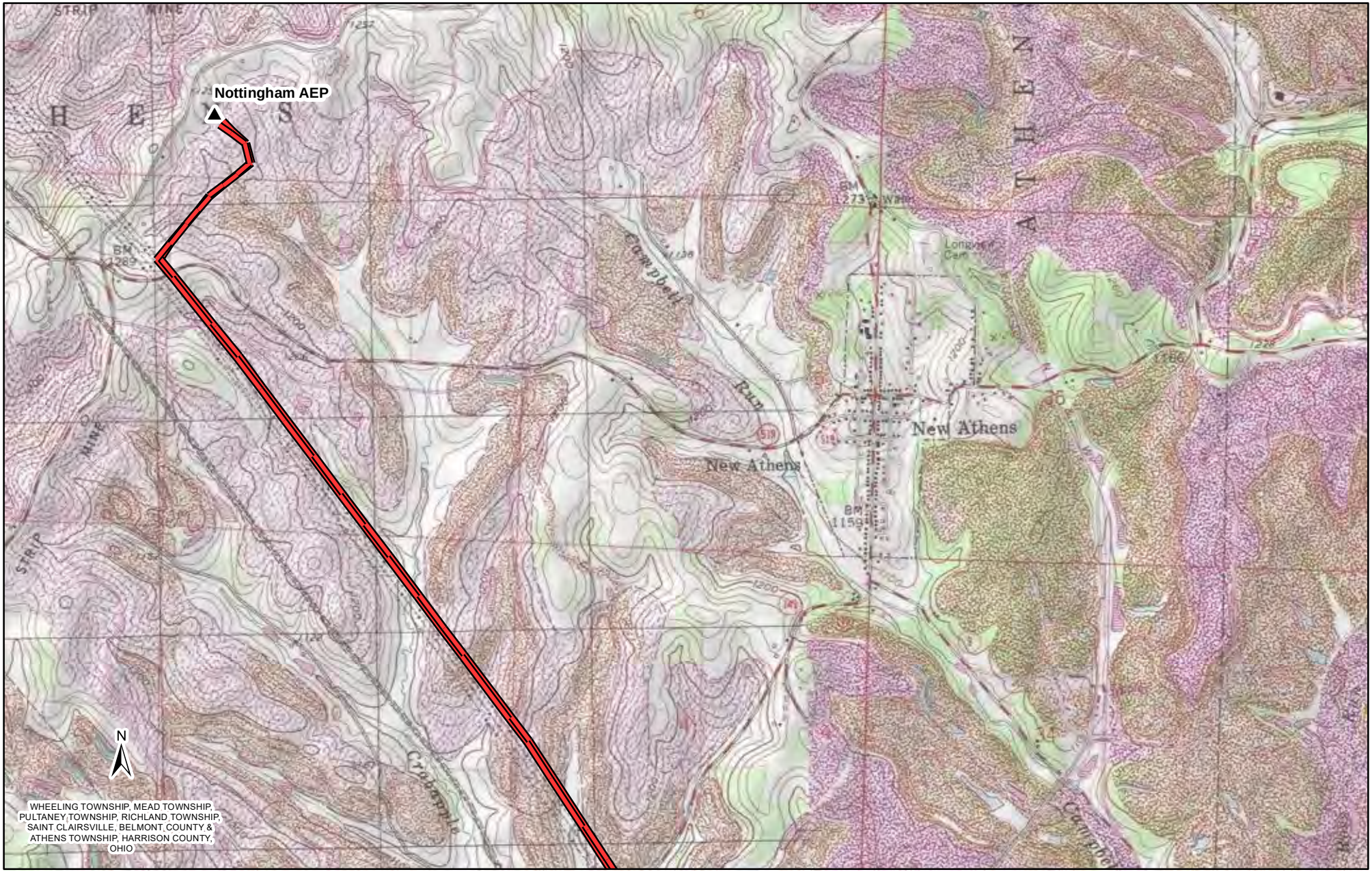
Libraries

Mr. Doug Walsh, Director
St. Clairsville Public Library
108 W Main St,
St. Clairsville OH 43950

Ms. Sandi Thompson, Director
Puskarich Public Library
200 E Market St.,
Cadiz, OH 43907

Copies of the transmittal letters to these officials have been included with this application as proof of compliance under OAC Rule 4906-6-07 (B) to provide the Board with proof of notice to local officials as required by OAC Rule 4906-6-07 (A)(1) and to libraries per OAC Rule 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 OAC Rule 4906-6-07 (B) and to provide the Board with proof of compliance with the notice requirements in OAC Rule 4906-6-07 (A)(3).



LEGEND:

Holloway-Nottingham No. 1 & No. 2 138 kV Transmission Lines

Substation

0 1,000 2,000 4,000

Feet

Reference:
USGS Topographical Overlay

Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
Projection: Lambert Conformal Conic; Units: Foot US

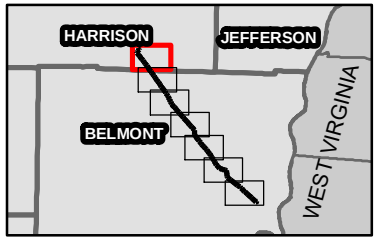
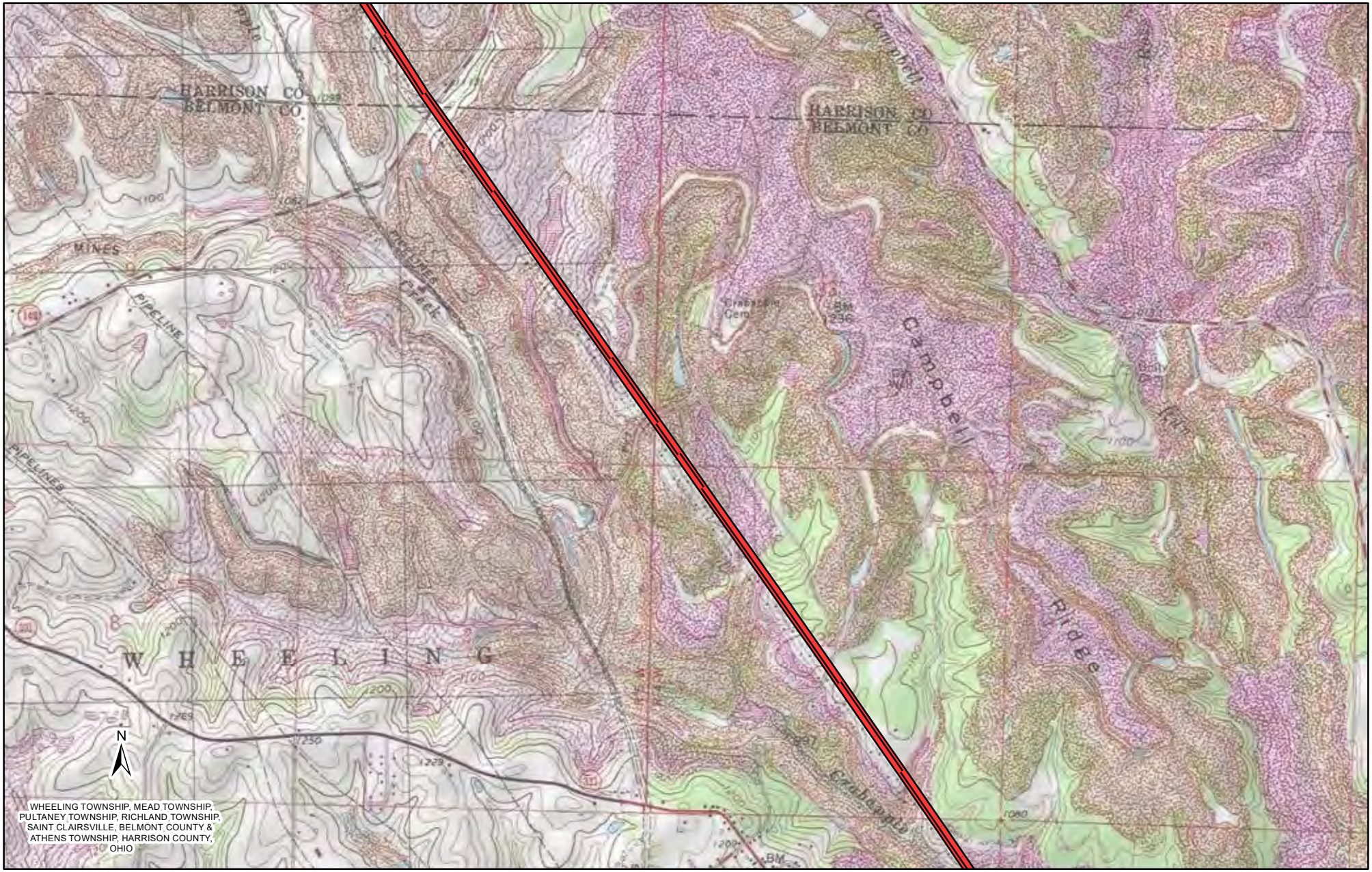


EXHIBIT 1

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

Holloway-Knox Rebuild Project
Phase 5



LEGEND:

Holloway-Nottingham No. 1 & No. 2 138 kV Transmission Lines

▲ Substation

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Feet

Reference:
USGS Topographical Overlay

Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
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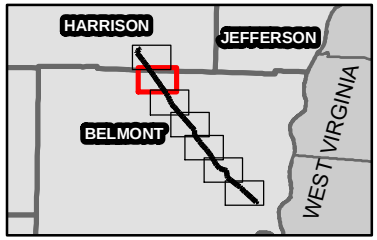

EXHIBIT 1

ATSI®
American Transmission Systems, Inc
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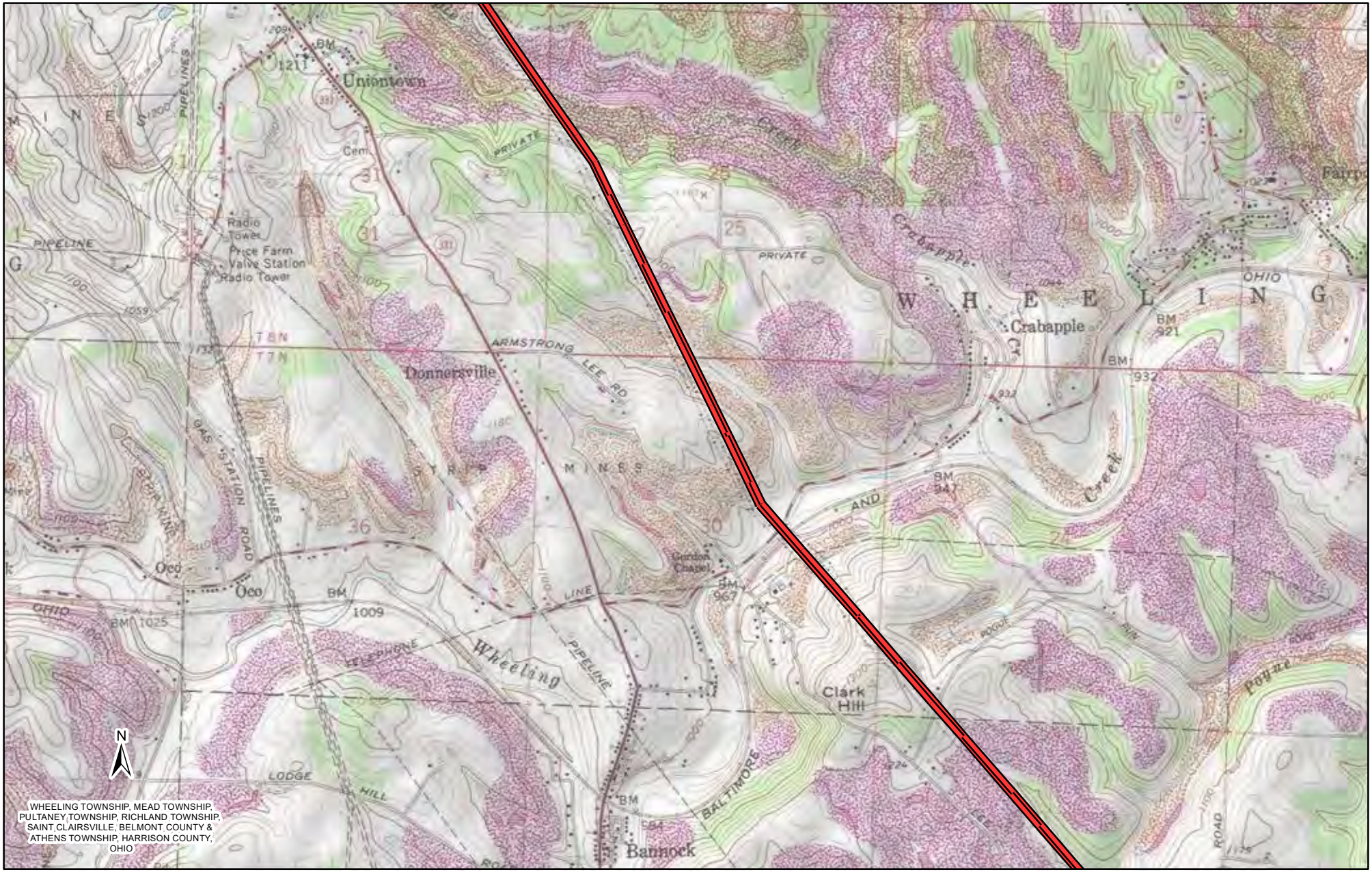
Holloway-Knox Rebuild Project
Phase 5



LEGEND:

Holloway-Nottingham No. 1 & No. 2 138 kV Transmission Lines

Substation

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Feet

Reference:
USGS Topographical Overlay

Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
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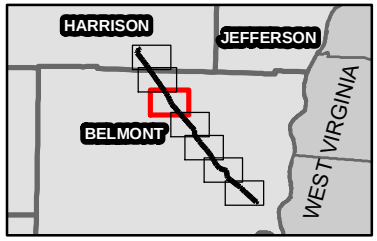

EXHIBIT 1

ATSI®
American Transmission Systems, Inc
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Holloway-Knox Rebuild Project
Phase 5

LEGEND:

- Holloway-Nottingham No. 1 & No. 2 138 kV Transmission Lines
- ▲ Substation

0 1,000 2,000 4,000
Feet

Reference:
USGS Topographical Overlay

Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
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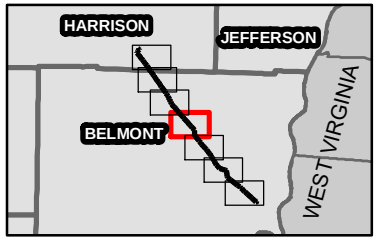

EXHIBIT 1

ATSI
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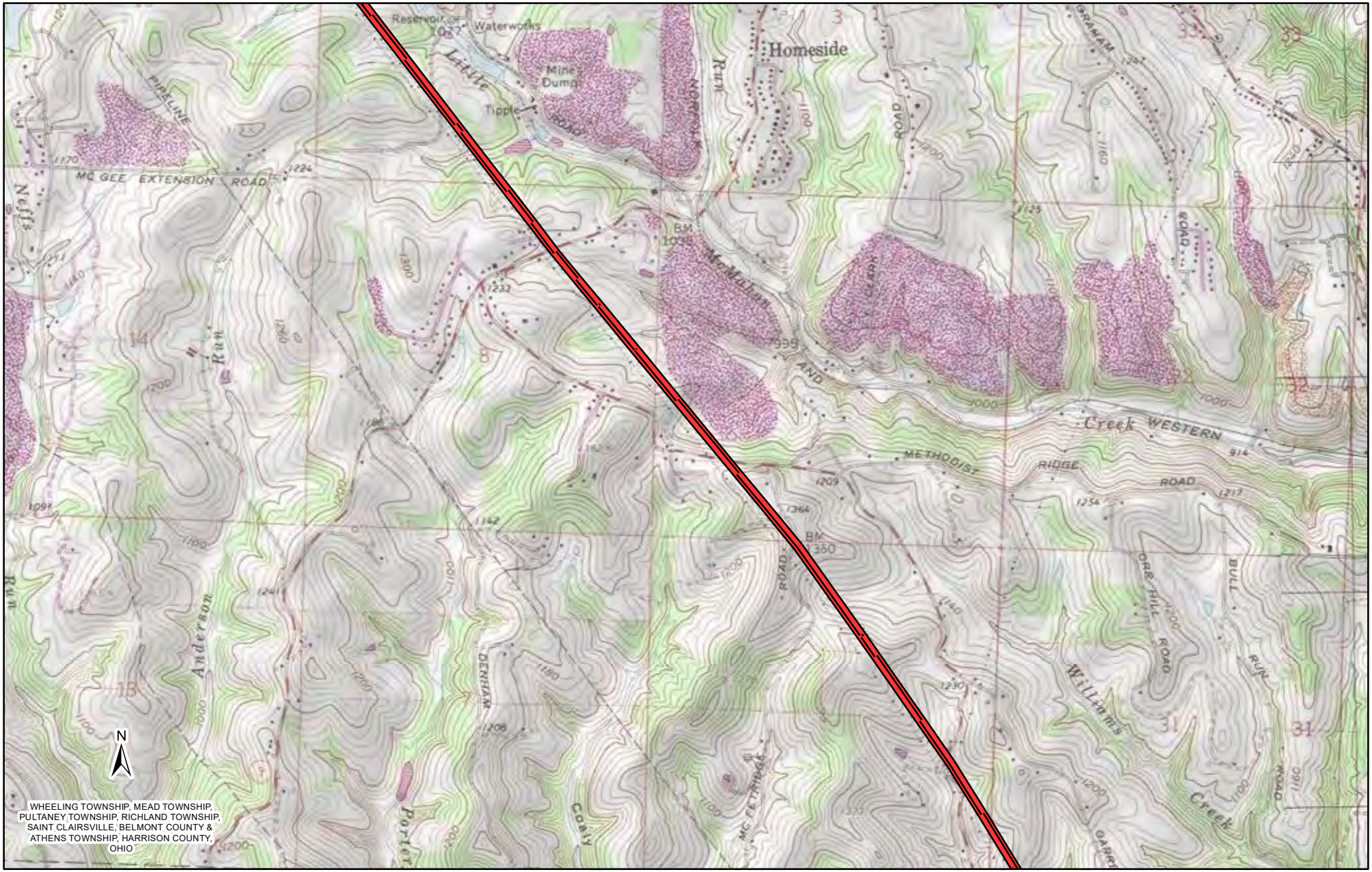
Holloway-Knox Rebuild Project
Phase 5



LEGEND:

Holloway-Nottingham No. 1 & No. 2 138 kV Transmission Lines

Substation

0 1,000 2,000 4,000

Feet

Reference:
USGS Topographical Overlay

Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
Projection: Lambert Conformal Conic; Units: Foot US

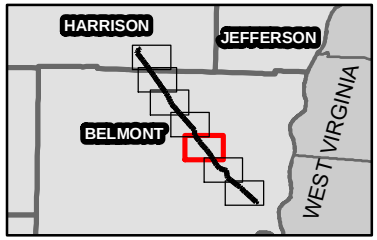


EXHIBIT 1

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

Holloway-Knox Rebuild Project
Phase 5

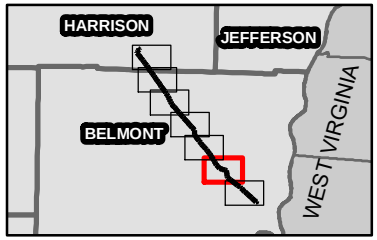
LEGEND:

- Holloway-Nottingham No. 1 & No. 2 138 kV Transmission Lines
- ▲ Substation

0 1,000 2,000 4,000
Feet

Reference:
USGS Topographical Overlay

Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
Projection: Lambert Conformal Conic; Units: Foot US



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0 1,000 2,000 4,000

Feet

Reference:
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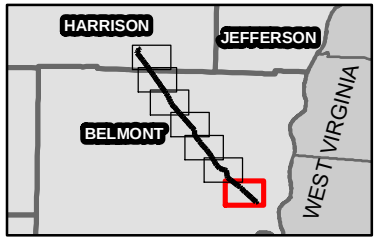
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
Projection: Lambert Conformal Conic; Units: Foot US



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Phase 5

LEGEND:

- Holloway-Nottingham No. 1 & No. 2 138 kV Transmission Lines
- Substation
- Roads
- City
- County

0 1,000 2,000 4,000
Feet

Reference:
ESRI Aerial Imagery

Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
Projection: Lambert Conformal Conic; Units: Foot US

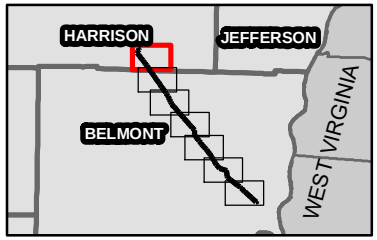

EXHIBIT 2

ATSI®
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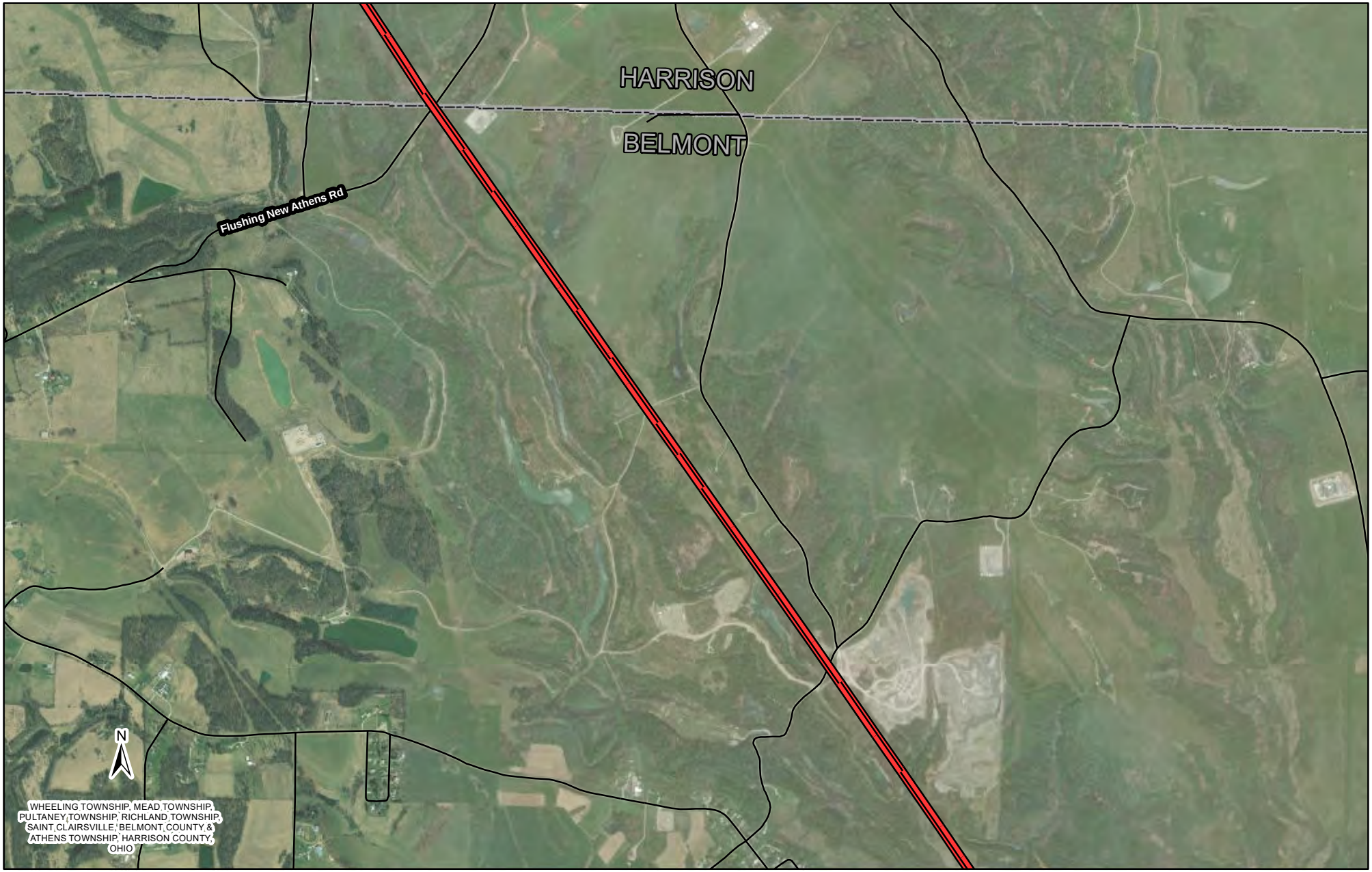
Holloway-Knox Rebuild Project
Phase 5



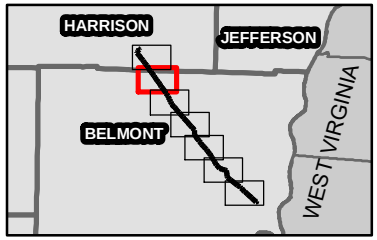
LEGEND:

- Holloway-Nottingham No. 1 & No. 2 138 kV Transmission Lines
- Substation
- Roads
- City
- County

0 1,000 2,000 4,000
Feet

Reference:
ESRI Aerial Imagery

Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
Projection: Lambert Conformal Conic; Units: Foot US



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Holloway-Knox Rebuild Project
Phase 5

LEGEND:

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0 1,000 2,000 4,000
Feet

Reference:
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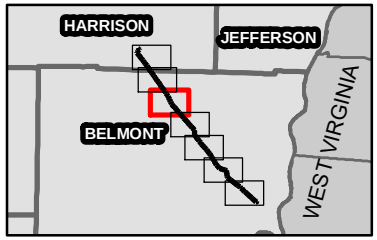

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Phase 5

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0 1,000 2,000 4,000
Feet

Reference:
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Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
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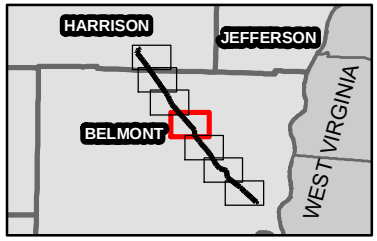

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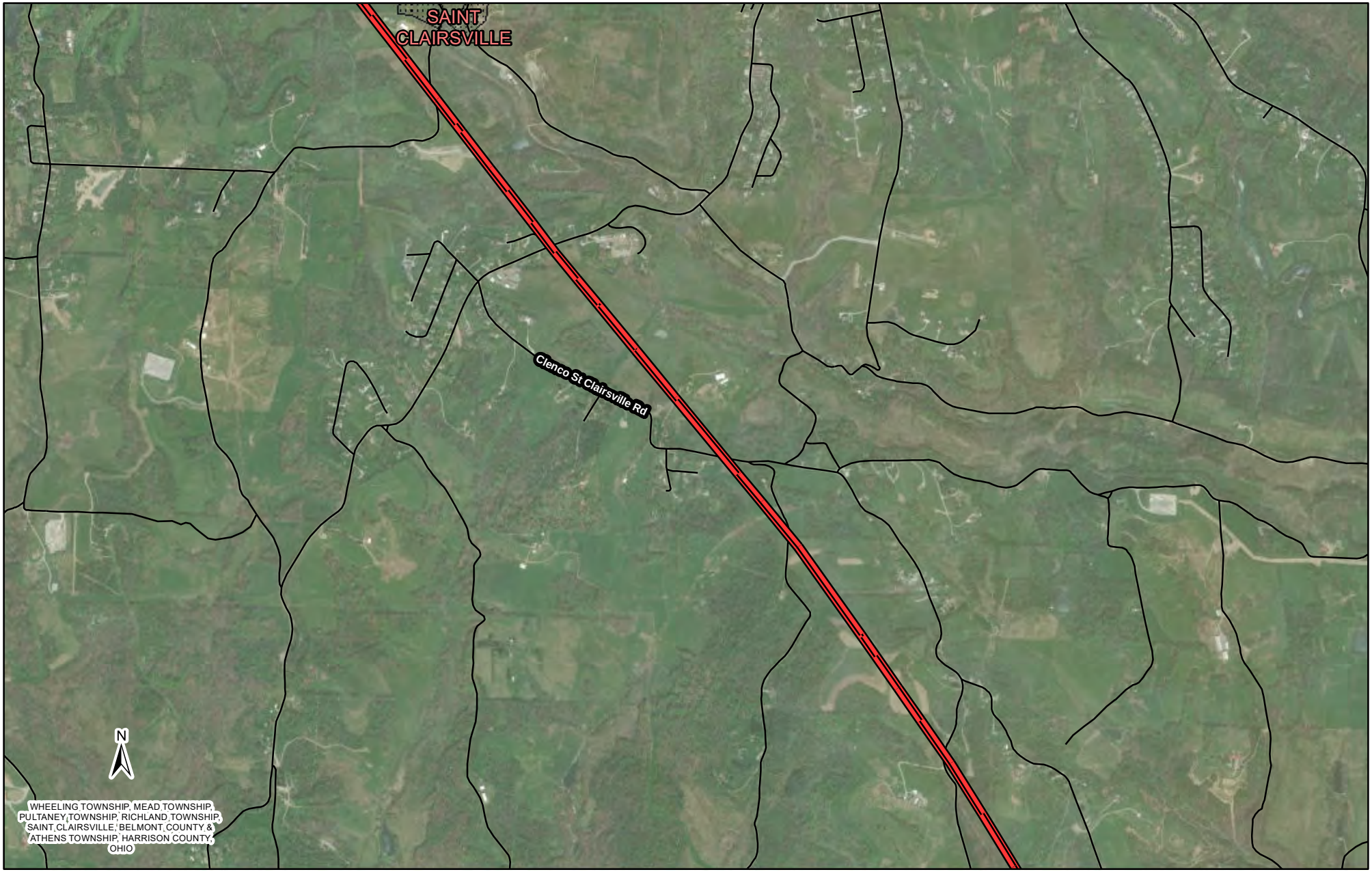
Holloway-Knox Rebuild Project
Phase 5



LEGEND:

- Holloway-Nottingham No. 1 & No. 2 138 kV Transmission Lines
- Substation
- Roads
- City
- County

0 1,000 2,000 4,000
Feet

Reference:
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Coordinate System:
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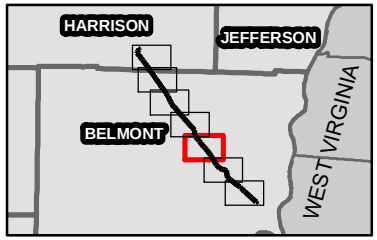
Projection: Lambert Conformal Conic; Units: Foot US



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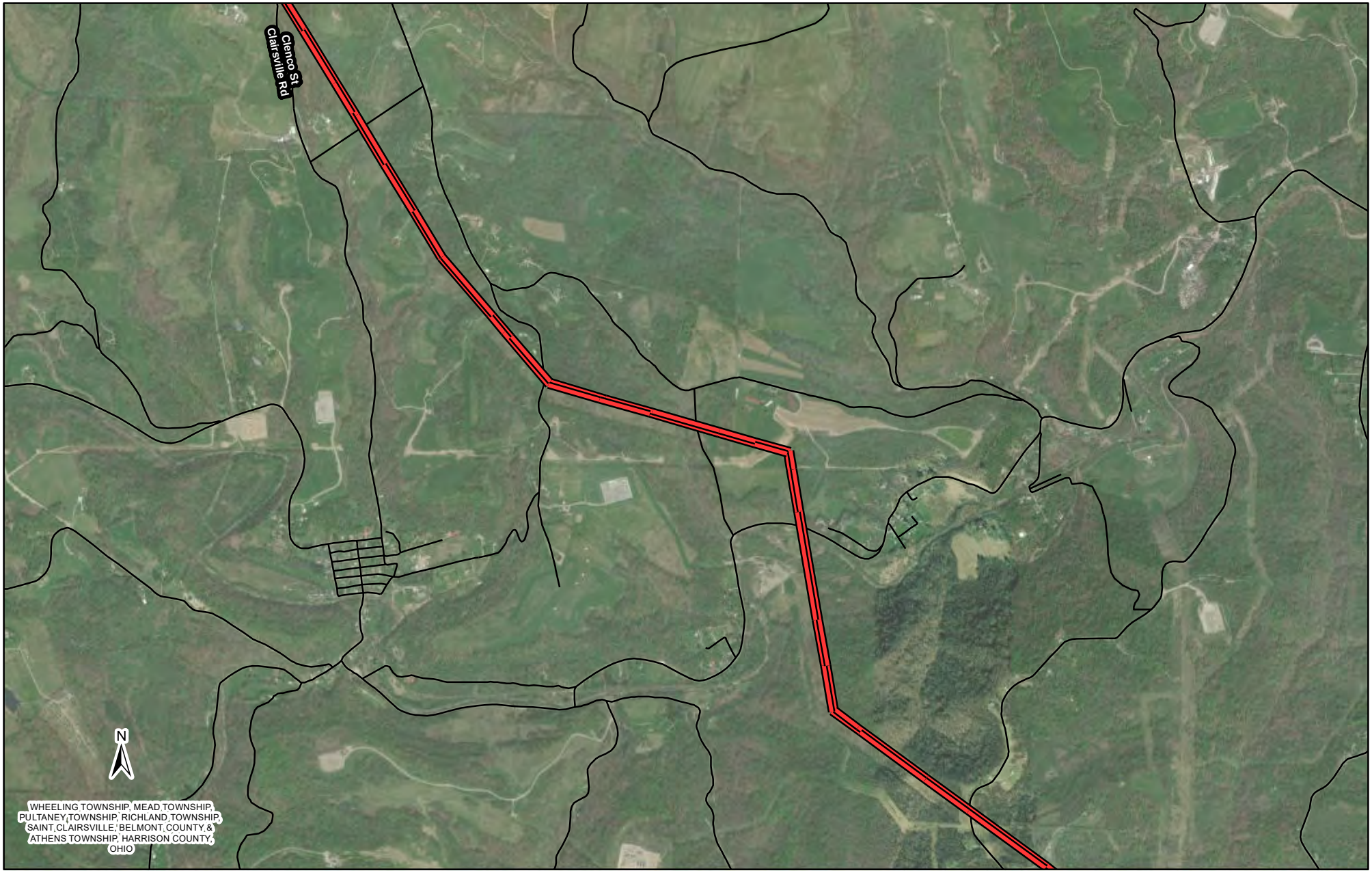
Holloway-Knox Rebuild Project
Phase 5



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- Substation
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0 1,000 2,000 4,000
Feet

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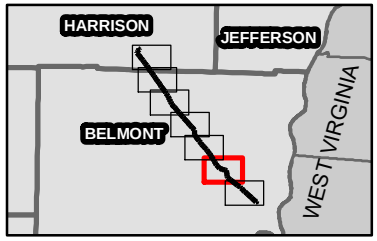

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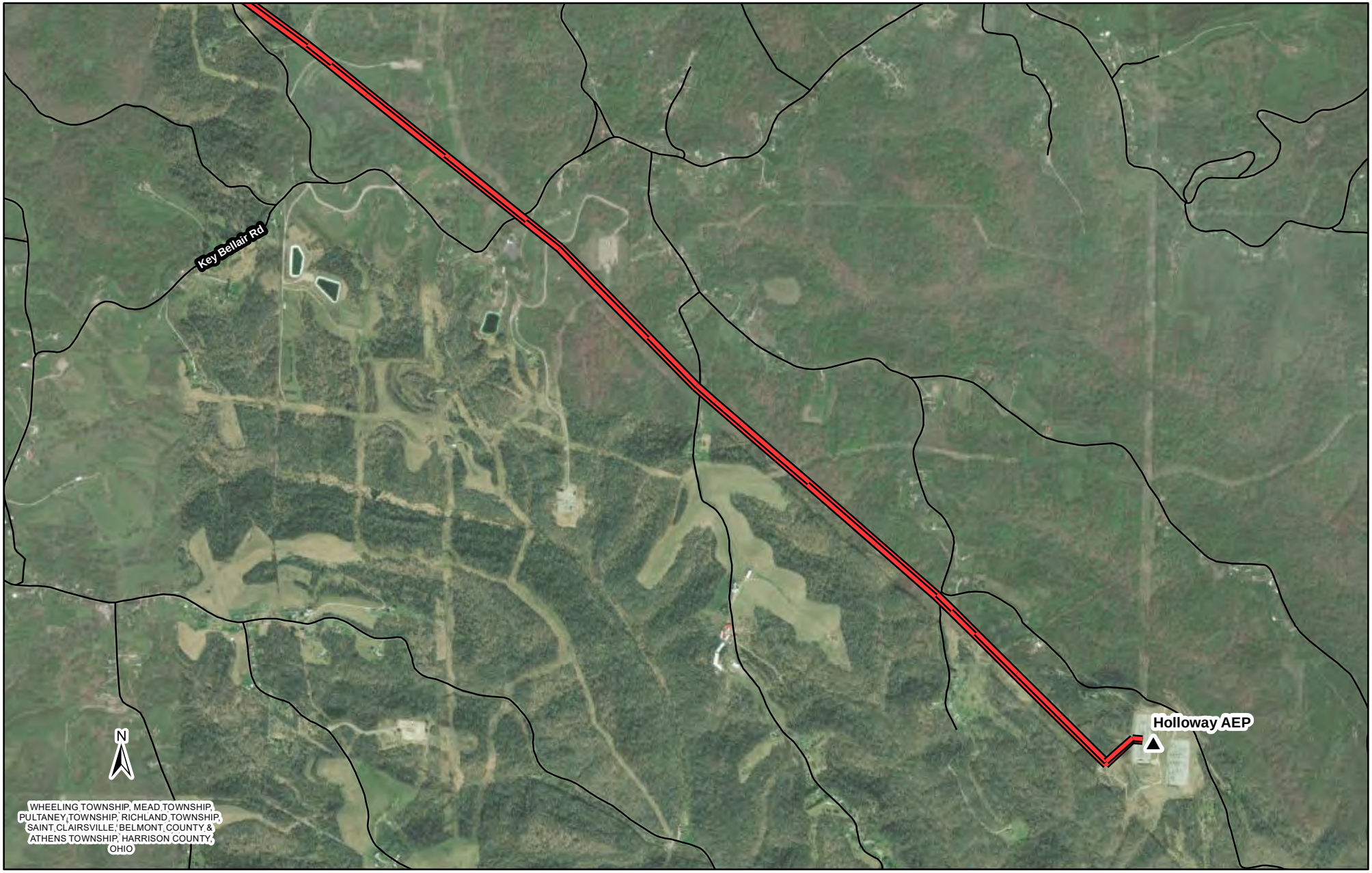
Holloway-Knox Rebuild Project
Phase 5



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- Substation
- Roads
- City
- County

0 1,000 2,000 4,000
Feet

Reference:
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Coordinate System:
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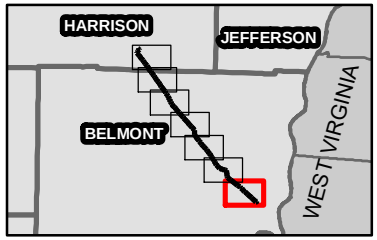

EXHIBIT 2

ATSI®
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Holloway-Knox Rebuild Project
Phase 5

HARRISON & BELMONT
COUNTIES
STATE OF OHIO

NOTTINGHAM
SUB

HARRISON COUNTY
BELMONT COUNTY

HOLLOWAY SUB

LEGEND

- AEP SUBSTATION
- 138kV TRANSMISSION REBUILD
- COUNTY BOUNDARIES

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

Holloway-Knox 138 kV Trasnmission Line Rebuild Project
Holloway Sub to Nottingham Sub Segment

GENERAL LAYOUT

EXHIBIT 3

PAPER SIZE: 11X8.5

SCALE: NTS

ATSI Transmission Zone
Holloway-Nottingham-Knox 138 kV Line

Previously Presented: 8/31/2018 SRRTEP

Problem Statement (Scope and Need/Drivers)

Equipment Material Condition, Performance and Risk

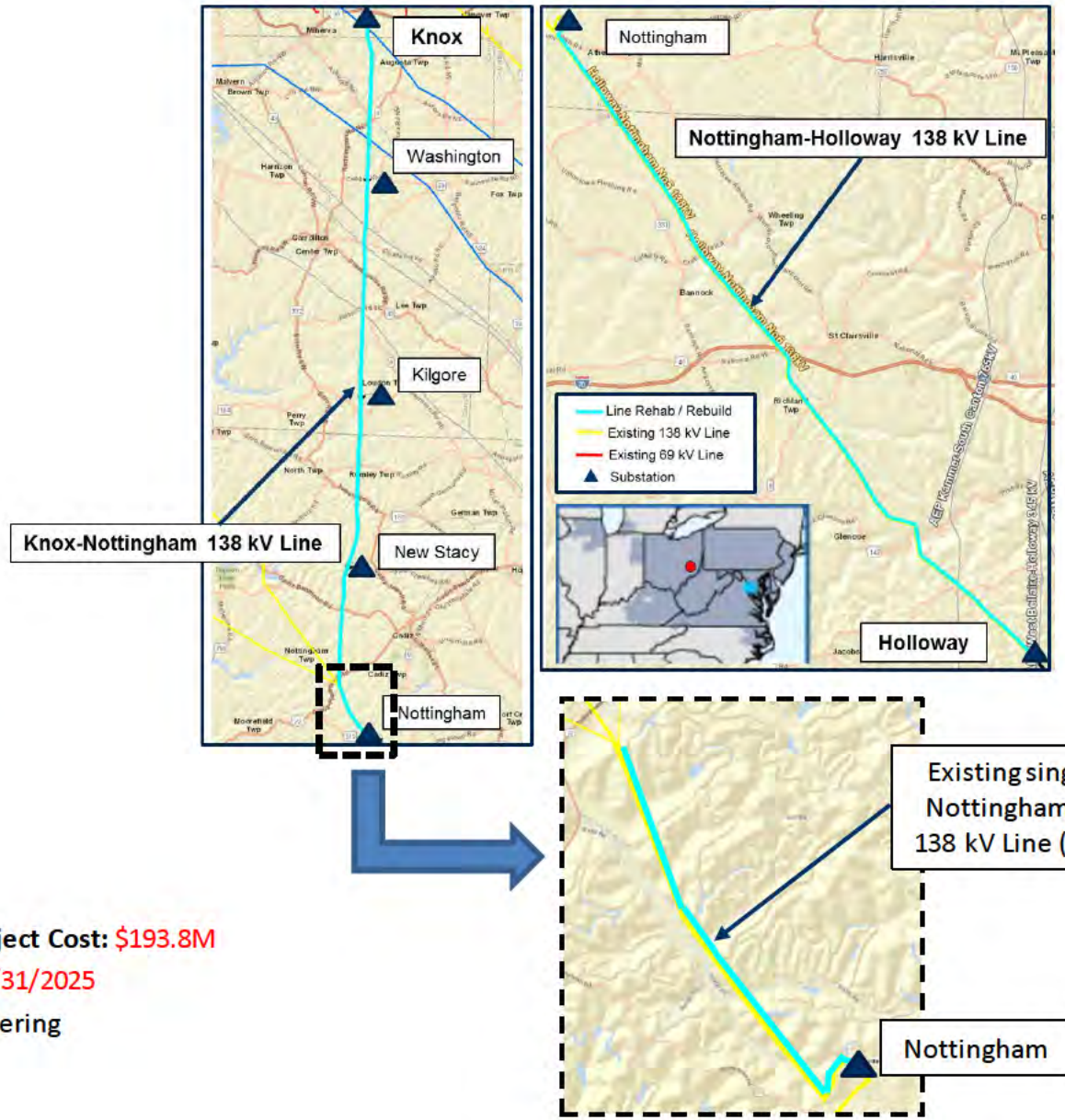
- Improve system reliability ad performance
- Remove obsolete and deteriorated equipment
  - 53 to 82 year old construction
  - ~~57%~~ 83% inspection rejection rate
  - ~~Approximately 29 repair records over the past 3 years; increasing trend~~
  - 529 active repair conditions; negative increase in maintenance findings
- Upgrade to current standards
- Support shale gas load growth area; multiple (6) transmission service connections

Potential Solution:

Holloway-Nottingham-Knox 138 kV Line Rebuild (s1718)

- Rebuild the existing Knox-Nottingham 138 kV Line (Approximately 44 miles).
- Rebuild the existing Nottingham-Holloway #1 138 kV Line (Approximately 21 miles)
- Existing Conductor: Mixed conductor 795 ACSR & 477 ACSR
- Future Conductor: 795 ACSR
- Old Rating 158 MVA SN New Rating 275 MVA SN
- Rebuild the existing Nottingham-Holloway #2 138 kV Line (Approximately 21 miles) sharing a structure with the Nottingham-Holloway #1 138 kV Line
- Old Rating 200 MVA SN New Rating 275 MVA SN
- Rebuild a portion of the Nottingham-Yager #1 138 kV Line (Approximately 3.6 miles) sharing a structure with the Knox-Nottingham 138 kV Line
- Old Rating 200 MVA SN New Rating 275 MVA SN

Alternatives Considered: Maintain existing condition



Estimated Project Cost: $193.8M

Project ISD: 5/31/2025

Status: Engineering

Exhibit 5
Property Owner List and Agricultural Land
Holloway - Knox 138 kV Transmission Line Rebuild Project –
Holloway Sub to Nottingham Sub Segment
Case Number 23-0141-EL-BLN

Parcel Number	Acreage	Easement Status	Agricultural District (Yes/No)	Agricultural District Expiration Year
32-01410.011	2.7522	Existing	No	N/A
32-01410.010	5.201	Existing	No	N/A
32-01410.013	8.1310	Existing	No	N/A
30-00206.000	1.020	Existing	No	N/A
30-00204.000	1.00	Existing	No	N/A
30-00205.000	0.68	Existing	No	N/A
32-03976.000	17.812	Existing	No	N/A
30-00568.000	33.10	Existing	No	N/A
50-00425.000	1.664	Existing	No	N/A
50-00428.000	52.116	Existing	No	N/A
50-00667.000	12.014	Existing	No	N/A
50-00027.000	0.300	Existing	No	N/A
50-00023.000	2.57	Existing	No	N/A
50-00020.000	1.12	Existing	No	N/A
50-00430.000	9.34	Existing	No	N/A
32-01230.000	10.29	Existing	No	N/A
50-00427.000	1.798	Existing	No	N/A
50-00426.000	12.060	Existing	No	N/A
32-01455.000	95.68	Existing	No	N/A
32-01414.000	27.00	Existing	No	N/A
32-01709.005	5.010	Existing	No	N/A
50-00430.002	62.79	Existing	No	N/A
32-01753.005	20.6817	Existing	No	N/A
30-00430.000	46.993	Existing	No	N/A
30-00429.000	141.2620	Existing	No	N/A
51-00160.010	2.180	Existing	No	N/A
51-00169.000	6.10	Existing	No	N/A
49-00004.007	6.492	Existing	No	N/A
51-00160.009	1.180	Existing	No	N/A
32-03428.002	2.390	Existing	No	N/A
32-03428.000	59.390	Existing	No	N/A
32-03428.001	1.870	Existing	No	N/A
32-01329.001	0.030	Existing	No	N/A
32-01329.002	0.010	Existing	No	N/A
32-01329.003	11.360	Existing	No	N/A
32-03357.000	0.00	Existing	No	N/A
020000116000	Not Available	Existing	No	N/A
020000122000	25.99	Existing	No	N/A
020000095000	Not Available	Existing	No	N/A
020000128000	157.95	Existing	No	N/A
020000130000	Not Available	Existing	No	N/A
32-01523.000	32.0205	Existing	No	N/A
32-01523.001	1.348	Existing	No	N/A
32-01579.000	10.050	Existing	No	N/A
32-03488.000	32.050	Existing	No	N/A
32-03488.001	4.00	Existing	No	N/A
32-03488.002	1.309	Existing	No	N/A
14-00278.000	35.220	Existing	No	N/A
32-03354.000	0.00	Exiting	No	N/A

Exhibit 5
Property Owner List and Agricultural Land
Holloway - Knox 138 kV Transmission Line Rebuild Project –
Holloway Sub to Nottingham Sub Segment
Case Number 23-0141-EL-BLN

Parcel Number	Acreage	Easement Status	Agricultural District (Yes/No)	Agricultural District Expiration Year
30-00344.000	65.810	Existing	No	N/A
30-00345.000	31.390	Existing	No	N/A
30-00346.000	31.230	Existing	No	N/A
30-00211.000	1.00	Existing	No	N/A
30-00483.000	0.040	Existing	No	N/A
30-00494.000	96.080	Existing	No	N/A
50-00476.000	104.720	Existing	No	N/A
50-00436.000	30.00	Existing	No	N/A
50-01243.000	0.160	Existing	No	N/A
50-00481.000	180.410	Existing	No	N/A
14-00182.000	15.0080	Existing	No	N/A
32-01209.000	75.00	Existing	No	N/A
32-01211.000	3.00	Existing	No	N/A
32-01218.000	31.20	Existing	No	N/A
32-01217.000	53.480	Existing	No	N/A
32-01208.000	3.00	Existing	No	N/A
49-00010.001	12.720	Existing	No	N/A
49-00007.002	4.010	Existing	No	N/A
49-00004.003	12.390	Existing	No	N/A
51-00169.006	15.560	Existing	No	N/A
51-00148.000	77.232	Existing	No	N/A
32-03671.000	70.20	Existing	No	N/A
32-03671.003	1.160	Existing	No	N/A
32-03671.004	0.10	Existing	No	N/A
51-00149.008	0.10	Existing	No	N/A
51-00149.000	33.713	Existing	No	N/A
51-00158.005	8.153	Existing	No	N/A
51-00158.004	10.201	Existing	No	N/A
50-01237.000	6.1290	Existing	No	N/A
32-03835.000	67.7040	Existing	No	N/A
32-03700.000	63.960	Existing	No	N/A
32-01459.000	44.730	Existing	No	N/A
32-03691.000	22.008	Existing	No	N/A
32-03691.002	13.565	Existing	No	N/A
32-01409.000	51.6080	Existing	No	N/A
32-00019.001	6.340	Existing	No	N/A
30-00181.000	0.316	Existing	No	N/A
30-00358.001	1.346	Existing	No	N/A
30-00358.000	47.1640	Existing	No	N/A
30-00115.000	0.600	Existing	No	N/A
32-01709.006	3.096	Existing	No	N/A
32-01629.002	2.2070	Existing	No	N/A
32-01466.000	14.274	Existing	No	N/A
32-01483.001	117.060	Existing	No	N/A
32-01523.003				
32-01440.000	15.720	Existing	No	N/A
32-01440.004	33.210	Existing	No	N/A
30-00347.000	56.52	Existing	No	N/A

Exhibit 5
Property Owner List and Agricultural Land
Holloway - Knox 138 kV Transmission Line Rebuild Project –
Holloway Sub to Nottingham Sub Segment
Case Number 23-0141-EL-BLN

Parcel Number	Acreage	Easement Status	Agricultural District (Yes/No)	Agricultural District Expiration Year
32-01484.000	34.60	Existing	No	N/A
32-01482.000	56.256	Existing	No	N/A
32-01483.000	11.82	Existing	No	N/A
32-01665.015	6.83	Existing	No	N/A
51-00245.002	25.94	Existing	No	N/A
32-01451.000	11.26	Existing	No	N/A
32-01450.000	1.58	Existing	No	N/A
26-01764.000	13.59	Existing	No	N/A
26-03289.000	5.43	Existing	No	N/A
32-01254.000	155.90	Existing	No	N/A
32-01255.000	1.29	Existing	No	N/A
32-01253.000	10.00	Existing	No	N/A
32-01665.018	5.038	Existing	No	N/A
32-01752.000	20.81	Existing	No	N/A
32-01752.001	2.00	Existing	No	N/A
30-00002.000	1.96	Existing	No	N/A
30-00371.000	79.60	Existing	No	N/A
14-00205.000	40.00	Existing	No	N/A
32-01709.014	5.0010	Existing	No	N/A
30-00004.000	1.410	Existing	No	N/A
30-00196.000	3.710	Existing	No	N/A
30-00195.000	1.49	Existing	No	N/A
30-00392.000	4.76	Existing	No	N/A
30-00327.000	1.540	Existing	No	N/A
30-00335.000	232.560	Existing	No	N/A
30-00365.002	10.533	Existing	No	N/A
32-01665.004	55.710	Existing	No	N/A
30-00403.001	16.86	Existing	No	N/A
32-01666.002	2.000	Existing	No	N/A
32-01666.003	0.34	Existing	No	N/A
32-01666.001	13.67	Existing	No	N/A
30-00403.002	10.27	Existing	No	N/A
30-00517.000	120.92	Existing	No	N/A
30-00362.000	1.2200	Existing	No	N/A
30-00363.000	8.310	Existing	No	N/A
30-00506.000	63.27	Existing	Yes	2027
15-00791.000	124.327	Existing	No	N/A
15-00082.004	31.844	Existing	No	N/A
14-00260.000	11.30	Existing	No	N/A
32-01410.006	5.020	Existing	No	N/A
32-01410.014	4.297	Existing	No	N/A
32-01410.021	4.373	Existing	No	N/A
32-01538.000	15.010	Existing	No	N/A
51-00149.006	13.79	Existing	No	N/A
49-00004.006	3.74	Existing	No	N/A
51-00160.002	0.46	Existing	No	N/A
14-00182.002	1.7380	Existing	No	N/A
14-00182.001	3.33	Existing	No	N/A

Exhibit 5
Property Owner List and Agricultural Land
Holloway - Knox 138 kV Transmission Line Rebuild Project –
Holloway Sub to Nottingham Sub Segment
Case Number 23-0141-EL-BLN

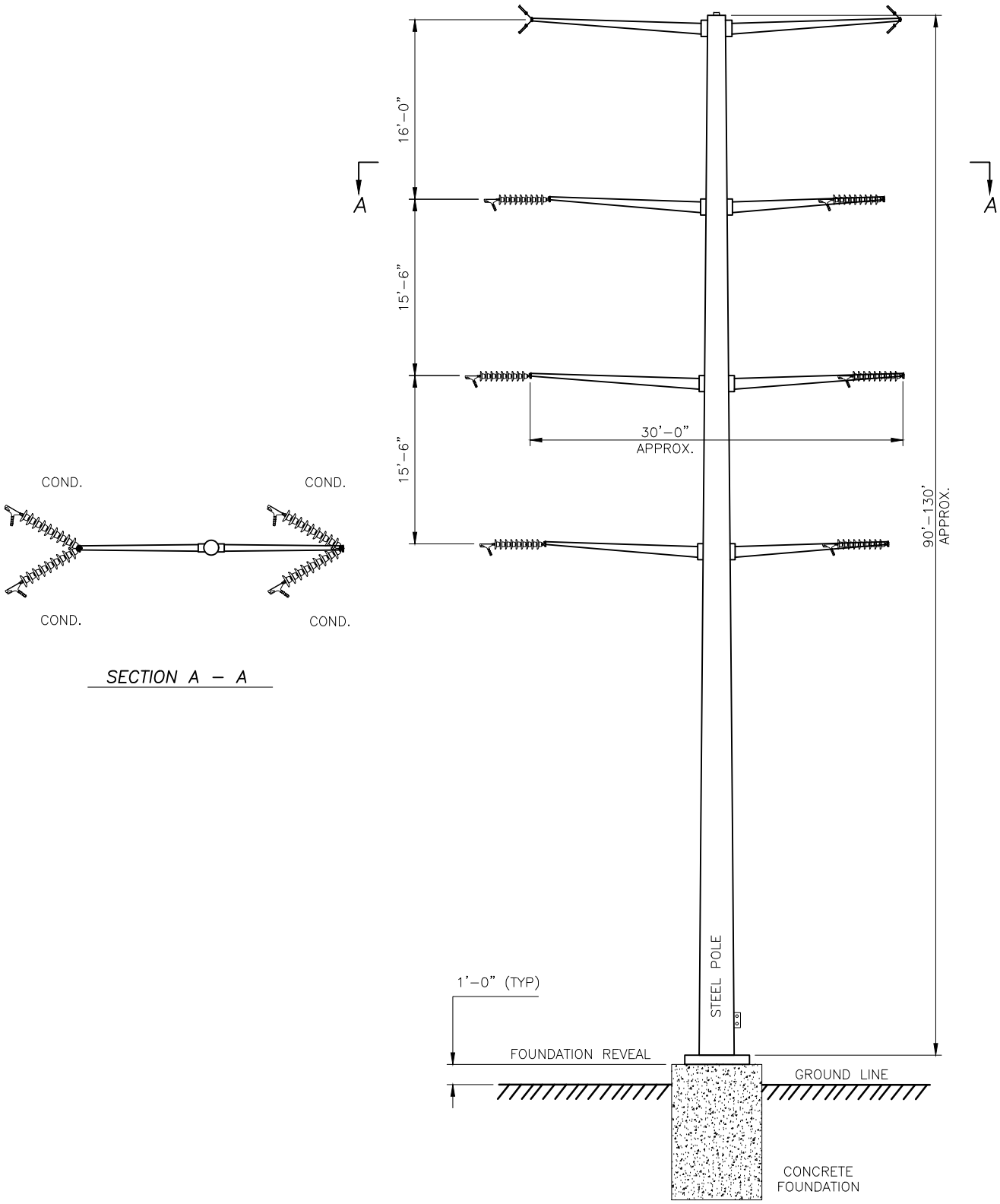
Parcel Number	Acreage	Easement Status	Agricultural District (Yes/No)	Agricultural District Expiration Year
50-01158.001	28.406	Existing	No	N/A
50-00537.002	12.32	Existing	No	N/A
50-00521.000	161.03	Existing	No	N/A
50-00527.000	24.400	Existing	No	N/A
50-00525.000	37.75	Existing	No	N/A
50-00537.005	6.94	Existing	No	N/A
50-01225.000	44.68	Existing	No	N/A
50-00407.000	5.070	Existing	No	N/A
50-00522.000	71.62	Existing	No	N/A
50-00667.001	0.652	Existing	No	N/A
50-00536.002	6.727	Existing	No	N/A
50-00524.005	1.90	Existing	No	N/A
50-00534.000	28.410	Existing	No	N/A
32-00259.000	2.34	Existing	No	N/A
32-01776.000	65.500	Existing	No	N/A
50-00427.001	36.209	Existing	No	N/A
32-03574.002	38.740	Existing	No	N/A
32-01410.001	27.32	Existing	No	N/A
32-01410.016	5.9118	Existing	No	N/A
32-01410.015	3.9158	Existing	No	N/A
30-00360.000	75.500	Existing	No	N/A
30-00126.000	0.09	Existing	No	N/A
32-01665.013	1.65	Existing	No	N/A
32-01665.007	0.00	Existing	No	N/A
32-01665.016	5.13	Existing	No	N/A
32-01709.012	5.003	Existing	No	N/A
32-01709.003	0.5256	Existing	No	N/A
32-01709.002	38.6957	Existing	No	N/A
14-00218.000	24.710	Existing	No	N/A
14-00217.000	0.890	Existing	No	N/A
14-00216.000	49.50	Existing	No	N/A
14-00219.000	111.090	Existing	No	N/A
32-01338.004	13.020	Existing	No	N/A
32-01905.003	170.280	Existing	No	N/A
32-01900.000	1.63	Existing	No	N/A
32-01902.000	16.020	Existing	No	N/A
34-02395.002	0.440	Existing	No	N/A
32-01899.000	0.54	Existing	No	N/A
32-01645.000	7.10	Existing	No	N/A
32-01303.000	0.650	Existing	No	N/A
30-00347.001	15.50	Existing	No	N/A
30-00239.000	1.00	Existing	No	N/A
32-01629.000	54.5190	Existing	No	N/A
32-03817.000	13.2360	Existing	No	N/A
32-01667.000	16.62	Existing	No	N/A
32-00112.000	5.46	Existing	No	N/A
35-00006.000	0.610	Existing	No	N/A
51-00149.004	21.52	Existing	No	N/A
51-00149.001	15.09	Existing	No	N/A
49-00004.004	0.10	Existing	No	N/A
30-00281.000	1.00	Existing	No	N/A

Exhibit 5
Property Owner List and Agricultural Land
Holloway - Knox 138 kV Transmission Line Rebuild Project –
Holloway Sub to Nottingham Sub Segment
Case Number 23-0141-EL-BLN

Parcel Number	Acreage	Easement Status	Agricultural District (Yes/No)	Agricultural District Expiration Year
51-00149.005	3.780	Existing	No	N/A
49-00004.005	9.16	Existing	No	N/A
51-00169.005	0.020	Existing	No	N/A
51-00160.001	4.030	Existing	No	N/A
32-01753.002	34.56	Existing	No	N/A
30-00354.000	20.00	Existing	No	N/A
30-00356.000	3.93	Existing	No	N/A
30-00419.000	24.65	Existing	No	N/A
30-00355.000	22.29	Existing	No	N/A
020000244000	157.1263	Existing	No	N/A
020000102000	Not Available	Existing	No	N/A
51-00384.000	47.3763	Existing	No	N/A
51-00185.001	1.2109	Existing	No	N/A
020000099000	23.044	Existing	No	N/A
020000237000	190.4702	Existing	No	N/A
020000241001	Not Available	Existing	No	N/A
020000245000	67.8188	Existing	No	N/A
020000227000	419.7768	Existing	No	N/A
020000225000	44.5221	Existing	No	N/A
020000094000	374.4520	Existing	No	N/A
020000070000	160.00	Existing	No	N/A
020000093001	59.46	Existing	No	N/A
020000077001	9.524	Existing	No	N/A
020000072001	28.73	Existing	No	N/A
020000074000	97.88	Existing	No	N/A
020000072000	1.513	Existing	No	N/A
020000098000	72.510	Existing	No	N/A
020000096000	16.069	Existing	No	N/A
020000082001	71.940	Existing	No	N/A
14-00236.000	1.010	Existing	No	N/A
26-03090.000	0.00	Existing	No	N/A
26-03081.000	14.230	Existing	No	N/A
14-00235.000	40.140	Existing	No	N/A
32-01665.014	3.610	Existing	No	N/A
32-01665.001	3.00	Existing	No	N/A
14-00277.000	84.699	Existing	No	N/A
32-03180.000	0.00	Existing	No	N/A
32-03434.000	0.00	Existing	No	N/A
32-03179.001	0.00	Existing	No	N/A
32-01753.001	10.4486	Existing	No	N/A
51-00224.001	200.910	Existing	No	N/A
51-00149.002	8.460	Existing	No	N/A
51-00149.003	4.580	Existing	No	N/A
51-00151.000	40.910	Existing	No	N/A
51-00220.001	53.070	Existing	No	N/A
51-00222.000	36.53	Existing	No	N/A
50-00531.000	229.093	Existing	Yes	2026
50-00428.005	18.030	Existing	Yes	2029
50-01158.000	12.2280	Existing	No	N/A
51-00161.001	86.09	Existing	Yes	2024
50-00532.000	59.684	Existing	Yes	2026
50-00536.000	0.510	Existing	Yes	2026
49-00007.003	0.340	Existing	Yes	2024

Exhibit 5
Property Owner List and Agricultural Land
Holloway - Knox 138 kV Transmission Line Rebuild Project –
Holloway Sub to Nottingham Sub Segment
Case Number 23-0141-EL-BLN

Parcel Number	Acreage	Easement Status	Agricultural District (Yes/No)	Agricultural District Expiration Year
50-00536.001	19.9730	Existing	Yes	2026
50-00572.020	1.409	Existing	Yes	2026
020000078000	16.00	Existing	Yes	2026
020000074001	23.20	Existing	Yes	2026
020000278000	124.20	Existing	Yes	2026
51-00155.001	1.409	Existing	Yes	2026
51-00155.002	14.05	Existing	Yes	2024
51-00153.001	9.670	Existing	Yes	2024
51-00155.001	10.160	Existing	Yes	2024
49-00007.008	14.050	Existing	Yes	2024
49-00007.007	6.850	Existing	Yes	2024
49-00007.010	3.420	Existing	Yes	2024
49-00007.009	3.430	Existing	Yes	2024
50-00533.001	5.120	Existing	Yes	2024
50-00425.003	6.840	Existing	Yes	2024
51-00171.004	18.536	Existing	Yes	2029
49-00007.006	26.890	Existing	Yes	2024
49-00007.004	4.580	Existing	Yes	2024
49-00007.005	0.63	Existing	Yes	2024
50-00572.025	2.80	Existing	Yes	2024
50-00572.026	1.2150	Existing	Yes	2024
	1.40	Existing	Yes	2026
14-00204.000	297.750	Existing	No	N/A
14-00362.000	34.6730	Existing	No	N/A
14-00203.000	57.470	Existing	No	N/A
32-01709.013	4.2404	Existing	No	N/A
14-00232.000	6.470	Existing	No	N/A
32-01483.002	2.040	Existing	No	N/A
32-01665.012	2.00	Existing	No	N/A
32-00111.001	0.514	Existing	No	N/A
32-01318.000	51.186	Existing	No	N/A
30-00402.000	129.670	Existing	No	N/A
26-03087.000	0.00	Existing	No	N/A
020000323000	2.240	Existing	No	N/A
020000322000	0.530	Existing	No	N/A
32-01329.005	1.580	Existing	No	N/A
32-01329.000	21.10	Existing	No	N/A
32-01329.004	8.840	Existing	No	N/A
32-01329.000	21.10	Existing	No	N/A
32-01329.006	25.610	Existing	No	N/A
32-01709.007	3.26	Existing	No	N/A
32-60077.000	24.86	Existing	No	N/A
34-60097.000	12.67	Existing	No	N/A



NOTE:
DETAILS DEPICTED IN FIGURE CAN BE APPLIED FOR ANY TYPE OF DOUBLE CIRCUIT STEEL POLE DEADEND CONFIGURATION.

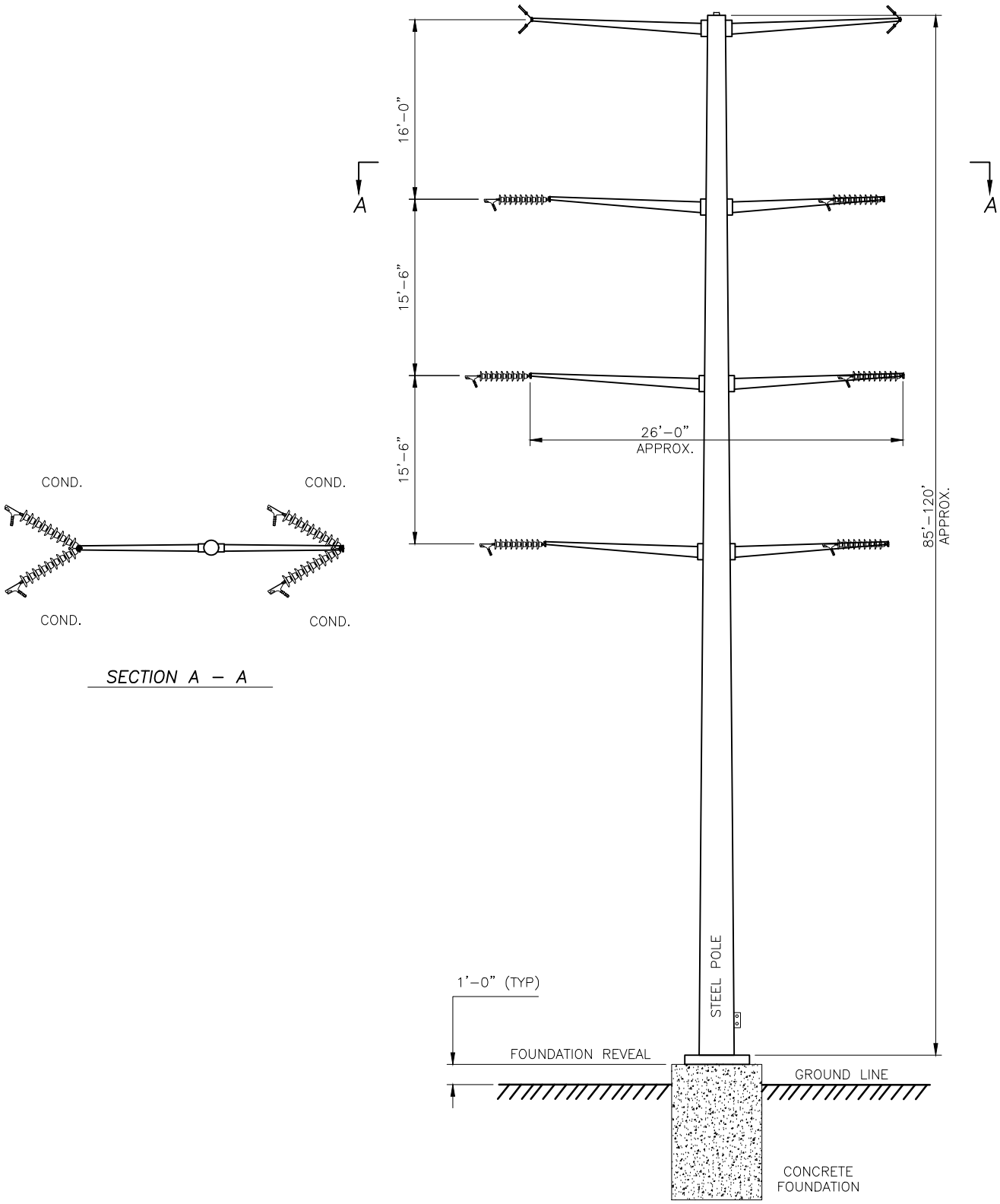
**NOT TO SCALE

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

138kV TRANSMISSION LINE
HOLLOWAY-KNOX REBUILD

138kV DOUBLE CIRCUIT
STEEL POLE, DEADEND

EXHIBIT 6



NOTE:
DETAILS DEPICTED IN FIGURE CAN BE APPLIED FOR ANY TYPE OF DOUBLE CIRCUIT STEEL POLE STRAIN CONFIGURATION.

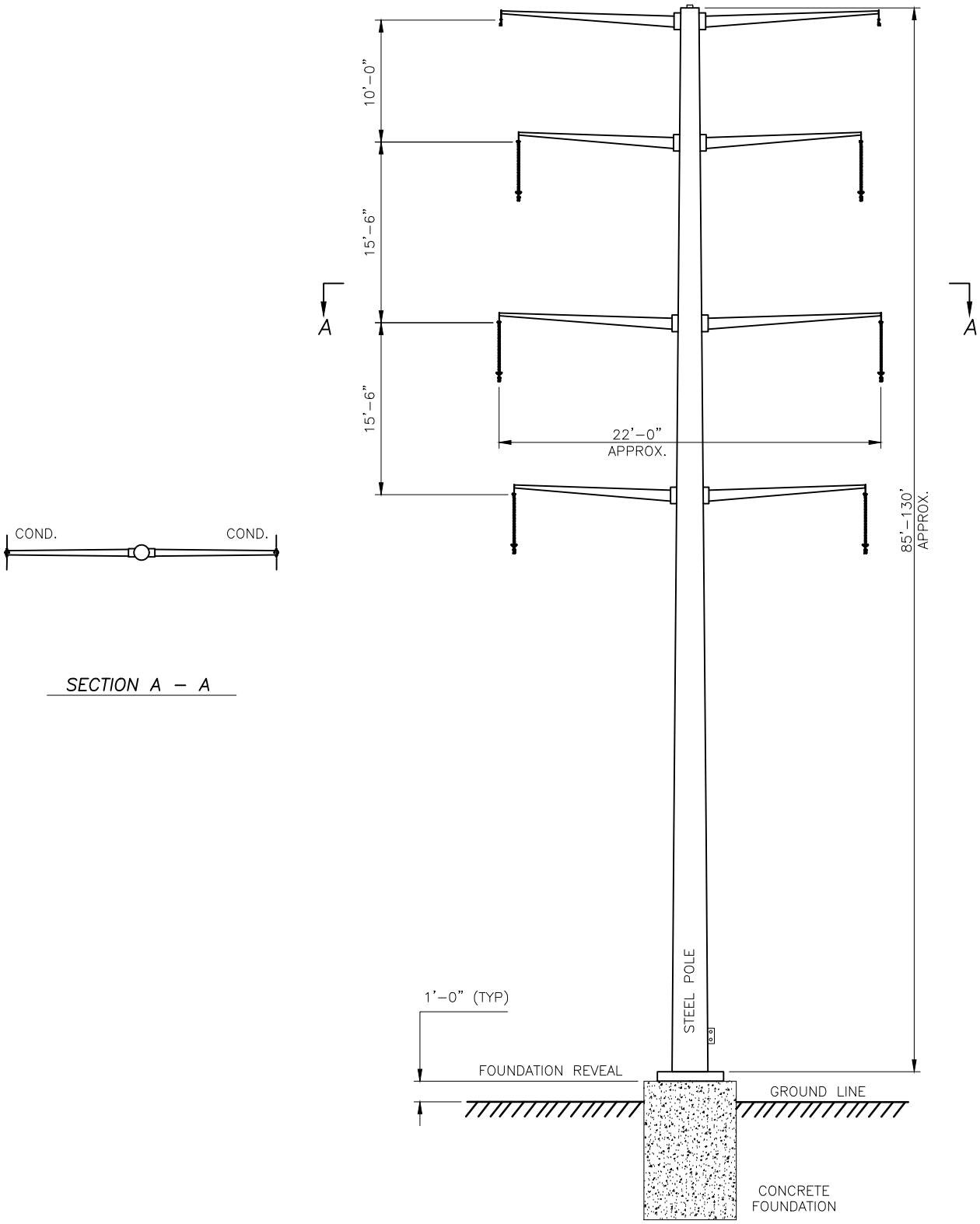
**NOT TO SCALE

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

138kV TRANSMISSION LINE
HOLLOWAY-KNOX REBUILD

138kV DOUBLE CIRCUIT
STEEL POLE, STRAIN

EXHIBIT 7



NOTE:
DETAILS DEPICTED IN FIGURE CAN BE APPLIED FOR ANY TYPE OF DOUBLE CIRCUIT STEEL POLE SUSPENSION CONFIGURATION.

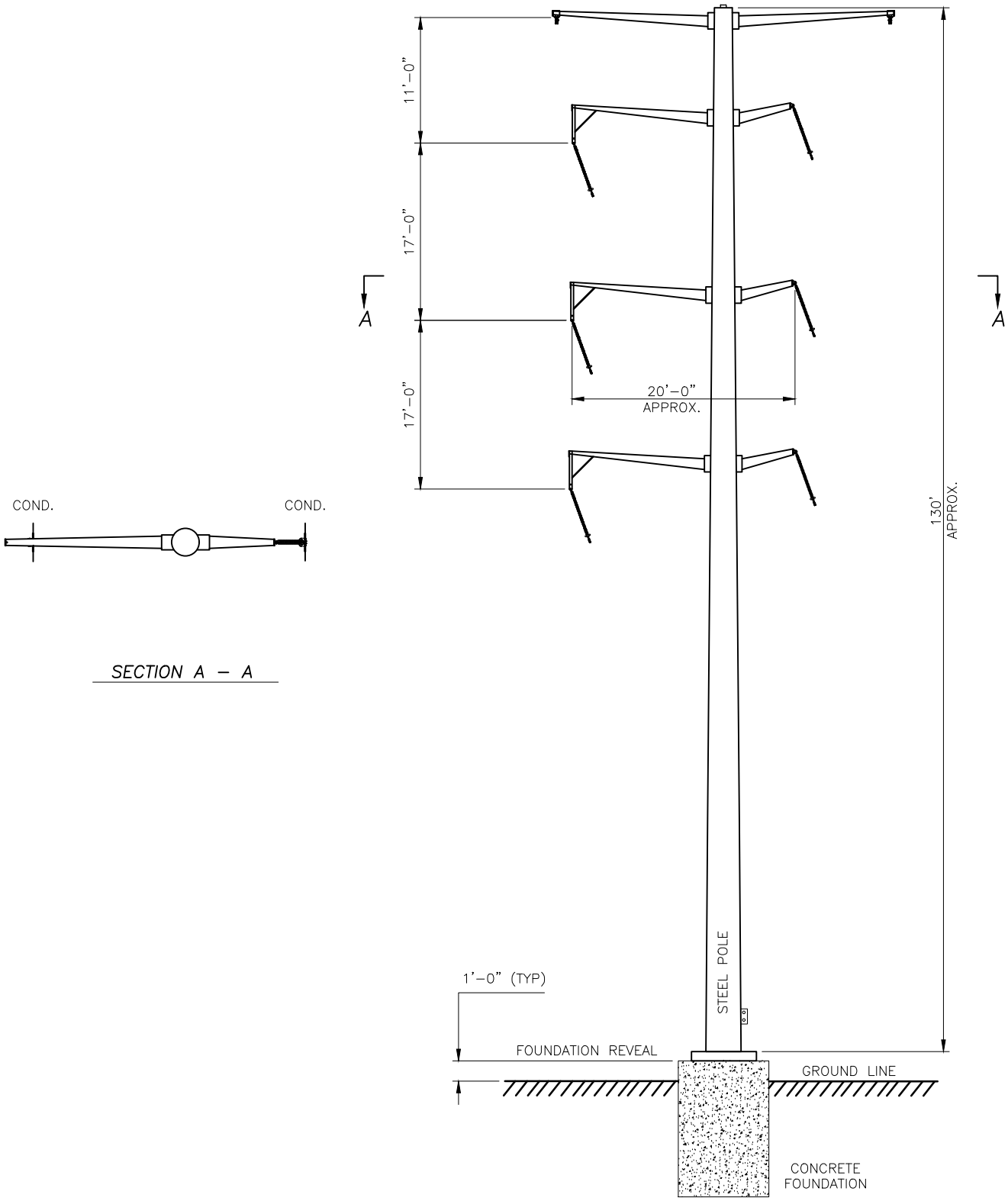
**NOT TO SCALE

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

138kV TRANSMISSION LINE
HOLLOWAY–KNOX REBUILD

138kV DOUBLE CIRCUIT
STEEL POLE, SUSPENSION

EXHIBIT 8



NOTE:
DETAILS DEPICTED IN FIGURE CAN BE APPLIED FOR ANY TYPE OF DOUBLE CIRCUIT STEEL POLE ANGLE CONFIGURATION.

**NOT TO SCALE

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

138kV TRANSMISSION LINE
HOLLOWAY-KNOX REBUILD

138kV DOUBLE CIRCUIT
STEEL POLE, ANGLE

EXHIBIT 9

Exhibit 10

In reply refer to:
2020-MLT-49294

September 16, 2020

Amy C. Favret, M.A., RPA
Jacobs
2 Crowne Point Court, Suite 100
Cincinnati, Ohio 45241

RE: Section 106 Review-Holloway-Knox 138kV Transmission Line Rebuild Project, Belmont, Carroll, Columbiana, and Harrison Counties, Ohio

Dear Ms. Favret:

This letter is in response to the correspondence received on August 17, 2020 regarding the proposed 64-mile long Holloway-Knox 138kV Transmission Rebuild Project in Belmont, Carroll, Columbiana, and Harrison 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 and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). 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 will entail replacing the existing H-frame wood poles with direct embedded steel and drilled shaft H-frame wood poles. The new poles will be installed approximately 10-ft. from the existing poles within the 100-ft. wide right-of-way (ROW). All work will be within the existing ROW except for access roads, which will use existing roads, driveways, or farm lanes. Four pull pads, totaling 0.26-acres, will extend outside of the existing ROW.

A literature review report, *Holloway-Knox 138kV Transmission Line Project, Belmont, Carroll, Columbiana, and Harrison Counties, Ohio* was completed for the entire 64-mile rebuild project. A total of two National Register of Historic Places (NRHP)-listed properties, 165 Ohio Historic Inventory (OHI) properties, two NRHP eligible properties, 43 cemeteries, and 224 Ohio Archaeological Inventory (OAI) sites were identified within the 1.0-mile study area. Of these, one cemetery (Bird/Byrd Cemetery-OGS ID 1381) and two OAI sites (33CO257 and 33CO258) were determined to be within the project ROW. Additionally, one historic architecture survey and 11 Phase I archaeological surveys overlap portions of the ROW.

Sites 33CO257 and 33CO258 are low-density prehistoric lithic scatters previously identified during one of the Phase I surveys. Neither of these sites are near existing poles. Site 33CO257 was recommended for further work, but to date, no additional work has been conducted at the site. As a precautionary measure, a 50-ft. buffer using construction fencing will be placed around site 33CO257 during construction. The Bird/Byrd Cemetery is approximately 151-ft. south of the nearest pole and therefore will not be impacted by the project. Since this cemetery is within the ROW, it is recommended that a 50-ft. buffer using construction fencing also be put up around the cemetery during construction as a precautionary measure.

Due to the nature of the project as a rebuild, it is Jacob's recommendation that no further archaeological or architectural investigations are necessary as the visibility of the existing transmission line should not increase. Our office agrees with this recommendation.

Based on the information provided, we agree that the project, as proposed, 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 construction. In such a situation, this office should be contacted as required by 36 CFR § 800.13. If you have any questions, please contact me by e-mail at sbiehl@ohiohistory.org or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Stephen M. Biehl, Project Reviews Coordinator (archaeology)
Resource Protection and Review
State Historic Preservation Office

cc: Joy Williams, SHPO

RPR Serial No. 1085225

"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs."

EXHIBIT 11

Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR | MARY MERTZ, DIRECTOR

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

February 7, 2023

Jen Wessel
Jacobs Engineering Group, Inc.
2 Crowne Point Court
Cincinnati, OH 45241

Re: 23-0053; Holloway-Knox 138 kV Transmission Line Rebuild Project

Project: The proposed project involves replacing the existing wood h-frame structures of the 138-kV electric transmission line with a combination of new direct embedded steel and drilled shaft H-frame wood pole structures.

Location: The proposed project is located in Archer, Athens, Augusta, Cadiz, Center, Lee, Mead, Perry, Pultney, Richland, Rumley, Washington, West and Wheeling townships; and through the City of St. Clairsville, within Columbiana, Carroll, Harrison, and Belmont 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 at or within one mile of the project area:

Drummond's Aster (*Symphyotrichum drummondii*), T
Sharp-shinned Hawk (*Accipiter striatus*), SC
Upland Sandpiper (*Bartramia longicauda*), E
Northern Harrier (*Circus hudsonius*), E
Barn Owl (*Tyto alba*), T
Slippershell Mussel (*Alasmidonta viridis*), T
Creek Heelsplitter (*Lasmigona compressa*), SC
Mussel Bed

The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. 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.

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 majority of the project route within Carroll, Harrison, and Belmont Counties is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and/or the tricolored bat (*Perimyotis subflavus*), a state endangered species. Because presence of state endangered bat species has been established in this 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 threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. 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. However, if trees are present within this area, (outside of the area delineated above) and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "*OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING*". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW.

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 following listed mussel species.
State Endangered
butterfly (*Ellipsaria lineolata*)

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this or other mussel species.

The project is within the range of the following listed fish species.
State Endangered
western banded killifish (*Fundulus diaphanus menona*)

State Threatened
channel darter (*Percina copelandi*)
paddlefish (*Polyodon spathula*)
river darter (*Percina shumardi*)

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. This long-lived, entirely aquatic salamander inhabits perennial streams with large flat rocks. In-water work in hellbender streams can reduce availability of large cover rocks and can destroy hellbender nests and/or kill adults and juveniles. The contribution of additional sediment to hellbender streams can smother large cover rocks and gravel/cobble substrate (used by juveniles), making them unsuitable for refuge and nesting. Projects that contribute to altered flow regimes (e.g., by increasing areas of impervious surfaces or modifying the floodplain) can also adversely affect hellbender habitat. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of 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 at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator

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

January 26, 2023

Project Code: 2023-0031065

Reference: AEP Holloway-Knox project 138 kV line rebuild

Dear Mr./Ms,

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

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

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, we recommend removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see https://ecos.fws.gov/ecp/species/9045), incidental take of Indiana bats is still prohibited without

a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.
If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

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

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

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

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

Sincerely,

Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Eileen Wyza, ODNR-DOW

Exhibit 13

Wetland and Waterbody Delineation Report

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Harrison and Belmont Counties, Ohio

Prepared for

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

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Acronyms and Abbreviations

ATSI	American Transmission Systems Inc.
CWA	Clean Water Act
ESC	Environmental Survey Corridor
^{o}F	Fahrenheit
FAC	facultative
FACU	facultative upland
FACW	facultative wetland
FirstEnergy	FirstEnergy Corporation
GPS	Global Positioning System
HHEI	Headwater Habitat Evaluation Index
HUC	Hydrologic Unit Code
Jacobs	Jacobs Engineering Group, Inc
kV	Kilovolt
NHD	National Hydrography Dataset
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
OBL	Obligate wetland
OEPA	Ohio Environmental Protection Agency
OHWM	Ordinary High-Water Mark
ORAM	Ohio Rapid Assessment Method
PEM	Palustrine emergent
PFO	Palustrine forested
PHWH	Primary Headwater Habitat
Project	Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project
PSS	Palustrine scrub-shrub
QHEI	Qualitative Habitat Evaluation Index
ROW	Right-of-way
TNW	Traditionally navigable water
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1 Introduction

This wetland and waterbody delineation report (Report) summarizes the results of the wetland and waterbody delineation surveys conducted in Harrison and Belmont Counties, Ohio by Jacobs Engineering Group, Inc. (Jacobs), for American Transmission Systems Inc. (ATSI), a subsidiary of FirstEnergy Corporation (FirstEnergy). ATSI is proposing to replace existing wooden H-frame structures with new direct embedded steel and drilled shaft H-frame wood pole structures associated with the 21-mile long Holloway-Nottingham #1 138 kilovolt (kV) Transmission Line Rebuild Project (Project). Holloway-Nottingham #1 Phase is part of a larger 64-mile project which originates at the Knox Substation in Columbiana County, near the intersection of Township Line Road and Knox School Road, north of the City of Chambersburg, and extends south to the Holloway Substation terminus in Belmont County, southeast of the City of St. Clairsville. The entire 64-mile Project is broken down into five phases, of which the Project is Phase 5.

The Project starts in Belmont County at the Holloway Substation off of Hawthorne Hill Road and extends in a northwest direction to the Nottingham Substation terminus near the intersection of Stumptown Road and Cadiz-Flushing Road in Harrison County, as shown on the Overview Figure (Figure 1). The final 2,800 feet of the line between Nottingham Substation and Structure 2667 was recently constructed and is not part of the ESC. Jacobs conducted environmental surveys for the Project in May through June 2018, April 2019, and May 2020. The environmental survey corridor (ESC) included the existing 300-foot right-of-way (ROW) that contains three other transmission lines, potential access routes, and temporary laydown yards, totaling approximately 829 acres.

This wetland and waterbody delineation report contains the following components:

- Figure 1 provides an overview map of the ESC overlain on ArcGIS Online USA topographic maps.
- Figures 2-A through 2-BI show U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) mapped soil units, the location of National Wetland Inventory (NWI) polygons, national hydrography dataset (NHD) streams, and Federal Emergency Management Agency (FEMA) 100-year floodplain and floodway information. Table 3-1 lists the soils types identified within the ESC and Table 3-2 list the NWI wetland types identified within the ESC.
- Figures 3-A through 3-BI provide the location of all features mapped during the delineation by Jacobs biologists within the ESC. This includes all wetlands, data points, waterbodies, and ponds. Tables 4-1 (wetlands), 4-2 (streams), and 4-3 (ponds), provides detailed information for all delineated features within the ESC and follows the text section. Tables 4-4 (wetlands), 4-5 (streams), and 4-6 (ponds) provide summary information for all delineated features within the ESC.
- U.S. Army Corps of Engineers (USACE) wetland determination field data forms are in Appendix A.
- Ohio Rapid Assessment Method for Wetlands (ORAM) two-page forms are in Appendix B.
- Qualitative Habitat Evaluation Index (QHEI) stream data forms for each stream identified with a drainage area of 1 square mile or greater are in Appendix C.
- Primary Headwater Habitat (PHWH) Evaluation Index (HHEI) stream data forms for each stream identified with a drainage area less than 1 square mile are in Appendix D.
- Jacobs Open Water/Pond data forms for each open water feature identified within the ESC are in Appendix E.
- Representative photographs for all delineated features within the ESC are in Appendix F.

2 Background Information

This section describes the ESC and methodology used during the wetland and waterbody delineation field surveys.

2.1 Project Area

The Project is located within Harrison and Belmont Counties, Ohio. The ESC begins at the Holloway Substation located west of Hawthorne Hill Road (39.966 latitude, -80.807 longitude) and extends generally northwest terminating at Structure 2667 located near Nottingham Substation, north of Stumptown Road (40.197 latitude, -81.031 longitude) as shown in Figure 1. The ESC crosses five USGS 7.5-minute topographic maps; Flushing, Harrisville, St. Clairsville, Lansing, Businessburg (USGS, 1978, 1985, 1985, 1992, 1976). The ESC is approximately 21-miles long, is 300 feet wide within the Project ROW, and contains multiple proposed off-ROW access routes, and a temporary construction laydown yard area.

Review of the USGS 7.5-minute topographic maps of the area indicates that multiple ditches, streams, and rivers drain the ESC, including Crabapple Creek, Wheeling Creek, Progue Run, Little McMahon Creek, Williams Creek, Welsh Run, McMahon Creek, Wegee Creek, and multiple unnamed tributaries of these waterways. Topographic relief is generally hilly, alternating between ridges and valleys, with elevations ranging between 1,100 feet and 1,300 feet above sea level throughout the ESC (Figure 1).

Land use and natural communities observed within the ESC includes agricultural land, existing roadway, existing ROW, industrial/substation, residential, old field, upland scrub shrub, urban developed/commercial, palustrine emergent (PEM) wetland and palustrine scrub-shrub (PSS) wetland in addition to the previously identified waterbodies.

2.1.1 Annual Precipitation

Recent rainfall data for Belmont, Ohio was reviewed prior to completing the environmental survey to determine if climatic conditions were normal at the time of the survey. Belmont, Ohio was the nearest weather station with both historical and recent precipitation records. Rainfall recorded in Belmont, Ohio was above normal for all months of 2018 through June except for January and March which indicated records below normal. This data suggests climatic conditions were generally wetter than normal for 2018 leading up to the bulk of the ecological survey. This was taken into consideration during the delineation.

TABLE 2-1: Recent Precipitation Data

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

2018 Precipitation Data	Jan	Feb	Mar	Apr	May	June[4]	Total
Monthly Sum [1, 3]	2.17	6.88	3.45	7.33	7.16	7.23	34.22
Normal Precipitation. [2, 3]	3.0	2.6	4.0	3.9	4.2	4.2	21.9
Monthly climatic condition	Below Normal	Above Normal	Below Normal	Above Normal	Above Normal	Above Normal	Above Normal

[1]Monthly weather summary from weather station KOHBELMO4, 2018, Belmont, OH (Weatherunderground, 2018)

[2] Hydrologic Atlas for Ohio, Water Inventory Report No. 28, 1991, Division of Water, ODNR (ODNR, 2002)

[3]Displayed in inches

[4]Through June 30, 2018

2.1.2 Drainage Basins

The ESC is within the Tuscarawas (05040001) and Upper Ohio-Wheeling (05030106), 8-digit Hydrologic Unit Codes (HUC). The ESC crosses nine 12-digit HUCs, as outlined in Table 2-2 (USGS, 2018):

TABLE 2-2: 12-Digit HUCs Crossed by the Project

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

HUC 12-Digit Code	HUC 12-Digit Name
05040001-14-02	Brushy Fork
05040001-13-03	Boggs Fork
05030106-03-02	Headwaters Wheeling Creek
05030106-03-01	Crabapple Creek
05030106-03-03	Cox Run-Wheeling Creek
05030106-12-06	Wegee Creek-Ohio River
05030106-07-02	Upper McMahon Creek
05030106-07-03	Little McMahon Creek
05030106-07-04	Lower McMahon Creek

Source: USGS 2018

2.1.3 Traditional Navigable Waters

The U.S. Environmental Protection Agency (EPA) and USACE assert jurisdiction over “all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce including all waters which are subject to the ebb and flow of the tide” (USACE and USEPA, 2008). These waters are considered traditionally navigable waters (TNW). The ESC drains into three TNWs, Wheeling Creek, McMahon Creek, and Wegee Creek, all tributaries of the Ohio River (USACE, 2012).

3 Wetland and Waterbody Delineation

3.1 Desktop Review

Prior to conducting the field investigations, Jacobs reviewed the following resources to identify the potential for wetlands within the ESC:

- Aerial photo-based maps (ArcGIS Online, World Imagery Map, 2020)
- Topographic maps (ArcGIS Online, USA Topo Maps, 2020)
- NRCS Web Soil Survey (NRCS, 2020)
- NWI shapefile (USFWS, 2020)
- National Hydrography Dataset (NHD) (USGS, 2020)

According to the NRCS soil survey of Belmont and Harrison Counties (NRCS, 2017), 68 soil map units are crossed by the ESC. Of the 68 soil map units, none are listed as hydric, two are listed as predominantly hydric, 11 predominantly non-hydric, and the remaining 55 units are listed as not hydric (Figure 2-A to 2-BI; Table 3-1). NRCS data indicated that predominantly non-hydric soils and not hydric soils comprise approximately 828 acres, which is 99 percent of the ESC. Approximately 7 acres or 1 percent of land cover in the ESC is comprised of predominately hydric soils.

Generally, hydric soils are those soils that indicate through their color and structure that they have experienced dominantly reducing (i.e. oxygen poor) conditions. Oxygen-poor conditions result from inundation and/or saturation by water. Partially hydric soils have both hydric and non-hydric soil components identified in the mapped soil unit.

NWI data was obtained from the USFWS for review of potential wetlands that may occur within the ESC. The NWI data (USFWS, 2017) identifies the type of wetland or open water present at a location using the USFWS classification system (Cowardin et al., 1979). The NWI data indicated that 52 NWI features (approximately 26 acres) are within the ESC (Figure 3-A to 3-BI), 12 PEM wetland features (PEM1A, PEM1C, PEM1F), one palustrine forest (PFO1C) feature, 14 palustrine unconsolidated bottom (PUB, PUBGx) features, 22 riverine unconsolidated bottom (R3UBH, R5UBH) features, and three riverine streambed class (R4SBC) (USFWS, 2018). The presence of an NWI feature is not a definitive indicator that a wetland or waterbody is present. The information on NWI maps is obtained largely from aerial interpretation, may be outdated, and is only sporadically field-checked. Additional detail regarding the mapped NWI wetlands within the ESC is provided in Table 3-2.

TABLE 3-2: Mapped National Wetland Inventory Features
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Wetland Type[1]	Mapped NWI Features	Acreage within ESA
PEM1A	4	5.07
PEM1C	7	6.06
PEM1F	1	1.52
PFO1C	1	0.16
PUBG	4	1.46
PUBGx	10	4.40
R3UBH	2	1.45
R4SBC	3	0.35

R5UBH	20	5.98
Overall Total	**52**	**26.44**

[1]Cowardin et al. 1979.

As shown on the FEMA floodplain panels (Figures 2-A to 2-BI), the ESC crosses the FEMA-mapped 100-year floodplains of three streams (FEMA, 2017):

- Crabapple Creek (Stream NH-08)
- Wheeling Creek (Stream NH-12)
- McMahon Creek (Stream NH-45)

3.2 Field Survey Methodology

From May through June 2018, April 2019, and May 2020, Jacobs biologists surveyed the ESC by walking the corridor and evaluating for wetlands and other waters of the U.S. The boundaries of each wetland and waterbody within the ESC were delineated and recorded using handheld global positioning system (GPS) units. For waterbodies identified within the Project area, the ordinary high-water mark (OHWM) was used as the jurisdictional boundary.

Wetland, stream, and pond data was recorded on USACE Regional Supplement wetland determination data forms, Headwater Habitat Evaluation Index (HHEI) forms and Qualitative Habitat Evaluation Index (QHEI) forms, and Jacobs standard open water/pond data forms, respectively. All other land use, habitat, and other supplemental data was collected in a field notebook during the environmental survey.

3.2.1 Wetland Delineation

Wetland boundaries were field-delineated according to Section 404 of the Clean Water Act (CWA) and the routine onsite methodology described in the Technical Report Y-87-1 *Corps of Engineers' Wetlands Delineation Manual* and subsequent guidance documents (USACE, 1987) and according to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain and Piedmont Region (Version 2.0)* (USACE, 2012). Wetland delineation data was recorded on the USACE Regional Supplement wetland determination data forms. Representative wetland and upland data points were recorded during the wetland delineation to determine the presence/absence of wetlands and/or document upland conditions within the Project area. Upland data points were determined not to be within wetlands because they did not have positive indicators of one or more of the three wetland criteria: hydrophytic vegetation, wetland hydrology, and hydric soils.

3.2.1.1 Soils

Jacobs biologists examined soils using a hand auger to extract soil cores, which were examined for hydric soil characteristics. A *Munsell Soil Color Chart* (Kollmorgen Corporation, 1988) was used to identify the hue, value, and chroma of the matrix and mottles of the soils. Generally, mottled soils with a matrix chroma of two or less, or unmottled soils with a matrix chroma of one or less are considered to exhibit hydric soil characteristics (USACE, 1987). In sandy soils, mottled soils with a matrix chroma of three or less, or unmottled soils with a matrix chroma of two or less are considered to be hydric soils.

3.2.1.2 Hydrology

The *1987 Manual* requires that an area be inundated or saturated to the surface for an absolute minimum of five percent of the growing season. Areas saturated between five percent and 12.5 percent of the growing season may or may not be wetlands, while areas saturated over 12.5 percent of the growing season fulfill the hydrology requirements for wetlands. The *Regional Supplement* states that the growing season dates are determined

through onsite observations of the following indicators of biological activity in a given year; (1) above-ground growth and development of vascular plants, and/or (2) soil temperature (12-in. depth is 41 degree Fahrenheit (°F) or higher) as an indicator of soil microbial activity. Therefore, the beginning of the growing season in a given year is indicated by whichever condition occurs earlier, and the end of the growing season by whichever persists later.

The soils and ground surface were examined by Jacobs biologists for evidence of wetland hydrology in lieu of detailed hydrological data. This is an acceptable approach according to the *1987 Manual* and the *Regional Supplement*. Evidence indicating wetland hydrology typically includes primary indicators such as surface water, saturation, water marks, drift deposits, water-stained leaves, sediment deposits and oxidized rhizospheres on living roots; and secondary indicators such as, drainage patterns, geomorphic position, micro-topographic relief, and a positive Facultative (FAC)-neutral test (USACE, 2012).

3.2.1.3 Vegetation

Dominant vegetation was visually assessed for each stratum (tree, sapling/shrub, herb and woody vine) and an indicator status of obligate wetland (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), and/or upland (UPL) was assigned to each plant species based on the 2016 National List of Plant Species that Occur in Wetlands. An area is determined to have hydrophytic vegetation when, under normal circumstances, 50 percent or more of the composition of the dominant species are OBL, FACW and/or FAC species. Vegetation of an area was determined to be non-hydrophytic when more than 50 percent of the composition of the dominant species was FACU and/or UPL species. In addition to the dominance test, the FAC-Neutral test and prevalence tests are used to determine if a wetland has a predominance of hydrophytic vegetation.

Wetland quality was evaluated using the Ohio Environmental Protection Agency (OEPA) Ohio Rapid Assessment Method (ORAM) for Wetlands Version 5.0 (Mack 2001). Categorization was conducted in accordance with the latest quantitative score calibration (OEPA, 2000). Wetlands are scored on the basis of hydrology, upland buffer, habitat alteration, special wetland communities, and vegetation communities. Each of these subject areas is further divided into subcategories under ORAM v5.0 resulting in a score that describes the wetland using a range from 0 (low quality and high disturbance) to 100 (high quality and low disturbance). Wetlands scored from 0 to 29.9 are grouped into "Category 1", 30 to 59.9 are "Category 2" and 60 to 100 are "Category 3". Transitional zones exist between “Categories 1 and 2” from 30 to 34.9 and between “Categories 2 and 3” from 60 to 64.9. However, according to the OEPA, if the wetland score falls into the transitional range, it must be given the higher Category unless scientific data can prove it should be in a lower category (Mack, 2001).

According to recent guidance from the USEPA and USACE, wetlands that are adjacent to or have a significant nexus to TNWs are regulated under Sections 401 and 404 of the CWA (USEPA and USACE, 2008). A significant nexus must meet criteria that indicate the wetland provides biological, physical, or chemical benefits to the TNW. A significant nexus includes consideration of both hydrologic and ecologic factors. All of the streams and the majority of the wetlands, except for four delineated wetlands (See Section 4.1 for more detail), in the ESC drains into one of three TNWs, Wheeling Creek, McMahon Creek, and Wegee Creek (USACE, 2012). The ESC crosses both the Wheeling Creek and McMahon Creek upstream of the jurisdictional miles above the mouth connected to the Ohio River, a TNW.

3.2.2 Stream Assessment

Jurisdictional streams were identified as those waters that possessed a continuously defined bed and bank, OHWM indicators, and lacked a dominance of upland vegetation in the channel. Per USACE guidance, the OHWM is defined as the “line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that

consider the characteristics of the surrounding areas" (USACE, 2005). Channels that parallel a roadway or railroad were identified as upland drainage features and were not considered to be jurisdictional unless they had an identifiable OHWM, were identified on the USGS topographic map, or represented a presumed relocation of a natural channel.

During the field survey, functional stream assessments were conducted using the methods described in the OEPA's Methods for Assessing Habitat in Flowing Waters: Using OEPA's *Qualitative Habitat Evaluation Index* (OEPA, 2006) and in the OEPA's Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams (OEPA, 2018). The Qualitative Habitat Evaluation Index (QHEI), is used to characterize larger streams (drainage areas greater than 1 square mile), while the Primary Headwater Habitat Evaluation Index (HHEI) is appropriate for first-order and second-order headwater streams (drainage areas less than 1 square mile).

4 Field Survey Results

Jacobs biologists surveyed the from May through June 2018, April 2019, and May 2020 by walking the corridor and evaluating for wetlands and other waters of the U.S. A total of 71 wetlands, 79 streams, and 13 ponds were delineated within the ESC. The features identified within the ESC are displayed and identified on the Wetlands and Waterbodies Delineation Map (Figure 3-A to Figure 3-BI). Detailed information for wetland and waterbody features within the ESC is provided in Tables 4-1 (wetlands), 4-2 (streams), and 4-3 (ponds).

4.1 Wetlands

Seventy-one wetlands totaling 25.49 acres, ranging in size from less than 0.01 to 2.3 acres, were delineated within the ESC and are depicted in Figures 3A-3BI. Of the 71 wetlands, 67 wetlands were identified as PEM wetlands and four as PSS wetlands.

Detailed information for each delineated wetland within the Project ESC is provided in Table 4-1 (follows text) and a summary of the delineated wetlands is provided in Table 4-4. The reported wetland acreage only corresponds to areas delineated within the ESC as some wetlands extended beyond the survey boundary. Completed USACE wetland and upland determination forms are provided in Appendix A. Representative photographs were taken of each wetland during the field survey and are provided in Appendix F.

TABLE 4-4: Wetland Summary Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Wetland Type	ORAM Category			Number of Wetlands	Acreage within ESA[1]
	Category 1	Category 2	Category 3		
PEM	47	20	0	67	25.1
PSS	3	1	0	4	0.39
Totals	**50**	**21**	**0**	**71**	**25.49**

[1]This acreage only corresponds to the area delineated within the environmental survey corridor.

4.1.1 Wetland ORAM Results

A total of 50 Category 1 wetlands and 21 Category 2 wetlands were identified within the ESC. No Category 3 wetlands were identified within the ESC. Table 4-4 provides additional summary information regarding wetlands identified within the ESC. Completed ORAM forms are included in Appendix B.

The 50 Category 1 wetlands were classified as Category 1 wetlands based on the ORAM scores (ranging from 14.5 to 29.5). Generally, these wetlands scored low due to a variety of factors such as small size, intensity of surrounding land use, narrow buffer areas, disturbance to soils and hydrology, the lack of second growth vegetation, and the presence of invasive species.

The 21 Category 2 wetlands were classified as Category 2 wetlands based on the ORAM scores (ranging from 30-43.5). Generally, the Category 2 wetlands exhibited medium upland buffers, very low to moderately high intensive surrounding land use (e.g. second growth forest, residential, fenced pasture), sparse to moderate percentage of invasive species, and had habitat and hydrology generally recovered or recovering from previous manipulation due to clearcutting, shrub/sapling removal, and other disturbances, or with no disturbance at all.

No high-quality Category 3 wetlands were identified within the ESC.

4.2 Streams

A total of 79 streams, totaling 23,506 linear feet, were identified within the ESC as shown in Figures 3A-3BI. Of the 79 streams, 48 streams were identified as ephemeral streams, 21 were intermittent streams, and ten were perennial streams. Seventy-three streams were assessed using the HHEI methodology (drainage area less than 1 mi^2) and six streams were assessed using the QHEI methodology (drainage area greater than 1 mi^2).

Completed QHEI and HHEI forms are provided in Appendix C and D, respectively. Representative photographs were taken of each stream during the field survey and are provided in Appendix F.

4.2.1 QHEI Results

Six streams, totaling 2,103 linear feet, within the ESC were evaluated using the QHEI methodology. Four of the stream habitats assessed were Fair Warmwater and two of the stream habitats assessed were Good Warmwater. Detailed information for each delineated stream within the ESC is provided in Table 4-2 (follows text), and a summary of QHEI results for streams identified within the ESC are provided in Table 4-5.

TABLE 4-5: QHEI Summary Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Flow Regime	QHEI Narrative Category					Number of Streams	Length (feet) within ESC[1]
	Very Poor Warmwater	Poor Warmwater	Fair Warmwater	Good Warmwater	Excellent Warmwater		
Intermittent	0	0	0	0	0	0	0
Perennial	0	0	4	2	0	6	2,103
Total	0	0	**4**	**2**	0	**6**	**2,103**

[1]The length only corresponds to the linear feet delineated within the environmental survey area.

4.2.2 HHEI Results

Seventy-three headwater streams, totaling 21,403 linear feet, within the ESC were evaluated using the HHEI methodology. These streams were classified as seven Ephemeral streams, 30 Modified Ephemeral streams, four Conduct Biological Assessment streams, one Small Drainage Warmwater, 29 Modified Small Drainage Warmwater, and two Spring Water streams. Detailed information for each delineated stream within the ESC is provided in Table 4-2 (follows text), and a summary of the HHEI results for streams identified within the ESC is provided in Table 4-6. Completed HHEI forms are provided in Appendix D. Representative photographs of the streams were taken during the field survey and are provided in Appendix F.

TABLE 4-6: HHEI Summary Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Flow Regime	HHEI Class						Number of Streams	Length (feet) within ESC[1]
	Ephemeral Stream	Modified Ephemeral Stream	Conduct Biological Assessment	Small Drainage Warmwater	Modified Small Drainage Warmwater	Spring Water		
Ephemeral	6	23	4	1	14	0	48	10,905
Intermittent	1	7	0	0	12	1	21	8,856
Perennial	0	0	0	0	3	1	4	1,642
Total	**7**	**30**	**4**	**1**	**29**	**2**	**73**	**21,403**

[1]This length only corresponds to the linear feet delineated within the environmental survey area.

4.3 Ponds/Open Water

Thirteen ponds, totaling 8.3 acres, were identified within the ESC as shown in Figures 3A-3BI. Detailed information for each delineated pond within the ESC is provided in Table 4-3(follows text), more detailed information on pond conditions can be found in Appendix E. Representative photographs of the ponds can be found in Appendix F.

5 Conclusion

Jacobs conducted an environmental survey of the Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project in May through June 2018, April 2019, and May 2020. A total of 71 wetlands, 79 streams, and 13 ponds were delineated within the environmental survey corridor. The 71 wetlands totaling 25.49 acres within the ESC were identified as two different wetland habitat types which included 67 PEM wetlands, and four PSS wetlands. Of the 71 wetlands, 50 wetlands were identified as Category 1 wetlands and 21 wetlands were identified as Category 2 wetlands. No Category 3 wetlands were identified within the ESC.

The 79 streams totaling 23,506 linear feet identified within the ESC include 48 ephemeral streams, 21 intermittent streams, and 10 perennial streams. Seventy-three streams were assessed using the HHEI methodology (drainage area less than 1 mi^2) and six streams were assessed using the QHEI methodology (drainage area greater than 1 mi^2). Additionally, the 13 ponds identified within the ESC total 8.3 acres.

The USACE will make the final jurisdictional determination. Further coordination with the USACE is recommended prior to the submittal of any permit or construction activities.

The results of the environmental resource survey described in this report conducted by Jacobs are limited to what was identified within the ESC and depicted in Figure 3A to 3BI. The information contained in this wetland and waterbody delineation report is for a study area that may be much larger than the actual Project limits-of-disturbance for construction; therefore, lengths and acreages listed in this report may likely not constitute the actual impacts of the Project at the time of construction. If permits are determined to be necessary, actual impacted lengths and/or acreages will be submitted in subsequent permit applications.

The aquatic resources field survey results presented within this report apply to the site conditions at the time of our assessment. Changes within the environmental survey area that may occur with time due to natural processes or human impacts at the project site or on adjacent properties, could invalidate the findings of this report, especially if Jacobs is unaware and has not had the opportunity to revisit the Project survey area. Additionally, changes in applicable standards and regulations may also occur as a result of legislation or the expansion of knowledge over time. Therefore, the findings of this aquatic resources report may be invalidated, wholly or in part, by changes that are beyond the control of Jacobs.

6 References

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Tables

TABLE 3-1: Mapped Soil Units

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Symbol	Description	Hydric Classification
AbC2	Aaron silty clay loam, 6 to 15 percent slopes, eroded	Not Hydric
Bhn7D1	Bethesda channery loam, 8 to 25 percent slopes, unreclaimed	Not Hydric
Bhr2D1	Bethesda loam, 8 to 25 percent slopes, reclaimed	Not Hydric
Bhs4B	Bethesda channery silt loam, 0 to 8 percent slopes, unreclaimed	Predominantly Non-Hydric
Bhs4D	Bethesda channery silt loam, 8 to 25 percent slopes, unreclaimed	Predominantly Non-Hydric
Bhs4F	Bethesda channery silt loam, 25 to 70 percent slopes, unreclaimed	Not Hydric
Bhv1B	Bethesda silt loam, 0 to 8 percent slopes, reclaimed	Predominantly Non-Hydric
Bhv1D	Bethesda silt loam, 8 to 25 percent slopes, reclaimed	Predominantly Non-Hydric
BsC	Brookside silty clay loam, 8 to 15 percent slopes	Not Hydric
BsD	Brookside silty clay loam, 15 to 25 percent slopes	Not Hydric
Cg	Chagrin silt loam, 0 to 3 percent slopes, occasionally flooded	Predominantly Non-Hydric
CuB	Culleoka silt loam, 3 to 8 percent slopes	Not Hydric
CuC	Culleoka silt loam, 8 to 15 percent slopes	Not Hydric
DkC	Dekalb loam, 8 to 15 percent slopes	Not Hydric
DkD	Dekalb loam, 15 to 25 percent slopes	Not Hydric
EbB	Elba silty clay loam, 3 to 8 percent slopes	Not Hydric
EbC	Elba silty clay loam, 8 to 15 percent slopes	Not Hydric
EbD	Elba silty clay loam, 15 to 25 percent slopes	Not Hydric
Fpn4D1	Fairpoint channery silt loam, 8 to 25 percent slopes, unreclaimed	Not Hydric
Fpr1B1	Fairpoint silt loam, 0 to 8 percent slopes, reclaimed	Not Hydric
Fpr1D1	Fairpoint silt loam, 8 to 25 percent slopes, reclaimed	Not Hydric
FtA	Fitchville silt loam, 0 to 3 percent slopes	Predominantly Non-Hydric
GpD	Gilpin-Lowell silt loams, 15 to 25 percent slopes	Not Hydric
He	Hartshorn silt loam, occasionally flooded	Not Hydric
ltm6F1	Itmann very channery loam, 25 to 70 percent slopes	Not Hydric
LeC	Lowell silt loam, moderately wet, 8 to 15 percent slopes	Not Hydric
LeD	Lowell silt loam, moderately wet, 15 to 25 percent slopes	Not Hydric
LeE	Lowell silt loam, 25 to 40 percent slopes	Not Hydric
LoC	Lowell-Westmoreland silt loams, 8 to 15 percent slopes	Not Hydric
LoD	Lowell-Westmoreland silt loams, 15 to 25 percent slopes	Not Hydric
LoD2	Lowell silty clay loam, 15 to 25 percent slopes, eroded	Not Hydric
LoE	Lowell-Westmoreland silt loams, 25 to 35 percent slopes	Not Hydric
LoF	Lowell-Westmoreland silt loams, 35 to 70 percent slopes	Not Hydric
LpF	Lowell-Westmoreland silt loams, benched, 30 to 70 percent slopes	Not Hydric
Me	Melvin silt loam, frequently ponded, 0 to 3 percent slopes	Predominately Hydric
MnD	Morristown silty clay loam, 8 to 25 percent slopes	Not Hydric
MoB	Morristown channery silty clay loam, 0 to 8 percent slopes, stony	Predominantly Non-Hydric
MoD	Morristown channery silty clay loam, 8 to 25 percent slopes, stony	Predominantly Non-Hydric
MrF	Morristown channery silt loam, 25 to 70 percent slopes, bouldery	Predominantly Non-Hydric
Mwh4F1	Morristown channery silt loam, 25 to 70 percent slopes, unreclaimed, highwall	Not Hydric
Mwn4D1	Morristown channery silt loam, 8 to 25 percent slopes, unreclaimed	Not Hydric
Mwn4F1	Morristown channery silt loam, 25 to 70 percent slopes, unreclaimed	Not Hydric
Mwr1B1	Morristown silt loam, 0 to 8 percent slopes, reclaimed	Not Hydric
Mwr1D1	Morristown silt loam, 8 to 25 percent slopes, reclaimed	Not Hydric
Mwr1F1	Morristown silt loam, 25 to 70 percent slopes, reclaimed	Not Hydric
Ne	Newark silt loam, 0 to 3 percent slopes, frequently flooded	Predominantly Non-Hydric
Nm	Newark silt loam, ponded	Predominately Hydric
Nn	Newark Variant silt loam, frequently flooded	Predominantly Non-Hydric

TABLE 3-1: Mapped Soil Units
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Symbol	Description	Hydric Classification
Omm1B1	Omulga silt loam, mixed substratum, 2 to 6 percent slopes	Not Hydric
Omm1C1	Omulga silt loam, mixed substratum, 6 to 12 percent slopes	Not Hydric
Pm	Pits, mine	Not Hydric
RcC	Richland loam, 8 to 15 percent slopes	Not Hydric
RcD	Richland loam, 15 to 25 percent slopes	Not Hydric
RcE	Richland moderately stony loam, 25 to 40 percent slopes	Not Hydric
RhB	Richland silt loam, 3 to 8 percent slopes	Not Hydric
Ud	Udorthents-Urban land complex	Not Hydric
W	Water	Not Hydric
WhB	Wellston silt loam, 3 to 8 percent slopes	Not Hydric
WhC	Wellston silt loam, 8 to 15 percent slopes	Not Hydric
WmC	Westmoreland silt loam, 8 to 15 percent slopes	Not Hydric
WkB	Westmore silt loam, 3 to 8 percent slopes	Not Hydric
WmB	Westmoreland silt loam, 3 to 8 percent slopes	Not Hydric
WmC	Westmoreland silt loam, 8 to 15 percent slopes	Not Hydric
WmD	Westmoreland silt loam, 15 to 25 percent slopes	Not Hydric
WmE	Westmoreland silt loam, 25 to 35 percent slopes	Not Hydric
WmF	Westmoreland silt loam, 35 to 60 percent slopes	Not Hydric
WoC	Westmoreland-Upshur complex, 8 to 15 percent slopes	Not Hydric
WoD	Westmoreland-Upshur complex, 15 to 25 percent slopes	Not Hydric

Table 4-1: Detailed Delineated Wetland Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Wetland ID	Location		Wetland Type[1]	Area (ac)[2]	ORAM Score/Category[4]
	Latitude	Longitude			
Wetland NH-01	40.1891	-81.0326	PSS	0.04	33 / Category 2
Wetland NH-02	40.1863	-81.0298	PSS	0.27	36 / Category 2
Wetland NH-03	40.1830	-81.0278	PEM	0.61	25 / Category 1
Wetland NH-04	40.1815	-81.0255	PEM	1.74	34.5 / Category 2
Wetland NH-05	40.1775	-81.0227	PEM	0.61	35 / Category 2
Wetland NH-06	40.1727	-81.0170	PEM	0.22	40.5 / Category 2
Wetland NH-07	40.1692	-81.0141	PEM	0.17	24 / Category 1
Wetland NH-08	40.1671	-81.0126	PEM	0.09	32.5 / Category 2
Wetland NH-09	40.1649	-81.0114	PEM	0.07	25 / Category 1
Wetland NH-10	40.1634	-81.0094	PEM	1.27	27 / Category 1
Wetland NH-11	40.1572	-81.0040	PEM	0.82	22 / Category 1
Wetland NH-12	40.1492	-80.9976	PEM	0.05	17 / Category 1
Wetland NH-13	40.1488	-80.9967	PEM	0.02	19 / Category 1
Wetland NH-14	40.1451	-80.9932	PEM	0.25	38 / Category 1
Wetland NH-15	40.1426	-80.9905	PSS	0.03	27 / Category 1
Wetland NH-16	40.1422	-80.9910	PEM	0.11	27 / Category 1
Wetland NH-17	40.1421	-80.9903	PEM	0.09	
Wetland NH-18	40.1346	-80.9848	PEM	0.03	15 / Category 1
Wetland NH-19	40.1338	-80.9832	PEM	0.27	18 / Category 1
Wetland NH-20	40.1319	-80.9816	PEM	0.49	15 / Category 1
Wetland NH-21	40.1311	-80.9807	PEM	0.80	21 / Category 1
Wetland NH-22	40.1305	-80.9808	PSS	0.02	22 / Category 1
Wetland NH-23	40.1242	-80.9763	PEM	0.13	20 / Category 1
Wetland NH-24	40.1191	-80.9724	PEM	1.72	32 / Category 2
Wetland NH-25	40.1130	-80.9686	PEM	0.40	20 / Category 1
Wetland NH-26	40.1117	-80.9677	PEM	1.26	21 / Category 1
Wetland NH-27	40.1106	-80.9672	PEM	0.01	22 / Category 1

Table 4-1: Detailed Delineated Wetland Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Wetland ID	Location		Wetland Type[1]	Area (ac)[2]	ORAM Score/Category[4]
	Latitude	Longitude			
Wetland NH-28	40.0980	-80.9521	PEM	2.45	30.5 / Category 2
Wetland NH-29	40.1004	-80.9548	PEM	0.02	26 / Category 1
Wetland NH-30	40.0965	-80.9516	PEM	0.31	21 / Category 1
Wetland NH-31	40.0930	-80.9472	PEM	0.65	23 / Category 1
Wetland NH-32	40.0888	-80.9424	PEM	0.12	20 / Category 1
Wetland NH-33	40.0880	-80.9417	PEM	1.10	23 / Category 1
Wetland NH-34	40.0869	-80.9412	PEM	0.06	30 / Category 2
Wetland NH-35	40.0859	-80.9391	PEM	0.25	24 / Category 1
Wetland NH-36	40.0844	-80.9372	PEM	0.04	25 / Category 1
Wetland NH-37	40.0799	-80.9335	PEM	0.13	27 / Category 1
Wetland NH-38	40.0711	-80.9257	PEM	0.05	14.5 / Category 1
Wetland NH-39	40.0665	-80.9255	PEM	1.34	43.5 / Category 2
Wetland NH-40	40.0660	-80.9251	PEM	0.12	25 / Category 1
Wetland NH-41	40.0659	-80.9249	PSS	0.06	
Wetland NH-42	40.0617	-80.9211	PEM	0.20	25 / Category 1
Wetland NH-43	40.0591	-80.918	PEM	0.10	31.5 / Category 2
Wetland NH-44	40.0581	-80.9169	PEM	0.03	31 / Category 2
Wetland NH-45	40.0544	-80.9143	PEM	0.28	25.5 / Category 1
Wetland NH-46	40.0539	-80.9139	PEM	0.09	25 / Category 1
Wetland NH-47	40.0514	-80.9110	PEM	0.20	26.5 / Category 1
Wetland NH-48	40.0481	-80.9069	PEM	0.19	27.5 / Category 1
Wetland NH-49	40.0476	-80.9074	PEM	0.23	27.5 / Category 1
Wetland NH-50	40.0474	-80.9066	PEM	0.09	27.5 / Category 1
Wetland NH-51	40.0402	-80.8998	PEM	0.10	34 / Category 2
Wetland NH-52	40.0335	-80.8937	PEM	0.68	26 / Category 1
Wetland NH-53	40.0329	-80.8931	PEM	0.02	19.5 / Category 1
Wetland NH-54	40.0323	-80.8923	PEM	0.19	23.5 / Category 1

Table 4-1: Detailed Delineated Wetland Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Wetland ID	Location		Wetland Type[1]	Area (ac)[2]	ORAM Score/Category[4]
	Latitude	Longitude			
Wetland NH-55	40.0267	-80.8878	PEM	0.20	29.5 / Category 1
Wetland NH-56	40.0260	-80.8883	PEM	0.08	28.5 / Category 1
Wetland NH-57	40.0214	-80.8848	PEM	0.13	28 / Category 1
Wetland NH-58	40.0091	-80.8648	PEM	2.30	31.5 / Category 2
Wetland NH-59	40.0083	-80.8644	PEM	0.18	23.5 / Category 1
Wetland NH-60	39.9927	-80.8484	PEM	0.29	41.5 / Category 2
Wetland NH-61	39.9852	-80.8372	PEM	0.04	39.5 / Category 2
Wetland NH-62	39.9842	-80.8354	PEM	0.04	39.5 / Category 2
Wetland NH-63	39.9813	-80.8325	PEM	0.04	36.5 / Category 2
Wetland NH-64	39.9785	-80.8281	PEM	0.26	35 / Category 2
Wetland NH-65	39.9775	-80.8259	PEM	0.03	26 / Category 1
Wetland NH-66	39.9758	-80.8234	PEM	0.36	30.5 / Category 2
Wetland NH-67	39.9730	-80.8199	PEM	0.07	29.5 / Category 1
Wetland NH-68	39.9686	-80.8141	PEM	0.08	30 / Category 2
Wetland NH-69	39.9657	-80.8100	PEM	0.02	29 / Category 1
Wetland NH-70	40.1757	-81.0170	PEM	<0.01	23 / Category 1
Wetland NH-73	40.0746	-80.9425	PEM	0.72	27 / Category 1
WETLAND ACREAGE SUBTOTAL				**25.49**	

TABLE 4-2: Detailed Delineated Stream Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Stream ID	Location		Flow Regime[2]	Linear Feet[3]	Average OHWM Width (Feet)	Average TOB Width (Feet)	HHEI/ QHEI Score	Class/Designation
	Latitude	Longitude						
Stream NH-01	40.1888	-81.0330	Ephemeral	337	1	3	25	Modified Ephemeral Stream
Stream NH-02	40.1644	-81.0104	Ephemeral	352	2	8	37	Modified Small Drainage Warmwater
Stream NH-03	40.1572	-81.0046	Intermittent	335	1	2	37	Modified Small Drainage Warmwater
Stream NH-04	40.1569	-81.0043	Intermittent	72	2	3	25	Modified Ephemeral Stream
Stream NH-05	40.1562	-81.0037	Ephemeral	449	3	6	41	Modified Small Drainage Warmwater
Stream NH-06	40.1424	-80.9908	Ephemeral	146	1.5	3	25	Modified Ephemeral Stream
Stream NH-07	40.1379	-80.9875	Ephemeral	36	1	1.5	24	Modified Ephemeral Stream
Stream NH-08	40.1310	-80.9811	Perennial	740	25	30	42.75	Fair Warmwater
Stream NH-09	40.1308	-80.9813	Ephemeral	137	3	6	64	Modified Small Drainage Warmwater
Stream NH-10	40.1224	-80.9744	Intermittent	1536	2.5	3	45	Modified Small Drainage Warmwater
Stream NH-11	40.1120	-80.9686	Ephemeral	257	1	2	35	Modified Small Drainage Warmwater
Stream NH-12	40.1113	-80.9672	Perennial	332	25	30	56.75	Fair Warmwater
Stream NH-13	40.0969	-80.9508	Intermittent	462	3	4	55	Modified Small Drainage Warmwater
Stream NH-14	40.0946	-80.9492	Perennial	435	5	7	51.5	Fair Warmwater
Stream NH-15	40.0935	-80.9479	Ephemeral	168	2	3	24	Modified Ephemeral Stream
Stream NH-16	40.0860	-80.9396	Ephemeral	351	1	2	24	Modified Ephemeral Stream
Stream NH-17	40.0834	-80.9365	Ephemeral	340	1	4	35	Modified Small Drainage Warmwater
Stream NH-18	40.0799	-80.9335	Ephemeral	173	1	3	43	Modified Small Drainage Warmwater
Stream NH-19	40.0773	-80.9294	Ephemeral	159	1.5	3	16	Modified Ephemeral Stream
Stream NH-20	40.0749	-80.9277	Perennial	465	3	5	53	Modified Small Drainage Warmwater
Stream NH-21	40.0749	-80.9272	Intermittent	311	2	4	58	Modified Small Drainage Warmwater
Stream NH-22	40.0709	-80.9255	Perennial	217	7	10	48	Fair Warmwater
Stream NH-23	40.0665	-80.9259	Perennial	288	4	5	48	Modified Small Drainage Warmwater
Stream NH-24	40.0635	-80.9228	Ephemeral	381	1	2	17	Modified Ephemeral Stream

TABLE 4-2: Detailed Delineated Stream Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Stream ID	Location		Flow Regime[2]	Linear Feet[3]	Average OHWM Width (Feet)	Average TOB Width (Feet)	HHEI/ QHEI Score	Class/Designation
	Latitude	Longitude						
Stream NH-25	40.0590	-80.9187	Intermittent	282	2	5	45	Modified Small Drainage Warmwater
Stream NH-26	40.0580	-80.9170	Ephemeral	466	1.5	4	36	Modified Small Drainage Warmwater
Stream NH-27	40.0569	-80.9158	Ephemeral	224	1.5	3	26	Ephemeral Stream
Stream NH-28	40.0547	-80.9136	Ephemeral	76	1	2	17	Modified Ephemeral Stream
Stream NH-29	40.0545	-80.9134	Intermittent	63	1	3	24	Modified Ephemeral Stream
Stream NH-30	40.0513	-80.9101	Intermittent	84	1	5	17	Modified Ephemeral Stream
Stream NH-31	40.0407	-80.8996	Ephemeral	107	1	1	16	Ephemeral Stream
Stream NH-32	40.0404	-80.8993	Ephemeral	249	2	4	40	Evaluate Biology
Stream NH-33	40.0405	-80.8995	Ephemeral	69	1	1	29	Ephemeral Stream
Stream NH-34	40.0404	-80.8995	Ephemeral	196	1	1	23	Ephemeral Stream
Stream NH-35	40.0399	-80.8988	Ephemeral	102	1.5	2	35	Modified Small Drainage Warmwater
Stream NH-36	40.0323	-80.8930	Perennial	505	3	6	42	Modified Small Drainage Warmwater
Stream NH-37	40.0320	-80.8926	Intermittent	183	1	3	38	Modified Small Drainage Warmwater
Stream NH-38	40.0324	-80.8921	Intermittent	18	1	3	23	Modified Ephemeral Stream
Stream NH-39	40.0300	-80.8908	Ephemeral	304	1	3	23	Modified Ephemeral Stream
Stream NH-40	40.0297	-80.8911	Ephemeral	95	1	3	23	Modified Ephemeral Stream
Stream NH-41	40.0276	-80.8884	Ephemeral	176	1	3	25	Modified Ephemeral Stream
Stream NH-42	40.0247	-80.8868	Ephemeral	340	1.5	8	53	Modified Small Drainage Warmwater
Stream NH-43	40.0218	-80.8847	Intermittent	87	1.5	3	26	Modified Ephemeral Stream
Stream NH-44	40.0141	-80.8709	Perennial	384	15	20	86	Spring Water
Stream NH-45	40.0086	-80.8647	Perennial	356	66	70	65.5	Good Warmwater
Stream NH-46	40.0004	-80.8599	Ephemeral	77	1	1	23	Modified Ephemeral Stream
Stream NH-47	40.0001	-80.8600	Ephemeral	273	1	1	26	Modified Ephemeral Stream
Stream NH-48	39.9938	-80.8504	Ephemeral	106	2	6	39	Evaluate Biology

TABLE 4-2: Detailed Delineated Stream Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Stream ID	Location		Flow Regime[2]	Linear Feet[3]	Average OHWM Width (Feet)	Average TOB Width (Feet)	HHEI/ QHEI Score	Class/Designation
	Latitude	Longitude						
Stream NH-49	39.9928	-80.8480	Intermittent	633	1	2	23	Ephemeral Stream
Stream NH-50	39.9919	-80.8462	Ephemeral	222	1	1.5	26	Modified Ephemeral Stream
Stream NH-51	39.9913	-80.8458	Intermittent	415	1.5	3	28	Modified Ephemeral Stream
Stream NH-52	39.9895	-80.8428	Ephemeral	484	2	6	63	Evaluate Biology
Stream NH-53	39.9891	-80.8424	Intermittent	375	2	2.5	46	Modified Small Drainage Warmwater
Stream NH-54	39.9892	-80.8418	Ephemeral	288	2	4	46	Evaluate Biology
Stream NH-55	39.9889	-80.8411	Ephemeral	201	2	3	46	Modified Ephemeral Stream
Stream NH-56	39.9869	-80.8381	Ephemeral	139	1	2	24	Modified Ephemeral Stream
Stream NH-57	39.9857	-80.8371	Intermittent	724	3	6	65	Modified Small Drainage Warmwater
Stream NH-58	39.9842	-80.8354	Ephemeral	363	1.5	3	37	Modified Small Drainage Warmwater
Stream NH-59	39.9817	-80.8321	Ephemeral	429	1	1.5	26	Modified Ephemeral Stream
Stream NH-60	39.9788	-80.8288	Ephemeral	187	1	4.5	18	Modified Ephemeral Stream
Stream NH-61	39.9786	-80.8279	Ephemeral	523	1.5	2	17	Modified Ephemeral Stream
Stream NH-62	39.9785	-80.8282	Ephemeral	234	1	1	17	Modified Ephemeral Stream
Stream NH-63	39.9765	-80.8242	Intermittent	980	3.5	4.5	44	Modified Small Drainage Warmwater
Stream NH-64	39.9757	-80.8232	Intermittent	76	3.5	4.5	44	Modified Small Drainage Warmwater
Stream NH-65	39.9750	-80.8229	Intermittent	597	4	4.5	75	Spring Water
Stream NH-66	39.9730	-80.8199	Ephemeral	390	1.5	2	66	Modified Small Drainage Warmwater
Stream NH-67	39.9732	-80.8196	Ephemeral	88	2	3	38	Modified Small Drainage Warmwater
Stream NH-68	39.9696	-80.8152	Intermittent	750	1.5	2	36	Modified Small Drainage Warmwater
Stream NH-69	39.9698	-80.8150	Ephemeral	82	1	2	23	Ephemeral Stream
Stream NH-70	39.9677	-80.8124	Ephemeral	61	1	1	24	Ephemeral Stream
Stream NH-71	39.9673	-80.8125	Intermittent	347	2	3	43	Modified Small Drainage Warmwater
Stream NH-72	39.9655	-80.8103	Ephemeral	344	2	4	61	Small Drainage Warmwater

TABLE 4-2: Detailed Delineated Stream Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

Stream ID	Location		Flow Regime[2]	Linear Feet[3]	Average OHWM Width (Feet)	Average TOB Width (Feet)	HHEI/ QHEI Score	Class/Designation
	Latitude	Longitude						
Stream NH-73	39.9686	-80.8120	Ephemeral	21	1.5	2	25	Modified Ephemeral Stream
Stream NH-75	40.0906	-80.9503	Ephemeral	20	1.5	2	26	Modified Ephemeral Stream
Stream NH-78	40.0749	-80.9427	Ephemeral	637	1	1	22	Modified Ephemeral Stream
Stream NH-79	40.0746	-80.9435	Ephemeral	299	1.5	2.5	42	Modified Small Drainage Warmwater
Stream NH-80	40.0743	-80.9423	Ephemeral	96	2	2	47	Modified Small Drainage Warmwater
Stream NH-81	40.0078	-80.8653	Ephemeral	32	1.5	2	28	Modified Ephemeral Stream
Stream NH-82	40.0085	-80.8680	Perennial	22	70	85	73	Good Warmwater
Total Stream Length				**23,506**				

TABLE 4-3: Detailed Delineated Pond Table

Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

	Location				
Pond ID	**Latitude**	**Longitude**	**Area (ac)[1]**	**Jurisdictional Status[2]**	**Connecting Waterbody**
Pond NH-01	40.1845	-81.0285	0.50	Isolated	None apparent
Pond NH-02	40.1839	-81.0288	0.16	Isolated	None apparent
Pond NH-03	40.1768	-81.0215	2.80	Connected	Crabapple Creek
Pond NH-04	40.1737	-81.0185	0.18	Isolated	None apparent
Pond NH-05	40.1721	-81.0171	1.00	Connected	Crabapple Creek
Pond NH-06	40.1441	-80.9923	1.71	Connected	Crabapple Creek
Pond NH-07	40.1354	-80.9855	0.05	Connected	Crabapple Creek
Pond NH-08	40.135	-80.9843	0.26	Connected	Crabapple Creek
Pond NH-09	40.133	-80.9823	0.16	Connected	Crabapple Creek
Pond NH-10	40.0865	-80.9406	0.61	Connected	Progue Creek
Pond NH-11	40.0477	-80.9066	0.32	Connected	Little McMahon Creek
Pond NH-12	40.0264	-80.8880	0.30	Connected	Welsh Run
Pond NH-13	40.0221	-80.8847	0.21	Connected	Welsh Run
CUMULATIVE POND AREA			**8.27**		

[1]*This acreage only corresponds to the area delineated within the environmental survey area.*

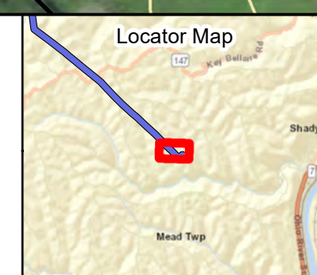
[2]*Final determination of jurisdictional status lies with the USACE Pittsburgh District.*

Figures

Nottingham AEP
HARRISON COUNTY
JEFFERSON COUNTY
BELMONT COUNTY
HARRISON CO
BELMONT CO
JEFFERSON CO
Holloway AEP
SMITHFIELD
SHORT CREEK
MOUNT PLEASANT
WHEELING
COLERAIN
RICHLAND
SMITH
PULTNEY
Adena
Dillonvale
Flushing
Bellaire
Bethesda
Belmont
Lansing
St Clairsville
Businessburg
Armstrongs Mills
Crabapple
Centerville
Jacobsburg
Hunter
Lloydsville
Lamira
Warnock
Glencoe
Stewartsville
McKeefrey
Dillies Bottom
Steinersville
Shadyside
Martin
Harrison County Landing Strip
Science Hill
Hagan Addition
Georgetown (Short Creek PO)
Duncanwood
Hammond Crossroad
New Athens
Harrisville
Robyville
Ramsey
Dunglen
Newtown
Pine Valley
Emerson
Mount Pleasant
Pleasant Grove
Morningview
Coleran
Crescent
Farmington
Sunset Heights
Barton
Fairpoint
Midway
Blainesville
Highland Terrace
Bannock
Provident
Great Western
East Richland
Homeside
Brookside
Wolfhurst
Wheeling Creek
Echo
McClainsville
St Joe
Tower
Nelms
Gallowayville
Chapel Hill
Williams Creek
Uniontown
Oco
Laffertyville
Dunbar
Hurford
Belleview
Belknap
Henrick
Pleasant Grove
Kinsman
Magnard
Crescent
Highland Terrace
Bannock
Lloydsville
Great Western
East Richland
Homeside
Aldenrun Airport
BARKCAMP STATE PARK
Belmont
Lamira
Warnock
Whitney
Gallowayville
Chapel Hill
Centerville
Jacobsburg
Hunter
Businessburg
Armstrongs Mills
Captina
Crabapple
Steinersville
McKeefrey
Dillies Bottom
Shadyside
Wegee
Welch
Martin
Tower
Nelms
Sunset Heights
Farmington
Barton
Brookside
Wolfhurst
Wheeling Creek
Bellaire
Stewartsville
Glencoe
Centerville
Jacobsburg
Hunter
Lloydsville
Lamira
Warnock
Belmont
Bethesda
Flushing
Uniontown
Oco
Laffertyville
Dunbar
Crabapple
Fairpoint
Midway
Blainesville
Highland Terrace
Bannock
Provident

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
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FEET

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FIGURE 2-A
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map

BASE MAP SOURCE:
ESRI World Imagery

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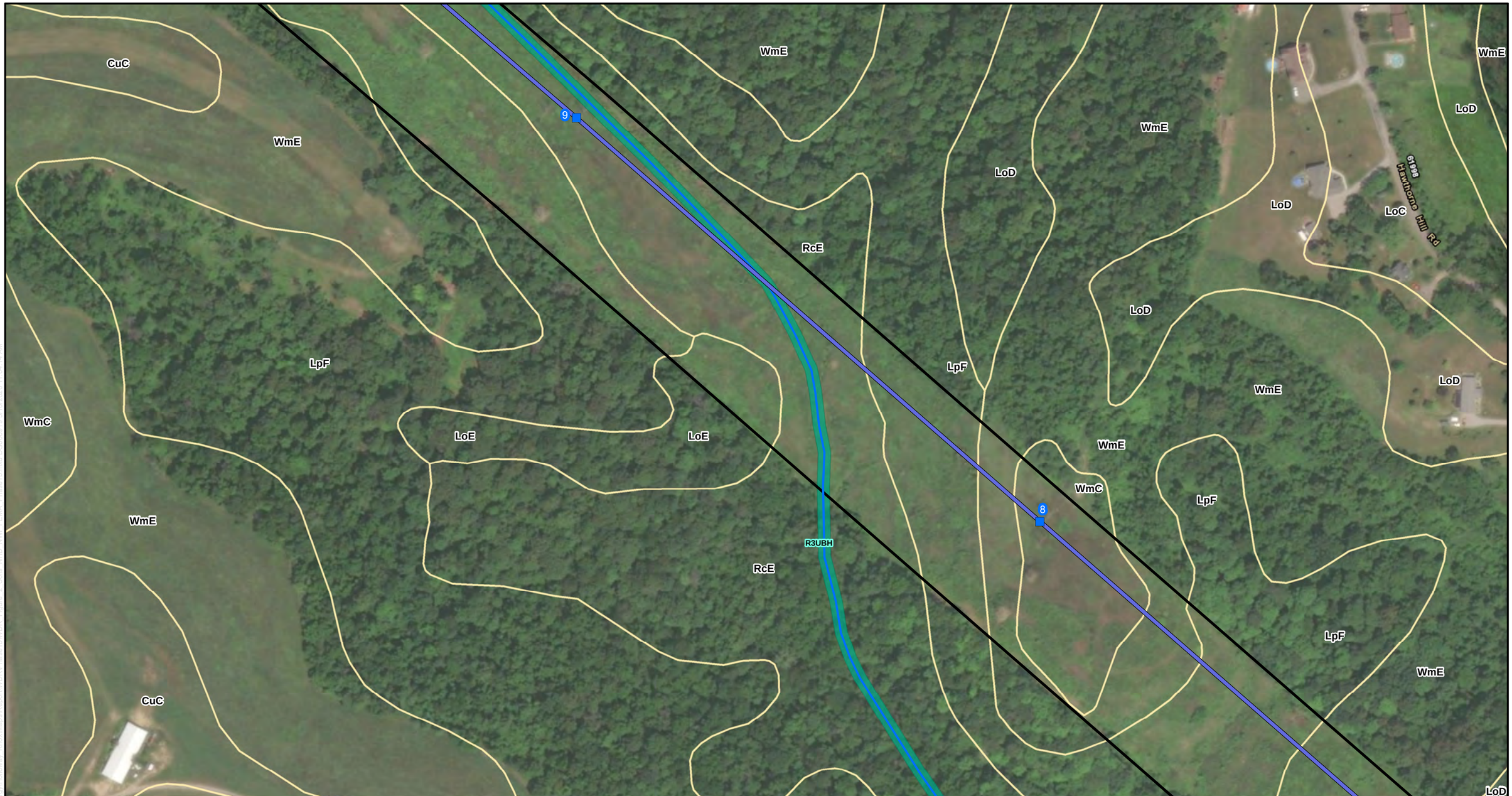
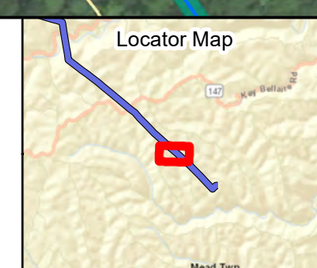
FIGURE 2-B
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



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Holloway-Nottingham #1
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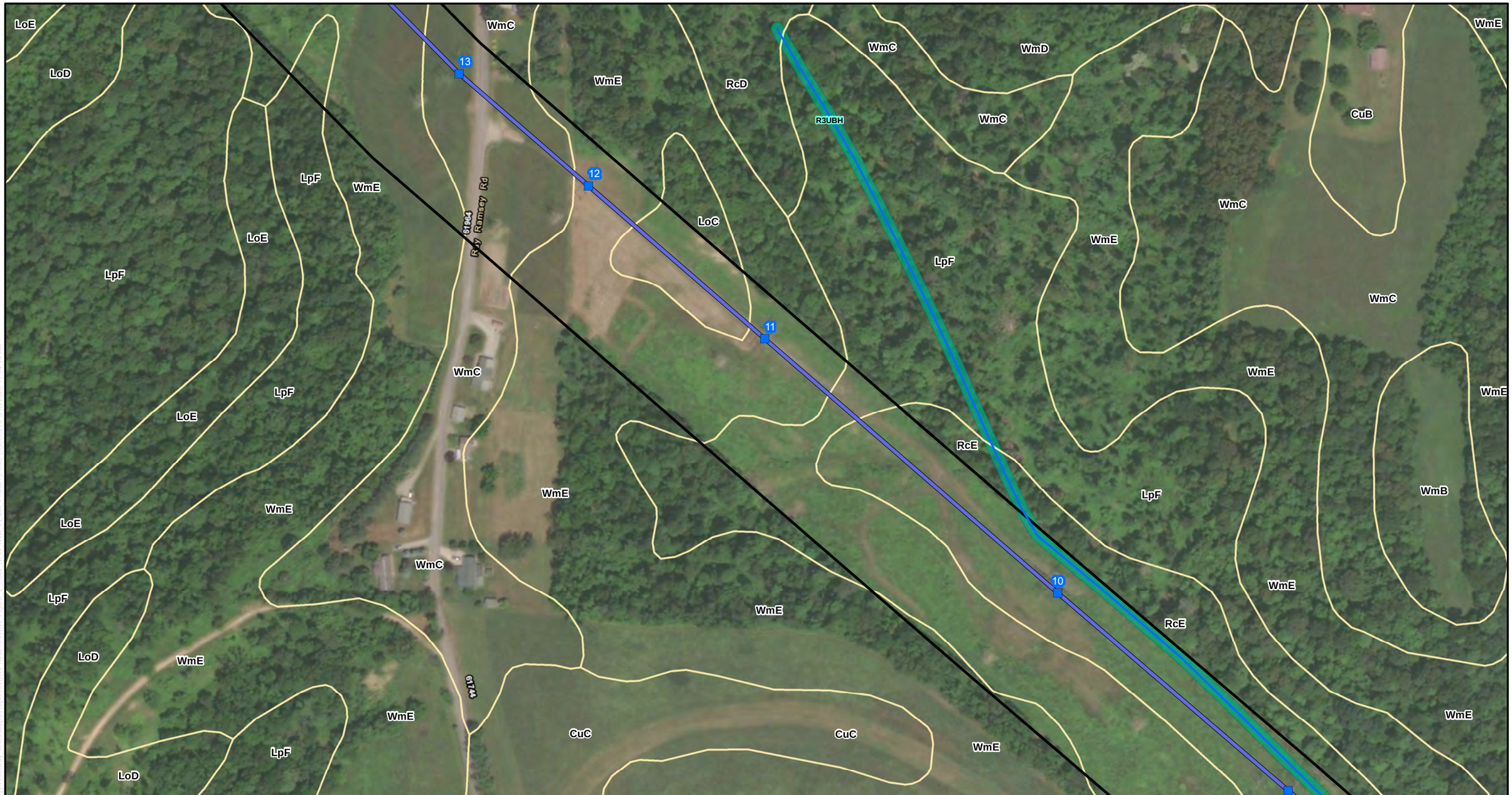
Rebuild Project

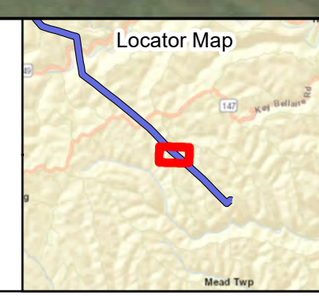
FIGURE 2-C
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



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Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-D
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
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LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

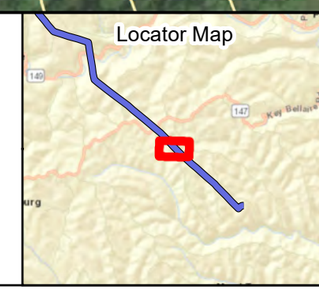

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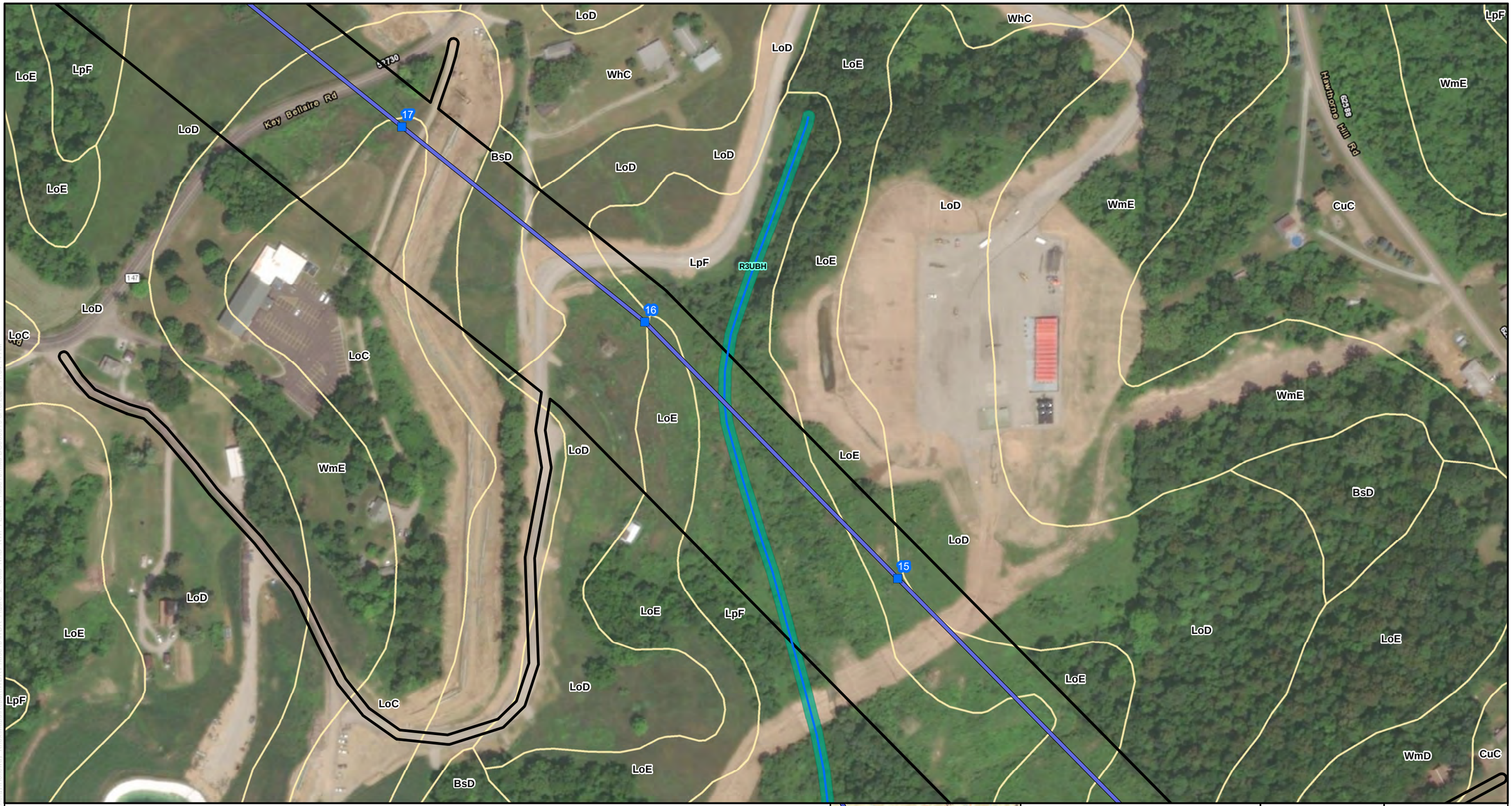
FIGURE 2-E
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

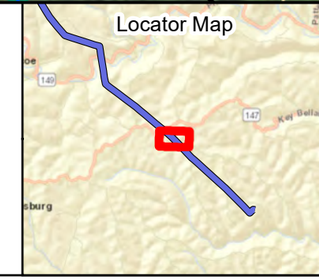


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FIGURE 2-F
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

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FIGURE 2-G
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map

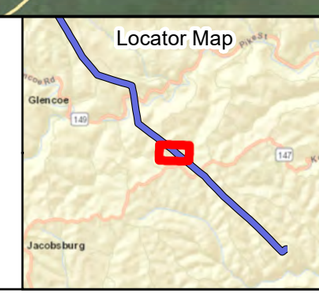

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FIGURE 2-H
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map

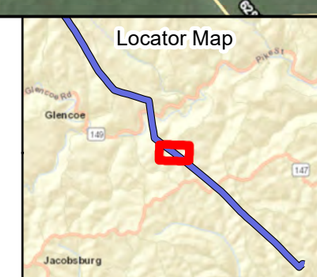

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FIGURE 2-I
SOILS, NHD, NWI, FEMA MAP

PN: 699212
Date: 5/18/2020
CREATED BY: RED
REVIEWED BY: MDT

Jacobs

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

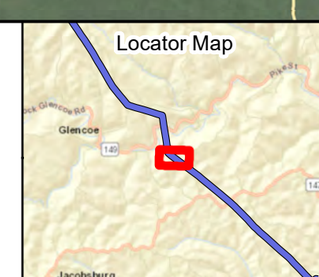

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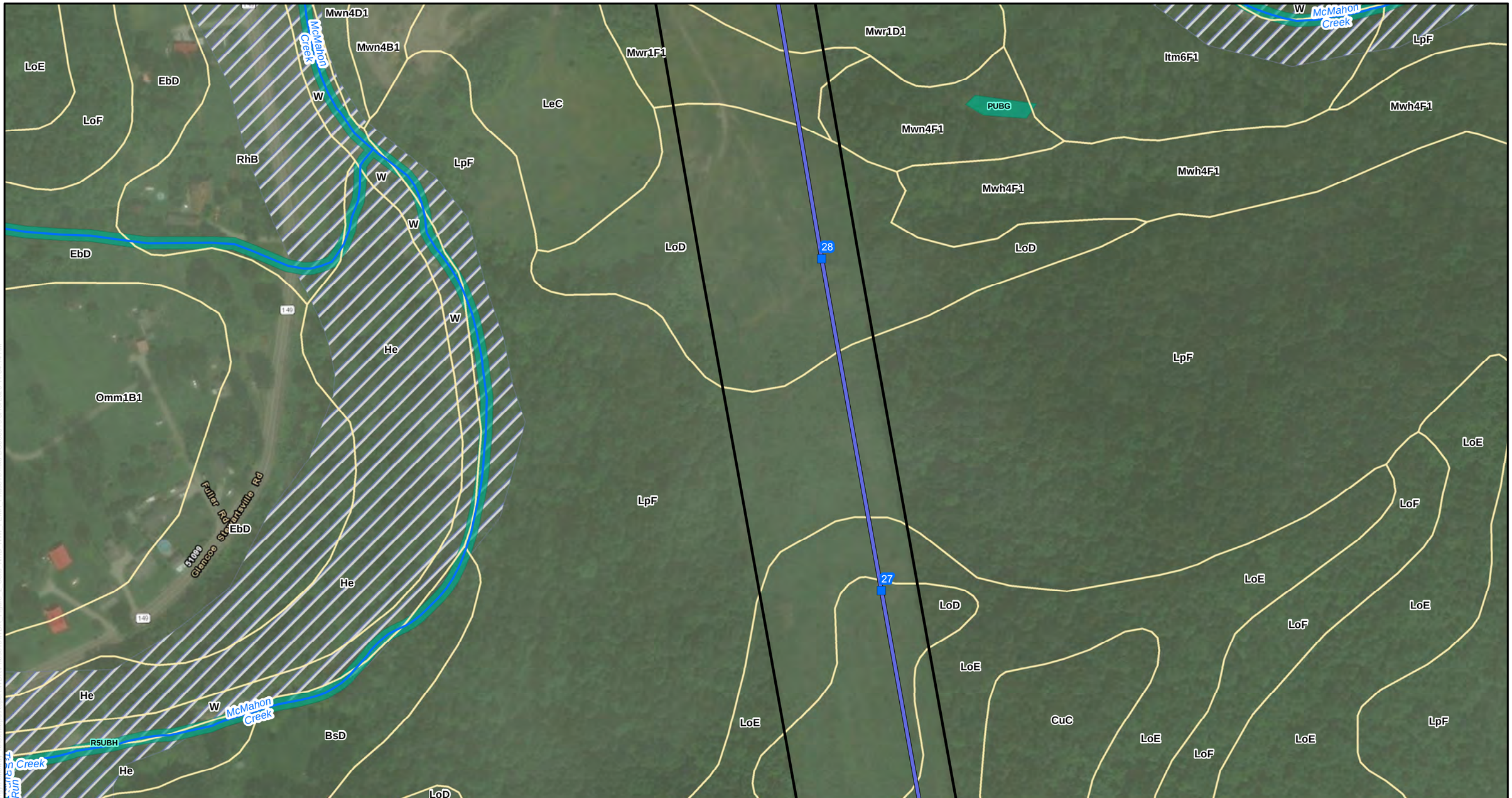
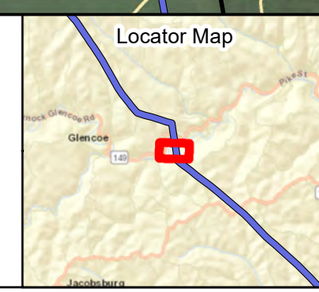
FIGURE 2-J
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



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Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-K
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map

BASE MAP SOURCE:
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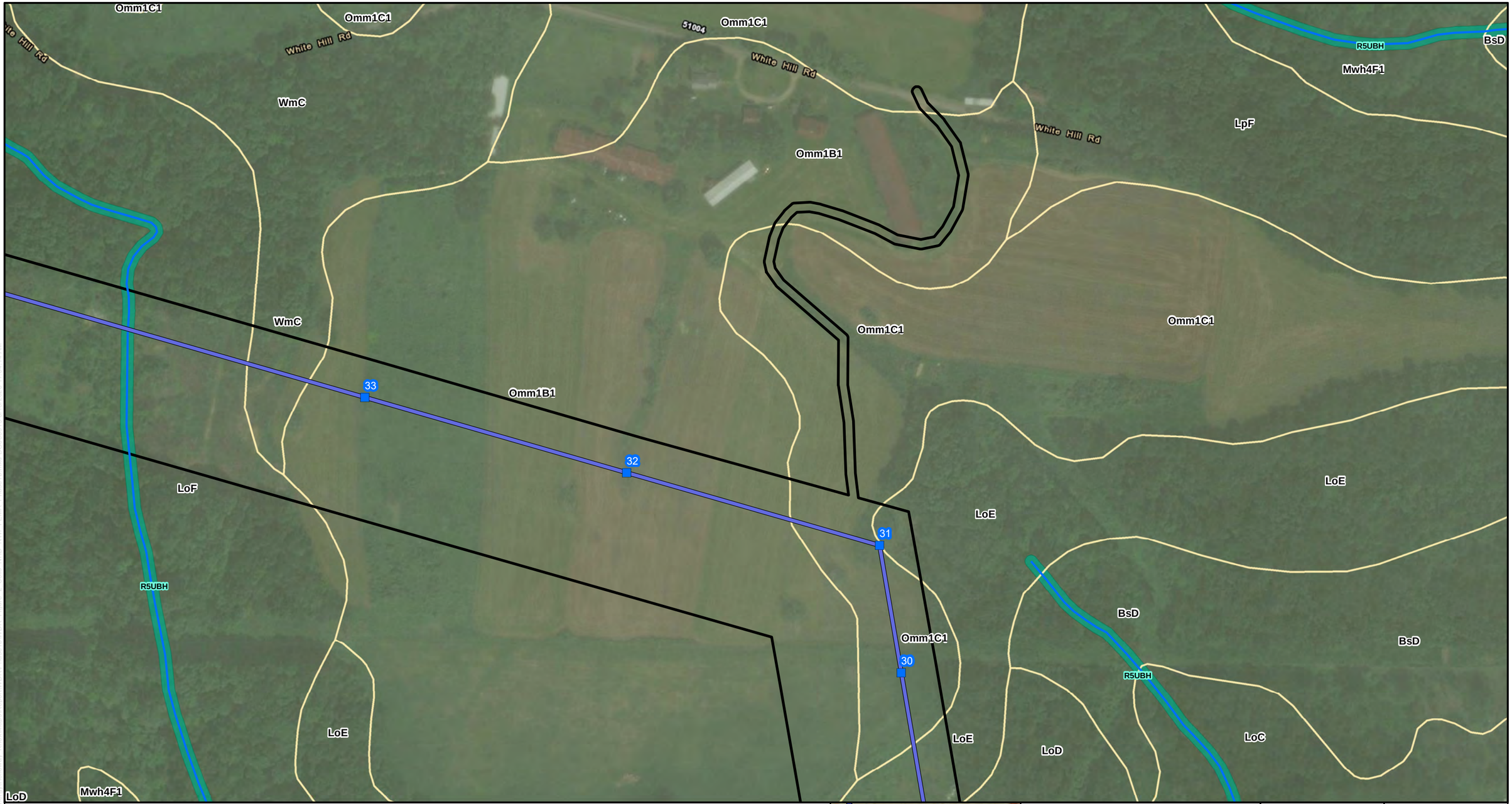
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-L
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map

BASE MAP SOURCE:
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Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

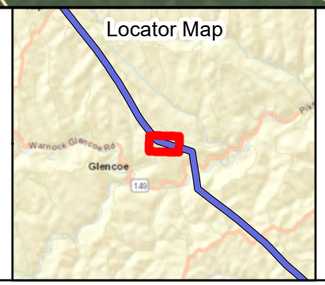
FIGURE 2-M
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map



BASE MAP SOURCE:
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FEET

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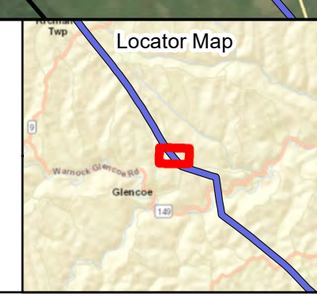
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-N
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



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FEET

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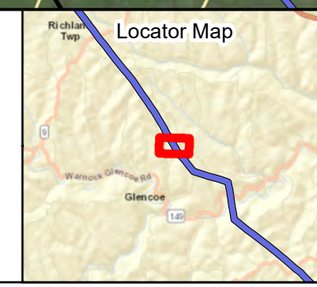
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-O
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



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0 100 200 400
FEET

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Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

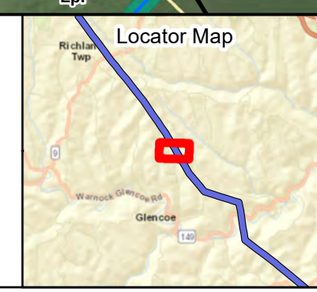
FIGURE 2-P
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map



BASE MAP SOURCE:
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FEET

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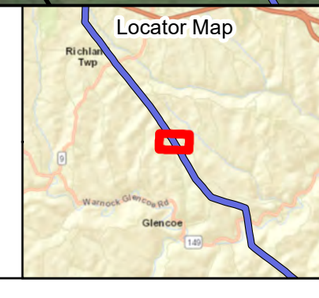
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-Q
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture, Natural Resources Conservation Service

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0 100 200 400
FEET

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Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

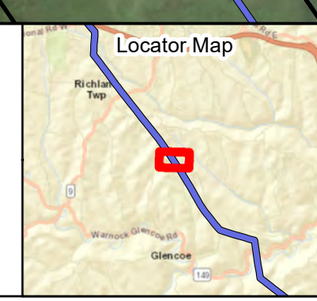
FIGURE 2-R
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map



BASE MAP SOURCE:
ESRI World Imagery

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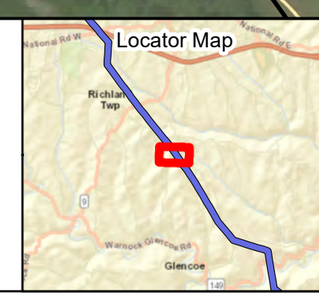
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-S
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
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Natural Resources Conservation Service

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Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

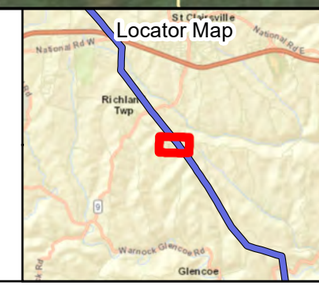
FIGURE 2-T
SOILS, NHD, NWI, FEMA MAP

PN: 699212
Date: 5/18/2020
CREATED BY: RED
REVIEWED BY: MDT

Jacobs

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
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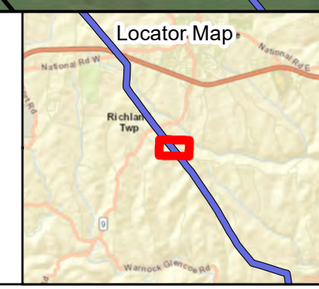
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-U
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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Natural Resources Conservation Service

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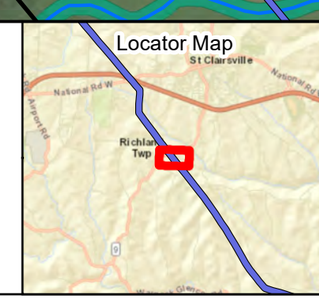
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-V
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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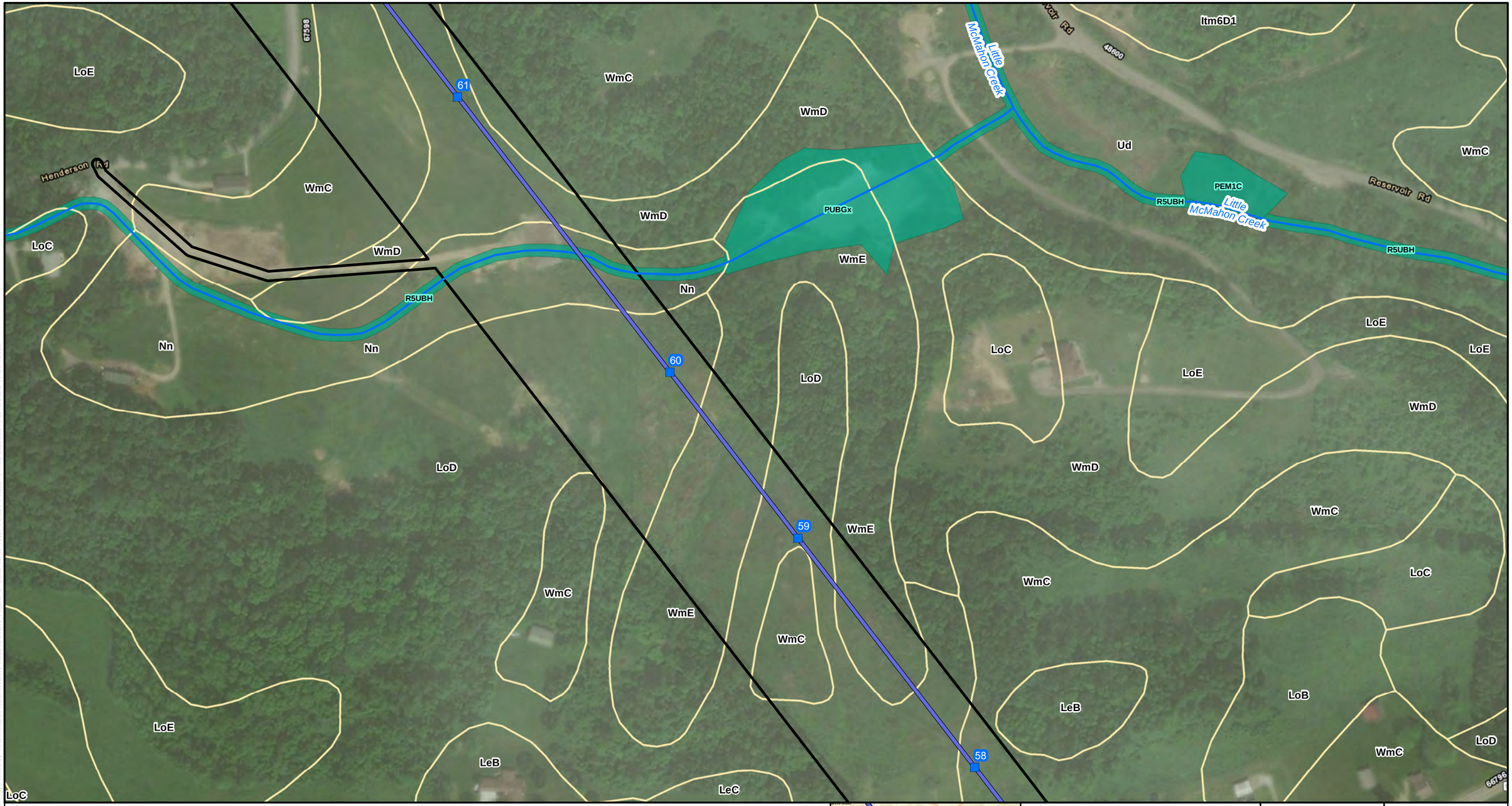
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-W
SOILS, NHD, NWI, FEMA MAP

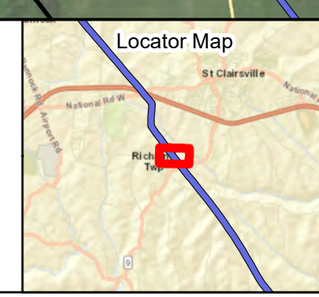
PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map



BASE MAP SOURCE:
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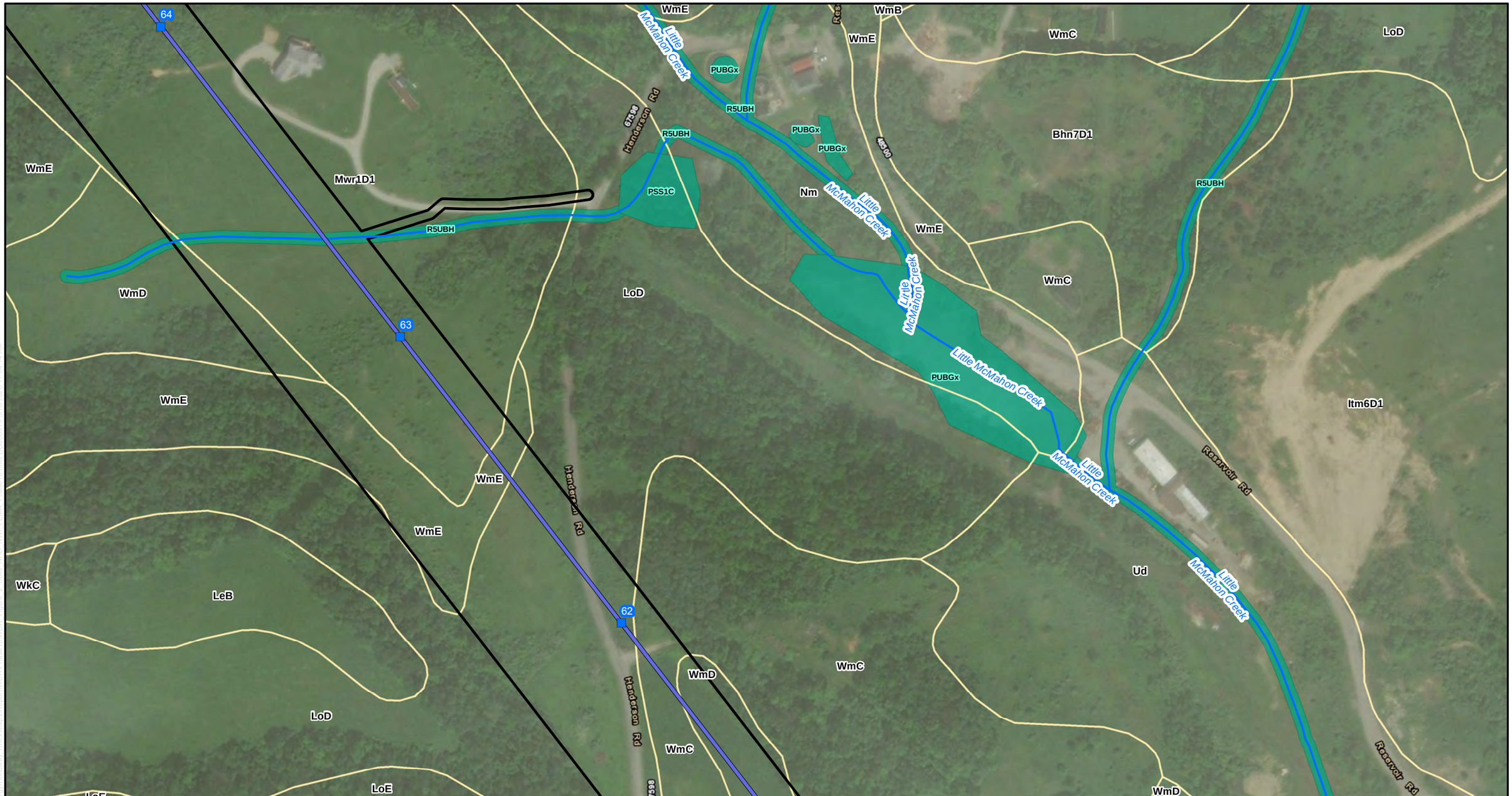
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

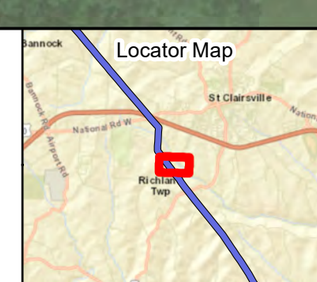
FIGURE 2-X
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
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Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

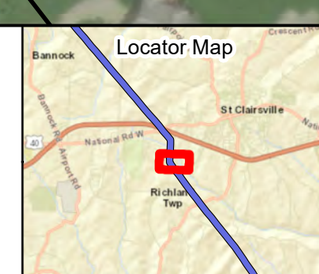
FIGURE 2-Y
SOILS, NHD, NWI, FEMA MAP

PN: 699212
Date: 5/18/2020
CREATED BY: RED
REVIEWED BY: MDT

Jacobs

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
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Natural Resources Conservation Service

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FEET

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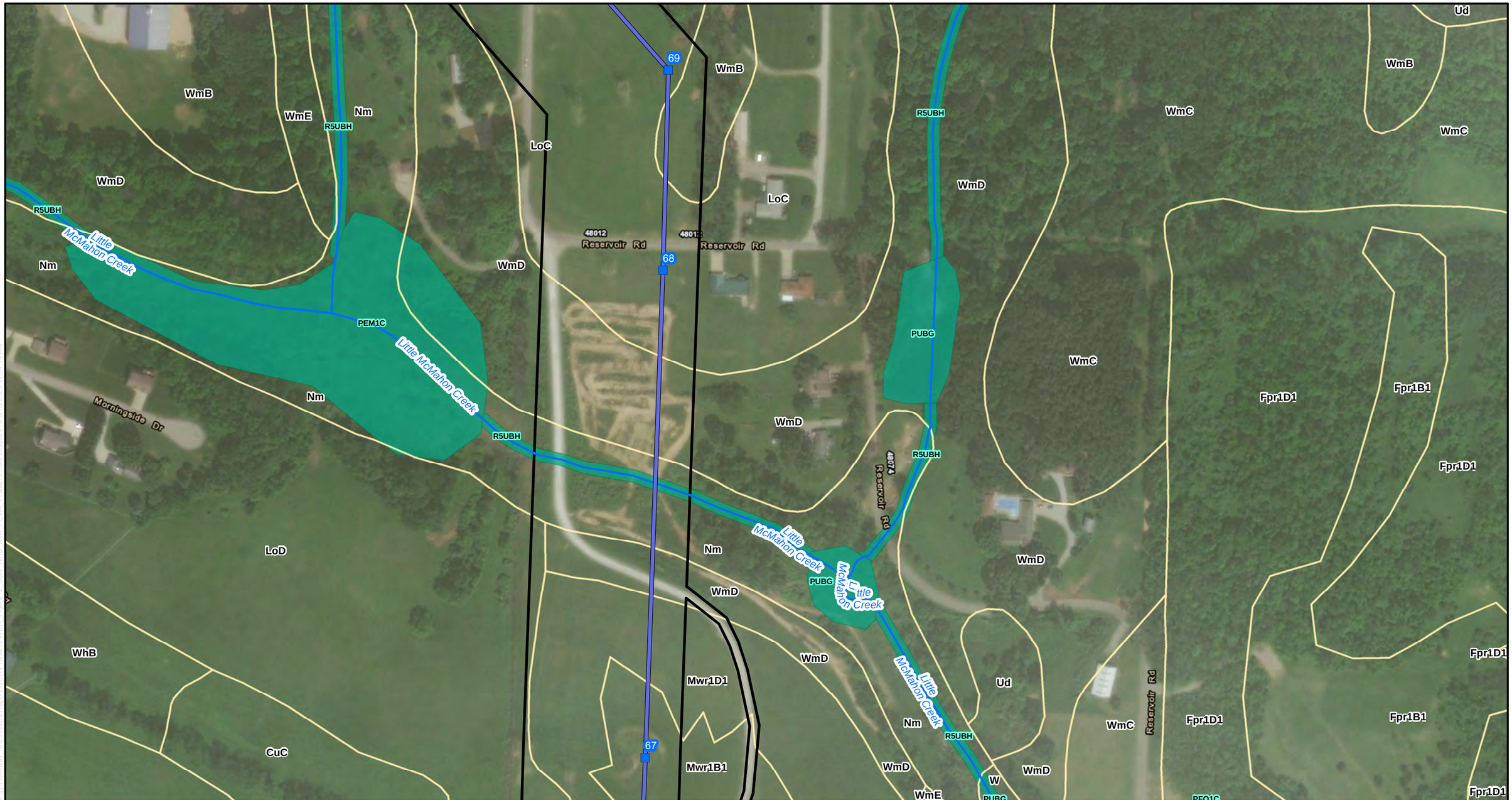
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-Z
SOILS, NHD, NWI, FEMA MAP

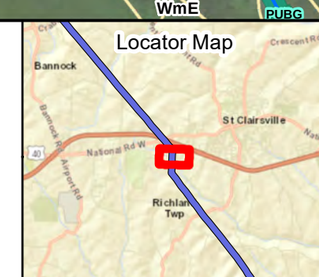
PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map



BASE MAP SOURCE:
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Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

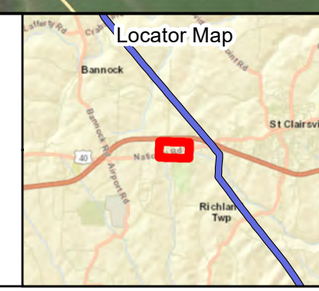
FIGURE 2-AA
SOILS, NHD, NWI, FEMA MAP

PN: 699212
Date: 5/18/2020
CREATED BY: RED
REVIEWED BY: MDT

Jacobs

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture,
Natural Resources Conservation Service

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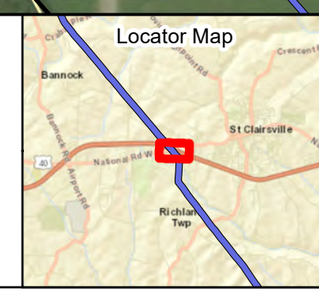
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-AB
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture, Natural Resources Conservation Service

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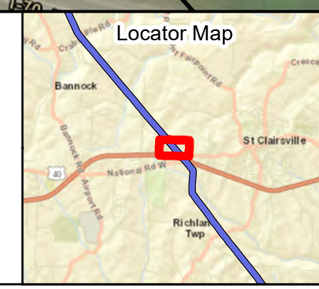
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-AC
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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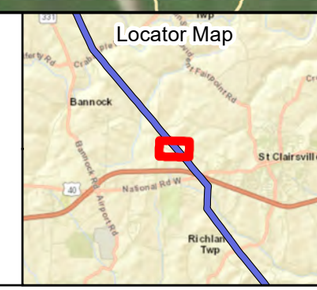
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-AD
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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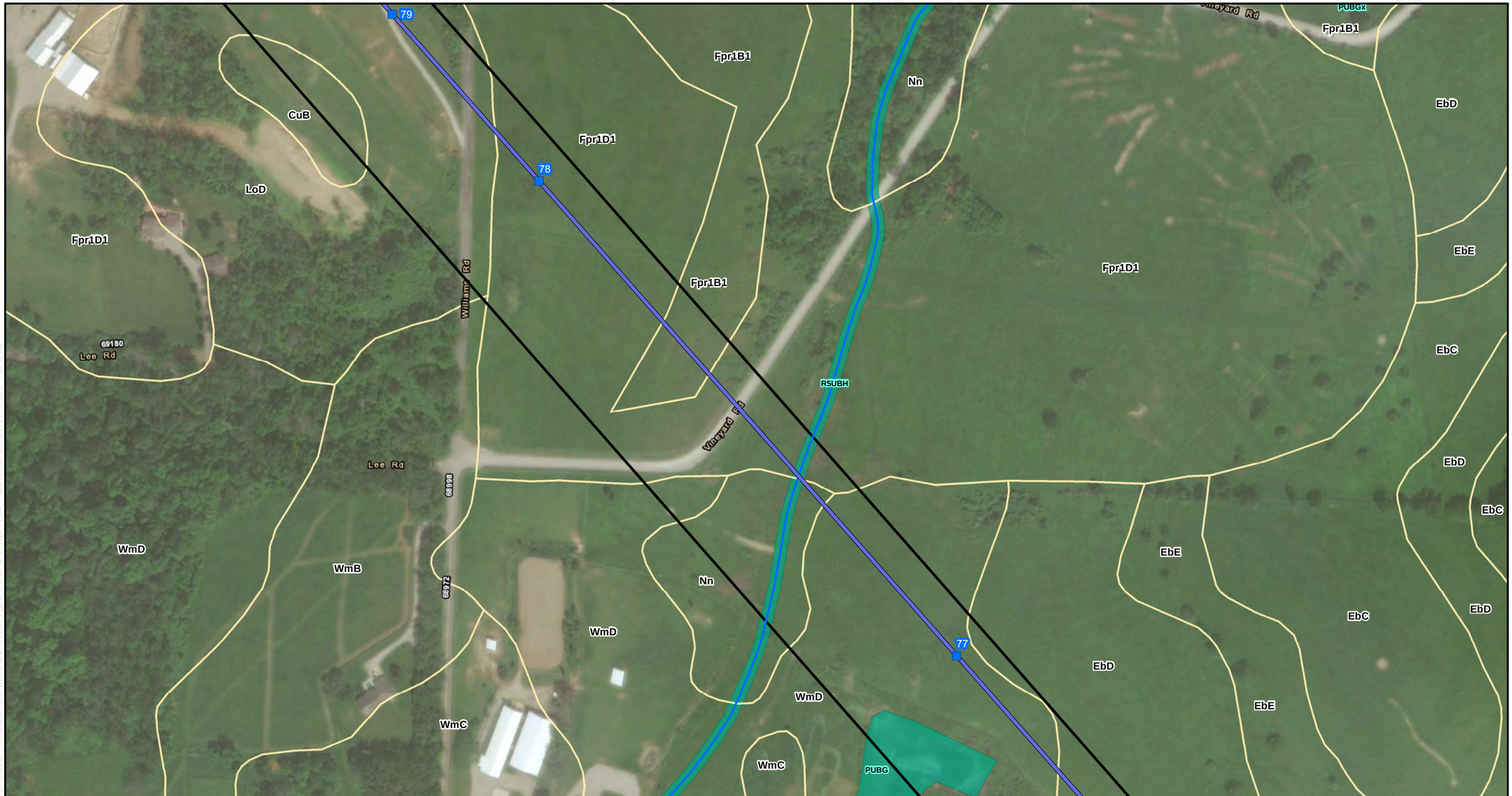
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

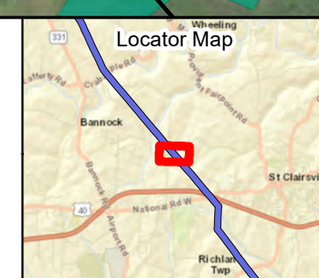
FIGURE 2-AE
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-AF
SOILS, NHD, NWI, FEMA MAP

PN: 699212

Date: 5/18/2020

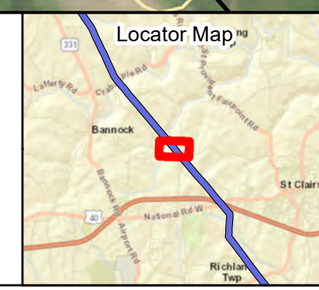
CREATED BY: RED

REVIEWED BY: MDT

Jacobs

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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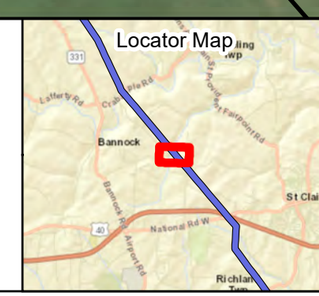
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-AG
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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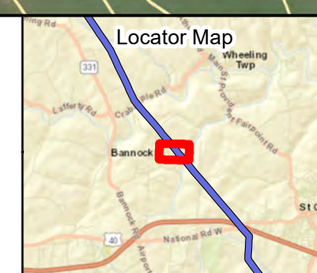
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-AH
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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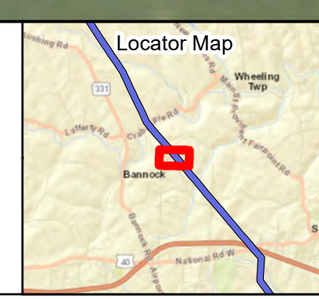
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-AI
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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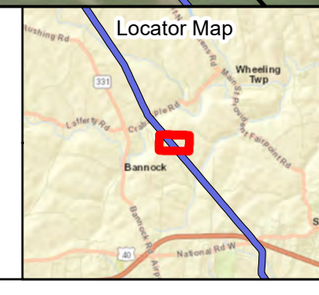
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-AJ
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture, Natural Resources Conservation Service

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FEET

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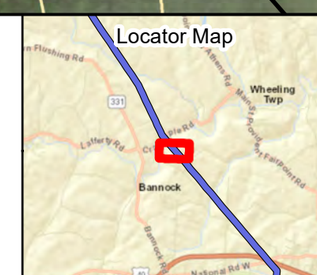
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

FIGURE 2-AK
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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FEET

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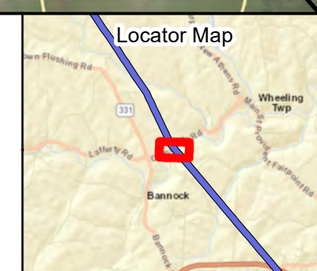
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-AL
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
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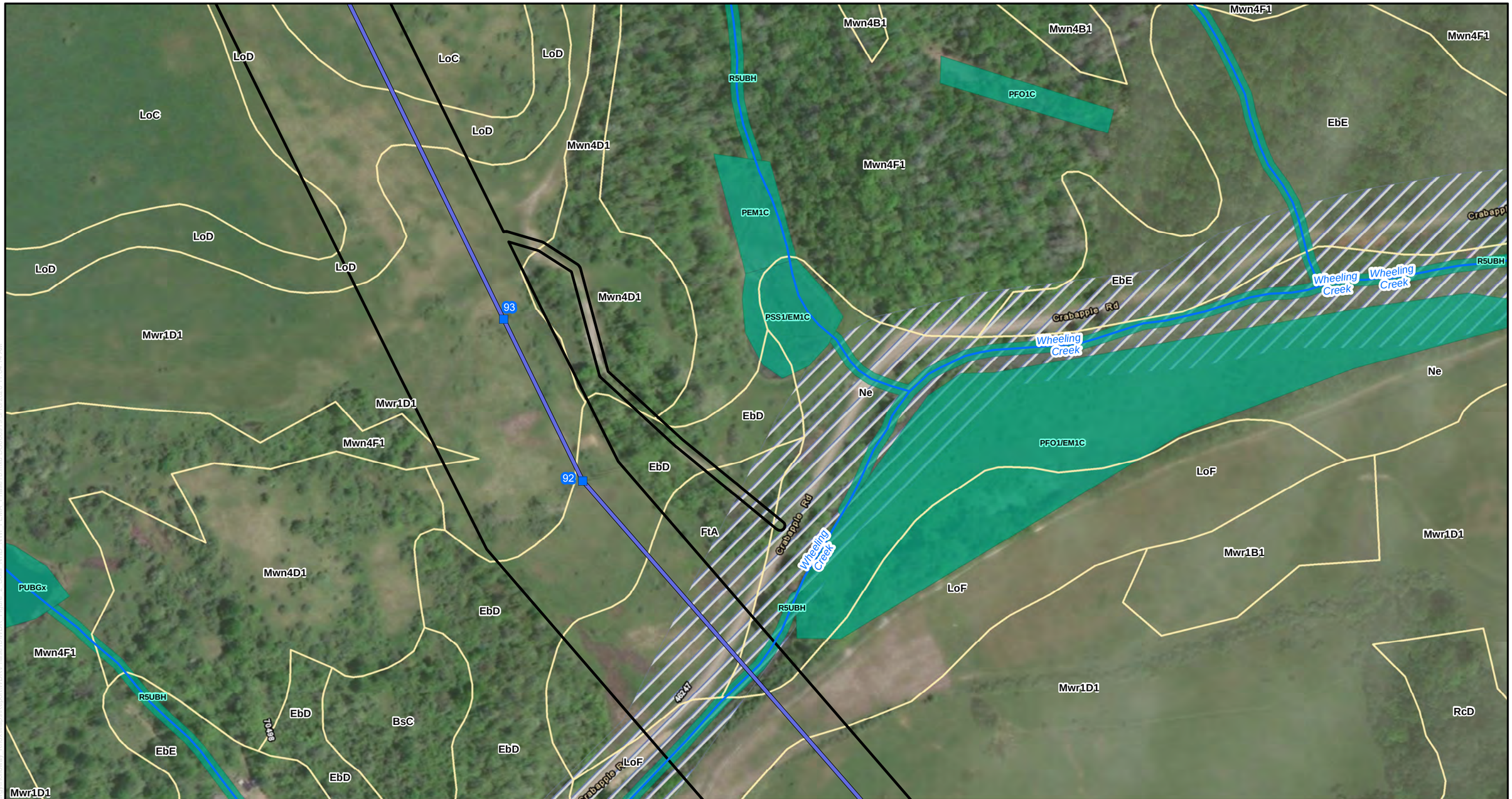
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

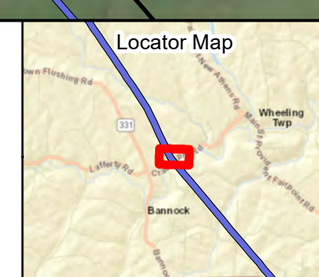
FIGURE 2-AM
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture,
Natural Resources Conservation Service

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

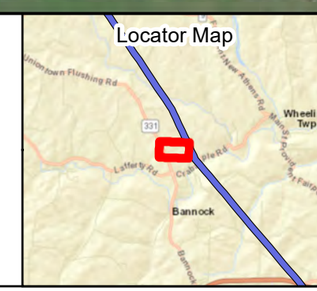
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-AN
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture,
Natural Resources Conservation Service

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FEET

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American Transmission Systems, Inc.
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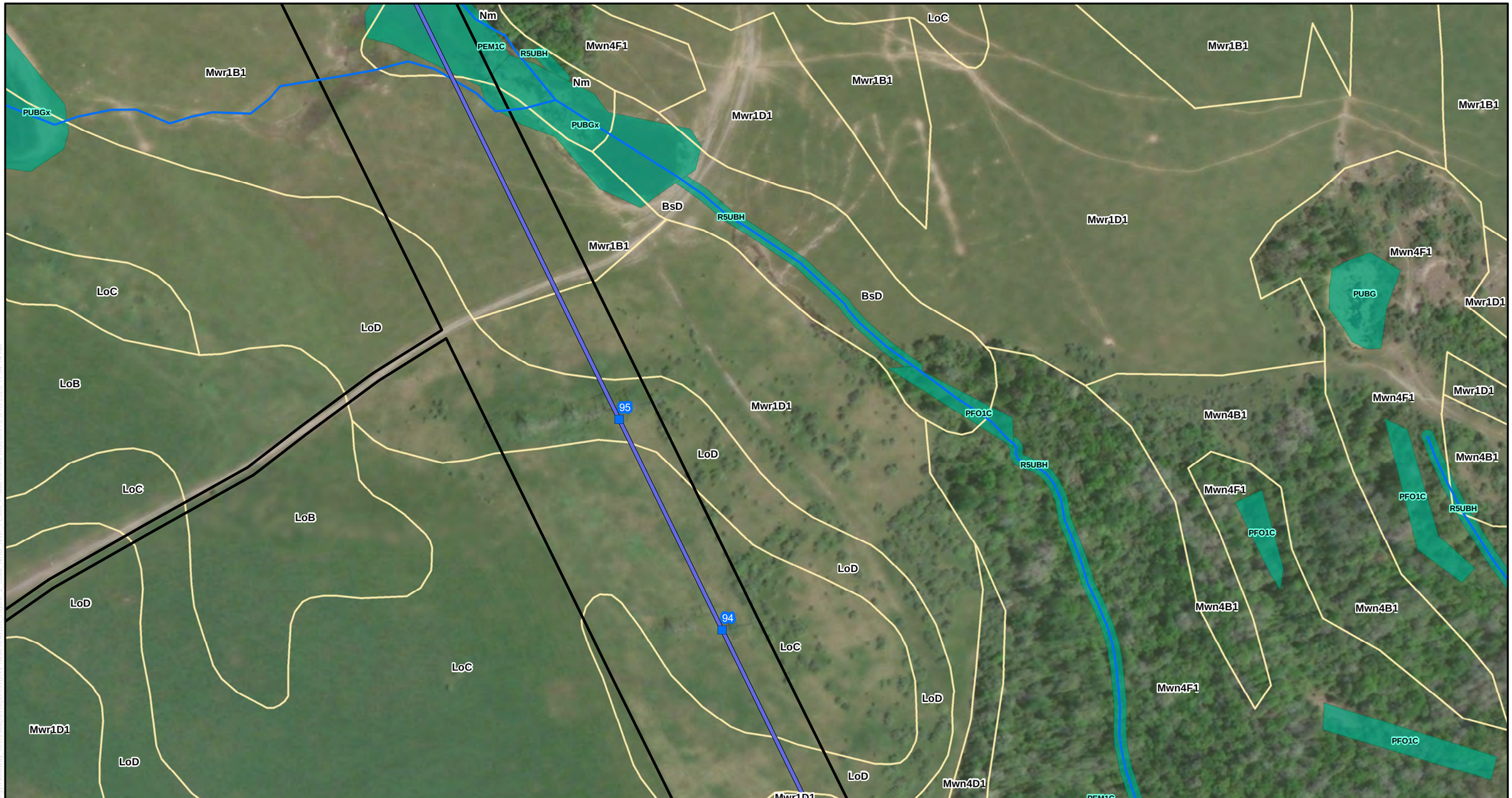
Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-AO
SOILS, NHD, NWI, FEMA MAP

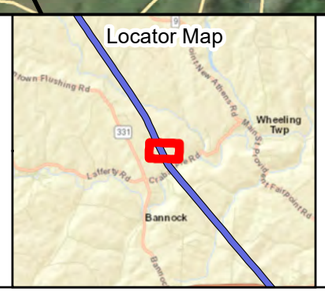
PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture, Natural Resources Conservation Service

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ATSI
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Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

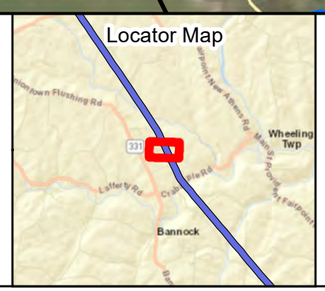
FIGURE 2-AP
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture, Natural Resources Conservation Service

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FEET

ATSI
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Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

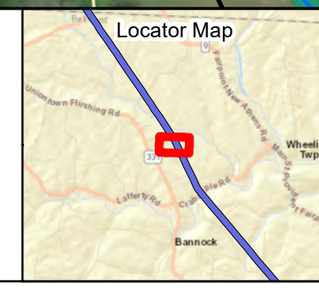
FIGURE 2-AQ
SOILS, NHD, NWI, FEMA MAP

PN: 699212
Date: 5/18/2020
CREATED BY: RED
REVIEWED BY: MDT

Jacobs

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

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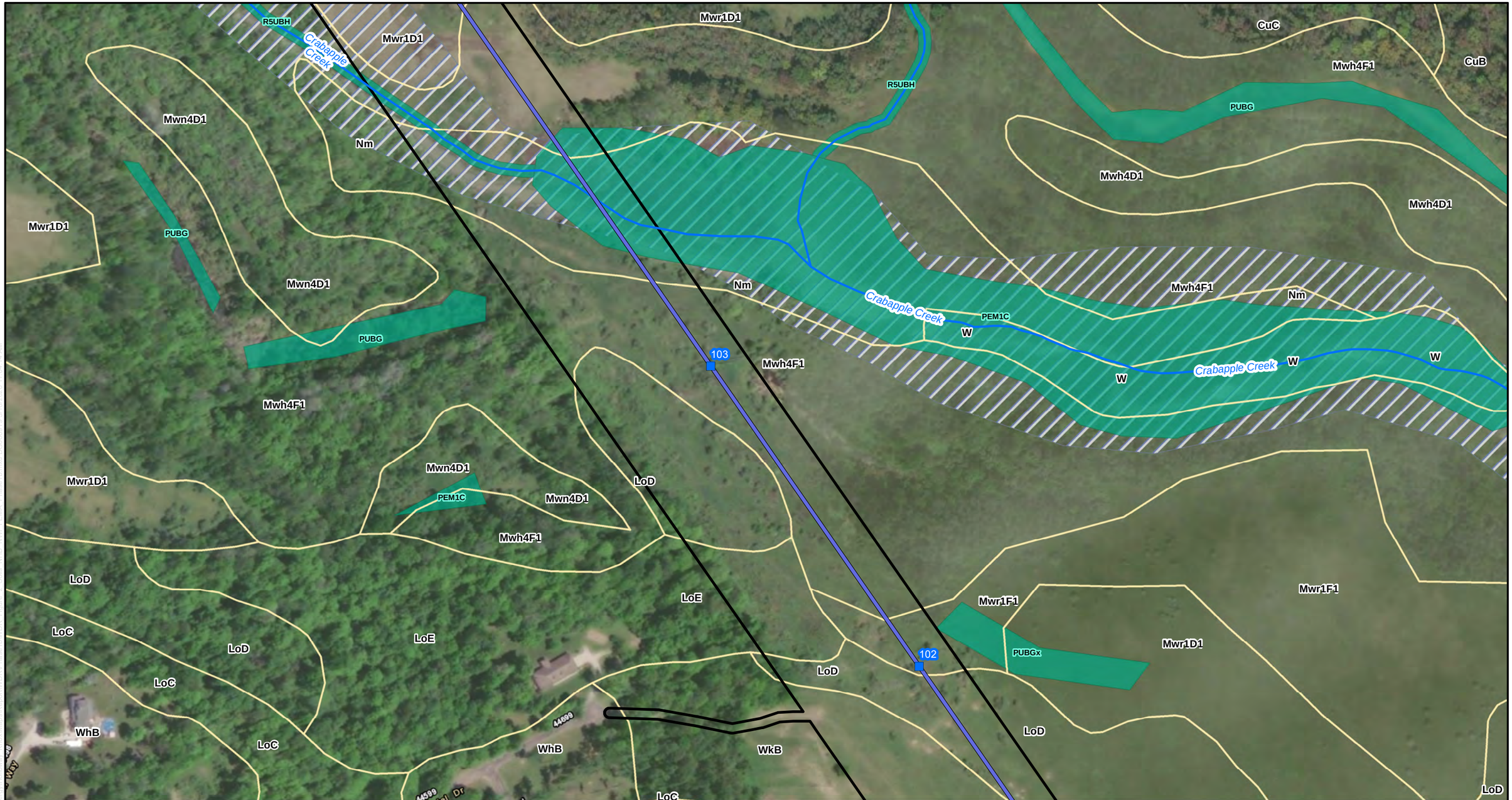
Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

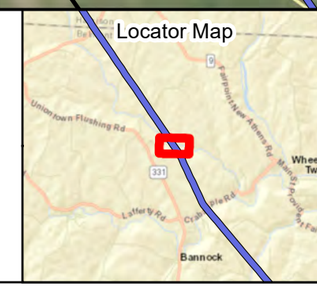
FIGURE 2-AR
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	



LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture,
Natural Resources Conservation Service

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Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

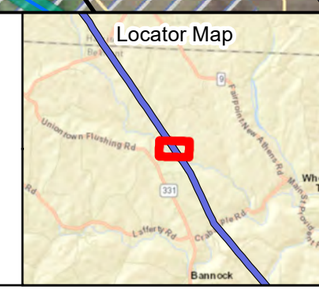
FIGURE 2-AS
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture, Natural Resources Conservation Service

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0 100 200 400
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Holloway-Nottingham #1 138 kV Transmission Line Rebuild Project

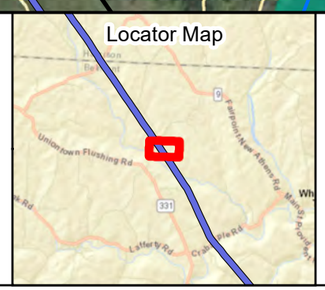
FIGURE 2-AT
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

LEGEND:

- Substation
- Proposed Structure
- Holloway-Nottingham #1
- Environmental Survey Corridor
- Stream (NHD)
- Soil Unit
- Wetland (NWI)
- Floodplain

Locator Map



BASE MAP SOURCE:
ESRI World Imagery

SOIL UNIT - US Department of Agriculture,
Natural Resources Conservation Service

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FEET

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ATSI
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Holloway-Nottingham #1
138 kV Transmission Line
Rebuild Project

FIGURE 2-AU
SOILS, NHD, NWI, FEMA MAP

PN: 699212	Date: 5/18/2020
CREATED BY: RED	Jacobs
REVIEWED BY: MDT	

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

2/28/2023 12:46:03 PM

in

Case No(s). 23-0141-EL-BLN

Summary: Application (Part 1 of 5) electronically filed by Mr. Christopher K. Riedel on behalf of American Transmission Systems Incorporated