AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY

CONSTRUCTION NOTICE

CLARK-URBANA 138 kV LOOP
EASTERN CONNECTION CENTERLINE ADJUSTMENT
TO BROADVIEW SUBSTATION PROJECT

OPSB CASE NO.: 18-0100-EL-BNR

February 2, 2018

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

CONSTRUCTION NOTICE
CLARK-URBANA 138 kV LOOP EASTERN CONNECTION CENTERLINE ADJUSTMENT TO BROADVIEW SUBSTATION PROJECT

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 Construction Notice application.

4906-6-05 (B): CONSTRUCTION NOTICE REQUIREMENTS

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

Name of Project: Clark-Urbana 138 kV Loop Eastern Connection Centerline Adjustment to Broadview Substation Project ("Project")

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

In this Project, American Transmission Systems, Incorporated's ("ATSI"), a FirstEnergy company, proposes an adjustment to the transmission line centerline of the Clark-Urbana 138 kV Loop to Broadview Substation Project, approved on April 14, 2017, by the Ohio Power Siting Board ("Board") in Case No. 16-2282-EL-BLN. This approximately 0.15-mile-long adjustment is at the request of the property owners and is not expected to have greater impacts than the April 2017 approved route.

The general location of the proposed Project is shown in Exhibits 1 and 2. Exhibit 1 is a partial copy of the United States Geologic Survey, Cuyahoga County, Ohio, Quad Map ID number 39083-H7. Exhibit 2 provides a partial copy of aerial imagery, Digital Orthophoto Quarter Quads ("DOQQ"). The general layout of the proposed Project is shown in Exhibit 3. The Project is located in Moorefield Township, Clark County, Ohio.

The proposed adjustment to the previously approved route is as follows:

North of Willow Road adjacent to Broadview Substation on Parcel No. 220030002360001, 2200300029000027, and 2200300029000016.

The proposed adjustment is located in the area north of Willow Road and immediately northwest of the Broadview Substation, where the OPSB Approved Route trends north-northwest after exiting the substation. This adjustment is located on Permanent Parcel Number 220030002360001 which is owned by Ohio Edison Company, a FirstEnergy company; Parcel Number 2200300029000027 which is owned by Mr. and Mrs. Ronald and Christina Rittenhouse, and Parcel Number 2200300029000016 which is owned by Ms. Suzanne Fachon Kalweit. All of the affected property owners have agreed to this route adjustment. Exhibit 4, Land Use Map, and Figure 1, Ecological Features, provide enlarged views of the OPSB Approved Route and the adjustment proposed in this Project along with Property ownership and Permanent Parcel Numbers.

Exhibit 1 through 3, and Figure 1 show the proposed route adjustment, which deviates from the April 2017 Approved Route for approximately 800 feet (0.15 mile). This adjustment is being proposed following discussion with the affected property owner, and reduces the impact to property owned by Ms. Martha A. Haerr, Parcel Number 2200300023000140 by avoiding potential conflict with ongoing farming practices. The proposed adjustment was also considered a better route option by Ms. Kalweit, owner of the Parcel Number 2200300029000016, because it preserves the eastern tree cover of her property. Mr. and Mrs. Rittenhouse, owners of the Parcel Number 2200300029000027, were also amenable to the proposed adjustment.

The proposed adjustment to the OPSB Approved Route will now exit the west side of the Broadview Substation to the 2-pole deadend angle structure, then turns north and heads for approximately 300 feet to another 2-pole angle structure, where it turns northwest and trends for approximately 800 feet to another 2-pole deadend angle structure where it reconnects to the OPSB Approved Route. The

change does not increase ecological impacts or impacts to neighboring property owners from the Project as compared to the original route.

The property owners along this section of the OPSB Approved Route have all agreed to the proposed change of the OPSB Approved Route. The Applicant believes the change does not increase ecological impacts or impacts to neighboring property owners.

4906-6-05 (B) (1): Construction Notice Requirements

The Project meets the requirements for a Construction Notice application because the Project is within the types of projects defined by Item (1)(a) of the Application Requirement Matrix for Electric Power Transmission Lines, Appendix A of OAC Rule 4906-1-01. This item states:

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

All Project activities will take place within newly acquired right-of-way.

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

The need for the Clark-Urbana 138 kV Loop to Broadview Substation Project was addressed and considered in the previous application filing and subsequent OPSB Staff Report of Investigation of the Letter of Notification application filed and approved in Case No. 16-2282-EL-BLN. As described in detail on page 2 of the Letter of Notification application in that case, the overall Project is needed to reinforce the transmission system in Clark County. The need for the adjustment proposed in this Construction Notice is to accommodate the requests of affected property owners.

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 2017 Long Term Forecast Report. This map was submitted to the PUCO in Case No. 17-0913-EL-FOR under Rule 4901:5-5:04 (C) of the Ohio Administrative Code. This map is incorporated by reference only. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations including the Clark-Urbana 138 kV Transmission Line and the Broadview Substation. The Project area is located approximately 2 $^{1}/_{2}$ inches (11" X 17" printed version) from the left edge of the map and $^{3}/_{4}$ inches (11" X 17" printed version) from the bottom of the map. The general location of the Project is shown in Exhibits 1 and 2. The Project layout is shown in Exhibit 3.

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

Consideration of the proposed adjustment in this location was initiated at the request of property owners. The Project area was carefully reviewed to identify potential ecological and social impacts associated with various potential alignments including the property owner's preferred alternative route. The proposed adjusted route represents the best solution to meet the property owners' wishes, thereby minimizing impacts to the property owners, and limiting to the maximum extent possible all other impacts. In the event the proposed adjustment is not approved by the Board, the Applicant intends to proceed with construction of the transmission line along the April 2017 OPSB Approved Route.

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 the Project website and will continue to work with property owners concerning the proposed Project.

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

Construction on the Project is expected to begin March 1, 2018 and is expected to be completed and placed in-service by December 15, 2018.

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

Exhibit 1 and 2 depict the general location of the Project. Exhibit 1 provides a partial copy of the United States Geologic Survey, Clark County, Ohio, quadrangle map (Quad Order ID number 39083-H7). Exhibit 2 provides a partial copy of aerial imagery, DOQQ.

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

All Project activities will take place within new and existing right-of-way. New transmission lines will be owned by ATSI. The property information for this Project is listed below in Table 1; this information was obtained through the Clark County Auditor's website.

Table 1. List of Affected Property Owners

Property Owner(s) & Address	Parcel Number(s)
Ohio Edison Company (OE) 1490 Willow Road, Springfield OH 45502	220030002360001
Haerr Martha A. 6170 Middle Urbana Road, Springfield, OH 45502	2200300023000131
Kalweit Suzanne Fachon 632 Willow Road, Springfield, OH 45502	2200300029000016
Rittenhouse Ronald W. and Christina 1252 Willow Road, Springfield, OH 45502	2200300029000027

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

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

The change of the OPSB Approved Route will not change the operating characteristics that were addressed and considered in the OPSB Staff Report of Investigation in Case No. 16-2282-EL-BLN and can be found on page 6 of the

original Letter of Notification application. This information is incorporated by reference and summarized as follows:

The 138-kV transmission line construction will have the following characteristics:

Voltage:	138 kV
Conductors:	795 kcmil 26/7 ACSR
Static Wire:	7#8 Alumoweld
	Optical Ground Wire (OPGW)
Insulators:	138 kV Polymer
Structure Types:	Single Wood Pole Double Circuit Tangent Structure Two Wood Pole Double Circuit Light Angle Structure Two Wood Pole Double Circuit Angle Structure Two Wood Pole Double Circuit Deadened Structure Single Steel Pole Double Circuit Deadend Structure

No additional structure types will be required for the proposed Project.

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

The change to the OPSB Approved Route will not significantly change the Electric and Magnetic Field ("EMF") calculations that were addressed and considered in the OPSB Staff Report of Investigation in Case No. 16-2282-EL-BLN and can be found on page 7 of the original Letter of Notification application. This information is incorporated by reference and is summarized as follows:

The closest occupied residence or institution is approximately 685 feet from the transmission line centerline. As these distances are greater than the 100 feet, electric and magnetic field (EMF) calculations have not been made.

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

The proposed adjustment to the OPSB Approved Route will not significantly change the estimated capital costs for the Project that were addressed and considered in the OPSB Staff Report of Investigation in Case No. 16-2282-EL-BLN and can be found on page 7 of the original Letter of Notification application. The estimated capital cost

for the entire Project, including this proposed route adjustment, remains approximately $5,650,000.

4906-6-05 (B) (10): SOCIAL AND ECOLOGICAL IMPACTS

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

Land use along the proposed route adjustment was described and considered in the OPSB Staff Report of Investigation in Case No. 16-2282-EL-BLN and can be found on page 7 of the original Letter of Notification application. No changes to land use are anticipated as a result of the shift from the Approved Route to the adjusted route. The information is incorporated by reference and is summarized as follows:

The Project is located in Moorefield Township, Clark County, Ohio. The main land uses around the Project area consist of agriculture, industrial, open land, residential, transportation (roadways and railways), and woodlots.

The potential disturbance area during construction activities (e.g., vegetation clearing, pole installations, etc.) is limited to the 60-foot wide permanent ROW. The ROW will be restored through soil grading, seeding, and mulching; thus, the permanent impact to the ROW will be limited to the removal of existing trees and other incompatible vegetation. Property owners may continue to utilize most of the ROW area for general uses that will not affect the safe and reliable operation of the transmission line such as lawn maintenance, crop cultivation, and livestock pasture.

No changes to land use are anticipated as a result of the shift from the Approved Route to the route proposed in this Project.

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

The change to the OPSB Approved Route crosses a similar percentage of agricultural land that was addressed and considered in the OPSB Staff Report of Investigation in Case No. 16-2282-EL-BLN and can be found on page 8 of the original Letter of Notification application.

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

In accordance with the OPSB Staff Report of Investigation issued by OPSB in Case No. 16-2282-EL-BLN, an investigation of, and report on, cultural resources has been prepared for the OPSB Approved Route. This investigation was supplemented for purposes of preparing this Construction Notice to include the locations along the adjustment. No additional significant cultural resources were identified along the proposed route adjustment, and no increase in impacts is expected. The Cultural Resource Phase I Addendum Report has been prepared and is included as Exhibit 6. This Report will also be submitted for the OHPO ("Ohio State Historic Preservation Office") concurrence.

4906-6-05 (B)(10)(d): Local, State and Federal Government Requirements

The Project requires the development of a Storm Water Pollution Prevention Plan because there is the potential to disturb more than 1 acre of land during construction. This plan was developed in accordance with the OEPA National Pollution Discharge Elimination System (NPDES) General Permit OCH000004 – Stormwater Discharges Associated with Construction Activity (General Permit). A Notice of Intent to the Ohio EPA is required for coverage under the General Permit. Consultation with Clark County officials has been conducted during the development of the SWPPP to ensure compliance with any county regulations.

There are no additional known local, state, or federal requirements that must be met prior to commencement of construction on the proposed transmission line Project.

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

An investigation of endangered or threatened species was addressed and considered in the OPSB Staff Report of Investigation in Case No. 16-2282-EL-BLN and can be found on page 10 of the Letter of Notification application in that case. In addition, further correspondence with the Ohio Department of Natural Resources ("ODNR") and U.S. Fish and Wildlife Service ("FWS") was submitted as a supplemental filing as part of the Letter of Notification application in that case on March 17, 2017. The

route adjustment proposed in this Project is not expected to increase the impacts from the construction of the transmission line. The information supporting the approval of the original route is incorporated by reference and is summarized as follows:

On behalf of ATSI, CH2M submitted investigation requests to the ODNR and USFWS to research the presence of any endangered, threatened or rare species within one (1) mile of the Project area.

The ODNR provided a response dated January 27, 2017, attached as Exhibit 5, noting that the location of the Project is within the range of the federally and state endangered Indiana bat *(Myotis sodalis).* The Project is also in the range of federal candidate species and state threatened Kirtland's snake *(Clonophis kirtlandii),* and of the federal species of concern and endangered Eastern massasauga *(Sistrurus catenatus).* Additionally, the Project is in the range of state threatened Spotted turtle *(Clemmis guttate),* Least bittern *(Ixobrychus exilis),* Little green sedge *(Carex viridula),* Few-flowered spike-rush *(Eleocharus quinquefolia),* Bearded wheat grass *(Elymus trachycaulus),* Blue-leaved willow *(Salix petiolaris),* Prairie dropseed *(Sporobolus heterolepis),* Seaside arrow-grass *(Triglochin maritimum),* Flat-leaved bladderwort *(Utricularia intermedia),* Northern bog violet *(Viola nephrophylla),* and Tonguetied minnow *(Exoglossum laurae)*; state endangered Upland sandpiper *(Bartramia longicauda),* Seepage dancer *(Argia bipunctulata),* and A burrowing mayfly *(Litobrancha recurvata)*; and state potentially threatened Fen indian-plantian *(Arnoglossum plantagineum),* Yellow sedge *(Carex flava),* Tufted hair grass *(Deschampsia cespitosa),* Small fringed gentian *(Gentianopsis procera),* Baltic rush *(Juncus balticus),* Prairie rattle-snake root *(Prenanthes racemose),* Arbor vitae (*Thuja occidentalis),* False asphodel *(Triantha glutinosa),* Marsh arrow-grass *(Triglochin palustris),* Three-birds orchid *(Triphora trianthophora),* and White wand lily *(Zigadenus elegans).*

USFWS correspondence dated December 8, 2016, attached as Exhibit 6, indicated federally endangered Indiana bat *(Myotis sodalis)* and the federally threatened Northern long-eared bat *(Myotis septentrionalis).* The USFWS also noted that the

project was in the range of the federally listed as threatened Eastern massasauga *(Sistrurus catenatus).*

As the Project is within the range of both, the Indiana bat and Northern long-eared bat, ATSI will complete any necessary tree clearing between October 1 and March 31 to avoid affecting potential bat habitat as suggested by the ODNR and the USFWS. If this schedule cannot be achieved and clearing of trees outside of this window is deemed necessary, additional consultation with the ODNR and USFWS will be completed prior to clearing.

The Project is in the range of the Eastern massasauga, a state endangered and a federal threatened snake species, and the Kirtland's snake, a state threatened and a federal species of concern, and the Spotted turtle *(Clemmis guttate)*, a state threatened species. The species uses a range of habitats including wet prairies, fens and other wetlands, as well as dryer upland habitat. The area was reviewed by a State-approved herpetologist and no suitable habitat for these species was identified. Correspondence regarding this review is included with Exhibit 5.

The range of two bird species, the state endangered Upland sandpiper *(Bartramia longicauda)*, and the state threatened Least bittern *(Ixobrychus exilis)*, were identified by ODNR as being within the Project area. Both are ground-nesting birds, with the sandpiper nesting in grasslands (April 15 to July 31), and the bittern nesting in large undisturbed wetlands that have scattered small pools amongst dense vegetation (May 1 to July 31). Construction matting and temporary access roads will be installed in areas where suitable habitat exists which cannot be avoided otherwise prior to April 15 to avoid potential impacts to both species.

Additionally, the Project is within the range of the Iowa darter *(Etheostoma exile)*, a state endangered fish, and the Tongued minnow *(Exoglossum laurae)*, a state threatened fish. Since no in-stream work is planned, no adverse effect to these species is anticipated.

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

There are no other areas of ecological concern along the proposed route adjustment than those previously described and included in the application supporting the approval of the original route by the Board. . The Applicant has carefully determined locations for the transmission line poles along the proposed adjusted route and believes that the transmission line can be installed with no significant impacts. The Applicant believes that the construction, operation, and maintenance of the transmission line along the proposed adjusted route will have no significant additional impacts to ecological features as access through sensitive areas will be avoided, and temporary disturbance minimized with the use of appropriate storm water controls and other best management practices.

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 National Electric Safety Code ("NESC") as adopted by the PUCO and will meet all applicable safety standards established by the Occupational Safety and Health Administration ("OSHA").

No other or unusual conditions are expected that will result in significant environmental, social, health or safety impacts.

4906-6-07: Documentation of Construction Notice Transmittal and Availability for Public Review

This Construction Notice is being provided concurrently to the following officials of Moorefield Township and Clark County, Ohio.

Moorefield Township

Mr. Jack McKee
Trustee, Moorefield Township
1170 Montego Drive
Springfield, OH 45503

Mr. Daren Cotter
Trustee, Moorefield Township
4619 McCord Street
Springfield, OH 45503

Mr. Joseph Mosier
Trustee, Moorefield Township
1616 Moorefield Road
Springfield, OH 45503

Ms. Janet Dyer
Fiscal Officer, Moorefield Township
1649 Merrydale Road
Springfield, OH 45503

Clark County

Ms. Melanie Flax Wilt
Clark County Commissioner
Clark County Administration
50 East Columbia Street
Springfield, OH 45501

Ms. Jennifer Hutchinson,
Clark County Administrator
Board of Clark County Commissioners
50 East Columbia Street
Springfield, OH 45501

Mr. Lowell R. McGlothin
Clark County Commissioner
Clark County Administration
50 East Columbia Street
Springfield, OH 45501

Ms. Jo Anderson, Chairperson
Clark County Planning Commission
50 East Columbia Street
Springfield, OH 45501

Mr. Richard Lohnes
Clark County Commissioner
Clark County Administration
50 East Columbia Street
Springfield, OH 45501

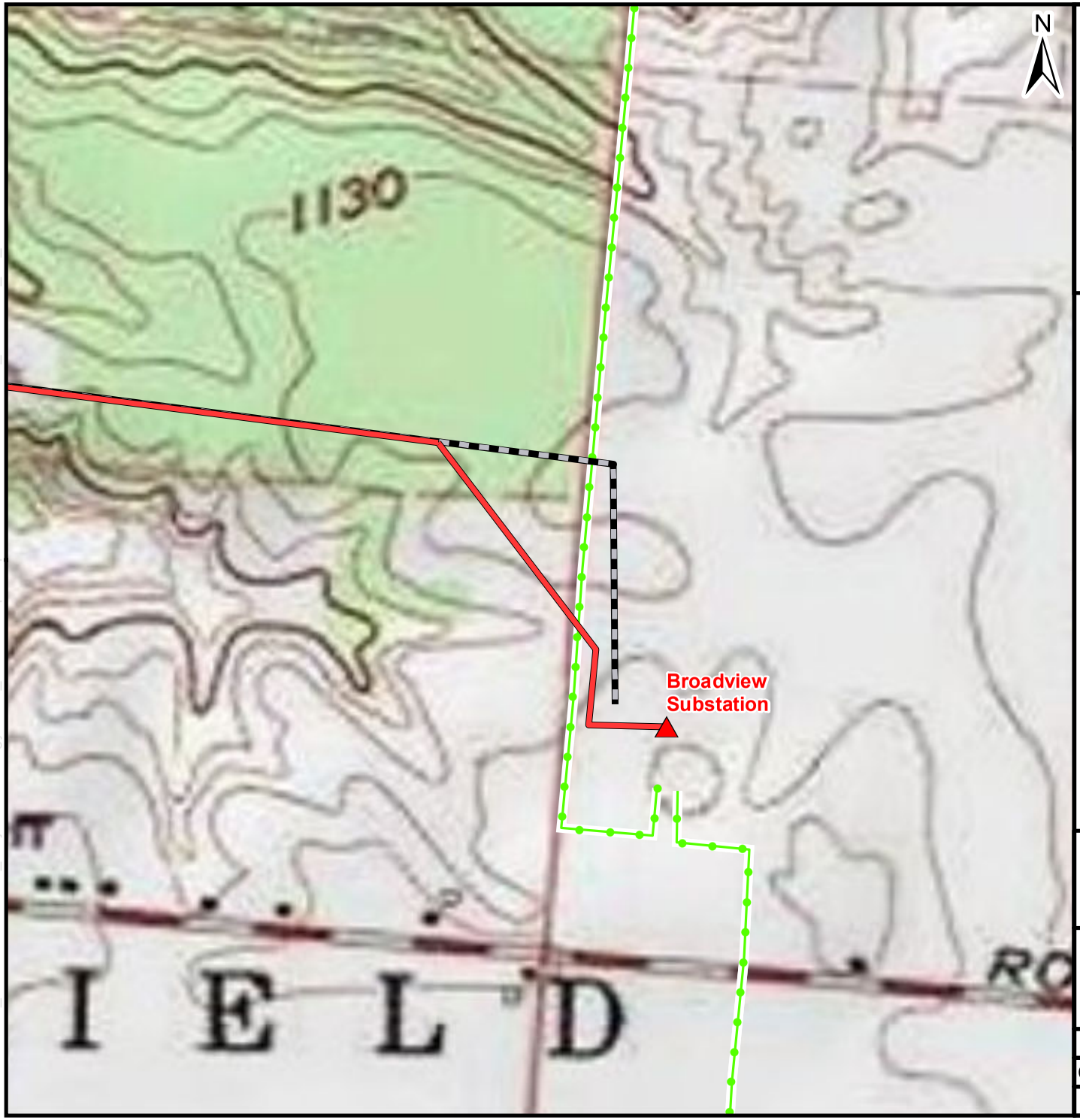
Mr. Johnathan A. Burr, P.E., P.S.
Clark County Engineer
4075 Laybourne Road
Springfield, OH 45505

Libraries

Ms. Sally Rizer, Director
Clark County Public Library
201 South Fountain Avenue
Springfield, OH 45506

Ms. Sally Rizer, Director
Clark County Public Library
Park Branch
1119 North Bechtle Avenue,
Springfield, OH 45504

Copies of the transmittal letters to these officials have been included with the transmittal letter submitting this Construction Notice to the Ohio Power Sitting Board, and are being provided to meet the requirement of OAC 4906-6-07 (B) to provide the Board with proof of compliance with the notice requirement to local officials in OAC 4906-6-07 (A)(1). Information is posted on www.firstenergycorp.com/about/transmission_project/ohio.html on how to request an electronic or paper copy of this Construction Notice. The link to website is being proved to meet the requirement of OAC 4906-6-07 (B) and to provide the Board with proof of compliance with the notice requirements in OAC 4906-6-07 (A)(3).



LOCATOR MAP

LEGEND:

- Substation
- Requested Route Adjustment
- OPSB Approved Route (4/14/2017)
- Existing 69 kV Distribution Line

BASE MAP SOURCE:
USGS 7.5-MINUTE
TOPOGRAPHIC QUADRANGLE
URBANA WEST, SPRINGFIELD

0 250 500

Scale in Feet

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

Clark-Urbana 138 kV Loop to Broadview Substation Eastern Connection Centerline Adjustment

EXHIBIT 1
OVERVIEW MAP

PN: 671092	DATE: 1/19/2018
CREATED BY: DH	ch2m.
REVIEWED BY: KF	

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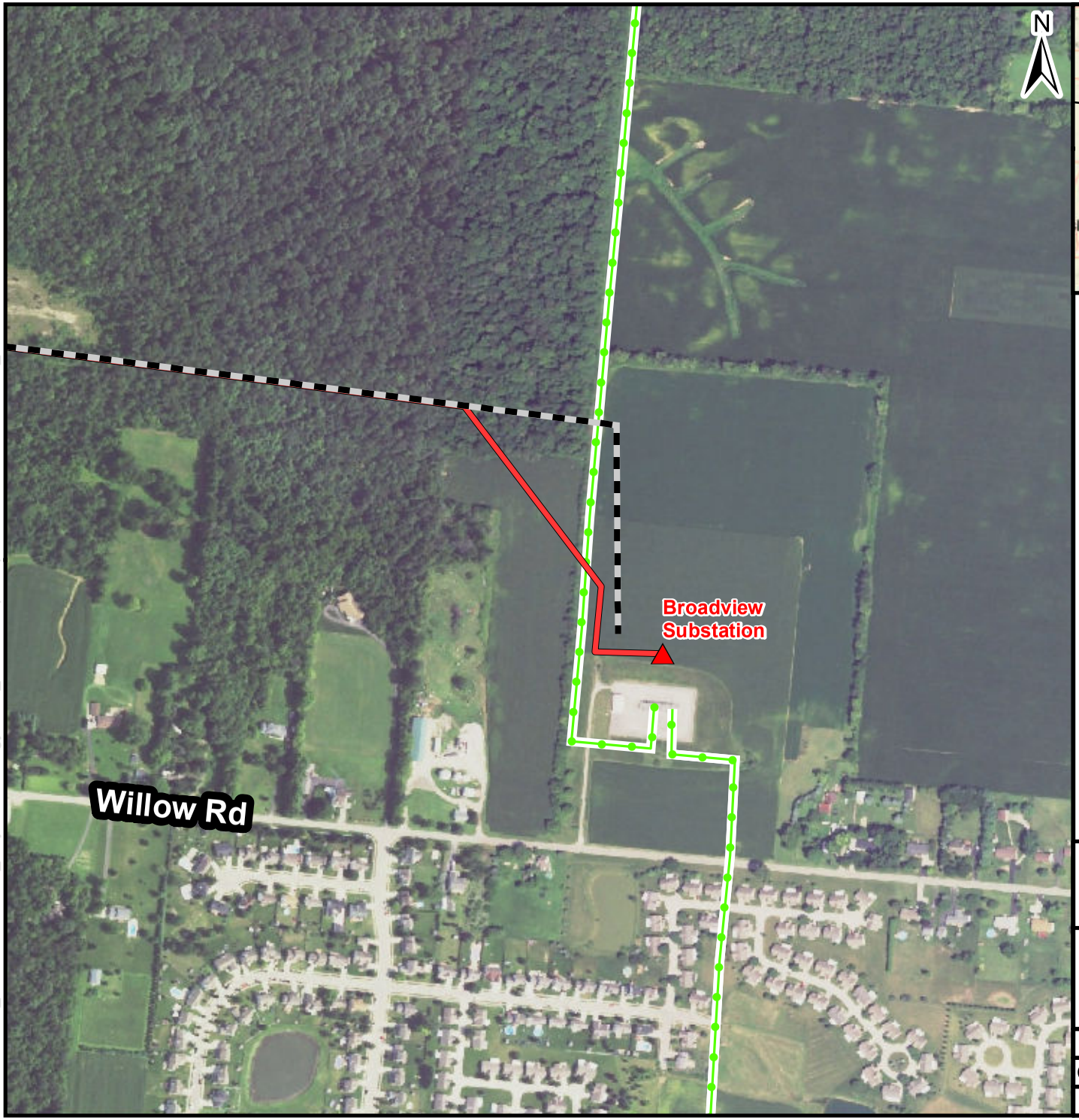
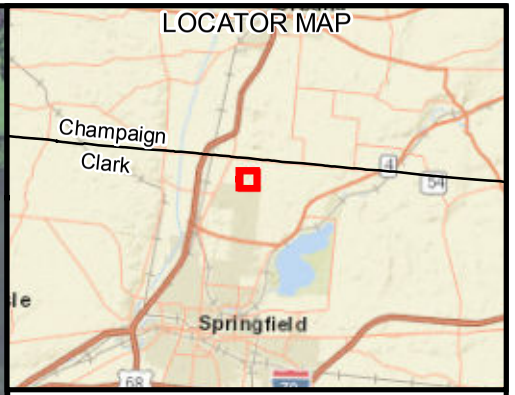


LOCATOR MAP



LEGEND:

- Substation
- Requested Route Adjustment
- OPSB Approved Route (4/14/2017)
- Existing 69 kV Distribution Line

BASE MAP SOURCE:
NATIONAL AGRICULTURAL IMAGERY PROGRAM, 2015

0 250 500
Scale in Feet

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

Clark-Urbana 138 kV Loop to Broadview Substation Eastern Connection Centerline Adjustment

EXHIBIT 2
AERIAL MAP

PN: 671092	DATE: 1/19/2018
CREATED BY: DH	ch2m.
REVIEWED BY: KF	

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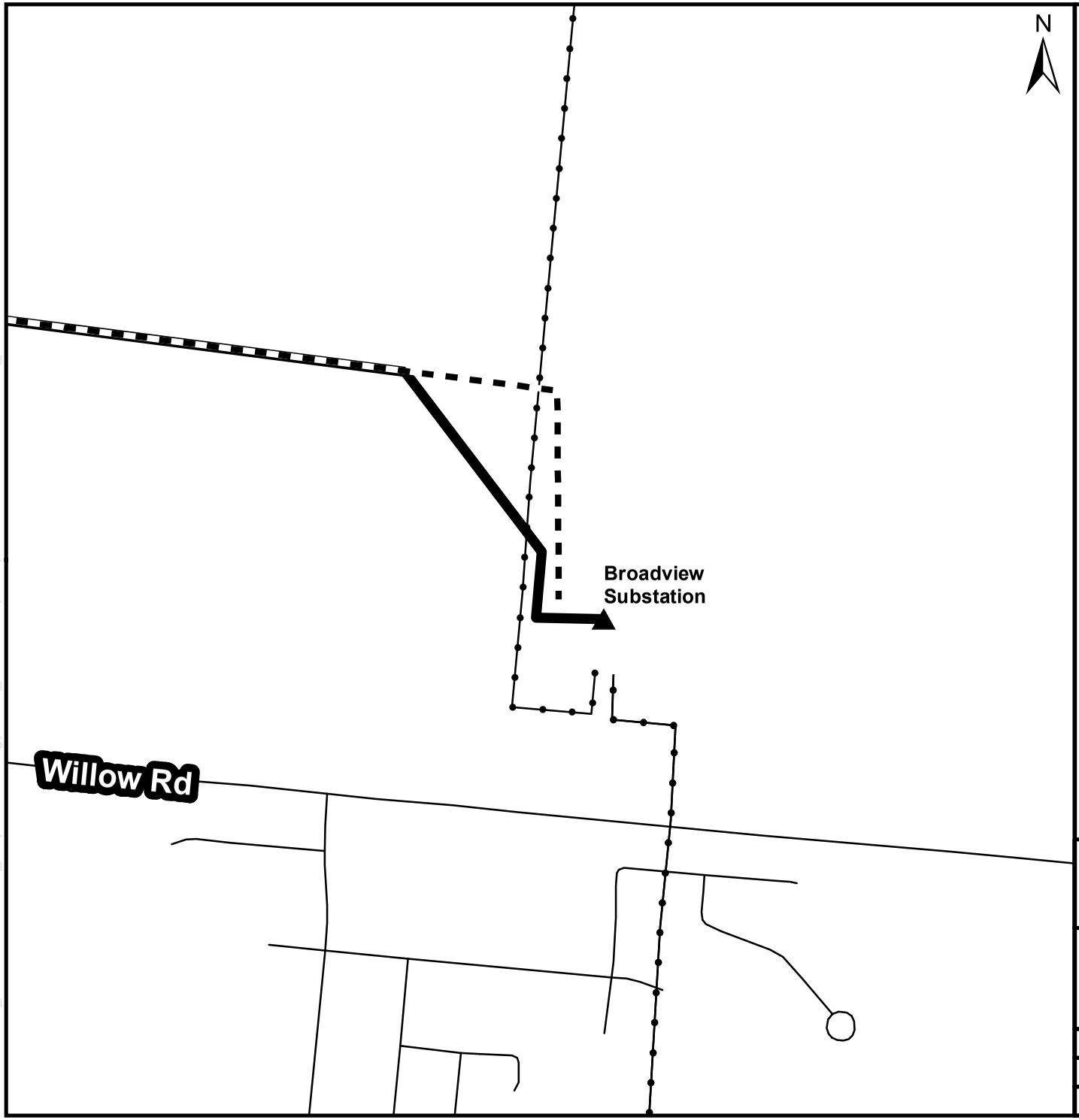

LEGEND:

- Substation
- Requested Route Adjustment
- OPSB Approved Route (4/14/2017)
- Existing 69 kV Distribution Line
- Existing 138 kV Transmission Line
- Street
- Railroad

0 250 500

Scale in Feet

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

Clark-Urbana 138 kV Loop to Broadview Substation Eastern Connection Centerline Adjustment

EXHIBIT 3
TRANSMISSION LINE LAYOUT

PN: 671092	DATE: 1/19/2018
CREATED BY: DH	ch2m.
REVIEWED BY: KF	

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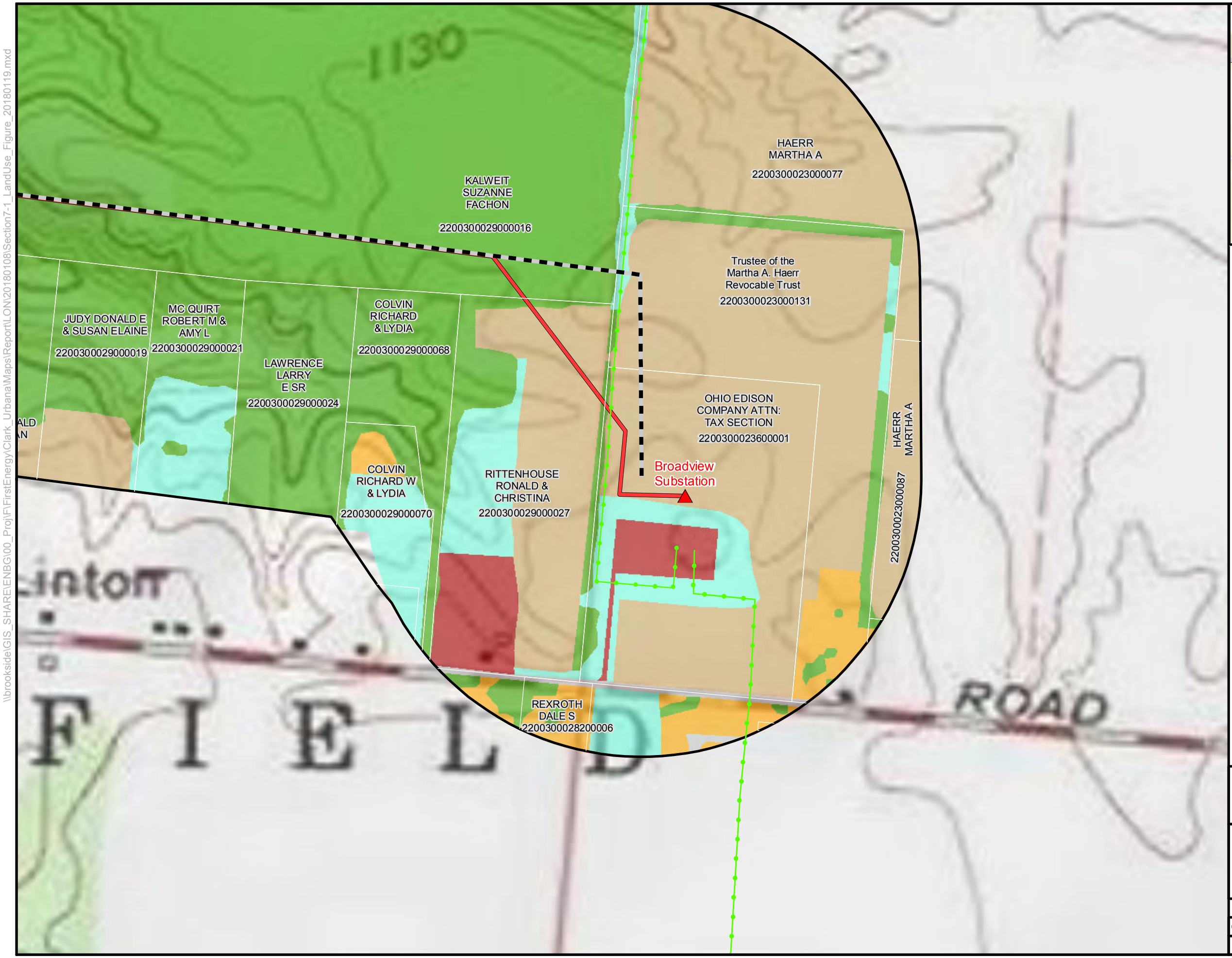

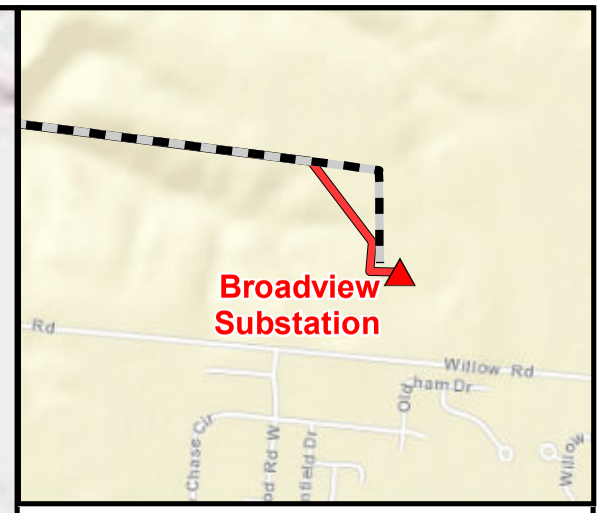

Legend

- Substation
- Requested Route Adjustment
- OPSB Approved Route (4/14/2017)
- Existing 69 kV Transmission Line
- Counties

Land Use

- Agriculture
- Industrial
- Open Land/Pasture
- Residential
- Existing Roadway/Railway
- Woodlot

N

0 250 500

Scale In Feet

BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangle
Urbana West

FirstEnergy

Clark-Urbana 138 kV Loop to Broadview Substation Eastern Connection Centerline Adjustment

EXHIBIT 4
LAND USE MAP

PN: 671817	DATE: 1/22/2018
CREATED BY: DH	ch2m
REVIEWED BY: KF	

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EXHIBIT 5

Bryksenkova, Nataliya

From: Ruggiero, Augustine (Jirousek, Michael J.)
Sent: Monday, January 29, 2018 8:46 AM
To: Bryksenkova, Nataliya
Cc: Susick, Kristin S
Subject: FW: FW: *EXTERNAL* Habitat Survey reports

Nataliya,
See below. Jeff Davis gave his assessment for Eastern Massasauga and Kirtland's snake along the reroute. Doesn't see an issue. Any questions, please let me know.
Thanks
Auggie

From: Jeffrey Davis [mailto:ohiofrogs@gmail.com]
Sent: Friday, January 26, 2018 6:05 PM
To: Ruggiero, Augustine (Jirousek, Michael J.) <aruggiero@firstenergycorp.com>
Cc: Susick, Kristin S <kssusick@firstenergycorp.com>
Subject: Re: FW: *EXTERNAL* Habitat Survey reports

Auggie and Kristin,

I looked at the reroute you asked me about (starting at the Willow Road substation), to determine if it would have any impact on Kirtland's Snakes (state threatened) or Massasaugas (state endangered, federally threatened). I examined aerial photos of the field through which the reroute is planned for land use, proximity to hydric soils, and canopy cover. The canopy is open but most of the area is planted in row crops. There are no wetlands. Although there is an extant population of Massasaugas approximately 3.2 miles to the ESE at Prairie Road Fen, and the soils (Miamian silty clay loam) in the area of your planned reroute are sufficiently hydric to be suitable for habitat for either snake species, if any suitable habitat existed in the past, it has been eliminated by recent land use practices. **I see no reason to further investigate for potential impacts to either species.** If I can be of further help, please let me know.

Sincerely,

Jeff Davis

On Fri, Jan 26, 2018 at 4:33 PM, Ruggiero, Augustine (Jirousek, Michael J.) <aruggiero@firstenergycorp.com> wrote:

> Jeff,
>
> We had a minor shift on our Clark Urbana line project (see red line on screen shot below). You conducted a habitat survey for the area along the striped line shown on the screen shot. Are you able to give any insight whether or not you feel potential habitat exists for Eastern Massasauga or Kirtland's snake along the reroute? We'd like to still be able to make the same statements regarding the shifted portion as to whether habitat for those animals are present given that it is a relatively minor shift and no new covertypes were encountered during wetland delineation activities. Can you speak to this as being a reasonable statement or not? Please let me know if you have any questions or need any additional information.
>
> Thanks

Auggie

Auggie Ruggiero

FirstEnergy

Environmental, Water Permitting

Mobile: 330-803-4304

Desk: 330-315-6781

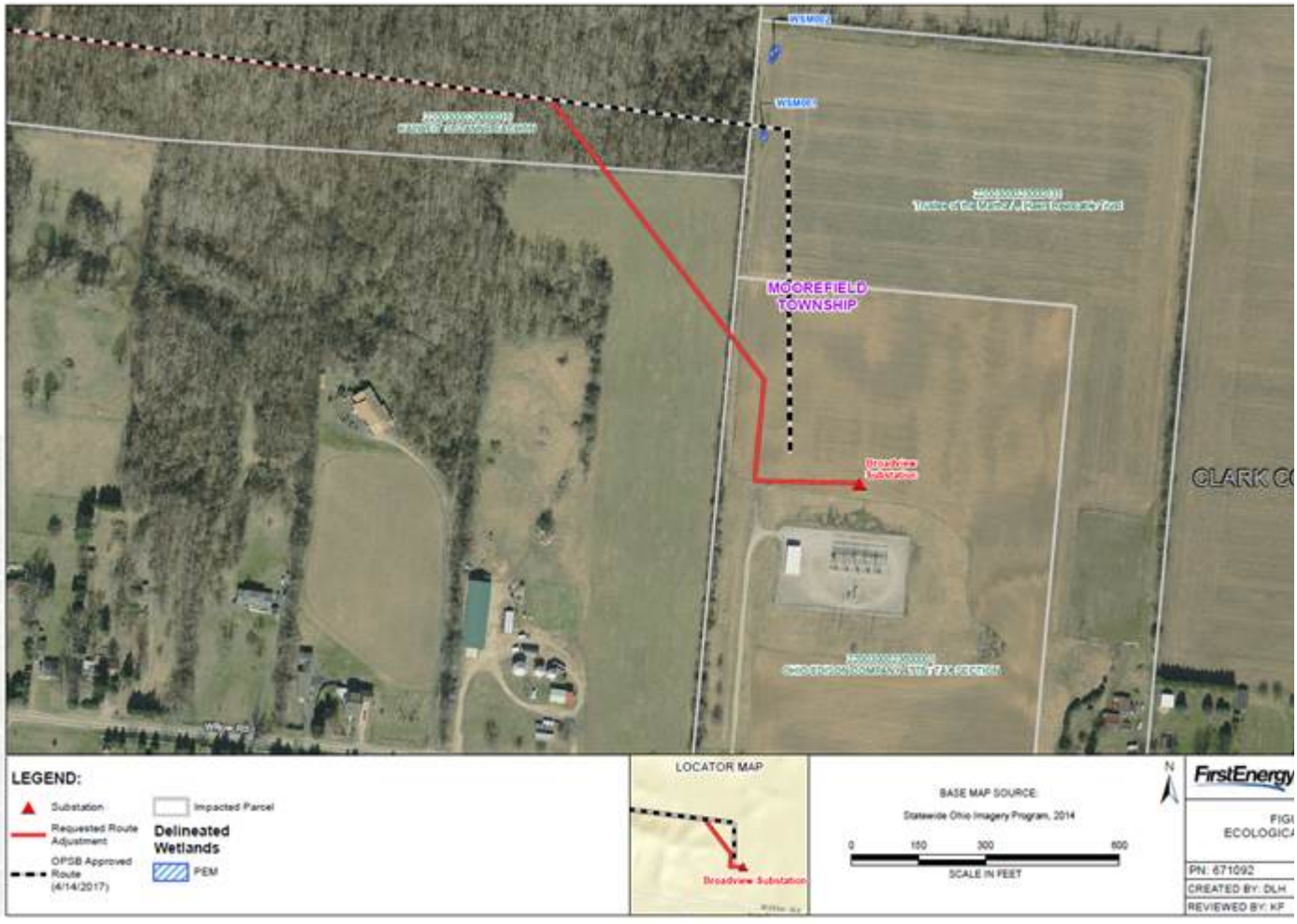


EXHIBIT 6

Addendum Report: Phase I Archaeological Reconnaissance for ATSI's Clark-Urbana 138 kV Loop to Broadview Substation Project, Moorefield Township, Clark County, Ohio (2016-CLA-37050)

Prepared for

American Transmission Systems, Incorporated, a FirstEnergy Company

Lead Agency

Ohio Power Siting Board

October 2017

400 East Business Way, Suite 400
Cincinnati, Ohio 45241

Addendum Report: Phase I Archaeological Reconnaissance for ATSI's Clark-Urbana 138kV Loop to Broadview Substation Project, Moorefield Township, Clark County, Ohio

(2016-CLA-37050)

Prepared for

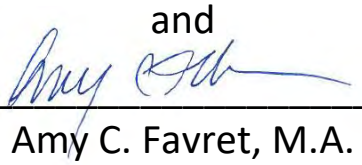
American Transmission Systems, Incorporated

A FirstEnergy Company

Prepared by

Galen K. Smith

and



Amy C. Favret, M.A.

Principal Investigator

Contents

Acronyms and Abbreviations

AD	Anno Domini
APE	Area of Potential Effect
ATSI	American Transmission Systems, Incorporated
BP	Before Present
CH2M	CH2M Hill, Inc.
DOE	Determination of Eligibility
NRHP	National Register of Historic Places
OAI	Ohio Archaeological Inventory
OHI	Ohio Historic Inventory
OHPO	Ohio Historic Preservation Office
PPK	Projectile Point/Knife
Project	Clark-Urbana 138 kV Loop to Broadview Substation
ROW	Right-of-Way
SL	Sample Loci

Abstract

On behalf of American Transmission Systems, Incorporated (ATSI), CH2M HILL, Inc. (CH2M) of Cincinnati, Ohio, conducted a Phase I cultural resources survey of the proposed Clark-Urbana 138 kV Loop to Broadview Substation Project in Clark County, Ohio (the Project). The results of the Phase I cultural resources survey were submitted to the Ohio Historic Preservation Office (OHPO) on May 9, 2017 (Smith et al. 2017; OHPO Reference Number 2016-CLA-37050). In a letter dated May 19, 2017, the OHPO concurred that the Project will not affect historic properties (Kennedy 2017). Following adjustments to the Project corridor, CH2M conducted additional Phase I archaeological reconnaissance for new Project elements. This letter report details the results of the additional Phase I archaeological reconnaissance for the Project.

Additional Project needs included a re-route of the planned transmission line loop, located in the vicinity of Urbana Road (SR 72), near a manufacturing facility. The direct Area of Potential Effect (APE) for the additional Project elements was defined as the land proposed for ground disturbance, which totaled 16.4 acres (6.6 hectares) in size. Additionally, an indirect APE (for potential visual impacts) was defined as a maximum 1,000 feet (305 meters) from the Project centerline, refined, as appropriate, based on landforms, vegetation, and terrain features for the entire length of the proposed corridor.

For the current Project, the literature review did not Identify any additional previously inventoried cultural resources within one mile (1.6 kilometers) of the Project. Previously reported inventoried cultural resources include two cemeteries, which appear to be the same cemetery recorded twice, and five previous cultural resources surveys, none of which are located within the current Project APE.

The additional Phase I archaeological reconnaissance conducted in October 2017 utilized both pedestrian reconnaissance and shovel testing within the direct APE. No cultural materials or archaeological sites were identified by the survey. Therefore, CH2M recommends that no further archaeological work is needed for the Project. Additionally, no architectural and historical resources greater than 50 years of age were identified within the indirect APE. Therefore, CH2M recommends that no additional architectural and historical work is required for the Project.

SECTION 1

Introduction

On behalf of American Transmission Services, Incorporated (ATSI), CH2M Hill, Inc. (CH2M) of Cincinnati, Ohio, conducted a Phase I cultural resources survey of the proposed Clark-Urbana 138 kV Loop to Broadview Substation Project in Clark County, Ohio (the Project). A Phase I Cultural Resources report was submitted to the Ohio Historic Preservation Office on May 9, 2017 (Smith et al. 2017; OHPO Reference Number 2016-CLA-37050). In a letter dated May 19, 2017, the OHPO concurred that the Project will not affect historic properties (Kennedy 2017). Following adjustments to the Project corridor, CH2M conducted additional Phase I archaeological reconnaissance for new Project elements. This report details the results of the additional Phase I archaeological reconnaissance for the Project.

The proposed Project is a 1.8-mile (2.9-kilometer) transmission line located Clark County, Ohio (Figures 1.1 and 1.2). ATSI will utilize the proposed permanent Right-of-Way (ROW) for access; however, in some areas where access roads outside of the permanent ROW are needed, a 60-foot (18-meter) corridor will be used. In October 2017, the preferred route was altered, requiring additional Phase I archaeological reconnaissance. The 2.3-mile (3.7-kilometer) reroute is located in the vicinity of the intersection of Tremont City Road and Urbana Road, extending east from Urbana Road through a largely wooded area north of Willow Road, to the Broadview Substation. CH2M examined a 60-foot (18.3-meter) wide Project corridor, which is also considered to be the direct Area of Potential Effect (APE).

The surrounding viewshed (indirect APE) maintained the potential to be visually impacted by the Project. However, the proposed Project work largely takes place within the indirect APE established for the March 2017 investigation and in areas already compromised by modern heavy industrial development or within heavily wooded areas, and previously surveyed for cultural resources (see Tuk 2017). CH2M did not identify any additional architectural and historical resources greater than 50 years of age within the indirect APE for the reroute.

Key personnel committed to the Project include Principal Investigator Amy C. Favret, Field Director Galen K. Smith, M.A., and Field Director April Greenberg, M.A.. Ms. Favret served as report co-author. Mr. Smith conducted the records search and field reconnaissance and served as report co-author. Ms. Greenberg contributed to report graphics.

This report presents the research design in Section 2. Section 3 outlines the field methodology. Section 4 discusses the results of the archaeological reconnaissance, followed by the summary and recommendations in Section 5. The references cited appear in Section 6.

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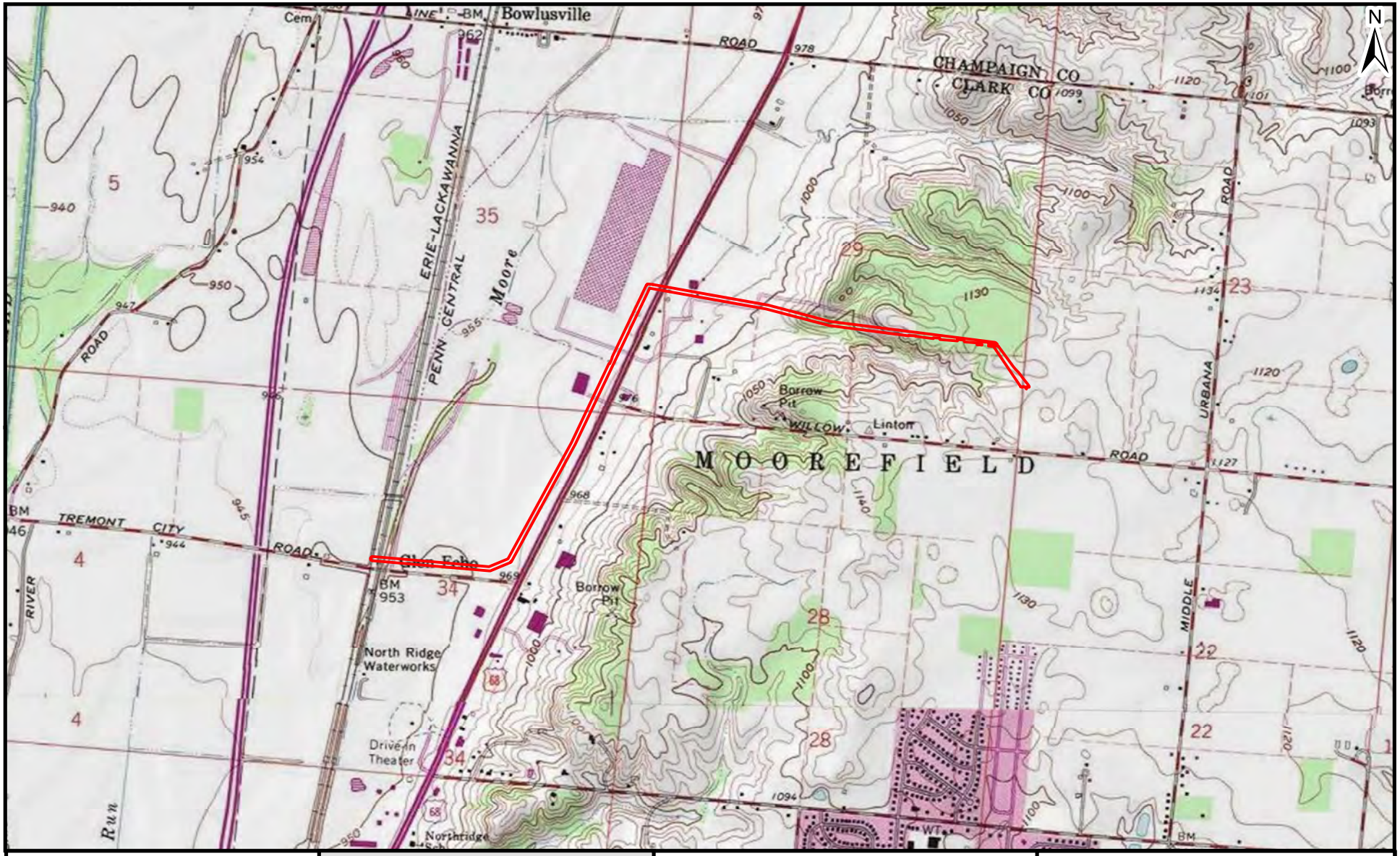
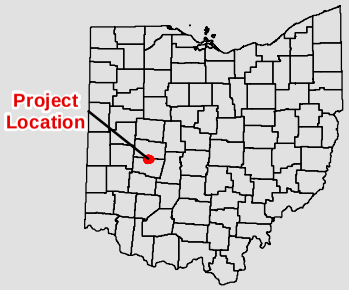


LEGEND:

Survey Area



BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangle:
Urbana West, OH (published 1975)

0 610 1,220

Scale in Meters

0 2,000 4,000

Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 1.1
PROJECT OVERVIEW
TOPOGRAPHIC MAP

PN: 671817.01.08.01

DATE: 1/26/2018

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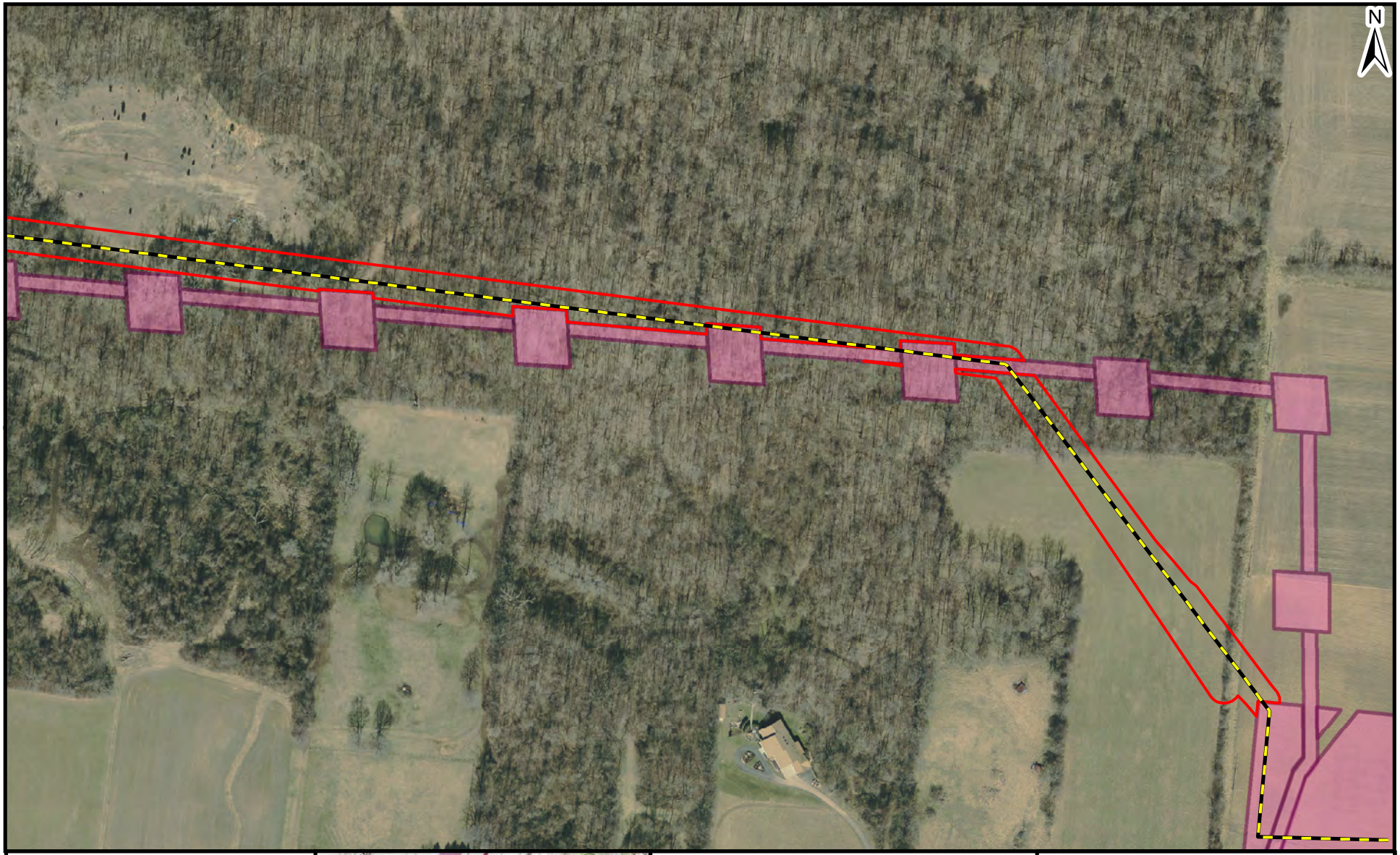
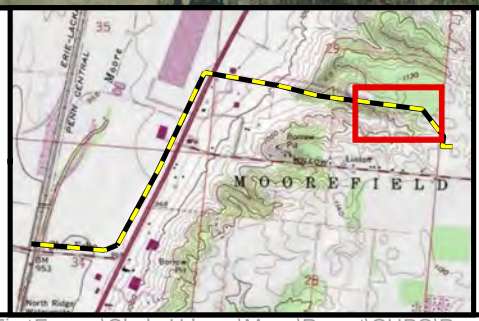


LEGEND:

- Proposed Centerline
- Survey Area
- Previously Surveyed by CH2M



BASE MAP SOURCE:
USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), 2015

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Scale in Meters

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Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 1.2A
PROJECT OVERVIEW
AERIAL MAP

PN: 671817.01.08.01

DATE: 1/26/2018

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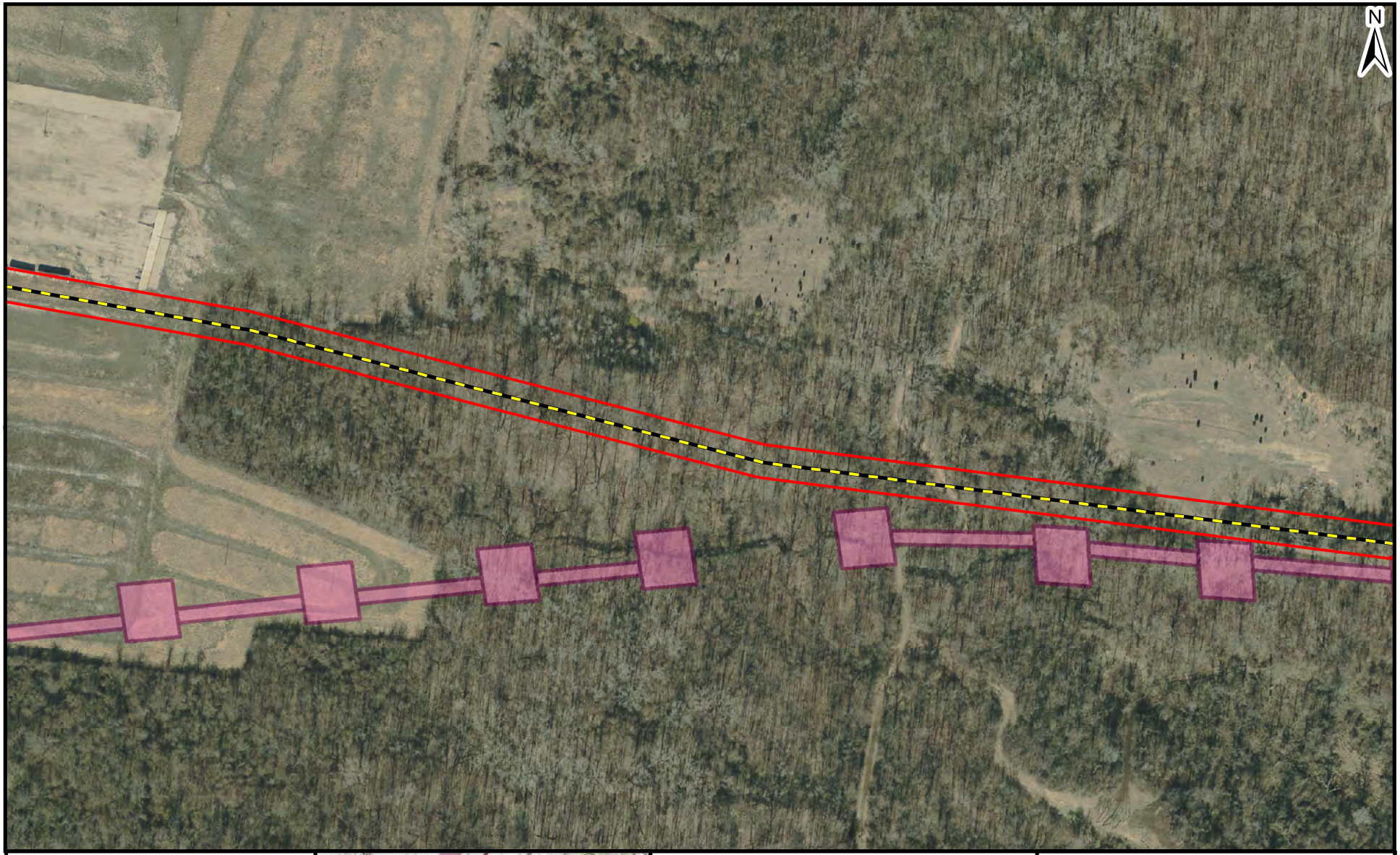
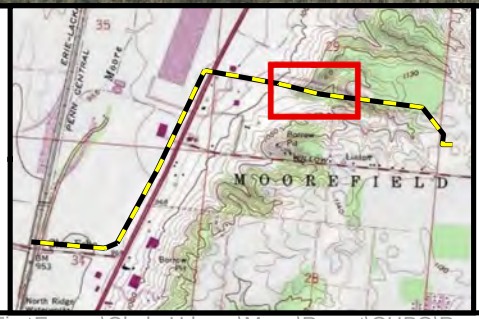


LEGEND:

- Proposed Centerline
- Survey Area
- Previously Surveyed by CH2M



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Scale in Meters

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Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 1.2B
PROJECT OVERVIEW
AERIAL MAP

PN: 671817.01.08.01
DATE: 1/26/2018

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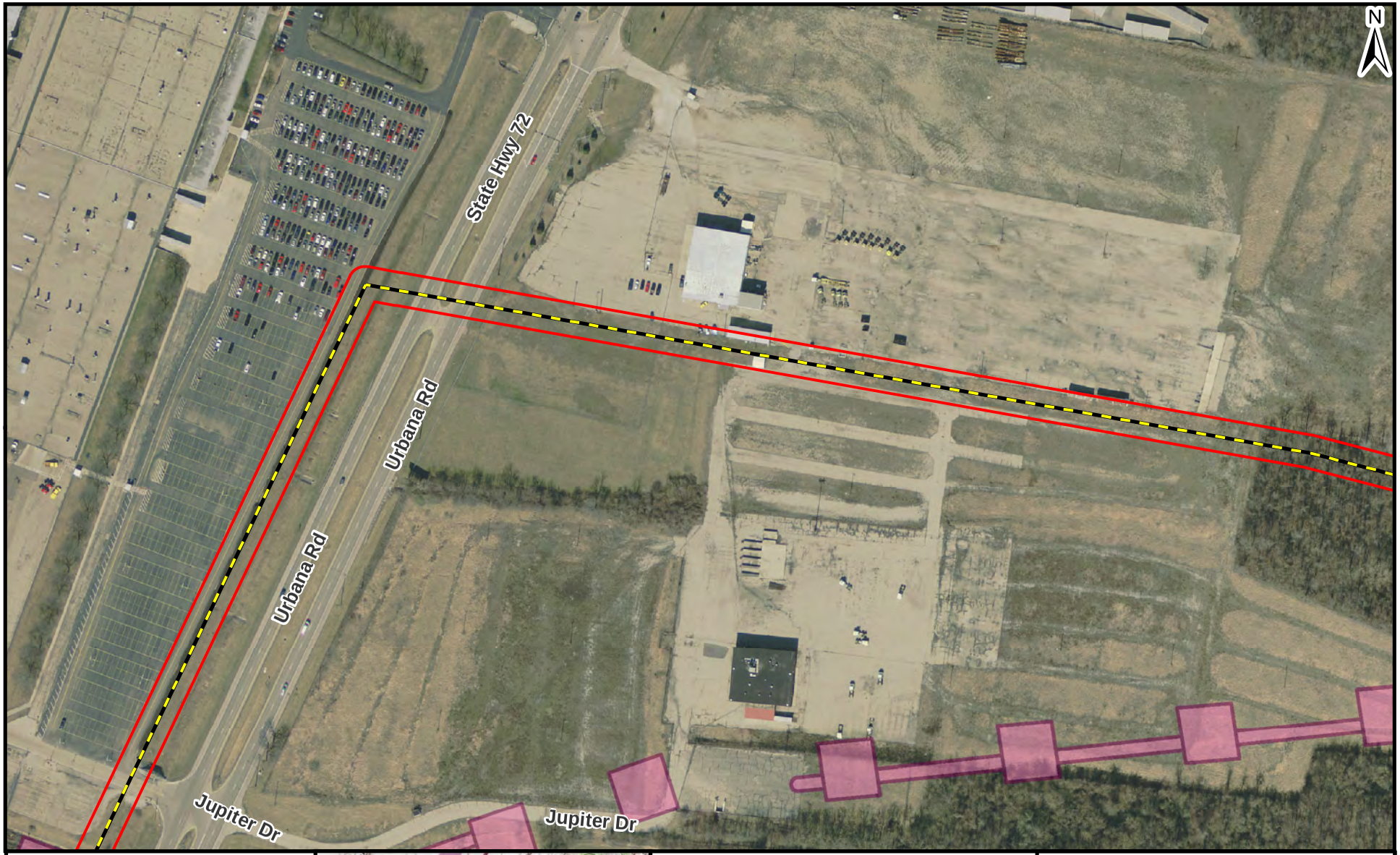
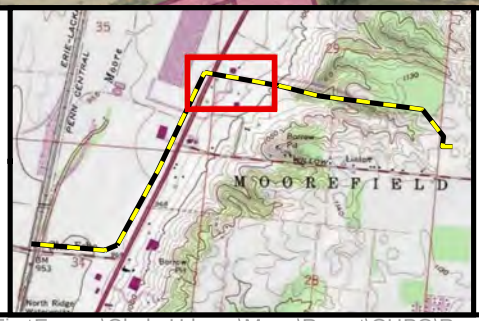


LEGEND:

- Proposed Centerline
- Survey Area
- Previously Surveyed by CH2M



BASE MAP SOURCE:
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Scale in Meters

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Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 1.2C
PROJECT OVERVIEW
AERIAL MAP

PN: 671817.01.08.01
DATE: 1/26/2018

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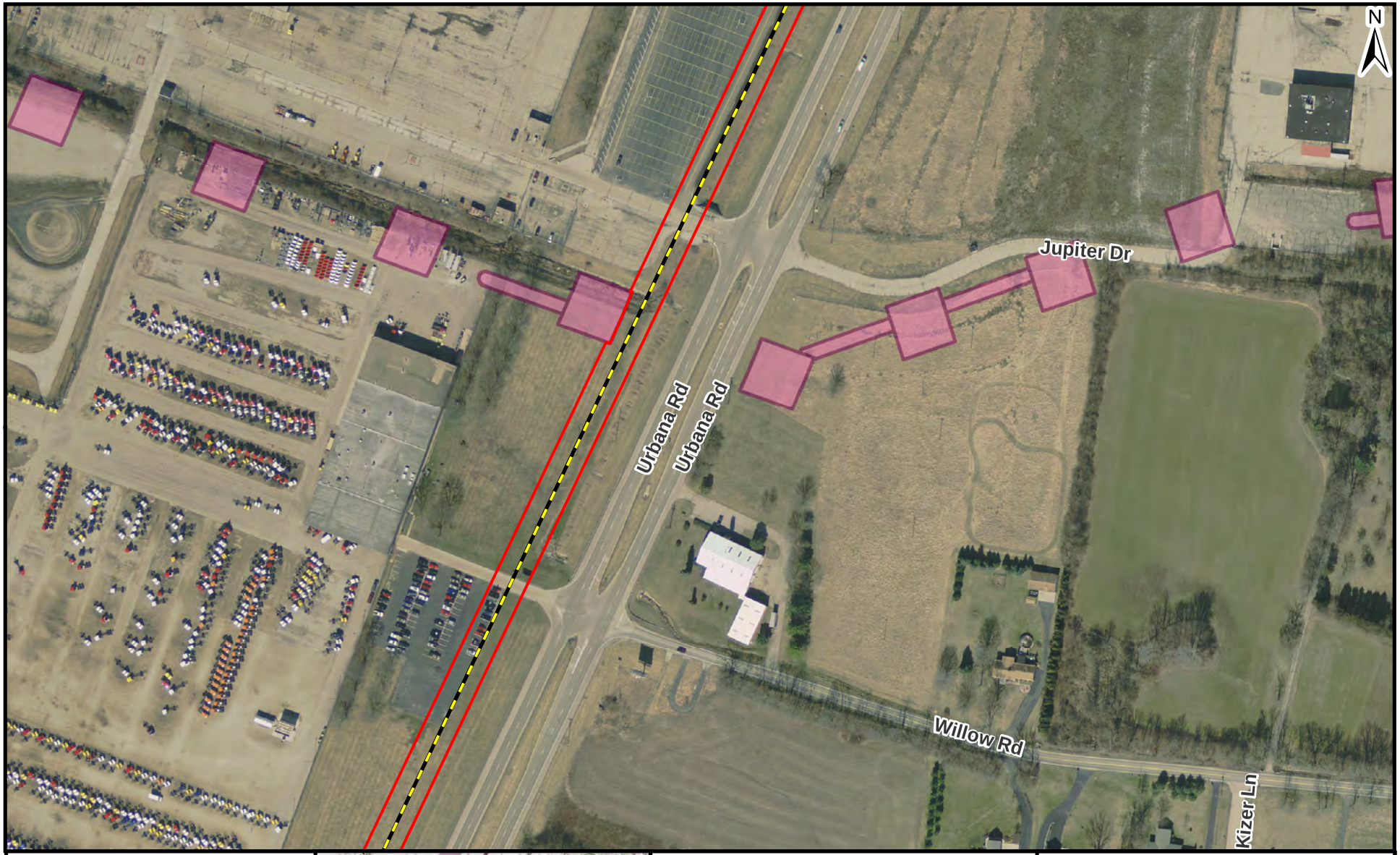
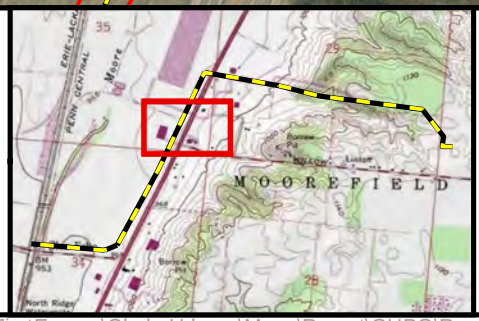


LEGEND:

- Proposed Centerline
- Survey Area
- Previously Surveyed by CH2M



BASE MAP SOURCE:
USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), 2015

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Scale in Meters

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Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 1.2D
PROJECT OVERVIEW
AERIAL MAP

PN: 671817.01.08.01
DATE: 1/26/2018

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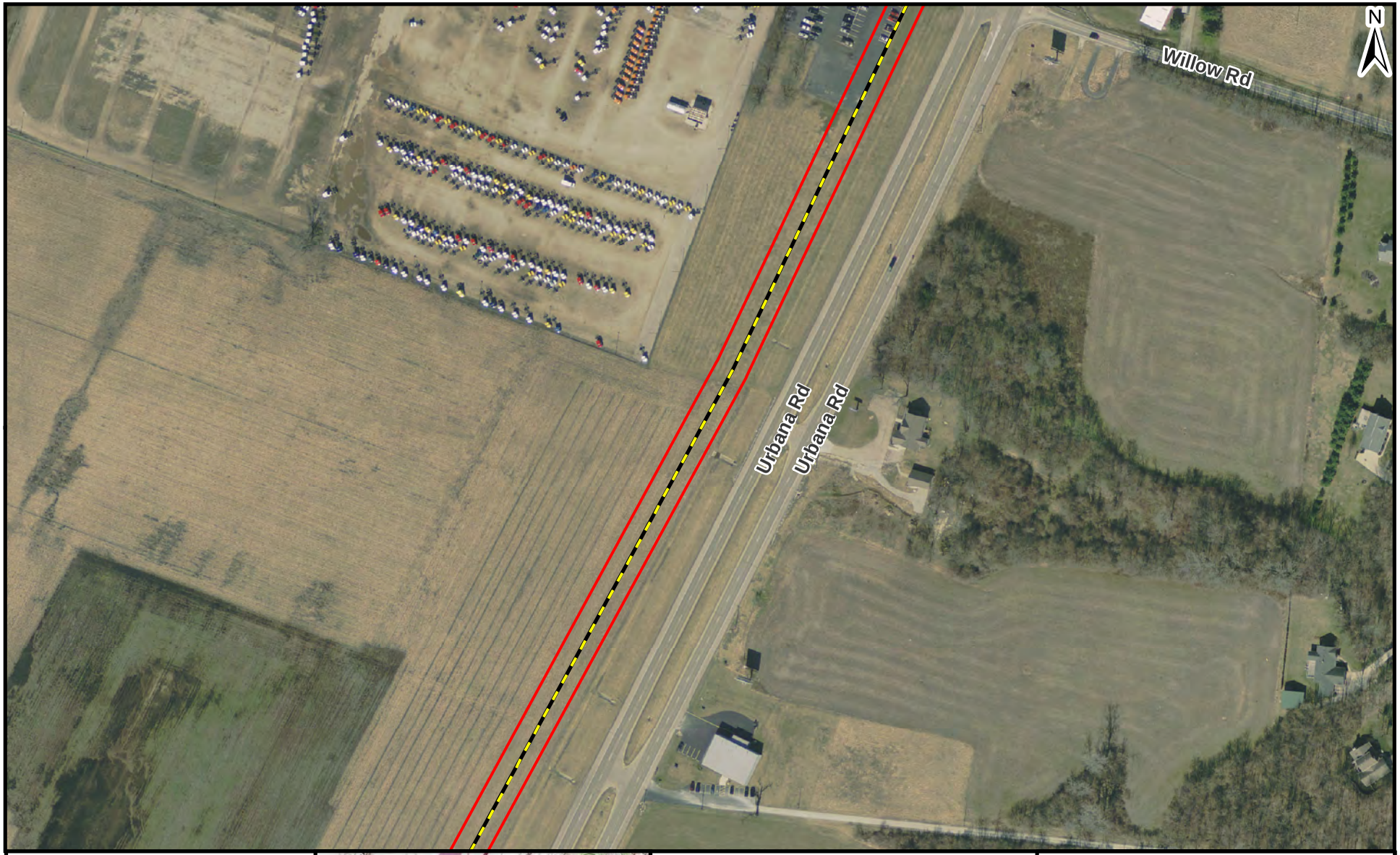
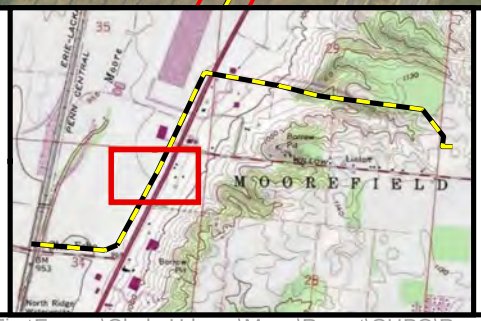


LEGEND:

- Proposed Centerline
- Survey Area



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Scale in Meters

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Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 1.2E
PROJECT OVERVIEW
AERIAL MAP

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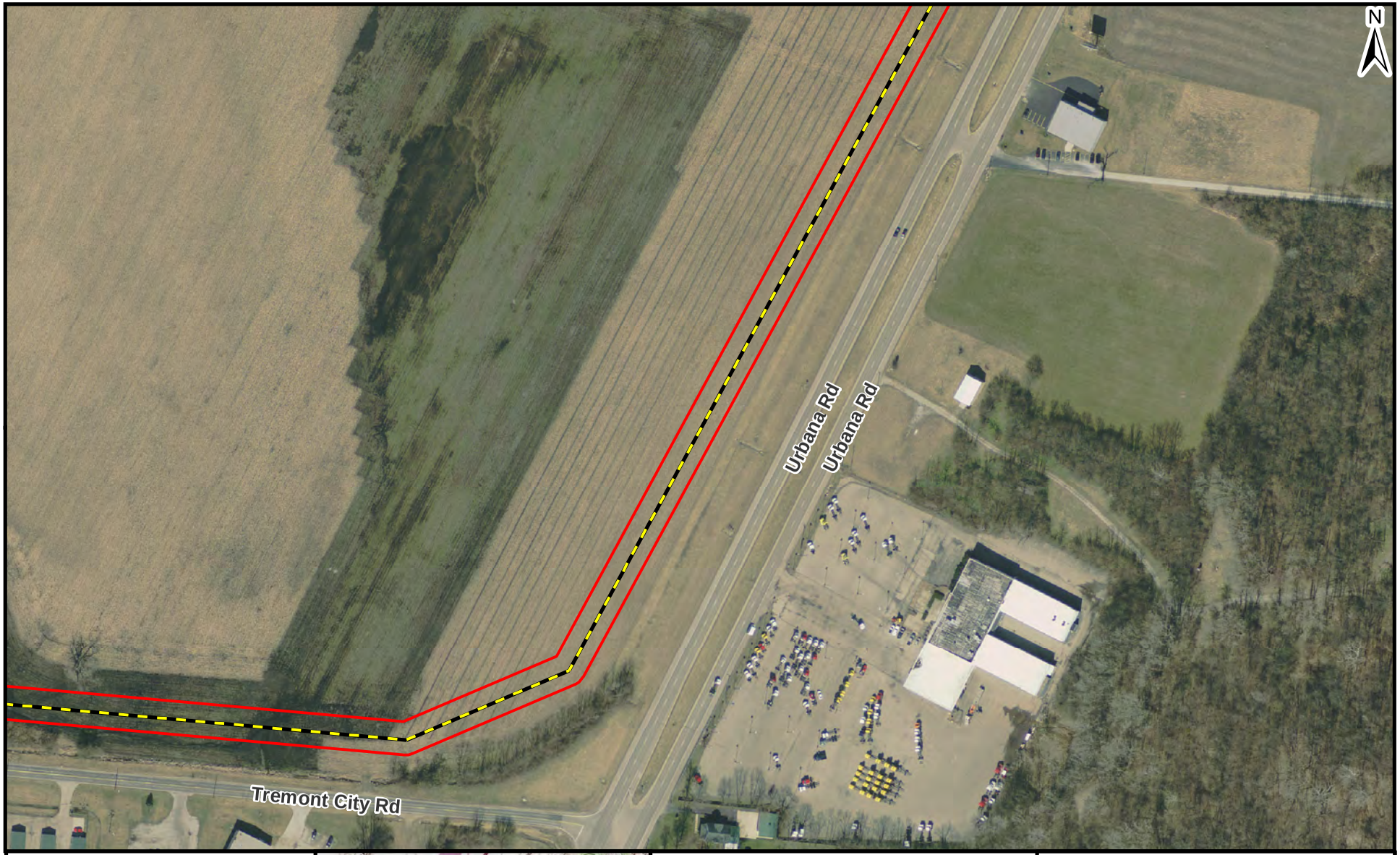
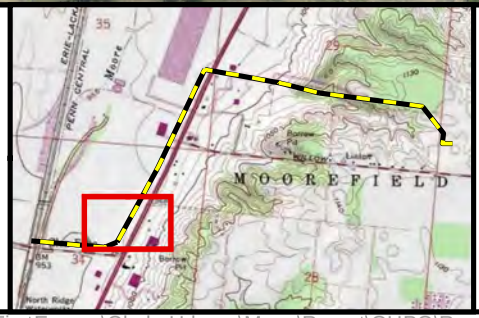


LEGEND:

- Proposed Centerline
- Survey Area



BASE MAP SOURCE:
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Scale in Meters

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Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 1.2F
PROJECT OVERVIEW
AERIAL MAP

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DATE: 1/26/2018

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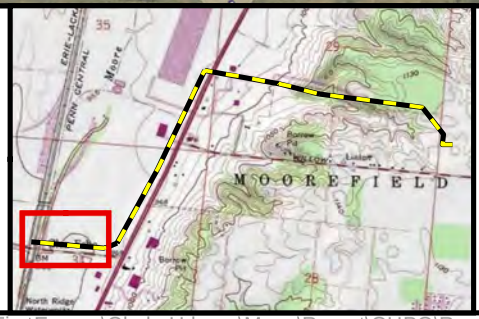
LEGEND:

- Proposed Centerline
- Railroad
- Survey Area
- Previously Surveyed by CH2M



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Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 1.2G
PROJECT OVERVIEW
AERIAL MAP

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SECTION 2

Project Background

In response to a request from American Transmission Systems, Incorporated (ATSI), CH2M Hill, Inc. (CH2M) conducted a Phase I archaeological reconnaissance for a proposed new 138 kV transmission line from the Broadview Substation to the existing Clark-Urbana 138 kV transmission line in Clark County, Ohio. The Phase I archaeological reconnaissance was conducted in March 2017 (see Smith et al. 2017). The archaeological reconnaissance did not identify any new archaeological resources (Smith et al. 2017). Following adjustments to the Project alignment in (insert month/year) here), CH2M conducted additional Phase I archaeological reconnaissance for the proposed Project.

The proposed reroute is 1.8-miles (2.9-kilometers) long, within a 60-foot (18-meter) wide permanent Right-of-Way (ROW). The Project will be constructed primarily with wooden poles between 80 and 100 feet (24.4 to 30.5 meters) in height. Each pole installation requires a machine-drilled hole for placement of the structure. The excavation for these poles will average three feet (0.91 meter) in diameter and will be nine to 12 feet (2.74 to 3.66 meters) deep.

2.1 Background Research

The records check for the initial Phase I archaeological reconnaissance identified two cemetery listings (OGS #1691 [Dear Cemetery] and OGS #14479 [County Line Cemetery]), which appear to be a single cemetery that was recorded twice, and five previous cultural resources management reports within one mile (1.6 kilometers) of the Project (see Smith et al. 2017). The cemetery is located approximately one mile (1.6 kilometers) from the Project area, and the previous CRM reports do not intersect the current Project. No additional previously recorded resources were identified for this investigation.

2.2 Environmental Context

The Project is situated within the Mad River Interlobate Plain of the Till Plains Physiographic Province. The region is characterized by rolling ground moraine of older till usually lacking ice constructional features such as moraines, kames, and eskers. There are many buried valleys, and modern valleys alternate between broad floodplains and bedrock gorges (Brockman 1998).

2.2.1 Geology

The Till Plains section is underlain by Ordovician and Silurian-age carbonate rocks and calcareous shales (Brockman 1998). Within southwestern Ohio, there are two main sources of chert locally available: Bisher and Four Mile Creek (DeRegnaucourt and Georgiady 1998). Bisher chert occurs in Highland County, near Hillsboro, and in northern Adams County, near Peebles. It occurs in both primary outcrops and as stream gravels (DeRegnaucourt and Georgiady 1998:24). Four Mile Creek chert occurs in lenses and nodules in Four Mile Creek, near Fairhaven, in Preble County. It is distributed throughout southwest Ohio and southeastern Indiana (DeRegnaucourt and Georgiady 1998:69).

2.2.2 Soils

Soil distribution within the Project area is important for understanding the cultural arrangement of the landscape. Soils aid in determining the potential for archaeological sites and can provide a marker for archaeological site formation, especially when the pedogenic processes of an area and how these processes impact archaeological deposits are understood. For example, within the Allegheny Plateaus of Ohio, most soils are infertile, which is why this region is less populated and developed than most of the rest of Ohio (Ohio Governor's Residence and Heritage Garden 2017).

Within the direct APE of the Project, there are a total of 13 soil types. These are summarized in Table 2.1 below.

Table 2.1. Soils within the Direct APE.

Symbol	Soil Type	Slope	Comments
EmA	Eldean silt loam	0-2%	-----
EmB	Eldean silt loam	2-6%	-----
EmC2	Eldean silt loam	6-12%	eroded
EpD2	Eldean-Miamian complex	12-18%	eroded
Lp	Lippincott silty clay loam	-----	-----
MhB	Miamian silt loam	2-6%	-----
MhC	Miamian silt loam	6-12%	-----
MhD2	Miamian silt loam	12-18%	eroded
MkB2	Miamian silty clay loam	2-6%	eroded
MmC3	Miamian clay loam, shallow to dense till substratum	6-12%	severely eroded
MmD3	Miamian clay loam, shallow to dense till substratum	12-18%	severely eroded
Ud	Udorthents	-----	loamy
Ur	Urban land	-----	-----

2.2.3 Hydrology

The Project area is drained by Moore Run, and later, Mad River. These drainages are located on the west end of the Project. The Mad River flows southward from the Project area, flowing into the Great Miami River in Dayton, and ultimately, into the Ohio River, east of Lawrenceburg, Indiana, at the Ohio-Indiana state line.

2.2.4 Flora and Fauna

During the Late Pleistocene, the Project area was covered in a coniferous forest consisting of spruce and fir trees, suited for a cool, moist climate (Braun 1950:464). This cool, moist climate also supported a wide array of mammals, including megafauna. Biomes along the glacier's southern margins were exploited by megafauna indigenous to these areas, specifically the woodland musk ox (*Ovibos moschatus*), mastodon and woolly mammoth (*Mammut* sp.), barren ground caribou (*Rangifer tarandus*), giant beaver (*Castoroides* sp.), and moose-elk (*Cervacles scotti*) (Cleland 1966:91-92; Prufer and Baby 1963:55; Ritchie and Funk 1973).

Over the course of several hundred years, climatic moderation gradually altered the glacial-boreal ecosystem in the Midwest. This trend, which occurred sometime around 7000 BC, was typified by a warmer climate with predominantly drier seasons. The megafauna of the Late Pleistocene suffered massive extinction and were replaced by smaller animals that filled the opening faunal ecological niches. These smaller animals are similar to contemporary species.

Also during this timeframe, oak and hickory began to dominate the landscape. At the end of the warming trend, around 2000 BC, Braun (1950) characterizes the Project area as belonging to the Beech Maple Forest region. The Beech Maple Forest region dominated much of the Till Plains and is characterized by forests with beech (*Fagus grandifolia*) in the upper canopy and sugar maple (*Acer saccharum*) in the understory (Braun 1950:305). In some areas where there are poorly drained soils at

lower elevations, there are hydro-mesophytic trees, including swamp white oak (*Quercus bicolor*) and American elm (*Ulmus americana*). Higher elevations with better drained soils often have beech, sugar maple, and American basswood (*Tilia americana*) (Braun 1950:316).

Contemporary faunal resources within the Project area include both open agricultural land and woodland wildlife. It is important to note that several large mammals that would have been important to prehistoric and historic subsistence patterns have been hunted into local extinction, including elk or wapiti (*Cervus elaphas*), bison (a possible Late Prehistoric species), cougar (*Felis concolor*), black bear (*Ursus americanus*), and wolves (*Canis* sp.).

2.3 Prehistoric Cultural Context

The prehistoric occupation of Ohio is generally divided into three broad periods: The Paleoindian, the Archaic, and the Woodland. The Paleoindian Period encompasses the cultural remains of the earliest recorded occupation of the region, after about 13,000 years before present (BP), shortly following the retreat of the last glaciers to cover the region. The Archaic is identified by archaeologists as the period when settlements organized around local environmental resources, which replaced the broad seasonal migration patterns of the Paleoindian period. Wide exchange of materials, the innovation of ceramic technology, the emergence of domesticated crops and animals, and an increasing shift toward permanent settlements generally identify the transition to the Woodland time period.

The detailed prehistoric context of Ohio and the Middle Ohio River Valley region can be found in the previous Phase I archaeological reconnaissance report (see Smith et al. 2017).

2.4 Historic Cultural Context

The beginning of permanent Euro-American settlement began with the Treaty of Greenville in 1814. Aboriginal trails connected villages or towns and provided the first access to suitably habitable areas, later guiding engineers in constructing permanent road systems. The late 1700s were dominated by the establishment of self-sufficient farms, and the groundwork for better transportation and the beginnings of commerce and industry was being laid. As farms increased the number of cultivated acres, deforestation produced surplus lumber and surplus foodstuffs. However, only in areas with adequate streams for transportation did sawmills for commercial production appear. Boat building, especially in the Ohio Valley, and milling developed in conjunction with agricultural production (Buck and Buck 1939:300). Keelboats and flatboats were used to ship agricultural produce downriver to New Orleans. Local roads were improved and extended to make wagon traffic more practical, although wagon transportation was not common until after 1790.

Although original settlers and transients alike successfully used the Ohio and its tributaries, together with various Indian trails, as a means of gaining access to the new territory, road building got an early start. In addition to roads, canals were also constructed to transport people, livestock, and goods. The canal building heyday was primarily limited to the 30-year span between 1825 and 1855, when two major systems totaling over 800 miles of canal were excavated: the Miami and Erie systems (Powell 1975:121). Although canals encouraged a burgeoning agricultural and commercial market, they ultimately failed because their operations were both parochial and seasonal, and because the capacity of their technology was soon outstripped by that of railway transport (Powell 1975:122). The boom in railroad development lasted throughout the next 30 years, from 1850 to 1880, and precipitated a surge in economic growth.

Clark County was formed in 1818 from parts of Greene, Champaign, and Madison Counties, and was named after George Rogers Clark. With the completion of the National Road through Ohio, Clark County saw an increased period of growth in the 1830s. Agriculture was the predominant economic driver in Clark County, and Moorefield Township was especially reliant on agriculture, producing corn, potatoes,

and hay, as well as berries and honey (Steele and Martin 1881:673). With the exception of some modern industrial development along major roadways and in larger towns such as Springfield, Clark County remains largely rural and dependent on agriculture, typical of many areas in this region.

Methods

3.1 Field Methods

CH2M conducted field investigations to identify archaeological sites within the direct APE. CH2M conducted a walkover of the entire direct APE to evaluate visible ground disturbance and to identify potential areas of non-disturbed soils that could be subjected to standard Phase I archaeological survey per OHPO (1994) guidelines. Visible disturbance was photo documented, and the appropriate field forms were completed by the field crew.

Standard Phase I archaeological survey techniques (pedestrian survey and subsurface shovel testing) were used for the field investigations. Pedestrian survey involved walking in five-meter intervals in areas with ground surface visibility greater than 50 percent and/or in areas of slope greater than 15 degrees.

In areas where the visibility of surface soils was less than 50 percent and undisturbed, systematic shovel testing was conducted and consisted of 50-centimeter diameter holes excavated to 50 centimeters below the surface or until sterile soil was encountered. Shovel tests were excavated at 15-meter intervals across the direct APE.

Excavated soils were screened through 0.25-inch wire mesh and examined for evidence of cultural materials. Profiles were described for each shovel test. Notes were recorded concerning the soil stratigraphy (including Munsell color designations and texture) and any artifacts encountered. All shovel tests were assigned a unique designation that were mapped within the direct APE before the field survey, and then documented during the field survey with sub-meter accurate geographic positioning system (GPS) equipment.

SECTION 4

Phase I Results

The Phase I archaeological survey for the Project was conducted on October 17 through 19, 2017. In general, the Project is within a rural setting, although more developed areas occur near Urbana Road (SR 72), as well as around facilities associated with existing transmission lines that crisscross the area. Disturbance was documented throughout the western half of the field survey and was often associated with modern industry in the area (Photographs 4.1 through 4.6). The eastern half of the Project passes through heavily wooded areas before traversing an open, grass-covered area as it approaches the Broadview Substation (Photographs 4.7 through 4.9).

The disturbed areas and agricultural fields were subjected to pedestrian survey, while the wooded areas were shovel tested. The results of the pedestrian reconnaissance and shovel testing are illustrated in Figures 4.1.

Typical soil profiles in wooded areas, such as that at SL A225, consist of a 15- to 20-centimeter thick layer of dark yellowish brown (10YR 4/4) silt loam underlain by a light yellowish brown (10 YR 6/4) to brown (10YR 6/6) clay loam. Shovel tests in agricultural fields, such as SL A80, consist of an approximately 25- to 30-centimeter thick plow zone layer of brown (10YR ¾) silt loam underlain by a grayish brown (10YR 5/2) clay loam subsoil. Disturbed shovel tests, such as those at SLs A87, A88, A97, and A98, consist of an approximately 10-centimeter thick layer of very dark grayish brown (10YR 3/2) silt loam underlain by yellowish brown (10 YR 5/4) sandy loam with 30 percent or more unnatural gravel.

The archaeological field reconnaissance did not identify any cultural materials or archaeological sites.

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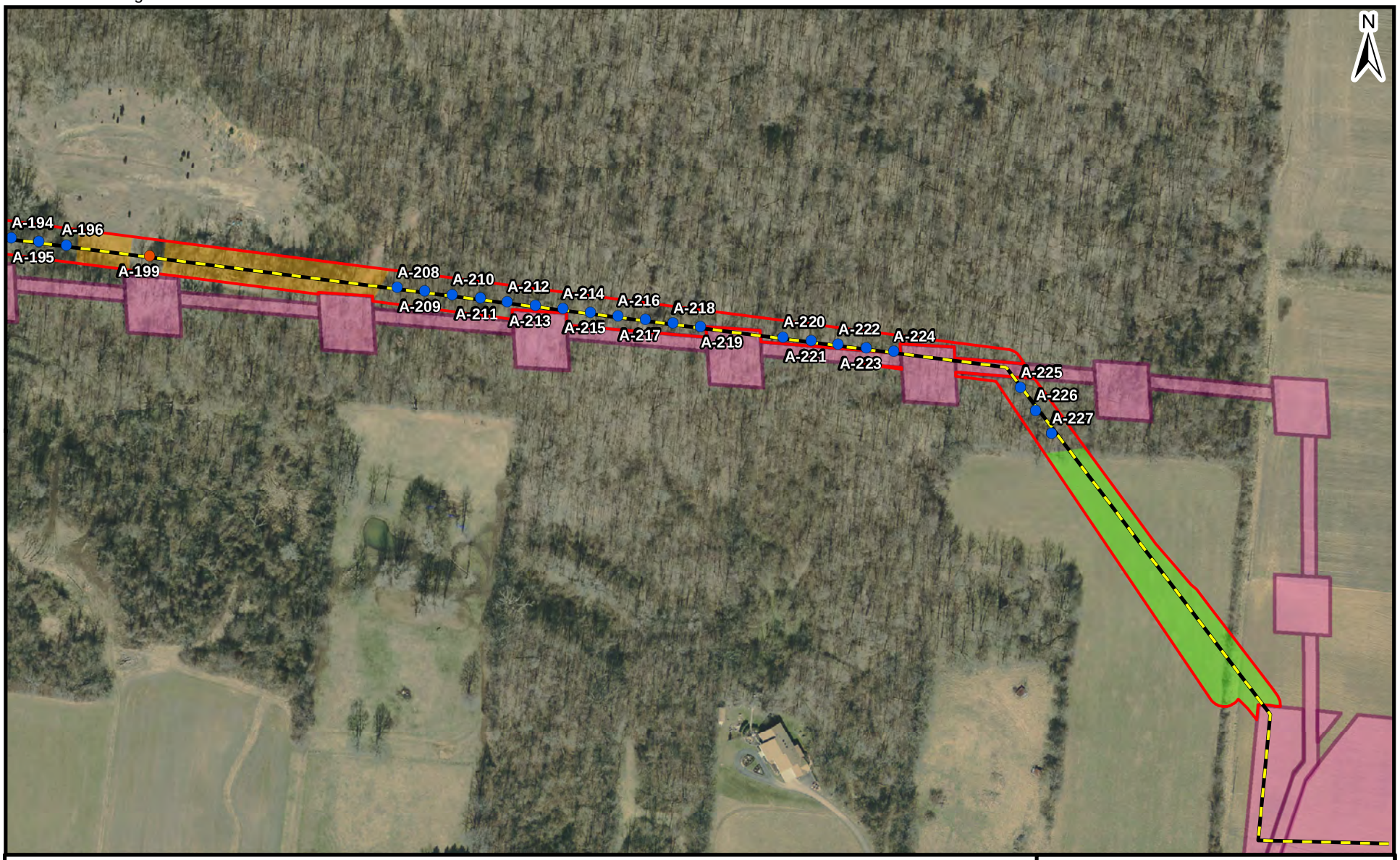

LEGEND:

- Shovel Test, Negative
- Shovel Test, Disturbed
- Proposed Centerline
- Survey Area
- Pedestrian Survey
- Pedestrian Survey, Disturbed
- Previously Surveyed by CH2M

BASE MAP SOURCE:
USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), 2015

0 75 150
Scale in Meters

0 250 500
Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 4.1A
SURVEY COVERAGE MAP

PN: 671817.01.08.01
DATE: 1/26/2018

ch2m

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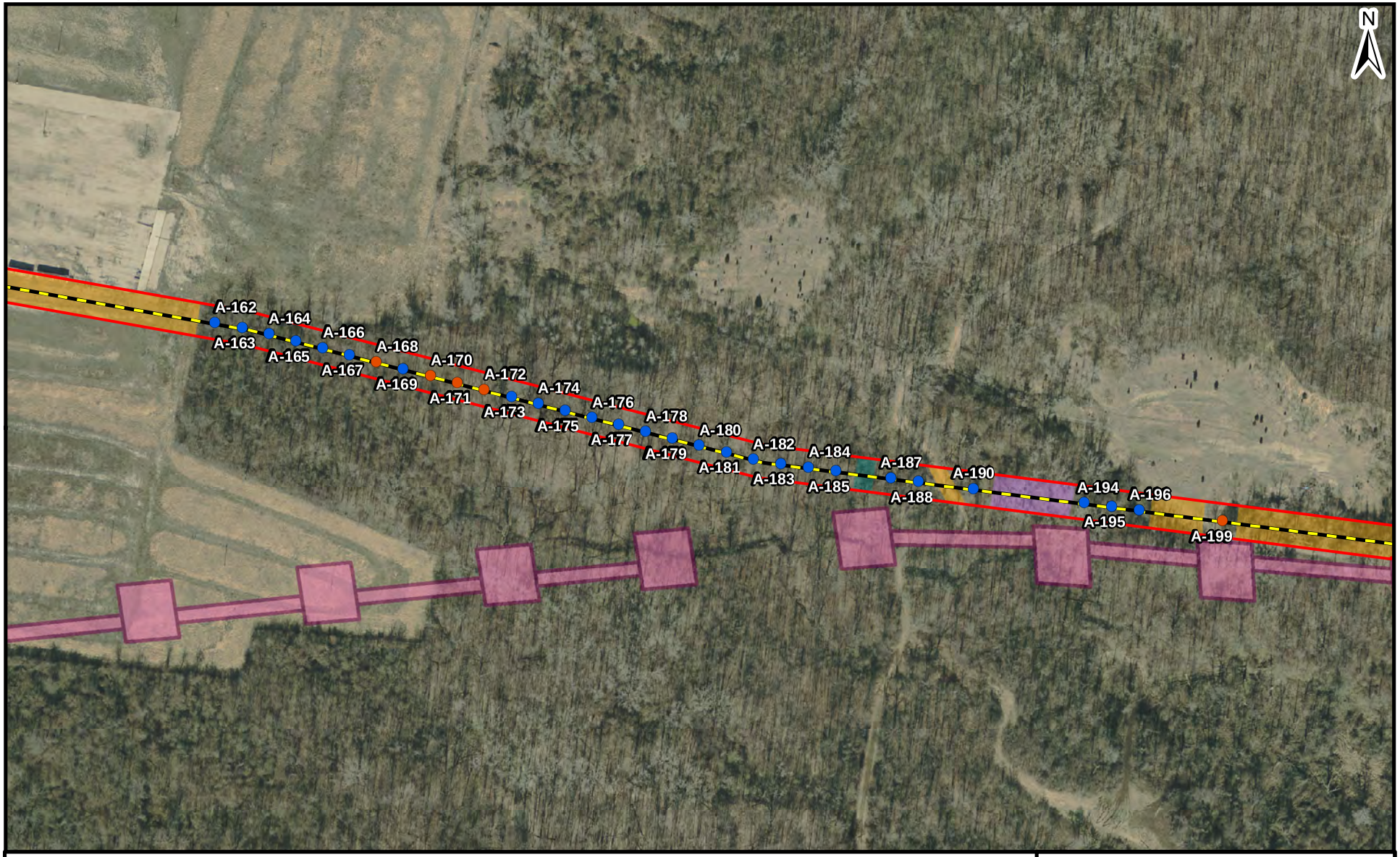

LEGEND:

- Shovel Test, Negative
- Shovel Test, Disturbed
- Proposed Centerline
- Survey Area
- Pedestrian Survey, Disturbed
- Pedestrian Survey, Slope
- Pedestrian Survey, Wet
- Previously Surveyed by CH2M

BASE MAP SOURCE:
USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), 2015

0 75 150
Scale in Meters

0 250 500
Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 4.1B
SURVEY COVERAGE MAP

PN: 671817.01.08.01
DATE: 1/26/2018

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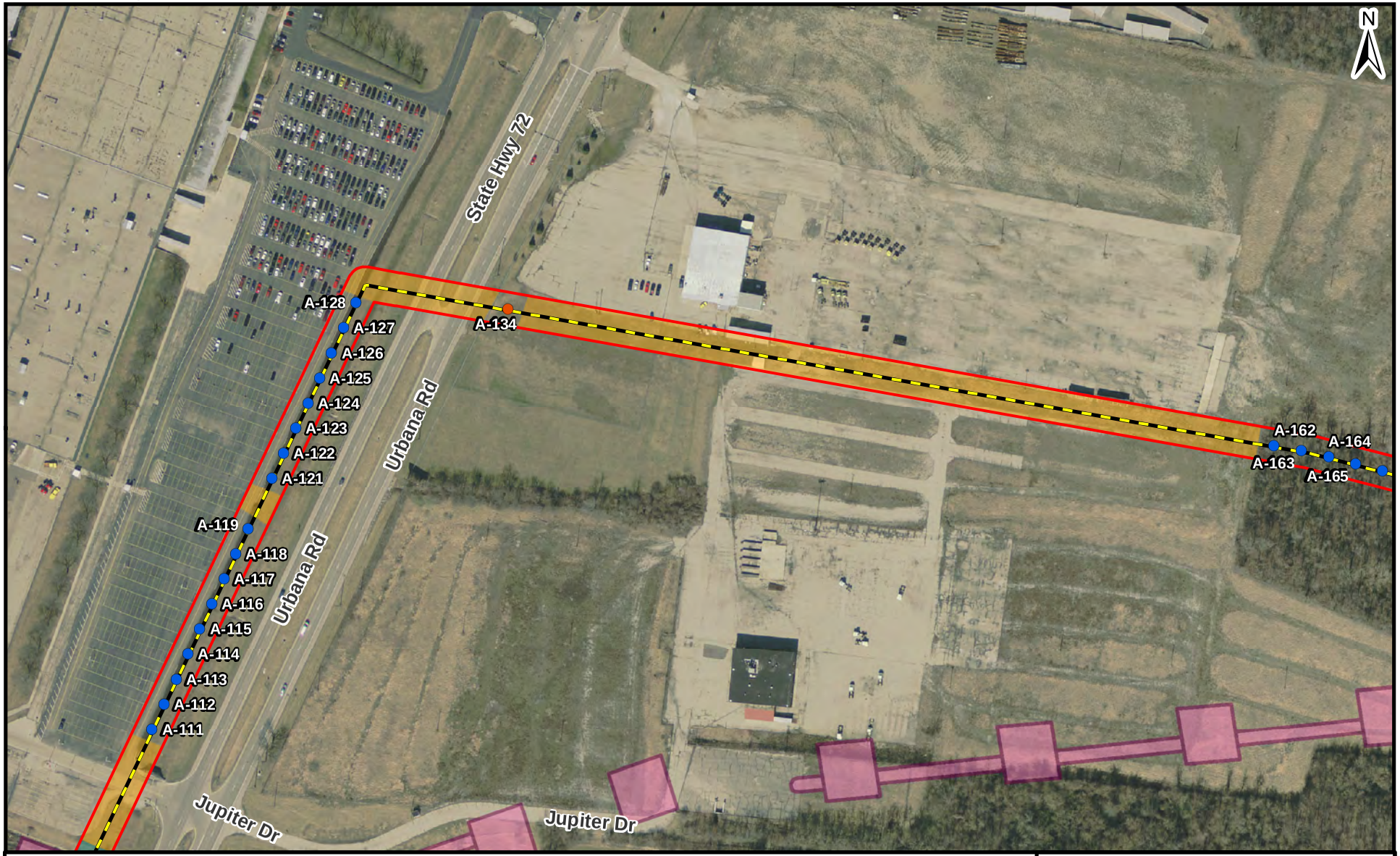

LEGEND:

- Shovel Test, Negative
- Shovel Test, Disturbed
- Proposed Centerline
- Survey Area
- Pedestrian Survey, Disturbed
- Pedestrian Survey, Wet
- Previously Surveyed by CH2M

BASE MAP SOURCE:
USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), 2015

0 75 150
Scale in Meters

0 250 500
Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 4.1C
SURVEY COVERAGE MAP

PN: 671817.01.08.01
DATE: 1/26/2018

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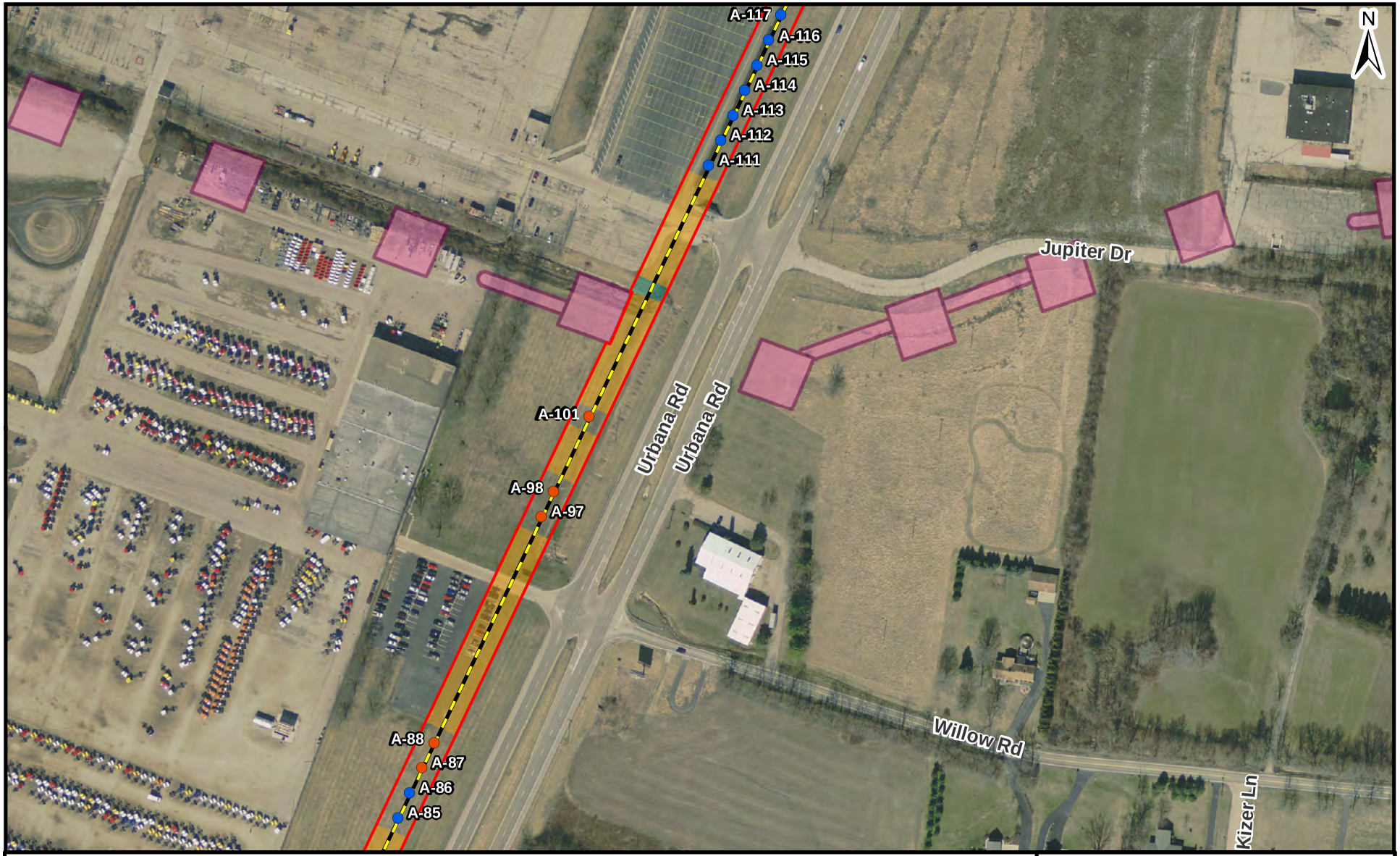

LEGEND:

- Shovel Test, Negative
- Shovel Test, Disturbed
- Proposed Centerline
- Survey Area
- Pedestrian Survey, Disturbed
- Pedestrian Survey, Wet
- Previously Surveyed by CH2M

BASE MAP SOURCE:
USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), 2015

0 75 150
Scale in Meters

0 250 500
Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 4.1D
SURVEY COVERAGE MAP

PN: 671817.01.08.01
DATE: 1/26/2018

ch2m

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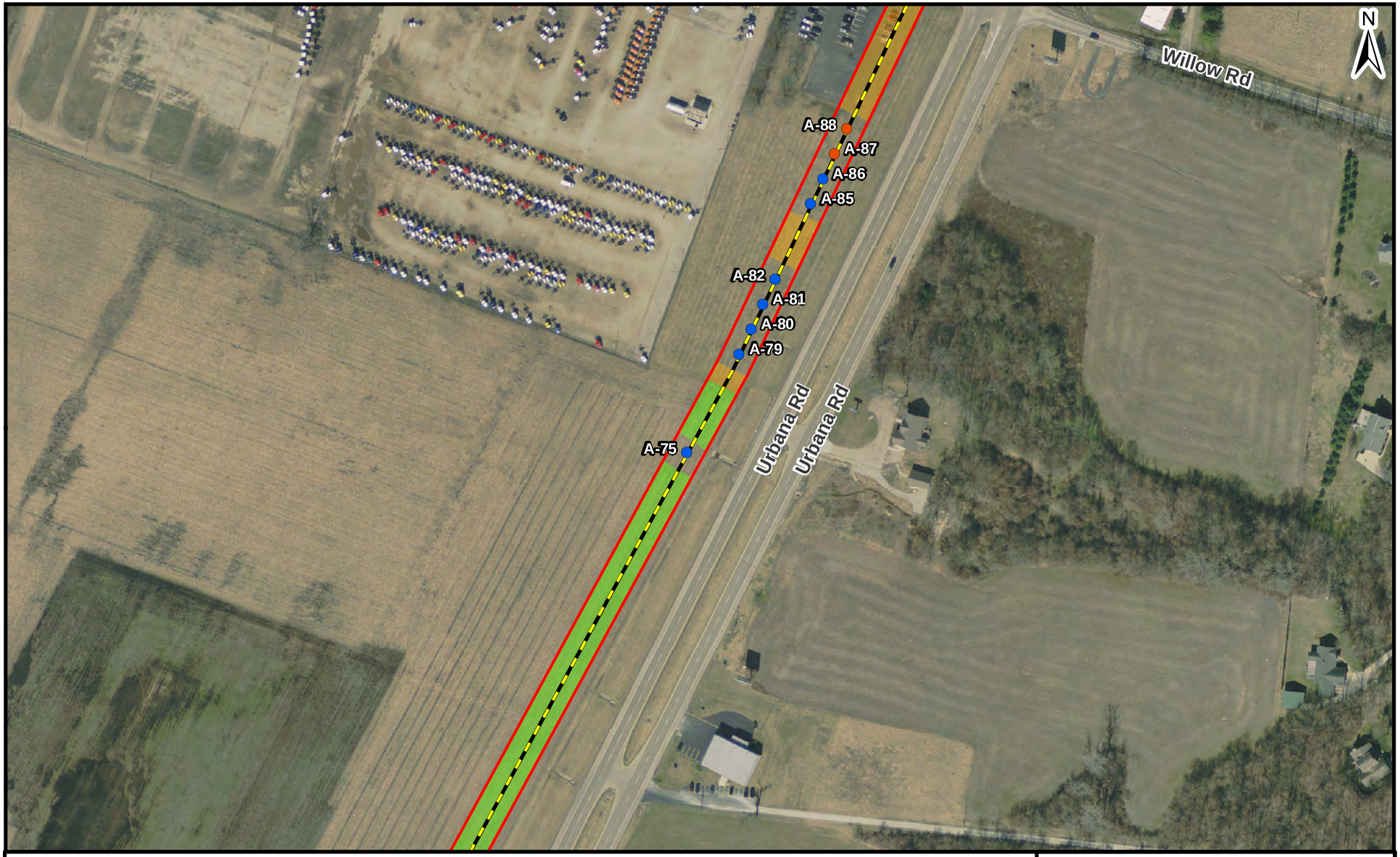

LEGEND:

- Shovel Test, Negative
- Shovel Test, Disturbed
- Proposed Centerline
- Survey Area
- Pedestrian Survey
- Pedestrian Survey, Disturbed

BASE MAP SOURCE:
USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), 2015

0 75 150
Scale in Meters

0 250 500
Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 4.1E
SURVEY COVERAGE MAP

PN: 671817.01.08.01
DATE: 1/26/2018

ch2m

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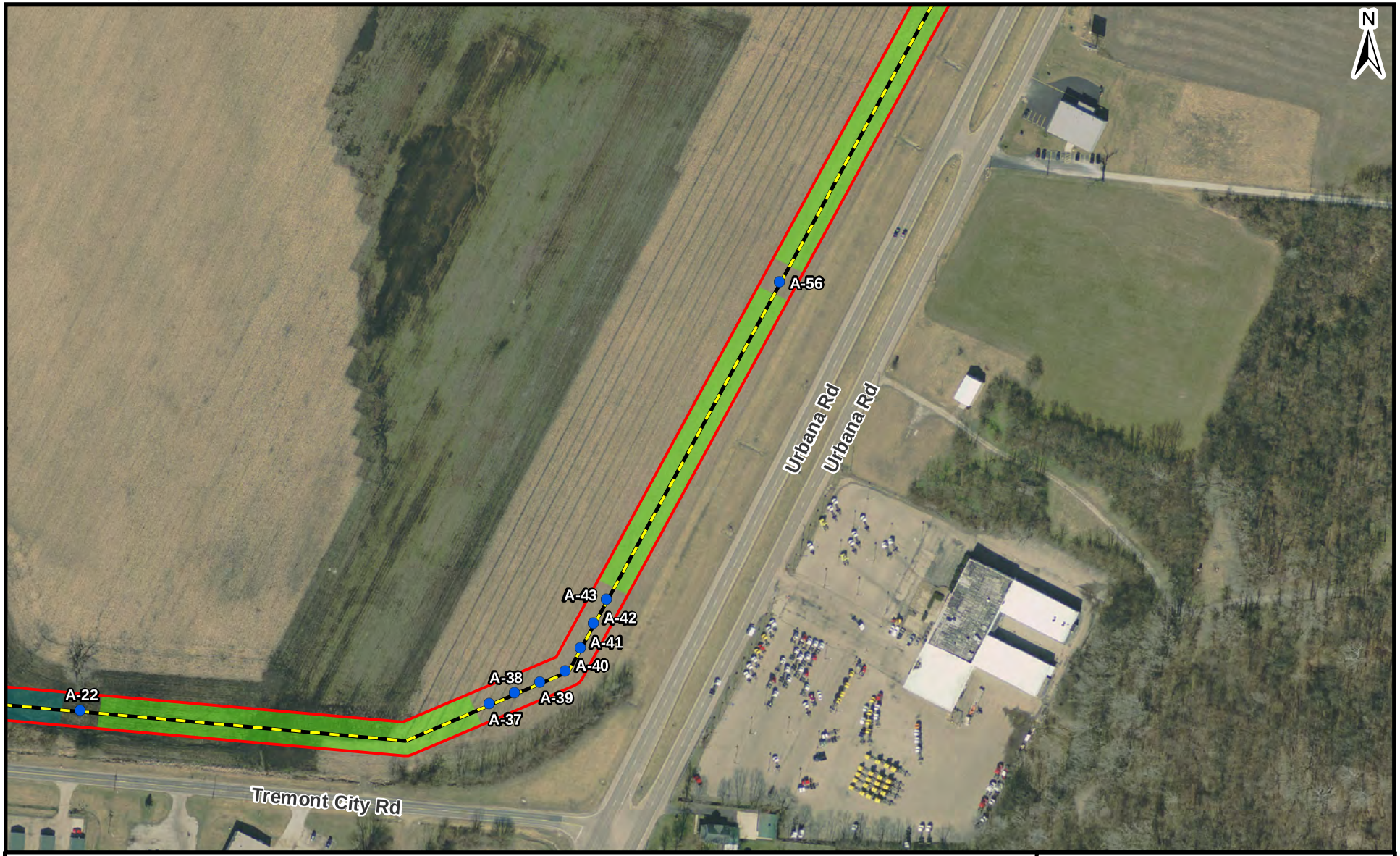

LEGEND:

- Shovel Test, Negative
- Proposed Centerline
- Survey Area
- Pedestrian Survey
- Pedestrian Survey, Wet

BASE MAP SOURCE:
USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), 2015

0 75 150
Scale in Meters

0 250 500
Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 4.1F
SURVEY COVERAGE MAP

PN: 671817.01.08.01
DATE: 1/26/2018

ch2m

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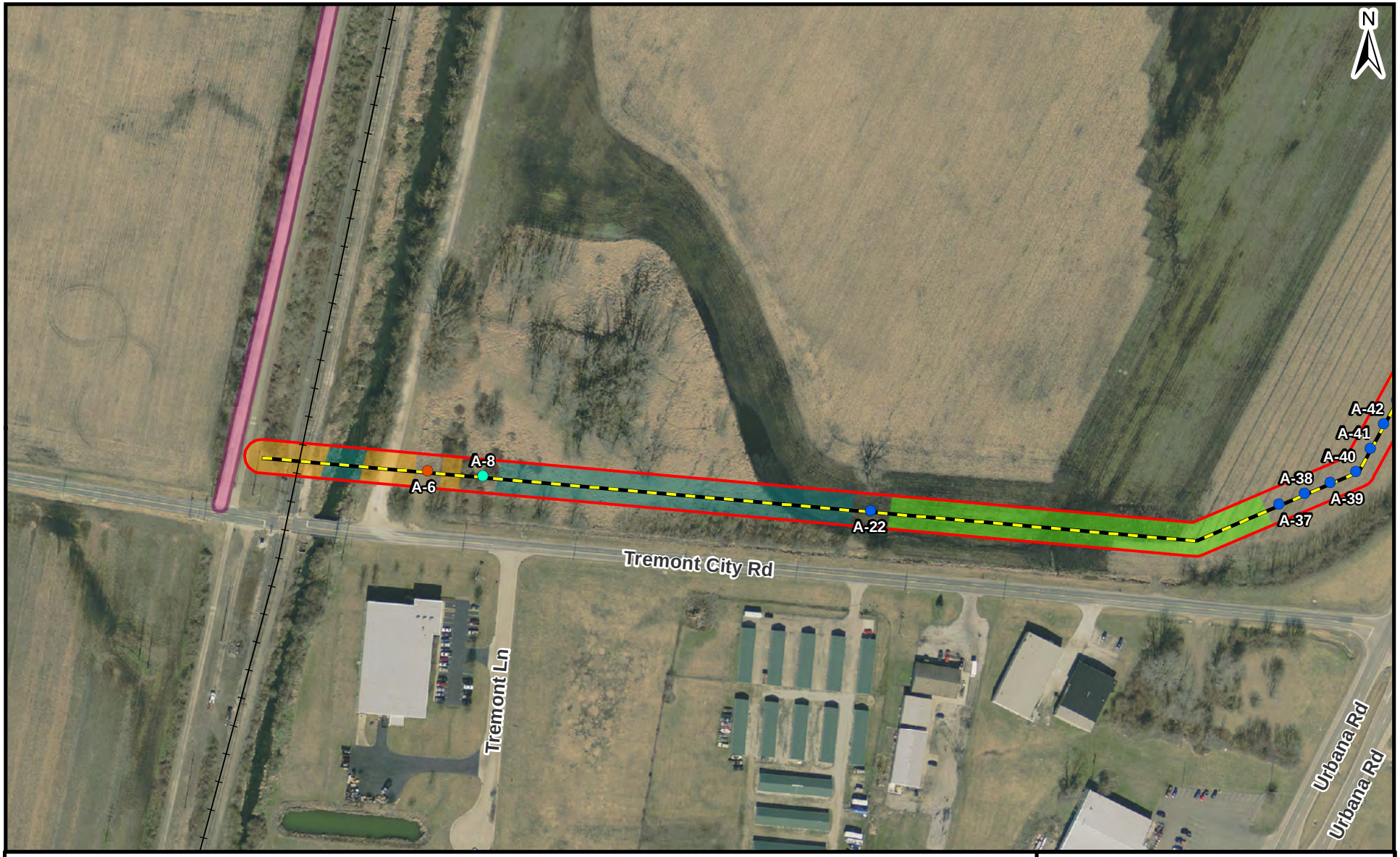
Contains Privileged Information: Do Not Release



LEGEND:

- Shovel Test, Negative
- Shovel Test, Disturbed
- Shovel Test, Wet
- Proposed Centerline
- Railroad
- Survey Area
- Pedestrian Survey
- Pedestrian Survey, Disturbed
- Pedestrian Survey, Wet
- Previously Surveyed by CH2M

BASE MAP SOURCE:
USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), 2015

0 75 150
Scale in Meters

0 250 500
Scale In Feet

First Energy Clark-Urbana
138 kV Transmission Project
Clark County, Ohio

FIGURE 4.1G
SURVEY COVERAGE MAP

PN: 671817.01.08.01
DATE: 1/26/2018

ch2m

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Photograph 4.1 Overview of Project Area, Gravel Road at SL A-5, facing west.

Photograph 4.2. Overview of Project Area, Wetland at SL A19, facing west.

Photograph 4.3. Overview of Project Area, at SL A95, facing north.

Photograph 4.4. Overview of Project Area at SL A129, facing east.

Photograph 4.5. Overview, showing gravel overburden at SL A138, facing east.

Photograph 4.6. Example of disturbed shovel test, SL A135.

Photograph 4.7. Overview of Project Area, graded landform at SL A198.

Photograph 4.8. Overview of Project Area, gravel/dirt road at SL A207, facing west.

Photograph 4.9. Overview of Project Area, Woodlot on eastern end of the corridor, facing west.

Photograph 4.10. Overview of Project Corridor, at SL 228, facing southeast.

SECTION 5

Summary and Recommendations

A Phase I Cultural Resources report was submitted to the Ohio Historic Preservation Office on May 9, 2017 (Smith et al. 2017; OHPO Reference Number 2016-CLA-37050). In a letter dated May 19, 2017, the OHPO concurred that the Project will not affect historic properties (Kennedy 2017). Following adjustments to the Project corridor, CH2M conducted additional Phase I archaeological reconnaissance for new Project elements. This report details the results of the additional Phase I archaeological reconnaissance for the Project.

The proposed reroute measures 2.3 miles (3.7 kilometers) long, within a 60-foot (18-meter) wide ROW. This Project footprint is also considered to be the Project's direct APE. A viewshed analysis was conducted in March 2017 for the initial cultural resources investigation. The results of the viewshed analysis did not identify any buildings greater than 50 years of age within the indirect APE (see Smith et al. 2017). The proposed reroute is largely within the indirect APE established for the March 2017 investigation, although CH2M used a 1,000-foot (305-meter) maximum distance from the current proposed centerline, refined, as appropriate, based on terrain, vegetation, and landforms, as the indirect APE for the Project.

The additional Phase I archaeological reconnaissance was conducted in October 17 through 19, 2017. No cultural materials or archaeological sites were identified by the survey. Therefore, CH2M recommends that no further archaeological work is needed for the Project. Additionally, no architectural and historical resources greater than 50 years of age were identified within the indirect APE. As such, CH2M recommends that no additional architectural and historical survey work is required for the Project.

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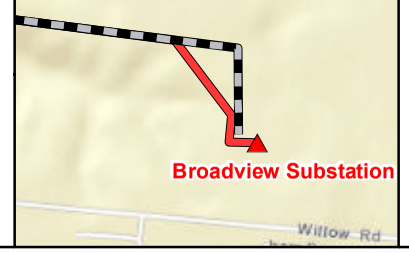
LEGEND:

- Substation
- Requested Route Adjustment
- OPSB Approved Route (4/14/2017)
- Impacted Parcel

Delineated Wetlands

- PEM

LOCATOR MAP



BASE MAP SOURCE:

Statewide Ohio Imagery Program, 2014

0 150 300 600

SCALE IN FEET

N

FirstEnergy

Clark-Urbana 138 kV Loop to Broadview Substation Eastern Connection Centerline Adjustment

FIGURE 1
ECOLOGICAL FEATURES

PN: 671092	DATE: 1/25/2018
CREATED BY: DLH	ch2m:
REVIEWED BY: KF	