

**AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY**

LETTER OF NOTIFICATION

EAST AKRON SUBSTATION EXPANSION PROJECT

Case No.: 25-0112-EL-BLN

March 10, 2025

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

**LETTER OF NOTIFICATION
EAST AKRON SUBSTATION EXPANSION PROJECT**

The following information is being provided in accordance with the procedures in the 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 (“OPSB”) as a Letter of Notification application.

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

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

Name of Project: East Akron Substation Expansion (“Project”)

Reference Number: 36

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

American Transmission Systems, Incorporated, (“ATSI”), a FirstEnergy company, is proposing to expand the existing East Akron 138 kV Substation to convert the existing substation main and transfer bus configuration into a breaker-and-a-half gas insulated substation (“GIS”) configuration. To facilitate this, the substation will expand from its existing square footage of approximately 142,092 square feet to approximately 175,594 square feet. This will result in an approximate 24 percent increase in square footage.

The Project is located in the city of Akron in Summit County, Ohio. The general location of the Project is shown in Exhibit 1, a partial copy of the United States Geologic Survey, Summit County, OH, Quad Map. Exhibit 2 is a copy of ESRI aerial imagery of the Project area. The general layout of the Project is shown in Exhibit 3.

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

The Project meets the requirements for a Letter of Notification application because the Project is within the types of projects defined by Item (4)(b) of the Application Requirement Matrix for Electric Power Transmission Lines. Appendix A of OAC Rule 4906-1-01. This item states:

(4) *Constructing additions to existing electric power transmission stations or converting distribution stations to transmission stations where:*

(b) There is a greater than twenty percent expansion of the fenced area.

The proposed Project is within the requirements of Item (4)(b) as it involves the expansion of the East Akron Substation by an amount greater than 20 percent of the existing fenced area.

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

The proposed Project includes the reconfiguration of the 138 kV bus of the East Akron Substation. The 138 kV bus is currently configured as a main and transfer bus configuration, as shown in Figure 1, where the breakers for multiple elements are normally connected to the main bus. The Project will reconfigure and upgrade the 138 kV bus to a more resilient breaker-and-a-half configuration, as shown in Figure 2. The breaker-and-a-half configuration consists of two main buses such that a fault on either of the main buses will not result in any 138 kV circuit interruptions. The Project is needed to: (i) reduce the risk of area-wide power disruptions to residential and commercial customers due to transmission bus outages, (ii) improve the reliability of the transmission and the local distribution network by upgrading the substation with a redundant breaker and protection scheme, (iii) decrease the occurrence of simultaneous outages of multiple transmission facilities in the area, and (iv) minimize single-source radial load concerns.

The proposed Project will benefit a significant number of customers, especially in the East Akron area. The East Akron Substation is currently configured as a main and transfer bus configuration connecting five 138 kV transmission lines, three 138-23 kV transformers, and one 138-12.47 kV transformers.

The East Akron Substation directly serves approximately 43 Megawatts (“MW”) of load and 12,000 Ohio Edison customers. There is one critical customer served from the East Akron Substation, Summa Akron City Hospital. Additionally, distribution circuits from the East Akron Substation serve the east side of the city of Akron.

In the existing 138 kV main and transfer bus configuration, a fault on the bus or between the bus and the circuit breaker will result in an outage of the entire bus or substation. Similarly, a failure of a single circuit breaker or a failure of a relay to trip a circuit breaker will result in an outage of the entire 138 kV bus at the substation, which would result in a loss of approximately 43 MW of load and 12,000 customers.

ATSI’s transmission planning is based on deterministic criteria, and not probabilistic criteria. In other words, ATSI transmission planning assessments result in recommendations to reinforce the transmission system based on an adverse planning event occurring, and not based on the probability of the event occurring. ATSI cannot know or predict when a failure or fault will occur.

The proposed Project to convert the East Akron Substation to a breaker-and-a-half substation configuration will significantly reduce the likelihood of a simultaneous outage of multiple transmission facilities and increase the reliability and operational flexibility of the transmission system in the East Akron Substation area. The proposed breaker-and-a-half bus arrangement ensures that no more than two transmission elements would be interrupted due to a breaker failure condition. ATSI reviewed the impact of these contingency scenarios on the transmission system’s reliability metrics. If these contingency scenarios were to take place with the existing 138 kV bus configuration, there are significant negative impacts to the reliability metrics

SAIDI, SAIFI, and CAIDI. The negative impacts to the reliability metrics and the Commission’s benchmark for the Ohio Edison region are summarized in **Table 1** below. This table assumes a three-hour outage duration, which was determined based on historic off-hours outage restoration times necessary to assemble a crew, dispatch the crew to the scene, allow the crew time to determine the issue, and then perform switching to restore customers.

Table 1. Impact to reliability metrics due to customers interrupted under contingency.

Reliability Metric	Benchmark for Ohio Edison	Outage Impact	Outage Impact on Benchmark
SAIDI	114.4	2.057	116.5
SAIFI	1	0.01143	1.01
CAIDI	114.4	180	115.1

In the last five years, there have been twenty-four unscheduled outages at the East Akron Substation impacting the 138 kV bus, the associated 138 kV lines, and the 138-23 kV transformers connected at the substation. **Table 2** below identifies the details of these outages. This Project was identified as the best solution to address these outages.

Table 2. Reliability outage history for 138 kV Substation.

Equipment	Actual Out	Actual In	Duration	Type	Cause	Number of Customers Impacted
East Akron - Evans 138 kV Line	11/20/2024 9:24:18 PM	12/01/2024 1:19:35 PM	15,355m	Sustained	Foreign Interference	2
East Akron-Gilchrist 138 kV Line	11/15/2024 5:33:08 PM	11/15/2024 7:36:48 PM	124m	Sustained	Failed AC Substation Equipment	5,295
East Akron NO. 1 TR 138-23 kV	09/23/2024 12:43:06 PM	09/27/2024 1:26:22 PM	5,803m	Sustained	Failed AC Substation Equipment	0
East Akron-Knox 138 kV Line	02/27/2024 9:48:45 AM	02/27/2024 9:48:45 AM	0m	Momentary	Lightning	0
East Akron-Knox 138 kV Line	01/31/2024 9:27:45 AM	01/31/2024 9:27:45 AM	0m	Momentary	Failed Protection System Equipment	0
East Akron-West Ravenna 138 kV Line	07/20/2023 8:13:17 PM	07/20/2023 10:41:53 PM	149m	Sustained	Failed AC Substation Equipment	0
East Akron-West Ravenna 138 kV Line	05/30/2023 8:42:46 AM	05/30/2023 8:42:46 AM	0m	Momentary	Foreign Interference	0
East Akron-West Ravenna 138 kV Line	09/27/2022 4:49:16 PM	09/27/2022 7:55:16 PM	186m	Sustained	Failed Protection System Equipment	0
East Akron-West Ravenna 138 kV Line	09/27/2022 4:08:04 AM	09/27/2022 4:16:12 AM	8m	Sustained	Failed Protection System Equipment	0

East Akron NO. 2 TR 138-23 kV	12/31/2021 7:07:10 AM	12/31/2021 9:23:46 AM	137m	Sustained	Failed Protection System Equipment	0
East Akron - Evans 138 kV Line	08/29/2021 1:47:30 PM	08/29/2021 1:50:26 PM	3m	Sustained	Foreign Interference	2
East Akron - Evans 138 kV Line	08/29/2021 1:43:54 PM	08/29/2021 1:44:00 PM	0m	Momentary	Failed AC Circuit Equipment	2
East Akron-Knox 138 kV Line	06/21/2021 9:56:39 AM	06/21/2021 10:01:51 AM	5m	Sustained	Lightning	0
East Akron-Knox 138 kV Line	06/20/2021 7:09:17 PM	06/20/2021 7:10:25 PM	1m	Sustained	Failed AC Circuit Equipment	0
East Akron NO. 1 TR 138-23 kV	03/15/2021 8:31:00 AM	03/17/2021 3:00:18 PM	3,269m	Sustained	Failed AC Substation Equipment	0
East Akron NO. 1 TR 138-23 kV	11/10/2020 7:17:00 AM	11/10/2020 4:21:00 PM	544m	Sustained	Foreign Interference	0
East Akron NO. 1 TR 138-23 kV	10/03/2020 12:51:00 PM	10/03/2020 1:41:00 PM	50m	Sustained	Failed Protection System Equipment	0
East Akron NO. 2 TR 138-23 kV	10/03/2020 12:51:00 PM	10/03/2020 1:42:00 PM	51m	Sustained	Failed Protection System Equipment	0
East Akron-Gilchrist 138 kV Line	05/26/2020 9:07:00 PM	05/26/2020 10:27:00 PM	80m	Sustained	Failed AC Substation Equipment	6,008
East Akron - Evans 138 kV Line	03/26/2020 9:29:00 PM	03/26/2020 9:47:00 PM	18m	Sustained	Human Error	11,964
East Akron-Gilchrist 138 kV Line	03/26/2020 9:29:00 PM	03/26/2020 9:46:00 PM	17m	Sustained	Human Error	11,964
East Akron-Hanna 138 kV Line	03/26/2020 9:29:00 PM	03/26/2020 9:43:00 PM	14m	Sustained	Human Error	11,964
East Akron-Knox 138 kV Line	03/26/2020 9:29:00 PM	03/26/2020 9:45:00 PM	16m	Sustained	Human Error	11,964
East Akron 138 kV Main Bus	03/26/2020 9:29:00 PM	03/26/2020 9:59:00 PM	30m	Sustained	Human Error	11,964

Upgrading the East Akron Substation 138 kV bus from the existing main and transfer bus configuration to a more robust breaker-and-a-half scheme will improve reliability, provide redundancy, eliminate the single contingency risk associated with the 138 kV bus tie breaker failure, and reduce the potential of radialization of the transmission system in the area. The use of the GIS substation configuration is needed to construct the breaker-and-a-half scheme without taking the entire substation out of service. Currently there is not enough space to construct a traditional breaker-and-a-half open air scheme. Nor is there an option to safely construct the breaker-and-a-half scheme with an energized substation. The expansion of the substation will provide the necessary space for the GIS equipment and control house. The use of the GIS will allow the new substation equipment to be placed in the desired location and only a momentary outage will be needed for the re-terminations of the existing transmission lines. Note that the proposed substation project is not needed to address a NERC, PJM, or FE Planning Criteria violation and is not part of a larger project. The Project is a supplemental project driven by the ATSI Energizing the Future methodology based on the existing substation configuration and its impact on the reliability of electric service to the residents and businesses in the area.

The Project will make the power system in the area more resilient and reliable. The new breaker-and-a-half configuration of the East Akron Substation will greatly reduce the potential for widespread outages in the area.

The Project Need was presented as a Supplemental Project at the PJM Subregional RTEP-Western Committee (“SRRTEP-Western”) meeting on May 20, 2020. The Solution was presented at the PJM SRRTEP-Western meeting on July 17, 2020, and the updated solution, which incorporates the gas insulated buswork design and associated equipment due to space constraints, was re-presented at the Subregional RTEP-Western Committee meeting on May 17, 2024. PJM evaluated the proposed Project and did not identify any ATSI or PJM Planning Criteria violations caused by the Project. As such, there is not a need for other transmission system upgrades as a result of the Project. PJM assigned the Project supplemental upgrade identification number s2297. The PJM SRRTEP-Western meeting presentation slides are included as Exhibit 4 and include 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 transmission lines is shown in the ATSI Transmission Network Map, included as part of the confidential portion of the FirstEnergy Corp. 2024 Long-Term Forecast Report (“LTFR”). This map was submitted to the PUCO in Case No. 24-0504-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.

The general location and layout of the Project area are shown in Exhibits 1 and 2. This Project is included on page 93 in the 2024 LTFR.

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

There is no viable alternative to the proposed Project. The only alternative to the proposed Project is to not construct the expansion and associated GIS breaker-and-half configuration and continue operating the system with the existing configuration, condition, and risk of failure.

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 Akron Beacon Journal within 7 days of filing this Letter of Notification application. The notice will comply with OAC 4906-6-08(A)(1)-(6).

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

Construction on the Project is expected to begin as early as June 9, 2025, and be completed/in-service by December 18, 2026.

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

The general location of the Project is shown in Exhibit 1, a partial copy of the United States Geologic Survey, Summit County, OH, Quad Map. Exhibit 2 is a copy of ESRI aerial imagery of the Project area. The general layout of the Project is shown in Exhibit 3.

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

This Project is located entirely on Ohio Edison owned property. No new easements will be required.

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

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

The equipment and facilities described below are associated with the substation component of the proposed Project:

- Voltage: 138 kV Max System Voltage (550 kV BIL)
- Bus Conductor: 4” Aluminum Pipe
(2) 795 KCMIL 61str AAC
- Insulators: Porcelain
- Breakers: Thirteen (13) 145 kV 3000 A 40 kA Siemens SPS2S Breakers and associated disconnect switches
- Switches: Eight (8) 138 kV 2000 A Gang-Operated Switches
- CVT’s: Twenty-Four (24) 138 kV Single Phase Capacitor Voltage Transformers
- WT’s One (1) 138 kV 2000 A Single-Phase Wave Trap
- Arresters: Twenty-Four (24) 108 kV (84kV MCOV) Arresters
- Structures: One (1) 58’ x 28’ Packaged Control Enclosure
One (1) 138 kV 4 Bay H-Frame dead-end structures
Six (6) 138 kV 1-bay H-Frame dead-end structures
Eleven (11), 3-phase low bus support structures
Two (2) 138 kV single-phase SSVT structures

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

As this is a substation expansion project and there is no transmission line work, no Electric and Magnetic Field (“EMF”) calculations are required by this subsection.

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

The estimated cost for the proposed Project is \$53,868,000.

Although not statutorily required for approval, at the request of OPSB Staff, ATSI confirms that ATSI's costs will be captured and allocated via FERC formula rates for the ATSI Transmission Zone, Attachment H-21 in the PJM OATT.

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

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

The Project is located in the city of Akron in Summit County, Ohio. The land use in the vicinity of the Project area is a combination of commercial, light industrial and residential.

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

Agriculture land use does not exist within the Project area.

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

As part of the investigation for this Letter of Notification, TRC Companies, Inc. ("TRC") requested database information from the Ohio Historic Preservation Office's ("SHPO") on December 19, 2024, to identify the presence of previously recorded significant historic properties, including above-ground historic resources and/or archeological sites, mapped within one (1)-mile of the Project Study Area (Area of Potential Effect or APE). On January 16, 2025, SHPO replied to the request, attached as Exhibit 5¹.

SHPO's findings indicate that there are no sites or surveys identified within their database within 1 mile of the Project Study Area and that there will be no effect on cultural resources as a result of the Project.

¹ Exhibit 5 states the Project is for a control house installation and does not specify the substation expansion. However, the APE studied encompasses the entirety of the Project.

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

Coordination with the city of Akron and Summit County is required prior to construction. Any permits required will be obtained prior to construction.

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

As part of the investigation, ATSI retained TRC to conduct the necessary surveys. TRC submitted a request to the Ohio Department of Natural Resources (“ODNR”) Office of Real Estate to conduct an Environmental Review. As part of the Environmental Review, the ODNR Office of Real Estate conducted a search of the ODNR Division of Wildlife’s 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 Office of Real Estate’s response on January 14, 2025, indicated that the Project is within the range of four listed bat species, five fish species, one snake species and one turtle species. With respect to the fish, snake and turtle species, ODNR indicated that the location and type of work will not likely impact these species. A copy of ODNR’s response is included as Exhibit 6².

The response from ODNR, Division of Wildlife (DOW) indicated the Project is within the range of the federally and state endangered Indiana bat (*Myotis sodalis*), the federally threatened and state endangered northern long-eared bat (*Myotis septentrionalis*), the state endangered little brown bat (*Myotis lucifugus*), and the state endangered tricolored bat (*Perimyotis subflavus*). These bat species predominantly roost in trees behind loose, exfoliating bark, in crevices, and cavities, or in the leaves. These species are dependent on the forest structure surrounding the roost trees. The DOW recommended a desktop bat hibernaculum assessment be completed for the Project, which TRC completed for ATSI and submitted to ODNR for concurrence on

² Exhibit 6 states the Project is for a control house installation and does not specify the substation expansion. However, the APE studied encompasses the entirety of the Project.

January 21, 2025. ODNR responded on January 22, 2025, attached as Exhibit 7³, concurring that no caves, cliffs, or mine openings occur in the Project Area. ODNR also stated that due to the surrounding urban matrix, the Project is not likely to impact hibernating bats that may be present in the nearby abandoned underground mines. Therefore, the Project is not likely to impact hibernating bats. No tree cutting or subsurface impacts to a hibernaculum are proposed, therefore this Project is not likely to impact these species.

As part of the investigation, TRC also submitted a request to the U.S. Fish and Wildlife Service (USFWS) for an Ecological Review to research the presence of any endangered, threatened, rare, or designated species within one (1) mile of the Project Area. A copy of USFWS’s Ecological Review response, dated December 19, 2024, is included as Exhibit 8. The response indicated that due to the Project, type, size, and location, USFWS does not anticipate adverse effects to any federally endangered, threatened, or proposed species or proposed or designated critical habitat. Table 3 is a list of endangered, threatened and rare species.

Table 3. ODNR List of Endangered, Threatened, and Rare Species

Common Name	Scientific Name	Federal and State Listing Status	Potential Impact
Indiana bat	<i>Myotis sodalis</i>	Federally and State Endangered	No tree clearing is necessary as part of the Project and no hibernacula located during the field review. Therefore, there is no impact to these species anticipated.
Northern long-eared bat	<i>Myotis septentrionalis</i>	Federally and State Endangered	
Little brown bat	<i>Myotis lucifugus</i>	State Endangered	
Tricolored bat	<i>Perimyotis subflavus</i>	State Endangered	
Iowa Darter	<i>Etheostoma exile</i>	State Endangered	ODNR indicated that there are no perennial

³ Exhibit 7 states the Project is for a control house installation and does not specify the substation expansion. However, the APE studied encompasses the entirety of the Project.

Pugnose minnow	<i>Opsopoeodus emiliae</i>	State Endangered	streams located within the Project area and as such, there will be no impact to these species.
Western banded killifish	<i>Fundulus diaphanus menona</i>	State Endangered	
Lake chubsucker	<i>Erimyzon sucetta</i>	State Threatened	
Paddlefish	<i>Polyodon spathula</i>	State Threatened	
Smooth greensnake	<i>Opheodrys vernalis</i>	State Endangered	Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.
Spotted turtle	<i>Clemmys guttata</i>	State Threatened	

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

TRC conducted a wetland and stream delineation of the Project area on May 23, 2024 as a part of the recommended hibernaculum habitat assessment. During the field investigation, no streams or wetlands were identified in the Project area. Mapping and a photographic record can be found in Exhibit 9.

A review of the National Conservation Easement Database (www.conservationeasement.us) revealed no conservation easements in the Project Study Area.

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

Construction and operation of the proposed Project will be in accordance with the requirements specified in the latest revision of the National Electrical Safety Code (“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 application is being provided concurrently with its docketing with the Board to the following officials.

Summit County

Rita Darrow
Council President
175 S. Main Street, Suite #700
Akron, OH 44308
rdarrow@summitoh.net

B. Alan Brubaker
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Kyle Julien
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Library

Jessica Watkins
Manager Ellet Branch Library
2470 East Market Street
Akron, OH 44312

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_projects/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).

Figure 1

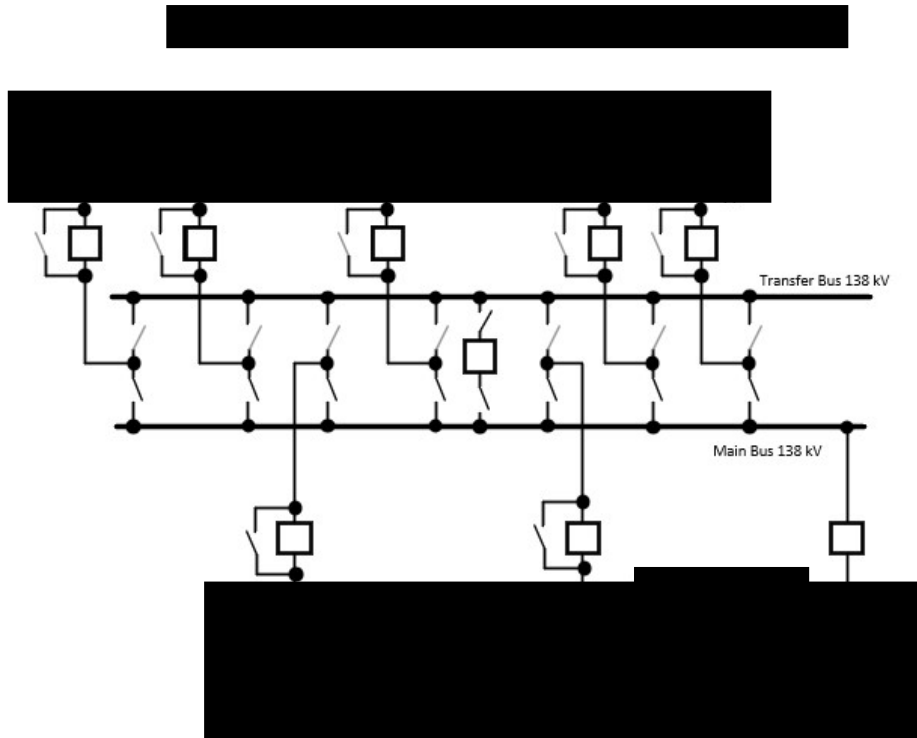
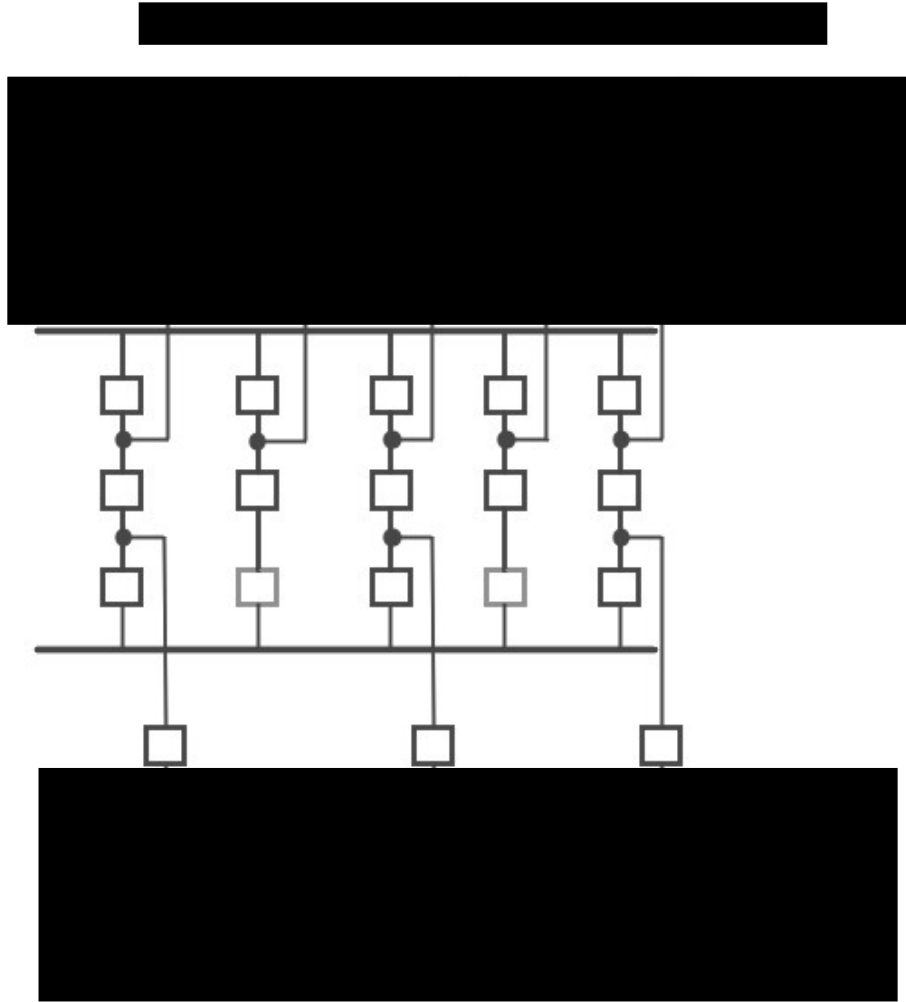
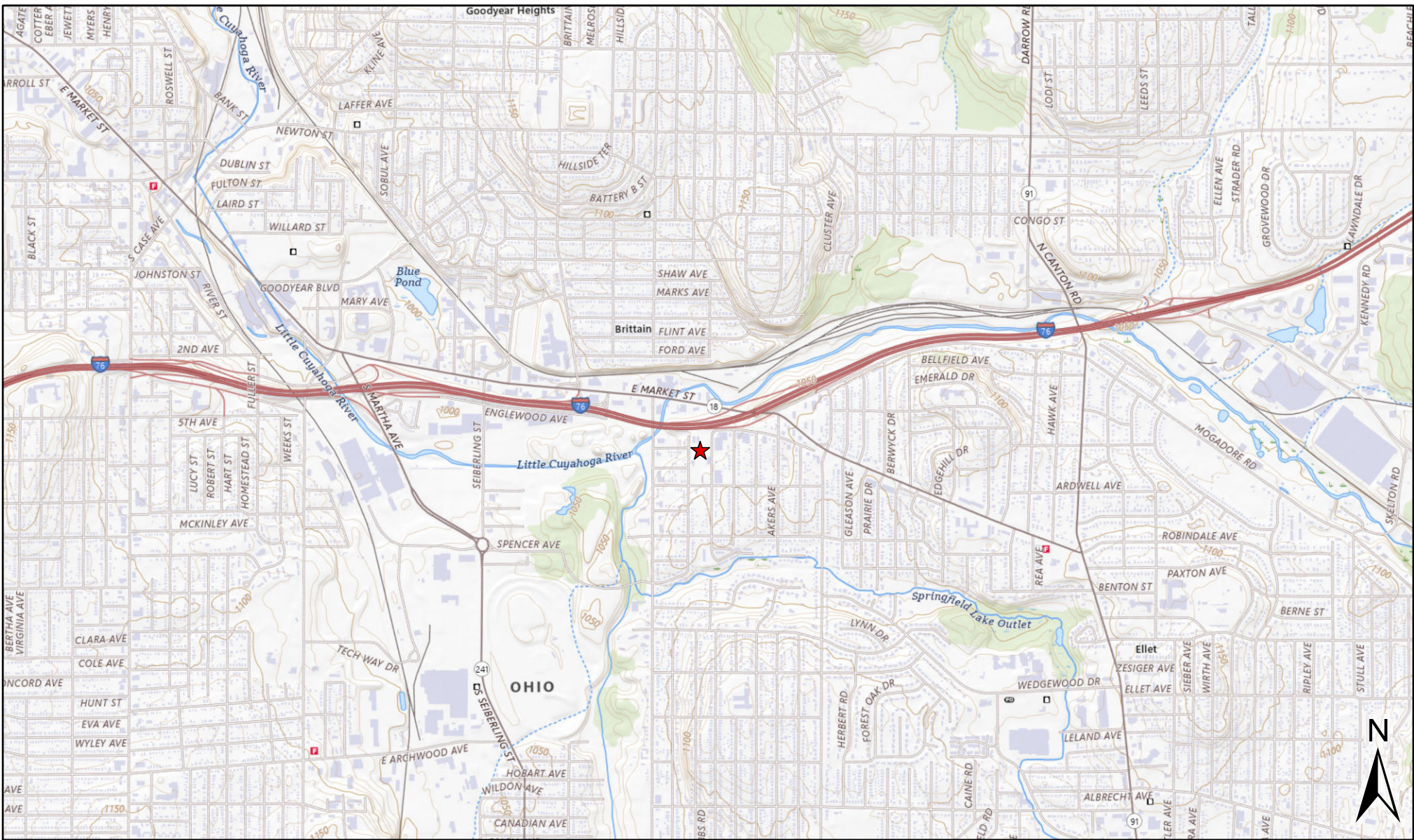


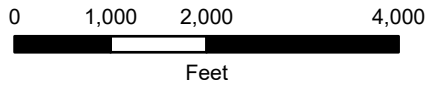
Figure 2





Legend

- ★ Project Location
- County



Reference Scale: 1:24,000

References:
 ESRI Aerial Imagery, USGS National Map, ODOT

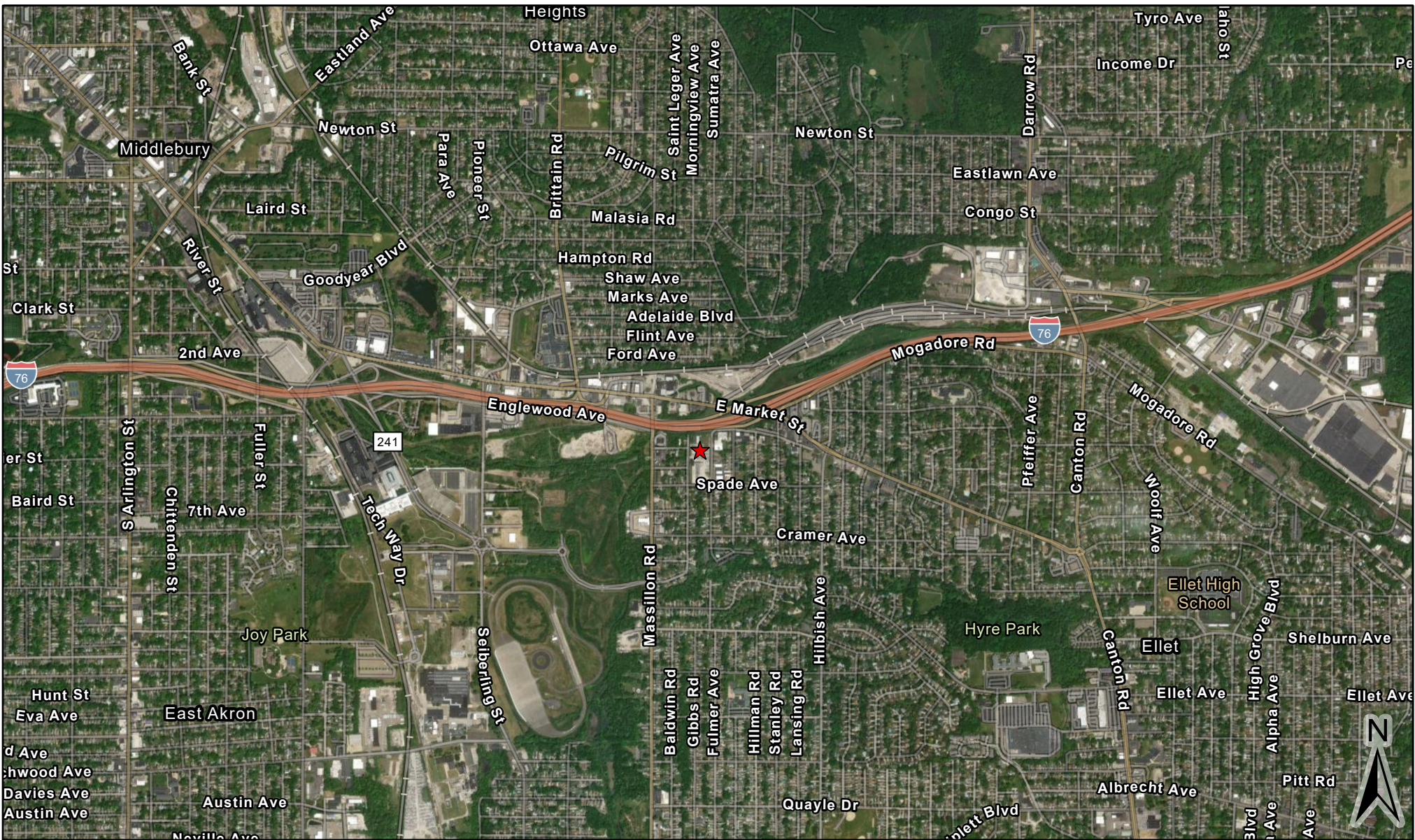
Coordinate System:
 NAD 1983 2011 StatePlane Ohio North FIPS 3401 Ft US



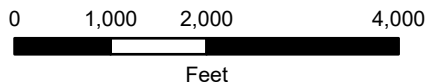
American Transmission Systems, Inc.
 a subsidiary of FirstEnergy Corp.

East Akron Substation
 Expansion Project

EXHIBIT 1



- Legend**
- ★ Project Location
 - County



Reference Scale: 1:24,000

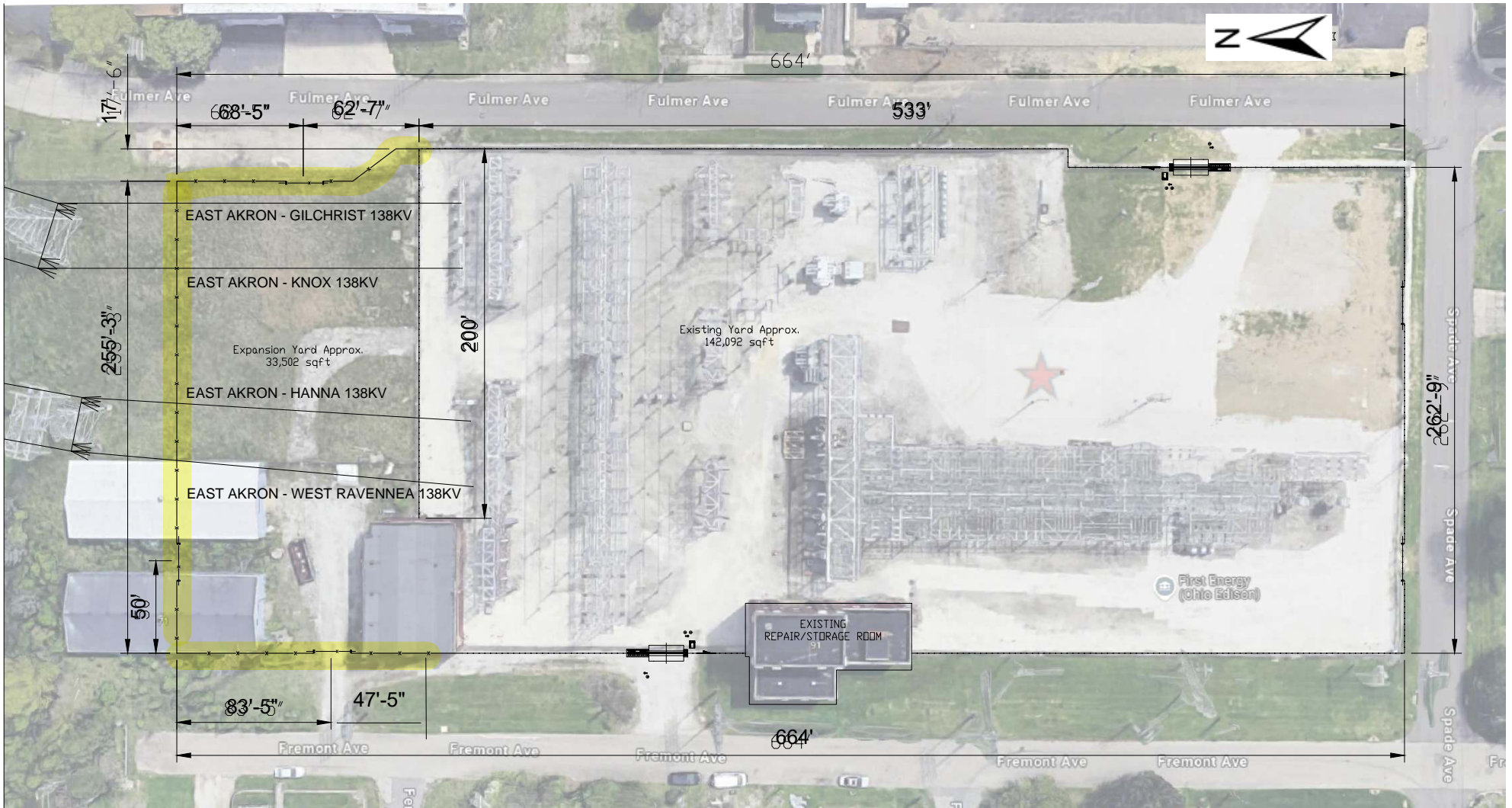
References:
 ESRI Aerial Imagery, USGS National Map, ODOT

Coordinate System:
 NAD 1983 2011 StatePlane Ohio North FIPS 3401 Ft US






East Akron Substation
 Expansion Project

EXHIBIT 2



LEGEND

-  PROJECT LOCATION
-  EXISTING FENCELINE
-  PROPOSED EXPANSION



EAST AKRON SUBSTATION EXPANSION PROJECT

GENERAL LAYOUT

EXHIBIT 3

**ATSI Transmission Zone M-3 Process
East Akron Substation – s2297 Scope Change**

s2297: Originally presented in 05/22/2020 and 07/17/2020 SRRTEP Western meetings

Changes are marked in red

Supplemental Project Driver(s):

- Operational Flexibility and Efficiency*
- Equipment Material Condition, Performance and Risk*
- Infrastructure Resilience*

Specific Assumption Reference(s):

Global Considerations

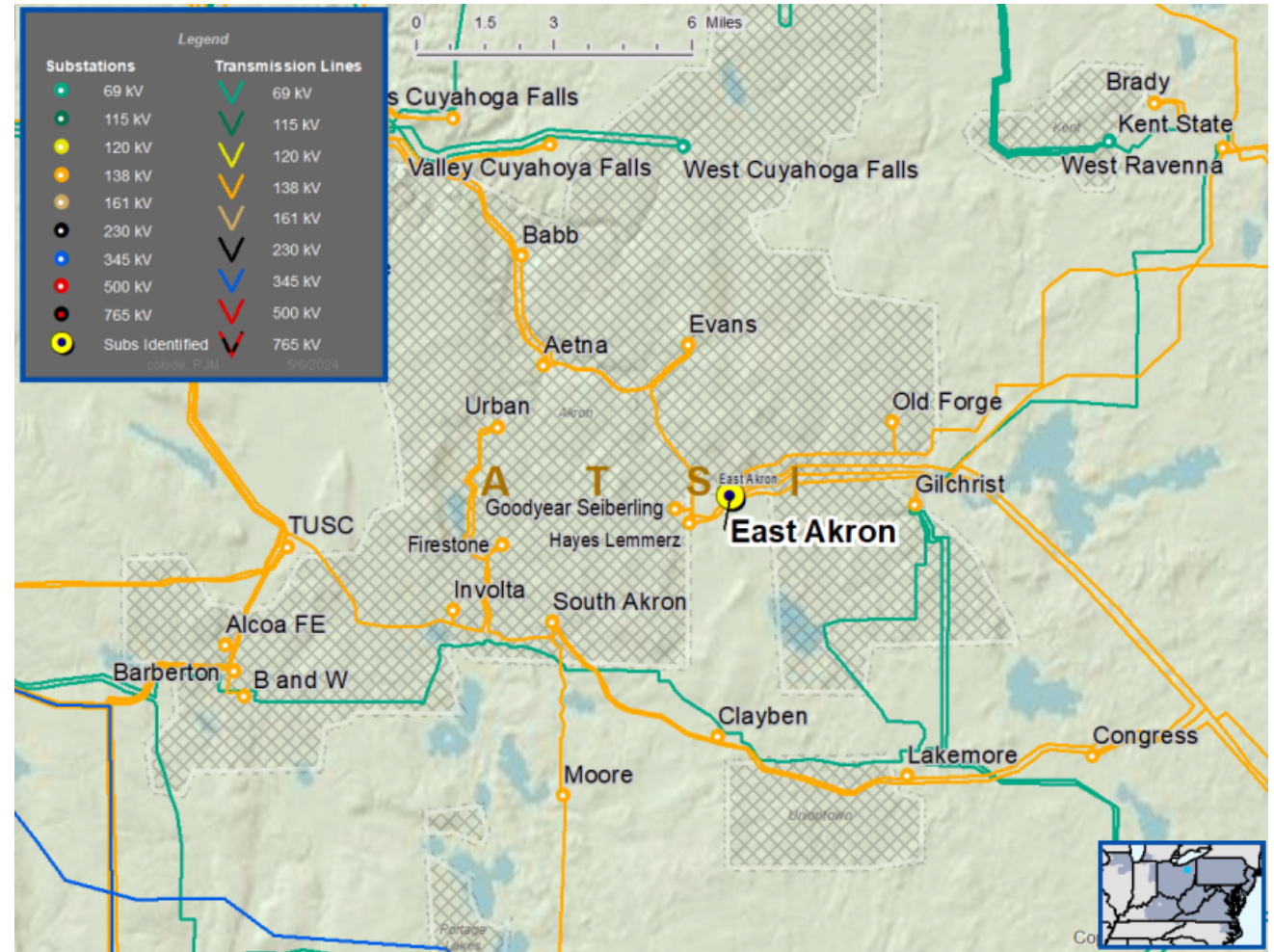
- System reliability and performance
- Load at risk in planning and operational scenarios

Substation Condition Rebuild/Replacement

- Increasing negative trend in maintenance findings and/or costs
- Expected service life (at or beyond) or obsolescence

Add/Expand Bus Configuration

- Loss of substation bus adversely impacts transmission system performance
- Eliminate simultaneous outages to multiple networked elements under N-1 analysis
- Capability to perform system maintenance



Continued on next slide...

Problem Statement (continued)

East Akron configuration and condition:

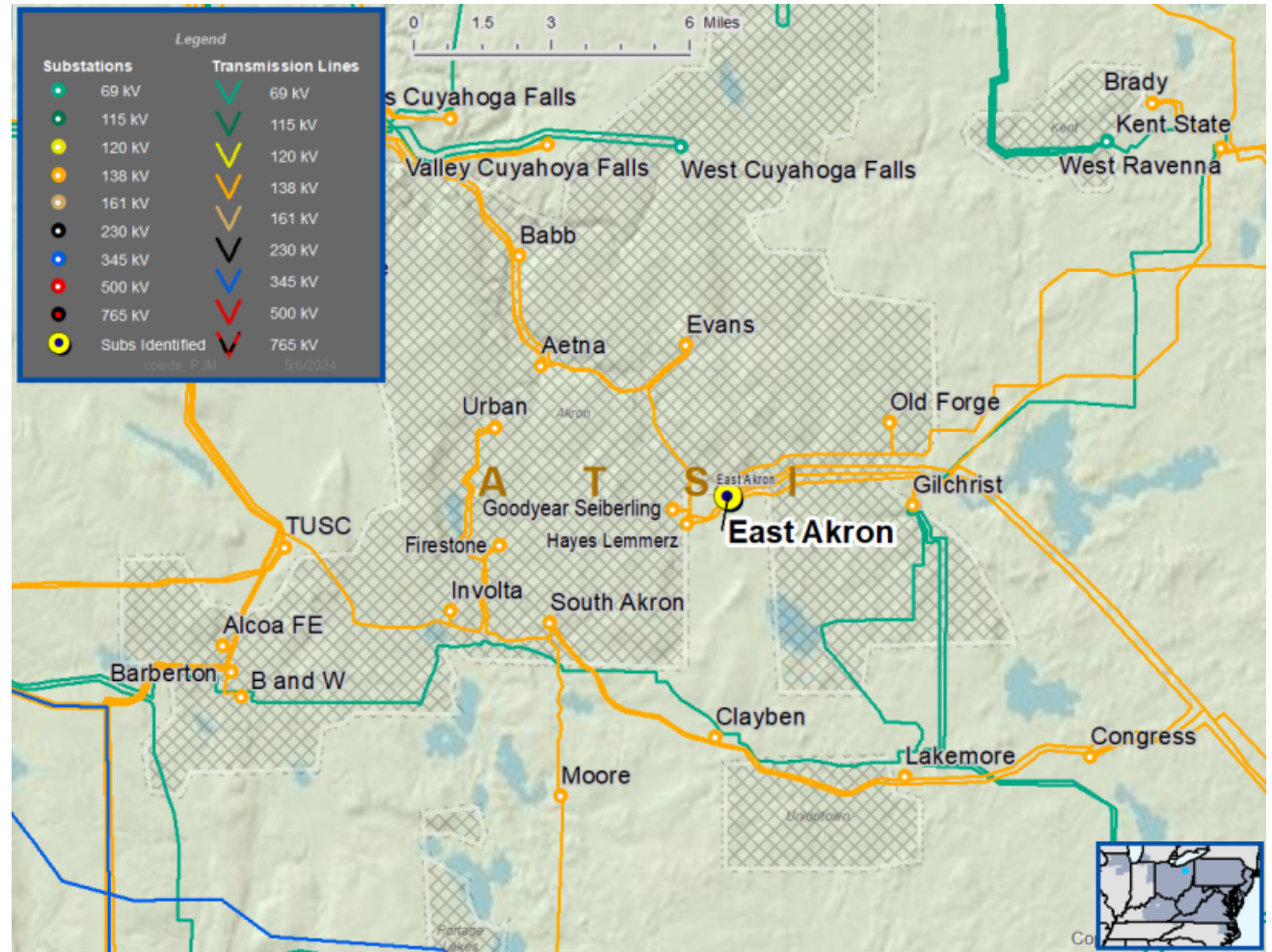
- East Akron Substation is a main and transfer bus configuration substation
 - A fault on the bus or between the bus and the circuit breaker will result in an outage of the entire bus or substation or a failure of a single circuit breaker or a failure of a relay to trip will result in an outage of the entire bus/substation and interrupt five 138 kV lines, two 138-23 kV transformers, and two 138-12.47 kV transformers. (Approximately 10,400 customers affected and 40 MW of load at risk)

Deteriorating control building and substation equipment:

- The control house was built more than 50 years ago.
 - Leaks, lacks HVAC, and has no security exits.

Breaker and switch conditions:

- Oil circuit breakers B-253, B-46, B-22, B-43 are at/beyond expected service life (greater than 50 years old) with increasing maintenance concerns; compressor issues, deteriorated operating mechanisms and increasing maintenance trends.
- Breaker B-37, ABB 145 is 30 years old with increasing maintenance concerns;
- Disconnect switches are 20 years old and deteriorating due to age and usage (D-257, D-245, D-126 D-132)
- AirBreak switches are 20 years old and deteriorating due to age and usage (A-256, A-247, A-128, A-134)



Continued on next slide...

Problem Statement (continued)

- East Akron-West Ravenna 138 kV line has been previously identified on the list of mis-operation relays (s1972)
- Associated terminal equipment line arrestors, wave trap, line tuner, CCVTs:
 - Older equipment has slower operating times and can produce longer duration of fault current
 - O&M costs increasing due to maintenance of older equipment

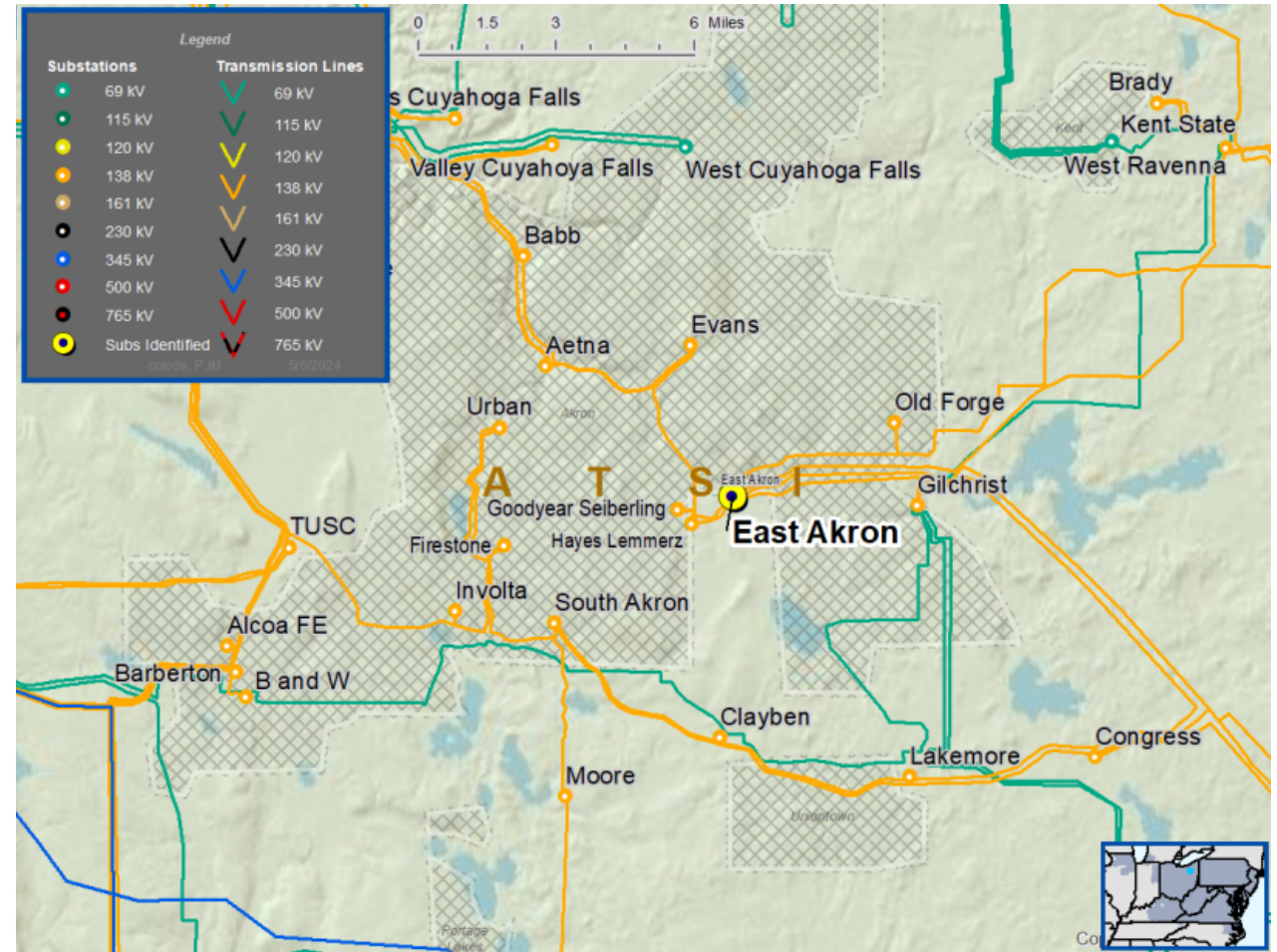
Power flow analysis:

- Breaker B-22 overdutied (102.1%) of its interrupting rating in PJM’s 2019 RTEP 2024 generation reactivation study
- Breaker B-43 overdutied (102.9%) of its interrupting rating in PJM’s No-Harm analysis of ATSI-2019-10 (FESub5 project).
- Breaker B-46 overdutied (103.0%) of its interrupting rating in PJM’s No-Harm analysis of ATSI-2019-10 (FESub5 project).

System Performance

Over the past five years:

The East Akron 138 kV lines or bus has experienced three momentary outages and seven sustained outages.



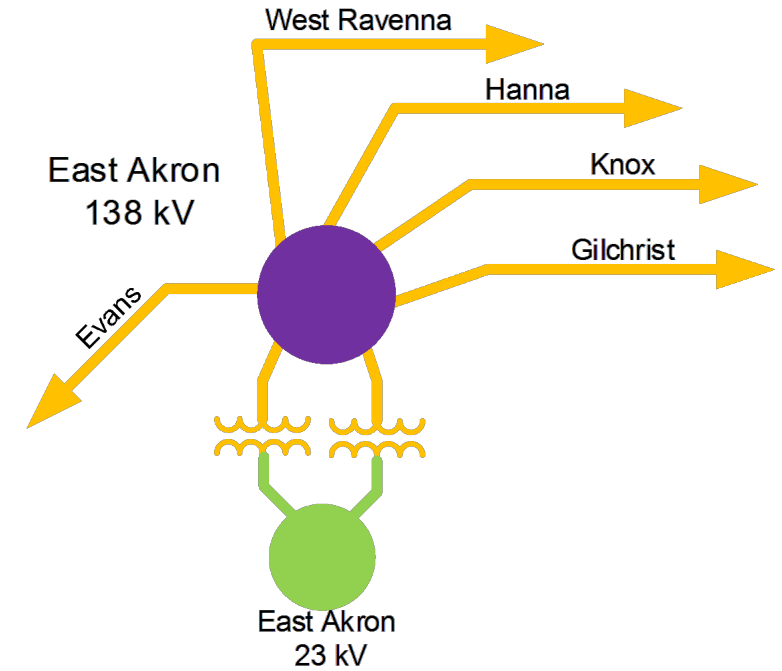
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Proposed Solution:

- Convert East Akron Substation into Breaker and Half configuration **with gas insulated equipment**
- Install a new control building.
- Re-use two (2) breakers (B75 & 76)
- Upgrade three (3) breakers (B43, B46 and B253) with 138 kV, 40 kA, SF6 circuit breaker
- Install seven (7) additional 138 kV, 40 kA, SF6 circuit breakers
- Replace and install switches, surge arrestors, CVT's, SSVT's
- Upgrade wave trap on Knox exit, replace line tuner and coax
- **Install new steel enclosure for the gas insulated equipment**
- **Expand fence**
- **Install 15 138 kV GIS breakers, 30 138 kV GIS motor operated disconnects, and one large prefabricated primary control enclosure**
- **Re-terminate five 138 kV circuits into new line positions**

Transmission Line Ratings:

- ~~East Akron - Hanna 138 kV Line~~
 - ~~Before Proposed Solution: 221 MVA SN / 262 MVA SE~~
 - ~~After Proposed Solution: 233 MVA SN / 282 MVA SE~~



Legend	
500 kV	
345 kV	
138 kV	
69 kV	
34.5 kV	
23 kV	
New	

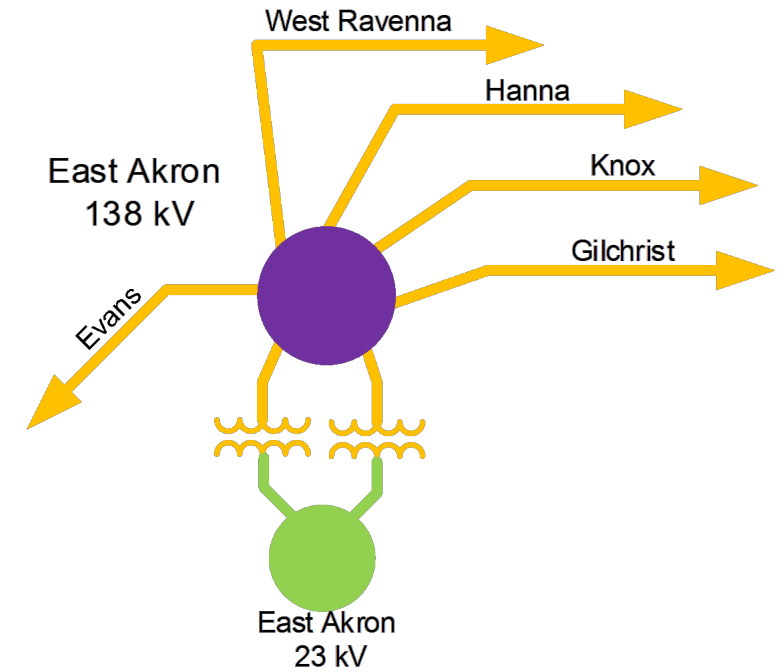
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ATSI Transmission Zone M-3 Process East Akron Substation – s2297 Scope Change

Alternatives Considered:

- Rebuild as a conventional substation (air insulated). However, this solution was not selected due to complex outage sequence, significant temporary wiring to support rebuild, and safety concerns with working around energized equipment as work is sequenced.

Estimated Project Cost: ~~\$13.8M~~-\$46.70 M
Projected IS Date: 12/18/2026
Status: ~~Conceptual~~ Engineering



Legend	
500 kV	
345 kV	
138 kV	
69 kV	
34.5 kV	
23 kV	
New	



In reply refer to:
2024-SUM-63387

January 16, 2025

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

RE: Section 106 Review: East Akron Control Building Project, Summit County, Ohio

Dear Mr. McKissick:

This letter is in response to the correspondence received on December 19, 2024, regarding the above-referenced project in Summit County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code (O.R.C.) and the Ohio Power Siting Board rules for siting this project. The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The proposed project involves the installation of a control building for the existing East Akron Substation. According to the information submitted by you, which included a Project Summary Form, no historic properties, districts, or archaeological sites are located within the direct Area of Potential Effect (APE), as defined by you. After careful review of the information submitted, it is our opinion that there will be no effect on historic resources as a result of the project. No cultural resource studies are warranted for the project. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted. If you have any questions concerning this review, please contact either myself via email at sbiehl@ohiohistory.org or Ms. Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink that reads "Stephen M. Biehl".

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

RPR Serial No. 1106303



**Department of
Natural Resources**

ohiodnr.gov

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

Office of Real Estate & Land Management

Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

January 14, 2025

Emma Given
TRC Companies, Inc.
1382 West 9th Street, Suite 400
Cleveland, Ohio 44113

Re: 24-1965_East Akron Control Building

Project: The proposed project involves the installation of a control building for the existing East Akron Substation.

Location: The proposed project is located in Springfield Township, Summit County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state, or federal agency nor relieve the applicant of the obligation to comply with any local, state, or federal laws or regulations.

Natural Heritage Database: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and

summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH \geq 20 if possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "[RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES](#)." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the Iowa darter (*Etheostoma exile*), a state endangered fish, the pugnose minnow (*Opsopoeodus emiliae*), a state endangered fish, the western banded killifish (*Fundulus diaphanus menona*), a state endangered fish, the lake chubsucker (*Erimyzon sucetta*), a state threatened fish, and the paddlefish (*Polyodon spathula*) a state threatened fish. The DOW recommends no in-water work in perennial streams from March 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the smooth greensnake (*Opheodrys vernalis*), a state endangered species. This species is primarily a prairie inhabitant, but also found in marshy meadows and roadside ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

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

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.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the local [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer [website](#) can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

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

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

From: Eileen.Wyza@dnr.ohio.gov
To: [Molnar, Maggie](#)
Cc: [Falkinburg, Brad](#)
Subject: [EXTERNAL] RE: 24-1965_East Akron Control Building - ODNR Comments: Desktop Hibernacula Assessment
Date: Wednesday, January 22, 2025 9:06:22 AM
Attachments: [image002.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image001.png](#)

This is an **External** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello Maggie,

Per review of the desktop survey provided for the East Akron Control Building Project, the Ohio Division of Wildlife concurs with your assessment that no caves, cliffs, or mine openings occur in the project area. Additionally, due to the surrounding urban matrix, the project is not likely to impact hibernating bats that may be present in the nearby abandoned underground mines.

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

Thank you,

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

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This message is intended solely for the addressee(s). Should you receive this message by mistake, we would be grateful if you informed us that the message has been sent to you in error. In this case, we also ask that you delete this message and any attachments from your mailbox, and do not forward it or any part of it to anyone else. Thank you for your cooperation and understanding.

Please consider the environment before printing this email.

From: Molnar, Maggie <MMolnar@trccompanies.com>
Sent: Tuesday, January 21, 2025 9:10 AM
To: Wyza, Eileen <Eileen.Wyza@dnr.ohio.gov>
Cc: Falkinburg, Brad <BFalkinburg@trccompanies.com>
Subject: 24-1965_East Akron Control Building - ODNR Comments: Desktop Hibernacula Assessment

Eileen,

In response to ODNR's DOW recommendations (attached), TRC completed a desktop habitat assessment to determine if potential hibernaculum is present within FirstEnergy's proposed East Akron Control Building located in City of Akron, Summit County, Ohio.

Please let us know if you have any questions on the provided desktop assessment.

Thank you,

Maggie Molnar, PWS
Ecologist



781 Science Boulevard, Suite 200, Gahanna, Ohio 43230
D 614.423.6342 | C 614.949.2437
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

Please note that our address has changed.

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not click links or open attachments and forward the email to csc@ohio.gov or click the Phish Alert Button if available.

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



December 19, 2024

Project Code: 2025-0030163

Dear Emma Given:

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

Federally Threatened and Endangered Species: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥ 3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*), and the proposed endangered tricolored bat (*Perimyotis subflavus*) we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

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

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

species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

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

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Erin Knoll".

Erin Knoll
Field Office Supervisor

January 17, 2025

Ohio Department of Natural Resources
Office of Real Estate & Land Management
2045 Morse Road, Building E-2
Columbus, OH 43229-6693

**Re: Desktop Assessment for potential hibernaculum for the East Akron Control Building Project located in the City of Akron, Summit County, Ohio.
(TRC Project No. 429847.0051.0000)**

To Whom It May Concern,

In response to the Ohio Department of Natural Resources (ODNR), Division of Wildlife's recommendations, TRC Environmental Corporation (TRC) completed a desktop habitat assessment, on behalf of FirstEnergy Corporation, to determine if potential hibernaculum is present within the proposed East Akron Control Building Project (Project) Study Area. The proposed Project is located in City of Akron, Summit County, Ohio (**Appendix A, Figure 1 and Figure 2**). The proposed Project involves the installation of a control building for the existing East Akron Substation. The proposed Project Study Area occurs within an existing utility right-of-way (ROW), developed open space, and the existing associated industrial facilities of the East Akron Substation (**Appendix A, Figure 3**).

During the recommended desktop habitat assessment, secondary source information was utilized to determine if past or present underground resources were present within 0.25-mile of the Project Study Area. The secondary source information utilized included but was not limited to aerial imagery mapping (Google Earth, 2025), karst topography mapping (ODNR, 2024a) mine data mapping (ODNR, 2024b), and land cover dataset mapping (USGS, 2021).

No historic surface mine, surface industrial mine, underground industrial mine, surface coal mine, and/or abandoned underground coal mine were identified within 0.25 mile of the Project Study Area (**Appendix A, Figure 4a and 4b**). The nearest historic surface mine is located approximately 20 miles east of the Project Study Area; the nearest surface industrial mine is 3 miles northwest of the Project Study Area; the nearest underground industrial mine is located approximately 9 miles west of the Project Study Area; the nearest surface coal mine is located 9 miles south of the Project Study Area; and the nearest abandoned underground coal mine is located 2 miles east of the Project Study Area. The Project Study Area is not located within a karst region. The nearest karst topographic region is located 64 miles west of the Project Study Area.

In addition, a wetland delineation was conducted by TRC on May 23rd, 2024, at which time winter and summer bat habitat was concurrently assessed. Based on the field investigations, no winter or summer bat habitat was identified within the Project Study Area. During field investigations, photographs of the Project Study Area were taken, which depict the site conditions (**Appendix B**).

No winter or summer bat habitat was identified within the Project Study Area and potential bat hibernaculum is not likely present within 0.25-mile of the Project Study Area; therefore, it is TRC's opinion that federally- or state- listed bats species are not likely to be impacted by this proposed Project. In addition, no tree clearing is anticipated within the Project Study Area. If minor tree clearing is needed as a result of this Project, it will take place within the USFWS recommended tree clearing dates (October 1-March 31). We kindly request your concurrence that potential bat hibernaculum is not likely present within 0.25-mile of the Project Study Area.

Please do not hesitate to contact me at 614.423.6342 or via email at MMolnar@TRCCompanies.com if you have any questions or require additional information.

Regards,



Maggie M. Molnar
Ecologist

Appendices:

Appendix A: Figures

Figure 1: Site Location Map

Figure 2: Aerial Map

Figure 3: National Land Cover Database Map

Figure 4: Mine/Karst Map

Appendix B: Photographic Record

References

Google Earth. (2025). Google Earth Images of Project Area. *Date accessed January, 2025.*

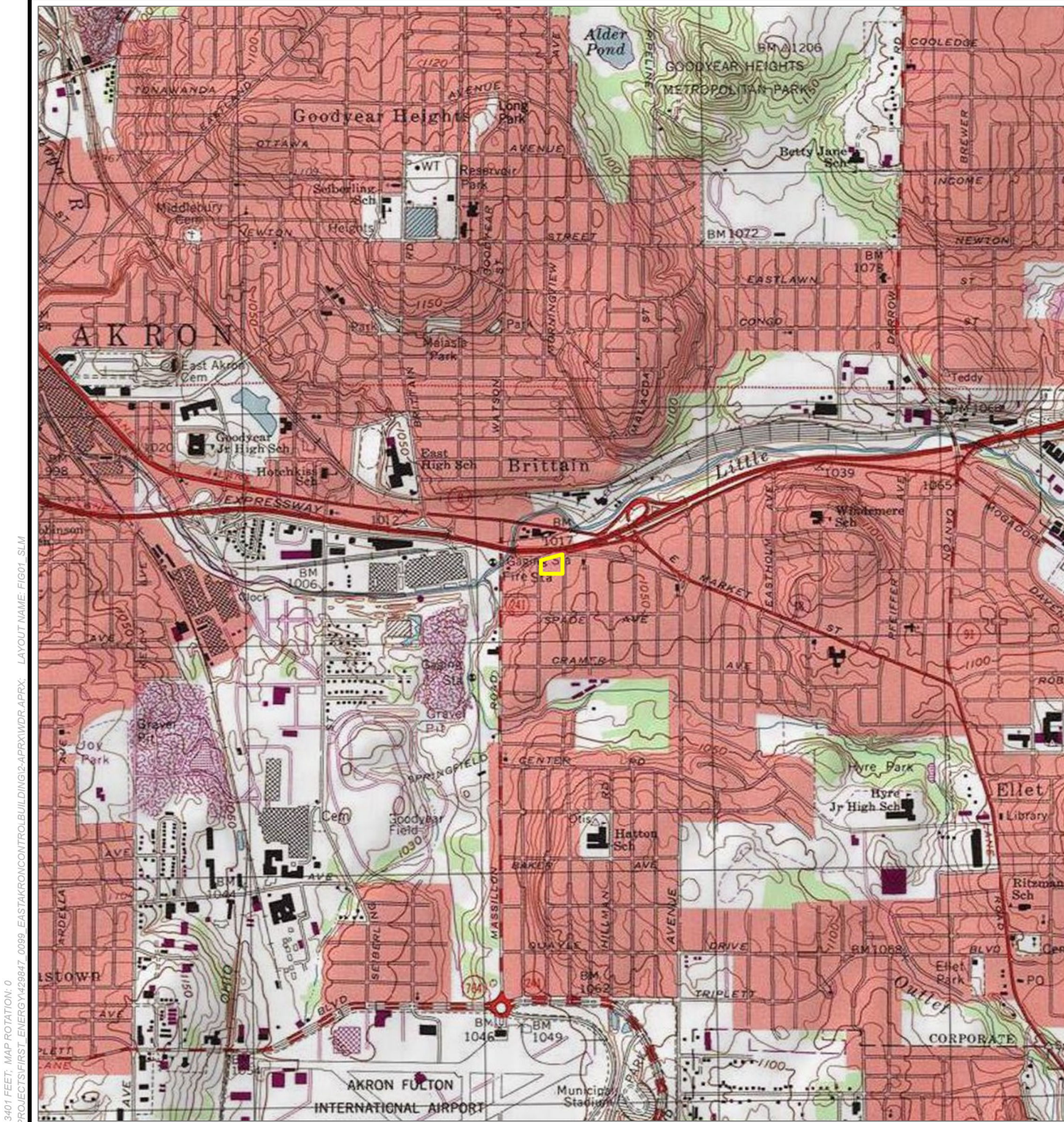
ODNR. (2024a). *Karst Interactive Map, ODNR Division of Geological Survey.* Retrieved from ODNR:
https://gis.ohiodnr.gov/website/dgs/karst_interactivemap/

ODNR. (2024b). *Mines of Ohio, ODNR Division of Mineral Resources.* Retrieved from ODNR:
<https://gis.ohiodnr.gov/MapView/?config=OhioMines>

USGS. (2021). *National Land Cover Database.* Retrieved from
https://www.usgs.gov/centers/eros/science/national-land-cover-database?qt-science_center_objects=0#qt-science_center_objects

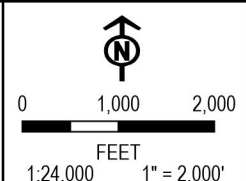
APPENDIX A

Figures



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PROJECT STUDY AREA




BASE MAP: USA TOPO MAPS MAP SERVICE, AKRON EAST QUAD

PROJECT: FIRSTENERGY EAST AKRON CONTROL BUILDING PROJECT SUMMIT COUNTY, OH	
TITLE: SITE LOCATION MAP	
DRAWN BY: M. OPEL	PROJ. NO.: 429847.0051
CHECKED BY: M. MOLNAR	FIGURE 1
APPROVED BY: B. FALKINBURG	
DATE: DECEMBER 2024	
1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072	
FILE:	WDR

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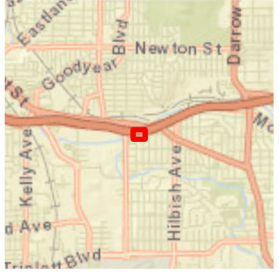



 PROJECT STUDY AREA

BASE MAP: GOOGLE MAPS.



1:600
1" = 50'



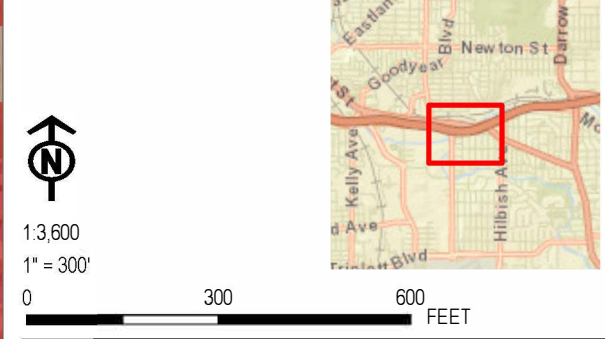
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TITLE:		AERIAL MAP	
DRAWN BY:	M. OPEL	PROJ. NO.:	429847.0051
CHECKED BY:	M. MOLNAR	FIGURE 2	
APPROVED BY:	B. FALKINBURG		
DATE:	DECEMBER 2024		
		1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072	
FILE:	WDR.aprx		

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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- PROJECT STUDY AREA**
- NLCD LAND COVER CLASSIFICATION**
- BARREN LAND
 - CULTIVATED CROPS
 - DECIDUOUS FOREST
 - DEVELOPED, HIGH INTENSITY
 - DEVELOPED, LOW INTENSITY
 - DEVELOPED, MEDIUM INTENSITY
 - DEVELOPED, OPEN SPACE
 - HAY/PASTURE
 - HERBACEOUS

BASE MAP: GOOGLE MAPS
 DATA SOURCES: NATIONAL LAND COVER DATABASE (NLCD) 2021 DATA
 ACQUIRED FROM THE USGS.



PROJECT:		FIRSTENERGY EAST AKRON CONTROL BUILDING PROJECT SUMMIT COUNTY, OH	
TITLE:		NATIONAL LAND COVER DATABASE MAP	
DRAWN BY:	M. OPEL	PROJ. NO.:	429847 0051
CHECKED BY:	M. MOLNAR	FIGURE 3	
APPROVED BY:	B. FALKINBURG		
DATE:	JANUARY 2025		
		1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072	
FILE:	HibemaculaAssessment.aprx		



- PROJECT STUDY AREA
- KARST GEOLOGY**
- SILURIAN- AND DEVONIAN-AGE CARBONATE BEDROCK OVERLAIN BY LESS THAN 20 FEET OF GLACIAL DRIFT AND/OR ALLUVIUM
- SILURIAN- AND DEVONIAN-AGE CARBONATE BEDROCK OVERLAIN BY MORE THAN 20 FEET OF GLACIAL DRIFT AND/OR ALLUVIUM

BASE MAP: GOOGLE MAPS
 DATA SOURCES: KARST DATA ACQUIRED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES-DIVISION OF GEOLOGICAL SURVEY, MAY 2024.

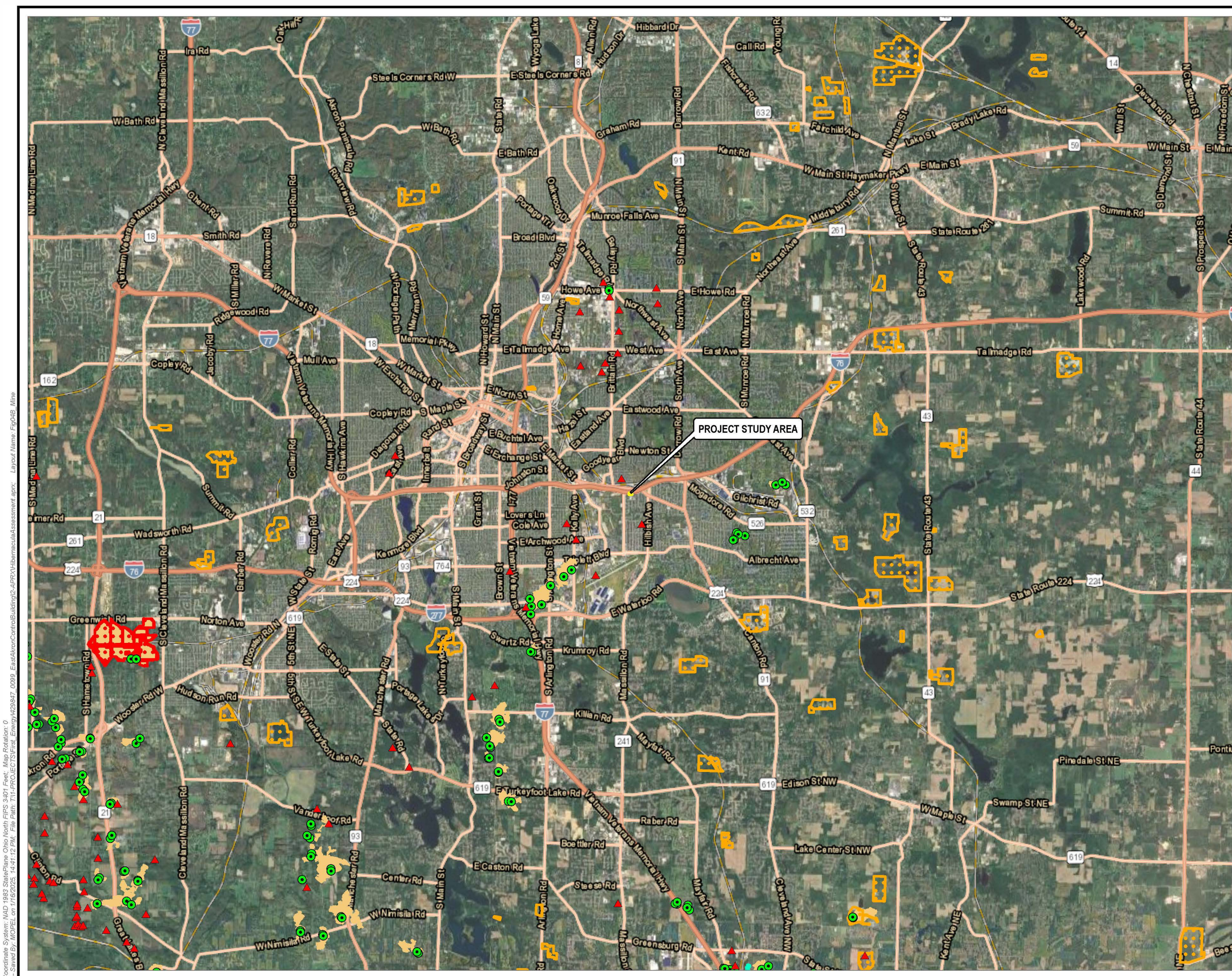


1:540,000
 1" = 45,000'



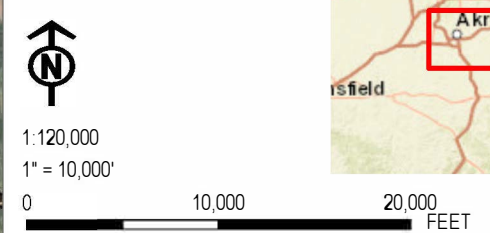
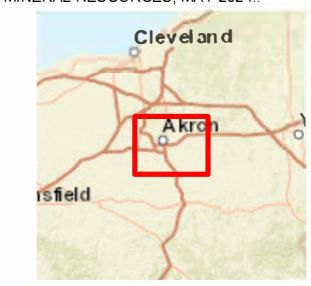
PROJECT: FIRSTENERGY EAST AKRON CONTROL BUILDING PROJECT SUMMIT COUNTY, OH	
TITLE: KARST MAP	
DRAWN BY: M. OPEL	PROJ. NO.: 429847 0051
CHECKED BY: M. MOLNAR	FIGURE 4A
APPROVED BY: B. FALKINBURG	
DATE: JANUARY 2025	
1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072	
FILE: HibemaculaAssessment.aprx	

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
 - Saved By: MOPEL on 1/16/2025 14:41:12 PM. File Path: T:\L-PROJ\EC\T\Fire_Energy\429847_0051_HibemaculaAssessment.aprx. Layout Name: Fig04a_Karst



- PROJECT STUDY AREA
- ABANDONED MINE OPENING
- ▲ ABANDONED MINE - MINE POINT EXTENT UNKNOWN
- SURFACE COAL MINE
- HISTORIC SURFACE MINE
- ABANDONED UNDERGROUND COAL MINE
- SURFACE INDUSTRIAL MINE
- UNDERGROUND INDUSTRIAL MINE

BASE MAP: GOOGLE MAPS
 DATA SOURCES: MINE DATA ACQUIRED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES-DIVISION OF MINERAL RESOURCES, MAY 2024.



PROJECT:		FIRSTENERGY EAST AKRON CONTROL BUILDING PROJECT SUMMIT COUNTY, OH	
TITLE:		MINE MAP	
DRAWN BY:	M. OPEL	PROJ. NO.:	429847 0051
CHECKED BY:	M. MOLNAR	FIGURE 4B	
APPROVED BY:	B. FALKINBURG		
DATE:	JANUARY 2025	1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072	
FILE:		HibemaculaAssessment.aprx	

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
 - Saved By: MOPEL on 1/16/2025, 14:41:12 PM. File Path: T:\PROJECTS\Final_Energy\429847_0051_EastAkronControlBuilding\2-APRX\HibemaculaAssessment.aprx. Layout Name: Figs4B_Mine

APPENDIX B
Photographic Record

Client Name: FirstEnergy	Site Location: City of Akron, Summit County, Ohio	Project No.: 429847.0051.0000
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Photo No. 1.

Photo Date:
 5/23/2024

Description:

Representative photo from the southeast extent of Project Study Area, facing north.



Photo No. 2.

Photo Date:
 5/23/2024

Description:

Representative photo from the southwest extent of Project Study Area, facing north.



Client Name: FirstEnergy	Site Location: City of Akron, Summit County, Ohio	Project No.: 429847.0051.0000
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Photo No. 3.

Photo Date:
 5/23/2024

Description:

Representative photo from the southeast extent of Project Study Area, facing west.



Photo No. 4.

Photo Date:
 5/23/2024

Description:

Representative photo from the southwest extent of the Project Study Area, facing east.



Client Name: FirstEnergy	Site Location: City of Akron, Summit County, Ohio	Project No.: 429847.0051.0000
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Photo No. 5.

Photo Date:
 5/23/2024

Description:

Representative photo from the northern extent of the Project Study Area, facing south.



Photo No. 6.

Photo Date:
 5/23/2024

Description:

Representative photo from the northern extent of the Project Study Area, facing west.



Client Name: FirstEnergy	Site Location: City of Akron, Summit County, Ohio	Project No.: 429847.0051.0000
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Photo No. 7.

Photo Date:
5/23/2024

Description:

Representative photo of the Project Study Area, facing south.



Photo No. 8.

Photo Date:
5/23/2024

Description:

Representative photo of the Project Study Area, facing north.



Client Name:

FirstEnergy

Site Location:

City of Akron, Summit County, Ohio

Project No.

429847.0051.0000

Photo No. 9.

Photo Date:

5/23/2024

Description:

Representative photo of the Project Study Area, facing west.



Photo No. 10.

Photo Date:

5/23/2024

Description:

Representative photo of the Project Study Area, facing east.

