

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

CONSTRUCTION NOTICE

INLAND SUBSTATION EXPANSION PROJECT

OPSB CASE NO.: 16-0280-EL-BNR

February 10, 2016

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

**CONSTRUCTION NOTICE
INLAND 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 (“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: Inland Substation Expansion Project (“Project”)

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

In this Project, American Transmission Systems, Incorporated (“ATSI”), a FirstEnergy Company, is proposing to expand the fence line of the existing Inland Substation to facilitate the installation of new equipment in the substation. Both the existing and expanded Inland Substation will be owned and operated by ATSI. The fenced area within the existing Inland Substation is approximately 251,122 square feet. As part of the proposed Project, a portion of the southwest corner of the substation fence line will be expanded to the south and to the west. An approximately 209 foot portion of the south fence line will be moved approximately 98 feet to the south. An approximately 98 foot portion of the southwest fence line will be moved 235 feet to the west. This will expand the footprint of the substation by approximately 17,630 square feet, with a new total area of 268,752 square feet. This represents a 6.9 percent expansion of the substation. The expanded footprint of the substation will facilitate the installation of a new Open-Air ring bus with four (4) 345 kV circuit breakers to replace the existing 345 kV Gas Insulated Switchgear (“GIS”). The Project will also include one (1) 345 kV/138 kV Transformer and two (2) 138 kV circuit breakers replacements. As part of the Project, the existing Inland-Lakeshore (Q-4) 138 kV

transmission line connection to Inland Substation will be rearranged to accommodate installation of the new equipment. Rearrangement of the Inland-Lakeshore (Q-4) 138 kV transmission line connection to substation will include one (1) steel pole replacement, one (1) steel pole removal, and two (2) new steel poles installation. The existing steel pole replacement will take place at approximately 135 feet north of the existing Inland Substation fence. The two steel poles being removed and the one new steel pole being installed will be located within the existing Inland Substation fence. New conductor will match the existing 1192.5 kcmil 36/1 ACSR and new shield wire will match the existing 7#8 alumoweld.

The substation expansion layout is shown in Exhibit 3. 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 Maps ID number 41081-D6 and 41081-D5. 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 at 9000 Holton Avenue, Cleveland, Ohio 44104, near the intersection of Holton Avenue and East 90th Street in Cleveland, Cuyahoga County, Ohio.

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

The Project meets the requirements for a Construction Notice because the Project is within the types of project defined by Items (2)(a) and (4)(a) of the Application Requirement Matrix for Electric Power Transmission Lines, Appendix A of OAC Rule 4906-1-01. These items state:

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

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

(a) *There is a twenty percent or less expansion of the fenced area.*

All Project activities will take place on existing Cleveland Electric Illuminating Company (“CEI”), a FirstEnergy Company, owned property. The fenced area of the existing Inland Substation will be expanded by approximately 6.9 percent as a result of this Project.

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

The replacement of the old substation equipment with installation of the new ring bus and circuit breakers is needed to ensure continued delivery of safe and reliable service in the Cleveland area.

The proposed Project will replace the existing 345 kV ring bus, four (4) 345 kV circuit breakers, 345 kV/138 kV Transformer and two (2) 138 kV circuit breakers with new equipment. Installation of the new ring bus and circuit breakers requires expansion of the existing substation fence and rearrangement of the existing Inland-Lakeshore (Q-4) 138 kV line connection to Inland Substation to accommodate its installation.

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. 2015 Long-Term Forecast Report. This map was submitted to the PUCO in Case No. 15-0649-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 Inland Substation and Inland-Lakeshore (Q-4) 138 kV Transmission Line. The Project area is located approximately 5 1/2 inches (11” x 17” printed version) from the right edge of the map and 2 3/8 inches (11” x 17” printed

version) from the top 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

There are no practical alternatives that allow for the upgrading of the Inland Substation and replacement of the old equipment with the requirement new equipment other than the proposed Project. Any other alternative for the installation of the new equipment would necessarily require the construction of a new substation, which would greatly increase impacts. Utilizing the existing substation location, with a small expansion of the substation onto property already owned by CEI, represents the Project alternative with the fewest overall impacts.

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

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

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

Construction on the Project is expected to begin on approximately March 25, 2016 and is expected to be completed and placed in-service by December 1, 2016.

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, Cuyahoga County, Ohio, quadrangle map (Quad Order ID numbers 41081-D6 and 41081-D5). Exhibit 2 provides a partial copy of aerial imagery, DOQQ.

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

The Inland Substation is located on CEI owned property and is owned by ATSI. The proposed expansion of Inland Substation will be owned by ATSI. CEI and ATSI are both FirstEnergy companies and no additional property rights are needed for construction of the Project.

The property information for this Project is listed below in Table 1.

Table 1. List of Affected Property Owners

Parcel Number	Property Owner	Property Address	Easement Status
126-33-002	Cleveland Electric Illuminating Company (CEI)	9000 Holton Ave., Cleveland OH 44104	Owned in Fee

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

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

The operating characteristics of the Inland Transmission Substation and connected transmission lines will not be affected by the Inland Substation Expansion Project. The Inland Transmission Substation provides 345/138 kV transformation for the following connected transmission lines:

1. Inland-Jordan (Q-11) 138 kV
2. Inland-Jordan (Q-14) 138 kV
3. Inland-Ivy (Q-11) 138 kV
4. Inland-Ivy (Q-14) 138 kV
5. Inland-Lakeshore (Q-4) 138 kV
6. Perry-Inland (S-5) 345 kV
7. Inland-Harding (S-8) 345 kV

The transmission line construction will have the following characteristics:

Voltage: 138 kV
 Conductors: 1192.5 kcmil 36/1 ACSR
 Static Wire: 7#8 alumoweld
 Insulators: Polymer
 Structure Types: 138 kV Galvanized Steel Monopole on Concrete Foundation. Exhibit 4 depicts this structure type.

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

The closest occupied residence or institution is approximately 225 feet away from the substation fence line and approximately 375 feet from the transmission line centerline. As these distances are greater than the 100 feet, Electric and Magnetic Field (“EMF”) calculations have not been estimated.

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

The estimated capital costs for the Inland Substation Expansion Project is \$12,819,000.

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

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

The Project is located in the City of Cleveland, Cuyahoga County, Ohio. The main land use around the Project is coded as Transportation/Utilities, Light Industry and Commercial Services. The zoning information for this Project was obtained through the Cleveland City Planning Commission’s website.

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

Agricultural land use does not exist within the Project’s area.

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

As part of ATSI’s investigation, a search of Ohio Historic Preservation Office (“OHPO”) National Register (“NR”) of Historic Places online database was conducted to identify the existence of any significant archeological or cultural resource sites within 0.5 miles of the Project Area. A map of the results of the search is shown in Exhibit 5. The OHPO database includes all Ohio listing on the National Register of Historic Places (“NRHP”), including districts, sites, building, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The results of the search indicate that there are two (2) Listed NR properties and one (1) SHPO eligible property were

identified within 0.5 miles of the Project potential disturbance area. The information for this properties is listed below in Table 2.

Table 2. List of NR Listed of Historic Places

Property Name	Property Address	National Register Reference #	Distance from Project Area
St. Elizabeth’s Magyar Roman Catholic Church	9016 Buckeye Road, Cleveland, Ohio	76001402	0.45 mile
Weizer Building	8935 Buckeye Road, Cleveland, Ohio	88000055 (Delisted)	0.45 mile
Historic Bridge	Near Holton Avenue & East 90 th Street Intersection, Cleveland, Ohio	1894609 (SHPO Eligible)	0.22 mile

The OHPO database also includes listing of the Ohio Archaeological Inventory (“OAI”), the Ohio Historic Inventory (“OHI”), previous cultural resource surveys, and the Ohio Genealogical Society (“OGS”) cemetery inventory. The results of the search indicate that no listed OAI listed archaeological resources were identified within 0.5 miles of the Project potential disturbance area. Thirteen (13) OHI listed structural resources are located within 0.5 miles of the Project Area. A list of the OHI listed structural resources found is shown in Table 3.

Table 3. List of OHI Listed Archeological Resources

OHI Number	Present Name	Historic Use	County	Municipality
CUY0095410	St. Elizabeth’s Hall	Church/Religious Structure	Cuyahoga	Cleveland
CUY0098906	2nd New Hope Baptist Church	Church/Religious Structure	Cuyahoga	Cleveland
CUY0099006	Elizabeth Baptist Church	Church/Religious Structure	Cuyahoga	Cleveland

CUY0099206	Hungarian Lutheran Orphanage	Church/Religious Structure	Cuyahoga	Cleveland
CUY0099406	Hartsfield Tabernacle Church	Church/Religious Structure	Cuyahoga	Cleveland
CUY0099706	Engine Co #26	Fire Station	Cuyahoga	Cleveland
CUY0106310	Woodhill Action Center	Financial Institution	Cuyahoga	Cleveland
CUY0106410	Weldon Tool Co	Mill/Processing/Manufacturing Facility	Cuyahoga	Cleveland
CUY0106510	St Thomas Grand Lodge AM/FM	Movie Theatre	Cuyahoga	Cleveland
CUY00991306	St Paul Missionary Baptist Church	Church/Religious Structure	Cuyahoga	Cleveland
CUY00991606	New Israel Missionary Baptist Church	Church/Religious Structure	Cuyahoga	Cleveland
CUY0095610	Weizer Block	Commercial	Cuyahoga	Cleveland
CUY0095710	Kessler Freight Co	Retail Store/Shop	Cuyahoga	Cleveland

Two (2) previous archaeological resource surveys were conducted within 0.5 miles of the Project Area. A list of the previous cultural resource surveys is shown in Table 4.

Table 4. List of Previous Cultural Resource Survey

Year	Name	County	Municipality
1978	An assessment of the archaeological resources for the proposed I-490	Cuyahoga	Cleveland
2012	Phase I Archaeological Resource Review and Disturbance Assessment for the Proposed CUY-Opportunity Corridor Project (PID 77333)	Cuyahoga	Cleveland

There are no OAI sites located within 0.5 miles of the Project's potential disturbance area.

As the Project involves relatively minor modifications to an existing substation and transmission line, no impacts to archaeological and cultural resources are anticipated.

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

There is no known local, or federal requirements that must be met prior to the commencement of construction on the proposed Project. Applicant will obtain all required permits, including coverage under the NPDES General Permit for Stormwater Discharges from Construction Activities, if necessary.

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

As part of the investigation, a request was submitted to the Ohio Department of Natural Resources-Division of Wildlife ("ODNR") on January 8, 2016, to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project area. The ODNR's response on January 11, 2016, indicated that they have no records of protected species within one mile of the identified Project area. Because ODNR has determined that the information contained in the Agency's response could be detrimental to the conservation of a species or unique natural feature, and pursuant to Section 1531.04 of the Ohio Revised Code and the request of ODNR in the response, the ODNR response is not attached.

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

As part of the investigation, a request was submitted to the ODNR on January 8, 2016, to research the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forest, national wildlife refuges, or other protected natural areas within one (1) mile of the project area. The ODNR's January 11, 2016 response indicated that

they have no records of the aforementioned areas within one mile of the identified project area.

The property was evaluated by a qualified Environmental Scientist from the FirstEnergy Environmental Department to determine the potential for jurisdictional water resources within the proposed Project work limits. The proposed expansion area is situated entirely within the existing, maintained right-of-way, in an area that is routinely mown. There are no streams within the Project limits, and although evidence of periodic standing water was observed, soil and vegetation conditions revealed no evidence of a potentially jurisdictional wetland. No jurisdictional or State waters were identified on the Project site.

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 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 Construction Notice Application Transmittal and Availability for Public Review

This Construction Notice is being provided concurrently with its submittal to the Board to the following officials of City of Cleveland and Cuyahoga County, Ohio.

Cuyahoga County

Mr. Armond Budish
Cuyahoga County Executive
2079 East 9th Street
Cleveland OH, 44115

Mr. Dan Brady
Cuyahoga County Council
President, District 3
2079 East 9th Street, 8th Floor
Cleveland, Ohio 44115

Mr. Pernel Jones, Jr.
Cuyahoga County Council
Vice-President, District 8
2079 East 9th Street, 8th Floor
Cleveland, Ohio 44115

Ms. Jeanne Schmotzer
Cuyahoga County Clerk of
Council
2079 East 9th Street, 8th Floor
Cleveland, Ohio 44115

Mr. Nathan Kelly, Chair
Cuyahoga County Planning
Commission
2079 East 9th Street
Cleveland, Ohio 44115

Mr. Glenn Coyne, FAICP,
Executive Director
Cuyahoga County Planning
Commission
2079 East 9th Street
Cleveland, Ohio 44115

Mr. Michael W. Dever, M.P.A.
Director, Cuyahoga County,
Department of Public Works
2079 East 9th Street, 5th Floor
Cleveland, Ohio 44115

City of Cleveland

The Honorable Frank G. Jackson
Mayor, City of Cleveland
Cleveland City Hall
601 Lakeside Avenue
Cleveland, OH 44114

Mr. Kevin J. Kelley, President
City of Cleveland Council
Cleveland City Hall
601 Lakeside Avenue, Room 220
Cleveland, OH 44114

Ms. Patricia J. Britt
City of Cleveland Clerk of Council
Cleveland City Hall
601 Lakeside Avenue, Room 220
Cleveland, OH 44114

Mr. Freddy L. Collier, Jr., Director
City of Cleveland Planning
Commission
Cleveland City Hall
601 Lakeside Avenue, Room 501
Cleveland, OH 44114

Mr. Ronald O'Leary, Director
City of Cleveland Building &
Housing Department
Cleveland City Hall
601 Lakeside Avenue, Room 510
Cleveland, OH 44114

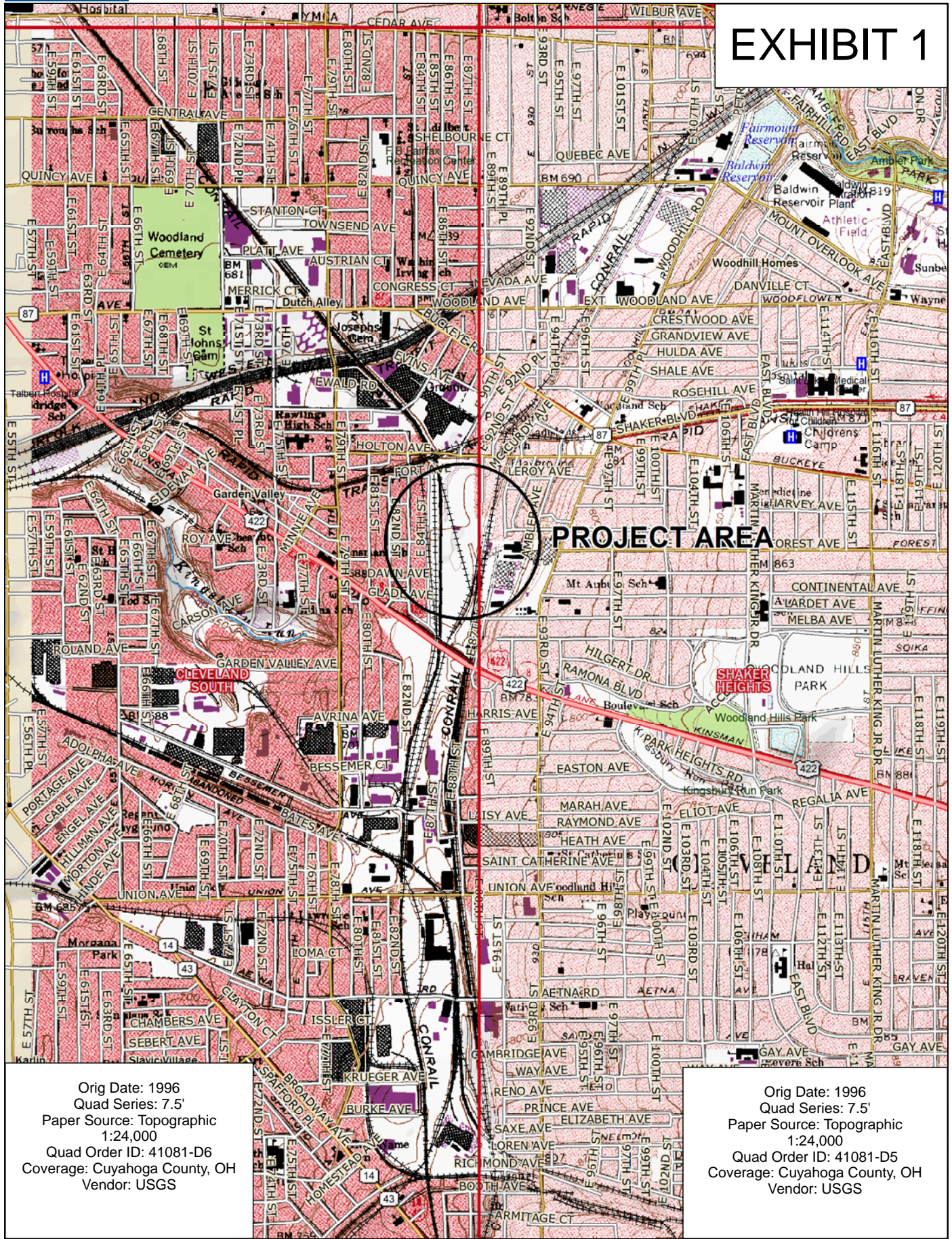
Mr. Darnell Brown
Chief Operating Officer
Office of the Mayor
Cleveland City Hall
601 Lakeside Avenue, Room 202
Cleveland, Ohio 44114

Mr. Matthew L. Spronz, P.E.
Mayor's Office of Capital Projects
Cleveland City Hall
601 Lakeside Avenue,
Cleveland, OH 44114

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 Rule 4906-6-07 (B) to provide the Board with proof of compliance with the notice requirement to local officials in OAC Rule 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 Rule (B) and to provide the Board with proof of compliance with the notice requirements in OAC 4906-6-Rule 07 (A)(3).

EXHIBIT 1



Orig Date: 1996
 Quad Series: 7.5'
 Paper Source: Topographic
 1:24,000
 Quad Order ID: 41081-D6
 Coverage: Cuyahoga County, OH
 Vendor: USGS

Orig Date: 1996
 Quad Series: 7.5'
 Paper Source: Topographic
 1:24,000
 Quad Order ID: 41081-D5
 Coverage: Cuyahoga County, OH
 Vendor: USGS

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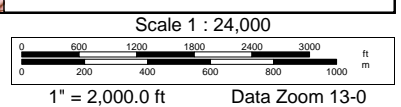
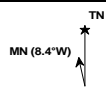
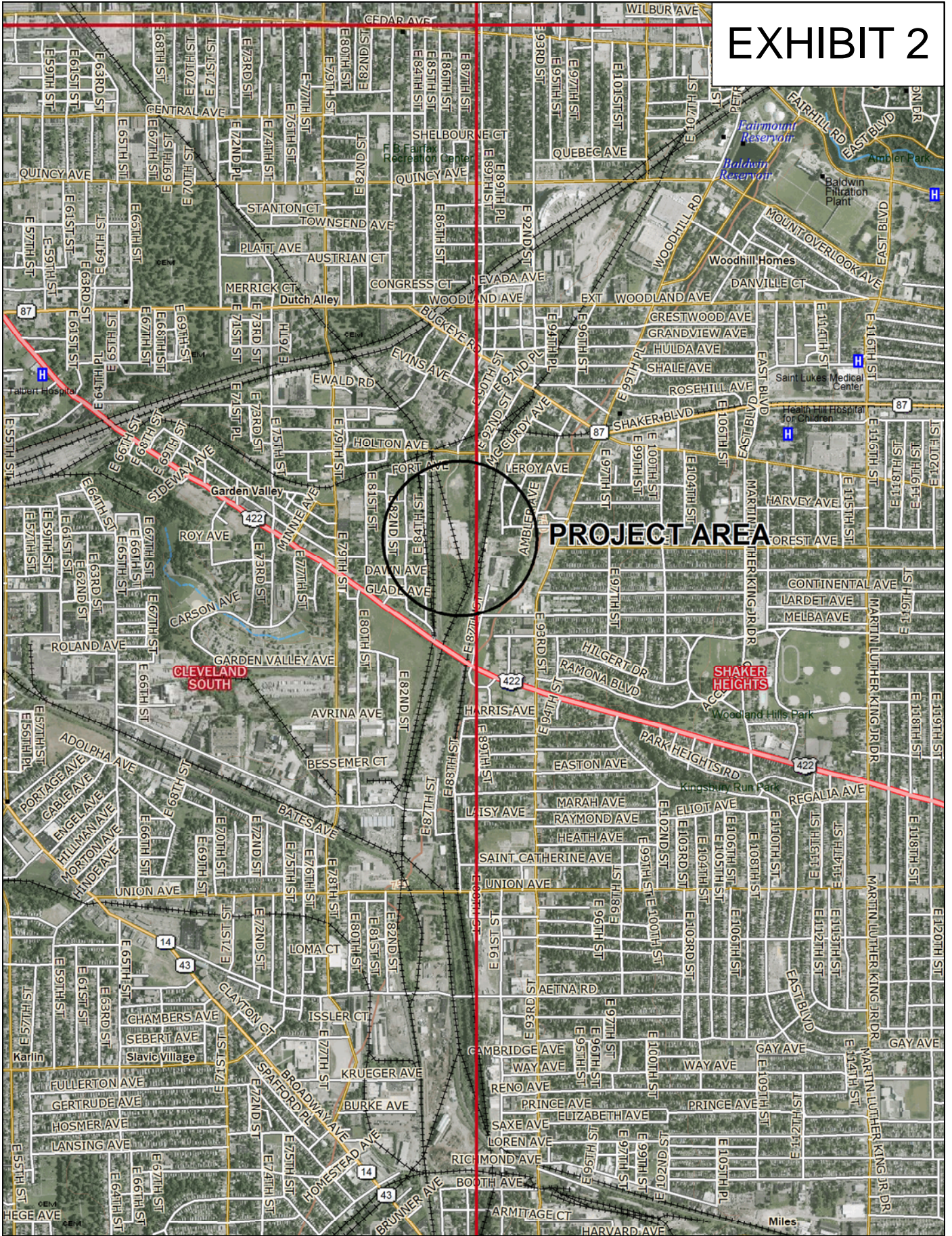


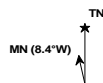
EXHIBIT 2



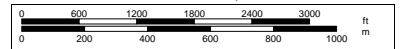
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Scale 1 : 24,000

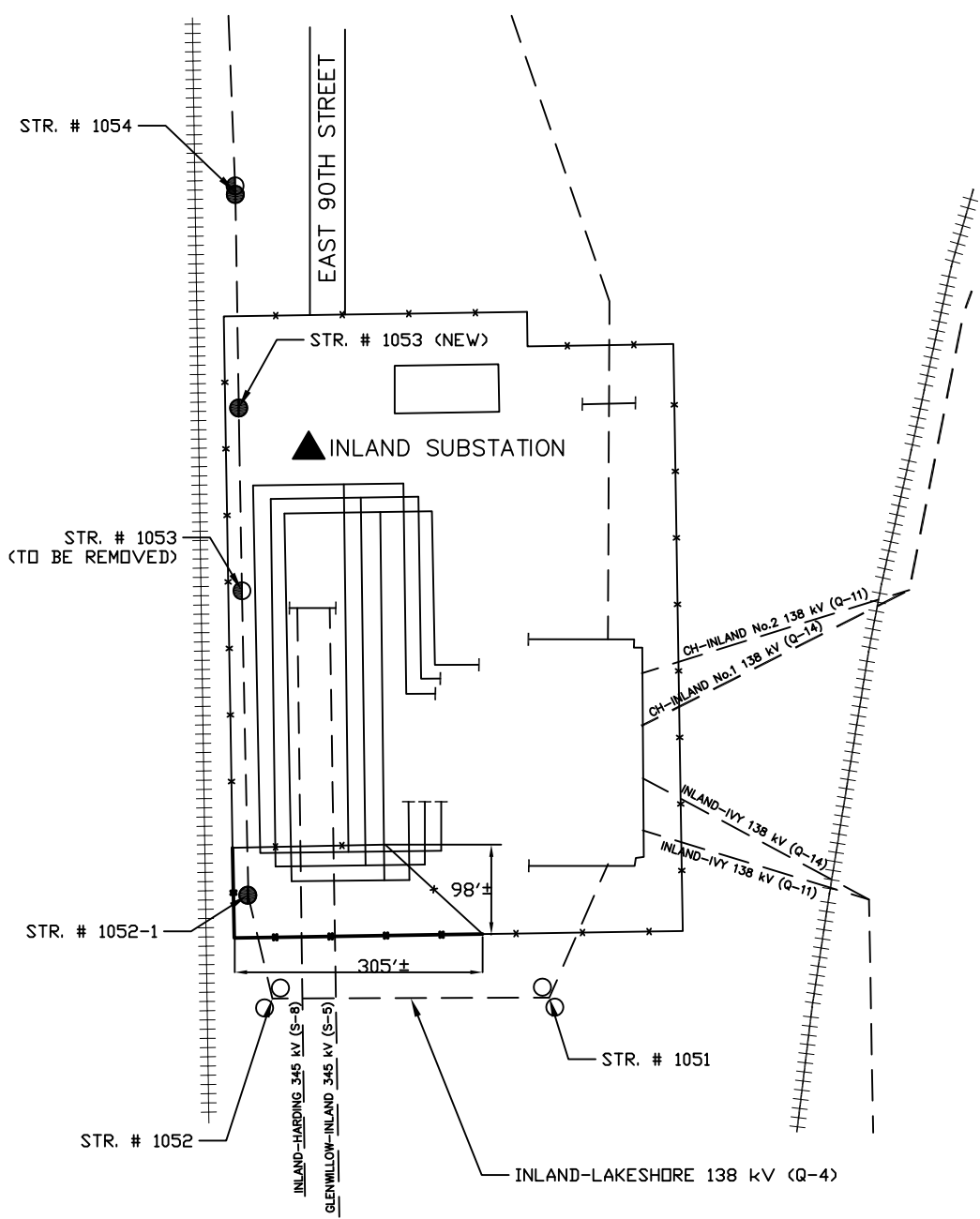


1" = 2,000.0 ft

Data Zoom 13-0



CITY OF CLEVELAND
CUYAHOGA COUNTY
OHIO



LEGEND

- EXISTING SUBSTATION
- SUBSTATION EQUIPMENT
- EXISTING SUBSTATION FENCE LINE
- PROPOSED SUBSTATION FENCE LINE EXPANSION
- NEW STRUCTURE
- EXISTING STRUCTURE TO BE REMOVED
- EXISTING STRUCTURE
- EXISTING TRANSMISSION LINE
- EXISTING ROADS
- RAILROAD

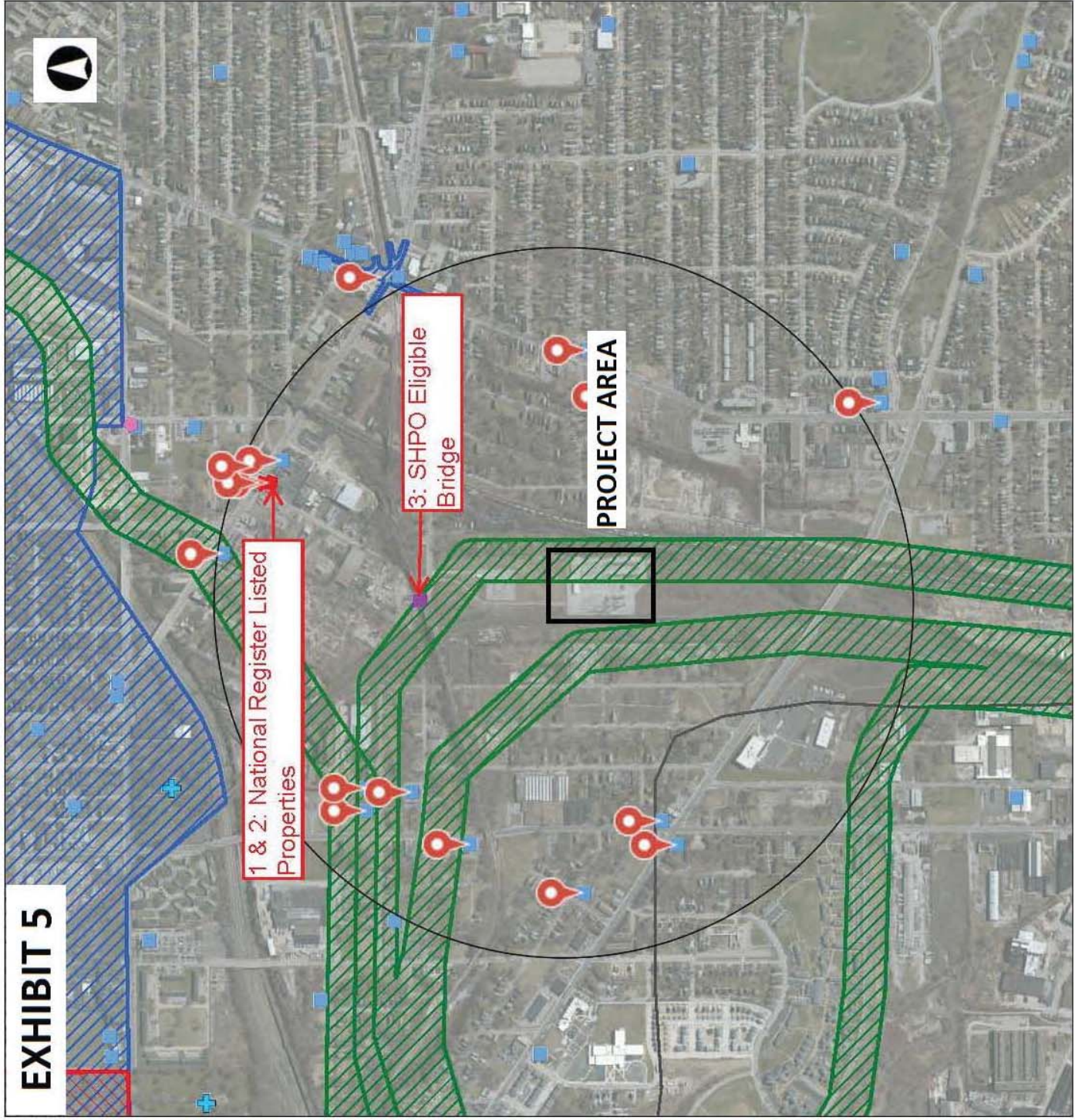


INLAND SUBSTATION
EXPANSION PROJECT

GENERAL LAYOUT

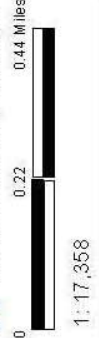
EXHIBIT 3

EXHIBIT 5



Legend

- NR Listings
 - Listed
 - National Historic Landmark
 - Delisted
- NR Determinations of Eligibility
- Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- OGS Cemeteries
- OHC Sites
- Dams
- UTM Zone Split
- NR Boundaries
 - Phase 1
 - Phase 2
 - Phase 3
- Historic Previously Surveyed



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Datum: [Datum]
 Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

