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

**LETTER OF NOTIFICATION**

**CLINIC HOSPITAL-INLAND 138 kV TRANSMISSION  
LINE RECONDUCTOR AND  
STRUCTURE REPLACEMENT PROJECT**

**OPSB CASE NO.: 14-1302-EL-BLN**

**August 5, 2014**

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PUCO

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

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**LETTER OF NOTIFICATION  
CLINIC HOSPITAL-INLAND 138 kV TRANSMISSION LINE RECONDUCTOR  
AND STRUCTURE REPLACEMENT PROJECT**

The following information is being provided in accordance with the procedures in Ohio Administrative Code Rule 4906-11-01: Letter of Notification Requirements of the Rules of the Ohio Power Siting Board ("Board").

**4906-11-01 (B): LETTER OF NOTIFICATION REQUIREMENTS**

**4906-11-01 (B) (1) a: Name and Reference Number**

Name of Project: Clinic Hospital-Inland 138 kV Transmission Line  
Reconductor and Structure Replacement Project  
("Project")

2014 LTFR Reference: This Project is not included in FirstEnergy Corp. 2014 Long-Term Forecast Report submitted to the Public Utility Commission of Ohio in Case Number 14-0625-EL-FOR.

**4906-11-01 (B) (1) b: Brief Description of Project**

In this Project, American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, is proposing to reconductor approximately 1.6 miles of the Clinic Hospital-Inland 138 kV Transmission line (this transmission line is also identified as Q-11-IN-CH). The Project will replace the existing 795 kmil 36/1 ACSR conductor with new 795 kmil 20/7 ACSS conductor. The Project begins at the existing Inland Substation and ends at structure number 2635 near the new Cleveland Hospital Substation.

As part of the Project, seven (7) existing structures will be replaced. Two (2) of the structures (#2612 and 2631) will be replaced with double-circuit deadend steel poles, and five (5) of the structures (#2625-2629) will be replaced with double-circuit tangent steel poles. Exhibit 1 shows the General Location of the Project. The general layout of the Project is shown in Exhibit 2A-B. The proposed structures are shown in Exhibits 3 and 4. The Project is located in the City of Cleveland, Cuyahoga County, OH.

**4906-11-01 (B) (1) c: Why the Project Meets the Requirements for a Letter of Notification**

The Project meets the requirements for a Letter of Notification because the Project is within the types of projects defined by Items (3) & (4)(a) of the Interim Application Requirement Matrix for Electric Power Transmission Lines in the Finding and Order issued on September 4, 2012, as subsequently modified on December 17, 2012, in Case No. 12-1981-GE-BRO which modified Appendix A of Rule 4906-1-01 of the Ohio Administrative Code.

*(3) Replacing conductors on existing structures with larger or bundled conductors.*

*(4) Replacing electric power transmission line structure(s) with a different type of structure(s) or adding structure(s) within an existing electric power transmission line and:*

*(a) Two miles or less of new right-of-way is required.*

The proposed Project includes replacing structures and conductors along approximately 1.6 miles of the existing transmission line. All of the proposed structures will be within the existing transmission right of way.

**4906-11-01 (B) (2): Need for the Project**

The internal analysis of the Clinic Hospital-Inland 138 kV Transmission Line determined that with an outage of the Eastlake 345/138 kV Transformers, and following the installation of the Glenwillow 345 kV Substation, the Q-11-IN-CH 138 kV Transmission Line would be overloaded to approximately 113% of its summer emergency rating. After the completion of the Project, this overload scenario will be corrected.

**4906-11-01 (B) (3): Location Relative to Existing or Proposed Lines**

The location of the Project relative to existing or proposed transmission lines is shown in the FirstEnergy System Facilities map, "TL-MAP-2," included as part of the confidential portion of the FirstEnergy Corp. 2014 Long-Term Forecast Report.

This map was submitted to the PUCO in Case No. 14-0625-EL-FOR under Rule 4901:5-5:04 (C) of the Ohio Administrative Code. The map is incorporated by reference only. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations, including the location of the Q-11-IN-CH 138 kV transmission line. The Project area is located approximately 10¾ inches (11 by 17 inch printed version) from the left edge of the map and 2¼ inches (11 by 17 inch printed version) from the top of the map. The general location and layout of the Project is shown on Exhibit 1.

**4906-11-01 (B) (4): Alternatives Considered**

No alternatives were considered for the Project.

**4906-11-01 (B) (5): Construction Schedule**

Construction on the Project is expected to begin as early as October 1, 2014 and be completed by December 21, 2014.

**4906-11-01 (B) (6): Area Map**

Exhibit 1 depicts the general location of the Project. This exhibit provides a partial copy of the United States Geologic Survey, Shaker Heights, Ohio Quad, Map ID 41081-D5. To locate and view the project site from the Columbus, Ohio area, travel north on I-71 for approximately 138 miles. Take exit 247A for I-90 W/I-490 E toward I-77. Travel for approximately 0.7 mile, and take 247B to merge onto I-490 E toward I-77. Travel for approximately 2.3 miles and then turn left onto E 55<sup>th</sup> Street. Take the second right (after 0.2 mile) onto Grand Avenue. Travel approximately 0.3 mile and then turn right onto Kinsman Avenue. Travel for approximately 0.9 mile and then turn left onto E 79<sup>th</sup> Street. Take the second right onto Holton Avenue. The Inland Substation, where the Project begins, will be on the right after approximately 0.4 mile. The transmission line follows the nearby railway corridor for the length of the reconductor and structure replacement Project.

**4906-11-01 (B) (7): Property Owner List**

The Project is located on existing right-of-way. A list of property owners where easements have been acquired is:

<b>Parcel Number</b>	<b>Property Owner</b>	<b>Land Rights Previously Obtained</b>
12127008	Cleveland R T A	Yes
12121032	Norfolk & Western Railway Co	Yes
12122013	New York Central Lines LLC	Yes
12611003	New York Central Lines LLC	Yes
12615013	New York Central Lines LLC	Yes
12615033	New York Central Lines LLC	Yes
12615046	New York Central Lines LLC	Yes
12615061	New York Central Lines LLC	Yes
12624003	New York Central Lines LLC	Yes
12635060	Penn Central	Yes
12634001	New York Central Lines LLC	Yes
12633002	The Cleveland Electric Illuminating Company, a FirstEnergy Company	Owned in Fee
12635059	The Cleveland Electric Illuminating Company, a FirstEnergy Company	Owned in Fee

**4906-11-01 (C): TECHNICAL FEATURES OF THE PROJECT**

**4906-11-01 (C) (1): Operating Characteristics**

The transmission line construction will have the following characteristics:

Voltage: 138 kV  
Conductors: 795 kcmil 20/7 ACSS "drake"  
Static wire: 7 # 8 Alumoweld  
Insulators: Polymer  
Structure Types: Exhibit 3: Double-Circuit Deadend  
Exhibit 4: Double-Circuit Tangent

**4906-11-01 (C) (2) a: Calculated Electric and Magnetic Fields**

The following table itemizes the line loading of Q-11-IN-CH 138 kV Transmission Line Reconductor and Structure Replacement Project. The normal line loading represents FirstEnergy's peak system load for the transmission lines. The emergency line loading represents the maximum line loading under contingency operation. The winter rating is based on the continuous maximum conductor ratings (MCR) of the circuits for the single conductors per phase 795 kmil 26/7 ACSR conductors and an ambient temperature of zero degrees centigrade (32 deg. F), wind speed of 1.3 miles per hour, and a circuit design operating temperature of 100 degrees centigrade (212 deg. F).

Line Name	Normal Loading Amps	Emergency Loading Amps	Winter Rating Amps
Q-11-IN-CH 138 kV Transmission Line	804	1115	1807
Q-14-IN-CH 138 kV Transmission Line	382	897	1292

The following calculations provide an approximation of the magnetic and electric fields strengths of the Q-11-IN-CH 138 kV Transmission Line Reconductor and Structure Replacement Project in the right-of-way. The calculations provide an approximation of the electric and magnetic field levels based on specific assumptions utilizing the EPRI EMF Workstation 2009 program software. This program software assumes the input transmission line configuration is located on flat terrain. Also, a balanced, three-phase circuit loading is assumed for the transmission circuit. The model utilizes the normal, emergency, and winter rating of the transmission lines.

EMF CALCULATIONS		Electric Field kV/meter	Magnet Field mGauss
Normal Loading	Under Lowest Conductors	2.90	138.10
	At Right-of-Way Edges	0.59/0.59	67.9/78.5
Emergency Loading	Under Lowest Conductors	2.90	126.03
	At Right-of-Way Edges	0.59/0.59	73.5/53.0

EMF CALCULATIONS		Electric Field kV/meter	Magnet Field mGauss
Winter Rating	Under Lowest Conductors	2.90	354.18
	At Right-of-Way Edges	0.59/0.59	184.8/197.5

#### **4906-11-01 (C) (2) b: EMF Discussion**

##### **Background Information**

Electric and magnetic fields (EMFs) are naturally occurring in the environment and can be found in the Earth's interior and in the human body. EMFs are generated essentially anywhere where there is a flow of electricity, including electrical appliances and power equipment. Electric fields are associated with the voltage of the source; magnetic fields are associated with the flow of current in a wire. The strength of these fields decreases rapidly with distance from the source. EMFs associated with electricity use are not disruptive to cells like x-rays or ultraviolet rays from the sun. EMF fields are thought to be too weak to break molecules or chemical bonds in cells. Scientists have conducted extensive research over the past two decades to determine whether EMFs are associated with adverse health effects, and although the research and debate of this issue continues, at this time there is no firm basis to conclude that EMFs cause adverse health effects. A number of independent scientific panels have reviewed the research and have stated that there is no basis to conclude that EMFs cause adverse health effects nor has it been shown that levels in everyday life are harmful.

##### **Recent Developments**

As a part of the National Energy Policy Act of 1992, the Electric and Magnetic Fields Research and Public Information Dissemination (EMF RAPID) program was initiated within the five-year effort under the National EMF Research Program. The culmination of this five-year effort resulted in a final RAPID Working Group report, which was released for public review in August 1998. The Director of the National Institute of Environmental Health Sciences (NIEHS) then prepared a final report to Congress after receiving public comments. The NIEHS' Director's final report, released to Congress on May 4, 1999, concluded that extremely low frequency

electric and magnetic fields (ELF-EMF) exposure cannot be recognized at this time as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard. The Director further stated that the conclusion of this report was insufficient to warrant aggressive regulatory concern.

#### Sources for Additional Information

The following websites sponsored by federal agencies or other organizations provide additional information on EMF:

- Centers for Disease Control/National Institute for Occupational Safety and Health: <http://www.cdc.gov/niosh/topics/emf/>
- National Institute of Environmental Health Sciences (NIEHS) EMF Rapid Program: <http://www.niehs.nih.gov/health/topics/agents/emf/>

#### 4906-11-01 (C) (3): Estimated Costs

The following are the estimated capital costs by FERC Accounts for the proposed project:

<u>Account</u>	<u>Cost</u>
350 Land Rights, Engineering, etc.	\$ 1,307,270
355 Poles and Fixtures	\$ 145,000
356 Overhead Conductors & Devices	\$ 180,450
<hr/>	
Total	\$ 1,632,720

#### 4906-11-01 D: SOCIOECONOMIC DATA

##### 4906-11-01 (D) (1): Land Use

The Project is located in the City of Cleveland, in Cuyahoga County, Ohio. The land use along the route of the line is an existing railroad and public transportation rail line. Based on the U.S. Bureau of Census estimates, the 2010 population of the City of Cleveland was 396,815. The 2010 population of Cuyahoga County was 1,280,122. As the proposed Project involves only reconductoring and the replacement of structures within existing right of way, no significant changes or impacts to the current land use is anticipated.



**4906-11-01 (D) (2): Agricultural Land**

Agricultural land use does not exist through the Project right-of-way.

**4906-11-01 (D) (3): Archaeological or Cultural Resources**

As part of ATSI's investigation of the Project site, a search of Ohio Historic Preservation Office (OHPO) National Register of Historic Places on-line database was conducted and multiple historic sites are located within one mile of the project area. However, given that the project replaces the conductors and structures of an existing transmission line, it is unlikely that any archaeological or cultural resources would be disturbed. The OHPO database includes all Ohio listings on the National Register of Historic Places, including districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

**4906-11-01 (D) (4) a: Documentation of Letter of Notification Transmittal**

This Letter of Notification is being provided concurrently to the following officials of the City of Cleveland, Cuyahoga County, Ohio.

**Cuyahoga County**

Mr. Ed FitzGerald  
Cuyahoga County Executive  
2079 East 9<sup>th</sup> Street, 8<sup>th</sup> Floor  
Cleveland, Ohio 44115

Ms. C. Ellen Connally  
Cuyahoga County Council President  
2079 East 9<sup>th</sup> Street, 8<sup>th</sup> Floor  
Cleveland, Ohio 44115

Ms. Yvonna Conwell  
Cuyahoga County Council  
District 7  
2079 East 9<sup>th</sup> Street, 8<sup>th</sup> Floor  
Cleveland, Ohio 44115

Ms. Bonita Teeuwen, P.E.  
Director of Public Works  
2079 East 9<sup>th</sup> Street, 5<sup>th</sup> Floor  
Cleveland, Ohio 44115

Mr. Nathan Kelly  
Chair, Cuyahoga County Planning  
Commission  
2079 East 9<sup>th</sup> Street, 5<sup>th</sup> Floor  
Cleveland, Ohio 44115

Ms. Jeanne Schmotzer  
Cuyahoga County Clerk of Council  
Lakeside Place  
323 West Lakeside Avenue, Room 400  
Cleveland, Ohio 44113

**City of Cleveland**

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

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

Mr. Matt Spronz  
Director, Office of Capital Projects  
601 Lakeside Avenue, Room 113  
Cleveland, Ohio 44114

Mr. Robert Brown  
Director, City of Cleveland Planning  
Commission  
601 Lakeside Avenue, Room 501  
Cleveland, Ohio 44114

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

Copies of the transmittal letters to these officials have been included with the transmittal letter submitting this Letter of Notification to the Ohio Power Siting Board.

**4906-11-01 (D) (4) b: Public Information Program**

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

**4906-11-01 (D) 5: Current or Pending Litigation**

There is no known current or pending litigation involving this Project.

**4906-11-01 (D) 6: Local, State, and Federal Requirements**

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

## **4906-11-01 (E): ENVIRONMENTAL DATA**

### **4906-11-01 (E) (1): Endangered, Threatened, and Rare Species Investigation**

As part of the investigation supporting this application, a request was submitted by ATSI to the Ohio Department of Natural Resources-Division of Wildlife (ODNR) on July 25, 2014, to research the presence of any endangered, threatened, or rare species within the project area. The ODNR's July 29, 2014 response, attached as Exhibit No. 5, indicated that they have records for a rare species within the one mile buffer search area of the Project. However, it is unlikely that this rare species would be disturbed because of the location of the rare species not being within the Project right-of way, the fact that there is an existing transmission line, the nature of the Project, and existing land use along the corridor.

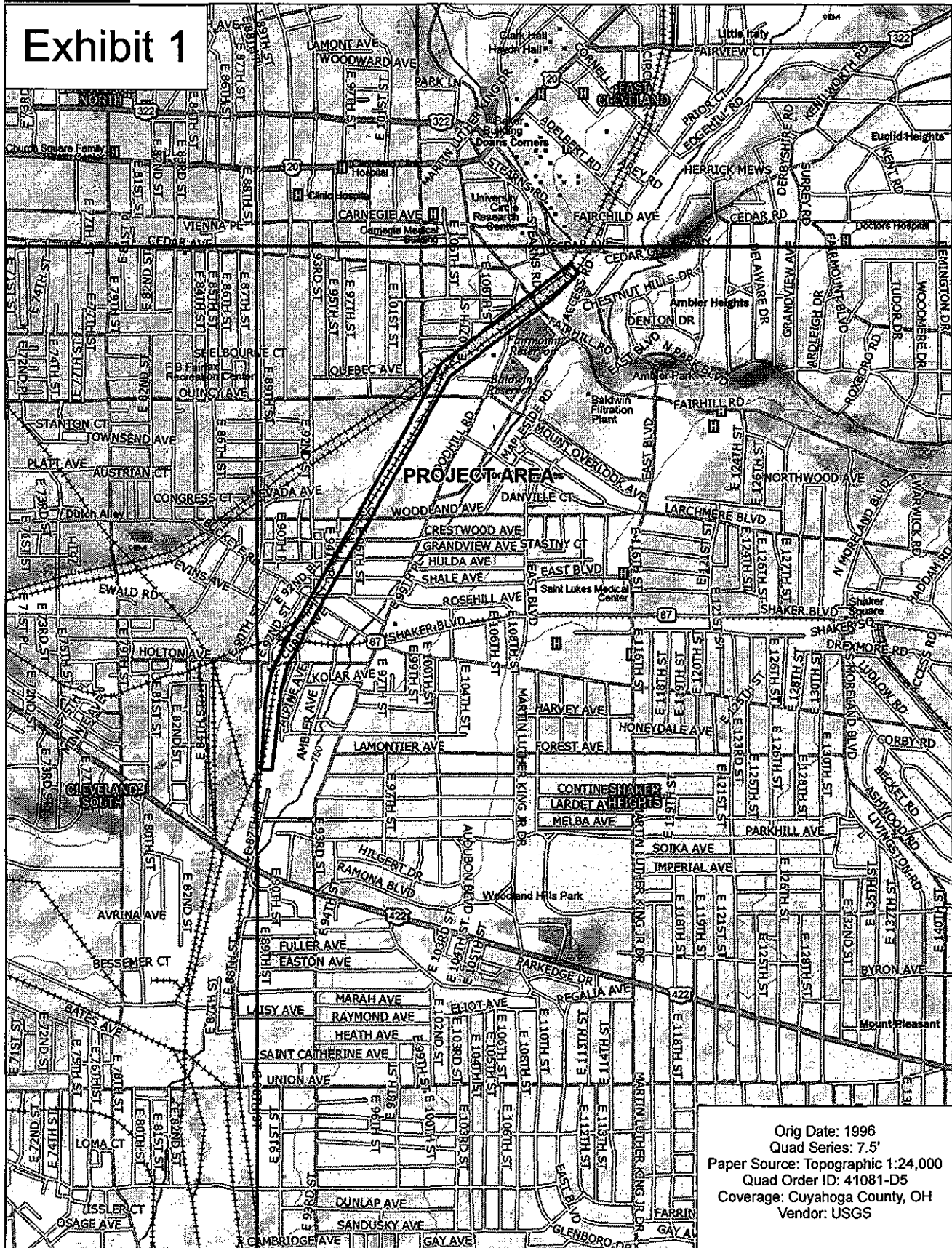
### **4906-11-01 (E) (2): Areas of Ecological Concern**

As part of the investigation, a request was submitted to the Ohio Department of Natural Resources-Division of Wildlife (ODNR) on July 25, 2014, to research the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, or other protected natural areas within the project area. The ODNR's July 29, 2014 response, attached as Exhibit No. 5, indicated that they have records of a cave or cavern identified with the one mile buffer of the Project area. Due to its location to the Project area, it is very unlikely that it will be disturbed by the nature of the Project.

### **4906-11-01 (E) (3): Additional 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 Public Utilities Commission of Ohio (PUCO) and will meet all applicable safety standards established by the Occupational Safety and Health Administration.

# Exhibit 1

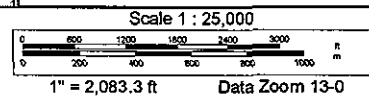


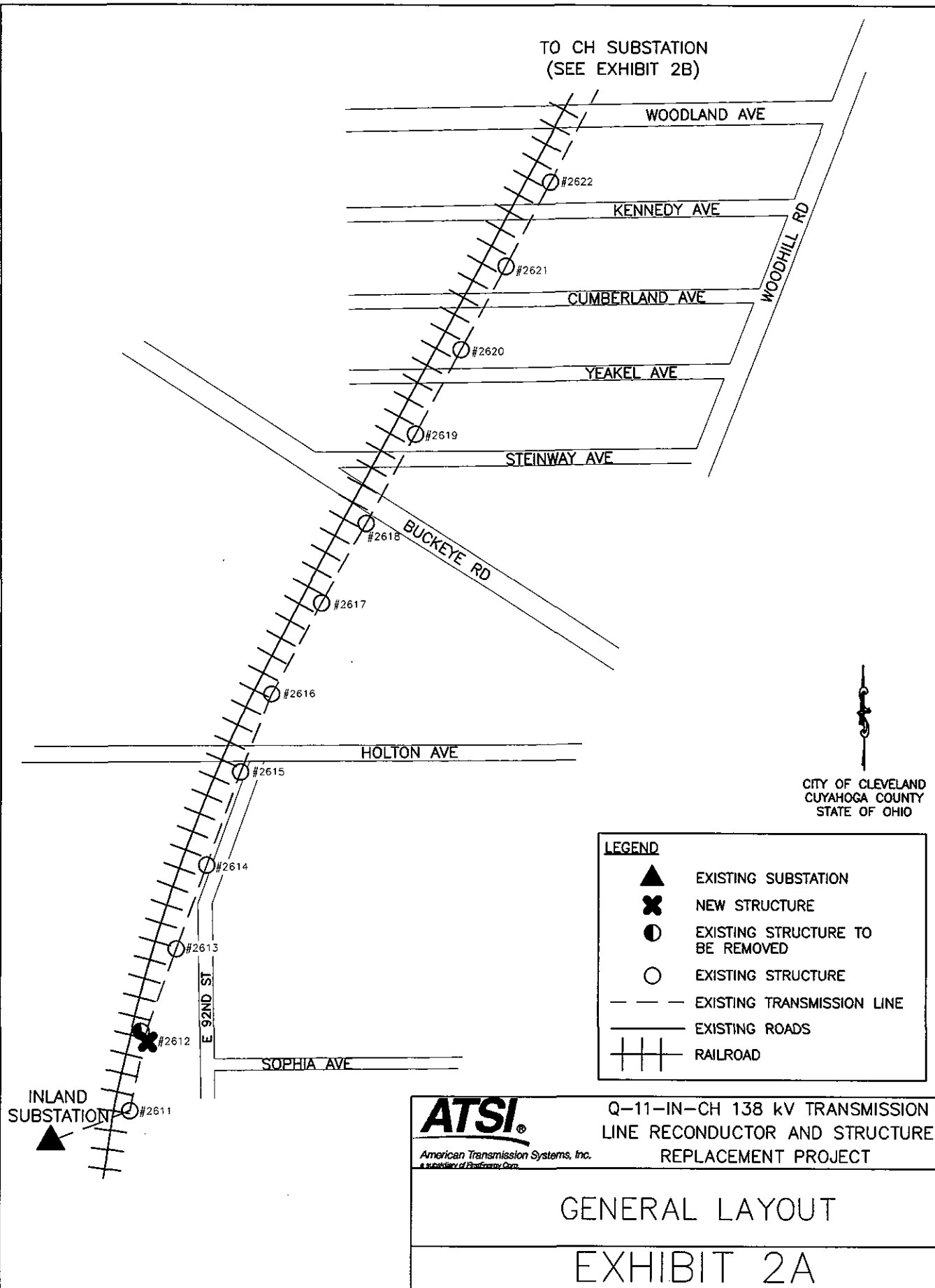
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 Paper Source: Topographic 1:24,000  
 Quad Order ID: 41081-D5  
 Coverage: Cuyahoga County, OH  
 Vendor: USGS

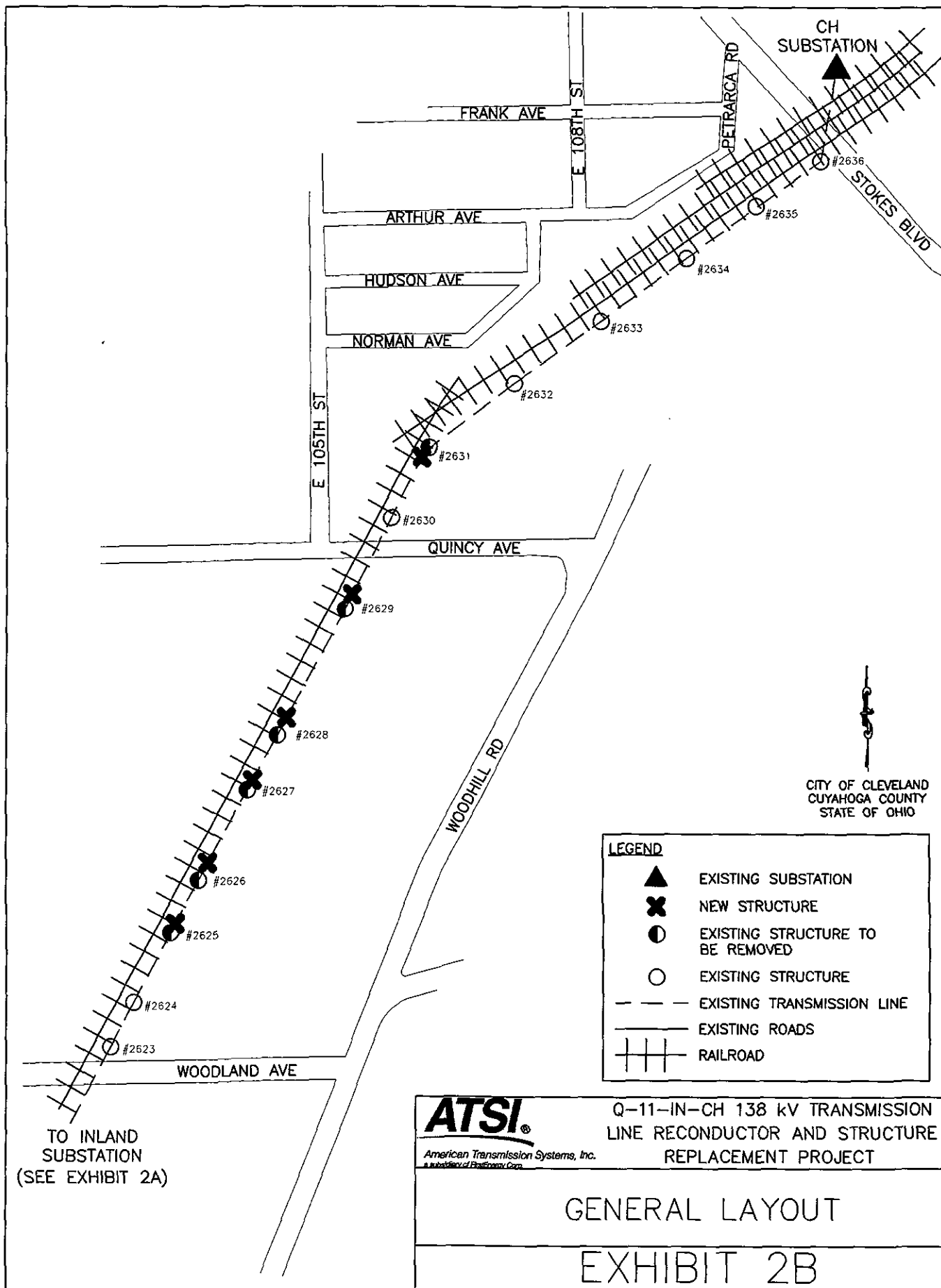
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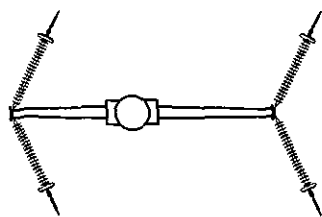
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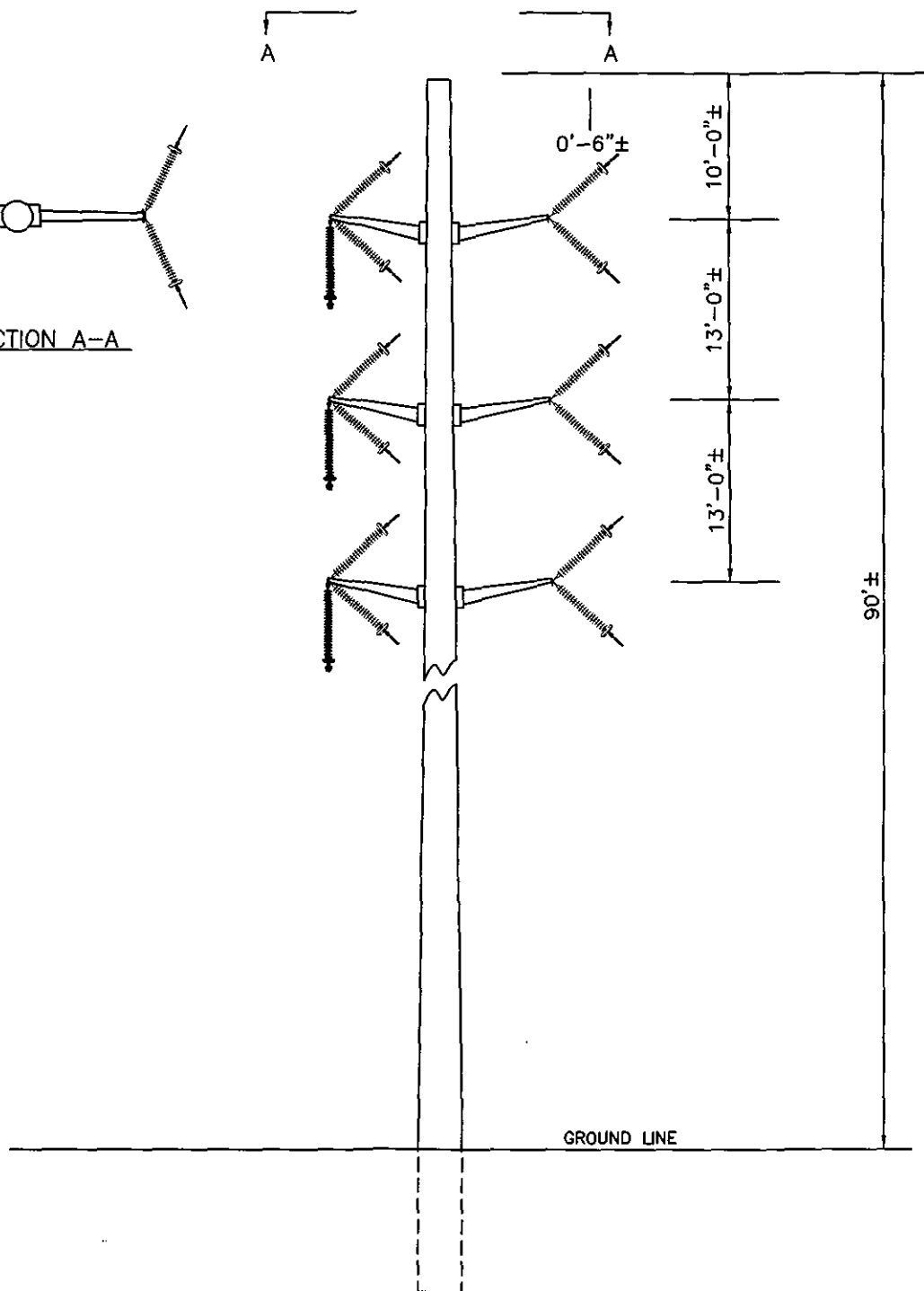








SECTION A-A



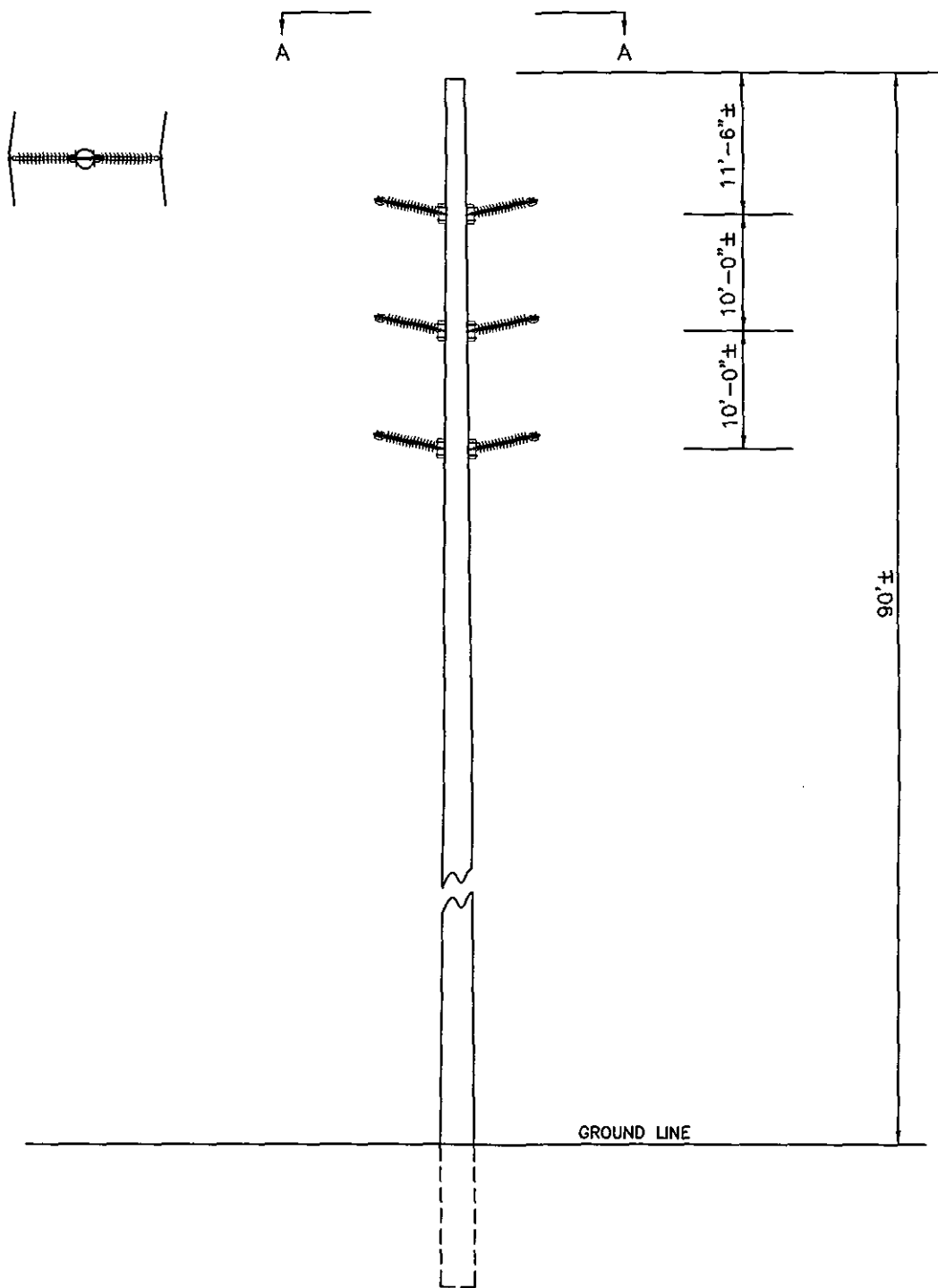
**ATSI**

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

Q-11-IN-CH 138 kV TRANSMISSION  
LINE RECONDUCTOR AND STRUCTURE  
REPLACEMENT PROJECT

DOUBLE-CIRCUIT DEADEND  
(STRUCTURES #2612 & #2631)

EXHIBIT 3



**ATSI**®

American Transmission Systems, Inc.  
a subsidiary of Balfour Beatty Corp.

Q-11-IN-CH 138 kV TRANSMISSION  
LINE RECONDUCTOR AND STRUCTURE  
REPLACEMENT PROJECT

DOUBLE-CIRCUIT TANGENT  
(STRUCTURES #2625-2629)

EXHIBIT 4





## Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

**Ohio Division of Wildlife**  
*Scott Zody, Chief*  
2045 Morse Rd., Bldg. G  
Columbus, OH 43229-6693  
Phone: (614) 265-6300

Columbus, OH 43229-6693

July 29, 2014

Janice Arch  
FirstEnergy Corporation  
76 South Main Street  
Akron, OH 44308

Dear Ms. Arch

I have reviewed the Natural Heritage Database for the CH-Inland 138 kV Transmission Line Project area, including a one mile buffer, in the City of Cleveland, Cuyahoga County, Ohio. We have records for rare species in your search area. A map showing the location of these elements is provided with this letter.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Please note that although we inventory all types of plant communities, we only maintain records on the highest quality areas.

This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and does 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.

Please contact me at 614-265-6452 if I can be of further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Greg Schneider".

Greg Schneider, Administrator  
Ohio Natural Heritage Program

[illegible]

Natural Heritage Program  
Ohio Division of Wildlife  
7/29/2014