

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

CONSTRUCTION NOTICE

**ASHTABULA SUBSTATION
138 kV TRANSMISSION LINES RELOCATION PROJECT**

OPSB CASE NO.: 19-0580-EL-BNR

June 4, 2019

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

CONSTRUCTION NOTICE
ASHTABULA SUBSTATION 138 kV TRANSMISSION LINES RELOCATION
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 Construction Notice application.

4906-6-05: ACCELERATED APPLICATION REQUIREMENTS

4906-6-05: Name and Reference Number

Name of Project: Ashtabula Substation 138 kV Transmission Lines Relocation Project (“Project”).

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

In this Project, American Transmission Systems, Incorporated (“ATSI”), a FirstEnergy company, proposes to install two (2) new deadened steel monopole structures on drilled shaft foundations, immediately north of the existing Ashtabula Substation fence line. One of the structures will relocate and replace the existing ASHTA Chemicals 138 kV Q-31 Transmission Line 3-pole wood structure No. 9062 to facilitate rearranging the existing connection to Ashtabula Substation to accommodate new equipment within the substation.

The relocation of structure No. 9062 also allows for the installation of the second of these two new structures, structure No. 1, for the future Ashtabula-Petmin 138 kV Transmission Line. The Ashtabula-Petmin 138 kV Transmission Line, which will be a proposed transmission line to a customer facility, will be the subject of a separate filing later in 2019.

As part of this Project, two sets of transmission line ties originating at the retired Ashtabula Power Plant and terminating at the Ashtabula Yard South will be physically

removed to allow the ASHTA Chemicals 138 kV conductors to be installed. As part of the Project, one (1) H-Frame structure will be replaced with an approximately 10 feet taller H-Frame structure in generally the same location.

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, Ashtabula County, Ohio Quad Map. Exhibit 2 provides a partial copy of ESRI aerial imagery. The Project is located approximately 0.2 miles northeast of the intersection of State Road and Lake Road East. The general layout is shown in Exhibit 3. The Project will be located in Ashtabula Township, Ashtabula County, Ohio.

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

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

(1) New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:

(a) Line(s) not greater than 0.2 miles in length.

(d) Line(s) primarily needed to attract or meet the requirements of a specific customer or customers as follows:

(i) The line is completely on property owned by the specific customer or the applicant.

(2) Adding new circuits on existing structures designed for multiple circuit use, replacing conductors 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.

The proposed Project is within the requirements of Items (1)(a), (1)(d)(i) and (2)(a) as it involves new construction to attract or meet the requirements of a specific customer and adding structures to an existing transmission line and replacing structures on an existing transmission line for a distance of two miles or less.

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

The Project proposes the rearrangement of the existing ASHTA Chemicals 138 kV Transmission Line connection to the Ashtabula 138 kV Substation in order to accommodate installation of the future Ashtabula-Petmin 138 kV Tap servicing a new customer facility.

Petmin USA, a new interconnection customer, will be building a new Direct Reduced Iron (“DRI”) Plant to be served by the ATSI 138 kV transmission system in the city of Ashtabula, Ohio. The new facility will produce high quality pig-iron to be supplied to the region’s steel manufacturing facilities. The customer has selected a site approximately one (1) mile west of the existing ATSI Ashtabula South substation. Per the customer’s request, the connection will require construction of a single 138 kV transmission line tap directly from the Ashtabula Substation to the customer’s substation. The new tap will be named Ashtabula-Petmin 138 kV Transmission Line and will be the subject of a separate filing later in 2019.

Currently, there are three transmission lines strung into the Ashtabula Substation. Two of them are de-energized transmission lines to a retired generation plant, and the third transmission line is a radial supply to a single customer, ASHTA Chemicals. In order to support the installation of the future Ashtabula-Petmin 138kV Transmission Line, the take-off structure for the ASHTA Chemical facility will need to be moved. In addition, as the ASHTA Chemical facility is served radially, the Project includes a proposed solution that will facilitate maintenance of their service in the event of a

failure by taking advantage of an unused bay in the existing substation to set the new breaker and accessories and construct a new transmission line exit for ASHTA Chemicals.

In this Project, therefore, ATSI proposes to install a new take-off steel monopole structure (New Structure # 9062) to replace the existing 3-pole wood take-off structure, located inside the substation that serves the ASHTA Chemicals facility. Engineering analysis of the ASHTA Chemicals 138kV Transmission Line following the transition to the new take-off structure has also demonstrated that the next downstream wood H-Frame structure needs to be replaced to meet current engineering criteria for clearances and structure strength on the ASHTA Chemicals 138kV Transmission Line.

In addition to the installation of the new take-off structure for ASHTA Chemicals, ATSI proposes in this Project to install the take-off structure (Structure #1) for the Ashtabula-Petmin 138 kV Transmission Line. Structure #1 will be located adjacent to structure #9062 and the substation fence. New conductor will be attached between the substation and Str. #1 as part of this installation in order to avoid future complications with an underlying bus within the substation.

It is also important to note that since this Project will be constructed during a single outage, the service disruptions to ATSI's customers in the area will be reduced. Installing both steel monopole structures during the same mobilization will avoid the need for a second outage of the adjacent 4.8 kV and 13.8 kV distribution circuits following Lake Road East (also shown on Exhibit 3), which serve residencies and small businesses in the area, as well as the service to the ASHTA Chemical facility.

Further, combining the rearrangement of the ASHTA Chemical take-off structure with the installation of the Ashtabula-Petmin 138 kV Tap take-off structure, will allow ATSI to take advantage of current outages and construction schedules and to maximize the efficiencies of the installation as the take-off structure for the Ashtabula-Petmin 138kV Tap requires the same equipment to excavate and set the structures as the new ASHTA Chemical take-off structure.

Finally, in this Project, in order to accommodate the reconfiguration and upgrade of the Ashtabula Substation, the existing de-energized transmission lines from the Ashtabula Substation to a retired generating plant will be removed.

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 2018 Long Term Forecast Report. This map was submitted to the PUCO in Case No. 19-0806-EL-FOR under OAC Rule 4901:5-5:04 (C). This map is incorporated by reference only. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations including the Ashtabula Substation and ASHTA Chemicals 138 kV Transmission Line. The Project area is located approximately 1 1/2 inches (11" X 17" printed version) from the right edge of the map and 1/2 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

The general area of the Project was carefully considered to minimize potential impacts to the extent practical and meet the needs of the Project. Due to the short distance of the Project and the physical layout of the existing and future substation equipment, no alternatives were considered viable.

Based on the need to upgrade the equipment at the substation to more reliably serve ASHTA Chemicals and prepare for the installation of a new customer tap, ATSI considered as key Project requirements the constructability and efficiency of the installation of the two take-off steel monopole structures during the same construction effort. This Project accomplishes this key Project goal.

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 Transmission Line Project as necessary. ATSI will maintain a copy of

this Construction Notice on FirstEnergy’s website. Letters will be sent to affected property owners at least 7 days before construction begins on the project informing them of the Project’s start and a proposed timeframe of construction and restoration activities.

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

The construction schedule for this Project is expected to begin as early as July 29, 2019 and completed by September 30, 2019.

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, Ashtabula County, Ohio, Quad Map. Exhibit 2 provides a partial copy of ESRI aerial imagery.

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

ATSI owns the Ashtabula Substation and the land surrounding the substation, including the land required for the Project. No additional property easements, options, or land use agreements will be necessary to construct the Project or operate the expanded substation. Table 1 contains a list of property owners affected by the project.

Table 1: Property Owner List

Parcel Number	Property Owner	Property Address	Easement Status
030000014002	ATSI	2133 Lake Road, Ashtabula OH 44004	Owned In Fee

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

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

The transmission line construction will have the following characteristics:

- Voltage: 138 kV
- Conductors: 795 kcmil 36/1 ACSR (existing)
795 kcmil 26/7 ACSR (new)
- Static Wire: 7#8 Alumoweld (existing)

Insulators: Polymer (Steel Monopoles)
Porcelain (H-Frame structure)

Structure Types: Exhibit 4: Steel Deadend Monopole Structure
Exhibit 5: H-Frame Wood Structure

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

The closest occupied residence or institution is approximately 550 feet from the proposed transmission line’s centerline, therefore no Electric and Magnetic Field (“EMF”) calculations are required by this code provision.

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

The estimated capital cost for the proposed project is approximately \$307,500 paid by ATSI.

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

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

Land use surrounding the Project is primarily heavy manufacturing and general business district use. The Project is located entirely within Ashtabula Township in Ashtabula County, Ohio. Based on the U.S. Bureau of Census estimates, the 2017 population of Ashtabula Township was 19,898. The estimated 2017 population of Ashtabula County was 97,807. No significant changes or impacts to the current land use is anticipated.

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

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

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

A search of Ohio Historic Preservation Office’s (“OHPO”) National Register of Historic Places (“NRHP”) online database was conducted to identify the existence of any significant archaeological or cultural resource sites within 0.5 miles of the Project area. A map of the results of the search is shown in Exhibit 6. The OHPO database

includes all Ohio listings on the NRHP, including districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. The results of the search indicate that there are no Listed NRHP properties and no OHPO eligible properties identified within 0.5 miles of the Project’s potential disturbance area.

The OHPO database also includes a listing of the Ohio Archaeological Inventory (“OAI”), the Ohio Historic Inventory (“OHI”), previous cultural resource surveys, and the Ohio Genealogical Society (“OGS”) cemetery inventory. No OAI listed archeological resources have been previously inventoried within 0.5 miles of the Project area. Three (3) OHI listed structural resources are located within 0.5 miles of the Project area and are shown in Table 2.

Table 2. List of OHI Listed Structural Resources

OHI Number	Present Name	Historic Use	County	Municipality
ATB0025203	Ashtabula Generating Plant AB	Energy Facility	Ashtabula	Ashtabula Township
ATB0025303	Ashtabula C Generating Plant	Energy Facility	Ashtabula	Ashtabula Township
ATB0026403	Lakeshore Park Pavilion	Recreation	Ashtabula	Ashtabula Township

No previous archaeological resource surveys were conducted within 0.5 miles of the Project area. There are no OAI sites located within 0.5 miles of the Project’s potential disturbance area. No OSG cemeteries are located within 0.5 miles of the Project area.

No changes or impacts to archaeological and cultural resources are anticipated.

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

At the time of filing, ATSI was not aware of any additional government agency requirements that would apply, and no additional approvals are needed for this Project.

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

Nineteen (19) animal species and seventy-one (71) plant species designated by the State of Ohio as threatened or endangered are listed as potentially occurring in Ashtabula

County. The U.S. Fish and Wildlife Service lists nine (9) animal species designated as federally threatened or endangered as potentially occurring in Ashtabula County. The Project work limits will be entirely within the maintained area located adjacent to the existing substation. This area consists entirely of gravel or grass that is routinely mowed, and no trees are located within the Project area. As such, the Project is not anticipated to adversely impact any listed species.

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

No national or state forests and parks, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, or wildlife sanctuaries were identified within the potential disturbance area of the Project.

The Project area is located within maintained mowed lawn and gravel substation yard. A wetland determination was conducted at the Project area in September 2018 by Jacobs, qualified wetlands consultants, and no wetlands or streams were identified within the Project 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 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 Transmittal and Availability for Public Review

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

Ashtabula County

Ms. Kathryn L. Wittington,
Board President
Ashtabula Co. Commissioners
25 West Jefferson Street
2nd Floor Old Courthouse
Jefferson, OH 44047

Mr. J. P. Ducro IV,
Board Vice-President
Ashtabula Co. Commissioners
25 West Jefferson Street
2nd Floor Old Courthouse
Jefferson, OH 44047

Mr. Casey R. Kozlowski
Ashtabula County Commissioner
25 West Jefferson Street
2nd Floor Old Courthouse
Jefferson, OH 44047

Ashtabula Township

Mr. Steve McClure, Chairman
Trustee, Ashtabula Township
2718 North Ridge Road East
Ashtabula, OH 44004

Ms. Bambi Paulchell,
Vice-Chairman
Trustee, Ashtabula Township
2718 North Ridge Road East
Ashtabula, OH 44004

Libraries

Mr. Joe Zappitello, Director
Harbor-Topky Memorial Library
1633 Walnut Boulevard
Ashtabula, OH 44004

Ms. Janet Discher,
Ashtabula County Administrator
Ashtabula Co. Commissioners
25 West Jefferson Street
2nd Floor Old Courthouse
Jefferson, OH 44047

Ms. Janice Switzer, Director
Ashtabula County Planning
Commission
25 West Jefferson Street
1st Floor Old Courthouse
Jefferson, OH 44047

Mr. Tim Martin, P.E., P.S.
Ashtabula County Engineer
186 East Satin Street Courthouse
Jefferson, OH 44047

Mr. Joseph J. Pete
Trustee, Ashtabula Township
2718 North Ridge Road East
Ashtabula, OH 44004

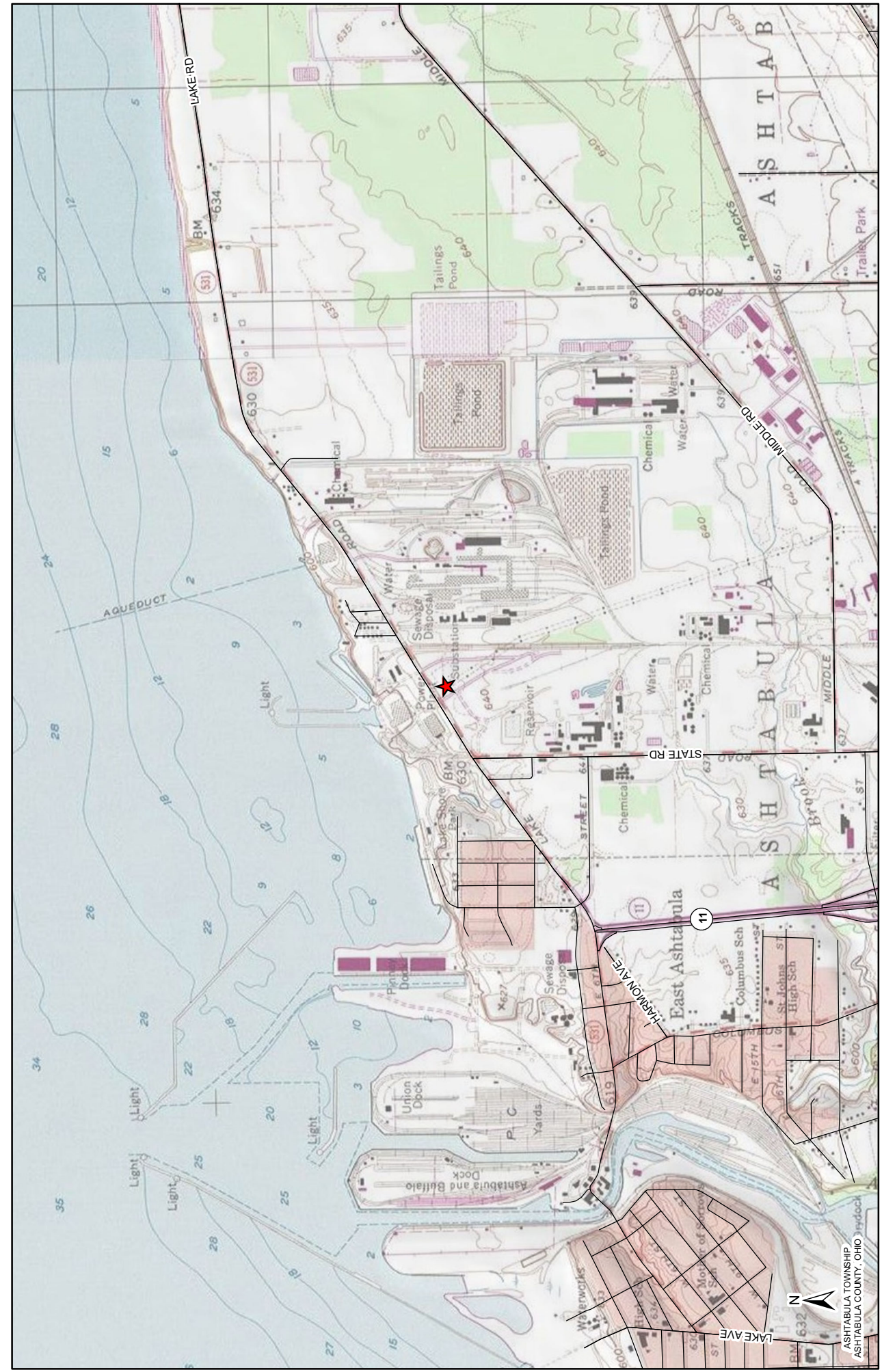
Mr. Robert S. Dille
Fiscal Officer,
Trustee, Ashtabula Township
2718 North Ridge Road East
Ashtabula, OH 44004

Mr. William J. Tokarczyk,
Director
Ashtabula County District
Library, 4335 Park Avenue,
Ashtabula, OH 44004

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 OPSB with proof of

notice to local officials as required by OAC Rule 4906-6-07 (A)(1) and to libraries per OAC Rule 4906-6-07 (A)(2).

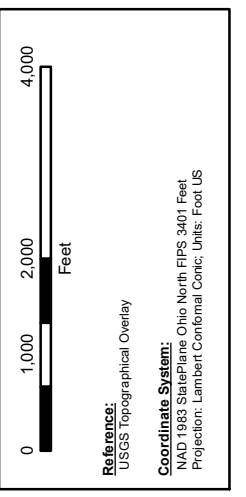
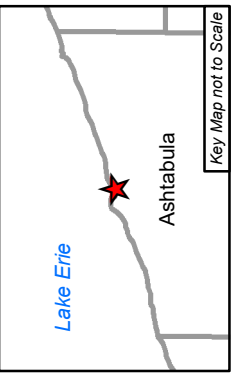
Information is posted at www.firstenergycorp.com/about/transmission_project/ohio.html on how to request an electronic or paper copy of this Construction Notice application. The link to this website is being provided to meet the requirements of OAC Rule 4906-6-07 (B) and to provide the OPSB with proof of compliance with the notice requirements in OAC Rule 4906-6-07 (A)(3).



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EXHIBIT 1

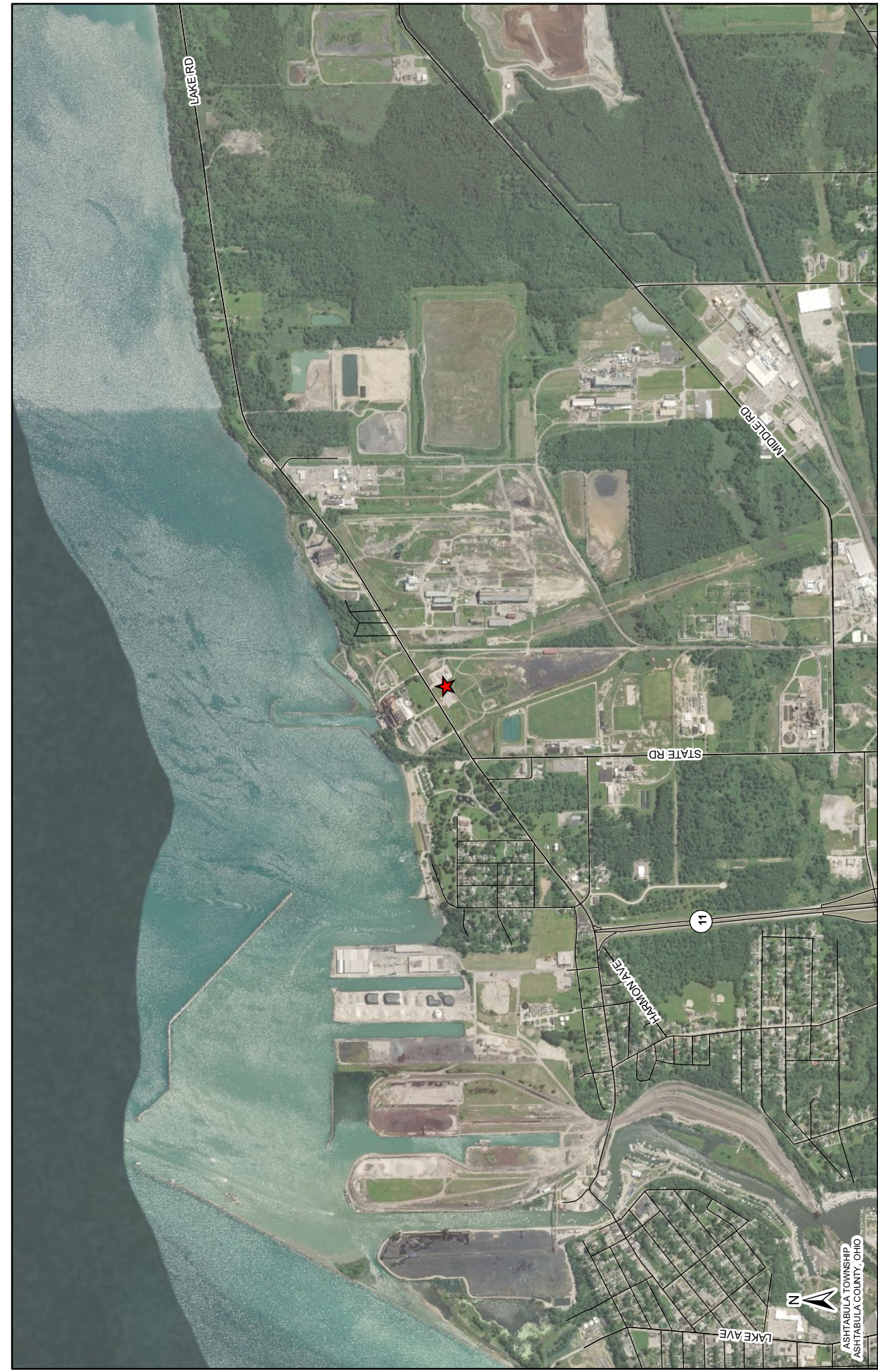
Ashtabula Substation
138-kV Transmission Lines Relocation Project



LEGEND:

- Project Location
- Roadway

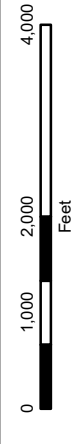
ASHTABULA TOWNSHIP
 ASHTABULA COUNTY, OHIO



ASHTABULA TOWNSHIP
ASHTABULA COUNTY, OHIO

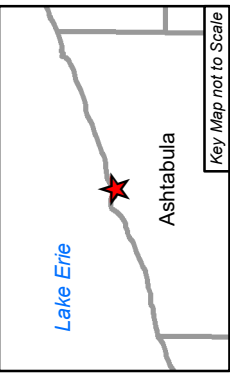
LEGEND:

-  Project Location
-  Roadway



Reference:
ESRI Imagery

Coordinate System:
NAD 1983 StatePlane Ohio North FIPS 3401 Feet
Projection: Lambert Conformal Conic; Units: Foot US



Key Map not to Scale

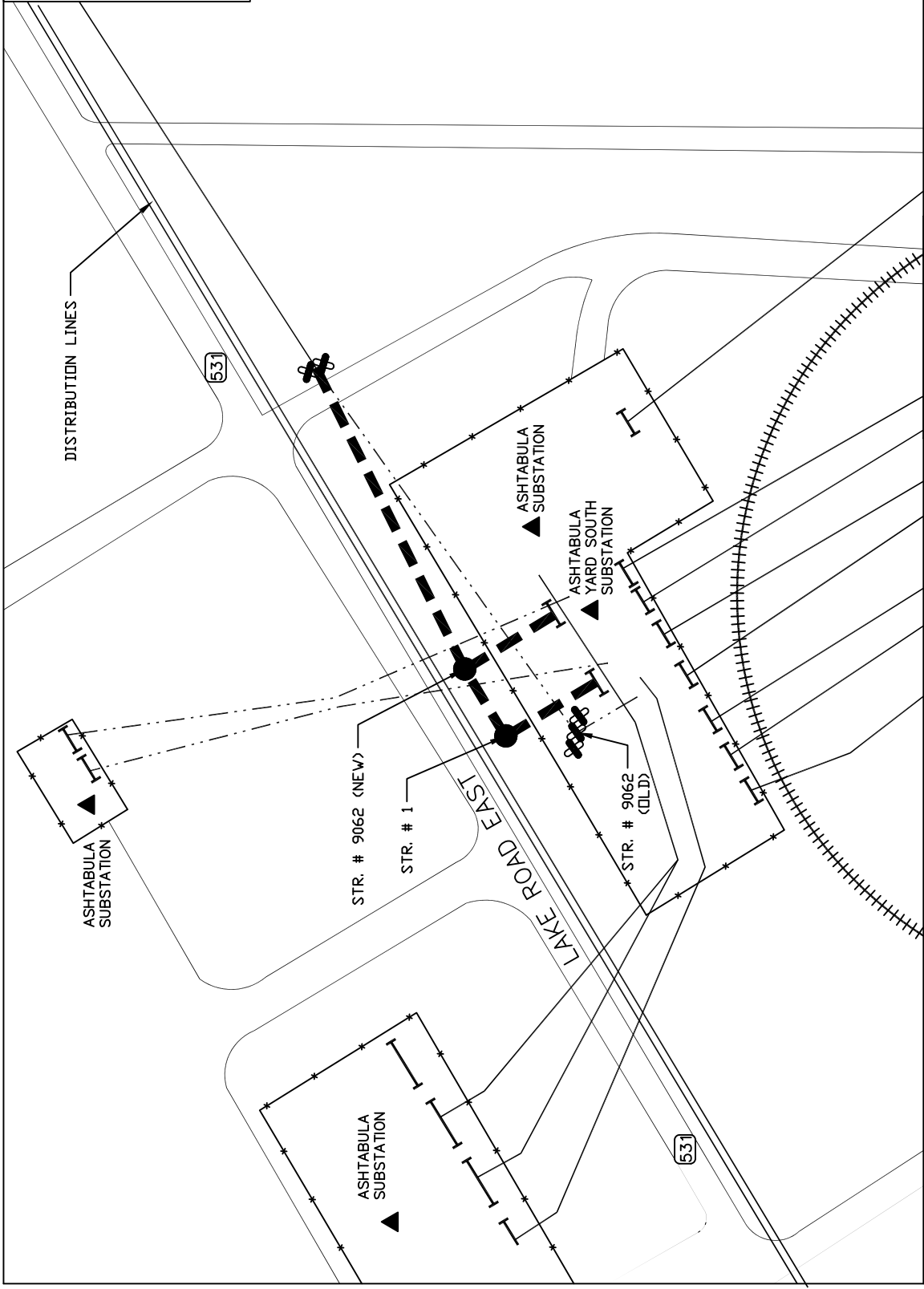
EXHIBIT 2



Ashtabula Substation 138-kV Transmission Lines Relocation Project



ASHTABULA TOWNSHIP
ASHTABULA COUNTY
OHIO



LEGEND

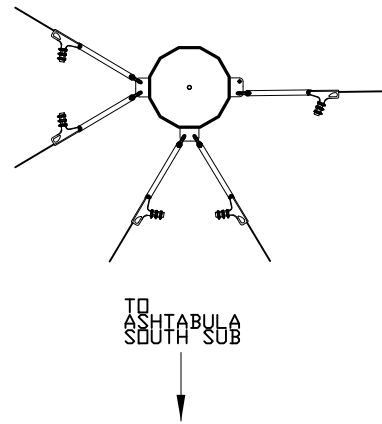
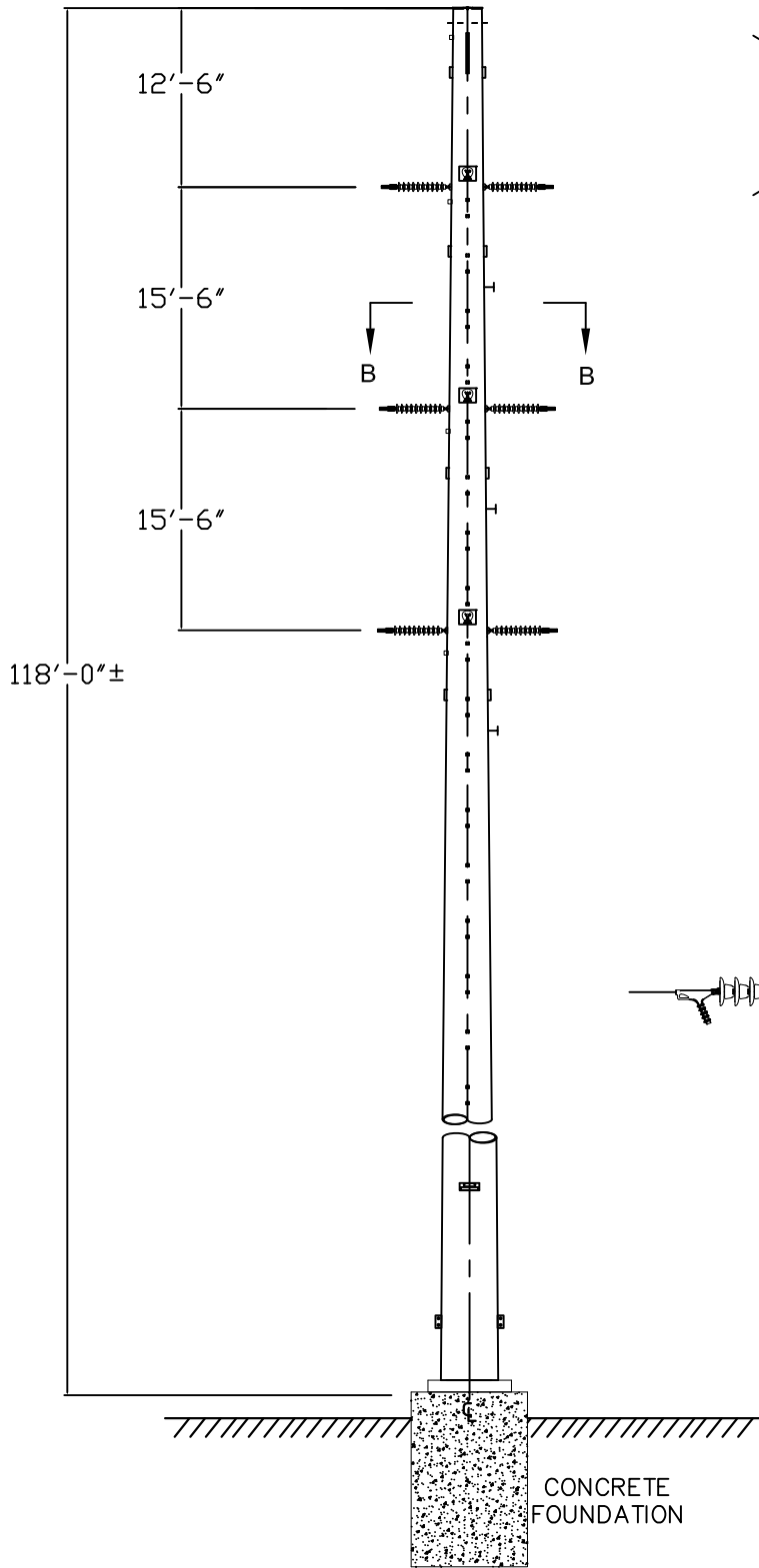
	NEW STEEL MONOPOLE STRUCTURE		NEW CONDUCTOR
	EXISTING 2-POLE WOOD STRUCTURE TO BE REPLACED		EXISTING SUBSTATION
	EXISTING 3-POLE WOOD STRUCTURE TO BE RELOCATED AND REPLACED		SUBSTATION FENCE LINE
	EXISTING CONDUCTOR		EXISTING ROADS
	EXISTING CONDUCTOR TO BE REMOVED		RAILROAD



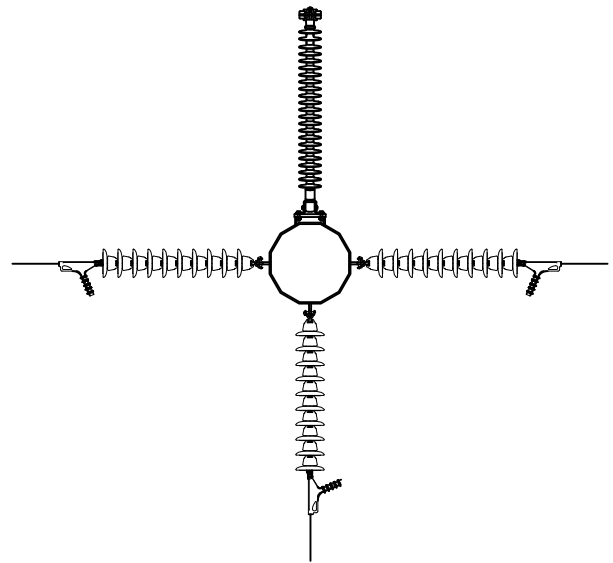
ASHTABULA SUBSTATION
138 kV TRANSMISSION LINES RELOCATION
PROJECT

GENERAL LAYOUT

EXHIBIT 3



SECTION A-A



SECTION B-B

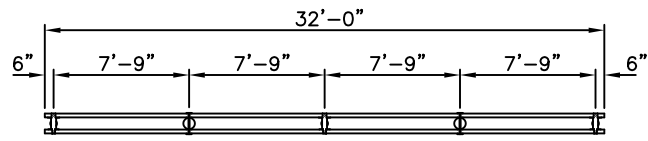
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ASHTABULA SUBSTATION
 138 kV TRANSMISSION LINES
 RELOCATION PROJECT

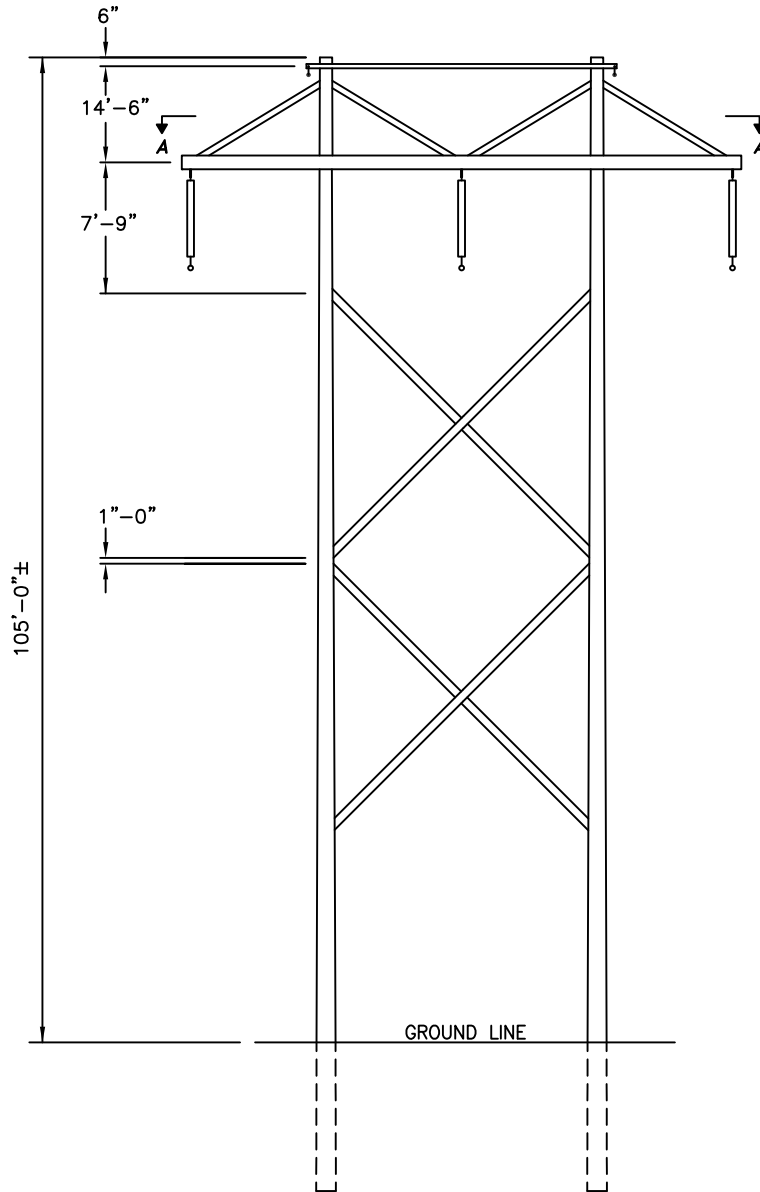
138 kV STEEL MONOPOLE
 DEADEND STRUCTURE

EXHIBIT 4

NOT TO SCALE



SECTION A-A



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ASHTABULA SUBSTATION
 138 kV TRANSMISSION LINES
 RELOCATION PROJECT

138 kV SINGLE CIRCUIT TANGENT
 WOOD H-FRAME REPLACEMENT STRUCTURE

NOT TO SCALE

EXHIBIT 5

Legend

- NR Listings**
- Listed 
 - National Historic Landmark 
 - Delisted 
- NR Determinations of Eligibility**
- Historic Structures 
 - Historic Bridges 
 - Historic Tax Credit Projects 
 - OGS Cemeteries 
- Confident**  
- Not Confident**  
- Dams** 
- UTM Zone Split** 
- NR Boundaries**
- Phase1 
 - Phase2 
 - Phase3 
- Historic Previously Surveyed** 



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Datum: [Datum]
Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

