



Legal Department

American Electric Power  
1 Riverside Plaza  
Columbus, OH 43215-2373  
AEP.com

January 27, 2014

Chairman Todd Snitchler  
The Public Utilities Commission of Ohio  
Ohio Power Siting Board  
180 East Broad Street  
Columbus, Ohio 43215

Yazen Alami, Esq.  
Regulatory Services  
(614) 716-2920 (P)  
(614) 716-2950 (F)  
yalami@aep.com

Re: Letter of Notification for the Ohio Central 138 kV Loop Project  
Case Number: 14-0053-EL-BLN

Dear Ms. McCauley:

In accordance with rules 4906-5-02 and 4906-11-01, Ohio Administrative Code ("OAC"), AEP Ohio Transmission Company ("AEP Ohio Transco") submits this Letter of Notification for expedited approval. A check in the amount of two thousand dollars for expedited review will be submitted under separate cover. Construction of the project is scheduled to begin in June 2014 with an estimated in-service date of September 2015.

As required by rule 4906-11-01, OAC, AEP Ohio Transco has submitted a copy of this Letter of Notice to the chief executive officer of each municipal corporation and county and the head of each public agency charged with protecting the environment or of planning land use in the area in which the proposed project will be located. Copies of these letters are also attached.

Should you have any questions, please do not hesitate to contact me.

Respectfully submitted,

/s/ Yazen Alami  
Yazen Alami

Attachments

**LETTER OF NOTIFICATION FOR THE  
OHIO CENTRAL 138KV LOOP PROJECT**

**PUCO Case No. 14-0053-EL-BLN**

**Submitted pursuant to OAC 4906-11-01**

**AEP Ohio Transmission Company  
(AEP Ohio Transco)**

**January 2014**

# **LETTER OF NOTIFICATION**

## **Ohio Central 138kV Loop Project**

The following information is being provided in accordance with the procedures delineated in Ohio Administrative Code Section 4906-11-01: Letter of Notification Requirements of the Rules and Regulations of the Ohio Power Siting Board.

### **4906-11-01 (B): General Information**

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

Name of Project: Ohio Central 138kV Loop (Project)

2012 LTFR Reference: The Ohio Central 138kV Project is identified on tab FE-T9\_OH T-2 in the Long-Term Forecast Report (LTFR) for 2012.

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

American Electric Power Ohio Transmission Company (AEP OH Transco) is proposing to construct a 0.9-mile overhead 138kV double-circuit electric transmission line to loop the existing North Bellville-Philo 138kV circuit into the Ohio Central Station in Dresden, Muskingum County, Ohio. Exhibit 1 shows the general location of the Project. Exhibit 1 is a partial copy of the United States Geological Survey, Muskingum County, Ohio Quad, Map ID 40082-A1. Exhibit 2 provides an aerial photograph of the Project area showing the proposed route and existing lines. This project has been assigned OPSB Case Number 14-0053-EL-BLN.

The Project is located at the Ohio Central Substation (OCS) in Muskingum County, Ohio. The proposed transmission line will extend north, and then turn east from the substation until it intersects the existing Philo-Howard 138kV line, crossing Northpointe Drive. Ten new, galvanized steel pole structures will be installed. Five structures will be dead-end structures on concrete foundations and five will be tangent structures directly imbedded into the ground. The proposed structures will be approximately 100 to 190 feet tall.

The Project will be located on new right-of-way (ROW) owned by AEP. The Project will require a 100-foot wide permanent ROW. Seven existing transmission lines, five of which are concentrated into a combined ROW, occupy the area immediately surrounding the Project and exit the OCS toward the west. Additional 138kV and 345kV lines enter the substation from the east, northeast, and northwest. The proposed Project would parallel the existing ROWs for the majority of the length of the Project.

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

The Project falls under Item (1) (d) of the Interim Application Requirement Matrix for Electric Power Transmission Lines, in Appendix A of 4906-1-01. This section of the Code states that an applicant may use the LON process if the Project is:

*(1) Rerouting or extension or new construction of single or multiple circuit electric power transmission lines:*

*(d) Lines one hundred twenty-five kV and above, but less than three hundred kV, and greater than 0.2 miles in length but not greater than two miles in length.*

The Project presented in this LON fulfills this condition. The Ohio Central 138 kV loop will relieve the congested lines connected to the Ohio Central 138 kV line.

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

The new Ohio Central 138 kV loop, which will consist of one new double circuit from the Philo - Howard 138 kV line looping into the Ohio Central Station, will help alleviate the loading on the Ohio Central 138 kV circuits for an outage on any of its 138 kV circuits. The new 138 kV loop will improve the reliability in the area and provide flexibility to the system power flows.

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

The Philo-Howard 138kV transmission line currently crosses the Project area from the southeast to northwest, passing within about 1,500 feet of the OCS. The area immediately surrounding the OCS is occupied by seven existing transmission lines, five of which are concentrated into a combined ROW, which exits OCS towards the west.

Additional 138kV and 345kV lines enter the substation from the east, northeast, and northwest.

These additional transmission lines are shown on Exhibit 3 and include.

- Three 345kV lines:
  - Muskingum River-Ohio Central (heading into the OCS from the east)
  - Ohio Central-Fostoria Central (exiting the OCS to the west)
  - Ohio Central 345kV Extension (proposed into the OCS from the west)
- Eight 138kV lines:
  - Ohio Central Extension No. 1 (exiting the OCS to the west)
  - Ohio Central Extension No. 2 (exiting the OCS to the west)
  - Ohio Central Extension No. 3 (exiting the OCS to the west)
  - Dresden IPP-Ohio Central Generator Lead (heading into the OCS from west)
  - Ohio Central–North Newark (exiting the OCS from the west)
  - Zanesville–Ohio Central (heading into the OCS from the west)
  - Conesville–Ohio Central (heading into the OCS from the east)
  - Ohio Central–Coshocton Junction (exiting the OCS from the west)
- One 69kV line Cyclops–Ohio Central (heading into OCS from the north)

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

AEP considered 12 candidate routes during the planning process for the Project before the selection of the proposed route. A quantitative ranking methodology to weigh the environmental, cultural, socioeconomic, and technical/engineering constraints was utilized to choose the most suitable route. The route selection study is attached as Appendix A.

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

Construction on the proposed Project is scheduled to begin on or about June 2, 2014, with a proposed in-service date of September 24, 2015. Clearing for the project is scheduled to begin in March, 2014.

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

Exhibit 1 is a map depicting the general location of the Project site. To locate and view the Project site from the Columbus, Ohio area:

- Take Interstate 270 north towards Cleveland.
- Merge onto Ohio Route 161 (OH-161) east towards New Albany.
- OH-161 East becomes OH-37 east.
- Stay straight on OH-37 east to go onto OH-16 east.
- Take the OH-60 exit towards Dresden/Zanesville.
- Turn right onto OH-60/ Frazeyburg Road.
- Stay straight to go onto Northpointe Drive.
- Turn left onto McGlade School Road.
- The OCS is located on the left side of the road.

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

The Project is located on property owned by AEP. No additional properties are required.

#### **4906-11-01 (C): Technical Features of the Project**

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

AEP will design and construct the new transmission line for 138kV operations. Additional details are included in Section 4906-11-02 (B) (2) above. The transmission line has the following characteristics:

Voltage:	138kV
Conductor:	556.5 kcmil ACSR (26/7) Dove
Shield Wire:	OPGW

##### **Structure types**

Structure 1:	New Steel Pole Structures on concrete foundation (dead-ends)
Structure 2:	New Steel Pole Structures directly imbedded (tangents)

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

Condition	Ckt.1/Ckt.2 Load (A)	Ground Clear. (Feet)	Electric Field (kV/m)*	Magnetic Field (mG)*
<b>Ohio Central-N.Bellville (Ckt.1)/Ohio Central-Philo (Ckt.2) 138 kV Line Extension</b>				
(1) Normal Maximum Loading	521/ 362	35	0.1/ 1.8/0.1	29/ 62/ 27
(2) Emergency Loading (Ckts.1&2)	540/ 394	35	0.1/ 1.8/0.1	31/ 66/ 29
(3) WN Conductor Rating	1079/ 766	25	0.1/ 2.8/0.1	74/212/ 68

\*EMF levels (left ROW edge/maximum/right ROW edge) calculated one meter above ground at the point of minimum ground clearance, assuming balanced phase currents and nominal voltages. ROW widths for 345 and 138 kV lines are 150 and 100 ft, respectively.

### **Line Loading and Rating**

Circuit	Normal Maximum Loading	Emergency Loading	Winter Normal Conductor Rating
Ohio Central – N.Bellville 138kV	521 A	540 A	258 MVA
Ohio Central – Philo 138kV	362 A	394 A	183 MVA

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

EMF levels were computed one meter above ground under the line extension and at the ROW edges. The line extension is of a double-circuit design. The two circuits of the 138 kV extension normally will load in the same direction, suggesting the use of a reverse (low-reactance) phasing; nonetheless, we have retained the superbundle arrangement in our analysis because re-phasing these circuits would not be feasible. All calculations were obtained using EPRI's EMF Workstation "Enviro" computer program.

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

The 2013 capital cost estimates for the proposed project have been tabulated by the Federal Energy Regulatory Commission (FERC) Electric Plant Transmission Accounts:

FERC Accounts	Estimated Capital Costs
355 Poles and Fixtures	\$ 1,527,920
356 Overhead Conductors and Devices	\$ 571,234
Total Cost	\$ 2,099,154

#### **4906-11-01 (D): Socioeconomic Data**

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

Land along the proposed ROW consists of woodlands (1,601 linear feet), existing ROW, early successional forest/scrub (492 linear feet), agricultural land (493 linear feet), palustrine scrub/shrub (PSS) and palustrine emergent (PEM) wetlands (182 linear feet), industrial (41 linear feet), paved roads (112 linear feet), and streams (57 linear feet). The Project is located southwest of the town of Dresden in Muskingum County, Ohio. The Project is located entirely within Muskingum County. Based on the U.S. Census Bureau, the 2010 population for the Cass Township was 1,600, Jefferson Township was 1,837, and Muskingum County was 86,074.

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

The project crosses 530 linear feet of agricultural land. During the field surveys, the agricultural land was being utilized for corn and hay production, with other fields lying fallow. While operations at pole locations will not be possible, crop production and pasture can continue between the poles within the ROW.

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

As part of AEP's assessment of the Project, a Phase I archeological investigation was conducted by Weller & Associates. A copy of this report has been provided under separate cover.

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

AEP is providing this Letter of Notification to the following officials of Jefferson and Cass Townships and Muskingum County, Ohio. 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.

**Muskingum County**

Mr. Jerry Lavy  
Muskingum County Board of Commissioners  
401 Main Street  
Zanesville, OH 43701

Mr. Jim Porter  
Muskingum County Board of Commissioners  
401 Main Street  
Zanesville, OH 43701

Mr. Todd Sands  
Muskingum County Board of Commissioners  
401 Main Street  
Zanesville, OH 43701

Mr. Andrew Roberts, Executive Director  
Muskingum County Planning  
Commission  
401 Main Street, Third Floor  
Zanesville, OH 43701

**Cass Township**

Mr. Edmund Prince  
Cass Township Trustee  
Cass Township  
9575 North Morrison Road  
Dresden, OH 43821

Mr. Randy Stotts  
Cass Township Trustee  
Cass Township  
10195 North Morrison Road  
Dresden, OH 43821

Mr. James Roman  
Cass Township Trustee  
Cass Township  
12535 Third Avenue  
PO Box 163  
Trinway, OH 43842

**Jefferson Township**

Mr. Dale Ferrell  
Jefferson Township Trustee  
Jefferson Township  
1352 Chestnut Street  
Dresden, OH 43821

Mr. Tom Miller  
Jefferson Township Trustee  
Jefferson Township  
1335 Chestnut Street  
Dresden, OH 433821

Mr. Drake L. Prouty  
Jefferson Township Trustee  
Jefferson Township  
10785 Mitchell Hill Drive  
Dresden, OH 43821

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

AEP will advise local officials of features and the status of the proposed transmission line 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**

Project activities may temporarily affect wetland areas and small intermittent streams located on the Project site, however Best Management Practices will be utilized to minimize impacts. If necessary, impacts can be permitted through the U.S. Army Corps of Engineers (USACE) Nationwide Permit program (Nationwide Permit 12) and the companion Ohio Environmental Protection Agency 401 Water Quality Certification. At this time, no permanent impacts are anticipated, and no permits are required for the crossing of streams or wetlands.

Additionally, the project will require the development of a Storm Water Pollution Prevention Plan, as Project activities will disturb more than 1.0 acre of land during construction. This plan will be developed in accordance with the Ohio Environmental Protection Agency National Pollution Discharge Elimination System (NPDES) General Permit OCH000004 – Stormwater Discharges Associated with Construction Activity.

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

Sediment erosion controls will be installed and maintained in accordance with the best management practices (BMPs) detailed in the Ohio EPA's Rainwater and Land Development Manual.

#### **4906-11-01 (E): Environmental Data**

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

A written request was submitted to the Ohio Department of Natural Resources (ODNR) to research the presence of any rare, threatened, or endangered (RTE) within the Project area. ODNR responded to this request on March 25, 2013 indicating that there are no records of RTE species located within the general Project area.

Following the ecological field studies conducted in support of this Project, additional written information was provided to the ODNR and the United States Fish and Wildlife Service (USFWS) regarding field observations of the presence of RTE species and/or their critical habitat. The USFWS response on September 23, 2013 confirmed that there are no Federal Wilderness Areas, wildlife refuges, or designated critical habitats near the Project. The USFWS also indicated that the Project is located within the range of the Indiana bat (*Myotis sodalis*), and that tree clearing must occur between October 1 and March 31. AEP will conduct tree clearing between these dates. To date, no response regarding the additional detailed information has been received from ODNR.

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

A wetland and waterbody delineation was conducted for the project between August 12 and August 14, 2013. This delineation identified seventeen wetlands, two intermittent streams, and two ephemeral streams. The seventeen wetlands consisted of nine PEM wetlands, six PSS wetlands, and two wetlands that had portions of PSS and PEM vegetation were also identified within the Project area. No wetlands will be permanently impacted by the project. AEP will place poles outside of wetland boundaries and will not

fill or change the contours of any wetland on site. Access to each pole location will, to the extent practical, avoid crossing through wetlands. Where a wetland crossing cannot be avoided, AEP will employ flexible matting which will be removed following completion of construction.

If necessary, stream crossings will be by existing access routes where available. Where stream crossings are required, they will be evaluated on a case-by-case basis and one of several methods may be used, from fording if conditions are dry, to use of temporary timber bridges.

All temporary impacts associated with construction activities will be restored after construction has been completed.

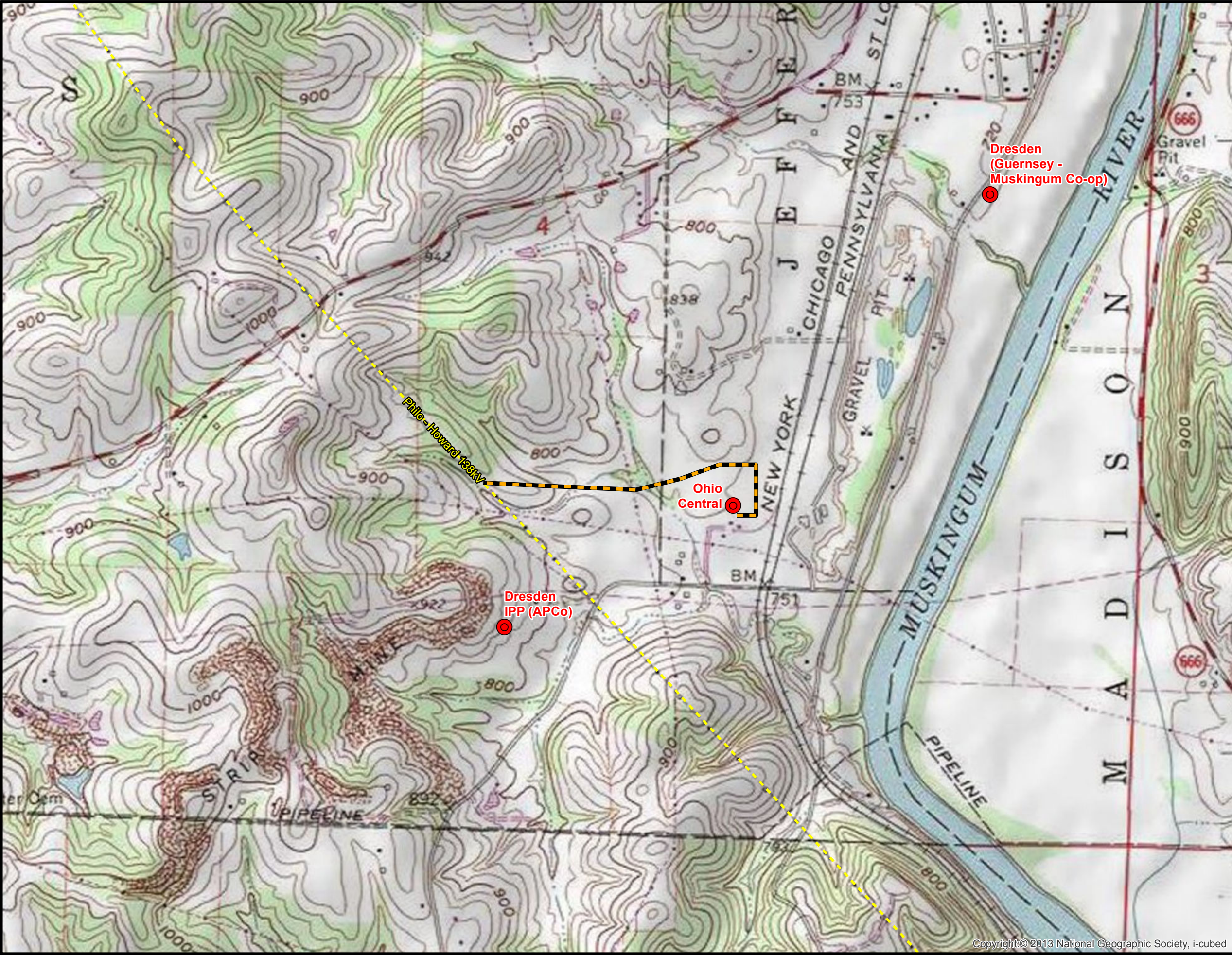
**4906-11-01 (E) (3): Additional Information**

Construction and operation of the proposed Project will be in accordance with the requirements specified in the latest revision of the National Electrical Safety Code as adopted by the Public Utilities Commission of Ohio and will meet all applicable safety standards established by Occupational Safety and Health Administration.

## **EXHIBITS**

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Path: C:\Projects\AEP\Ohio\_Central\_138kV\Maps\ION\_Exhibit1.mxd



LOCATOR MAP

Muskingum County

N

**LEGEND:**

- Ohio Central Substation
- Proposed Ohio Central 138 kV Transmission Line
- Existing Philo-Howard 138 kV Transmission Line

0 1,000 2,000

Scale In Feet

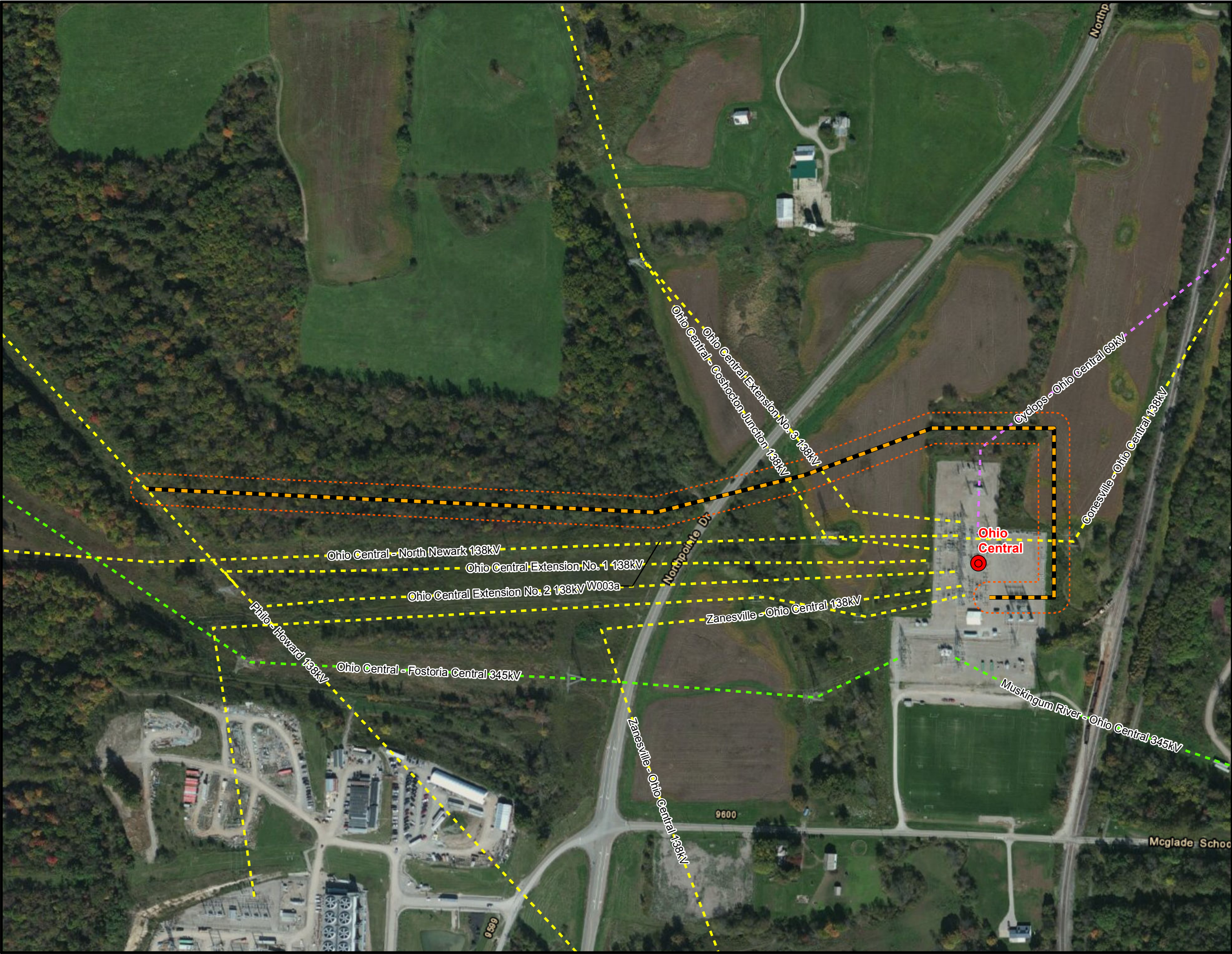
BASE MAP SOURCE:  
USGS 7.5-minute Topographic Quadrangle  
Dresden (published 1978)

Ohio Central 138 kV  
Line Project

EXHIBIT 1  
OVERVIEW MAP

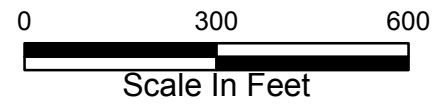
PN: 466969	DATE: 1/15/2014
CREATED BY: AC	
REVIEWED BY: MD	

Path: C:\Projects\AEP\Ohio Central 138kV\Maps\ION Exhibit2.mxd





**LEGEND:**

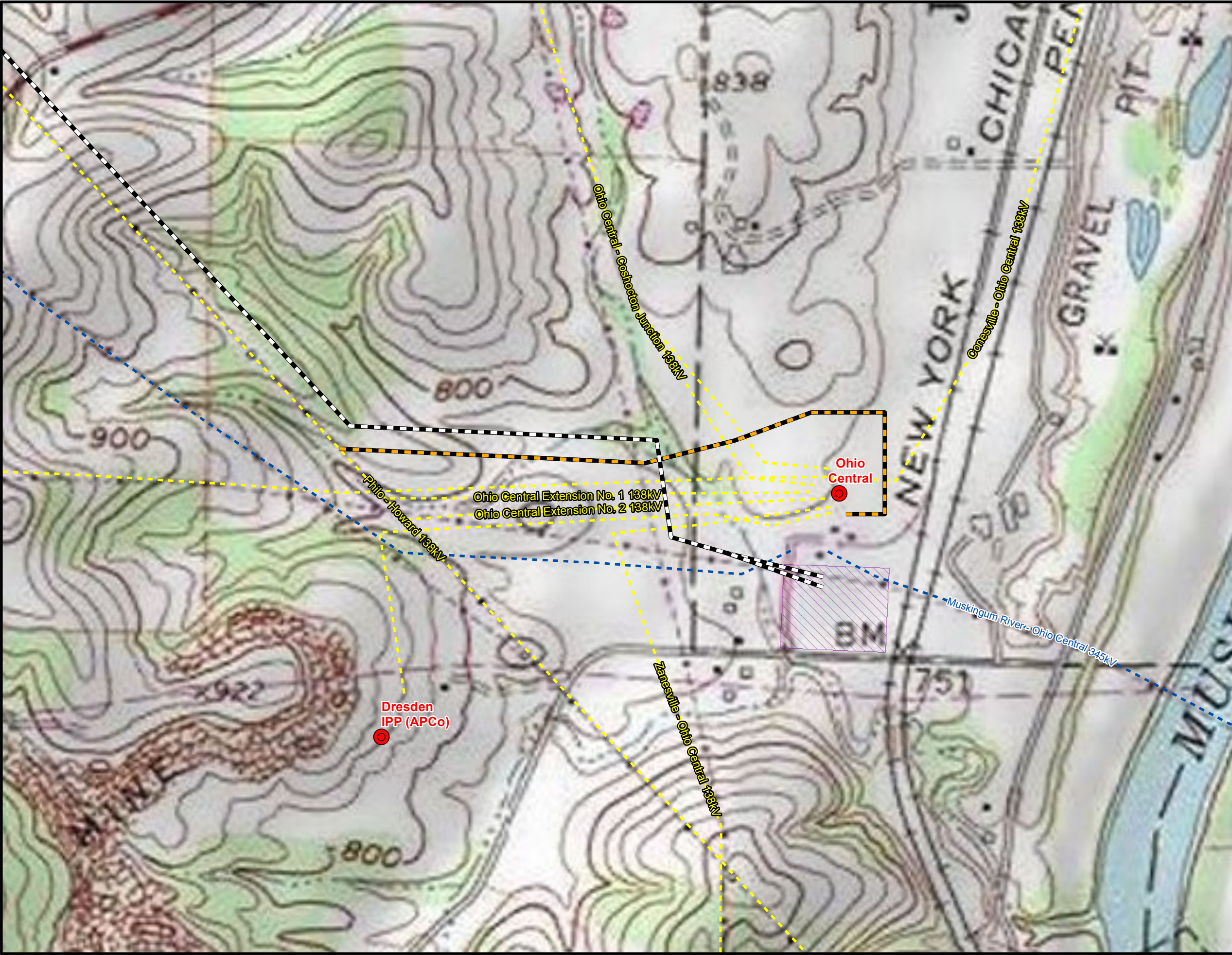
- Ohio Central Substation
- Proposed Ohio Central 138 kV Transmission Line
- 100 ft Right-of-Way
- Below 100 kV Transmission Line
- Existing 138 kV Transmission Line
- Existing 345 kV Transmission Line



Scale In Feet  
BASE MAP SOURCE:  
ESRI ArcMap Imagery - 2011 Microsoft World Imagery

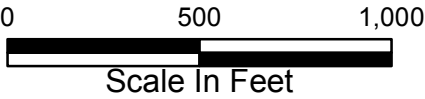
	<b>Ohio Central 138 kV Line Project</b>
<b>EXHIBIT 2 PROJECT AREA</b>	
PN: 466969	DATE: 1/15/2014
CREATED BY: AC	
REVIEWED BY: MD	

Path: C:\Projects\AEP\Ohio Central 138kV\Maps\ON\_ Exhibit3.mxd



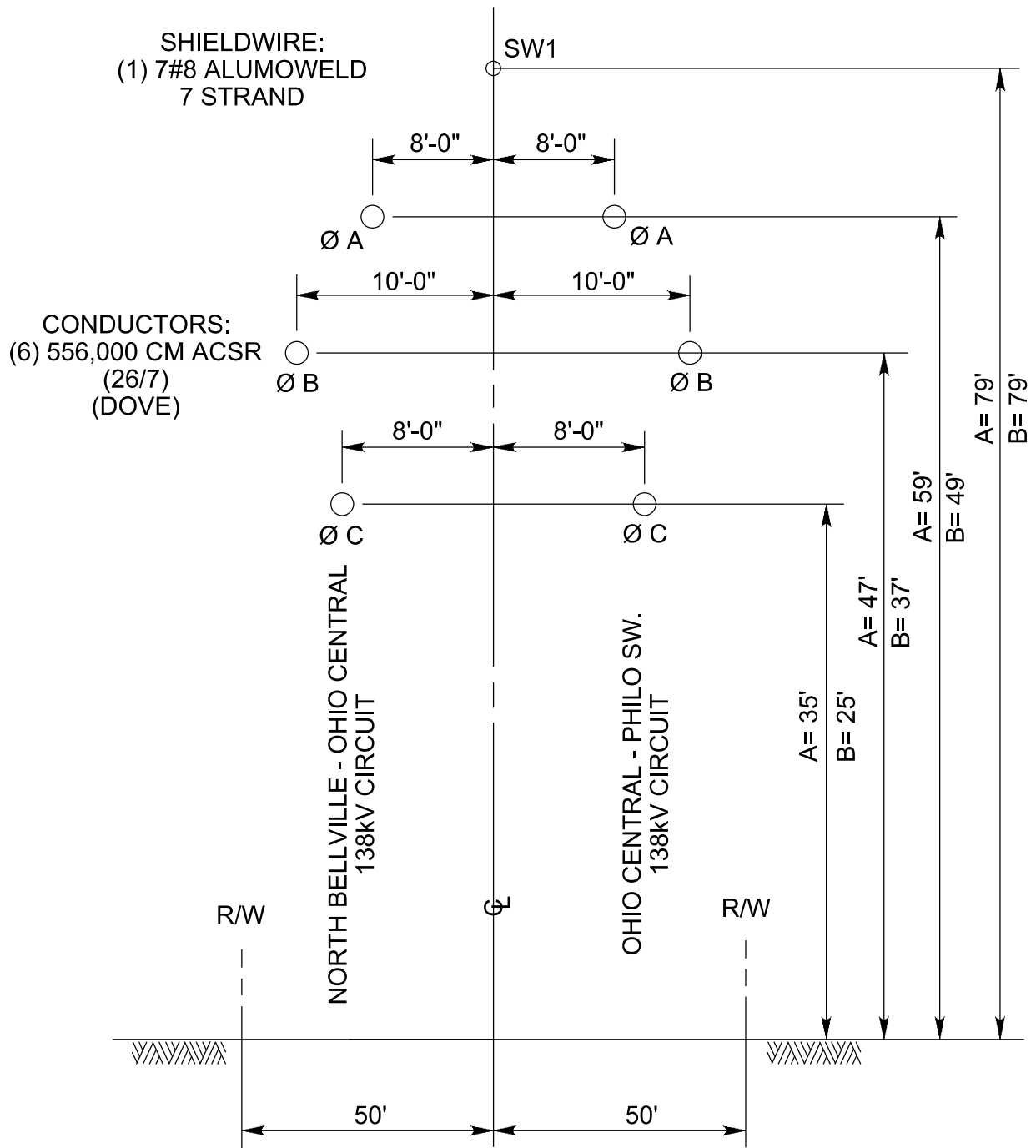
**LEGEND:**

- Ohio Central Substation
- Proposed Ohio Central 138 kV Transmission Line
- Proposed Ohio Central 345 kV Extension
- Substation Expansion (Under Construction)
- Existing 138 kV Transmission Line
- Existing 345 kV Transmission Line



BASE MAP SOURCE:  
USGS 7.5-minute Topographic Quadrangle  
Dresden (published 1978)

	<b>Ohio Cetnral 138kV Line Project</b>
<b>EXHIBIT 3 EXISTING TRANSMISSION LINES</b>	
PN: 466969	DATE: 1/15/2014
CREATED BY: AC	
REVIEWED BY: MD	



DIMENSION "A" - DOUBLE CIRCUIT - VERTICAL CONFIGURATION.  
(UNDER EMERGENCY & NORMAL MAX. LINE LOADING)

DIMENSION "B" - DOUBLE CIRCUIT - VERTICAL CONFIGURATION.  
(UNDER WINTER NORMAL  
CONDUCTOR RATING)

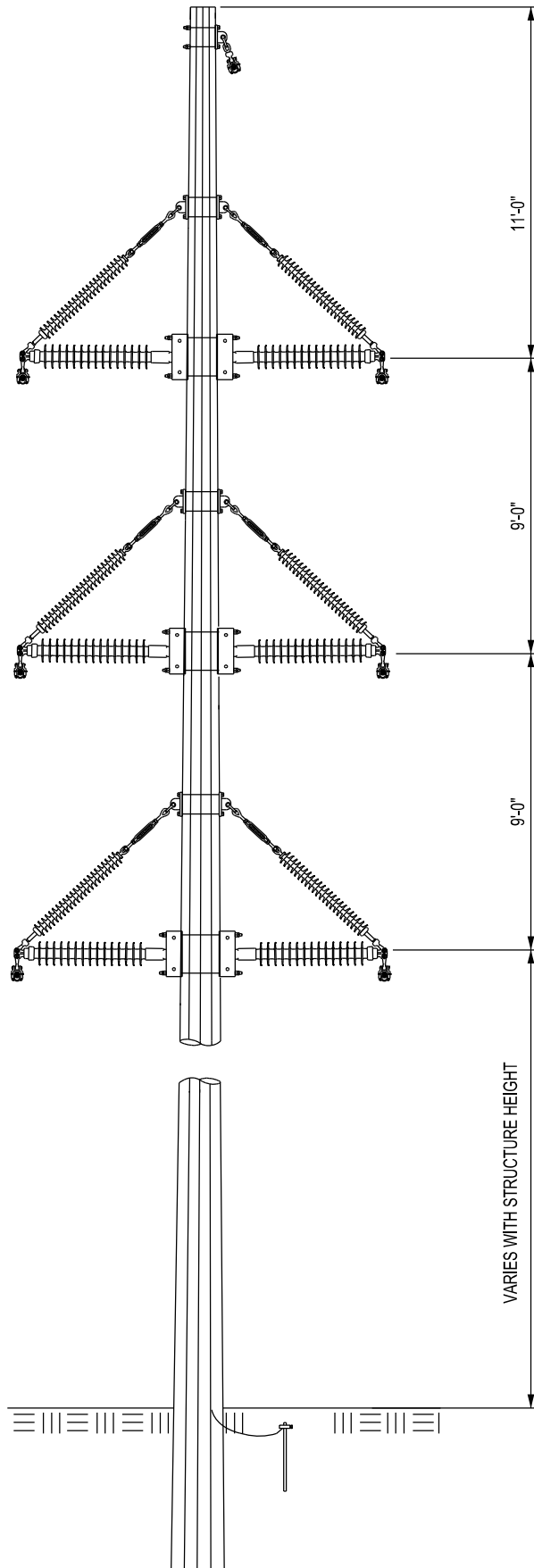


OHIO CENTRAL  
138KV LOOP

138kV TYPICAL PHASE ARRANGEMENT  
STEEL POLES STRUCTURE

NOT TO SCALE

FIGURE 'A'

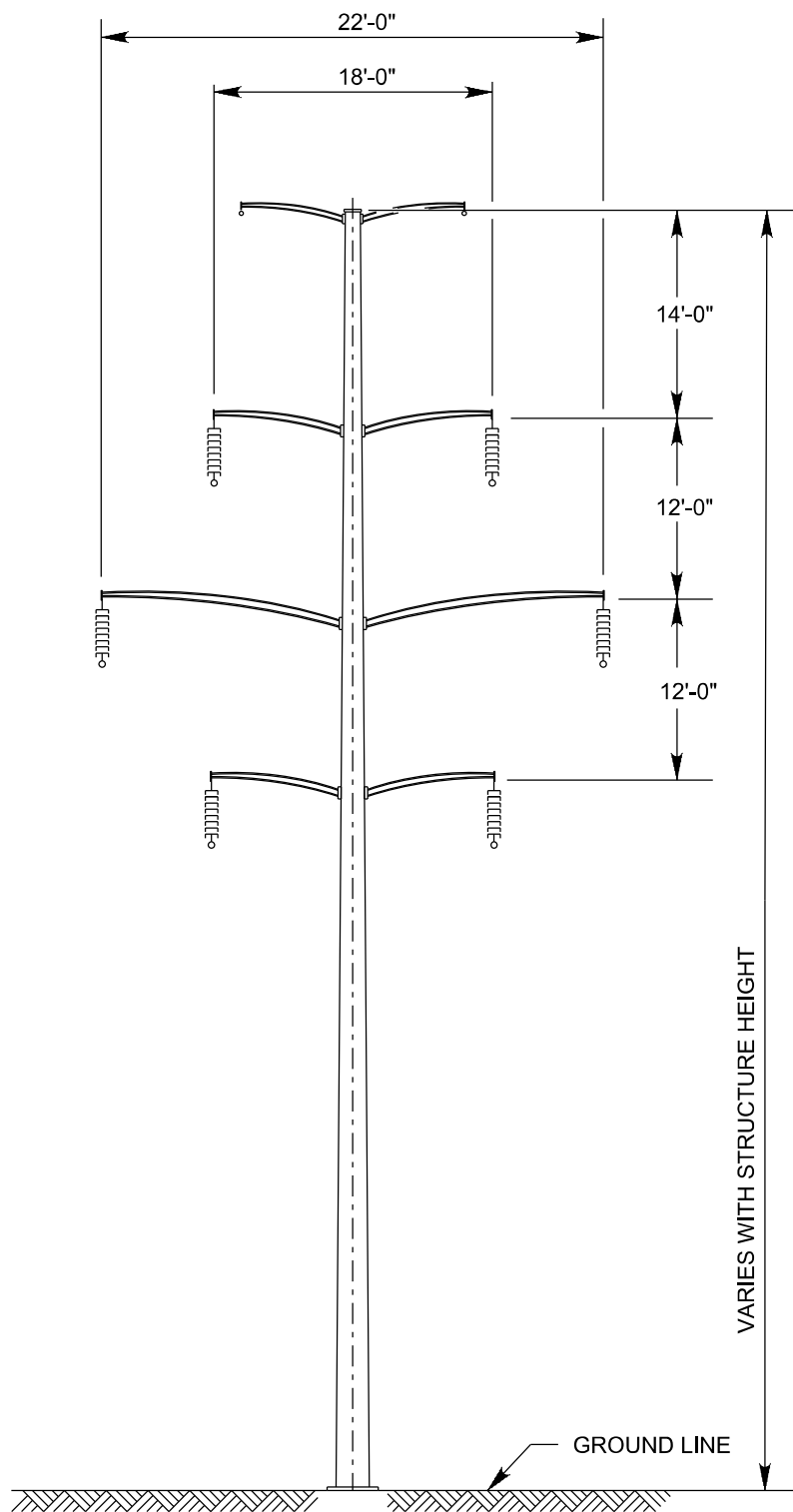


OHIO CENTRAL  
138KV LOOP

138kV TYPICAL PHASE ARRANGEMENT  
BRACED POST TANGENT  
STEEL POLE STRUCTURE

NOT TO SCALE

FIGURE 'B'

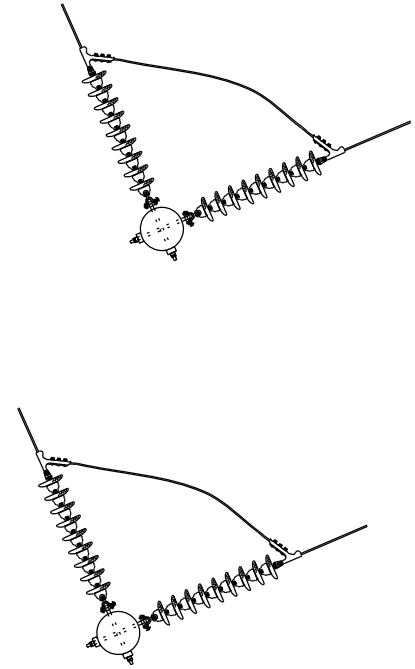
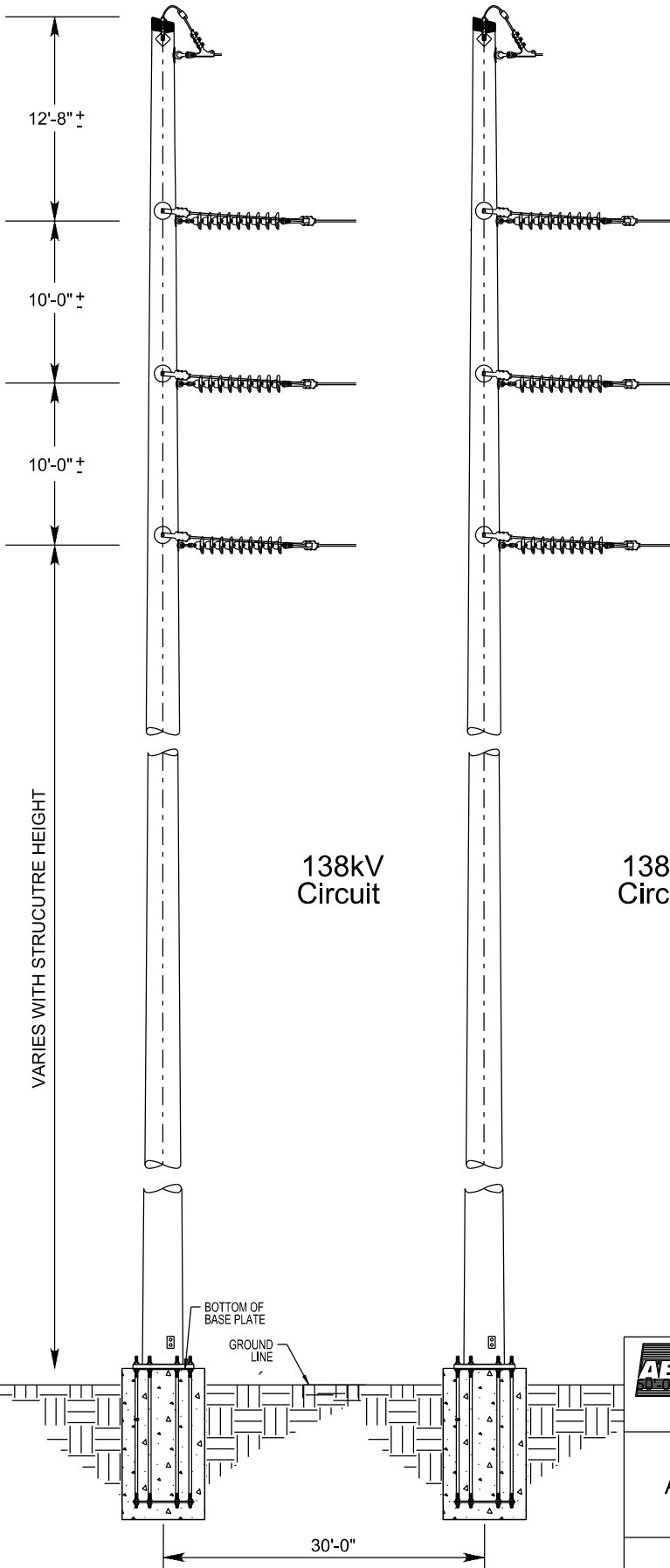


OHIO CENTRAL  
138KV LOOP

138kV TYPICAL PHASE  
ARRANGEMENT DC DAVIT ARM  
STEEL POLE STRUCTURE  
(TANGENT OR DEADEND)

NOT TO SCALE

FIGURE 'C'



TOP VIEW



OHIO CENTRAL  
138KV LOOP

138kV TYPICAL PHASE  
ARRANGEMENT 2-POLE DC DEADEND  
STEEL POLE STRUCTURE

NOT TO SCALE

FIGURE 'D'



700 Morrison Road  
Gahanna, OH  
43230

January 20, 2014

Dresden Branch Library  
816 Main Street  
Dresden, Ohio 43821

**Letter of Notification**  
**Ohio Central 138 kV Loop Project**  
**Case No. 14-0053-EL-BLN**

To Whom it May Concern:

In the above captioned project, American Electric Power Ohio Transmission Company (AEP OH Transco) is proposing to build a 0.9 mile overhead 138 kV electric transmission line to loop the existing North Bellville-Philo 138 kV line to the Ohio Central Station in Muskingum County, Ohio. The proposed Ohio Central 138 kV Loop Project (Project) is a steel pole-supported, double-circuit line, and will be located on property owned by AEP.

In accordance with the provisions of Ohio Administrative Code ("OAC") Rule 4906-1-01, this project falls within the Ohio Power Siting Board's requirements for a Letter of Notification (LON). Therefore, in compliance with OAC 4906-11-02 of the OPSB's Rules and Regulations, we have prepared and filed the attached LON with the OPSB for their review and approval. The LON contains a description of the project, and is provided for your information.

I will be happy to answer your questions concerning this matter. You can contact me at (614) 552-2004.

Sincerely,

A handwritten signature in black ink, which appears to read "Edward V. Gilabert", followed by a long horizontal line extending to the right.

Edward V. Gilabert



700 Morrison Road  
Gahanna, OH  
43230

January 20, 2014

Mr. James Roman  
Cass Township Trustee  
12535 Third Avenue  
PO Box 163  
Trinway, OH 43842

**Letter of Notification**  
**Ohio Central 138 kV Loop Project**  
**Case No. 14-0053-EL-BLN**

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Edward V. Gilabert



700 Morrison Road  
Gahanna, OH  
43230

January 20, 2014

Mr. Randy Stotts  
Cass Township Trustee  
10195 North Morrison Road  
Dresden, OH 43821

**Letter of Notification**  
**Ohio Central 138 kV Loop Project**  
**Case No. 14-0053-EL-BLN**

Dear Mr. Stotts:

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Edward V. Gilabert



700 Morrison Road  
Gahanna, OH  
43230

January 20, 2014

Mr. Edmund Prince  
Cass Township Trustee  
9575 North Morrison Road  
Dresden, OH 43821

**Letter of Notification**  
**Ohio Central 138 kV Loop Project**  
**Case No. 14-0053-EL-BLN**

Dear Mr. Prince:

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Edward V. Gilabert



700 Morrison Road  
Gahanna, OH  
43230

January 20, 2014

Mr. Drake L. Prouty  
Jefferson Township Trustee  
10785 Mitchell Hill Drive  
Dresden, OH 43821

**Letter of Notification**  
**Ohio Central 138 kV Loop Project**  
**Case No. 14-0053-EL-BLN**

Dear Mr. Prouty:

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In accordance with the provisions of Ohio Administrative Code ("OAC") Rule 4906-1-01, this project falls within the Ohio Power Siting Board's requirements for a Letter of Notification (LON). Therefore, in compliance with OAC 4906-11-02 of the OPSB's Rules and Regulations, we have prepared and filed the attached LON with the OPSB for their review and approval. The LON contains a description of the project, and is provided for your information.

I will be happy to answer your questions concerning this matter. You can contact me at (614) 552-2004.

Sincerely,

A handwritten signature in black ink, which appears to read "Edward V. Gilabert". The signature is written in a cursive style and is followed by a long, horizontal, slightly wavy line that extends across the page.

Edward V. Gilabert



700 Morrison Road  
Gahanna, OH  
43230

January 20, 2014

Mr. Tom Miller  
Jefferson Township Trustee  
1335 Chestnut Street  
Dresden, OH 43821

**Letter of Notification**  
**Ohio Central 138 kV Loop Project**  
**Case No. 13-0053-EL-BLN**

Dear Mr. Miller:

In the above captioned project, American Electric Power Ohio Transmission Company (AEP OH Transco) is proposing to build a 0.9 mile overhead 138 kV electric transmission line to loop the existing North Bellville-Philo 138 kV line to the Ohio Central Station in Muskingum County, Ohio. The proposed Ohio Central 138 kV Loop Project (Project) is a steel pole-supported, double-circuit line, and will be located on property owned by AEP.

In accordance with the provisions of Ohio Administrative Code ("OAC") Rule 4906-1-01, this project falls within the Ohio Power Siting Board's requirements for a Letter of Notification (LON). Therefore, in compliance with OAC 4906-11-02 of the OPSB's Rules and Regulations, we have prepared and filed the attached LON with the OPSB for their review and approval. The LON contains a description of the project, and is provided for your information.

I will be happy to answer your questions concerning this matter. You can contact me at (614) 552-2004.

Sincerely,

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Edward V. Gilabert



700 Morrison Road  
Gahanna, OH  
43230

January 20, 2014

Mr. Dale Ferrell  
Jefferson Township Trustee  
1352 Chestnut Street  
Dresden, OH 43821

**Letter of Notification**  
**Ohio Central 138 kV Loop Project**  
**Case No. 14- 0053 -EL-BLN**

Dear Mr. Ferrell:

In the above captioned project, American Electric Power Ohio Transmission Company (AEP OH Transco) is proposing to build a 0.9 mile overhead 138 kV electric transmission line to loop the existing North Bellville-Philo 138 kV line to the Ohio Central Station in Muskingum County, Ohio. The proposed Ohio Central 138 kV Loop Project (Project) is a steel pole-supported, double-circuit line, and will be located on property owned by AEP.

In accordance with the provisions of Ohio Administrative Code ("OAC") Rule 4906-1-01, this project falls within the Ohio Power Siting Board's requirements for a Letter of Notification (LON). Therefore, in compliance with OAC 4906-11-02 of the OPSB's Rules and Regulations, we have prepared and filed the attached LON with the OPSB for their review and approval. The LON contains a description of the project, and is provided for your information.

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Edward V. Gilabert



700 Morrison Road  
Gahanna, OH  
43230

January 20, 2014

Mr. Andrew Roberts, Executive Director  
Muskingum County Planning Commission  
401 Main Street, Third Floor  
Zanesville, OH 43701

**Letter of Notification**  
**Ohio Central 138 kV Loop Project**  
**Case No. 14-00053-EL-BLN**

Dear Mr. Roberts:

In the above captioned project, American Electric Power Ohio Transmission Company (AEP OH Transco) is proposing to build a 0.9 mile overhead 138 kV electric transmission line to loop the existing North Bellville-Philo 138 kV line to the Ohio Central Station in Muskingum County, Ohio. The proposed Ohio Central 138 kV Loop Project (Project) is a steel pole-supported, double-circuit line, and will be located on property owned by AEP.

In accordance with the provisions of Ohio Administrative Code ("OAC") Rule 4906-1-01, this project falls within the Ohio Power Siting Board's requirements for a Letter of Notification (LON). Therefore, in compliance with OAC 4906-11-02 of the OPSB's Rules and Regulations, we have prepared and filed the attached LON with the OPSB for their review and approval. The LON contains a description of the project, and is provided for your information.

I will be happy to answer your questions concerning this matter. You can contact me at (614) 552-2004.

Sincerely,

A handwritten signature in black ink, appearing to read "Edward V. Gilabert", with a long horizontal line extending to the right.

Edward V. Gilabert



700 Morrison Road  
Gahanna, OH  
43230

January 20, 2014

Muskingum County Board of Commissioners  
Mr. Todd Sands  
Mr. Jim Porter  
Mr. Jerry Lavy  
401 Main Street  
Zanesville, OH 43701

**Letter of Notification**  
**Ohio Central 138 kV Loop Project**  
**Case No. 14-00053-EL-BLN**

Dear Board of Commissioners:

In the above captioned project, American Electric Power Ohio Transmission Company (AEP OH Transco) is proposing to build a 0.9 mile overhead 138 kV electric transmission line to loop the existing North Bellville-Philo 138 kV line to the Ohio Central Station in Muskingum County, Ohio. The proposed Ohio Central 138 kV Loop Project (Project) is a steel pole-supported, double-circuit line, and will be located on property owned by AEP.

In accordance with the provisions of Ohio Administrative Code ("OAC") Rule 4906-1-01, this project falls within the Ohio Power Siting Board's requirements for a Letter of Notification (LON). Therefore, in compliance with OAC 4906-11-02 of the OPSB's Rules and Regulations, we have prepared and filed the attached LON with the OPSB for their review and approval. The LON contains a description of the project, and is provided for your information.

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Edward V. Gilabert

Appendix 1  
Threatened and Endangered Species Consultation

# 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

September 23, 2013

CH2M Hill  
Attn: Magdalena Eshleman  
10123 Alliance Road, Suite 300  
Cincinnati, OH 45242

TAILS# 03E15000-2013-TA-1258

Reference: AEP - Ohio Central 138kV Loop and Conesville-Bixby 345kV Line in Muskingum Co. OH

Dear Ms. Eshleman,

We have received your recent correspondence requesting information about the subject proposal. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. The following comments and recommendations will assist you in fulfilling the requirements for consultation under section 7 of the Endangered Species Act of 1973, as amended (ESA).

The Service recommends that proposed developments avoid and minimize water quality impacts and impacts to high quality fish and wildlife habitat (e.g., forests, streams, wetlands). Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the 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. All disturbed areas should be mulched and revegetated with native plant species. Prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

**ENDANGERED SPECIES COMMENTS:** All projects in the State of Ohio lie within the range of the **Indiana bat** (*Myotis sodalis*), a federally listed endangered species. Since first listed as endangered in 1967, their population has declined by nearly 60%. Several factors have contributed to the decline of the Indiana bat, including the loss and degradation of suitable hibernacula, human disturbance during hibernation, pesticides, and the loss and degradation of forested habitat, particularly stands of large, mature trees. Fragmentation of forest habitat may also contribute to declines. During winter, Indiana bats hibernate in caves and abandoned mines. Summer habitat requirements for the species are not well defined but the following are considered important:

- (1) dead or live trees and snags with peeling or exfoliating bark, split tree trunk and/or branches, or cavities, which may be used as maternity roost areas;
- (2) live trees (such as shagbark hickory and oaks) which have exfoliating bark;
- (3) stream corridors, riparian areas, and upland woodlots which provide forage sites.

Should habitat exhibiting the characteristics described above be present at the proposed project site, we recommend that they, as well as surrounding trees, be saved wherever possible. However, if these trees cannot be avoided, they should only be cut between October 1 and March 31. If implementation of the

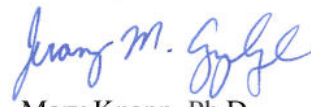
seasonal tree cutting restriction is not possible, summer surveys should be conducted to document the presence or likely absence of the Indiana bat within the project area during the summer. The survey must be conducted by an approved surveyor and be designed and conducted in coordination with the Endangered Species Coordinator for this office. Summer surveys must be conducted between May 15 and August 15, when the presence of maternity colonies of Indiana bats could be detected.

If there is a Federal nexus for the project (e.g., Federal funding provided, Federal permits required to construct), no tree clearing on any portion of the parcel should occur until consultation under section 7 of the ESA, between the Service and the Federal action agency, is completed. We recommend that the Federal action agency submit a determination of effects to this office, relative to the Indiana bat, for our review and concurrence.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, 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, consultation with the Service should be initiated to assess any potential impacts.

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 Endangered Species Act of 1973 (ESA), as amended, and are consistent with the intent of the National Environmental Policy Act of 1969 and the U. S. Fish and Wildlife Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Sincerely,

*for*   
Mary Knapp, Ph.D.  
Field Supervisor



# Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

## Office of Real Estate

Paul R. Baldridge, Chief  
2045 Morse Road – Bldg. E-2  
Columbus, OH 43229  
Phone: (614) 265-6649  
Fax: (614) 267-4764

October 25, 2013

Mark Driscoll  
CH2M HILL  
10123 Alliance Road  
Suite 300  
Cincinnati, Ohio 45242

**Re:** 13-468; Ohio Central 138 kV loop & Conesville-Bixby 345 kV loop

**Project:** The project involves looping the existing North Bellville-Philo 138 kV line 0.4 miles to the Ohio Central Station and the installation of 1.86 miles of 345 kV transmission line looping the existing Conesville-Bixby 345 kV line to the Ohio Central Station in Muskingum County.

**Location:** The project is located in Cass, Jefferson and Madison Townships, Muskingum 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.

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

The project is within the range of the Indiana bat (*Myotis sodalis*), a state and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: Shagbark hickory (*Carya ovata*), Shellbark hickory (*Carya laciniosa*), Bitternut hickory (*Carya cordiformis*), Black ash (*Fraxinus nigra*), Green ash (*Fraxinus pennsylvanica*), White ash (*Fraxinus americana*), Shingle oak (*Quercus imbricaria*), Northern red oak (*Quercus rubra*), Slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), Eastern cottonwood (*Populus deltoides*), Silver maple (*Acer saccharinum*), Sassafras (*Sassafras albidum*), Post oak (*Quercus stellata*), and White oak (*Quercus alba*). Indiana bat habitat consists of suitable trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. If suitable trees occur within the project area, these trees should be conserved. If

suitable habitat occurs on the project area and trees must be cut, cutting must occur between October 1 and March 31. If suitable trees must be cut during the summer months, a net survey must be conducted between June 15 and July 31, prior to cutting. Net surveys shall incorporate either two net sites per square kilometer of project area with each net site containing a minimum of two nets used for two consecutive nights, or one net site per kilometer of stream within the project limits with each net site containing a minimum of two nets used for two consecutive nights. If no tree removal is proposed, the project is not likely to impact this species.

The ODNR Natural Heritage Database has nearby records in the Muskingum River for the snuffbox (*Epioblasma triquetra*), an endangered and federally endangered mussel, the pocketbook (*Lampsilis ovate*), an endangered mussel, the purple wartyback (*Cyclonaias tuberculata*), a species of concern mussel, the long solid (*Fusconaia maculata maculata*), an endangered mussel, the rabbitsfoot (*Quadrula cylindrica cylindrica*), an endangered, and federal species of concern mussel, the black sandshell (*Ligumia recta*), a threatened mussel, and the threehorn wartyback (*Obliquaria reflexa*), a threatened mussel. Due to the location, and the type of habitat being affected, this project is not likely to impact these species.

The ODNR Natural Heritage Database also has nearby records in the Muskingum River for the eastern sand darter (*Ammocrypta pellucida*), a species of concern, and a federal species of concern fish. Due to the location, and the type of habitat being affected, this project is not likely to impact this species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered amphibian currently being evaluated for Federal Candidate status. A statewide survey has not been completed for this species. This long-lived, entirely aquatic salamander inhabits perennial streams with large flat rocks. In-water work in hellbender streams can reduce availability of large cover rocks and can destroy hellbender nests and/or kill adults and juveniles. The contribution of additional sediment to hellbender streams can smother large cover rocks and gravel/cobble substrate (used by juveniles), making them unsuitable for refuge and nesting. Projects that contribute to altered flow regimes (e.g., by increasing areas of impervious surfaces or modifying the floodplain) can also adversely affect hellbender habitat. Due to the location, and the type of habitat being affected, this project is not likely to impact this species.

The project is within the range of the black bear (*Ursus americanus*), a state endangered species. Due to the mobility of this species, the project is not likely to have an impact on this species.

The project is within the range of the Northern harrier (*Circus cyaneus*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. A statewide survey has not been completed for

this species. A lack of records does not indicate the species is absent from the area. If this habitat will not be impacted, the project is not likely to impact this species.

The ODNR Natural Heritage Database has no records for rare or endangered species at this project site. We are unaware of any unique ecological sites, geologic 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. Our inventory program does not provide a complete survey of Ohio wildlife, 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.

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler  
ODNR Office of Real Estate  
2045 Morse Road, Building E-2  
Columbus, Ohio 43229-6693  
John.Kessler@dnr.state.oh.us

Appendix 2  
**Wetland and Waterbodies Delineation Report**

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CH2M HILL  
10123 Alliance Road  
Suite 300  
Cincinnati, OH 45242  
Tel 513.530.5520  
Fax 513.530.5541

November 22, 2013

Ms. Rebekah Hovermale  
American Electric Power  
700 Morrison Road  
Gahanna, OH 45230

Subject: Ohio Central 138 kV Loop Project, American Electric Power Company, Inc., Muskingum County, Ohio, Wetland and Waterbody Delineation Report

Dear Ms. Hovermale:

This Wetland and Waterbody Delineation Report (Report) summarizes the results of wetland and waterbody delineation field surveys conducted on August 12 and 13, 2013, and November 12 and 13, 2013, by CH2M HILL Engineers, Inc. (CH2M HILL) on behalf of American Electric Power Company, Inc. (AEP) for the Ohio Central 138 Kilovolt (kV) Loop Project (the Project; Figure 1 in Attachment A). AEP is proposing to build a 0.4-mile overhead 138-kV electric transmission line to loop the existing North Bellville-Philo 138-kV line to the Ohio Central Station in Dresden, Muskingum County, Ohio. The Project will require a 100-foot-wide permanent right-of-way (ROW). This report documents the presence or absence of wetlands or other waters within the proposed Project area and assesses the general ecological conditions. The environmental survey area comprises a 200-foot-wide corridor along the proposed transmission line route, totaling 22.3 acres. Ten wetlands and four stream channels were identified within the 22.3-acre Project area.

## Background Information

Before conducting the wetland and waterbody delineation, CH2M HILL reviewed the following resources to identify the potential locations and extent of wetlands and waterbodies within the Project area:

- United States Geological Survey (USGS) topographic map (1978)
- ESRI ArcMap Imagery (ERSI) aerial photography, (2011)
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (2012a)
- USDA NRCS Hydric Soils List (2012b)
- USGS National Hydrography Dataset (NHD-mapped streams) (2013)
- United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) dataset (2012)
- Ohio Department of Natural Resources (ODNR) Ohio Wetland Inventory (OWI) dataset (2001)

The USGS topographic map (Figure 1 in Attachment A) and NHD-mapped streams dataset (Figure 2 in Attachment A), both of which identify intermittent and perennial streams, identified two unnamed intermittent tributaries to the Muskingum River within the eastern portion of the Project area.

A review of ESRI ArcMap Imagery (2011) of the Project area (Figure 2 in Attachment A) shows that surrounding land use consists of forested areas, agricultural pasture, old field scrub, and a maintained transmission right-of-way (ROW).

The USDA NRCS Web Soil Survey (2012) shows ten soil unit types within the Project area (Figure 3 in Attachment A). According to the USDA NRCS Hydric Soils List (2012), there are four mapped potentially hydric soils composing approximately 3.05 acres within the ROW. These four potentially-hydric soil units typically consist of 10 to 15 percent hydric components within the lower positions in the landform. Generally, hydric soils are those soils that indicate through their color and structure that they have experienced dominantly reducing (i.e., oxygen poor) conditions. Oxygen-poor conditions result from inundation and/or saturation by water.

CH2M HILL used NWI and OWI datasets as a guide along with other data to indicate the potential presence of wetlands. NWI and OWI mapping is often dated and only sporadically field checked. The presence of an NWI or OWI feature is not a definitive indicator that a wetland or waterbody is present. The NWI and OWI datasets did not identify wetland features within the Project area (Figure 2 in Attachment A). Two NWI features were identified approximately 900 feet outside of the Project area to the southwest; these features are identified as intermittently exposed, excavated palustrine unconsolidated bottom open water areas (PUBGx).

Attachment A includes a USGS topographic and overview map showing relevant boundaries (Figure 1); an aerial site map showing delineated wetlands and streams and NWI, OWI, and NHD features (Figure 2); and a NRCS soils map (Figure 3). Attachment B contains photographic documentation of the delineated wetlands, streams, and vegetation communities identified within the Project area. Attachment C contains United States Army Corps of Engineers (USACE) wetland determination data forms and Ohio Environmental Protection Agency (OEPA) Ohio Rapid Assessment Method version 5.0 (ORAM) scoring forms. Attachment D contains OEPA Headwater Habitat Evaluation Index (HHEI) scoring forms.

## Methodology

CH2M HILL delineated wetlands and waterbodies within the Project area in accordance with applicable federal and state regulations and guidance to identify potential resource areas that might be impacted. CH2M HILL field-delineated Project area wetland boundaries according to the routine onsite methodology described in the 2012 USACE *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (Version 2.0; USACE, 2012). We identified and delineated Project area waterbodies in accordance with the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (USACE, 2007). Further, the ordinary high water mark (OHWM) was recorded as the jurisdictional boundary.

CH2M HILL scientists delineated and recorded the outer boundaries of each identified wetland and waterbody within the Project area using a Global Positioning System (GPS) unit. As wetland and waterbody features were documented, they were each assigned a unique feature identification (ID). Wetland delineation data was recorded on the USACE wetland determination data forms. Wetland quality and categorization was performed according to the Ohio Wetland Water Quality standards using the OEPA ORAM scoring forms (OEPA, 2001). Streams located within the Project area were categorized as headwaters (i.e., having watersheds less than 1 square mile); therefore, stream habitat quality and classification was assessed using OEPA HHEI scoring forms (OEPA, 2009).

## Vegetative Communities

CH2M HILL investigated the Project area during site visits on August 12 and 13, 2013, and November 12 and 13, 2013, to document existing vegetation communities and hydrologic conditions. CH2M HILL identified and delineated four waterbody crossings within the Project area, including two intermittent streams and two ephemeral streams. CH2M HILL also identified ten wetlands within the Project area, including one palustrine scrub-shrub (PSS) wetland, two PEM/PSS wetlands, and seven palustrine emergent (PEM) wetlands. Attachment B includes representative photographs of the streams and wetlands.

Habitat types and land use within the Project area consists of woodlands, existing ROW, new field pasture, old field, scrub-shrub, agricultural land, PSS wetlands, PEM wetlands, and low-density residential properties. The proposed transmission line would be immediately adjacent to an existing AEP transmission line ROW. Attachment B includes representative photographs of each habitat type and land use.

The majority of the Project area comprises woodlands consisting of secondary growth forest interspersed with smaller areas of old field, scrub-shrub, new field pasture area, agricultural fields, and residential properties. Dominant canopy vegetation in the forested areas included black locust (*Robinia pseudoacacia*), sassafras (*Sassafras albidum*), and black cherry (*Prunus serotina*). Generally, forest understory vegetation was densest closest to the existing transmission line ROW and more open in areas away from the ROW. Dominant vegetation in the forest understory included multiflora rose (*Rosa multiflora*), spicebush (*Lindera benzoin*), greenbriers (*Smilax* spp.), Pennsylvania blackberry (*Rubus pensylvanicus*), Virginia creeper (*Parthenocissus quinquefolia*), agrimony (*Agrimonia parviflora*), stickseed (*Hackelia virginiana*), and poison ivy (*Toxicodendron radicans*).

Dominant vegetation within the maintained ROW and new field pasture areas included multiflora rose, fescue grasses (*Festuca* sp.), Canada goldenrod (*Solidago canadensis*), common milkweed (*Asclepias syriaca*), deer tongue grass (*Dichanthelium clandestinum*), Queen Anne's lace (*Daucus carota*), orchard grass (*Dactylis glomerata*), and Pennsylvania blackberry. Vegetation in the old field and scrub-shrub areas included black locust saplings, multiflora rose, bush honeysuckles (*Lonicera* spp.), blackberries (*Rubus* spp.), poison ivy, Virginia creeper, stickseed, and agrimony. Agricultural fields were planted with corn (*Zea mays*). PSS wetlands were dominated by black willow (*Salix nigra*), cottonwood (*Populus deltoids*), jewelweed (*Impatiens capensis*), reed canary grass (*Phalaris arundinacea*), spotted joe-pye weed (*Eutrochium maculatum*), and wood nettle (*Laportea canadensis*). PEM wetlands were dominated by common rush (*Juncus effusus*), barnyard grass (*Echinochloa crus-galli*), broadleaf cattail (*Typha latifolia*), and agrimony. Residential properties comprised mostly mowed turf grass. Attachment B includes site photographs documenting vegetation communities within the Project area.

## Wetlands and Waterbodies

Ten wetlands and four streams were identified within the Project area; they are described below with measurements of the areas and linear feet within the Project area. Note that an assessment is made concerning the hydrologic connectivity of each wetland described below. The final decision concerning connectivity and jurisdiction is made by the USACE.

**Wetland 1** (0.20 acre) is located in the eastern portion of the Project area north of the Ohio Central Station (Figure 2 in Attachment A). Wetland 1 is an emergent wetland in a depression. Based on the ORAM score of 23, this wetland was classified as a Category 1 wetland (Mack, 2000). Common rush and barnyard grass were the dominant vegetation. CH2M HILL classified Wetland 1 as PEM per the Cowardin system of classification (1979) based on the predominance of herbaceous vegetation. Although Wetland 1 is not located directly adjacent to a surface water, it is possible that Wetland 1 is connected to Stream

1 via overland sheet flow. Therefore, CH2M HILL has interpreted Wetland 1 to be jurisdictional based on overland sheet flow.

**Wetland 2** (0.11 acre) is located east of Northpointe Road (Figure 2 in Attachment A). The wetland is dominated by black willow, jewelweed, and reed canary grass (*Phalaris arundinacea*). CH2M HILL classified Wetland 2 as PSS/PEM per the Cowardin system of classification (1979). The portion of Wetland 2 closest to Northpointe road had a prevalence of black willow and cottonwood saplings, while the western section of the wetland was dominated by herbaceous species. Based on the ORAM score of 26.5, this wetland was classified as a Category 1 wetland (Mack, 2000). Wetland 2 is hydrologically connected to Streams 2a, 2b, and 2c, which are tributaries to the Muskingum River. CH2M HILL interprets Wetland 2 to be jurisdictional based on its hydrologic connection to Streams 2a, 2b, and 2c.

**Wetland 3** (0.06 acre PSS and 0.07 acre PEM) is located to the west of Northpointe Road adjacent to the existing transmission line ROW (Figure 2 in Attachment A). This wetland was identified as PEM/PSS per the Cowardin system of classification (1979) based on the predominance of herbaceous and scrub-shrub vegetation. The wetland was dominated by black willow and jewelweed. Based on the ORAM score of 28, this wetland was classified as a Category 1 wetland (Mack, 2000). Due on the wetland abutting Stream 2a, which flows to Muskingum River, CH2M HILL has interpreted Wetland 3 to be jurisdictional.

**Wetland 4** (0.02 acre) is a floodplain wetland along Stream 2b, located west of Northpointe Road (Figure 2 in Attachment A). The wetland is dominated by reed canary grass and Canadian woodnettle (*Laportea canadensis*). CH2M HILL classified Wetland 4 as PEM per the Cowardin system of classification (1979) based on the dominance of herbaceous species. Based on the ORAM score of 33, this wetland was classified as a Category 1 or 2 Gray Zone wetland (Mack, 2000). Wetland 4 abuts Stream 2b, which is a tributary to the Muskingum River. CH2M HILL interprets Wetland 4 to be jurisdictional based on its hydrologic connection to Stream 2b.

**Wetland 5** (0.15 acre PSS and 0.03 acre PEM) is a floodplain wetland along Stream 2c, located west of Northpointe Road (Figure 2 in Attachment A). The wetland is dominated by spike rush (*Eleocharis obtusa*), and common rush. CH2M HILL classified Wetland 5 as PEM/PSS per the Cowardin system of classification (1979). The floodplain portion of the wetland was dominated by herbaceous species, while the area adjacent to the existing access road had a prevalence of black willow. Based on the ORAM score of 43.5, this wetland was classified as a Category 1 or 2 Gray Zone wetland (Mack, 2000). Wetland 5 abuts Stream 2c. The Stream 2c is a tributary to the Muskingum River. CH2M HILL interprets Wetland 5 to be jurisdictional based on its hydrologic connection to Stream 2c.

**Wetland 6** (0.07 acre) is a floodplain wetland along Stream 2c, located west of Northpointe Road (Figure 2 in Attachment A). The wetland is dominated by jewelweed and wingstem (*Verbesina alternifolia*). CH2M HILL classified Wetland 6 as PEM per the Cowardin system of classification (1979) based on the dominance of herbaceous species. Based on the ORAM score of 41, this wetland was classified as a Modified Category 2 wetland (Mack, 2000). Wetland 6 abuts Stream 2c, which is a tributary to the Muskingum River. CH2M HILL interprets Wetland 6 to be jurisdictional based on its hydrologic connection to Stream 2c.

**Wetland 7** (0.04 acre) is located west of Northpointe Road (Figure 2 in Attachment A). The wetland is dominated by jewelweed. CH2M HILL classified Wetland 7 as PEM per the Cowardin system of classification (1979) based on the dominance of herbaceous species. Based on the ORAM score of 42, this wetland was classified as a Modified Category 2 wetland (Mack, 2000). Although Wetland 7 is not located directly adjacent to a surface water, it is possible that Wetland 7 is connected to Wetland 3 and Stream 2a via overland sheet flow. As such, CH2M HILL has interpreted Wetland 7 to be jurisdictional based on overland sheet flow.

**Wetland 8** (0.05 acre) is located west of Northpointe Road adjacent to an existing maintained transmission line ROW (Figure 2 in Attachment A). Wetland 8 continues to the southwest outside of the Project area. The wetland is dominated by jewelweed and sweet flag (*Acorus calamus*). CH2M HILL classified Wetland 8 as PEM per the Cowardin system of classification (1979) based on the dominance of herbaceous species. Based on the ORAM score of 42, this wetland was classified as a Modified Category 2 wetland (Mack, 2000). Wetland 8 abuts Stream 2c, which is a tributary to the Muskingum River. CH2M HILL interprets Wetland 8 to be jurisdictional based on its hydrologic connection to Stream 2c.

**Wetland 9** (0.64 acre) is located west of Northpointe Road within an existing maintained transmission line ROW (Figure 2 in Attachment A). The wetland is dominated by sensitive fern (*Onoclea sensibilis*) and common rush. CH2M HILL classified Wetland 9 as PEM per the Cowardin system of classification (1979) based on the dominance of herbaceous species. Based on the ORAM score of 29.5, this wetland was classified as a Category 1 or 1 Gray Zone wetland (Mack, 2000). Wetland 9 abuts the headwaters of Stream 2c within the Project area, which is a tributary to the Muskingum River. CH2M HILL interprets Wetland 9 to be jurisdictional based on its hydrologic connection to Stream 2c.

**Wetland 11** (0.02 acre) is located east of Northpointe Road on the north side of the Project area between the roadway and a corn field (Figure 2 in Attachment A). The wetland occupies a depression at the downstream end of a roadside swale, and is dominated by reed canary grass and common rush. The vegetation is disturbed by seasonal mowing. CH2M HILL classified Wetland 11 as PEM per the Cowardin system of classification (1979). Based on the ORAM score of 11, this wetland was classified as a Category 1 wetland (Mack, 2000). Wetland 11 abuts the north end of Stream 1, an ephemeral channel within the Project area, which is a tributary of the Muskingum River. CH2M HILL interprets Wetland 11 to be jurisdictional based on its hydrologic connection to Stream 1.

**Stream 1** (269 linear feet [LF], Figure 2 in Attachment A) is an ephemeral channel located west of Ohio Central Station. Stream 1 flows generally south within Project area through an existing transmission ROW. The average width of the channel at the OHWM is 2 feet, with a channel bottom that is primarily silt with occasional areas of gravel. At the time of survey, there was no water present within the channel. Stream 1 appears to connect to Stream 2b outside of the Project area, and Stream 2b is a tributary to the Muskingum River. Based on the HHEI score of 30, this waterbody was classified as a Modified Class 2 Primary Headwater Habitat (PHWH). Although the HHEI score indicates an intermittent stream, CH2M HILL has classified Stream 1 as ephemeral based on field characteristics.

**Stream 2a** (292 LF, Figure 2 in Attachment A) is an ephemeral channel located east and west Northpointe Road. Stream 2a flows under Northpointe Road via a corrugated plastic culvert. Most of this channel within the Project area was modified by the culvert and riprap within the channel. Stream 2a originates in Wetland 3 and flows generally east through the Project area, connecting to Stream 2b, which flows to the Muskingum River. Stream 2a has riprap within its defined channel. The average width of the channel at the OHWM ranges from 1 to 2 feet, with a channel bottom comprising artificial riprap and silt. There were isolated pools of water in the stream channel at the time of survey. Based on the HHEI score of 14, this waterbody was classified as a Modified Class 1 PHWH.

**Stream 2b** (273 LF, Figure 2 in Attachment A) is an intermittent channel located east and west Northpointe Road. Stream 2b flows southeast under Northpointe Road via a corrugated plastic culvert. Most of this channel within the Project area was upstream of the culvert and was a natural channel. Downstream of the culvert under Northpointe Road Stream 2b has artificial riprap within its banks. Wetland 2 and Wetland 4 abut Stream 2b. Stream 2b has riprap within its defined channel east of Northpointe Road. The average width of the channel at the OHWM is 3 feet, with a channel bottom comprising gravel and silt. The stream was flowing at the time of survey, and this stream flows to the Muskingum River. Based on the HHEI score of 66, this waterbody was classified as a Class 2 PHWH.

**Stream 2c** (1211 LF, Figure 2 in Attachment A) is an intermittent channel located east and west Northpointe Road. Stream 2c flows southeast under Northpointe Road via a corrugated plastic culvert. Most of this channel within the Project area was upstream of the culvert and was a natural channel. Downstream of the culvert under Northpointe Road, Stream 2c has artificial riprap within its banks. Stream 2c flows to Stream 2b, which flows to the Muskingum River. Wetland 2 and Wetland 5 both abut Stream 2c. Stream 2c has riprap within its defined channel east of Northpointe Road. The average width of the channel at the OHWM ranges from 1 to 2 feet, with a channel bottom comprising gravel and silt. There were isolated pools of water in the stream channel at the time of survey. Based on the HHEI score of 62, this waterbody was classified as a Class 3 PHWH. Although the HHEI score indicates a perennial stream, CH2M HILL has classified Stream 1 as intermittent based on field characteristics.

## Conclusion

This letter report summarizes the results of a wetland and waterbody delineation conducted by CH2M HILL within the proposed Ohio Central 138kV Line Project in Muskingum County, Ohio on August 12 and 13, 2013, and November 12 and 13, 2013. CH2M HILL identified ten wetlands totaling 1.45 acres within the Project area, with PEM wetlands totaling 1.13 acres and PSS wetlands totaled 0.32 acre. Two ephemeral streams and two intermittent streams, totaling 2,046 linear feet, were also identified within the Project area. All wetlands were preliminarily identified as under the jurisdiction of the USACE in accordance with the Clean Water Act. All wetlands are considered Category 1 and 2 wetlands as defined by the Ohio Wetland Water Quality standards.

We appreciate the opportunity to assist AEP with this project. If you have questions, please feel free to call Mark Driscoll at 617.626.7061 or Rod Ginter at 812.322.3687.

Sincerely,

CH2M HILL



Rod Ginter  
Environmental Scientist



Mark Driscoll  
Project Manager

Attachments:

Attachment A, Figures  
Attachment B, Site Photographs  
Attachment C, Wetland Datasheets  
Attachment D, Stream HHEI Datasheets

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ATTACHMENT A

## Figures

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Summary: Letter of Notification of Ohio Central 138kV Loop Project (Part 1 of 4) electronically filed by Mr. Yazen Alami on behalf of AEP Ohio Transmission Company