

LETTER OF NOTIFICATION FOR THE
F1263—69kV and F1286 – 138kV South Fairmount Loop

PUCO Case No. 18-1807-EL-BLN

Submitted to:
The Ohio Power Siting Board
Pursuant to OAC 4906-6

Submitted by:
Duke Energy Ohio, Inc.

December 2018



Letter of Notification

This Letter of Notification has been prepared by Duke Energy Ohio, Inc. (hereafter "Duke Energy Ohio") in accordance with Ohio Administrative Code (OAC) Section **4906-6-05** for the review of Accelerated Certificate Applications. The following section corresponds to the administrative code sections for the requirements of a Letter of Notification.

4906-06-05 ACCELERATED APPLICATION REQUIREMENTS

4906-6-05 (B): General Information

4906-6-05 (B)(1) Name, Reference Number, Brief Description, and Letter of Notification Requirement

Name of Project: **F1286/F1263 – 138kV/69kV South Fairmount Loop**

2018 LTFR Reference: The Project was included in the, Case No. 18-484-EL-FOR, pp. 52, 53, and 70. The PJM upgrade identification number for the Project is S0906.

Brief Description of the Project:

Duke Energy Ohio proposes to remove, replace, and install approximately 0.26 miles (1,372 feet) of 69kV/138kV transmission line in a T-Loop connecting Duke Energy Ohio Structure HL196 to Duke Energy Ohio Structure HL19A, located in the City of Cincinnati, Hamilton County, Ohio. The proposed project area consists of approximately 0.26 miles of existing 100-foot wide Duke Energy Ohio transmission line corridor Right-of-Way (ROW), and includes the in-kind replacement of one (1) 138kV steel pole with one (1) 138kV self-supporting steel pole, as well as the installation of seven (7) additional self-supporting steel poles. The Project initiates and terminates at Duke Energy Ohio Structure HL196 (39.1128, -84.5436) located north of Queen City Avenue, west of Mill Creek, and east of Beekman Street.

Letter of Notification Requirement:

This Project qualifies as a Letter of Notification filing as it meets the requirements outlined in O.A.C. 4906-1-01, Appendix A, item (1)(b). Item (1)(b) allows the filing of a Letter of Notification for *"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: (b) Greater than 0.2 miles in length but not greater than two miles in length."*

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

The purpose and need for the F1286/F1263 – 138kV/69kV South Fairmount Loop is to maintain and improve the quality of the electric service and reliability to the service area. This area includes, but is not limited to the City of Cincinnati, Hamilton County, Ohio. The existing line provides 138kV/69kV electric transmission service to residential and commercial/industrial facilities and serves as a pathway in the transmission grid to surrounding areas. The replaced transmission line will continue to provide the service area with 138 kV/69kV transmission service, but will be rebuilt with upgraded conductor capacity to enable a more efficient future voltage conversion and allow support for future load growth in the area.

4906-6-05 (B)(3): Location of the Project Relative to Existing or Proposed Lines

The location of the project is depicted in Attachment A: Figures 1-2. Figure 1 shows the general project vicinity depicted on a USGS quadrangle topographic map. Figure 2 depicts the planned transmission line location, ecological resources in the project vicinity, and additional details depicted on an aerial imagery map. Attachment B depicts the Project location relative to the existing transmission lines.

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

The proposed Project will occur entirely within existing Duke Energy Ohio ROW . No additional long-term impacts to adjacent properties are anticipated as a result of the rebuild Project. Therefore, the current alignment is the only reasonable alternative available and no alternatives were considered.

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

Due to the proposed Project being located entirely within existing Duke Energy Ohio property and/or Duke Energy Ohio ROW, a public information program for this Project has not been developed. However, Duke Energy Ohio has worked closely with property owners during the development of the Project. Duke Energy Ohio has mailed letters, via first class mail, to affected landowners, tenants, contiguous owners, and anyone else Duke Energy Ohio determined may be affected by the Project. See Attachment C for a copy of the letter and list of recipients.

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

Construction is planned to begin on January 14, 2019, contingent upon approval of this Letter of Notification. The Project is anticipated to be completed and in service by February 2019.

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

Figures 1 and 2 depict the general location of the Project. Attachment A, Figure 1 depicts the general project vicinity depicted on a USGS quadrangle topographic map. Attachment A, Figure 2 depicts the planned transmission line location, ecological resources in the project vicinity, and additional details on an aerial imagery map. Attachment B depicts the Project location relative to the existing transmission lines.

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

The proposed Duke Energy Ohio F1286/F1263 – 138kV/69kV South Fairmount Loop project is located within existing ROW easements that were obtained by Duke Energy Ohio and includes the in-kind replacement of one (1) 138kV steel pole with one (1) 138kV self-supporting steel pole, as well as the installation of seven (7) additional self-supporting steel poles (138kv and 69kv). Duke Energy Ohio has identified property owners within 500 feet of the project area and these owners have been notified as outlined in this response [Part 4906-6-05(B)(5)]. The adjacent property owners list and correspondence letter can be found in Appendix C.

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

The Project involves the installation of approximately 0.26 mile (1,372 feet) of 138kV/69kV transmission line. The proposed transmission line will involve the in-kind replacement of one (1) 138kV steel pole with one (1) 138kV self-supporting steel pole, as well as the installation of seven (7) additional self-supporting steel poles (138kV and 69kV) within the existing transmission line easement. Structure diagrams are provided in Attachment B.

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

Voltage:	138kV 69kV
Structure Type:	Remove tower M10-X1-19 (138kV). Replace with self-supporting monopole with foundation. Install seven (7) additional monopoles with foundation.
Conductors:	138kV: 954 ACSR 69kV: 954 ACSR
Static Wire:	138kV: 7#8 Alumoweld 69kV: 7#8 Alumoweld

Insulators: 138kV: Glass bell insulators
 69kV: Glass bell insulators

Right-of-Way/Land Requirements: Duke Energy Ohio operates the poles in an existing ROW and has permits from the B&O Railway to access the project area.

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

Information concerning the electric and magnetic fields will not be required as the proposed project is not within 100 feet of an occupied residence or institution.

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

The estimated cost for the proposed project is approximately \$7,600,000.

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

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

The project is located in the City of Cincinnati, Hamilton County, Ohio. The City of Cincinnati, which covers about 78 square miles, contained a population of 301,301 people based on 2017 census data. The land use immediately surrounding the Project area is predominantly industrial.

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

Agricultural land vegetation assemblage does not exist within the project area.

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

The Ohio Historic Preservation Office's (OHPO) online mapping system was consulted to identify previously recorded cultural resources within 1.6 km (1 mi) of the study area (one mile buffer). The OHPO records check indicates that 1 archaeological site, 166 historic structures, 3 cemeteries, 13 National Register of Historic Places (NRHP) Determination of Eligibility (DOE) structures, and 9 NRHP-listed resources are located within the 1.6-km (1-mi) study area. The previously identified archaeological site, historic structures, cemeteries, and NRHP and NRHP-DOE resources are not located in or adjacent to the study area. A list of the cultural resources located within the one-mile buffer is listed below.

Records reviewed through the OHPO online mapping system indicate that the project area has not been previously investigated for cultural resources. However, the project area is located in disturbed and heavily graded soils, a result of the construction of adjacent buildings, the existing substation and access roads, grading related to the channelization of Mill Creek and the construction of sloped concrete retention walls, old rail lines, and existing transmission pole structures. The study area corresponds to an existing, maintained overhead utility corridor within the confines of an existing energy facility. Due to the previously disturbed soils and limited amount of ground disturbance related to the removal of existing transmission structures and installation of new transmission pole structures, no archaeological reconnaissance is recommended.

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
33-Ha-0242	Fairview Park Stone Mound	n/a	Prehistoric
OGS ID 15156	Second Quakers-Friends Church Cemetery	n/a	1834
OGS ID 4602	Saint Peter's Catholic Cemetery	n/a	
OGS ID 4555	Cincinnati Crematory and Mausoleum	n/a	1897
NPS Ref. No. 05001186	Oesterlein Machine Company-Fashion Frocks, Inc. Complex	3301 Colerain Ave, 1326 Monmouth Ave	1918
NPS Ref. No. 08000583	Hatch, George, House	830 Dayton St	ca. 1850
NPS Ref. No. 73001457	Dayton Street Historic District	Roughly bounded by Bank, Linn, & Poplar Sts & Winchell Ave	ca. 1850-1890
NPS Ref. No. 80003044	Cincinnati Work House and Hospital (DELISTED)	3208 Colerain Ave	1867
NPS Ref. No. 80003051	Eighteenth District School (DELISTED)	1326 Hopple St	1882
NPS Ref. No. 80003075	Police Station No. 5 (DELISTED)	1024-1026 York St	1890s
NPS Ref. No. 81000437	Police Station No. 7	355 McMillan St	ca. 1875-1899
NPS Ref. No. 84003714	Saint Francis Hospital	1860 Queen City Ave	1889

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
NPS Ref. No. 78002073	Cincinnati Street Gas Lamps	Over 1,100 street lamps in Cincinnati	ca. 1843 to 20 th century
NRHP DOE	Not Listed	1591 Dalton Street	Not Listed
NRHP DOE	Not Listed	1836 Fairmount Street	Not Listed
NRHP DOE	Not Listed	1833 Fairmount Avenue	Not Listed
NRHP DOE	Not Listed	NWC Kenner & Dalton Streets	Not Listed
NRHP DOE	Not Listed	Roughly bounded by Patterson, Bank St., & Winchell	Not Listed
NRHP DOE	Not Listed	1907 Queen City Ave	Not Listed
NRHP DOE/ OHI HAM0150043	Saint Heinrich Church	1057 Flint St	1892
NRHP DOE	Not Listed	Baltimore St, St Leo Pl, & Casper St	Not Listed
NRHP DOE/ OHI HAM0169640	Mills House	1036 Marshall Ave	1880
NRHP DOE/ OHI HAM0170940	Chem-Pac Inc.	2261 Spring Grove Ave	1890
NRHP DOE/ OHI HAM0788140	Hopple St Subway Tunnel Portals	Central Parkway near Hopple Street	1914
NRHP DOE/ OHI UNK0000000	Not Listed	Western Hills Viaduct Subway Tunnels	Not Listed
NRHP DOE/ OHI HAM0167240	Hausenfluck House	1245 Bates Ave	1890
HAM0000128	Residential Domestic		1870
HAM0000228	Residential Domestic	Italianate	1870
HAM0000328	Residential Domestic	Renaissance Revival	1860
HAM0000428	Residential Domestic	Renaissance Revival	1870
HAM0000528	Residential Domestic	Renaissance Revival	1850
HAM0000628	Residential Domestic	Italianate	1870

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
HAM0000728	Residential Domestic	Italianate	1870
HAM0000828		Renaissance Revival	1870
HAM0000928	Residential Domestic	Second Empire/Mansard	1865
HAM0001028	Residential Domestic	Italianate	1870
HAM0046606	Residential Domestic	Vernacular	1880
HAM0047606	Residential Domestic	Greek Revival	1865
HAM0047706	Residential Domestic	Greek Revival	1865
HAM0047806	Residential Domestic	Italianate	1875
HAM0047906	Residential Domestic	Greek Revival	1860
HAM0048006	Residential Domestic	Italianate	1875
HAM0048106	Residential Domestic	Italianate	1875
HAM0048206	Commercial	Romanesque Revival	1850
HAM0048306	Commercial	Art Deco	1930
HAM0048406	Residential Domestic	Italianate	1875
HAM0049928	Residential Domestic	Second Empire/Mansard	1885
HAM0133022	School	Richardsonian Romanesque	1890
HAM0134343	Post Office	Art Deco	1932
HAM0137822	Church/Religious Structure	Romanesque Revival	1911
HAM0139643	Commercial		1875
HAM0146106	Commercial	Romanesque Revival	1895
HAM0146206	Residential Domestic	Italianate	1860
HAM0148940	Residential Domestic	Italianate	1875
HAM0149040	Correctional Facility	Romanesque Revival	1866
HAM0149140	Row House	Greek Revival	1865

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
HAM0149240	Residential Domestic	Richardsonian Romanesque	1890
HAM0149340	Residential Domestic	Italianate	1875
HAM0149440	Mill/Processing/Manufacturing Facility	Vernacular	1900
HAM0149540	Fire Station	Second Renaissance Revival	1906
HAM0150043	Church/Religious Structure	Late Gothic Revival	1892
HAM0155306	Residential Domestic	Colonial Revival	1895
HAM0155406	Residential Domestic	Second Empire/Mansard	1880
HAM0155606	Residential Domestic	Italianate	1875
HAM0157422	Residential Domestic	Eastlake	1885
HAM0157522	Commercial	Vernacular	1915
HAM0157622	Residential Domestic		1880
HAM0166840	Double	Greek Revival	1870
HAM0166940	Residential Domestic	Queen Anne	1880
HAM0167040	Commercial	Vernacular	1890
HAM0167140	Residential Domestic	Queen Anne	1890
HAM0167240	Residential Domestic	Queen Anne	1890
HAM0167340	Residential Domestic	Second Empire/Mansard	1880
HAM0167440	Commercial	Queen Anne	1898
HAM0167540	Commercial	Italianate	1880
HAM0167640	Commercial	Italianate	1880
HAM0167740	Commercial	Italianate	1875
HAM0167840		Italianate	1880
HAM0167940	Residential Domestic	Neo-Classical Revival	1890

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
HAM0168040	Commercial	Italianate	1880
HAM0168140	Residential Domestic	Italianate	1875
HAM0168240	Residential Domestic	Queen Anne	1897
HAM0168340	Fire Station	Italianate	1876
HAM0168440	Commercial	Queen Anne	1894
HAM0168540	Commercial	Art Deco	1935
HAM0168640	Commercial	Neo-Classical Revival	1895
HAM0168740	Commercial	Queen Anne	1890
HAM0168840	Commercial	Vernacular	1890
HAM0168940	Row House	Italianate	1870
HAM0169040	Residential Domestic	Queen Anne	1885
HAM0169140	Residential Domestic	Vernacular	1880
HAM0169240	Residential Domestic	Vernacular	1890
HAM0169340	Residential Domestic		1895
HAM0169440	Residential Domestic	Second Empire/Mansard	1890
HAM0169540	Commercial	Richardsonian Romanesque	1895
HAM0169640	Residential Domestic	Queen Anne	1880
HAM0169740	Residential Domestic	Queen Anne	1895
HAM0169840	Double	Greek Revival	1870
HAM0169940	Residential Domestic	Greek Revival	1865
HAM0170040	Residential Domestic	Greek Revival	1870
HAM0170140	Church/Religious Structure	Romanesque Revival	1873
HAM0170240	Residential Domestic	Italianate	1875
HAM0170340	Double	Vernacular	1865
HAM0170440	Residential Domestic	Second Empire/Mansard	1860

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
HAM0170540	Residential Domestic	Not Discernable from OHI Form	1890
HAM0170640	Residential Domestic	Vernacular	1900
HAM0170740	Residential Domestic	Second Empire/Mansard	1880
HAM0170840	Residential Domestic	Second Empire/Mansard	1890
HAM0170940	Mill/Processing/Manufacturing Facility	Vernacular	1890
HAM0171040	Residential Domestic	Second Empire/Mansard	1885
HAM0171140	Residential Domestic	Italianate	1860
HAM0171240	Commercial	Vernacular	1890
HAM0180043	Industrial/Engineering	Vernacular	1898
HAM0183220	Residential Domestic	Second Empire/Mansard	1875
HAM0183320	Residential Domestic	Second Empire/Mansard	1880
HAM0183720	Residential Domestic	Vernacular	1870
HAM0183920	Residential Domestic	Italianate	1875
HAM0195040	Commercial	Vernacular	1950
HAM0195140	Stock Yard	Vernacular	1950
HAM0195240	Mill/Processing/Manufacturing Facility	Vernacular	1890
HAM0195340	Residential Domestic	Queen Anne	1890
HAM0195440	Mill/Processing/Manufacturing Facility	Vernacular	1880
HAM0195540	Mill/Processing/Manufacturing Facility	Vernacular	1892
HAM0195640	School	Italianate	1882
HAM0195840	Commercial	Italianate	1875
HAM0195940	Residential Domestic	Queen Anne	1885

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
HAM0196040	Commercial	Vernacular	1890
HAM0196442	Residential Domestic	Queen Anne	1895
HAM0202006	Police Station	Richardsonian Romanesque	1895
HAM0208020	Residential Domestic	Italianate	1875
HAM0208420	Barn	Greek Revival	1860
HAM0310322	Residential Domestic	Queen Anne	1900
HAM0310423	Residential Domestic	Queen Anne	1885
HAM0310522	Financial Institution	Art Deco	1936
HAM0310622	Service Station	Tudor/English Revival	1936
HAM0310723	Warehouse	Romanesque Revival	1875
HAM0310823	Rail Related		1950
HAM0310923	Other Use	Not Discernable from OHI Form	1875
HAM0311023	Residential Domestic	Queen Anne	1895
HAM0311123	Residential Domestic	Second Empire/Mansard	1880
HAM0311223	Commercial	Not Discernable from OHI Form	1890
HAM0311323	Funeral Home	Not Discernable from OHI Form	1930
HAM0311423	Hospital	Richardsonian Romanesque	1888
HAM0311523	Organization/Association	Greek Revival	1865
HAM0312623	Residential Domestic	Second Empire/Mansard	1880
HAM0312723	Residential Domestic	Not Discernable from OHI Form	1880
HAM0312823	Residential Domestic	Not Discernable from OHI Form	1900

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
HAM0312923	Residential Domestic	Second Empire/Mansard	1880
HAM0313023	Residential Domestic	Queen Anne	1895
HAM0313123	Residential Domestic	Greek Revival	1865
HAM0313223	Commercial	Not Discernable from OHI Form	1870
HAM0542140	Residential Domestic	Queen Anne	1895
HAM0542240	Warehouse	Vernacular	1905
HAM0542340	Residential Domestic	Second Empire/Mansard	1880
HAM0542440	Commercial	Queen Anne	1895
HAM0542540	Commercial	Italianate	1880
HAM0542640	Residential Domestic	Italianate	1875
HAM0542740	Restaurant/Bar	Not Determined	1931
HAM0542840	Mill/Processing/Manufacturing Facility	Vernacular	1895
HAM0542940	Commercial	Vernacular	1918
HAM0543040		Neo-Classical Revival	1918
HAM0543140	Commercial	Vernacular	1920
HAM0587323	Road Related	No academic style - Vernacular	1931
HAM0616223	Unknown Use	Not Discernable from OHI Form	1880
HAM0616323	Church/Religious Structure	Not Discernable from OHI Form	1887
HAM0616423	Single Dwelling	Not Discernable from OHI Form	unk
HAM0617928	School	Second Renaissance Revival	1915
HAM0620228	School	Tudor/English Revival	1929

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
HAM0622323	School	Jacobethan	1925
HAM0622628	School	Neo-Classical Revival	1912
HAM0633240	Financial Institution	Second Renaissance Revival	1903
HAM0633328	Commercial	Queen Anne	1890
HAM0634542	Residential Domestic	Queen Anne	1899
HAM0634642	Residential Domestic	Second Empire/Mansard	1885
HAM0634742	Warehouse	Vernacular	1870
HAM0735106	Single Dwelling	Vernacular	1885
HAM0735206	Multiple Dwelling	Colonial Revival	1910
HAM0735306	Commercial	Vernacular	1885
HAM0735406	Single Dwelling	Queen Anne	1898
HAM0736442	Single Dwelling	Stick	1885
HAM0736640	Government/ Public	Neo-Classical Revival	1915
HAM0738321	Residential Domestic	Queen Anne	1885
HAM0738422	Single Dwelling	Tudor/English Revival	1928
HAM0757140	Road/Vehicle Related		1928
HAM0787223	Mill/Processing/Manufacturing Facility	Vernacular	1880
HAM0787323	Mill/Processing/Manufacturing Facility	Vernacular	1907
HAM0787523	Church/Religious Structure	Romanesque Revival	1863
HAM0787623	Water Related Facility	Art Moderne	1936
HAM0787723	Single Dwelling	Greek Revival	1855
HAM0788040	Industrial/Engineering	Vernacular	1905
HAM0788140	Transportation		1914

Table 1. Cultural Resources Located within the 1.0 Mile Buffer

Resource Number	Historic Use	Address/ Architectural Style	Approx. Date
HAM0788240	Industrial/Engineering	Commercial/Chicago Style	1925

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

No other local, state or federal permit or other authorizations are required for the project.

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

Several sources of information were consulted to further define the potential habitat of listed species that occur within the County of the Project. Attachment A, Table 1, contains a list of the Rare, Threatened and Endangered (RTE) species known to occur within Hamilton County and their potential to occur within the Study Area based on their habitat requirements and observations during the field survey.

Coordination with the U.S. Fish and Wildlife Service (USFWS) was initiated on October 31, 2018, and coordination with the Ohio Department of Natural Resources Division of Wildlife (ODNR-DOW) was initiated on October 30, 2018. No responses from the agencies have been received as of the date of this Letter of Notification; however, the requests for information can be found in Attachment E.

The entire Project Area was field surveyed by Cardno, Inc., (Cardno) as part of contracted services to assess ecological impacts. This included habitat assessments to identify RTE species and their habitat, specifically Indiana Bat and Northern Long-eared Bat roost trees. Based on Cardno's field inspection, the Project Study Area consisted of urban/industrial turf habitat. No trees with characteristic habitat indicators of primary maternity roost trees were identified.

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

As a part of the investigation, Duke Energy Ohio hired Cardno to conduct an investigation for areas of ecological concern. As a part of Cardno's investigation, a request was submitted to the ODNR Environmental Review Services on October 30, 2018, and U.S. Fish and Wildlife Service on October 31, 2018, to research the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife area, nature preserves, parks or forest, national wildlife refuges, or other protected areas within one (1) mile of the Project area using the ODNR Natural Heritage

Database. A copy of the ODNR request and USFWS response letters are included in Attachment E.

As a part of the field investigation and ecological assessment, Cardno conducted a wetland delineation and stream assessment of the Project area. Cardno's investigation included the approximately 3.05-acre study area around the proposed centerline, access roads, and additional workspace areas. During the investigation, Cardno identified no potentially regulated waters in the study area. See Attachment F, Regulated Waters Delineation Report.

The proposed construction access plan as shown in Attachment D, Figure 4A-4B, was developed by Cardno to avoid and/or minimize disturbance to all streams and wetlands. No impacts to regulated waters or RTE habitat are anticipated by the Project.

As a part of the investigation, Cardno identified 100-year floodplains using the FEMA National Flood Hazard Layer within the Project Area. Attachment A, Figure 2, depicts the location of the 100-year floodplains in relation to the Project Area. As all construction will take place outside the 100-year floodplain, no changes in flood elevations are anticipated in the identified floodplain.

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

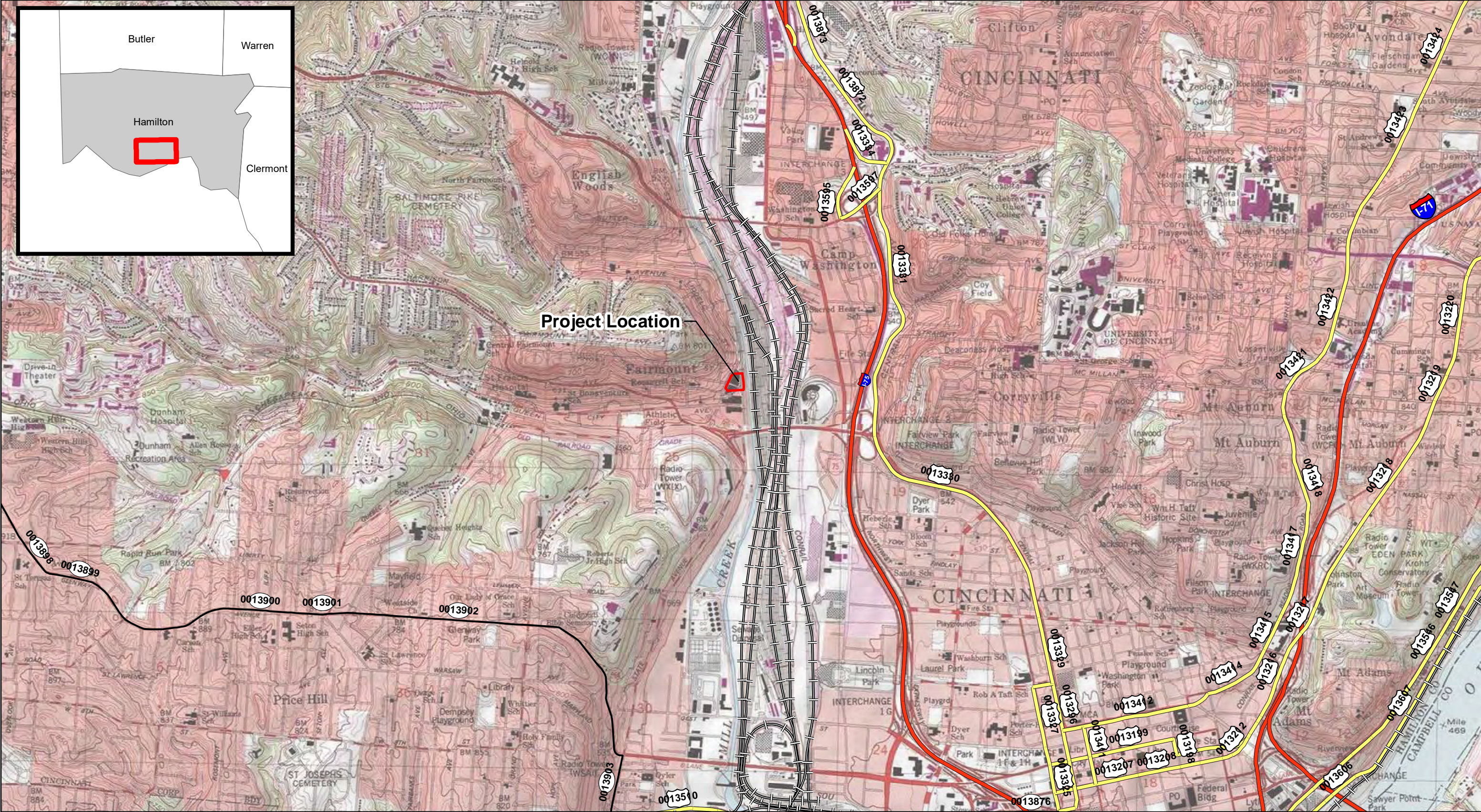
To the best of Duke Energy Ohio's knowledge, no unusual conditions exist that would result in environmental, social, health, or safety impacts. Construction and operation of the proposed Project will meet all applicable safety standards established by the Occupational Safety and Health Administration, and 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. The Stormwater Pollution Prevention Plan (SWPPP), depicting the project's access plan, is located in Appendix E.

4906-6-07: Document of Letter of Notification Transmittal and Availability for Public Review

Copies of the Letter of Notification have been sent to governmental offices in the City of Cincinnati and Hamilton County and the Public Library of Cincinnati and Hamilton County as required by rule A newspaper notice will be provided in the Cincinnati Enquirer within 7 days of filing this application.

Attachment A

Figures and Tables



PROJECT LOCATION



HAMILTON COUNTY, OHIO

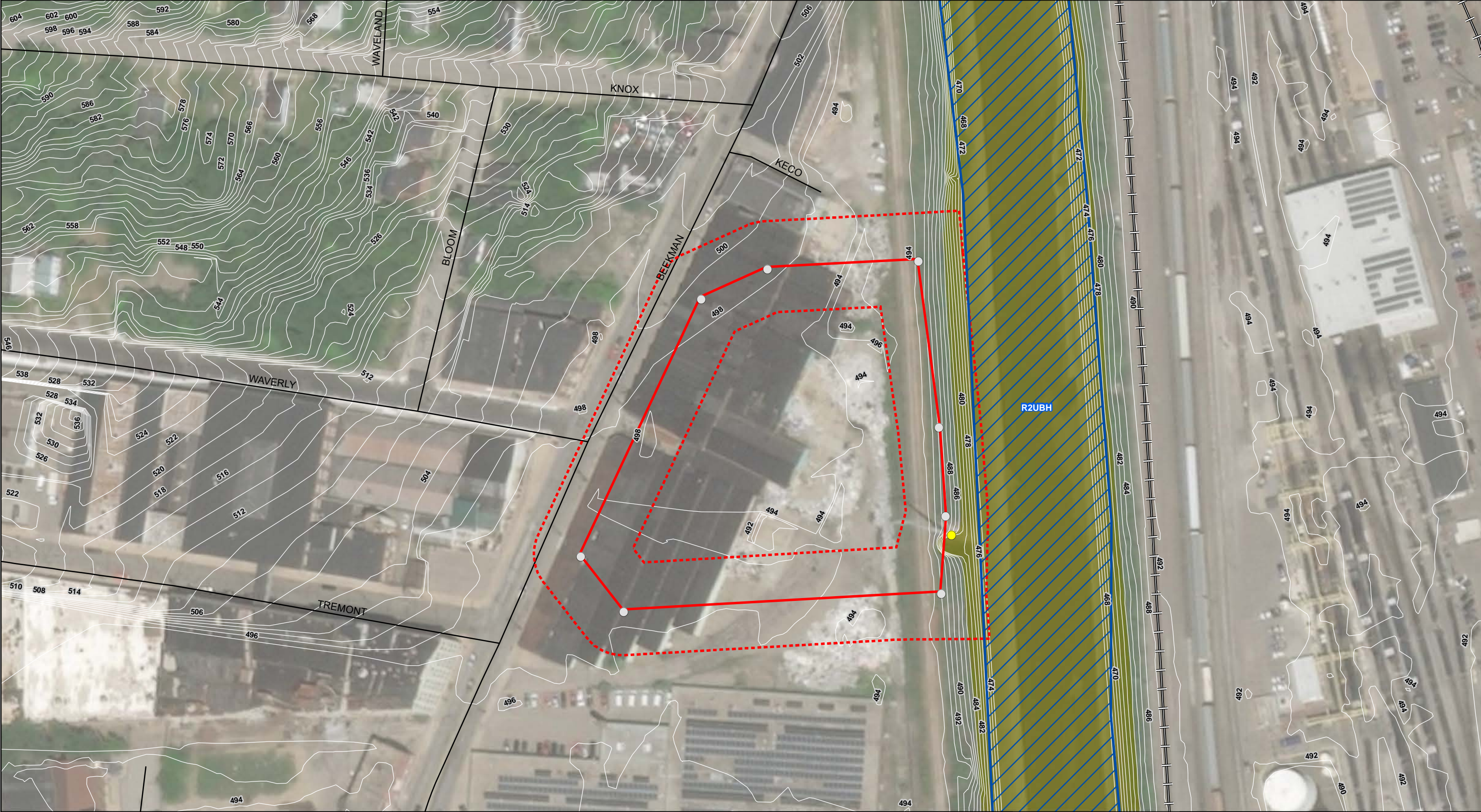
REFERENCE:
ROUTE CENTERLINE AND FACILITY
Duke Energy
USGS 7.5' TOPOGRAPHIC QUADRANGLES
ESRI's Online USA Topo, accessed 11/19/2018
ESRI's USA Major Roads, accessed 11/19/2018

- Railroad
- State Highway
- US Highway
- Route Centerline
- Interstate

0 1,000 2,000 3,000 Feet



FIGURE 1
Project Location
OPSB BLN FILING
F1286/F1263 – 138kV/69kV SOUTH FAIRMOUNT T-LOOP
DRAWN BY: DKT
CHECKED: CAJ
DATE: 11/19/2018
APPROVED: CAJ



PROJECT LOCATION



HAMILTON COUNTY, OHIO

REFERENCE:
ROUTE CENTERLINE AND FACILITY
Duke Energy
USGS 7.5' TOPOGRAPHIC QUADRANGLES
ESRI's Online USA Topo, accessed 11/19/2018
ESRI's USA Major Roads, accessed 11/19/2018

Existing Structure	Municipal Boundary	Interstate
Proposed Structure	2' Contours	100Yr Floodplain
Railroad	NWI Wetlands	Study Area
State Highway	Route Centerline	
US Highway	Local Roads	

02550100150200

Feet



FIGURE 2 Project Details	
OPSB BLN FILING	
F1286/F1263 – 138kV/69kV SOUTH FAIRMOUNT T-LOOP	
DRAWN BY: DKT	DATE: 11/19/2018
CHECKED: CAJ	APPROVED: CAJ

SPECIES	COMMON NAME	STATE STATUS ¹	FEDERAL STATUS ²	HABITAT ³	BREEDING PERIOD ³	PROBABILITY OF OCCURENCE ⁴
Hamilton County						
MAMMAL						
<i>Eptesicus fuscus</i>	Big Brown Bat	SSC	---	Wooded and Semi wooded areas, mainly along streams.	August-October	None
<i>Lasionycteris noctivagans</i>	Silver-haired Bat	SSC	---	Wooded and Semi wooded areas, mainly along streams.	August-October	None
<i>Lasiurus borealis</i>	Red Bat	SSC	---	Wooded area and wooded edges and hedgerows.	August-September	Low
<i>Lasiurus cinereus</i>	Hoary Bat	SSC	---	Wooded, Semi wooded areas, and wooded edges.	August -October	None
<i>Microtus ochrogaster</i>	Prairie Vole	SSC	---	Dry, vegetated areas; pastures, fields, meadows and prairies	May-October	Low
<i>Microtus pinetorum</i>	Woodland Vole	SSC	---	Wooded areas with thick organic material on forest floor.	April-August	Low
<i>Myotis lucifugus</i>	Little Brown Bat	SSC	---	Under rocks, wood piles and sometimes caves.	August-December	None
<i>Myotis sodalis</i>	Indiana Myotis	E	E	Wooded and Semi wooded areas, mainly along streams. Maternity colonies are around hollow trees.	August-October	None
<i>Myotis septentrionalis</i>	Northern long-eared Bat	SSC	T	Wooded and Semi wooded areas; live trees and in snags.	July-August	None
<i>Perimyotis subflavus</i>	Tri-colored Bat	SSC	---	Edge habitats near areas of mixed agricultural use.	August-October	None
<i>Peromyscus maniculatus</i>	Deer Mouse	SCC	---	Grasslands, brushlands, and agricultural fields.	Year round; mostly during warmer months	Low
<i>Reithrodontomys humulis</i>	Eastern Harvest Mouse	T	---	Open grassy areas such as abandoned fields, marshes or wet meadows.	April and August	None
<i>Synaptomys cooperi</i>	Southern Bog Lemming	SSC	---	Low, moist areas, grasslands, mixed deciduous forests, freshwater wetlands, marshes and meadows.	Year-round	None
<i>Taxidea taxus</i>	Badger	SSC	---	Open grasslands, agricultural areas and other treeless spaces.	July-August	None
BIRD						
<i>Dendroica cerulean</i>	Cerulean Warbler	SSC	---	Deciduous hardwood forests, uplands, wet bottomlands, moist slopes.	May-June	Low
<i>Regulus satrapa</i>	Golden-crowned Kinglet	SI	---	Deciduous and mixed forests, wooded bogs, parks, bottomland hardwoods, swamps and riversides.	June-July(Migratory)	Low
FISH						
<i>Ammocrypta pellucida</i>	Eastern Sand Darter	SSC	---	Rocky pools and runs of creeks and small to medium rivers, often near vegetation or other cover.	Late April-May	None
<i>Cycleptus elongatus</i>	Blue Sucker	T	---	Large river systems, in a heavy current.	April-June	None
<i>Esox masquinongy</i>	Muskellung	SSC	---	Lakes and large rivers; Prefer shallow water with a rocky bottom and heavy cover.	April	None

<i>Ictalurus furcatus</i>	Blue Catfish	SSC	---	Large river systems.	May-August	None
<i>Lepisosteus platostomus</i>	Shortnose Gar	E	---	Calm waters of large rivers and their backwaters.	February-June	None
<i>Macrhybopsis hyostoma</i>	Shoal Chub	E	---	Small streams with various substrates.	April-June	None
<i>Moxostoma carinatum</i>	River Redhorse	SSC	---	Medium to large rocky rivers with moderate to strong currents. Usually found in long, deep run habitats.	Early June	None
<i>Notropis boops</i>	Bigeye Shiner	T	---	Small to medium sized streams with pools over substrates of gravel, rock, or sand.	April-August	None
<i>Noturus eleutherus</i>	Mountain Madtom	T	---	Fast flowing clear riffles that are shallow.	June-July	None
<i>Noturus stigmosus</i>	Northern Madtom	E	---	Large rivers in swift currents.	June-July	None
<i>Percina copelandi</i>	Channel Darter	T	---	Gravelly shallows of lakes, and in small and medium-sized rivers in riffles over sand, gravel or rock bottoms.	April-May	None
<i>Percina shumardi</i>	River Darter	T	---	Major rivers and mouths of tributaries with swift currents over sandy, gravelly or rocky substrates.	Year-round, depending on water temperatures.	None
<i>Polyodon spathula</i>	Paddlefish	T	---	Large, slow moving rivers with access to sand or gravel bars.	March-June	None
INVERTEBRATE						
<i>Alasmodonta marginata</i>	Elktoe	SSC	---	Shallow to medium sized creeks or rivers.	June-July	None
<i>Catocala maestosa</i>	---	SI	---	Riparian wooded areas.	July-October	Low
<i>Cyclonaias tuberculata</i>	Purple Wartyback	SSC	---	Large to medium sized rivers with a gravel or mixed sand substrates.	May-August	None
<i>Cyprogenia stegaria</i>	Fanshell	E	E	Rivers and streams with abundant gravel and sand substrates.	April-August	None
<i>Ellipsaria lineolata</i>	Butterfly Mussel	E	---	Large rivers with swift currents in sand or gravel substrates.	July-August	None
<i>Elliptio crassidens crassidens</i>	Elephant-ear	E	---	Rivers and streams with muddy sand, sand, and rocky substrates in moderate currents.	April-May	None
<i>Epioblasma obliquata obliquata</i>	Purple Cat's Paw	E	E	Large rivers with gravel or mixed sand substrates.	April-May	None
<i>Epioblasma torulosa rangiana</i>	Northern Riffleshell	E	E	Large to small streams.	Breeding season occurs once a year, dependent upon water temperature	None
<i>Epioblasma triquetra</i>	Snuffbox	E	E	Riffles areas of fast moving rivers and streams.	July-August	None
<i>Fusconaia ebena</i>	Ebonysell	E	---	Rivers and streams with coarse sand and gravel substrates.	June-September	None
<i>Fusconaia maculate maculate</i>	Long-solid	E	---	Small to large rivers in gravel with strong currents.	May-July	None
<i>Gomphus externus</i>	Plains Clubtail	E	---	Found near large, slow, muddy streams and rivers.	May-Late July	None

<i>Lampsilis abrupta</i>	Pink Mucket	E	E	Small to medium rivers with swift currents.	June-July	None
<i>Lampsilis fasciola</i>	Wavy-rayed Lampmussel	SSC	---	Medium streams with gravel or sand bottoms.	June-July	None
<i>Lampsilis ovata</i>	Sharp-ridged Pocketbook	E	---	Ponds, lakes and streams with slow moving water and plenty of cover.	June-July	None
<i>Lampsilis teres</i>	Yellow Sandshell	E	---	Large rivers with slow moving currents.	June-July	None
<i>Lasmigona compressa</i>	Creek Heelsplitter	SSC	---	Medium to large rives in pools over compact sand and gravel, or mud patches near shore.	June-July	None
<i>Ligumia recta</i>	Black Sandshell	T	---	Rivers, lakes and large streams in riffles over muddy to gravel substrates.	July-August	None
<i>Lycaena helloides</i>	Purplish Copper	E	---	Wet meadows, marshes and streamsides.	July-August	None
<i>Megaloniaias nervosa</i>	Washboard	E	---	Slow moving rivers and streams with muddy to rocky substrates.	August-October	None
<i>Nannothermis bella</i>	Elfin Skimmer	E	---	Bogs and fens.	March-September	None
<i>Obliquaria reflexa</i>	Threehorn Wartyback	T	---	Large rivers with sand or gravel substrates.	July-August	None
<i>Orconectes sloanii</i>	Sloan's Crayfish	T	---	Freshwater lakes and streams, under rocks and logs.	August-October	None
<i>Plethobasus cyphus</i>	Sheepnose	E	E	Large rivers in shallow areas with moderate to swift currents that flow over coarse sand and gravel substrates.	July-August	None
<i>Pleurobema clava</i>	Clubshell	E	E	Medium to large rivers with gravel or sandy substrates.	July-August	None
<i>Pleurobema cordatum</i>	Ohio Pigtoe	E	---	Large rivers in riffle areas with clear, swift moving water.	April-May	None
<i>Pleurobema rubrum</i>	Pyramid Pigtoe	E	---	Medium to large rivers in sand or gravel.	May-July	None
<i>Pleurobema sintoxia</i>	Round Pigtoe	SSC	---	Small to large rivers with moderate to swift flowing water with gravel, cobble or boulder substrates.	June-July	None
<i>Ptychobranchus fasciolaris</i>	Kidneyshell	SSC	---	Small to medium sized rivers in riffle areas with clear, swift moving water.	April-August	None
<i>Quadrula cylindrical cylindrical</i>	Rabbitsfoot	E	T	Large, clean, fast-flowing waters.	April-August	None
<i>Quadrula metanevra</i>	Monkeyface	E	---	Large, clean, fast-flowing waters in silt-free rubble, gravel and sand bottoms.	March-July	None
<i>Quadrula nodulata</i>	Wartyback	E	---	Large, clean, fast-flowing waters in silt-free rubble, gravel and sand bottoms.	May	None
<i>Speyeria idalia</i>	Regal Fritillary	E	---	Tall-grass prairie and other open location including meadows, marshes and pastures.	June-July	Low
<i>Truncilla donaciformis</i>	Fawnsfoot	T	---	Rivers and lakes in slower moving water. Usually in sand or gravel substrates.	April-May	None
<i>Truncilla truncate</i>	Deertoe	SSC	---	Lakes and medium to large rivers. Usually in mud, sand or gravel substrates.	August-July	None
<i>Uniomereus tetralasmus</i>	Pondhorn	T	---	Freshwater rivers, ponds and lakes.	Unknown	None

<i>Villosa fabalis</i>	Rayed Bean	E	E	Small headwater creeks, sometimes found in large rivers. Prefers gravel or sand substrates.	Unknown; Egg-bearing females have been found in May.	None
REPTILE						
<i>Clonophis kirtlandii</i>	Kirtland's Snake	T	---	Prairie fens, wet meadows, wet prairies and associated open and wooded wetlands	February-March, May, August-September	Low
<i>Opheodrys aestivus aestivus</i>	Northern Rough Greensnake	SSC	---	Moist meadows and woodlands, often near water.	April-May	Low
AMPHIBIAN						
<i>Acris crepitans crepitans</i>	Eastern Cricket Frog	SSC	---	The shores of sparsely vegetated permanent ponds and streams.	April-June	Low
<i>Cryptobranchus alleganiensis alleganiensis</i>	Eastern Hellbender	E	---	Medium to large, rocky streams that are not excessively silty and have an abundance of crayfish.	September	None
<i>Eurycea lucifuga</i>	Cave Salamander	E	---	In and around caves, seeps, springs, and small forested limestone creeks associated with groundwater. Rock crevices or under rocks, logs, or other debris.	December-February	None
PLANT						
<i>Trifolium stoloniferum</i>	Running Buffalo Clover	---	E	Disturbed bottomland meadows. Disturbed sites that have shade part of the day.	n/a	Low

1. STATE STATUS - X = extirpated, E = endangered, T = threatened, R = rare, SSC = special concern, WL = watch list, SG = significant, SI = Special Interest ** = no status but rarity warrants concern

Ohio Department of Natural Resources, Division of Wildlife Website - <http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/publications/information/pub356.pdf> (March 2016).

2. FEDERAL STATUS - E = endangered, T = threatened, R = rare, LE/LT = different listing for specific ranges or species, PE = proposed endangered, PT = proposed threatened, e/sa – appearance similar to a listed endanger species, ** = not listed

United States Fish and Wildlife Service, County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species - <http://www.fws.gov/midwest/endangered/lists/ohio-cty.html> (January 2017).

3. Habitats and Breeding Periods described by:

- NatureServe: An online encyclopedia of life [web application].2000. Version 1.1 Arlington, Virginia, USA: Association for Biodiversity information. Available: <http://www.natureserve.org/> (Accessed January 6, 2017).
- United States Fish and Wildlife Service Rayed Bean Fact Sheet - <http://www.fws.gov/midwest/endangered/clams/rayedbean/RayedBeanFactSheet.html> (January 6, 2017).
- United States Fish and Wildlife Service Indiana Bat Fact Sheet - <http://www.fws.gov/midwest/endangered/mammals/inba/index.html> (January 6, 2017).
- United States Fish and Wildlife Service Northern Long-eared Bat Fact Sheet - <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html> (January 6, 2017).
- United States Fish and Wildlife Service Eastern Massasauga Fact Sheet - <http://www.fws.gov/midwest/endangered/mammals/inba/index.html> (January 6, 2017).
- United States Fish and Wildlife Service Running buffalo clover Fact Sheet - <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html> (January 6, 2017).

4. Likelihood of occurrence: None, Low, Moderate, or High based on best available data and selective field observations.

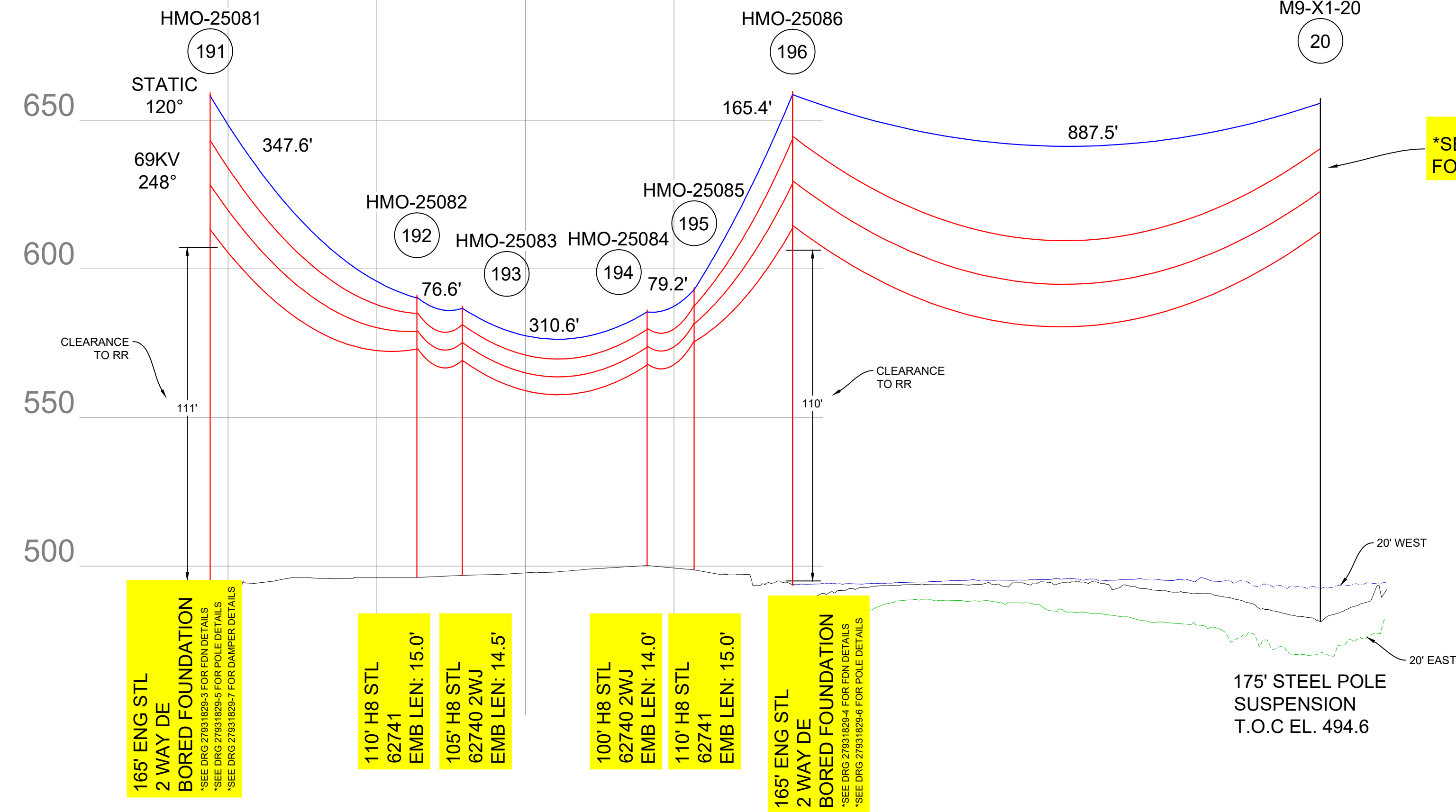
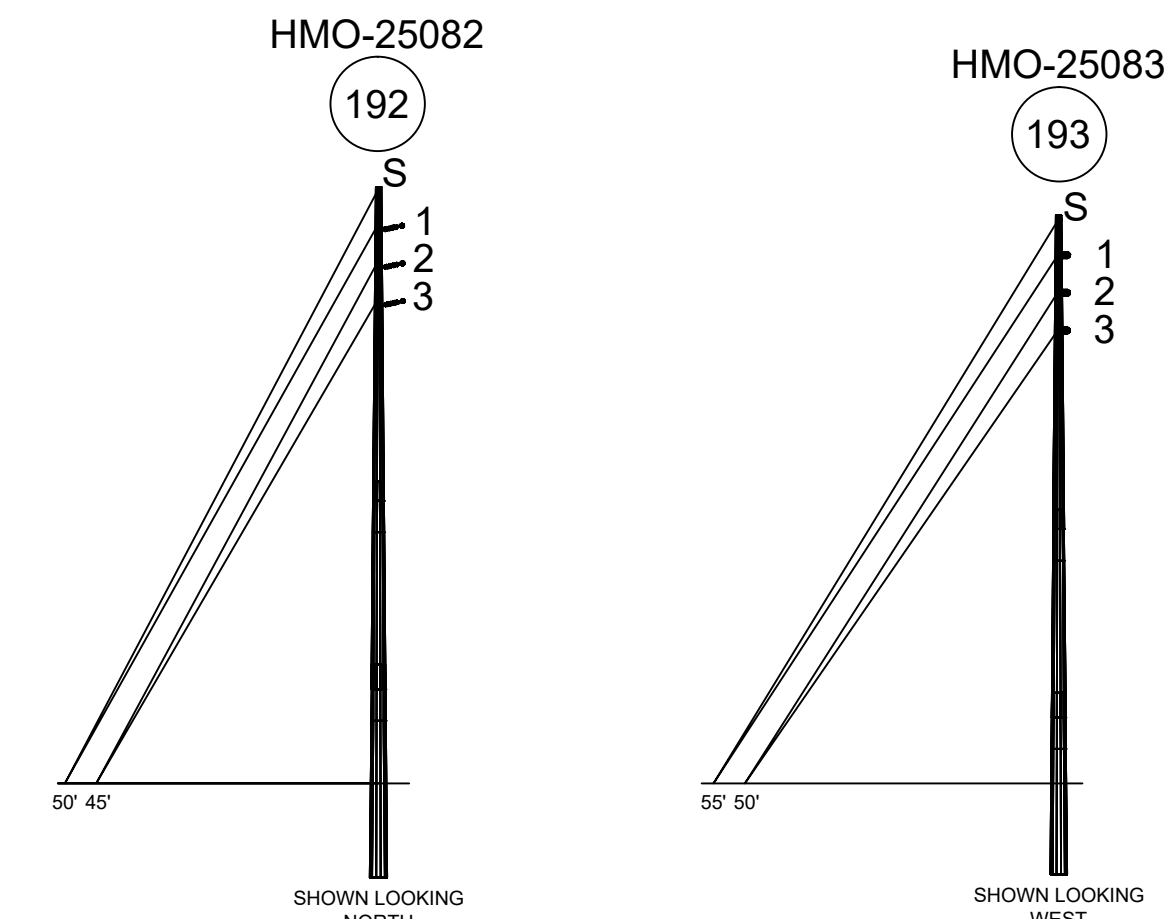
Attachment B

Site Plans and Project Area Location Relative to Existing Electric Lines

MAP GRID: N01W0135B
COMMUNITY: SOUTH FAIRMOUNT
TWP.: CINCINNATI
STATE: OHIO
COUNTY: HAMILTON
TAX: 31 1110
OPERATING UNIT: VSOH
FEEDER (69KV): F1263
FEEDER (138KV): F1286
DISTRICT: HARTWELL

CONTACT/ ENGINEER:
JAKE DAWN
513-287-1371

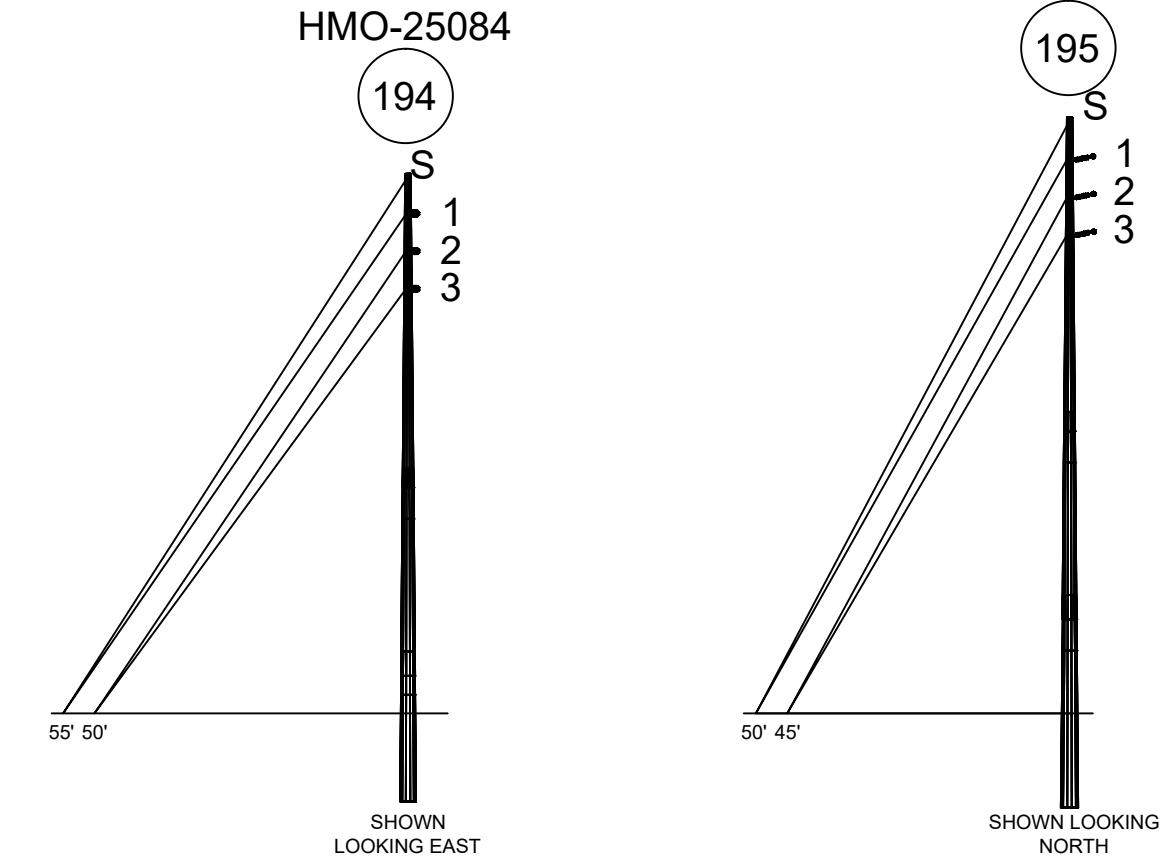
TRANSMISSION:		
WO# 27931829		
PROJECT CODES:		
PROJECT#	ACTIVITY	DESCRIP.
AMOH11118	I	INSTALL
AMOH11118	R	RETIRE
AMOH11118	X	MAINT.



SOUTH FAIRMOUNT STATION

2438 Beekman St
Cincinnati, OH 45214

WIRE STRINGING DATA			
FROM	TO	NESC HEAVY INITIAL (LBS)	RULING SPAN
STATIC - 7#8ALUMOWELD			
191	192	1700	341
192	193	500	77
193	194	1700	311
194	195	500	79
195	196	1700	154
CONDUCTOR - 954ACSR45X7			
191	192	4500	344
192	193	500	75
193	194	3500	311
194	195	500	78
195	196	4500	159



ALL 3 F1286 PHASES
ATTACH TO HL191 ARMS
USING INS138S

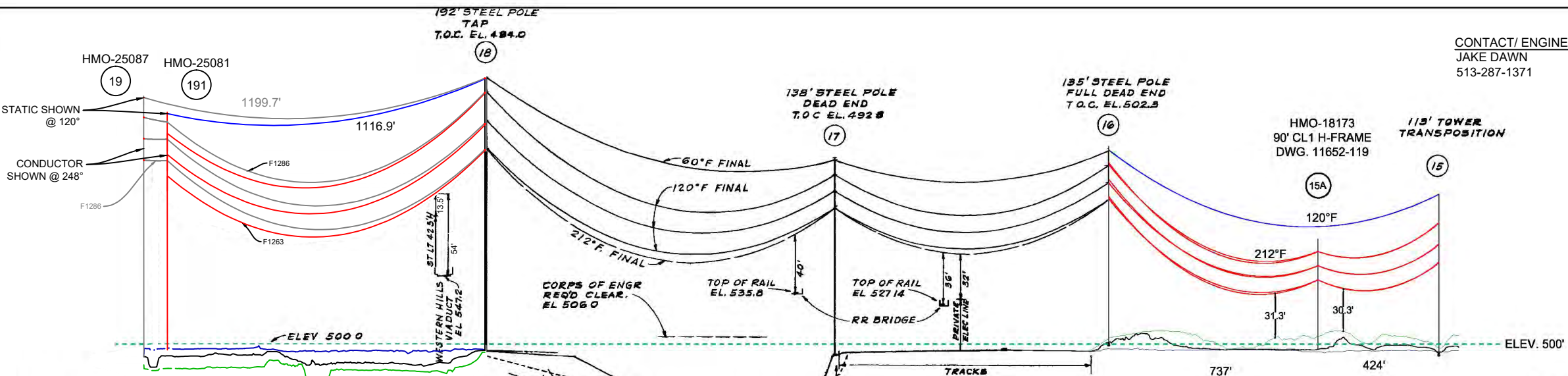
ALL 3 F1286 PHASES
ATTACH TO HL196 ARMS
USING INS138S

*SEE DRG 27931829-8
FOR DAMPER DETAILS

NOTE:
- ALL PHASING IS SHOWN LOOKING AWAY FROM MITCHELL AVE STATION
- PLACE CONDUCTOR IN ROLLERS AND ADD WIRE AS NEEDED
- RE-SAG CONDUCTOR PER THE STRINGING AND SAGGING CHARTS
- FOR F1286 DETAILS, SEE DRG 22039133-1
- FOR SAG AND TENSION DATA OF HL196-20, SEE DRG. 11652-116 (NOT FOR CONSTRUCTION)
- FOR FOUNDATION DETAILS SEE DRG. 11652-114 & 115
- RR SIDE CLEARANCES ARE MEASURED FROM CENTER OF STRUCTURE TO CLOSEST RAIL
- ADDED CLEARANCE REQUIRED TO MINIMIZE TREE TRIMMING (TWRS 19,20,21)

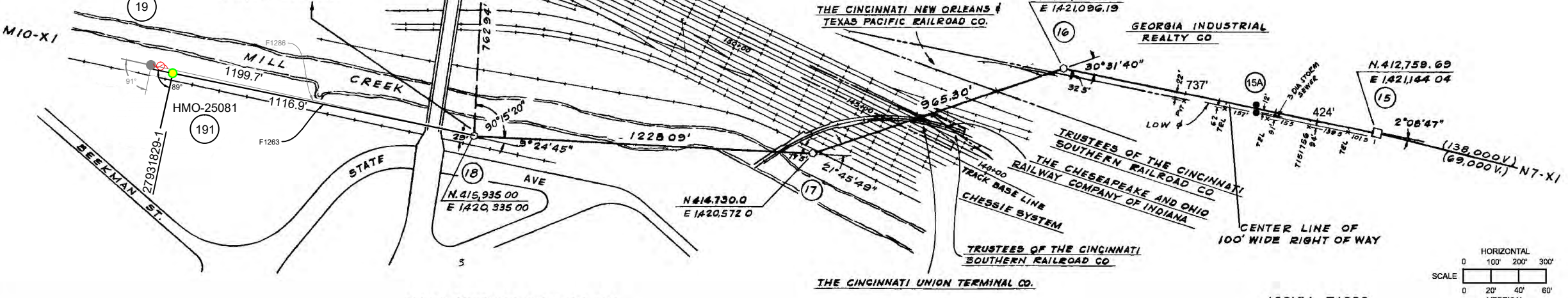


DUKE ENERGY		INDEX: F1263 & F1286	
DATE: 11/26/2018		DESCRIPTION: SOUTH FAIRMOUNT 69KV F1263 CONSTRUCTION PLAN & PROFILE	
DRAWN: JAKE DAWN		LOCATION: CINCINNATI, OH	
TRANSMISSION LINE ENGINEERING		ENGINEER: JAKE DAWN	
CKD:	PAGE:	SCALE: NOTED	DWG NO: 27931829-1 REV1



A-599
LONGITUDINAL OCCUPANCY OF RAILROAD PROPERTY WITH 817.94 CIRCUIT FEET OF 2-69KV CIRCUITS EACH CONSISTING OF 1-7#6AW STATIC WIRE AND 3-795 KCMIL 45/7 ACSR CONDUCTORS AND ONE (1) 135' STEEL POLE (18A), BEGINNING AT PROPOSED STEEL POLE #18 AT A POINT 150 FEET SOUTH OF THE C OF WESTERN HILLS VIADUCT AND APPROX 120 FEET EAST OF THE C OF STATE AVE. WITH STATE PLATE COORDINATES N-415,935 E-1420,335 THENCE RUNNING EASTWARDLY FROM PROPOSED STEEL POLE 18 762.94 FEET TO PROPOSED STEEL POLE 18A (STATE PLATE COORDINATES N-416,078.89 E-1,421,084.25) AT A POINT APPROX. 75 FEET SOUTH OF THE C OF WESTERN HILLS VIADUCT THENCE FROM PROPOSED STEEL POLE 18A EASTWARDLY FOR A DISTANCE OF 55 FEET TO THE EAST PROPERTY LINE OF B.O. RR., LEAVING SAID PROPERTY AT A POINT APPROX. 90 FEET SOUTH OF THE C OF WESTERN HILLS VIADUCT. EXISTING TOWER 15 TO BE REMOVED. THIS REARRANGEMENT AT REQUEST OF B.O. - C.O. RR COMPANIES

THE BALTIMORE & OHIO RAILROAD CO.
THE TRUSTEES OF THE CINCINNATI SOUTHERN RAILWAY (THE C.N.O. & TEXAS PACIFIC RR CO. LESSEE) P-71 AGREEMENT DATED 9-9-1989
GEORGIA INDUSTRIAL REALTY CO.
THE BALTIMORE & OHIO RAILROAD CO (CHESSIE SYSTEM)
BRIGHTON TAP TO BE COVERED BY RAILROAD AGREEMENT A-599, A-448, P-71, D-II (NOW L&N RR)



SURVEY REFERENCE TWR 15 TO TWR 16 BOOK 43, PAGE 281, SHEET 1 & 2

CONTACT/ENGINEER:
JAKE DAWN
513-287-1371

MAP GRID: N01W0135B
COMMUNITY: SOUTH FAIRMOUNT
TWP.: CINCINNATI
STATE: OHIO
COUNTY: HAMILTON
TAX: 31 1110
OPERATING UNIT: VSOH
FEEDER (69KV): F1263
FEEDER (138KV): F1286
DISTRICT: HARTWELL

TRANSMISSION:
WO# 27931829
PROJECT CODES:

PROJECT#	ACTIVITY	DESCRIP.
AMOH11118	I	INSTALL
AMOH11118	R	RETIRE
AMOH11118	X	MAINT.

FOUNDATION DATA

POLE NO	PAD SIZE-FT	PIER DIA FT.	DEPTH FT	AREA SQ FT
16	21' x 26'		12	546
17		10	35	78.5
18	21' x 26'		12	546
18A		8	27	50.3

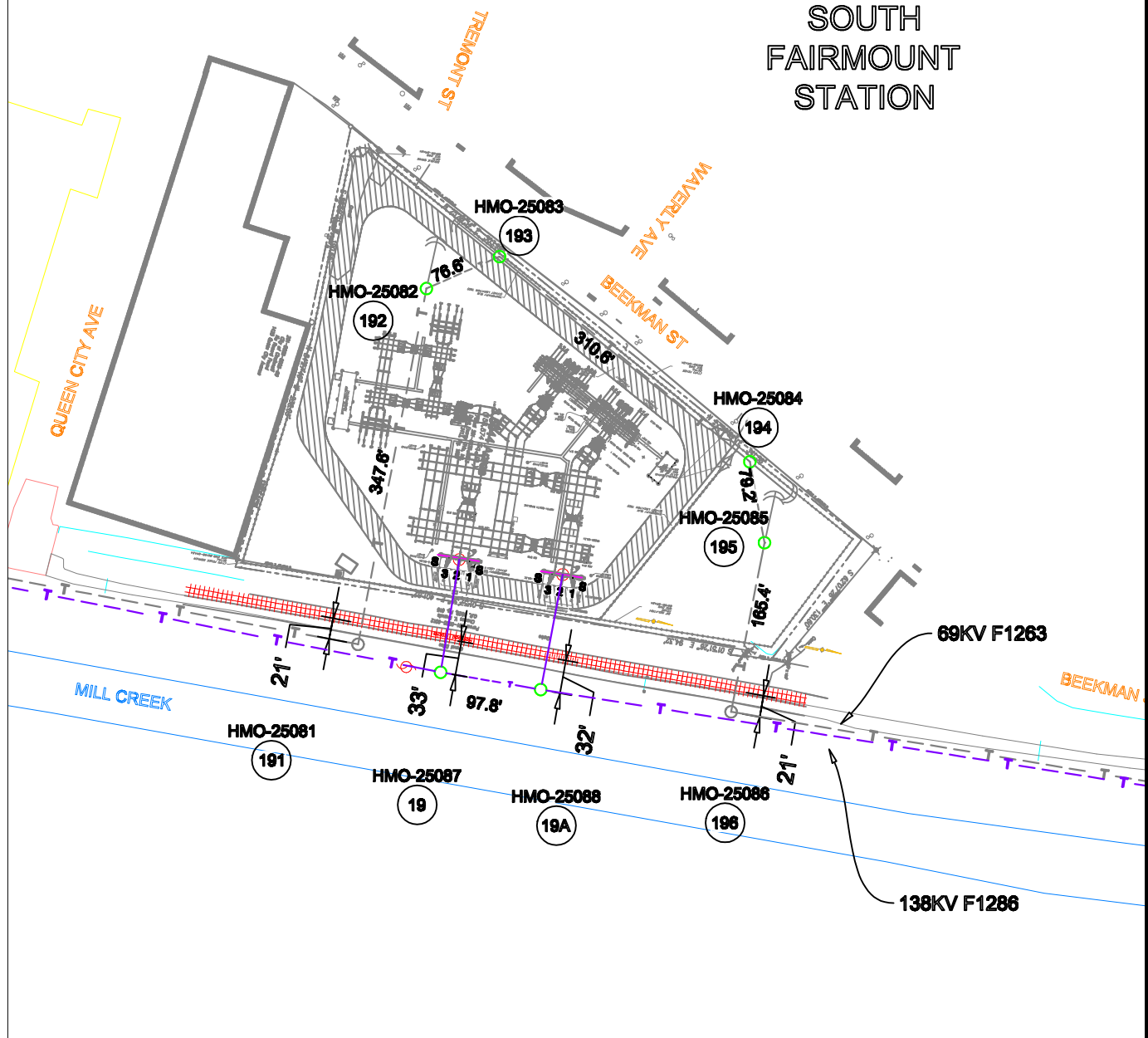
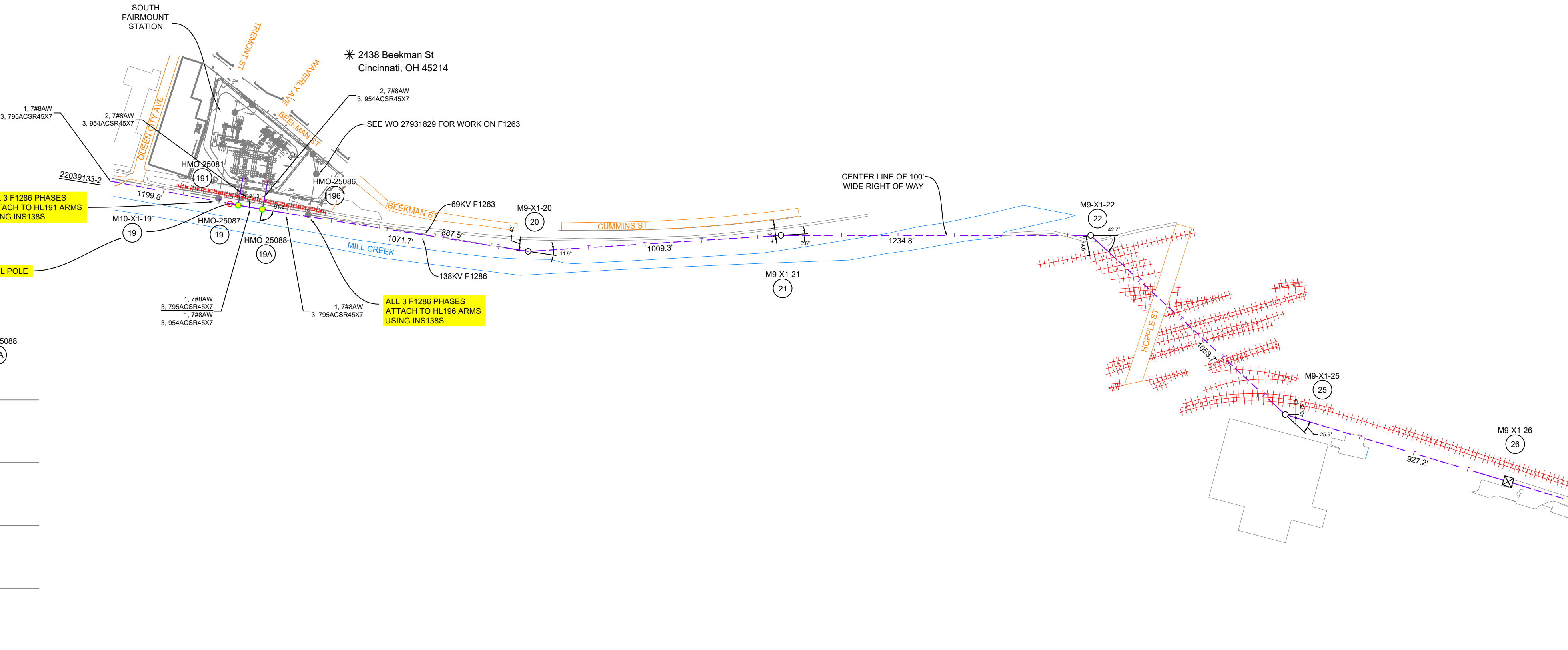
138KV
NOTE:
795 KCMIL 45/7 ACSR CONDUCTOR
7#6 AW SHIELD WIRE
FOR SAG AND TENSION DATA
SEE DRG. 11652-116
FOR FOUNDATION DETAILS
SEE DRG. 11652-114 & 115
RR SIDE CLEARANCES ARE MEASURED FROM CENTER OF STRUCTURE TO CLOSEST RAIL.

138KV - F1286
69KV - F2166

3	2-12-13	ADD HL 15A, 90' CL H-FRAME, 138KV CLEARANCE.	WC	JKR
2	10-6-78	ADD SURVEY INFO: THIS IS TO THE 16 M CHALKER		
1	2-18-78	ADD RR DESCRIPTION FOR A-599 K MCKENNA		
NO.	DATE	REVISION	CHK	INSR. ENGR.
TRANSMISSION ENGINEERING				
69,000V & 138,000V FRONT ST. - MITCHELL AVE 69,000V MITCHELL - BRIGHTON CINTI, O				
DRAWN	3-2-85	REDRAWN DEV	1-5-78	
CHECKED	JKR			
INSPECTOR				
ENGINEER	M. CARLIER	REC	NF128	
APPROVED	J. RDS		2-18-78	
DRG.	27931829-2	REV1		

MAP GRID: N01W0135B
COMMUNITY: SOUTH FAIRMOUNT
TWP.: CINCINNATI
STATE: OHIO
COUNTY: HAMILTON
TAX: 31 1110
OPERATING UNIT: VSOH
FEEDER (138KV): F1286
FEEDER (69K): F1263
DISTRICT: HARTWELL

TRANSMISSION:
WO# 22039133
PROJECT CODES:
PROJECT# ACTIVITY DESCRIP.
P6730 I INSTALL
P6730 R RETIRE
P6730 X MAINT.

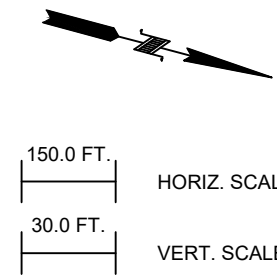


WIRE STRINGING DATA				
FROM	TO	NESC HEAVY INITIAL (LBS)	RULING SPAN (FT)	
STATIC - 7#8ALUMOWELD				
19	STA	500	95	
19A	STA	500	95	
19	19A	500	95	
19A	22	SEE NOTES	1115	
22	25	SEE NOTES	1048	
25	27	SEE NOTES	885	
CONDUCTOR - 954ACSR45X7				
19	STA	1000	97	
19A	STA	1000	99	
19	19A	500	94	
CONDUCTOR - 954ACSR45X7				
19A	22	SEE NOTES	1116	
22	25	SEE NOTES	1048	
25	27	SEE NOTES	884	

LEGEND:
● INSTALL POLE
↑ INSTALL HOOK
○ EXISTING POLE
↑ EXISTING HOOK
⊗ EXISTING TOWER
⊗ REMOVE POLE
— TRANSMISSION LINE
- - - - - RR TRACK

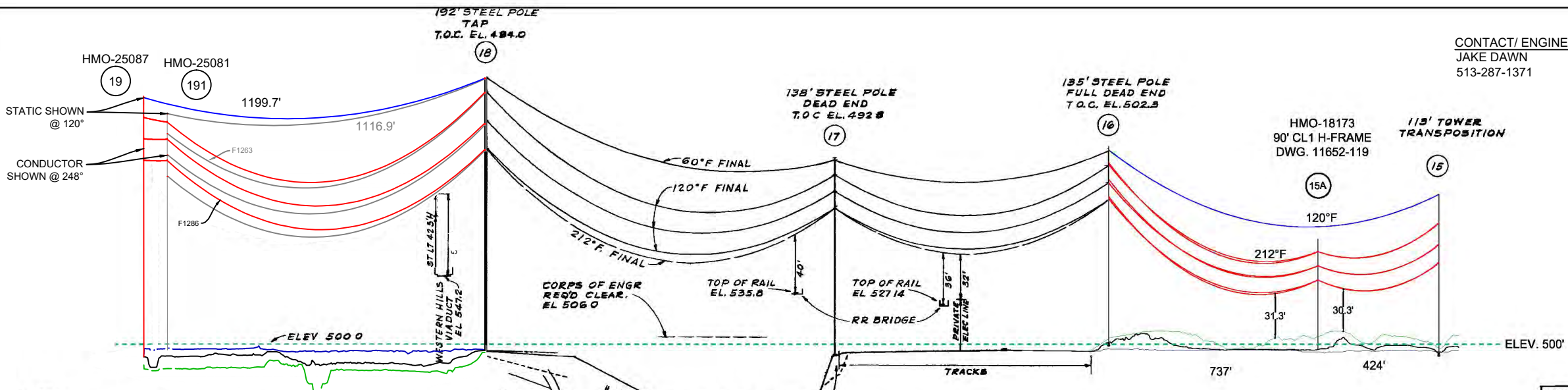
NOTE:
- FOR SAG AND TENSION DATA SEE DRG.
11652-116
- FOR FOUNDATION DETAILS SEE DRG.
11652-114 & 115
- RR SIDE CLEARANCES ARE MEASURED FROM CENTER OF STRUCTURE TO CLOSEST RAIL
- ADDED CLEARANCE REQUIRED TO MINIMIZE TREE TRIMMING (TWRS 19, 20, 21)
- PLACE CONDUCTOR IN ROLLERS AND ADD WIRE AS NEEDED
- RE-SAG CONDUCTOR PER THE STRINGING AND SAGGING CHARTS

NOTE:
- ALL PHASING SHOWN FACING AWAY FROM MITCHELL STATION



NO.	DATE	REVISION	DRFT.	ENGR.
2	5-11-2018	ADD LOOP FOR SOUTH FAIRMOUNT STATION	DAWN	DAWN
1	4-17-1978	TWR. 26 & 27, ADD NOTES		

INDEX: F1286 & F1263	
DESCRIPTION: SOUTH FAIRMOUNT 138KV F1286 CONSTRUCTION PLAN & PROFILE	
DATE: 11/26/2018	LOCATION: CINCINNATI, OHIO
DRAWN: JAKE DAWN	ENGINEER: JAKE DAWN
TRANSMISSION LINE ENGINEERING	CKD: PAGE: SCALE: DWG NO: 22039133-1 REV1



CONTACT/ENGINEER:
JAKE DAWN
513-287-1371

MAP GRID: N01W0135B
COMMUNITY: SOUTH FAIRMOUNT
TWP.: CINCINNATI
STATE: OHIO
COUNTY: HAMILTON
TAX: 31 1110
OPERATING UNIT: VSOH
FEEDER (69KV): F1263
FEEDER (138KV): F1286
DISTRICT: HARTWELL

TRANSMISSION:
WO# 22039133
PROJECT CODES:

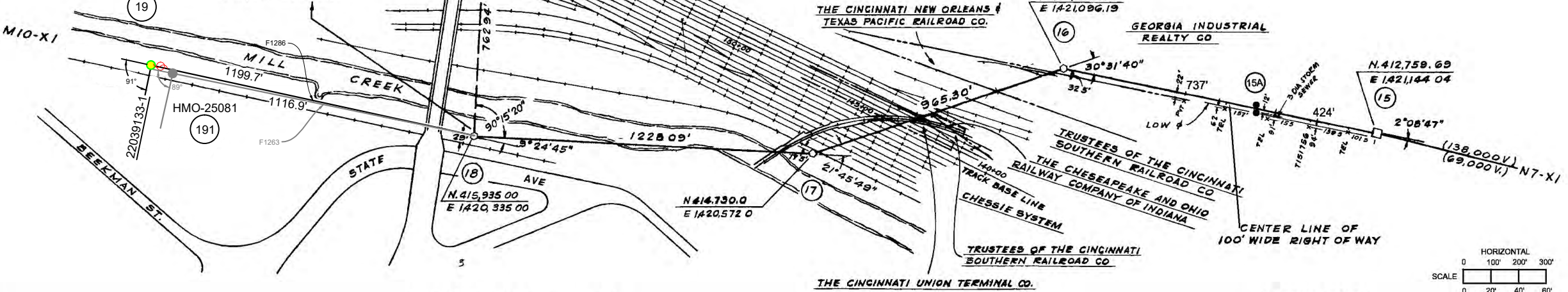
PROJECT#	ACTIVITY	DESCRIP.
P6730	I	INSTALL
P6730	R	RETIRE
P6730	X	MAINT.

A-599
LONGITUDINAL OCCUPANCY OF RAILROAD PROPERTY WITH 817.94 CIRCUIT FEET OF 2-69KV CIRCUITS EACH CONSISTING OF 1-7#6AW STATIC WIRE AND 3-795 KCMIL 45/7 ACSR CONDUCTORS AND ONE (1) 135' STEEL POLE (18A), BEGINNING AT PROPOSED STEEL POLE #18 AT A POINT 150 FEET SOUTH OF THE C. OF WESTERN HILLS VIADUCT AND APPROX 120 FEET EAST OF THE C. OF STATE AVE. WITH STATE PLANE COORDINATES N-415,935 E-1420,335 THENCE RUNNING EASTWARDLY FROM PROPOSED STEEL POLE #18 762.94 FEET TO PROPOSED STEEL POLE #18A (STATE PLANE COORDINATES N-416,078.89 E-1,421,084.25) AT A POINT APPROX. 75 FEET SOUTH OF THE C. OF WESTERN HILLS VIADUCT THENCE FROM PROPOSED STEEL POLE #18A EASTWARDLY FOR A DISTANCE OF 55 FEET TO THE EAST PROPERTY LINE OF B.O. RR., LEAVING SAID PROPERTY AT A POINT APPROX. 90 FEET SOUTH OF THE C. OF WESTERN HILLS VIADUCT. EXISTING TOWER IS TO BE REMOVED. THIS REARRANGEMENT AT REQUEST OF B.O. - C.O. RR COMPANIES

THE TRUSTEES OF THE CINCINNATI SOUTHERN RAILWAY (THE C.N.O. & TEXAS PACIFIC R.R. CO. LESSEE) P-71 AGREEMENT DATED 9-9-1989

THE BALTIMORE & OHIO RAILROAD CO. (CHESSIE SYSTEM)

BRIGHTON TAP TO BE COVERED BY RAILROAD AGREEMENT A-599, A-448, P-71, D-II (NOW L. & N. RR)

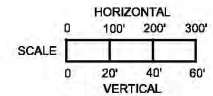


FOUNDATION DATA

POLE NO	PAD SIZE-FT	PIER DIA FT	DEPTH FT	AREA SQ FT
16	21 x 26		12	546
17		10	35	78.5
18	21 x 26		12	546
18A		8	27	50.3

69KV NOTE:
400 KCMIL HDBC, CONDUCTOR
7#8 COPPER WELD, STATIC

138KV NOTE:
795 KCMIL 45/7 ACSR CONDUCTOR
7#6 AW SHIELD WIRE
FOR SAG AND TENSION DATA SEE DRG. 11652-116
FOR FOUNDATION DETAILS SEE DRG. 11652-114 & 115
RR SIDE CLEARANCES ARE MEASURED FROM CENTER OF STRUCTURE TO CLOSEST RAIL.



138KV - F1286
69KV - F2166

NO.	DATE	REVISION	CHK	INSP.	ENGR.
3	2-12-13	ADD HL 15A, 90' CL H-FRAME, 138KV CLEARANCE	WC		JKR
2	10-6-78	ADD SURVEY INFO: THIS IS TO THE 16' M CHALKER			
1	2-18-78	ADD RR DESCRIPTION FOR A-599 K. MCKENNA			

NO. DATE REVISION CHK INSP. ENGR.

DUKE ENERGY TRANSMISSION ENGINEERING

69,000V & 138,000V
FRONT ST. - MITCHELL AVE
62,000V MITCHELL - BRIGHTON CINTI, O

DRAWN	3-2-85 REDRAWN DEV	1-5-78
CHECKED	JKR	
INSPECTOR		
ENGINEER	M. CARLIER REC	M. CARLIER
APPROVED	J. R. OS	2-18-78
DRG.	22039133-2 REV1	

Attachment C

Property Owner Notification Letter



June 16, 2017

<Name>
<Address 1>
<Address 2>
<City, State Zip>

**RE: Duke Energy Transmission Reliability Enhancement Project in your area
New substation for the community of South Fairmount**

Dear Property Owner:

Reliability is a responsibility that Duke Energy takes very seriously. To keep that commitment, we're upgrading the power transmission system in your community, a project critical to ensuring continued reliability of your area's electric service. As you're a neighbor to the project area, we're writing to provide you with details of plans to build a new substation, as well as how to reach us should you have any questions.

Duke Energy plans to build a new, 138-kilovolt/13-kilovolt (kV) substation at 2411 Beekman St. in South Fairmount. This project is related to infrastructure planning to replace the aging Western Hills Viaduct, a project involving the Ohio Department of Transportation and Engineering and the Hamilton County Engineer's Office.

The location of the new substation is currently the site of a warehouse/paper recycling center, Metro Recycling, which will be demolished this summer to plan for construction. The new South Fairmount Substation will connect to an existing 138-kV transmission line and two 13-kV distribution lines, which will provide greater capacity and service reliability for this community while also addressing energy demand in neighboring areas.

After clearing and grading the site, we expect construction of the new substation to begin in July or August, with completion of the substation planned for late December 2018.

The most noticeable portion of construction involves the clearing and grading this summer. The right of way must be clear for construction crews to have safe and unobstructed entry to the site. There also may be lulls during various construction phases, which include:

Concrete Work – Concrete footings and foundations that are poured shortly after the site is cleared. Expect to see large trucks with a concrete mixer in the right of way.

Steel Erection and Civil Construction – Once the concrete pad has cured, the substation steel framework – typically towers or poles – is installed. The steel supports electric control equipment and the transmission lines that connect the substation to the regional electric grid.

Equipment Testing – The new equipment is extensively tested before the substation goes into service. This is to ensure that the facility is operating reliably and safely.

Energizing and Site Restoration – Once construction and testing are completed, the substation is energized. All disturbed or exposed areas outside the substation fence line are restored with vegetation and seeding to establish ground cover and to prevent soil erosion.



Post-Construction Operation – Most substations are not staffed once they're in operation, although technicians make regular visits to monitor operation and perform routine maintenance.

The substation will be inside a securely fenced area with a gravel base. It will have a transformer to change voltage levels between high transmission voltages and the lower distribution voltages that carry energy to homes and businesses. There also will be a small building inside the fence that houses substation controls. The substation will have directional lighting at night for safety and security.

Construction typically takes place during daylight hours. Once the substation is completed, all construction materials and debris will be removed, and the right of way will be restored as closely as possible to its original condition. No power outages are expected during construction.

For additional questions, call **888.827.5116** or email **MWOhioTransmission@duke-energy.com**. Thank you for your cooperation as Duke Energy progressively powers the lives of our customers and the vitality of our communities.

Sincerely,

A handwritten signature in dark ink, appearing to read "Richard Hicks", written in a cursive style.

Richard Hicks
Project Manager

Reference: <PIN>

Parcel ID Number	Owner Name	Mailing Address	City	State	Zip Code
20100350003	ABDI CHEIK	2925 W MCMICKEN AVE	CINCINNATI	OH	45225
20200320102	ALBERT & STELLA FRALEY	2438 BLOOM ST	CINCINNATI	OH	45214-1216
20200320098	ANDREA RUFFIN	2451 BEEKMAN ST	CINCINNATI	OH	45214
20200320099	ANGELO S WILLIAMS	3304 SPRING ARBOR RD	JACKSON	MI	49203
18800150015	BALTIMORE & OHIO RAILROAD COMPANY	500 WATER ST	JACKSONVILLE	FL	32202
20200320093	BJC INVESTMENTS LLC	1801 QUEEN CITY AVE	CINCINNATI	OH	45204
17000070063	BOARD OF COMMISSIONERS OF HAMILTON COUNTY OHIO	138 E COURT ST	CINCINNATI	OH	45202
20200320104	CHARLES DUBOSE	2338 IROLL AVE	CINCINNATI	OH	45225
20200320090	CHARLES L MARTIN JR	1512 KNOX ST	CINCINNATI	OH	45214
20100350012	CHARLES V FRANCIS	2424 BEEKMAN ST	CINCINNATI	OH	45214
20200320116	CHARLES W YOUNG JR	1535 KNOX ST	CINCINNATI	OH	45214-1269
20200320081	CINCINNATI HABITAT FOR HUMANITY INC	4910 PARA DR	CINCINNATI	OH	45237
20200320156	CINCINNATI SUNRISE HOMES & INVESTMENTS LLC	2033 FIRST AVE	CINCINNATI	OH	45224
17000070143	CITY OF CINCINNATI	801 PLUM ST	CINCINNATI	OH	45202-5704
16900060001	CLEMSON REALTY	1421 QUEEN CITY AVE	CINCINNATI	OH	45214
20200320106	DARRELL ALLSBROOKS	3108 WARSAW AVE	CINCINNATI	OH	45205
20200320095	DAVID CASTON	1033 STATE AVE	CINCINNATI	OH	45204
20200320083	DAVID R MINIARD	9568 CARROLL CT	LOVELAND	OH	45140
20200320111	DORIS & CHANTELL MOORE	2441 BLOOM ST	CINCINNATI	OH	45214-1215
17000070135	DTH INVESTMENTS LLC	4 W FOURTH ST	NEWPORT	KY	41071
20100350004	DUKE ENERGY OHIO INC	139 E 4TH ST	CINCINNATI	OH	45202
20200320086	EDWARD FELDKAMP	1511 FAIRMOUNT AVE	CINCINNATI	OH	45214
20200320103	ELAINE WHITE	2436 BLOOM ST	CINCINNATI	OH	45214-1216
17000070162	FAMILY DOLLAR STORES OF OHIO INC	PO BOX 1017	CHARLOTTE	NC	28201-1017
20200320159	GENE H SOWLES	3611 ZUMSTEIN AVE	CINCINNATI	OH	45208
20200320154	GERALD II & QIANA BAGGETT	1901 CATALPA AVE	CINCINNATI	OH	45239
20200320068	GREGORY DRAKE	417 N ARSENAL AVE	INDIANAPOLIS	IN	46201
20200320064	GREGORY M PHELIA JR	1540 KNOX ST	CINCINNATI	OH	45214-1268
16900060012	HAMILTON COUNTY BOARD OF COUNTY COMMRS	138 E COURT ST	CINCINNATI	OH	45202
20200320067	HAMILTON COUNTY LAND REUTILIZATION CORPORATION	3 E 4TH ST	CINCINNATI	OH	45202
20200320092	HEARNE HOUSE INC	944 CLEVELAND AVE	CINCINNATI	OH	45229
20200320138	HOWARD ROARK LLC	315 E 15 ST	COVINGTON	KY	41011
20200320085	ILONA TOKE TR	2049 QUEEN CITY AVE	CINCINNATI	OH	45214
20200320177	JOSEPH N GOEDDE	1527 KNOX ST	CINCINNATI	OH	45214-1269
20200320101	KAK LLC D	2439 ALEXANDRIA PIKE	NEWPORT	KY	41076
20200320100	LAVONNA WILLIAMS	2442 BLOOM	CINCINNATI	OH	45214
20200320113	LENDELL SMITH	2435 BLOOM ST	CINCINNATI	OH	45214
20200320021	MANA YOON	2978 STUBLE RD	CINCINNATI	OH	45251
20200320112	MARIA MICHELLE KIELMAR	174 TARE BLVD	LOGANVILLE	GA	30052
20200320091	MARILYN A M JONES TR	2994 ALPINE TE	CINCINNATI	OH	45208
20200320096	MONTE L & CAROL ROVEKAMP	PO BOX 19129	CINCINNATI	OH	45219
20200320025	NORTON OUTDOOR ADVERTISING INC	5280 KENNEDY AVE	CINCINNATI	OH	45213
20200320024	PRICEVIEW LLC	PO BOX 14141	CINCINNATI	OH	45250
20200320114	RICHARD CARLSON	3450 CORRINE AVE	CINCINNATI	OH	45238
20200320109	STAR-LET CORPORATION	3475 VISTA AVE	CINCINNATI	OH	45208
17000070013	THE IMMANUEL EVANG CHURCH	1520 QUEEN CITY AVE	CINCINNATI	OH	45214
20200320030	THOMAS J & COLLEEN CONNERS	2510 LIDDELL ST	CINCINNATI	OH	45225-2021
20200320028	TIMOTHY B DAY	2519 KNORR AVE	CINCINNATI	OH	45214
20200320157	TUSCAN HILLSIDE DEVELOPMENT LLC	PO BOX 58397	CINCINNATI	OH	45258

Attachment D

Stormwater Pollution Prevention Plan



Storm Water Pollution Prevention Plan

F1286/F1263 – 138kV/69kV South Fairmont Loop

Hamilton County, Ohio

Duke Project F1286/F1263
Cardno Project J156720M73

November 8, 2018

Prepared for: **Duke Energy**
139 E. 4th Street,
Cincinnati, Ohio 45202



Prepared by: **Cardno**
11121 Canal Road
Cincinnati, Ohio 45241





Storm Water Pollution Prevention Plan

F1286/1263 – 138kV/69kV South Fairmont Loop

Hamilton County, Ohio

November 8, 2018

Document Information

Project Site Owner	Duke Energy
Duke Energy Contact	Dustin Geisler, Duke Energy
Project(s) Name	F1286/F1263 – 138kV/69kV South Fairmont Loop
Project(s) Number	Duke F1286/F1263 Cardno J156720M73
Cardno Contact	Cori Jansing, Cardno

This plan was prepared in accordance with the Rainwater and Land Development: Ohio's Standards for Stormwater Management, Land Development and Urban Stream Protection published December 2006 by the Ohio Department of Natural Resources Division of Soil and Water Conservation and in compliance with ORC Chapter 1511, ORC Chapter 6111, and OAC Chapter 3745-38. In Ohio, responsibility for regulating storm water is held by both local and state authorities. Locally, municipalities, townships, and counties have the authority to regulate storm water. Ohio EPA administers the National Pollutant Discharge Elimination System (NPDES) program, which regulates wastewater discharges that are associated with construction and/or land disturbing activities by limiting the quantities of pollutants to be discharged and imposing monitoring requirements and other conditions.

Certification Requirements per Ohio EPA Permit No. OHC000005 Part V.G.

Corporate Certification (Duke Energy- Owner or Owner Representative)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manages the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name _____
Title _____
Date _____

Contractor Certification (_____ Utility Line General Contractor)

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Name _____
Title _____
Date _____

Contractor Certification (_____ Erosion Control Subcontractor)

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Name _____
Title _____
Date _____

Contractor Certification (_____ Grading and Excavation Subcontractor)

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Name _____
Title _____
Date _____

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Appendices

Appendix A	Figures
Appendix B	Storm Water Pollution Prevention Plan Typical Details
Appendix C	Storm Water Evaluation Form for Construction
Appendix D	SWPPP Amendment Log
Appendix E	Notice of Termination (replace when filed)

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Figure 1	Project Vicinity
Figure 2	Project Area Watersheds (14-Digit HUC)
Figure 3	Soils Classification
Figure 4	Environmental Access and Erosion Control Plan

Acronyms

SWPPP	Storm Water Pollution Prevention Plan
NOI	Notice of Intent
NOT	Notice of Termination
NWP	Nationwide Permit
OEPA	Ohio Environmental Protection Agency
USACE	United States Army Corps of Engineers

SECTION A – Basic Plan Elements

A1 Plan Index showing locations of required items

See Table of Contents

A2 11 X 17 inch plat showing building lot numbers/boundaries and road layout/names

Please refer to Appendix A, Figure 4, Environmental Access and Erosion Control Plan.

A3 Narrative describing project nature and purpose

The project involves the removal and replacement of approximately 0.26 miles of existing transmission line within existing 100-foot wide Right-Of-Way (ROW). The F1286/F1263 – 138kV/69kV South Fairmont Loop Project initiates at Duke Energy Structure HL 191 (39.1271, -84.5435) located north of Queen City Avenue, east of Beekman Street, and west of Mill Creek, and terminates at Structure HL196 (39.1128, -84.5436) located north of Queen City Avenue, east of Beekman Street, and west of Mill Creek. A field investigation of the corridor was conducted on October 29, 2018.

The F1286/F1263 – 138kV/69kV South Fairmont Loop Project is necessary in order to maintain the integrity of existing Duke structures and ensure adequate power supplies to current and future utility customers in the area. The transmission line route consists of an existing transmission line corridor and Duke Energy easement.

Construction will be accomplished largely through the use of bucket trucks with truck-mounted augers for structure installation and other construction vehicles transporting cable spools to install the transmission cable along the route. Excavation will be restricted to the locations where the installation of new structures will occur. Earth moving activities are anticipated to be minimal, if any. The extent of access disturbance can vary widely dependent upon many factors, including density and type of surface, vegetative cover, weather conditions, and the type of vehicles moving over the area. The existing vegetation will be preserved to the maximum extent practicable.

Project construction is expected to begin in January 2019.

A4 Vicinity map showing project location

Please refer to Appendix A, Figure 1, Project Vicinity map, which provides a simplified layout of Project activities and adjacent land features and information.

A5 Legal description of the project site

The Project crosses the following sections:

Cincinnati West Quad

Section 27, Township 3E, Range 2N, City of Cincinnati

A6 Location of all lots and proposed site improvements

The proposed project is linear in scope and will take place within established transmission line ROW. Only approved areas beyond the ROW will be used for equipment storage, temporary access routing, and laydown areas. Where feasible, construction activities at structure locations will be performed from roadways to minimize soil disturbance. Maps of the project site including structure locations, parcel boundaries, and water resources can be found in Appendix A, Figure 4, Environmental Access and Erosion Control Plan.

A7 Hydrologic Unit Code (HUC)

The project lies within the boundaries of the following 14-Digit USGS Hydrologic Unit Code watersheds:

Mill Creek from Mitchell Avenue to Ohio River (HUC 05090203010050)

A8 Notation of any State or Federal water quality permits

There are no proposed impacts to regulated waters which would require a permit from either the U.S. Army Corps of Engineers (USACE) or the Ohio Environmental Protection Agency (OEPA). The Notice of Intent (NOI) for storm water discharges will not be necessary for this project based on the ground disturbance of less than 1.0 acre.

A9 Specific points where storm water discharge will leave the site

All discharges are planned to consist solely of storm water runoff through sheet flow leading to existing water courses. There are no planned non-storm water discharges associated with the proposed project.

A10 Location and names of all wetlands, lakes, and watercourses on and adjacent to the site

Wetlands, watercourses, and other waters have been delineated with respect to pole placement. These locations are shown in Appendix A, Figure 4, Environmental Access and Erosion Control Plan. The National Wetland Inventory (NWI) mapped wetlands are shown in Appendix A, Figure 1, Project Vicinity.

A11 Identification of all receiving waters

The storm water runoff from the project will ultimately discharge into the Ohio River via Mill Creek.

A12 Identification of potential discharges to groundwater

The proposed site does not contain any known sinkholes, active or abandoned wells, or any other direct groundwater recharge points. Any recharging of the groundwater supply by water from the proposed site will be by natural means of infiltration through the soil.

A13 100 year floodplains, floodways, and floodway fringes

No structures associated with the F1286/F1263 – 138kV/69kV South Fairmont Loop Project are located within FEMA-defined floodplains. See Appendix A, Figures 4A to 4B, for the location of floodplains.

A14 Pre-construction and post-construction estimate of peak discharge

Based on the nature of this project, there will be no impounded storm water. There is no anticipated significant change in peak discharge from this project site between pre-construction and post-construction site conditions or new or impervious surfaces.

A15 Adjacent land use, including upstream watershed

Adjacent land use consists of a mix between industrial and riparian scrub shrub.

A16 Locations and approximate boundaries of all disturbed areas

The majority of ground disturbance will occur within off-road sections of construction vehicle access routes and the structure installation locations. The expected ground disturbance for this project is conservatively estimated at 0.1 acres (pole replacement and access route).

A17 Identification of existing vegetative cover

The existing vegetative cover is mixture of riparian scrub/shrub vegetation and industrial within the existing transmission line ROW.

A18 Soils map including descriptions and limitations

According to the NRCS Soil Survey Geodatabase data collected for Hamilton County, two (2) soil series are located within the Study Area. Neither of these soils are listed as hydric. See Appendix A, Figure 3, Soils Classifications for soil types and hydric classification by line segment.

A19 Locations, size, and dimensions of proposed storm water systems

There is no proposed construction of any permanent storm water systems.

A20 Plan for any off-site construction activities associated with this project

No off-site construction activities are planned for this project.

Any temporary staging and laydown areas for both new and used structures and other equipment will be identified near the time of construction. Typically, Duke Energy substations are utilized for storage, and used structures are taken off-site. Storm water protection will be integrated as necessary at laydown areas and amended into the plan and routine inspections by the Construction Supervisor.

A21 Locations of proposed soil stockpiles, borrow and/or disposal areas

It is anticipated that no soil fill will be brought in. However, gravel backfill will be used at structure locations. Where wetland or stream impacts may occur, spoils management protocol will be followed during structure installation. Where appropriate, any excavated soil, gravel backfill, or other construction material will be stored on construction matting within a wetland area and erosion control measures will be implemented. Excess soil from boring or auguring operations will be permanently relocated to an upland location away from surface drainage ways and wetland areas adjacent to structure replacement locations.

A22 Existing site topography at an interval appropriate to show detailed drainage patterns

Given the project corridor runs through variable terrain, the existing drainage patterns are best depicted and evaluated with 2 foot contours shown in Appendix A, Figure 4, Environmental Access and Erosion Control Plan.

A23 Proposed final topography at an interval appropriate to show detailed drainage patterns

Final post-construction contours will match pre-construction condition to the extent practicable. The construction scope is limited to the replacement of utility structures and overhead facilities.

SECTION B – Active Construction Component

B1 Description of potential pollutant sources associated with the construction activities

The anticipated pollutants to be generated by this type of construction include the following:

- Sediment carried off-site by storm water runoff
- Vegetation debris generated during onsite vegetation removal
- Concrete washout and dewatering operations for projects with foundations
- Domestic garbage from construction workers
- Potential for petroleum spills from heavy equipment operation and refueling

Clearing and/or maintenance trimming will involve mowing and limb cutting with standard forestry equipment and hand cutting where required. In instances where tree or large limbs are removed entirely for access or maintenance they will be cut into appropriate lengths for use by the landowner, or otherwise chipped within the ROW. Digging, grubbing, and any other disturbance will be restricted to locations where the installation of new structures will occur. All excavated materials will be distributed in approved upland locations away from surface drainage ways. Wood chippings and other low-height vegetation will be distributed within the ROW to the maximum extent possible to assist in soil stabilization and sediment runoff control.

Any and all domestic garbage generated onsite such as disposable food and drink containers and other items shall be either carried off-site and properly disposed or deposited into a construction dumpster provided onsite. The project site shall be monitored on a daily basis for the proper disposal of such waste.

The erosion of exposed soils by storm water runoff shall be controlled through the installation of best management practices (BMPs) such as silt fence, fiber rolls, or similar barriers, followed by seeding and mulching. All such practices shall be installed and maintained in accordance with Appendix B, Storm Water Pollution Prevention Plan Typical Details.

Equipment cleaning will be limited to water washing in sediment and erosion controlled areas as required to insure reliable equipment operations while preventing the tracking of excessive dirt and mud from the project site. Soil materials that may need to be removed from the Project ROW will be taken to an upland area or other designated disposal area.

Concrete washout will be completed on projects with foundations at designated concrete washout stations for containment of this waste in accordance with Appendix B, Storm Water Pollution Prevention Plan Typical Details. Any dewatering associated with the excavation for the placement foundations will be conducted through an approved dewatering bag or other upland means of filtering dewatering point discharges.

B2 Sequence describing storm water quality measure implementation relative to land disturbing activities

Due to the nature of the Project, multiple construction stages may take place simultaneously within the Project area. Below is the general sequence of construction activities and storm water quality measures implementation:

The general sequence of construction activities includes the following:

- 1) Installation of temporary construction entrances
- 2) Installation of temporary erosion and sediment control measures
- 3) Construction equipment access
- 4) Removal of existing poles and conductors
- 5) Installation of new poles and conductors

- 6) Final restoration (final grading, seeding, and stabilization)
- 7) Removal of temporary erosion and sediment control measures
- 8) Removal of temporary construction entrances

The storm water pollution prevention measures described within this SWPPP will be installed and inspected before soil disturbing activities commence. Structural erosion controls may also need to be installed along equipment access routes dependent upon site condition. These needs will be assessed as the project progresses. Any erosion controls that need to be moved for equipment transfers will be restored, to the extent practical, before significant rainfalls occur. All storm water quality control measures shall be inspected regularly. At the completion of the project all disturbed areas will be stabilized with vegetation and straw mulch. All measures will be in accordance with guidelines provided in the *Rainwater and Land Development* and this Plan.

As conditions may vary from pre-project condition during construction, sediment control measures may be altered and additional locations for such measures may be needed depending upon changing field conditions. Additional measures may be required and implemented as they become warranted and should be documented in Appendix D, SWPPP Amendment Log. SWPPP revisions or alterations require review and/or approval by a trained individual experienced in the principles of storm water, erosion and sediment control, treatment, and monitoring for Duke Energy Projects.

Recognizing the increased potential for erosion special care will be taken to seed and mulch construction travel ways in highly erodible or steep slope areas. Additional measures such as water bars, erosion matting, or other appropriate measures may be employed as necessary to protect the land surface from erosion until termination of the permit is verified and the Notice of Termination (NOT) is filed with OEPA (Blank copy of NOT is provided in Appendix E).

Stabilized construction entrances or other means of limiting the tracking of sediment and debris off-site will be used at roadway intersections whenever possible. All debris or sediment tracked onto road ways will be removed at the end of the day to the maximum extent possible. Large equipment movement to each structure associated with, but not limited to, disassembly, framing, and clipping-in of line will be limited to the maximum extent possible to further reduce ground disturbance.

Temporary or permanent seeding stabilization will adhere to specifications in Subsections B11 and B12. Vegetated areas with a density of less than seventy percent (70%) shall be re-stabilized using appropriate methods to minimize the erosion potential. No structural erosion controls will be removed until construction has permanently stopped and reseeding and mulching has occurred. After the entire project is complete and vegetated coverage is at least 70% any accumulated sediment, fiber rolls, silt fence, or other specified erosion and sediment control measures will be removed.

Wherever equipment crossing drainage ways in steeply sloping areas will result in soil disturbances a combination of temporary timber matting bridges and water bars to divert runoff to the installed sediment controls or vegetative filter areas will help reduce impacts from concentrated flows to receiving streams.

B3 Stable construction entrance locations and specifications

Stabilized construction entrances will be installed when warranted based on project duration or varying site conditions impacted by wet weather patterns. Special consideration shall be given for installation of a stable construction entrance in the event of wet weather or high ingress and egress traffic. Stable construction entrances and other means of limiting the tracking of sediment and debris off-site will be used. Additional construction entrances, other than the ones indicated in the Plans, may be required and implemented as they become warranted based on variable site conditions. All debris or sediment tracked onto roadways will be removed at the end of the day to the maximum extent possible. The existing construction entrances will be evaluated and modified to be in accordance with *Rainwater and Land Development* and this Plan as deemed necessary.

B4 Sediment control measures for sheet flow areas

Runoff and sediment control practices will include a combination of fiber roll (or other plant fiber-based barrier) and/or silt fencing. These sedimentation and erosion control measures will be located at specific locations along the construction route to prevent sediment runoff into streams, wetlands, and other open waters. The placement and use of erosion control structures indicated in Appendix A, Figure 4A and 4B, Environmental Access and Erosion Control Plan will be installed in accordance with Appendix B, SWPPP Typical Details and be in compliance with the *Rainwater and Land Development* manual. If required, additional appropriate structural controls will be implemented as the Project progresses. Plan changes require approval of Duke Energy.

B5 Sediment control measures for concentrated flow areas

No areas of concentrated flow are expected for this project. If conditions dictate fiber roll or rock check dams will be used, as appropriate, within the ephemeral drainages along the route to limit sedimentation within the drainage and off-site. At locations where equipment crosses drainage ways in steeply-sloping areas, which could result in soil disturbance, a combination of temporary timber matting bridges and water bars to divert runoff to sediment controls or vegetative filter areas can help reduce impacts from concentrated flows to receiving streams.

B6 Storm sewer inlet protection measure locations and specifications

One storm sewer was identified. Protection measures of the storm sewer inlet will take place, as needed.

B7 Runoff control measures

Water bars can be used to prevent runoff flows from occurring in wheel rutting on steep slopes which will impact receiving streams.

B8 Storm water outlet protection specifications

Not applicable for this project.

B9 Grade stabilization structure locations and specifications

Not applicable for this project.

B10 Location, dimensions, specifications and construction details of each storm water quality measure

The locations of the sediment control structures are indicated in Appendix A, Figure 4, Environmental Access and Erosion Control Plan. The general specifications for each practice are located in Appendix B, SWPPP Typical Details. As construction progresses Duke Energy will consider modification to or addition of erosion control structures depending on changing site conditions with respect to slope and proximity to adjacent water bodies.

B11 Temporary surface stabilization methods appropriate for each season

In the event temporary stabilization is required (when construction activity has ceased but will resume in fourteen (14) days or more), either seeding or mulch application or other stabilization measure will be implemented within seven (7) days of the most recent disturbance. Areas within 50 feet of a stream (including intermittent streams) will be stabilized within 2 days of the most recent disturbance. Mulch alone is acceptable temporary cover and may be used in lieu of temporary seeding, provided that it is appropriately anchored. A high potential for fertilizer, seed, and mulch to wash exists on steep banks, cuts, and in channels and areas of concentrated flow.

Table 1. Temporary Seed Mixture

Species	Application Rate
Annual Ryegrass	40 lbs./acre
Oats	128 lbs./acre
Tall Fescue	40 lbs./acre

Straw mulch should be used at a rate of 2 tons/acre or 90 lbs./1,000 sq. ft. for seed protection and additional erosion control. It should be spread by hand or machine and be crimped or anchored, as appropriate. If slopes necessitate the use of a mulch cover, then erosion control blanketing shall be substituted. No hay should be used as it may introduce invasive non-native species to adjacent undisturbed habitats (such as hardwood forests or wetland areas).

B12 Permanent surface stabilization specifications

Areas within fifty (50) feet of a stream will require permanent surface stabilization within two (2) days of the last disturbance. Stream bank and riparian floodplain areas shall be mulched and seeded with the Stream Bank and Riparian Areas Restoration Seed Mix as recommended by Ohio DNR staff as follows.

Table 2. Stream Bank and Riparian Areas Restoration Seed Mix

Grass and Sedge Species	Application Rate
<i>Andropogon gerardii</i> (Big Bluestem)	24 oz./acre
<i>Bouteloua curtipendula</i> (Sideoats Grama)	1 oz./acre
<i>Carex bicknellii</i> (Prairie Oval Sedge)	2 oz./acre
<i>Elymus canadensis</i> (Canada Wild Rye)	2 oz./acre
<i>Dactylis glomerata</i> (Orchard grass)	24 oz./acre
<i>Panicum virgatum</i> , Switchgrass)	4 oz./acre
<i>Schizachyrium scoparium</i> (Little Bluestem)	3 oz./acre
<i>Sorghastrum nutans</i> (Indian Grass)	0.5 oz./acre
Cover Crop Species	Application Rate
<i>Avena sativa</i> (Seed Oats)	800 oz./acre
<i>Lolium multiflorum</i> (Annual Ryegrass)	160 oz./acre

All other areas of soil disturbance will be seeded and mulched for permanent surface stabilization within seven (7) days in areas where construction has ceased and the site is at final grade or will lay dormant for more than one (1) year. Any permanent seeding should consist of a seed mixture appropriate for the area that has been disturbed and conducted during the season appropriate for its installation.

Non-agricultural areas including access and other vegetated ROW areas shall be permanently mulched and seeded with a general use permanent seed mix consisting of the following:

Table 3. General Use Permanent Seed Mixture

Species	Application Rate
Kentucky Bluegrass	20-40 lb/acre
Perennial Ryegrass	10-20 lb/acre
Creeping Red Fescue	20-40 lb/acre

Site Preparations for installing both seed mixes are as follows:

Site Preparation: Use appropriate equipment to level disturbed areas and return to original grades focusing on reinforcing positive drainage. Avoid compaction during construction by placing equipment on mats to access wet or saturated areas. Soil amendments are acceptable in non-native seeding areas.

Seed Preparation: Thoroughly mix the seed prior to planting as many of the heavier seeds may have settled during shipping. The seed mix will contain a temporary cover of Common Spring Oat and Annual Ryegrass to accelerate re-vegetation.

Planting: Seed will be worked into the soil no greater than a ¼ inch in depth. For smaller areas a hand broadcaster and rake can be used. For larger areas the seed can be installed mechanically with a seed box no-till drill (Truax™ Trillion Broadcast Seeder or equivalent). Areas that are too wet for mechanical seeding will be installed via the hand broadcasting method.

Mulching: Straw mulch should be used at a rate of 2 tons/acre for all natural areas, non-maintained areas, for seed protection and additional erosion control. Swales and other areas of concentrated flow should be stabilized with erosion control blanketing.

B13 Material handling and spill prevention plan

Unlikely incidents involving spills or releases of other non-sediment pollutants are expected to be limited to small quantities of petroleum products from construction vehicles, including but not limited to motor oil, transmission fluids, and hydraulic oils. Spill clean-up kits and personnel trained in their use will be at each construction location. No vehicle maintenance activities that could result in storm water contamination (oil changes or engine repairs) will be permitted outside of stabilized construction areas. Appropriate spill control measures (oil absorbent pads or booms) must be in place before maintenance activities occur.

Spills of any amount of petroleum product or polluting materials are to be prevented. The following list details general requirements necessary to avoid spills and minimize the impact of accidental spills:

- No bulk quantities of diesel fuel and gasoline will be stored on the site. No bulk quantities of hazardous materials including solvents and lubricants will be stored on the site.
- Vehicles and equipment are expected to be re-fueled off-site. Fuel carriers (if applicable) and transported equipment will be inspected on a daily basis for leaks prior to entering the site and will not be allowed on site until leaks are repaired.
- The equipment staging area will be located away from surface waters and any private and municipal water wells.
- All construction equipment will be inspected daily for leaks prior to start of work. Any leaking equipment will be repaired, as necessary.
- If any soil is contaminated with hydrocarbons or other objectionable material, it will be segregated and properly disposed of off-site.
- If concrete materials are used on-site, concrete washouts should be used. No washout of concrete materials should occur within wetland areas or other drainage ways.

Project related solid wastes will be collected regularly and transferred to a licensed solid waste disposal site. No construction waste materials will be buried onsite. Portable sanitary waste units will be utilized and available for the project. A licensed sanitary waste management contractor will collect sanitary waste from the portable units as necessary. It will be the responsibility of the Construction Supervisor to ensure that all construction personnel are instructed regarding the correct procedure for waste disposal and that these practices are followed.

Contractors shall provide all necessary labor, materials, equipment, and response capabilities to prevent oil releases. Contractors causing an oil release must take appropriate actions to minimize the environmental impacts of the release.

If a hazardous substance release or oil spill requiring attention shall occur during construction, the responsible party shall immediately contact the Duke Energy Construction Supervisor, who will then contact Duke Energy Health and Safety or Environmental Services to report the spill as necessary and ensure that the spill is cleaned up properly by the responsible party or an approved remediation contractor.

In an emergency, immediately report all spills to the appropriate Duke Energy Coordinator. All spill notifications shall follow Duke Energy procedures.

Duke Energy Spill Hotline 1-800-527-3853

B14 Monitoring and maintenance guidelines for each proposed pollution prevention measure

To maintain the storm water management system in effective operating condition, erosion and sedimentation control structures will be inspected daily if construction personnel are actively working in the area. In addition, each installed erosion and sedimentation control structure, and areas contributing to storm water discharges at the locations of these structures, will also be regularly inspected at least weekly and again after each rainfall/precipitation event exceeding ½ inch in 24 hours by qualified personnel under the direction of Duke Energy.

Any damage or deficiency noted during routine or regular inspections will be recorded on a Storm Water Evaluation Form for Construction (Appendix C) and corrected as directed by the Construction Supervisor. The written inspection records will be kept on file and will include notes on any corrective actions taken. If requested, these records will be made available for review by the 'inspecting authority within 48 hours' per OAC Chapter 3745-38 (NPDES). Inspection records will be kept onsite with the SWPPP to the greatest extent possible.

Any deficiencies will be corrected by repair of damaged or deteriorated controls or by modifying structural or operational practices to achieve the desired results. If needed, the SWPPP shall be revised following such modifications.

Maintenance of stabilization and erosion control measures will include the following:

- "Qualified Inspection Personnel" under the direction and designation of the Construction Supervisor will be responsible for inspections of the erosion controls and completion of the Storm Water Evaluation Form for Construction.
- It is the responsibility of the Construction Supervisor that all personnel selected for maintenance responsibilities are trained in repairs as necessary to keep the erosion and sedimentation controls in good working order.
- Fiber rolls, silt fence, or other specified erosion control measure will be inspected for proper installation and function to include the following: proper anchoring of all controls, depth of sediment, separation from adjacent structures, and to see that stakes are firmly in the ground. Built up sediment will be removed when it has reached one-half (1/2) the height of the control and placed in previously stabilized and upland area.
- Seeded areas shall be checked regularly for bare spots, washouts, and healthy growth to assure that a good stand of grass is being maintained. Areas that fail to establish vegetation cover will be re-seeded as soon as such areas are identified.
- Sediment tracking from temporary construction entrances onto roadways should be minimized and will be the responsibility of the Construction Supervisor. When sediment is observed on roadways it shall be removed at the end of each workday.

B15 Erosion & sediment control specifications for individual building lots

Not applicable for this project.

SECTION C – Post Construction Component

C1 Description of pollutants and their sources associated with the proposed land use

The proposed project is an existing transmission line replacement project consisting of improvements made solely to Duke Energy transmission ROW. No post construction pollutants are expected.

C2 Sequence describing storm water quality measure implementation

Seeding and vegetation establishment are the only long-term storm water quality measures proposed for the Project. See Subsection B11 and B12 for a description of seeding implementation.

C3 Description of proposed post construction storm water quality measures

The site will be returned to its previous use and condition. Post-construction pollutant controls are addressed by establishment of permanent vegetative cover in all areas, except those that will be returned to agricultural crops. Cover crop, or nurse crop seed mix, may be used in agricultural areas that are not to be immediately cultivated.

C4 Location, dimensions, specifications and construction details of each storm water quality measure

See Subsection C3.

C5 Description of maintenance guidelines for proposed post construction water quality measures

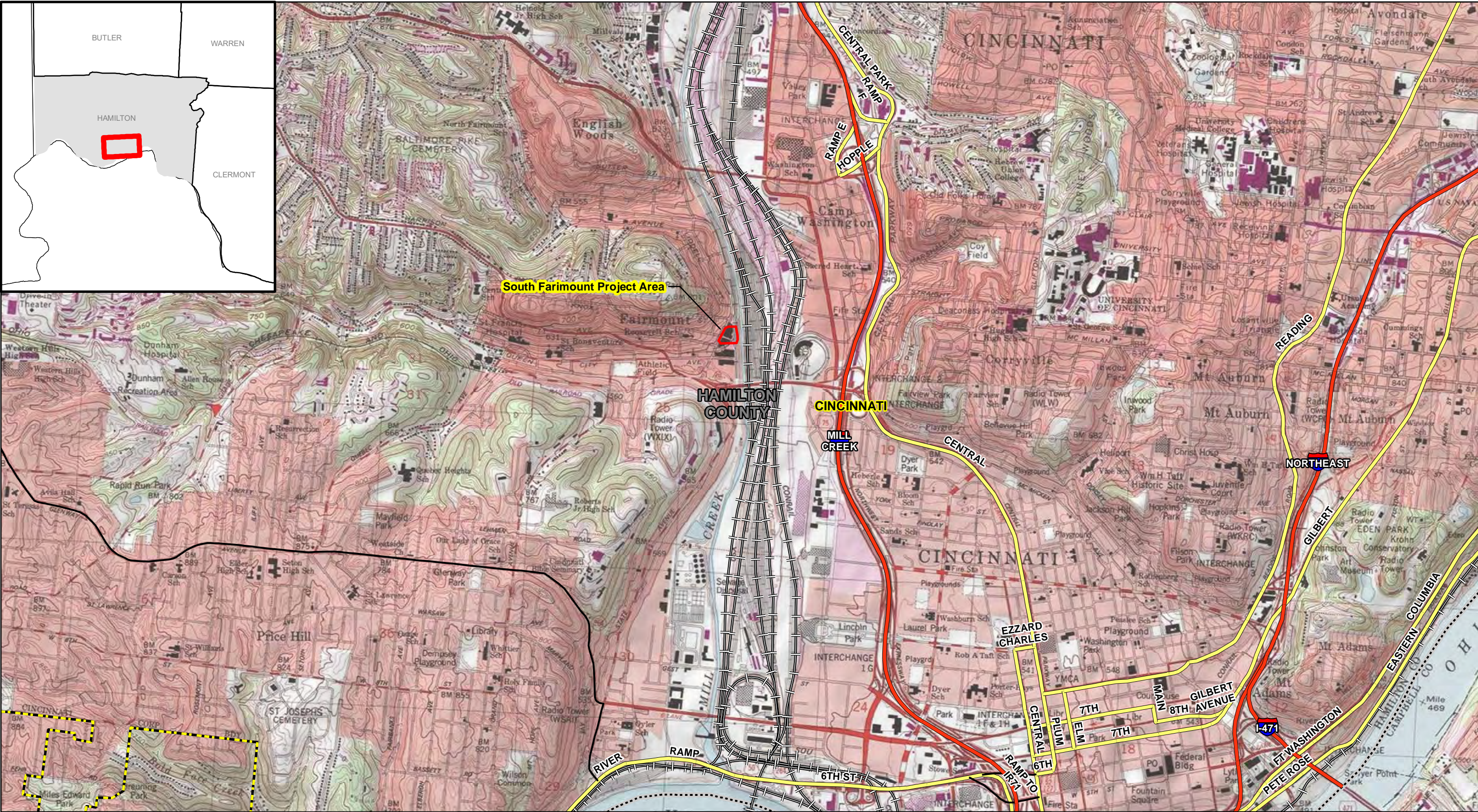
Seeded areas will be inspected to ensure adequate vegetative establishment and coverage. Adequate coverage shall be defined as greater than or equal to 70% areal coverage by visual estimation. Reseeding, watering or fertilization shall be utilized to meet this goal. Fertilizer should not be used in areas requiring native seeding. The ROW will be maintained in accordance with easement guidelines and consist of vegetative mowing and/or woody removal. All temporary erosion and sediment control measures will be removed prior to the NOT being approved.

Routine inspections and monitoring of erosion control structures will end and structures removed, once the disturbed soil areas are permanently re-established with a vegetative cover of at least 70% or greater density (final stabilization). Final stabilization in agricultural areas is defined as returning the disturbed land to its pre-construction agricultural use.

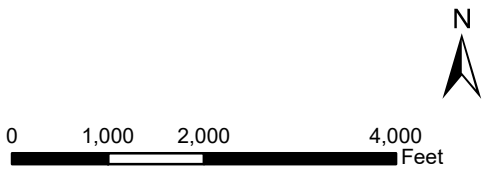
When all construction and ground disturbance activities have ceased, final stabilization has been documented, and all temporary erosion measures are removed, if required the NOT shall be submitted to the OEPA within 45 days. The NOT shall be also submitted to any other Local agencies that required review of the Project.

Appendix A

Figures



REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE: CINCINNATI WEST AND CONVINGTON. OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.



- Existing Facility
- ProjectCenterLine
- Interstate
- State Highway
- US Highway
- Railroad
- County Boundary
- Municipal Boundary



FIGURE 1
STORMWATER POLLUTION PREVENTION PLAN
F1286 138kV SOUTH FAIRMOUNT LOOP
DUKE ENERGY
PROJECT VICINITY MAP

DRAWN BY: COD
CHECKED: CJ
DATE: 11/8/2018
APPROVED: JT

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Summary: Application FOR THE F1263—69kV and F1286 – 138kV South Fairmount Loop electronically filed by Carys Cochern on behalf of Kingery, Jeanne W Ms.