

CONSTRUCTION NOTICE FOR THE
F1286/F1263 – 138kV/69kV Cumminsville (I-75)
Improvement

PUCO Case No. 18-1523-EL-BNR

Submitted to:
The Ohio Power Siting Board
Pursuant to O.A.C. 4906-06

Submitted by:
Duke Energy Ohio, Inc.

November 2018



Construction Notification

This Construction Notice has been prepared by Duke Energy Ohio, Inc. (hereafter "Duke Energy") in accordance with Ohio Administrative Code (O.A.C.) 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 Construction Notice Application.

4906-06-05 ACCELERATED APPLICATION REQUIREMENTS

4906-6-05 (B): General Information

4906-6-05 (B)(1) Name, Reference Number, Brief Description, and Construction Notice Requirement

Name of Project: **F1286/F1263 – 138kV/69kV Cumminsville (I-75) Improvement**

2018 LTFR Reference: The project was unintentionally omitted.

Brief Description of the Project:

Duke Energy proposes to replace one (1) transmission tower and construct one (1) transmission tower along approximately 0.18 mile (950 feet) of 138kV/69kV transmission line connecting Duke Energy Structure M11-X1-31 southwest across the I-75/I-74 interchange to Duke Energy Structure M11-X11-30, located in the City of Cincinnati, Hamilton County, Ohio. The proposed project area consists of approximately 0.18 miles of existing 100-foot wide Duke Energy transmission line corridor Right-of-Way (ROW), and includes the removal and replacement of one (1) 138kV/69kV lattice tower with one (1) 138kV/69kV galvanized steel structure, and the addition of one (1) 138kV/69kV galvanized steel structure. The Project initiates at Duke Energy Structure M11-X1-30 (39.1509, -84.5420) located south of Ralston Avenue, west of Spring Grove Avenue, and east of the railroad tracks, and terminates at Duke Energy Structure M11-X1-31 (39.1529, -84.5401) located north of I-74, south of South Ludlow Drive, and west of Interstate 75.

Construction Notice Requirement:

This Project qualifies as a Construction Notice filing as it meets the requirements outlined in O.A.C. 4906-1-01, Appendix A, item (1)(a). Item (1)(a) allows the filing of a Construction Notice 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: (a) Not greater than 0.2 miles in length."

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

The purpose and need for the F1286/F1263 – 138kV/69kV Cumminsville (I-75) Improvement project is to maintain and improve the quality of the electric service and reliability to the service area while also providing more clearance above the I-74/I-75 interchange. This service area includes, but is not limited to the City of Cincinnati, Hamilton County, Ohio. The existing 0.18-mile line provides 138kV/69kV electric transmission service to residential and commercial/industrial facilities and serves as a pathway in the transmission grid between the Cumminsville substation and surrounding areas.

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 Right-of-Way. 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 option 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 property and/or Duke Energy ROW, a public information program for this Project has not been developed.

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

Construction is planned to begin on January 14, 2019, contingent upon approval of this Construction Notice. 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 F1286/F1263 – 138kV/69kV Cumminsville (I-75) Improvement project is located within existing ROW easements that were obtained by Duke Energy and includes the removal and replacement of one (1) 138kV/69kV lattice tower with one (1) 138kV/69kV galvanized steel structure, and the additional installation of one (1) 138kV/69kV galvanized steel structure within the existing transmission line easement. ODOT has spent three years contacting relevant property owners for an associated I-75 improvement project and property owners have been notified as outlined in this response [Part 4906-6-05 (B)(5)].

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

The Project involves the installation of approximately 0.18 mile (950 feet) of 138kV/69kV transmission line. The proposed transmission line improvement will include the removal and replacement of one (1) 138kV/69kV lattice tower with one (1) 138kV/69kV galvanized steel structure, and the addition of one (1) 138kV/69kV galvanized steel structure. Structure diagrams are provided in Attachment B.

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

Voltage:	138kV 69kV
Structure Type:	Remove lattice tower M11-X1-30 (138kV/69kV). Replace with two (2) self-supporting monopoles with foundation. Install two (2) additional self-supporting monopoles with foundation (to be Structure M11-X1-30A).
Conductors:	138kV: 954 ACSR 69kV: 954 ACSR
Static Wire:	138kV: Optical Ground Wire (OPGW) 69kV: Optical Ground Wire (OPGW)

Insulators: 138kV: Polymer post insulators
 69kV: Polymer post insulators

ROW/Land Requirements: Duke Energy operates the poles that exist in a limited access easement along I-75.

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

Information concerning the electric and magnetic fields is not required as the proposed project is not located 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 \$3.2 million.

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 property.

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 3 archaeological sites, 122 historic structures, 7 cemeteries (one of which is listed as a National Historic Landmark), 15 National Register of Historic Places (NRHP) Determination of Eligibility (DOE) structures, and 20 NRHP-listed resources are located within in the one mile buffer. None of these previously identified cultural resources are located in or adjacent to the study area.

A review of the OHPO online mapping system also indicates that a portion of the project area has been previously investigated for cultural resources; however, no excavation or

ground reconnaissance was conducted as part of this study. Rather, it was determined that the Urban soils within the current project area were unlikely to contain intact cultural deposits (Schneider and Sudnik 2007). Nevertheless, a review of historic aerial imagery from the mid-twentieth century could not confirm that the entire project area was previously disturbed. As a result, a Phase I archaeological reconnaissance survey was conducted within the potentially undisturbed portions of the project area, specifically the four new transmission pole locations, in order to determine whether significant cultural resources would be impacted by the project.

Results of the Phase I archaeological reconnaissance are based on a visual inspection of the overall project area and STP excavation of the four new transmission pole locations. During the course of the survey, no new archaeological sites were identified, and subsurface soils within the footprint of construction were found to be entirely disturbed. Duke Energy anticipates no subsurface disturbance beyond the four new transmission pole structure locations, the transmission tower removal, and minor tire rutting that will not exceed that of the existing transmission line maintenance equipment. As a result of the background research and Phase I investigation, no significant archaeological sites will be impacted by the project, and no additional archaeological testing is recommended within the boundaries of the project area.

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. These correspondence letters are included as Attachment C.

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 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 and U.S. Fish and Wildlife Service on October 14, 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 C.

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 2.31 acre study area around the proposed centerline, access roads, and additional workspace areas. During the investigation, Cardno did not identify any potentially regulated waters in the study area. See Attachment D, Regulated Waters Delineation Report.

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. The Project Area is not located within a 100-year floodplain.

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

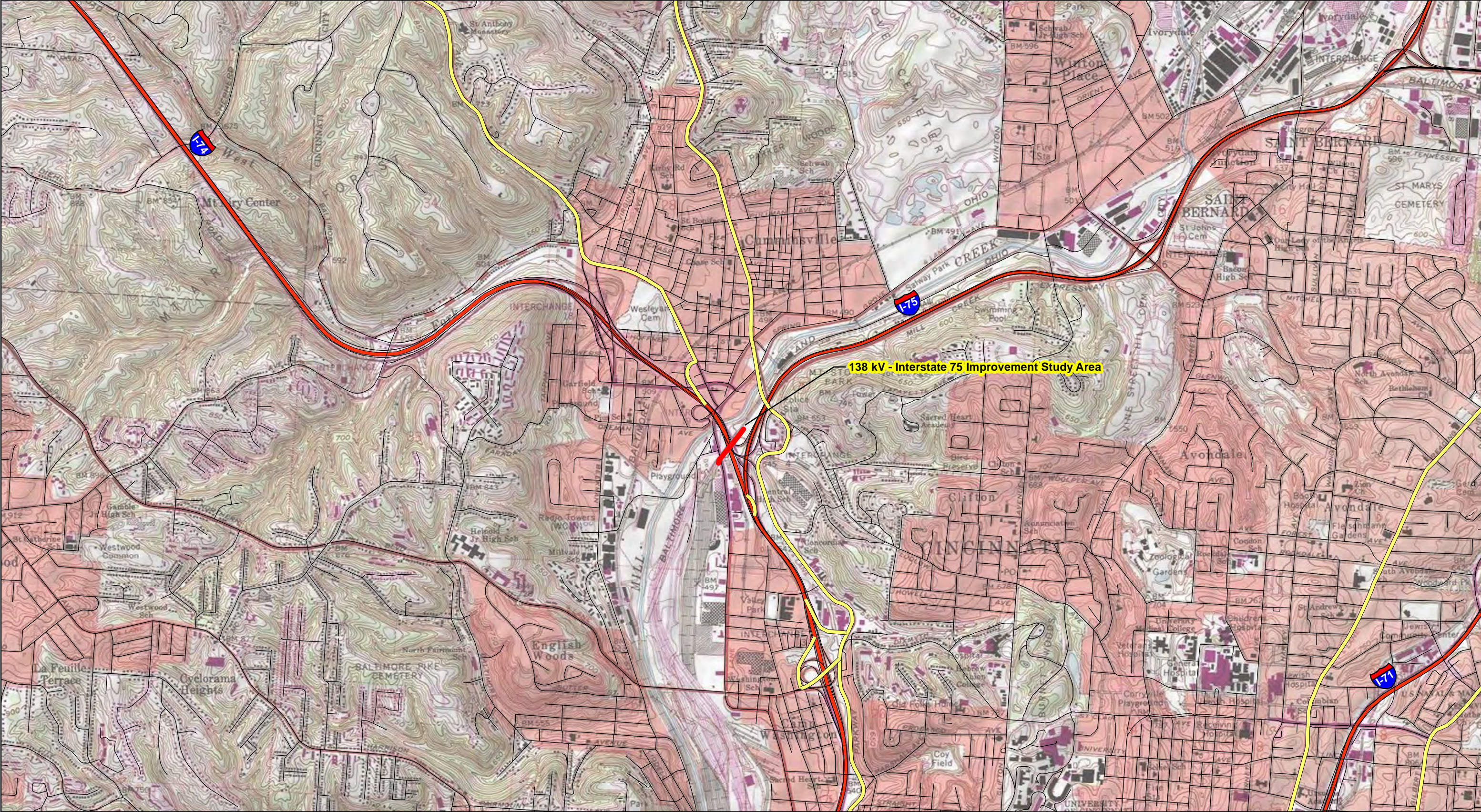
To the best of Duke Energy's knowledge, no unusual conditions exist that would result in environmental, social, health, or safety impacts. Construction and operation of the proposed Project will meet all applicable safety standards established by the Occupational Safety and Health Administration, and 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.









4906-6-07: Document of Construction Notice Transmittal and Availability for Public Review

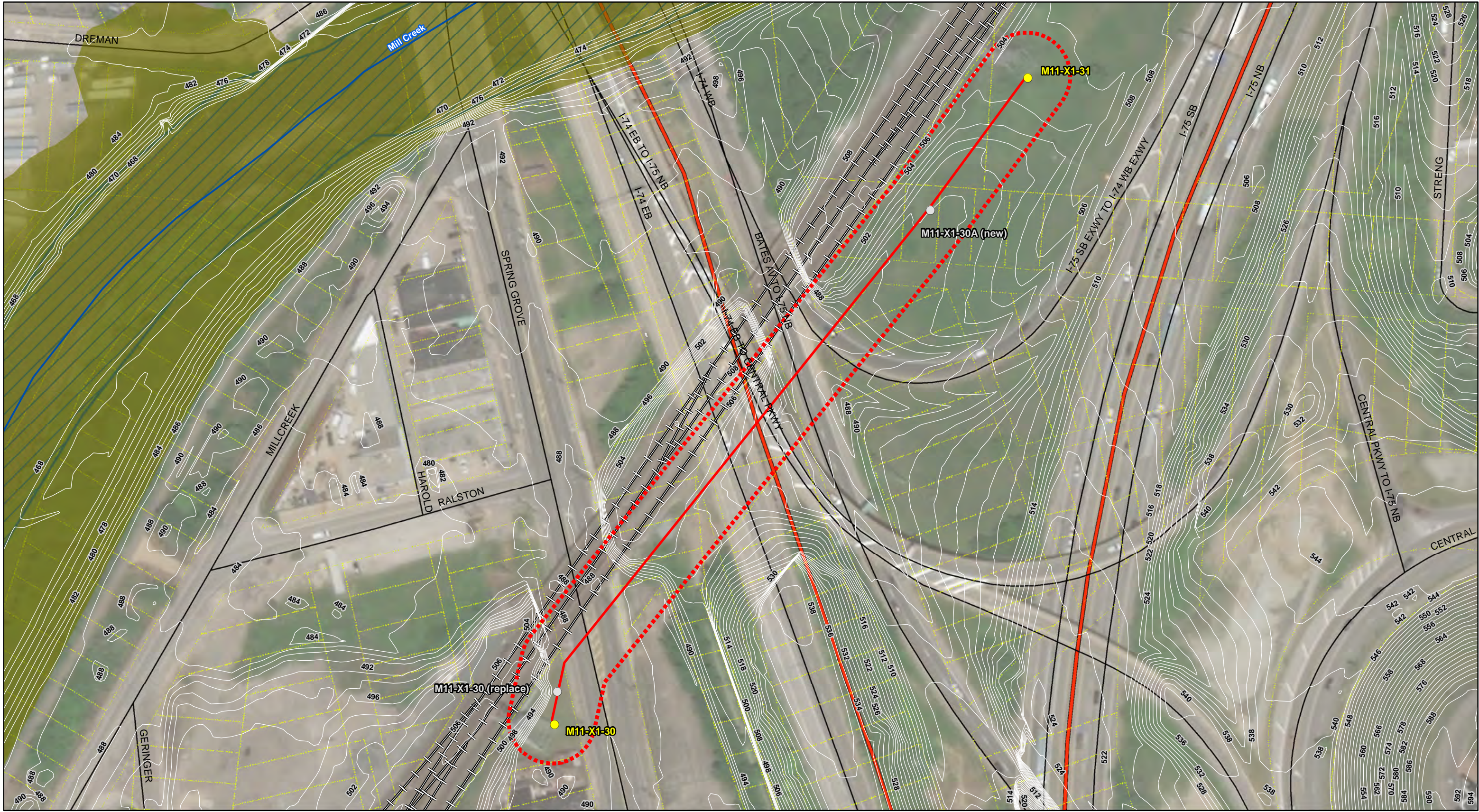
Copies of the Construction Notice have been sent to the public officials' offices of the City of Cincinnati and Hamilton County, as well as to the Public Library of Cincinnati and Hamilton County.

Attachment A

Figures and Tables



<p>PROJECT LOCATION</p>  <p>HAMILTON COUNTY, OHIO</p>	<p>REFERENCE: ROUTE CENTERLINE AND FACILITY Duke Energy USGS 7.5' TOPOGRAPHIC QUADRANGLES ESRI's Online USA Topo, accessed 11/6/2018 ESRI's USA Major Roads, accessed 11/6/2018</p>	<table><tr><td></td><td>Project Centerline</td><td></td><td>Interstate</td></tr><tr><td></td><td>US Highway</td><td></td><td></td></tr><tr><td></td><td>State Route</td><td></td><td></td></tr><tr><td></td><td>Local Roads</td><td></td><td></td></tr></table>		Project Centerline		Interstate		US Highway				State Route				Local Roads			   	<p>FIGURE 1 OPSB BNR FILING F1286/F1263 – 138kV/69kV CUMMINSVILLE (I-75) IMPROVEMENT DUKE ENERGY PROJECT LOCATION MAP</p> <table><tr><td>DRAWN BY: DKT</td><td>DATE: 11/6/2018</td></tr><tr><td>CHECKED: CAJ</td><td>APPROVED: CAJ</td></tr></table>	DRAWN BY: DKT	DATE: 11/6/2018	CHECKED: CAJ	APPROVED: CAJ
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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	Low
<i>Lasionycteris noctivagans</i>	Silver-haired Bat	SSC	---	Wooded and Semi wooded areas, mainly along streams.	August-October	Low
<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	Low
<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	Low
<i>Myotis sodalis</i>	Indiana Myotis	E	E	Wooded and Semi wooded areas, mainly along streams. Maternity colonies are around hollow trees.	August-October	Low
<i>Myotis septentrionalis</i>	Northern long-eared Bat	SSC	T	Wooded and Semi wooded areas; live trees and in snags.	July-August	Low
<i>Perimyotis subflavus</i>	Tri-colored Bat	SSC	---	Edge habitats near areas of mixed agricultural use.	August-October	Low
<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	Low
<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>	EbonysheIl	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>Ptychobranhus 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



CRITICAL CUSTOMERS

METROPOLITAN SEWER DISTRICT
(MILL CREEK TREATMENT PLANT)

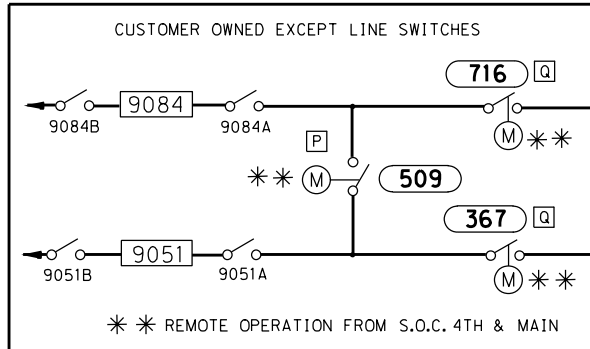
CITY OF CINCINNATI
MILL CREEK BARRIER DAM

MITCHELL AVE.
Sta. 12

1286
1263
2166

CUMMINSVILLE
Sta. 64

BRIGHTON
Sta. 21

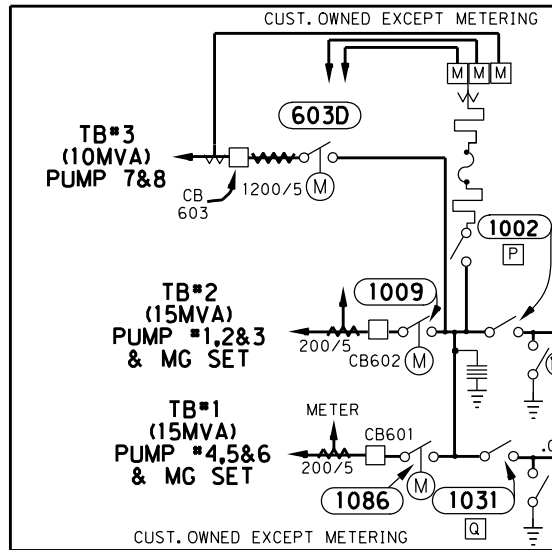


METROPOLITAN SEWER DISTRICT
Sta. 586

PRICE HILL
Sta. 5

FERGUSON
Sta. 285

CITY OF CINTI.
MILL CREEK BARRIER DAM
Sta. 521

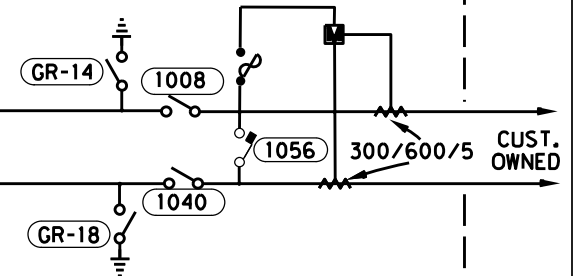


WEST END
Sta. 15

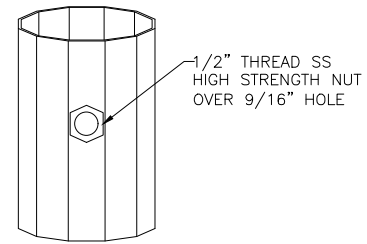
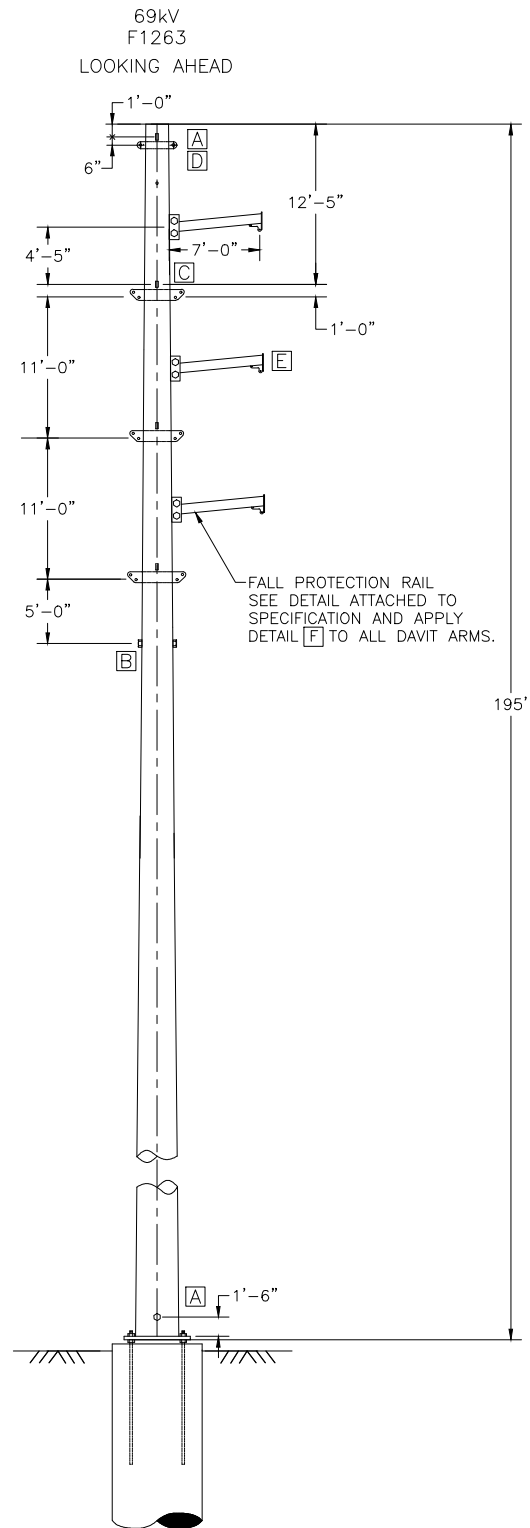
COVINGTON
Sta. 217

NEWPORT STEEL
STA. 559

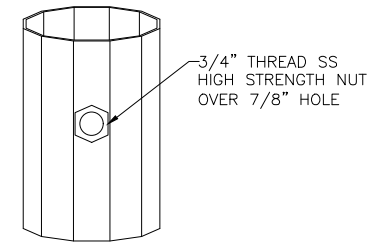
CUSTOMER OWNED EXCEPT METERING



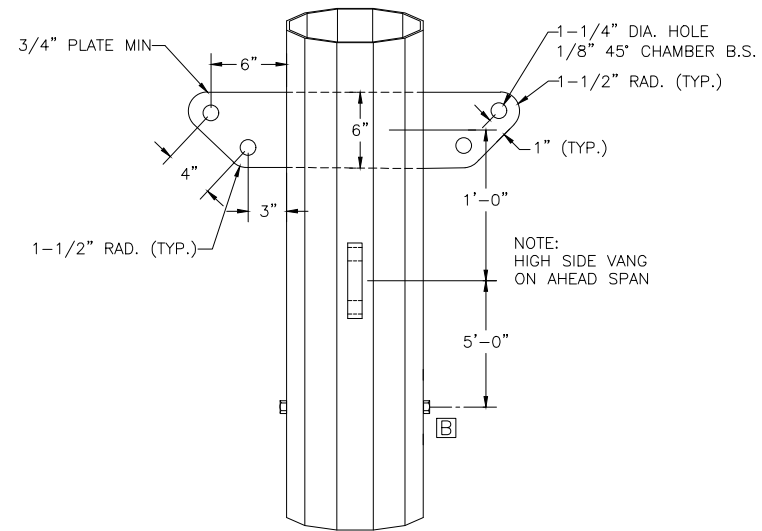
WILDER
STA. 59



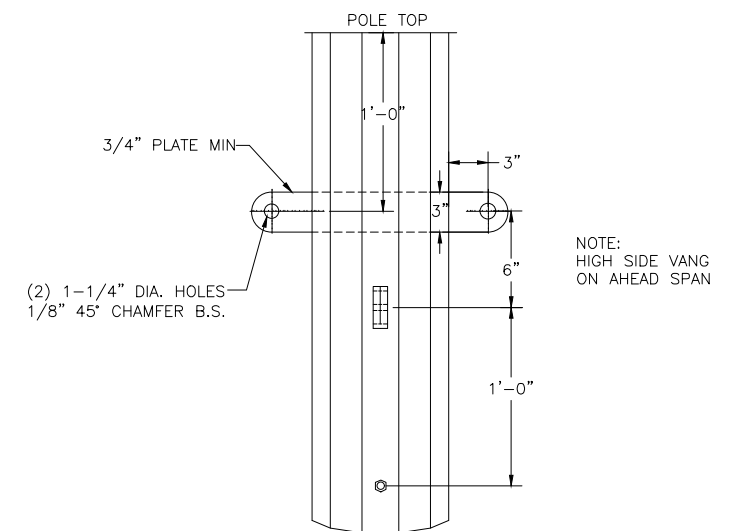
DETAIL [A]
GROUND NUT



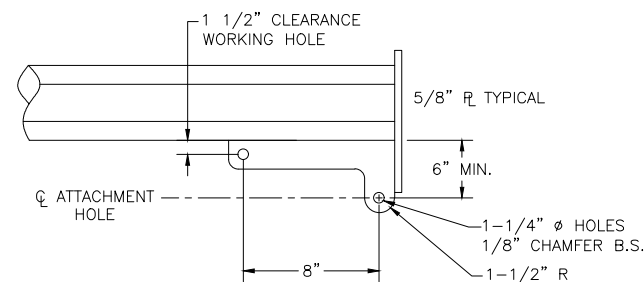
DETAIL [B]
GROUND STUD NUT
(2 PLACES, 180° APART)



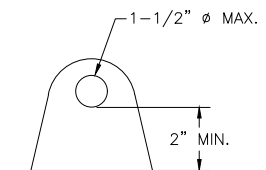
DETAIL C
CONDUCTOR ATTACHMENT



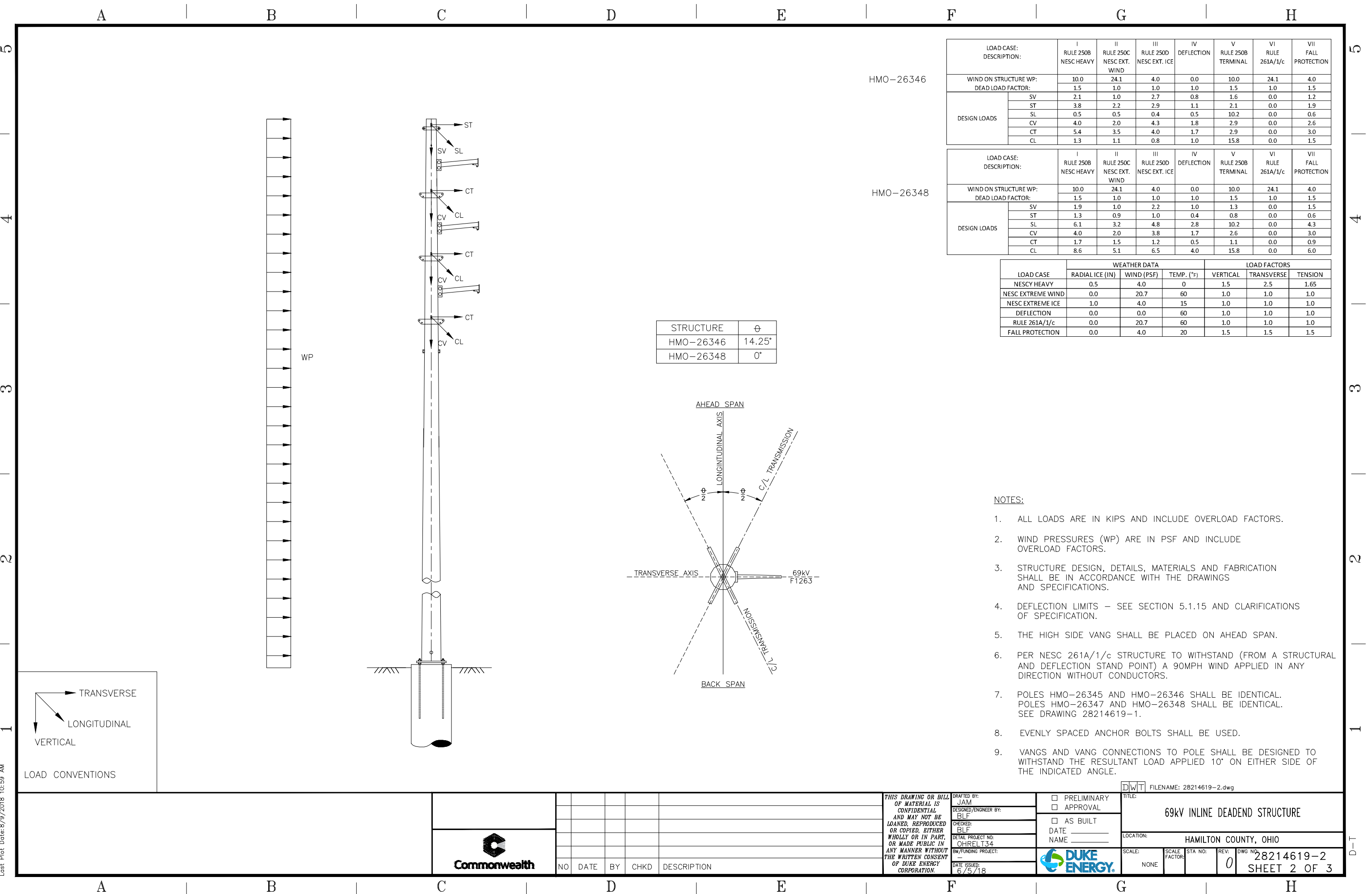
DETAIL D
OHGW ATTACHMENT



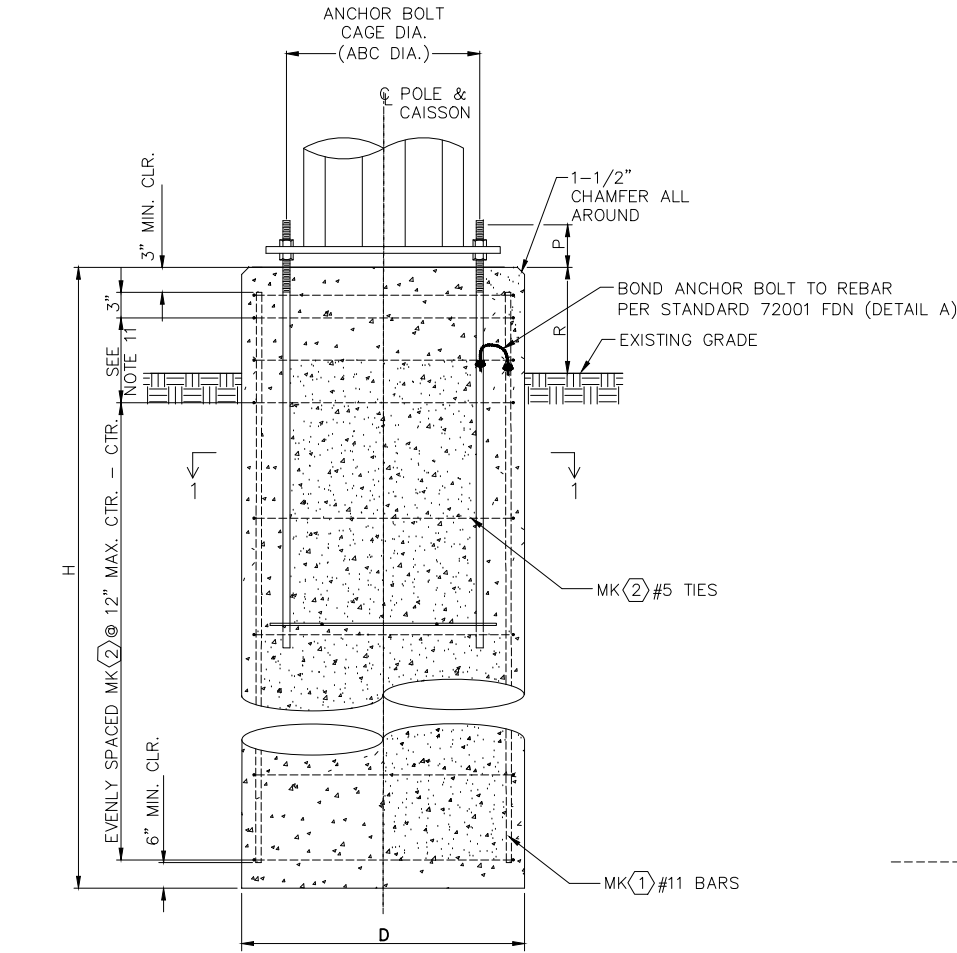
DETAIL E
JUMPER ATTACHMENT



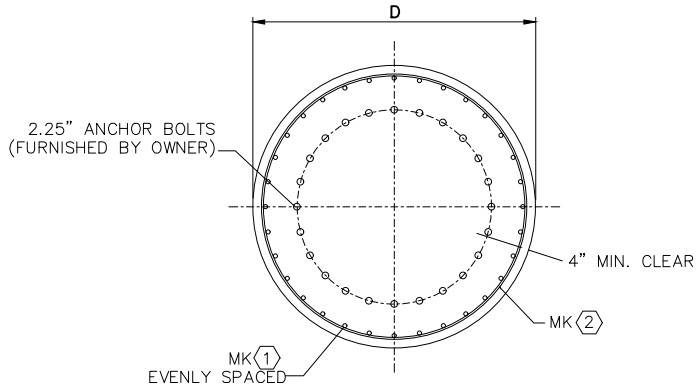
DETAIL F
JUMPER POST
ATTACHMENT PLATE



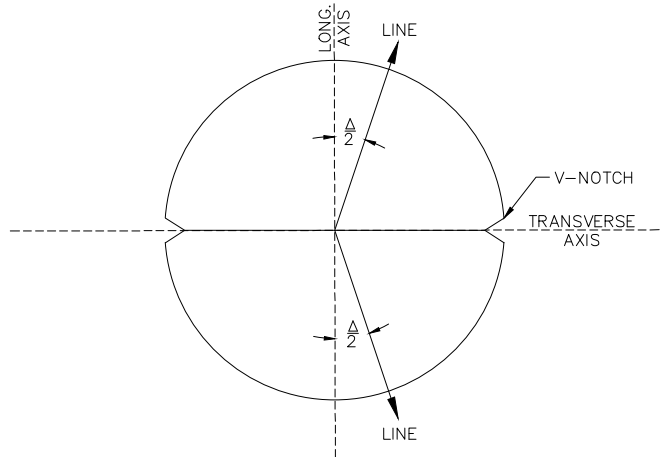
Last Plot Date: 8/9/2018 10:59 AM



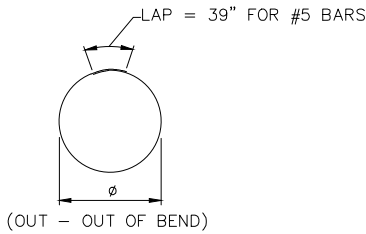
CONCRETE CAISSON FOUNDATION
SECTION ELEVATION
N.T.S.



PLAN SECTION 1-1



ANCHOR BOLT ORIENTATION



MARK 2 BEND DIAGRAM

STR. NO.	LINE ANGLE θ (DEG)	T.O.C (FT)	SOIL BORING	MOMENT (FT*KIP)	AXIAL (KIP)	SHEAR (KIP)	ABC DIA. (IN)	DRILLED PIER DIMENSIONS				CONCRETE VOL. (C.Y.)	MARK	QTY.	SIZE	LENGTH (FT.)	O (FT)	WEIGHT (LBS)
								H (FT)	D (FT)	R (FT)	P (IN)							
HMO-26346 (F1263)	14°15'18"	491.69	B-1	11,260	107	66	80.00	50.0	9.0	1.0	11.0	117.8	1	48	#11	49.25	N/A	12560
													2	54	#5	29.27	8.33	1648
HMO-26348 (F1263)	0°	498.51	B-2	11,338	173	67	82.00	40.0	9.0	1.0	11.0	94.2	1	48	#11	39.25	N/A	10010
													2	45	#5	29.27	8.33	1374

* FOUNDATION REVEAL (R) IS AN APPROXIMATED VALUE. TOP OF CONCRETE ELEVATION (T.O.C.) SHALL GOVERN.

NOTES:

- CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS (EXCEPT ANCHOR BOLT CAGES TO BE SUPPLIED BY DUKE ENERGY) REQUIRED FOR A COMPLETE CONCRETE CYLINDER FOUNDATION INSTALLATION INCLUDING BUT NOT LIMITED TO HAULING ALL MATERIALS TO SITE, AUGERING HOLE, RECEIVING AND INSTALLING ANCHOR BOLT CAGE, FURNISHING AND INSTALLING GROUNDING, AND FURNISHING AND INSTALLING REINFORCING STEEL AND CONCRETE.
- REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. ALL CLEAR DIMENSIONS MEASURED FROM OUTSIDE EDGE OF REINFORCING STEEL.
- CONTRACTOR IS EXPECTED TO BE PREPARED FOR DRILLING INTO SUBSURFACE OUTLINED IN BORING LOGS.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
- ALL WORK SHALL CONFORM TO ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
- ALL WORK SHALL CONFORM TO THE PROJECT CONSTRUCTION SPECIFICATION.
- EXPOSED CONCRETE SHALL BE FORMED AND FINISHED EDGES SHALL BE CHAMFERED 1-1/2" UNLESS NOTED OTHERWISE.
- SEE 72001 FDN (DETAIL A) FOR ANCHOR BOLT TO REBAR BONDING. PIGTAIL DEPICTED ON 72001 FDN NOT REQUIRED.
- V-NOTCH OF ANCHOR BOLT TEMPLATE TO ALIGN WITH THE TRANSVERSE AXIS OF THE STRUCTURE. TRANSVERSE AXIS LIES PERPENDICULAR TO THE BISECTOR OF THE ANGLE TURNED BY THE STRUCTURE.
- TRANSIT LEVEL OR EQUIVALENT SHALL BE USED TO FIELD VERIFY LEVEL FOUNDATION SURFACES.
- FROM TOP OF PIER MARK 2 SHALL BE SPACED 6" FOR ALL PORTIONS OF PIER ABOVE GRADE TO 18" BELOW GRADE UNLESS NOTED OTHERWISE.
- CONTRACTOR TO NOTIFY CONCRETE TESTING FIRM A MINIMUM OF 24 HOURS PRIOR TO POURING CONCRETE.
- CONTRACTOR TO PROVIDE ALL STEEL REINFORCING INCLUDING LONGITUDINAL SPLICES (IF REQUIRED FOR OVERHEAD CLEARANCE). THE REBAR CAGE SHALL BE FABRICATED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 318. PLEASE SEND DETAILED DRAWINGS TO DUKE ENERGY FOR APPROVAL.

		<table><tr><td>NO</td><td>DATE</td><td>BY</td><td>CHKD</td><td>DESCRIPTION</td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>				NO	DATE	BY	CHKD	DESCRIPTION																<p>THIS DRAWING OR BILL OF MATERIAL IS CONFIDENTIAL AND MAY NOT BE LOANED, REPRODUCED OR COPIED, EITHER WHOLLY OR IN PART, OR MADE PUBLIC IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF DUKE ENERGY CORPORATION.</p>		<p>DRAFTED BY: JAM DESIGNED/ENGINEER BY: SAM CHECKED: SAM DETAIL PROJECT NO: OHREL T34 BM/FUNDING PROJECT: - DATE ISSUED: 8/9/18</p>		<p><input type="checkbox"/> PRELIMINARY <input type="checkbox"/> APPROVAL <input type="checkbox"/> AS BUILT DATE _____ NAME _____</p>				<p>SCALE: NONE SCALE FACTOR: </p>		<p>STA NO: </p>		<p>REV: 0</p>		<p>DWG NO: 28214619-2 SHEET 3 OF 3</p>	
NO	DATE	BY	CHKD	DESCRIPTION																																					

DWT FILENAME: 28214619-2.dwg

69kV INLINE DEADEND FOUNDATION

HAMILTON COUNTY, OHIO



Attachment C

Agency Coordination Letters



October 31, 2018

Dan Everson
Field Office Supervisor
U.S. Fish and Wildlife Service
4625 Morse Rd Suite 104
Columbus, OH, 43230

Cardno

11121 Canal Road
Cincinnati, Ohio 45241
USA

Phone 513 489 2402
Fax 513 489 2404

**RE: Duke Energy F1286—138kV Cummins ville (I-75) Improvement
Threatened and Endangered Species Consultation
Cincinnati, Hamilton County, Ohio
(Lat. 39.152529; Long. -84.540514)**

www.cardno.com

Dear Mr. Everson:

Duke Energy (Duke) is proposing to remove and replace approximately 0.2 miles of existing transmission line, encompassing a total study corridor of 2.31 acres of existing 100- foot wide Duke Energy transmission line corridor Right-Of-Way (ROW). A field investigation of the study corridor was conducted on October 29, 2018.

The project study area is located in the City of Cincinnati, Hamilton County, Ohio. The location of the proposed Project is depicted on the attached Cincinnati (OH) USGS 7.5-minute topographic map excerpt (Figure 1).

Cardno was contracted by Duke to perform a boundary delineation and assessment of regulated waters, including wetlands, streams, ditches, and/or other federally regulated open waters, rare, threatened, endangered, and special habitat located within the proposed 0.2 miles of existing 100-ft wide ROW. The project study area was dominated by fallow field/riparian and industrial turf vegetation assemblages. Cardno botanists and ecologists conducted a habitat assessment to identify the presence of regulated waters, and potential Indiana bat (*Myotis sodalis*), Northern long-eared bat (*Myotis septentrionalis*), and Running Buffalo Clover (*Trifolium stoloniferum*) habitat.

In accordance with the USFWS Section 7 ESA coordination requirements the Project study area and its habitat characteristics has been summarized for you below.

1. Location data including latitude and longitude of the project area, site address, and county.

City of Cincinnati, Springfield Township, Hamilton County, Ohio

Initiates: Duke Energy Structure M11-X1-30 (39.1509, -84.5420)

Terminates: Duke Energy Structure M11-X1-31 (39.1529, -84.5401)

2. A detailed project description, including layout of any new construction.

The proposed F1286 – 138kV Cumminsville (I-75) Improvement Project is necessary in order to maintain the integrity of existing Duke structures to ensure adequate power supplies to current and future utility customers in the area. The project is also needed to ensure safety within the existing easements and remain in compliance with current transmission line standards as well as to provide additional clearance above the I-75/I-74 interchange. 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 replacement of one electric transmission tower and addition of one electric transmission tower (2 electrical poles) will occur. Earth moving activities are anticipated to be minimal. 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 the January 2019.

3. A detailed description of onsite habitat, including the size, location, and quality of streams, wetlands, forested areas, and other natural areas, and proposed impacts.

The proposed F1286 – 138kV Cumminsville (I-75) Improvement Project is linear in scope and will take place entirely within existing transmission line corridor and Duke Energy easement (Figure 1 & 2). There were no regulated waters identified within the project's Study Area. Specific attention was given to the presence of habitat suitable for federally endangered and threatened species – specifically, the Indiana bat (*Myotis sodalis*), the Northern Long-Eared bat (*Myotis septentrionalis*), and Running Buffalo Clover (*Trifolium stoloniferum*). To evaluate the potential habitat for rare, threatened, and endangered species a general site reconnaissance of the project study area was performed by Cardno botanists and ecologists. The result of these habitat assessments can be found below.

Industrial Turf/Shrub

The industrial vegetation assemblage was located within the proposed study area. Dominant canopy species in this habitat type consisted of bush honeysuckle (*Lonicera maackii*), white mulberry (*Morus alba*), and tree of heaven (*Ailanthus altissima*). Understory vegetation present in this habitat type consisted of winter creeper (*Euonymus fortunei*), tall fescue (*Schedonorus arundinaceus*), narrow-leaf plantain (*Plantago lanceolata*), and dandelion (*Taraxacum officinale*).

Although a formal study was not part of this scope, no potential habitat for listed species was identified within this habitat.

4. A description of the forested habitat onsite, including type of forest, and presence of dead trees, split branches or trunks, and exfoliating bark, and proposed impacts.

The Project study area did not include any mature trees greater than 4" in DBH.

5. Photographs representative of all cover types on the site and encompassing views of the entire site.

See the attached photo exhibit.

6. Conclusion

Based on the physical site characteristics, the site contains low quality habitat for the federally endangered Indiana and Northern Long Eared bat based on the woody species composition and intensity of surrounding land use.

We are requesting a review by your office and a written response regarding effects on federally listed threatened and/or endangered species and their critical habitat within the vicinity of the project area. Enclosed for your review are the project location map, aerial map, proposed site plan, and photo exhibit.

If you have any questions concerning this request or would like additional information, please do not hesitate to contact me at (513) 404-6251 or Danielle.Thompson@cardno.com.

Sincerely,

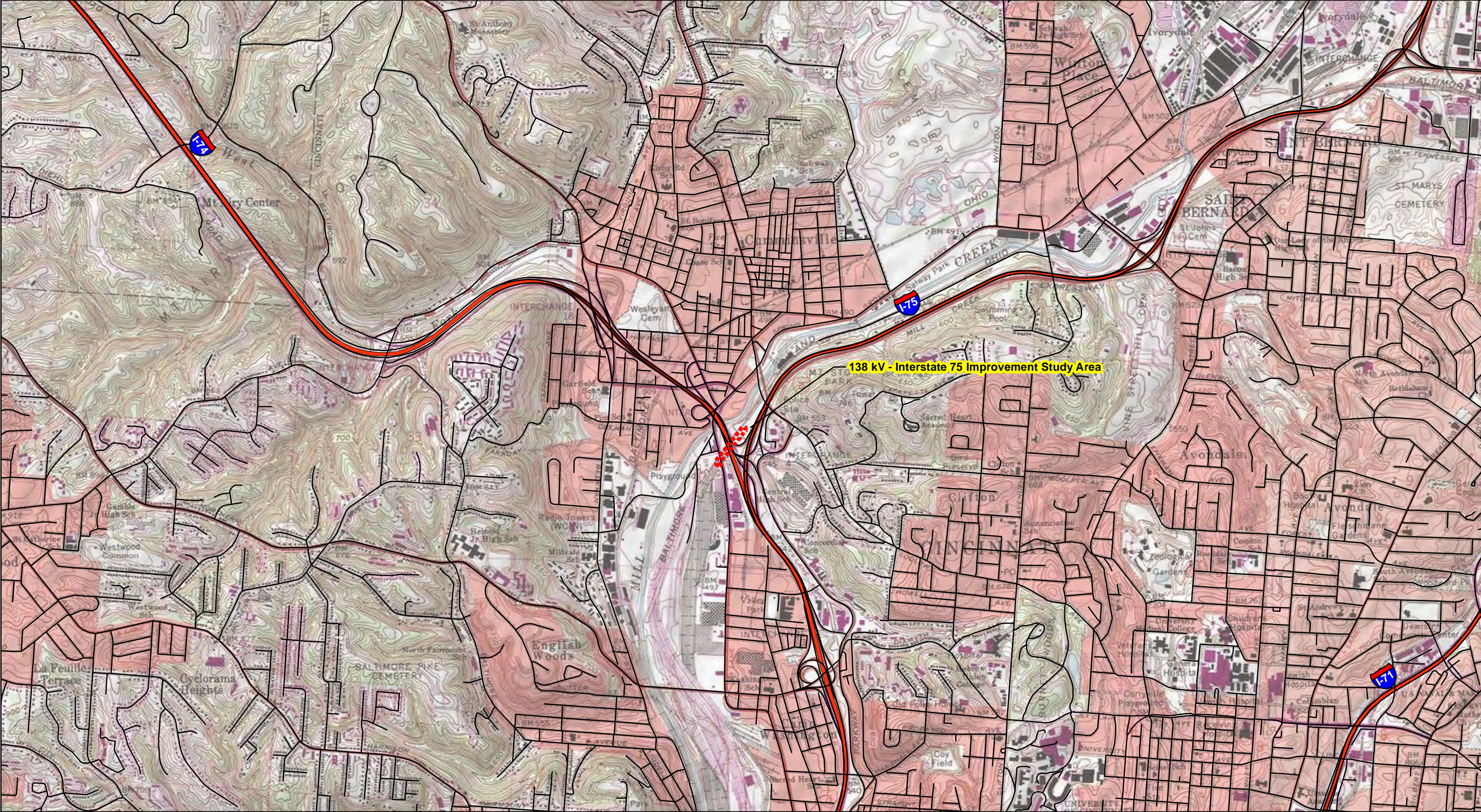
A handwritten signature in blue ink, appearing to read "Danielle K. Thompson".

Danielle K. Thompson
Senior Project Scientist
for Cardno, Inc.

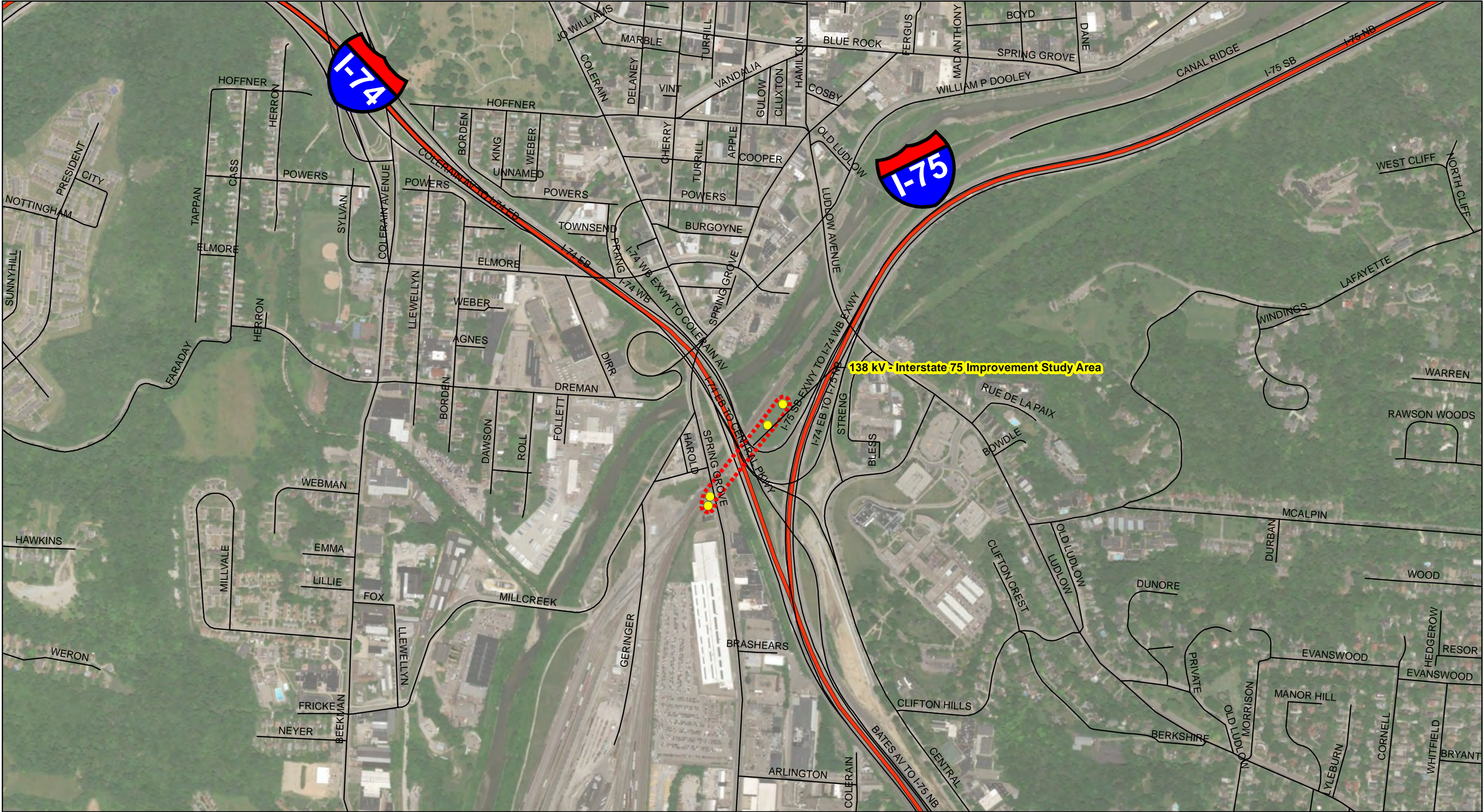
Enc: USGS map, Aerial Map, Site Plans, Photo Exhibit

ATTACHMENTS:

PROJECT LOCATION MAP
PROJECT AERIAL MAP
SITE PLANS
PHOTO EXHIBIT



<p>PROJECT LOCATION</p>  <p>HAMILTON COUNTY, OHIO</p>	<p>REFERENCE: ROUTE CENTERLINE AND FACILITY Duke Energy USGS 7.5' TOPOGRAPHIC QUADRANGLES ESRI's Online USA Topo, accessed 10/29/2018 ESRI's USA Major Roads, accessed 10/29/2018</p>	<p>— Roads</p> <p>— Interstate</p> <p>StudyArea</p>	<div></div> <div><p>0 500 1,000 2,000 Feet</p></div>	<p>FIGURE 1 Location Map</p> <p>Wetland Delineation Report</p> <p>138 kV - I-75 Improvement</p> <div><p>DRAWN BY: DKT</p><p>CHECKED: CAJ</p></div> <div><p>DATE: 10/29/2018</p><p>APPROVED: CAJ</p></div>
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<p>PROJECT LOCATION</p>  <p>HAMILTON COUNTY, OHIO</p>	<p>REFERENCE: ROUTE CENTERLINE AND FACILITY Duke Energy USGS 7.5 TOPOGRAPHIC QUADRANGLES ESRI's Online USA Topo, accessed 10/29/2018 ESRI's USA Major Roads, accessed 10/29/2018</p>	<ul style="list-style-type: none"> Duke Structure Roads Interstate Study Area	 	<p>FIGURE 2 Project Aerial Map</p> <p>Wetland Delineation Report</p> <p>138 kV - I-75 Improvement</p> <table><tr><td>DRAWN BY: DKT</td><td>DATE: 10/29/2018</td></tr><tr><td>CHECKED: CAJ</td><td>APPROVED: CAJ</td></tr></table>	DRAWN BY: DKT	DATE: 10/29/2018	CHECKED: CAJ	APPROVED: CAJ
DRAWN BY: DKT	DATE: 10/29/2018							
CHECKED: CAJ	APPROVED: CAJ							

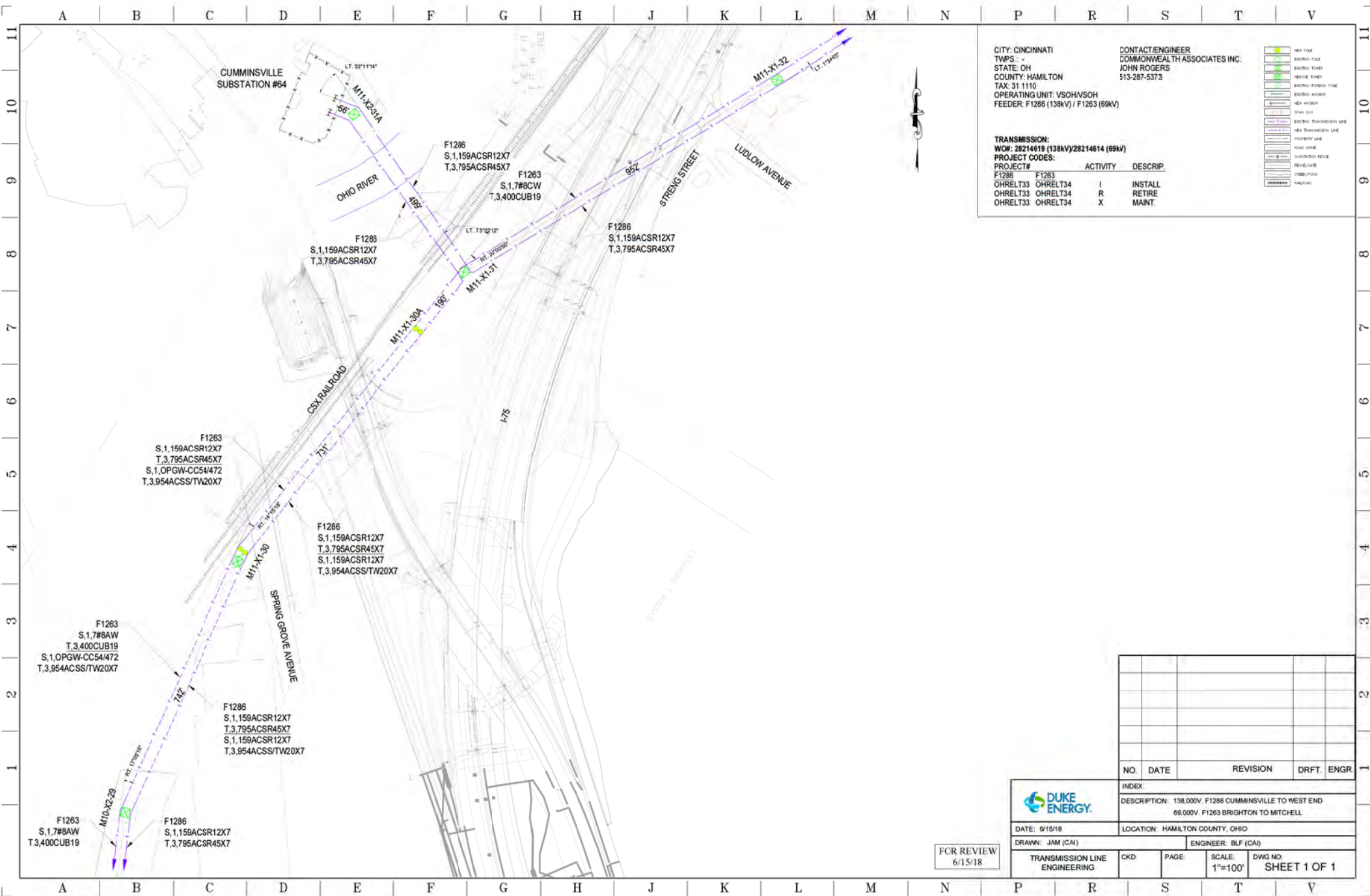




Photo 1. ROW Corridor, North side of US-27, facing Northeast.



Photo 2. ROW Corridor, North side of US-27, facing Southwest.



Photo 3. ROW Corridor, Industrial Vegeta, facing Northwest.



Photo 4. ROW Corridor, South side of US-27, facing Southwest.



Photo 5. ROW Corridor, industrial vegetation, facing northeast.



Photo 6. ROW Corridor, the Train Tracks, facing Northwest.

From: susan_zimmermann@fws.gov
To: [Danielle Thompson](#)
Subject: Duke Energy F1286 - 138kV Cummins ville (I-75) Improvement, Hamilton Co.
Date: Thursday, November 8, 2018 12:27:47 PM



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



TAILS# 03E15000-2019-TA-0241

Dear Ms. Thompson,

We have received your recent correspondence requesting information about the subject proposal. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service should be initiated to assess any potential impacts.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Scott Pruitt
Acting Field Office Supervisor



October 30, 2018

Mr. John Kessler
Ohio Department of Natural Resources
Office of Real Estate
2045 Morse Road, Building E-2
Columbus, OH 43230

Cardno

11121 Canal Road
Cincinnati, Ohio 45241
USA

Phone 513 489 2402
Fax 513 489 2404

**RE: Duke Energy F1286 – 138kV Cummins ville (I-75) Improvement
Rare, Threatened, and Endangered Species Consultation
Cincinnati, Hamilton County, Ohio**

Dear Mr. Kessler:

Duke Energy (Duke) is proposing to remove and replace approximately 0.2 miles of existing transmission line, encompassing a total study corridor of 2.31 acres of existing 100-foot wide Duke Energy transmission line corridor Right-Of-Way (ROW). A field investigation of the study corridor was conducted on October 29, 2018.

The project study area is located in the City of Cincinnati, Hamilton County, Ohio. The location of the proposed Project is depicted on the attached Cincinnati (OH) USGS 7.5-minute topographic map excerpt (Figure 1).

Cardno was contracted by Duke to perform a boundary delineation and assessment of regulated waters, including wetlands, streams, ditches, and/or other federally regulated open waters, rare, threatened, endangered, and special habitat located within the proposed 0.2 miles of existing 100-ft wide ROW. The project study area was dominated by industrial turf and shrub vegetation assemblages. Cardno botanists and ecologists conducted a habitat assessment to identify the presence of regulated waters, and potential Indiana bat (*Myotis sodalis*), Northern long-eared bat (*Myotis septentrionalis*), and Running Buffalo Clover (*Trifolium stoloniferum*) habitat.

In accordance with the ODNR-DOW Environmental Review coordination requirements; the Project study area and its habitat characteristics has been summarized for you below.

1. Location data including latitude and longitude of the project area, site address, and county.

City of Cincinnati, Mill Creek Township, Hamilton County, Ohio

Initiates: Duke Energy Structure M11-X1-30 (39.1509, -84.5420)

Terminates: Duke Energy Structure M11-X1-31 (39.1529, -84.5401)

2. A detailed project description, including layout of any new construction.

The proposed F1286 – 138kV Cumminsville (I-75) Improvement Project is necessary in order to maintain the integrity of existing Duke structures to ensure adequate power supplies to current and future utility customers in the area. The project is also needed to ensure safety within the existing easements and remain in compliance with current transmission line standards. 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 replacement of one electric transmission tower and addition of one electric transmission tower (2 electrical poles) will occur. Earth moving activities are anticipated to be minimal. 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.

3. A detailed description of onsite habitat, including the size, location, and quality of streams, wetlands, forested areas, and other natural areas, and proposed impacts.

The proposed F1286 – 138kV Cumminsville (I-75) Improvement Project is linear in scope and will take place entirely within existing transmission line corridor and Duke Energy easement (Figure 1 & 2). There were no regulated waters identified within the project's Study Area. Specific attention was given to the presence of habitat suitable for federally endangered and threatened species – specifically, the Indiana bat (*Myotis sodalis*), the Northern Long-Eared bat (*Myotis septentrionalis*), and Running Buffalo Clover (*Trifolium stoloniferum*). To evaluate the potential habitat for rare, threatened, and endangered species a general site reconnaissance of the project study area was performed by Cardno botanists and ecologists. The result of these habitat assessments can be found below.

Industrial Turf/Shrub

The industrial vegetation assemblage was located within the proposed study area. Dominant canopy species in this habitat type consisted of bush honeysuckle (*Lonicera Maackii*), white mulberry (*Morus alba*), and tree of heaven (*Ailanthus altissima*). Understory vegetation present in this habitat type consisted of winter creeper (*Euonymus fortunei*), tall fescue (*Schedonorus arundinaceus*), narrow-leaf plantain (*Plantago lanceolata*), and dandelion (*Taraxacum officinale*). Although a formal study was not part of this scope, no potential habitat for listed species was

identified within this habitat.

4. Proposed impacts (i.e. in-water work or tree clearing)

No impacts to Waters of the U.S. or Waters of the State will occur with this project scope. Any tree clearing will be confined near Structure M11-X1-30A and/or small (less than 3" DBH) tree of heaven within the ROW. All tree clearing will occur between October 1 and March 31 USFWS tree clearing dates for consideration of bat habitat.

5. Proposed Best Management Practices

Best management practices will be followed for all potential stormwater impacts or runoff areas. These will include the use of fiber roll to collect any runoff/sediment. With no in-water impacts anticipated stormwater runoff and sediment deposition are expected to be minimal.

Conclusion

Based on the physical site characteristics, the site contains poor quality habitat for the federally endangered Indiana and NLE bat based on the woody species composition and intensity of surrounding land use. All tree clearing activities will be conducted during the USFWS recommended winter tree clearing window between October 1 and March 31.

We are requesting a review by your office and a written response regarding effects on state listed threatened and/or endangered species and their critical habitat within the vicinity of the project area. Enclosed for your review are the project location map, aerial map and photograph log.

If you have any questions concerning this request or would like additional information, please do not hesitate to contact me at (513) 404-6251 or danielle.thompson@cardno.com.

Sincerely,

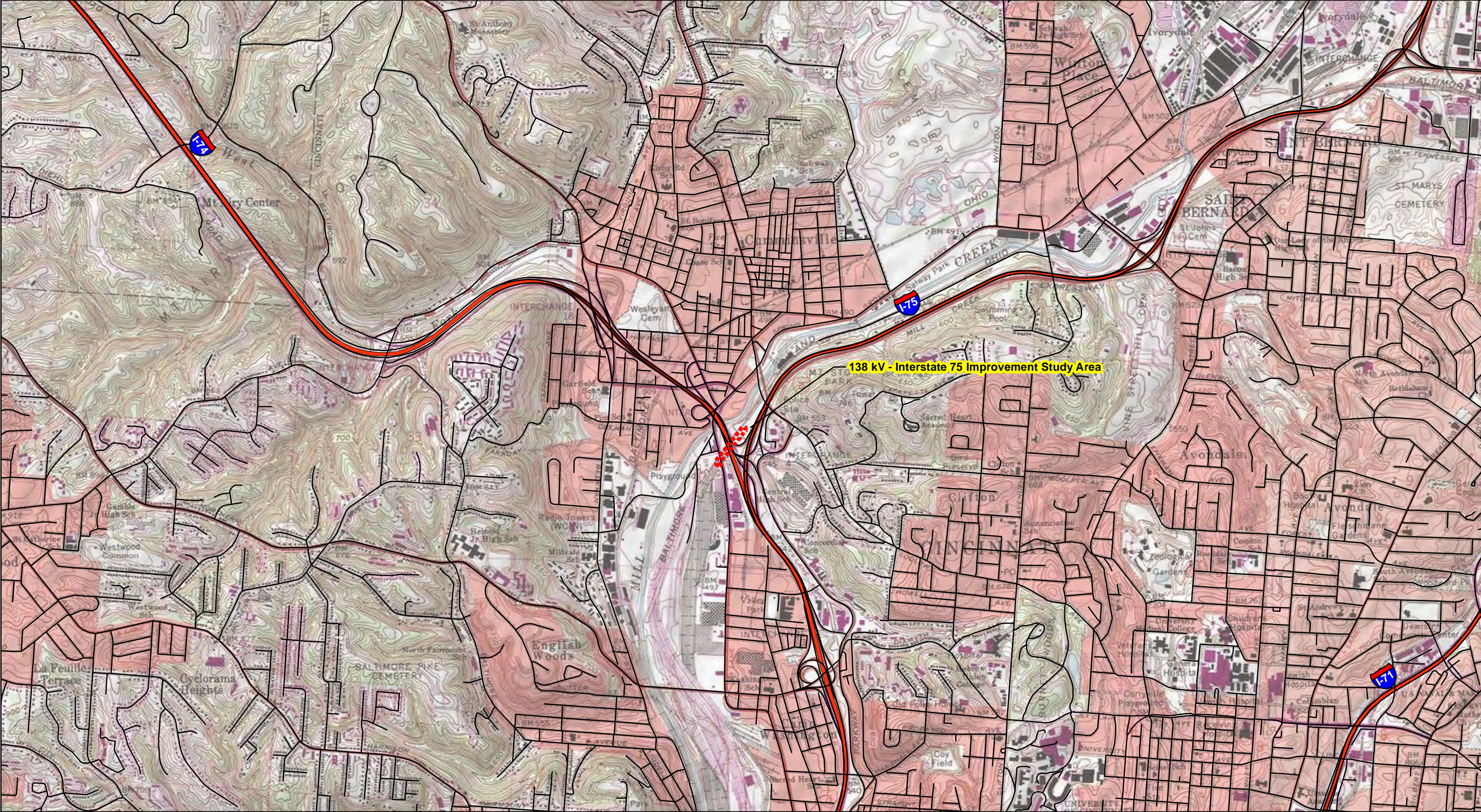
A handwritten signature in blue ink, appearing to read "Danielle K. Thompson".

Danielle K. Thompson,
Senior Project Scientist for Cardno

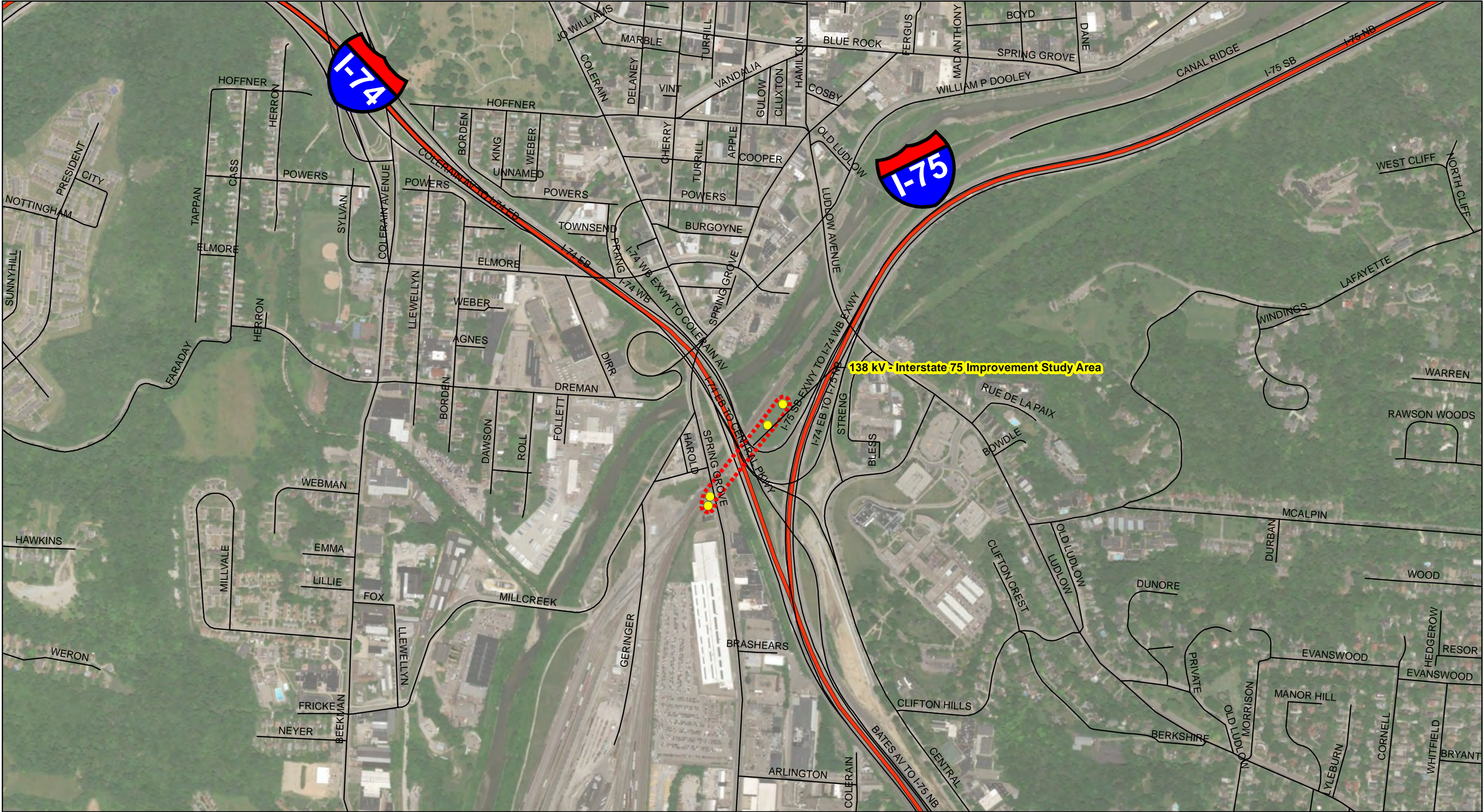
Enc: USGS map, Aerial Map, Site Plans, Photo Log, GIS Shapefile

Attachments

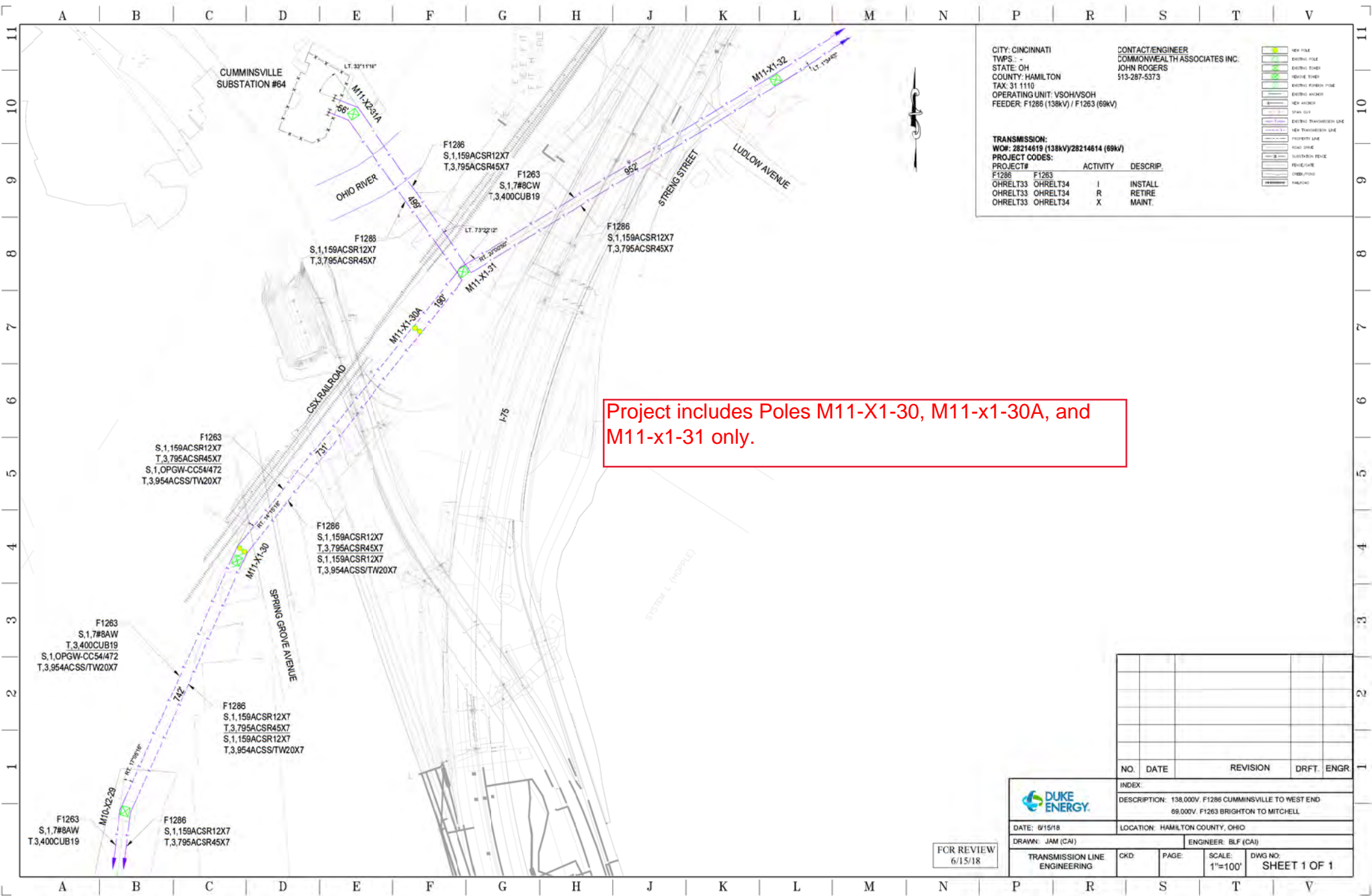
USGS Map
Aerial Location Map
Site Plans
Photo Log



<p>PROJECT LOCATION</p>  <p>HAMILTON COUNTY, OHIO</p>	<p>REFERENCE: ROUTE CENTERLINE AND FACILITY Duke Energy USGS 7.5' TOPOGRAPHIC QUADRANGLES ESRI's Online USA Topo, accessed 10/29/2018 ESRI's USA Major Roads, accessed 10/29/2018</p>	<p>— Roads</p> <p>— Interstate</p> <p>StudyArea</p>	<div></div> <div><p>0 500 1,000 2,000 Feet</p></div>	<p>FIGURE 1 Location Map</p> <p>Wetland Delineation Report</p> <p>138 kV - I-75 Improvement</p> <div><p>DRAWN BY: DKT</p><p>CHECKED: CAJ</p></div> <div><p>DATE: 10/29/2018</p><p>APPROVED: CAJ</p></div>
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<p>PROJECT LOCATION</p>  <p>HAMILTON COUNTY, OHIO</p>	<p>REFERENCE: ROUTE CENTERLINE AND FACILITY Duke Energy USGS 7.5 TOPOGRAPHIC QUADRANGLES ESRI's Online USA Topo, accessed 10/29/2018 ESRI's USA Major Roads, accessed 10/29/2018</p>	<ul style="list-style-type: none"> Duke Structure Roads Interstate Study Area	 	<p>FIGURE 2 Project Aerial Map</p> <p>Wetland Delineation Report</p> <p>138 kV - I-75 Improvement</p> <table><tr><td data-bbox="2449 1895 2735 1959">DRAWN BY: DKT CHECKED: CAJ</td><td data-bbox="2735 1895 3052 1959">DATE: 10/29/2018 APPROVED: CAJ</td></tr></table>	DRAWN BY: DKT CHECKED: CAJ	DATE: 10/29/2018 APPROVED: CAJ
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CITY: CINCINNATI
TWPS: -
STATE: OH
COUNTY: HAMILTON
TAX: 311110
OPERATING UNIT: VSOH/VSOH
FEEDER: F1286 (138kV) / F1263 (69kV)

CONTACT/ENGINEER
COMMONWEALTH ASSOCIATES INC.
JOHN ROGERS
513-287-5373

TRANSMISSION:
WOW: 28214619 (138kV)/28214614 (69kV)
PROJECT CODES:
PROJECT# ACTIVITY DESCRIP.
F1286 F1263
OHRELT33 OHRELT34 I INSTALL
OHRELT33 OHRELT34 R RETIRE
OHRELT33 OHRELT34 X MAINT.



Project includes Poles M11-X1-30, M11-x1-30A, and M11-x1-31 only.

NO.	DATE	REVISION	DRFT.	ENGR.

		INDEX:	
DATE: 6/15/18		DESCRIPTION: 138,000V F1286 CUMMINSVILLE TO WEST END	
DRAWN: JAM (CAI)		LOCATION: HAMILTON COUNTY, OHIO	
TRANSMISSION LINE ENGINEERING		ENGINEER: BLF (CAI)	
CKD:	PAGE:	SCALE: 1"=100'	DWG NO: SHEET 1 OF 1

FOR REVIEW
6/15/18



Photo 1. ROW Corridor, North side of US-27, facing Northeast.



Photo 2. ROW Corridor, North side of US-27, facing Southwest.



Photo 3. ROW Corridor, Industrial Vegeta, facing Northwest.



Photo 4. ROW Corridor, South side of US-27, facing Southwest.



Photo 5. ROW Corridor, industrial vegetation, facing northeast.



Photo 6. ROW Corridor, near Train Tracks, facing Northwest.

Attachment D

Regulated Waters Delineation Report

Regulated Waters Delineation Report

F1286/F1263– 138kV/69kV Cumminsville (I-75)
Improvement

Hamilton County, Ohio

November 5, 2018



Document Information

Prepared for Duke Energy
Client Contact Dustin Geisler (Duke Energy)
Project Name F1286/F1263-138kV/69kV Cummins ville (I-75) Improvement
Project Number Cardno #J156720M74
Duke #F1286/F1263
Project Manager Cori Jansing (Cardno)
Date November 7, 2018

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Prepared by:



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Acronyms

APA	Administrative Procedure Act
BF	Bank Full
CFR	Code of Federal Regulations
CWA	Clean Water Act
DBH	Diameter at Breast Height
DP	Data Point
EPA	U.S. Environmental Protection Agency
ETR	Endangered, Threatened, and Rare
FAC	Facultative Plant
FACU	Facultative Upland Plant
FACW	Facultative Wetland Plant
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GIS	Geographical Information System
MS4	Municipal Separate Storm Water Sewer Systems
NHD	National Hydrography Dataset
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Department of Agriculture Natural Resources Conservation Service
NWP	Nationwide Permit
NWPL	National Wetland Plant List
OBL	Obligate Wetland Plant

OEPA	Ohio Environmental Protection Agency
ODNR	Ohio Department of Natural Resources
OHWM	Ordinary High Water Mark
PEM	Palustrine Emergent Wetland
PFO	Palustrine Forested Wetland
PLSS	Public Land Survey Section
PSS	Palustrine Shrub Scrub Wetland
RGP	Regional General Permit
SNE	Significant Nexus
SWANCC	Solid Waste Agency of Northern Cook County
TNW	Traditional Navigable Water
TOB	Top of Bank
UPL	Upland Plant
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WOTUS	Waters of the United States
WQC	Water Quality Certification

1 Introduction

Cardno was contracted to perform a water resource inventory, including wetlands and streams, which are located at the Duke Energy F1286/F1263-138kV/69kV Cumminsville (I-75) Improvement Project Area and potential access points (total 2.31 acres) in the City of Cincinnati, Hamilton County, Ohio. The field investigation was performed on October 29, 2018. Table 1-1 summarizes the location of the Survey Area based on the Public Land Survey Section (PLSS) data.

Table 1-1 PLSS within the F1286/F1263 138kV/69kV Cumminsville (I-75) Improvement Project Study Area

Township	Range	Section
3E	2N	27

The total size of the Survey Area was approximately 2.31 acres. The Survey Area consisted of two habitats; industrial turf/shrub and maintained right-of-way.

This report identifies the jurisdictional status of aquatic features identified within the Survey Area based on Cardno's best professional understanding and interpretation of the *Corps of Engineers' Wetland Delineation Manual* (Environmental Laboratory, 1987) and U.S. Army Corps of Engineers' (USACE) guidance documents and regulations. Jurisdictional determinations for other "waters of the U.S." were made based on definitions and guidance found in 33 CFR 328.3, USACE Regulatory Guidance Letters, and the wetland delineation manual. The USACE administers Section 404 of the Clean Water Act (CWA), which regulates the discharge of fill or dredged material into all "waters of the U.S.," and is the regulatory authority that must make the final determination as to the jurisdictional status of the Survey Area.

2 Regulatory Definitions

2.1 Waters of the United States

"Waters of the U.S." are within the jurisdiction of the USACE under the CWA. "Waters of the U.S." is a broad term, which includes waters that are used or could be used for interstate commerce. This includes wetlands, ponds, lakes, territorial seas, rivers, tributary streams including any definable intermittent waterways, and some ditches below the ordinary high water mark (OHWM). Also included are manmade water bodies such as quarries and ponds, which are no longer actively being mined or constructed and are connected to other "waters". Wetlands, mudflats, vegetated shallows, riffle and pool complexes, coral reefs, sanctuaries, and refuges are all considered special aquatic sites which involve more rigorous regulatory permitting requirements. A specific, detailed definition of "waters of the U.S." can be found in the Federal Register (33 CFR 328.3).

On January 9, 2001, the U.S. Supreme Court issued a decision, *Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers* (No. 99-1178). The decision reduced the regulation of isolated wetlands under Section 404 of the CWA, which assigned the USACE authority to issue permits for the discharge of dredge or fill material into "waters of the U.S.". Prior

to the SWANCC decision, the USACE had adopted a regulatory definition of "waters of the U.S." that afforded federal protection for almost all of the nation's wetlands. The Supreme Court decision interpreted that the USACE's jurisdiction was restricted to navigable waters, their tributaries, and wetlands that are adjacent to these navigable waterways and tributaries. The decision leaves the majority of "isolated" wetlands unregulated by the CWA. Therefore, most wetlands that are not adjacent to, or contiguous with, any other "waters of the U.S." via a surface drain such as a swale, ditch, or stream are considered isolated and thus no longer jurisdictional by the USACE.

On June 19, 2006, the U.S. Supreme Court issued decisions in regards to *John A. Rapanos v. United States* (No. 04-1034) and *June Carabell v. United States* (04-1384), et al. The plurality decision created two 'tests' for determining CWA jurisdiction: the permanent flow of water test (set out by Justice Scalia) and the "significant nexus" test (set out by Justice Kennedy). On June 5, 2007 the USACE and U.S. Environmental Protection Agency (EPA) issued joint guidance on how to interpret and apply the Court's ruling. According to this guidance, the USACE will assert jurisdiction over traditionally navigable waters, adjacent wetlands, and non-navigable tributaries of traditionally navigable waters that have "relatively permanent" flow, and wetlands that border these waters, regardless of whether or not they are separated by roads, berms, and similar barriers. In addition, the USACE will use a case-by-case "significant nexus" analysis to determine whether waters and their adjacent wetlands are jurisdictional. A "significant nexus" can be found where waters, including adjacent wetlands, alter the physical, biological, or chemical integrity of the traditionally navigable water based on consideration of several factors.

In January 2015 an EPA sponsored publication, *Connectivity of Streams & Wetlands to Downstream Waters: A Review & Synthesis of the Scientific Evidence* (EPA, 2015), emphasized how streams, nontidal wetlands, and open waters in and outside of riparian areas and floodplains effect downstream waters such as rivers, lakes, estuaries, and oceans.

On May 27, 2015 the EPA released a statement that a new Clean Water Rule typically referred to as, "The Waters of the United States (WOTUS) Rule" was finalized and that it would "not create any new permitting requirements and maintains all previous exemptions and exclusions" (epa.gov). The rule would only protect waters that have historically been covered by the Clean Water Act. The intent was to clearly define:

- Jurisdictional limits of tributaries of navigable waterways;
- Set boundaries on covering nearby waters;
- Identify specific national water treasures by name (prairie potholes, etc.);
- Clearly define when a ditch is jurisdictional, and when it is not;
- Maintain status that waters within Municipal Separate Storm Water Sewer Systems (MS4) are not jurisdictional; and
- Reduce the use of case-specific analysis of waters.

Also on May 27, 2015 a publication, *Technical Support Document for the Clean Water Rule: Definition of Waters of the United States* (EPA, 2105), was released discussing in detail why the significant nexus (SNE) between one water and another is important. It specifically ties distances to the various types of waters mentioned within the Code of Federal Regulations [33 CFR 328.3(a)(1) through (a)(8)]. For example, the document states "Waters located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas and waters located more than 1,500 feet and less than 4,000 feet from the lateral limit of an (a)(1) or (a)(3)

water may still be determined to have a significant nexus on a case-specific basis under paragraph (a)(8) of the rule and, thus, be a “water of the United States” (EPA 2015).

On June 29, 2015 the new Clean Water Rule was entered into the Federal Register (40 CFR Parts 110, 112, 116, et al. Clean Water Rule: Definition of “waters of the United States”; Final Rule). This report will refer to this rule as “June 29, 2015 WOTUS Rule”. This rule includes exact distances mentioned in the May 27, 2015 Technical Support Document as it relates to adjacent waters, including the following:

- Waters within 100 ft. of jurisdictional waters;
- Waters within the 100-year floodplain to a maximum of 1,500 feet from the ordinary high water mark (OHWM);
- Waters within the 100-year floodplain with a SNE to the Traditional Navigable Water (TNW); and
- Waters with a SNE within 4,000 ft. of jurisdictional waters.

On October 9, 2015 the U.S. Court of Appeals for the Sixth Circuit (Court) issued a nationwide stay against the enforcement of the June 29, 2015 WOTUS Rule. The Court stated, “...we conclude that...Justice Kennedy’s opinion in *Rapanos* represents the best instruction on the permissible parameters of “waters of the United States” as used in the Clean Water Act, it is far from clear that the new Rule’s distance limitations are harmonious with the instruction.

Moreover, the Court stated that the rulemaking process by which the distance limitations were adopted is facially suspect. Petitioners contend the proposed rule that was published, on which interested persons were invited to comment, did not include any proposed distance limitations in its use of terms like “adjacent waters” and “significant nexus.” Consequently, petitioners contend, the Final Rule cannot be considered a “logical outgrowth” of the rule proposed, as required to satisfy the notice-and-comment requirements of the APA, 5 U.S.C. § 553. As a further consequence of this defect, petitioners contend, the record compiled by respondents is devoid of specific scientific support for the distance limitations that were included in the Final Rule. They contend the Rule is therefore not the product of reasoned decision-making and is vulnerable to attack as impermissibly “arbitrary or capricious” under the APA, 5 U.S.C. § 706(2).”

Until further notice, the June 29, 2015 WOTUS Rule is not in effect. Furthermore, this report does not attempt to include a professional opinion as it relates to the June 29, 2015 WOTUS Rule.

2.2 Waters of the State

“Waters of the State” are within the jurisdiction of the Ohio Environmental Protection Agency (OEPA). They are generally defined as surface and underground water bodies, which extend through or exist wholly in the State of Ohio, which includes, but is not limited to, streams and both isolated and non-isolated wetlands. Private ponds, or any pond, reservoir, or facility built for reduction of pollutants prior to discharge are not included in this definition. In addition to “waters of the U.S.”, OEPA also regulates and issues permits for isolated wetland impacts.

OEPA relies on the USACE decision regarding wetland determinations and delineations including whether or not a wetland is isolated or non-isolated.

2.3 Wetlands

Wetlands are a category of “waters of the U.S.” for which a specific identification methodology has been developed. As described in detail in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987), wetland boundaries are delineated using three criteria:

hydrophytic vegetation, hydric soils, and wetland hydrology. In addition to the criteria defined in the 1987 Manual, the procedures described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (Environmental Laboratory, 2012) were used to evaluate the Survey Area for the presence of wetlands.

2.3.1 Hydrophytic Vegetation

On June 1, 2012, the National Wetland Plant List (NWPL), formerly called the National List of Plant Species that Occur in Wetlands (Reed 1988), went into effect after being released by the U.S. Army Corps of Engineers (USACE) as part of an interagency effort with the U.S. Fish and Wildlife Service (USFWS), the U.S. Environmental Protection Agency (EPA), and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) (Lichvar and Kartesz, 2009). The NWPL, along with the information implied by its wetland plant species status ratings, provides general botanical information about wetland plants and is used extensively in wetland delineation, restoration, and mitigation efforts. The NWPL consists of a comprehensive list of wetland plant species that occur within the United States along with their respective wetland indicator statuses by region. An indicator status reflects the likelihood that a particular plant species occurs in a wetland or upland (Lichvar et al. 2012). Definitions of the five indicator categories are presented below.

OBL (Obligate Wetland Plants): almost always occur in wetlands. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface. These plants are of four types: submerged, floating, floating-leaved, and emergent.

FACW (Facultative Wetland Plants): usually occur in wetlands, but may occur in non-wetlands. These plants predominately occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.

FAC (Facultative Plants): occur in wetlands and non-wetlands. These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH, and elevation, and they have a wide tolerance of soil moisture conditions.

FACU (Facultative Upland Plants): usually occur in non-wetlands, but may occur in wetlands. These plants predominately occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.

UPL (Upland Plants): almost never occur in wetlands. These plants occupy mesic to xeric non-wetland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

According to the USACE's Eastern Mountains and Piedmont Region Regional Supplement, plants that are rated as FAC, FACW, or OBL are classified as wetland plant species. The percentage of dominant wetland species in each of the four vegetation strata (tree, shrub/sapling, herbaceous, and woody vine) in the sample area determines the hydrophytic (wetland) status of the plant community. Dominant species are chosen independently from each stratum of the community. In general, dominants are the most abundant species that individually or collectively account for

more than 50 percent of the total coverage of vegetation in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total.

For the purposes of determining dominant plant species, the four vegetation strata are defined. Trees consist of woody species 3 inches or greater in diameter at breast height (DBH). Shrubs and saplings are woody species that are over 1 meter in height and less than 3 inches DBH. Herbaceous species consist of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants less than 1 meter tall. Woody vines consist of vine species greater than 1 meter in height, such as wild grapes.

2.3.2 Hydric Soils

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. In general, hydric soils are flooded, ponded, or saturated for a week or more during the growing season when soil temperatures are above 32 degrees Fahrenheit. The anaerobic conditions created by repeated or prolonged saturation or flooding result in permanent changes in soil color and chemistry, which are used to differentiate hydric from non-hydric soils.

In this report, soil colors are described using the Munsell notation system. This method of describing soil color consists of separate notations for hue, value, and chroma that are combined in that order to form the color designation. The hue notation of a color indicates its relation to red, yellow, green, blue, and purple; the value notation indicates its lightness, and the chroma notation indicates its strength or departure from a neutral of the same lightness.

The symbol for hue consists of a number from 1 to 10, followed by the letter abbreviation of the color. Within each letter range, the hue becomes more yellow and less red as the numbers increase. The notation for value consists of numbers from 0 for absolute black, to 10 for absolute white. The notation for chroma consists of numbers beginning with /0 for neutral grays and increasing at equal intervals. A soil described as 10YR 3/1 soil is more gray than a soil designated 10YR 3/6.

2.3.3 Wetland Hydrology

Wetland hydrology is defined as the presence of water for a significant period of time at or near the surface (within the root zone) during the growing season. Wetland hydrology is present only seasonally in many cases, and is often inferred by indirect evidence. Hydrology is controlled by such factors as seasonal and long-term rainfall patterns, local geology and topography, soil type, local water table conditions, and drainage. Primary indicators of hydrology are inundation, soil saturation in the upper 12 inches of the soil, watermarks, sediment deposits, and drainage patterns. Secondary indicators such as oxidized root channels in the upper 12 inches of the soil, water-stained leaves, local soil survey data, and the FAC-neutral vegetation test are sometimes used to identify hydrology. A primary indicator or two or more secondary indicators are required to establish a positive indication of hydrology.

2.3.4 Wetland Definition Summary

In general, an area must meet all three criteria to be classified as a wetland. In certain problem areas such as seasonal wetlands, which are not wet at all times, or in recently disturbed (atypical) situations, areas may be considered a wetland if only two criteria are met. In special situations, an area that meets the wetland definition may not be within the USACE's jurisdiction due to a specific regulatory exemption.

2.4 Streams, Rivers, Watercourses & Jurisdictional Ditches

With non-tidal waters, in the absence of adjacent wetlands, the extent of the USACE's jurisdiction is defined by the OHWM. USACE regulations define the term "ordinary high water mark" for purposes of the CWA lateral jurisdiction at 33 CFR 328.3(e), which states:

The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Streams, rivers, watercourse, and ditches within the Survey Area were evaluated using the above definition and documented. Waterways that did exhibit an OHWM were recorded and evaluated using the Ohio Environmental Protection Agency's Primary Headwater Habitat Evaluation (HHEI) or Qualitative Habitat Evaluation Index (QHEI) methodology. If applicable, the results of the HHEI and/or QHEI are presented in Section 3.2, Technical Descriptions and datasheets are provided in the Appendix B.

2.5 Endangered Species Act

Endangered, Threatened, and rare (ETR) species are protected at both the state and federal level (ORC 1531.25 and 50 CFR 17.11 through 17.12, respectively). The Ohio Revised Code defines "Take" as to harass, hunt, capture, or kill; or attempt to harass, hunt, capture, or kill.

The USFWS, under authority of the Endangered Species Act of 1973 (16 U.S. Code 1531), as amended, has the responsibility for federally listed species. The Ohio Department of Natural Resources (ODNR) has the responsibility for state listed species.

3 Background Information

3.1 Existing Maps

Several sources of information were consulted to identify potential wetlands and wetland soil units on the site. These include the USFWS's *National Wetland Inventory* (NWI), the USGS's *National Hydrography Dataset* (NHD), and the Natural Resources Conservation Service's (NRCS) *Soil Survey* for this county. These maps identify potential wetlands and wetland soil units on the site. The NHD maps are used to portray surface water. The NWI maps were prepared from high altitude photography and in most cases were not field checked. Because of this, wetlands are sometimes erroneously identified, missed, or misidentified. Additionally, the criteria used in identifying these wetlands were different from those currently used by the USACE. The county soil maps, on the other hand, were developed from actual field investigations. However, they address only one of the three required wetland criteria and may reflect historical conditions rather than current site conditions. The resolution of the soil maps limits their accuracy as well. The mapping units are often generalized based on topography and many mapping units contain inclusions of other soil types for up to 15 percent of the area of the unit. The USACE does not accept the use of either of these maps to make wetland determinations.

3.1.1 National Wetland Inventory

The NWI map of the area (Figure 1) did not identify any wetland features within the Survey Area.

3.1.2 Soil Survey

The NRCS Soil Survey identified 4 soil types located within the Survey Area (Figure 3). The following table identifies the soil unit symbol, soil unit name, and whether or not the soil type contains components that meet the hydric soil criteria.

Table 3 – 2 Soil Map Units within the F1286/F1263-138kV/69kV Cumminsville (I-75) Improvement Survey Area

Symbol	Description	Hydric
UrO	Urban land, 0 to 12 percent slopes, occasionally flooded	N
UrUXC	Urban land-Udorthents complex, 0 to 12 percent slopes	N
UrUXCO	Urban land-Udorthents complex, 0 to 12 percent slopes, occasionally flooded	N
UsUXF	Urban land-Udorthents complex, smoothed, 0 to 50 percent slopes	N

4 Methodology and Description

4.1 Regulated Waters Investigation

The delineation of regulated waters within the Survey Area was based on the methodology described in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (Environmental Laboratory, 2012) as required by current USACE policy.

Prior to the field work, the background information was reviewed to establish the probability and potential location of wetlands on the site. Next, a general reconnaissance of the Survey Area was conducted to determine site conditions. The site was then walked with the specific intent of determining wetland boundaries. Data stations were established at locations within and near the wetland areas to document soil characteristics, evidence of hydrology and dominant vegetation. Note that no attempt was made to examine a full soil profile to confirm any soil series designations. However, when possible, soils were examined to a depth of at least 16 inches to assess soil characteristics and site hydrology. Complete descriptions of typical soil series can be found in the soil survey for these counties.

4.1.1 Site Photographs.

Photographs of the site are located in Appendix A. These photographs are the visual documentation of site conditions at the time of inspection. The photographs are intended to provide representative visual samples of any wetlands or other special features found on the site.

4.1.2 Delineation Data Sheets.

Where stations represent a wetland boundary point they are presented as paired data points (dp), one each documenting the wetland and upland sides of the wetland boundary. These forms are the written documentation of how representative sample stations met or did not meet each of the wetland criteria. For plant species included on the National Wetlands Plant List, nomenclature will follow their lead. For all other plants not listed in the NWPL, nomenclature will follow the USDA's Plants Database.

4.2 Technical Descriptions

The project included the review of a 100-ft wide survey corridor approximately 0.2 miles long (the “Survey Area”), located in the City of Cincinnati, Hamilton County, Ohio (see Figure 1). The Survey Area consists of approximately 2.31 acres, with an actual project earth disturbance potential of approximately 0.1 acre (access routes). The F1286/f1263 – 138kV/69kV Cumminsville (I-75) Improvement Project initiates at Duke Energy Structure M11-X1-30 (39.1509, -84.5420) located south of Ralston Avenue, west of Spring Grove Avenue, and east of the railroad tracks, and terminates at Duke Energy Structure M11-X1-301 (39.1529, -84.5401) located north of Interstate 74, south of South Ludlow Drive, and west of Interstate 75. The Survey Area consisted of three habitats: industrial turf/shrub, and maintained right-of-way.

4.2.1 Wetland and Stream Descriptions

No wetlands or streams were identified within the Survey Area.

4.3 Endangered, Threatened and Rare Species

The potential for listed species known to occur within Hamilton County were evaluated based on the habitat observed within the Survey Area. In addition, high quality natural communities and significant natural habitat areas were documented if encountered. A walking survey of the Survey Area was performed in which all observed Endangered, Threatened and Rare (ETR) species or specific known special habitats were noted. Coordination with the U.S. Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources (ODNR) Division of Wildlife occurred as it related to the Natural Heritage Database search results for the Survey Area (Appendix D).

Tables summarizing the results of ETR species as they relate to the habitat observed within the Survey Area are included with this report. Correspondence with the ODNR DOW and the USFWS regarding RTE located within a ½-mile of the Survey Area were sent on October 31, 2018. A copy of the correspondence letter can be found in Appendix B.

Bat Roost Habitat

The Indiana Bat (*Myotis sodalis*, federally endangered) and Northern Long-eared Bat (*Myotis septentrionalis*, federally threatened) are protected under the Endangered Species Act, which is overseen by the USFWS. Typical guidance from USFWS regarding potential bat roost trees is avoidance of cutting trees from April through October. The Survey Area was assessed for potential bat roosting habitat with respect to any indicated clearing activities. Potential bat roost trees include dead or dying trees (including live shagbark hickories) with at least 10-percent exfoliating bark, a diameter at breast height (DBH) of at least 3 inches, and solar exposure for maternity roost trees (the tree is on a wooded edge or in a canopy gap). If applicable, correspondence from USFWS regarding Indiana Bat and Northern Long-eared Bat is included within Appendix B.

Suitable bat roost habitat was not observed within the F1286/F1263-138kV/69kV Cumminsville (I-75) Improvement Survey Area.

5 Jurisdictional Analysis

5.1 U.S. Army Corps of Engineers

The USACE has authority over the discharge of fill or dredged material into “waters of the U.S.”. This includes authority over any filling, mechanical land clearing, or construction activities that occur within the boundaries of any “waters of the U.S.” A permit must be obtained from the USACE before any of these activities occur. Permits can be divided into two general categories: Individual Permits and Nationwide Permits.

Individual Permits are required for projects that do not fall into one of the specific Nationwide Permits (NWP) or are deemed to have significant environmental impacts. These permits are much more difficult to obtain and receive a much higher level of regulatory agency and public scrutiny and may require several months to more than a year for processing.

Nationwide Permits (NWP) have been developed for projects that meet specific criteria and are deemed to have minimal impact on the aquatic environment. There are currently 52 Nationwide Permits for qualifying activities with 31 Nationwide Permit General Conditions that must be satisfied in order to receive NWP consideration from the USACE.

5.2 Ohio Environmental Protection Agency

The OEPA is responsible for issuing Clean Water Act (CWA) Section 401 permits known as Water Quality Certifications (WQC) for all impacts to “waters of the State of Ohio.” This includes authority over any dredging, filling, mechanical land clearing, impoundments or construction activities that occur within the boundaries of any “waters of the State,” including those isolated waters not otherwise regulated by the USACE.

The OEPA issues Section 401 WQC in conjunction with the USACE’ Section 404 permits. A §401 Water Quality Certification must be received before the USACE can issue any §404 Department of the Army Permit. The OEPA must issue Individual §401 WQC for all Individual §404 Permits.

Water quality certification may be granted, without notification to the OEPA, if the project falls under the NWP limitations described above. In order to qualify for this granted certification, all prior-authorized and *de minimis* Ohio State Certification General Limitations and Conditions as published by the OEPA must be satisfied.

The OEPA also requires notification for all impacts to isolated wetlands, which includes a permit application and mitigation plan pursuant to Section 6111 of Ohio Revised Code (ORC).

6 Summary and Conclusion

6.1 Summary

Cardno inspected the F1286/F1263-138kV/69kV Cumminsville (I-75) Improvement Survey Area on October 29, 2018.

6.1.1 Wetlands and Waterways

No wetlands or waterways were identified within the F1286/F1263-138kV/69kV Cumminsville (I-75) Improvement Survey Area.

6.1.2 Endangered, Threatened, and Rare Species

Several sources of information were consulted to further define the potential habitat of listed species that occur within the county of the Survey Area. Correspondence received from USFWS and ODNR-DOW contain lists of the ETR species known to occur within Hamilton County and their potential to occur within the Survey Area based on their habitat requirements and observations during the field survey (Appendix B).

6.1.3 Indiana Bat and Northern Long-eared Bat Roost Habitat

The entire Survey Area was walked to identify potential Indiana Bat and Northern Long-eared Bat roost trees. Based on our field inspection and our best professional judgment, there are no potential roost or maternity roost trees suitable for harboring Indiana Bats and Northern Long-eared Bats within the Survey Area.

The USFWS is the regulatory authority that makes the final determination as to the status of the Indiana Bat and Northern Long-eared Bat in the Survey Area. A letter based on the field observations was submitted to the USFWS for concurrence on October 31, 2018. A copy of the correspondence letter can be found in Appendix B.

6.2 Conclusion

There were no wetlands or streams identified within the Survey Area.

While this report represents our best professional judgment based on our knowledge and experience, it is important to note that the Huntington District of the U.S. Army Corps of Engineers has final discretionary authority over all jurisdictional determinations of 'waters of the U.S.' including wetlands under Section 404 of the CWA in this region. It is therefore, recommended that a copy of this report be furnished to the Huntington District of the U.S. Army Corps of Engineers to confirm the results of our findings.

7 References

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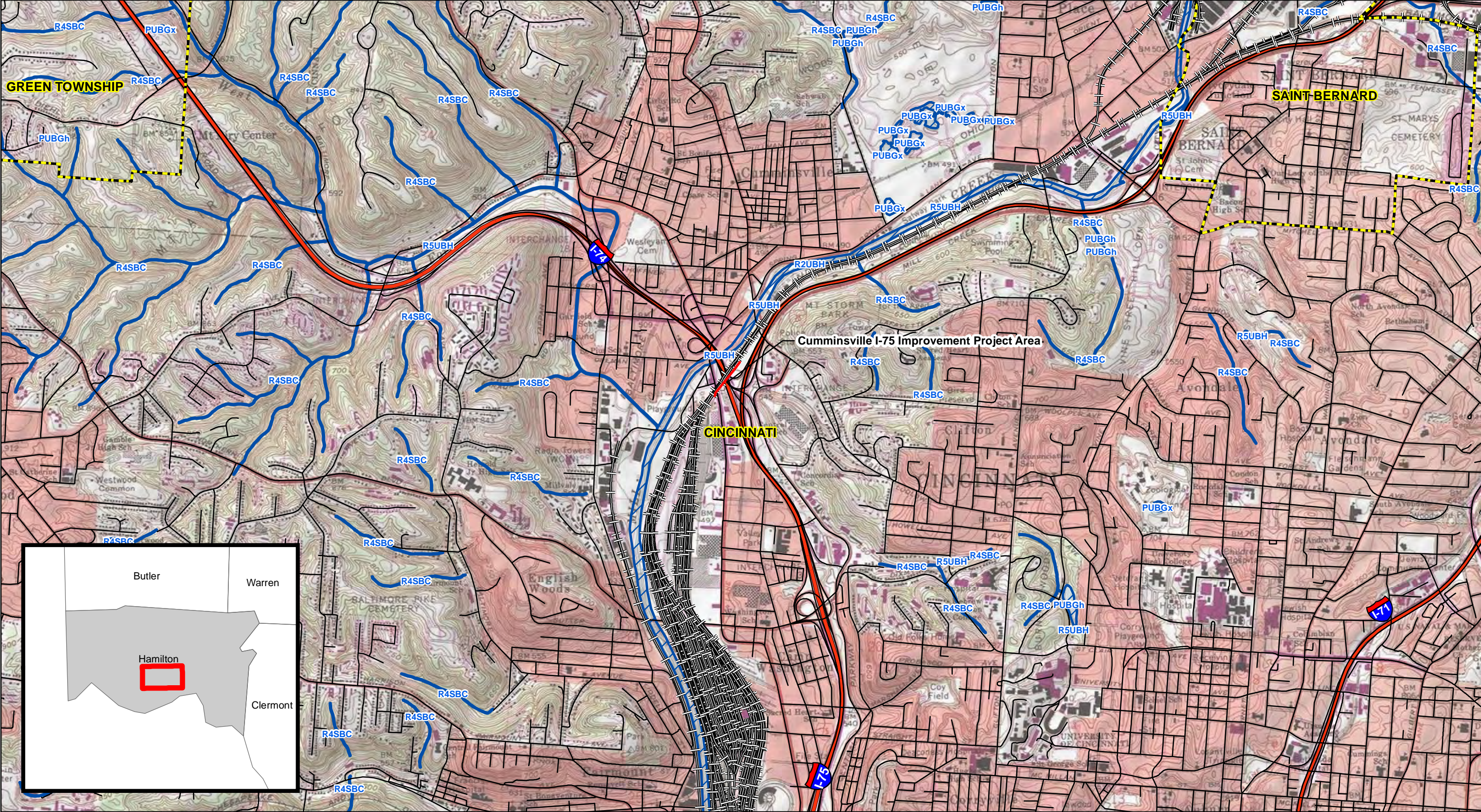
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United States Environmental Protection Agency (EPA). 2015. Technical Support Document for the Clean Water Rule: Definition of Waters of the United States (<http://www.epa.gov/cleanwaterrule>)

DUKE ENERGY
F1263/F1286--138kV/69kV
CUMMINSVILLE (1-75) IMPROVMENT

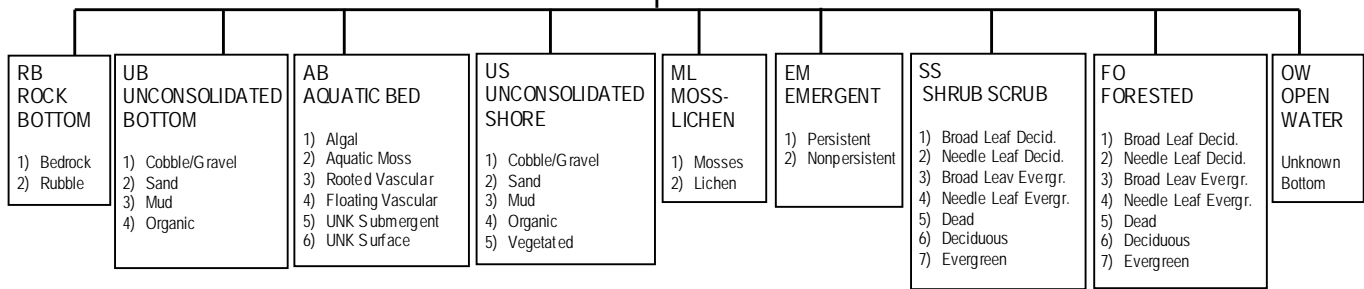
FIGURES



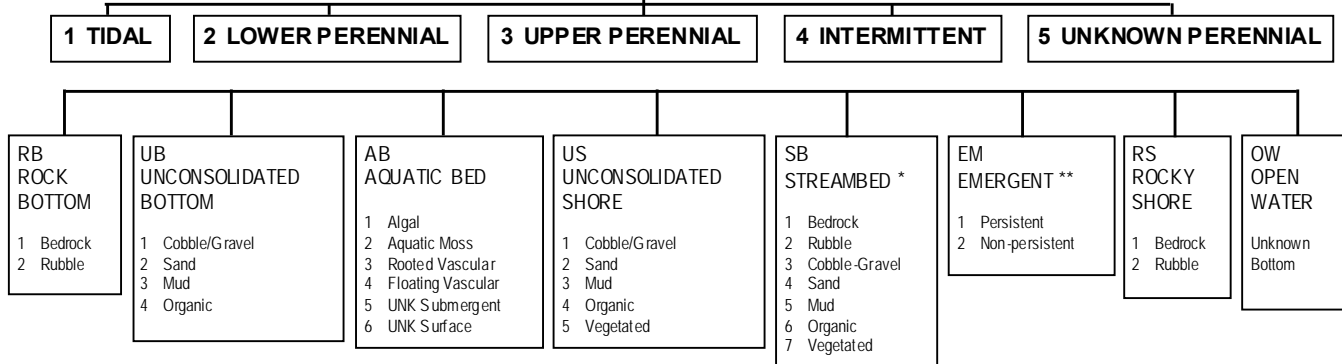
<p>PROJECT LOCATION</p>  <p>HAMILTON COUNTY, OHIO</p>	<p>REFERENCE: ROUTE CENTERLINE AND FACILITY Duke Energy USGS 7.5' TOPOGRAPHIC QUADRANGLES ESRI's Online USA Topo, accessed 11/4/2018 ESRI's USA Major Roads, accessed 11/4/2018</p>	<table border="0"><tr><td> NWI Wetland</td><td> Interstate</td></tr><tr><td> Railroad</td><td> Municipal Boundary</td></tr><tr><td> Centerline</td><td></td></tr><tr><td> Roads</td><td></td></tr></table> <p>0 500,000 2,000 Feet</p>	 NWI Wetland	 Interstate	 Railroad	 Municipal Boundary	 Centerline		 Roads		 	<p>FIGURE 1 REGULATED WATERS DELINEATION REPORT F1286/F1263 - 138kV/69kV CUMMINSVILLE I-75 IMPROVEMENT DUKE ENERGY PROJECT VICINITY MAP</p> <table border="0"><tr><td>DRAWN BY: DKT</td><td>DATE: 11/4/2018</td></tr><tr><td>CHECKED: CAJ</td><td>APPROVED: CAJ</td></tr></table>	DRAWN BY: DKT	DATE: 11/4/2018	CHECKED: CAJ	APPROVED: CAJ
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 Railroad	 Municipal Boundary															
 Centerline																
 Roads																
DRAWN BY: DKT	DATE: 11/4/2018															
CHECKED: CAJ	APPROVED: CAJ															

FRESHWATER WETLAND CLASSIFICATION

P—PALUSTRINE



R—RIVERINE



MODIFYING TERMS

In order to more adequately describe wetland and aquatic habitats water regime, water chemistry, soil of special modifiers may be applied.

WATER REGIME		WATER CHEMISTRY		SOIL	SPECIAL MODIFIERS
NON-TIDAL		INLAND SALINITY pH MODIFIERS FOR FRESHWATER			
A Temporarily Flooded	J Intermittently Flooded	7 Hypersaline	a Acid	g Organic	b Beaver
B Saturated	K Artificially Flooded	8 Eusaline	t Circumneutral	n Mineral	d Partially Drained/Ditched
C Seasonally Flooded	W Intermittently Flooded/ Temporary	9 Mixosaline	i Alkaline		f Farmed
D Seasonally Flooded/ Well-Drained	Y Saturated/Semipermanent/ Seasonal	0 Fresh			h Diked/Impounded
E Seasonally Flooded/Saturated	Z Intermittently Exposed/ Permanent				r Artificial Substrate
F Semipermanently Flooded	U Unknown				s Spoil
G Intermittently Exposed					x Excavated
H Permanently Flooded					

Dominance types must be added by users.

Classification of wetland and deepwater habitats of the U.S. Cowardin et. al. 1979 as modified for national wetland inventory mapping conventions.

Figure 2: NWI KEY

REGULATED WATERS DELINEATION REPORT
F1286/F1263 - 138kV/69kV CUMMINSVILLE
I-75 IMPROVEMENT
DUKE ENERGY
HAMILTON COUNTY, OHIO

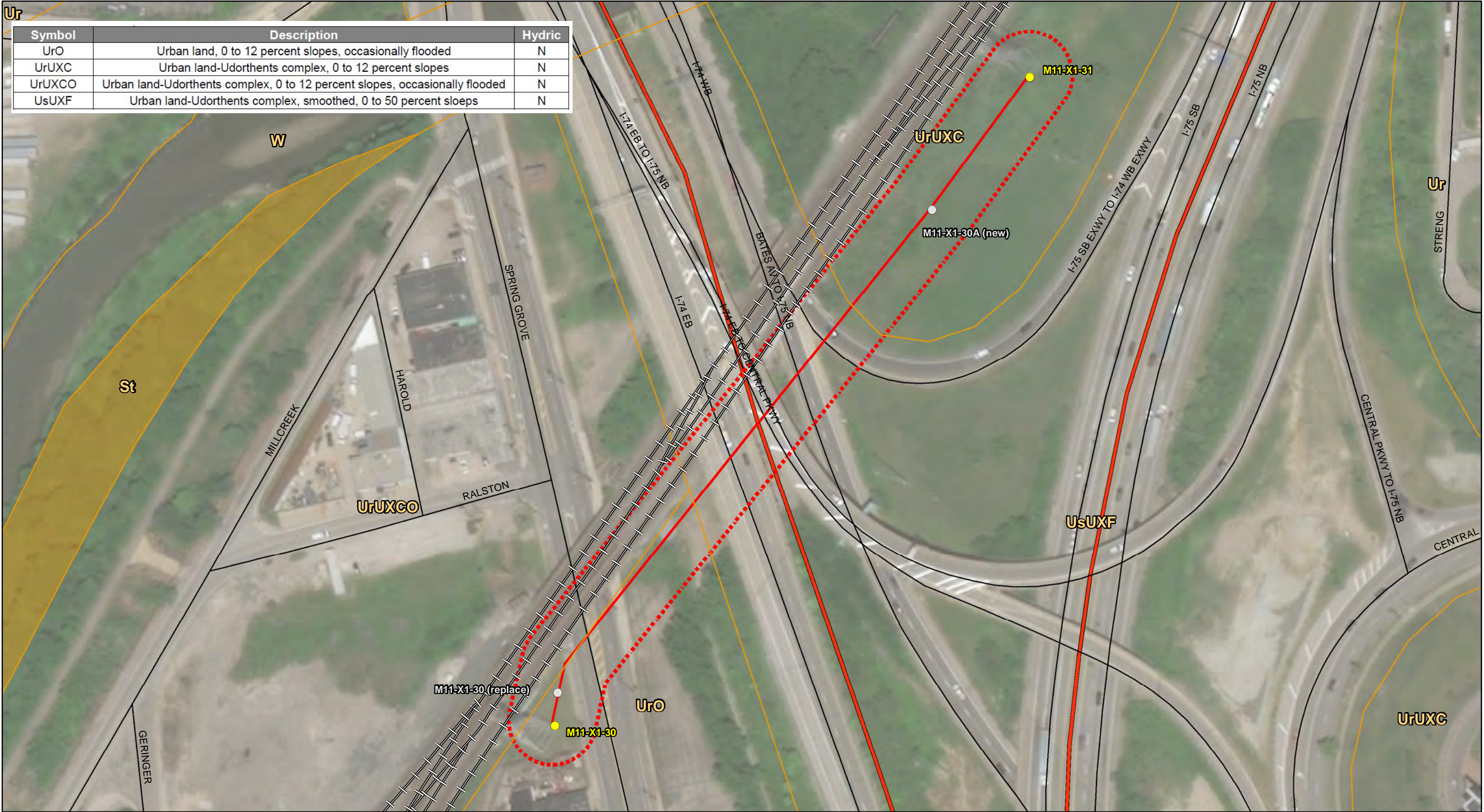


11121 Canal Road, Cincinnati, OH 45241 USA
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Project No.
J156720M74

Date Created: 11/4/2018 Date Revised: 11/4/2018 File Path: R:\Projects\15156\156720M_DukeEnergy\9193\W73_SOW34_SouthFairmount_138kV\GIS\WDX\Delineation\20181104_M74_NWI_KEY.mxd
Data Sources:

Saved By: Danielle Thompson



Symbol	Description	Hydric
UrO	Urban land, 0 to 12 percent slopes, occasionally flooded	N
UrUXC	Urban land-Udorthents complex, 0 to 12 percent slopes	N
UrUXCO	Urban land-Udorthents complex, 0 to 12 percent slopes, occasionally flooded	N
UsUXF	Urban land-Udorthents complex, smoothed, 0 to 50 percent slopes	N

PROJECT LOCATION



HAMILTON COUNTY, OHIO

REFERENCE:
ROUTE CENTERLINE AND FACILITY
Duke Energy
USGS 7.5' TOPOGRAPHIC QUADRANGLES
ESRI's Online USA Topo, accessed 11/4/2018
ESRI's USA Major Roads, accessed 11/4/2018

- | | | | | | |
|---|--------------------|---|--------------------|---|-----------|
| ○ | Proposed Structure | — | Roads | □ | Soil Unit |
| ● | Existing Structure | — | Interstate | | |
| ⚡ | Railroad | ⋮ | 100ft Corridor | | |
| — | Project Centerline | ■ | Soil Unit - Hydric | | |

0 50 100 200 Feet



FIGURE 3
REGULATED WATERS DELINEATION REPORT
F1286/F1263 - 138kV/69kV CUMMINSVILLE
I-75 IMPROVEMENT
DUKE ENERGY
SOIL SURVEY

DRAWN BY: DKT
CHECKED: CAJ

DATE: 11/4/2018
APPROVED: CAJ

DUKE ENERGY
F1263/F1286--138kV/69kV
CUMMINSVILLE (1-75) IMPROVMENT

APPENDIX

A

SITE PHOTOGRAPHS



Photo 1. ROW Corridor, North side of US-27, facing Northeast.



Photo 2. ROW Corridor, North side of US-27, facing Southwest.



Photo 3. ROW Corridor, Industrial Vegetation, facing Northwest.



Photo 4. ROW Corridor, South side of US-27, facing Southwest.

Project Number:
J156720M74

Site Photographs

Duke Energy — F1286/F1263—138kV/69kV Cumminsville
(I-75) Improvement
City of Cincinnati, Hamilton County, Ohio
Regulated Waters Delineation





Photo 5. ROW Corridor, industrial vegetation, facing northeast.



Photo 6. ROW Corridor, Active Train Tracks, facing Northwest.

DUKE ENERGY
F1263/F1286--138kV/69kV
CUMMINSVILLE (1-75) IMPROVMENT

APPENDIX

B

ODNR AND USFWS RTE COORDINATION
LETTERS



October 30, 2018

Mr. John Kessler
Ohio Department of Natural Resources
Office of Real Estate
2045 Morse Road, Building E-2
Columbus, OH 43230

Cardno

11121 Canal Road
Cincinnati, Ohio 45241
USA

Phone 513 489 2402
Fax 513 489 2404

**RE: Duke Energy F1286 – 138kV Cummins ville (I-75) Improvement
Rare, Threatened, and Endangered Species Consultation
Cincinnati, Hamilton County, Ohio**

Dear Mr. Kessler:

Duke Energy (Duke) is proposing to remove and replace approximately 0.2 miles of existing transmission line, encompassing a total study corridor of 2.31 acres of existing 100-foot wide Duke Energy transmission line corridor Right-Of-Way (ROW). A field investigation of the study corridor was conducted on October 29, 2018.

The project study area is located in the City of Cincinnati, Hamilton County, Ohio. The location of the proposed Project is depicted on the attached Cincinnati (OH) USGS 7.5-minute topographic map excerpt (Figure 1).

Cardno was contracted by Duke to perform a boundary delineation and assessment of regulated waters, including wetlands, streams, ditches, and/or other federally regulated open waters, rare, threatened, endangered, and special habitat located within the proposed 0.2 miles of existing 100-ft wide ROW. The project study area was dominated by industrial turf and shrub vegetation assemblages. Cardno botanists and ecologists conducted a habitat assessment to identify the presence of regulated waters, and potential Indiana bat (*Myotis sodalis*), Northern long-eared bat (*Myotis septentrionalis*), and Running Buffalo Clover (*Trifolium stoloniferum*) habitat.

In accordance with the ODNR-DOW Environmental Review coordination requirements; the Project study area and its habitat characteristics has been summarized for you below.

1. Location data including latitude and longitude of the project area, site address, and county.

City of Cincinnati, Mill Creek Township, Hamilton County, Ohio

Initiates: Duke Energy Structure M11-X1-30 (39.1509, -84.5420)

Terminates: Duke Energy Structure M11-X1-31 (39.1529, -84.5401)

2. A detailed project description, including layout of any new construction.

The proposed F1286 – 138kV Cumminsville (I-75) Improvement Project is necessary in order to maintain the integrity of existing Duke structures to ensure adequate power supplies to current and future utility customers in the area. The project is also needed to ensure safety within the existing easements and remain in compliance with current transmission line standards. 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 replacement of one electric transmission tower and addition of one electric transmission tower (2 electrical poles) will occur. Earth moving activities are anticipated to be minimal. 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.

3. A detailed description of onsite habitat, including the size, location, and quality of streams, wetlands, forested areas, and other natural areas, and proposed impacts.

The proposed F1286 – 138kV Cumminsville (I-75) Improvement Project is linear in scope and will take place entirely within existing transmission line corridor and Duke Energy easement (Figure 1 & 2). There were no regulated waters identified within the project's Study Area. Specific attention was given to the presence of habitat suitable for federally endangered and threatened species – specifically, the Indiana bat (*Myotis sodalist*), the Northern Long-Eared bat (*Myotis septentrionalis*), and Running Buffalo Clover (*Trifolium stoloniferum*). To evaluate the potential habitat for rare, threatened, and endangered species a general site reconnaissance of the project study area was performed by Cardno botanists and ecologists. The result of these habitat assessments can be found below.

Industrial Turf/Shrub

The industrial vegetation assemblage was located within the proposed study area. Dominant canopy species in this habitat type consisted of bush honeysuckle (*Lonicera Maackii*), white mulberry (*Morus alba*), and tree of heaven (*Ailanthus altissima*). Understory vegetation present in this habitat type consisted of winter creeper (*Euonymus fortunei*), tall fescue (*Schedonorus arundinaceus*), narrow-leaf plantain (*Plantago lanceolata*), and dandelion (*Taraxacum officinale*). Although a formal study was not part of this scope, no potential habitat for listed species was

identified within this habitat.

4. Proposed impacts (i.e. in-water work or tree clearing)

No impacts to Waters of the U.S. or Waters of the State will occur with this project scope. Any tree clearing will be confined near Structure M11-X1-30A and/or small (less than 3" DBH) tree of heaven within the ROW. All tree clearing will occur between October 1 and March 31 USFWS tree clearing dates for consideration of bat habitat.

5. Proposed Best Management Practices

Best management practices will be followed for all potential stormwater impacts or runoff areas. These will include the use of fiber roll to collect any runoff/sediment. With no in-water impacts anticipated stormwater runoff and sediment deposition are expected to be minimal.

Conclusion

Based on the physical site characteristics, the site contains poor quality habitat for the federally endangered Indiana and NLE bat based on the woody species composition and intensity of surrounding land use. All tree clearing activities will be conducted during the USFWS recommended winter tree clearing window between October 1 and March 31.

We are requesting a review by your office and a written response regarding effects on state listed threatened and/or endangered species and their critical habitat within the vicinity of the project area. Enclosed for your review are the project location map, aerial map and photograph log.

If you have any questions concerning this request or would like additional information, please do not hesitate to contact me at (513) 404-6251 or danielle.thompson@cardno.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Danielle K. Thompson".

Danielle K. Thompson,
Senior Project Scientist for Cardno

Enc: USGS map, Aerial Map, Site Plans, Photo Log, GIS Shapefile



October 31, 2018

Dan Everson
Field Office Supervisor
U.S. Fish and Wildlife Service
4625 Morse Rd Suite 104
Columbus, OH, 43230

Cardno

11121 Canal Road
Cincinnati, Ohio 45241
USA

Phone 513 489 2402
Fax 513 489 2404

**RE: Duke Energy F1286—138kV Cummins ville (I-75) Improvement
Threatened and Endangered Species Consultation
Cincinnati, Hamilton County, Ohio
(Lat. 39.152529; Long. -84.540514)**

www.cardno.com

Dear Mr. Everson:

Duke Energy (Duke) is proposing to remove and replace approximately 0.2 miles of existing transmission line, encompassing a total study corridor of 2.31 acres of existing 100- foot wide Duke Energy transmission line corridor Right-Of-Way (ROW). A field investigation of the study corridor was conducted on October 29, 2018.

The project study area is located in the City of Cincinnati, Hamilton County, Ohio. The location of the proposed Project is depicted on the attached Cincinnati (OH) USGS 7.5-minute topographic map excerpt (Figure 1).

Cardno was contracted by Duke to perform a boundary delineation and assessment of regulated waters, including wetlands, streams, ditches, and/or other federally regulated open waters, rare, threatened, endangered, and special habitat located within the proposed 0.2 miles of existing 100-ft wide ROW. The project study area was dominated by fallow field/riparian and industrial turf vegetation assemblages. Cardno botanists and ecologists conducted a habitat assessment to identify the presence of regulated waters, and potential Indiana bat (*Myotis sodalis*), Northern long-eared bat (*Myotis septentrionalis*), and Running Buffalo Clover (*Trifolium stoloniferum*) habitat.

In accordance with the USFWS Section 7 ESA coordination requirements the Project study area and its habitat characteristics has been summarized for you below.

1. Location data including latitude and longitude of the project area, site address, and county.

City of Cincinnati, Springfield Township, Hamilton County, Ohio

Initiates: Duke Energy Structure M11-X1-30 (39.1509, -84.5420)

Terminates: Duke Energy Structure M11-X1-31 (39.1529, -84.5401)

2. A detailed project description, including layout of any new construction.

The proposed F1286 – 138kV Cumminsville (I-75) Improvement Project is necessary in order to maintain the integrity of existing Duke structures to ensure adequate power supplies to current and future utility customers in the area. The project is also needed to ensure safety within the existing easements and remain in compliance with current transmission line standards as well as to provide additional clearance above the I-75/I-74 interchange. 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 replacement of one electric transmission tower and addition of one electric transmission tower (2 electrical poles) will occur. Earth moving activities are anticipated to be minimal. 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 the January 2019.

3. A detailed description of onsite habitat, including the size, location, and quality of streams, wetlands, forested areas, and other natural areas, and proposed impacts.

The proposed F1286 – 138kV Cumminsville (I-75) Improvement Project is linear in scope and will take place entirely within existing transmission line corridor and Duke Energy easement (Figure 1 & 2). There were no regulated waters identified within the project's Study Area. Specific attention was given to the presence of habitat suitable for federally endangered and threatened species – specifically, the Indiana bat (*Myotis sodalist*), the Northern Long-Eared bat (*Myotis septentrionalis*), and Running Buffalo Clover (*Trifolium stoloniferum*). To evaluate the potential habitat for rare, threatened, and endangered species a general site reconnaissance of the project study area was performed by Cardno botanists and ecologists. The result of these habitat assessments can be found below.

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The industrial vegetation assemblage was located within the proposed study area. Dominant canopy species in this habitat type consisted of bush honeysuckle (*Lonicera maackii*), white mulberry (*Morus alba*), and tree of heaven (*Ailanthus altissima*). Understory vegetation present in this habitat type consisted of winter creeper (*Euonymus fortunei*), tall fescue (*Schedonorus arundinaceus*), narrow-leaf plantain (*Plantago lanceolata*), and dandelion (*Taraxacum officinale*).

Although a formal study was not part of this scope, no potential habitat for listed species was identified within this habitat.

4. A description of the forested habitat onsite, including type of forest, and presence of dead trees, split branches or trunks, and exfoliating bark, and proposed impacts.

The Project study area did not include any mature trees greater than 4" in DBH.

5. Photographs representative of all cover types on the site and encompassing views of the entire site.

See the attached photo exhibit.

6. Conclusion

Based on the physical site characteristics, the site contains low quality habitat for the federally endangered Indiana and Northern Long Eared bat based on the woody species composition and intensity of surrounding land use.

We are requesting a review by your office and a written response regarding effects on federally listed threatened and/or endangered species and their critical habitat within the vicinity of the project area. Enclosed for your review are the project location map, aerial map, proposed site plan, and photo exhibit.

If you have any questions concerning this request or would like additional information, please do not hesitate to contact me at (513) 404-6251 or Danielle.Thompson@cardno.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Danielle K. Thompson".

Danielle K. Thompson
Senior Project Scientist
for Cardno, Inc.

Enc: USGS map, Aerial Map, Site Plans, Photo Exhibit