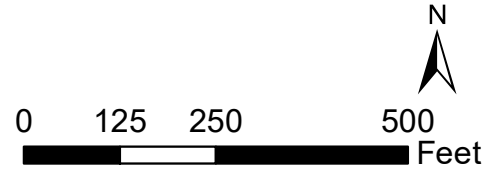


PROJECT LOCATION



WARREN COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: LEBANON AND SOUTH LEBANON, OHIO. OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.



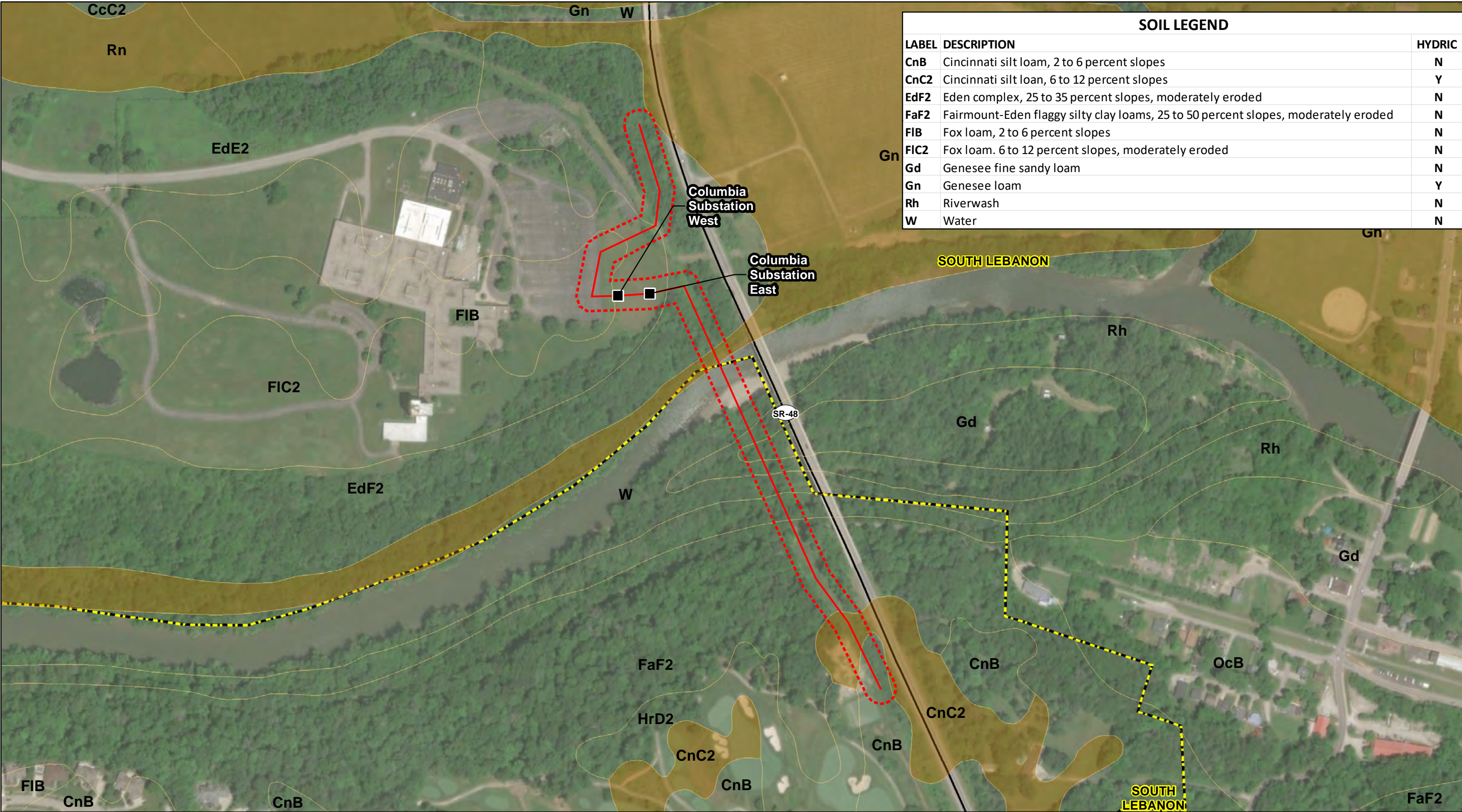
- Existing Facility
- AccessRoute
- Project Centerline
- ROW Survey Area Center Line
- 100ft Corridor
- NWI



FIGURE:2  
STORMWATER POLLUTION PREVENTION PLAN  
F5484 – 138kV COLUMBIA SUBSTATION  
REBUILD AND EXTENSION  
DUKE ENERGY  
National Wetland Inventory

DRAWN BY: COD  
CHECKED: CJ  
DATE: 9/24/2018  
APPROVED: JT





PROJECT LOCATION

WARREN COUNTY, OH

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: LEBANON AND SOUTH LEBANON, OHIO. OBTAINED VIA ESRI USA TOPO, NATIONAL GEOGRAPHIC TOPO, AND USGS, ACCESSED 01/2017.

0 150 300 600 Feet

N

Existing Facility

Project Centerline

100ft Corridor

Interstate

State Highway

US Highway

Railroad

Municipal Boundary

Soil Unit

Soil Unit - Hydric

**FIGURE:3**  
STORMWATER POLLUTION PREVENTION PLAN  
F5484 – 138kV COLUMBIA SUBSTATION  
REBUILD AND EXTENSION  
DUKE ENERGY  
SOIL CLASSIFICATIONS

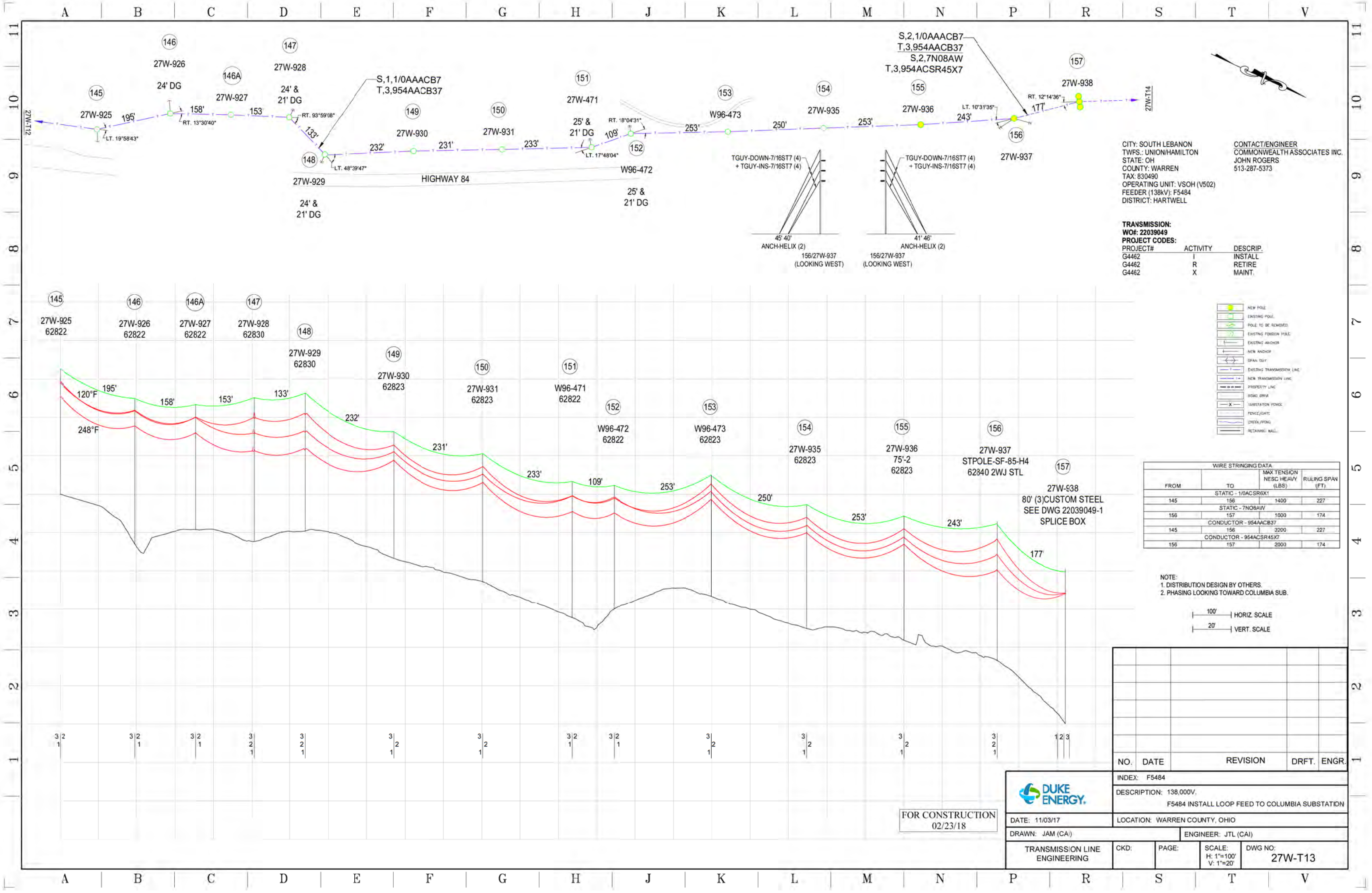
DRAWN BY: COD

CHECKED: CJ

DATE: 9/24/2018

APPROVED: JT





CITY: SOUTH LEBANON  
TOWNSHIP: UNION/HAMILTON  
STATE: OH  
COUNTY: WARREN  
TAX: 830490  
OPERATING UNIT: VSOH (V502)  
FEEDER (138kV): F5484  
DISTRICT: HARTWELL

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

TRANSMISSION:  
WO#: 22039049

PROJECT CODES:

PROJECT#	ACTIVITY	DESCRIP.
G4462	I	INSTALL
G4462	R	RETIRE
G4462	X	MAINT.

- NEW POLE
- EXISTING POLE
- POLE TO BE REMOVED
- EXISTING FOREIGN POLE
- EXISTING ANCHOR
- NEW ANCHOR
- SPAN GUY
- EXISTING TRANSMISSION LINE
- NEW TRANSMISSION LINE
- PROPERTY LINE
- ROAD DRIVE
- SUBSTATION FENCE
- FENCE/GATE
- CHUCK/ROAD
- RETAINING WALL

WIRE STRINGING DATA				
FROM	TO	MAX TENSION NESC HEAVY (LBS)	RULING SPAN (FT)	
145	156	1400	227	
156	157	1000	174	
145	156	3200	227	
156	157	2000	174	

NOTE:  
1. DISTRIBUTION DESIGN BY OTHERS.  
2. PHASING LOOKING TOWARD COLUMBIA SUB.

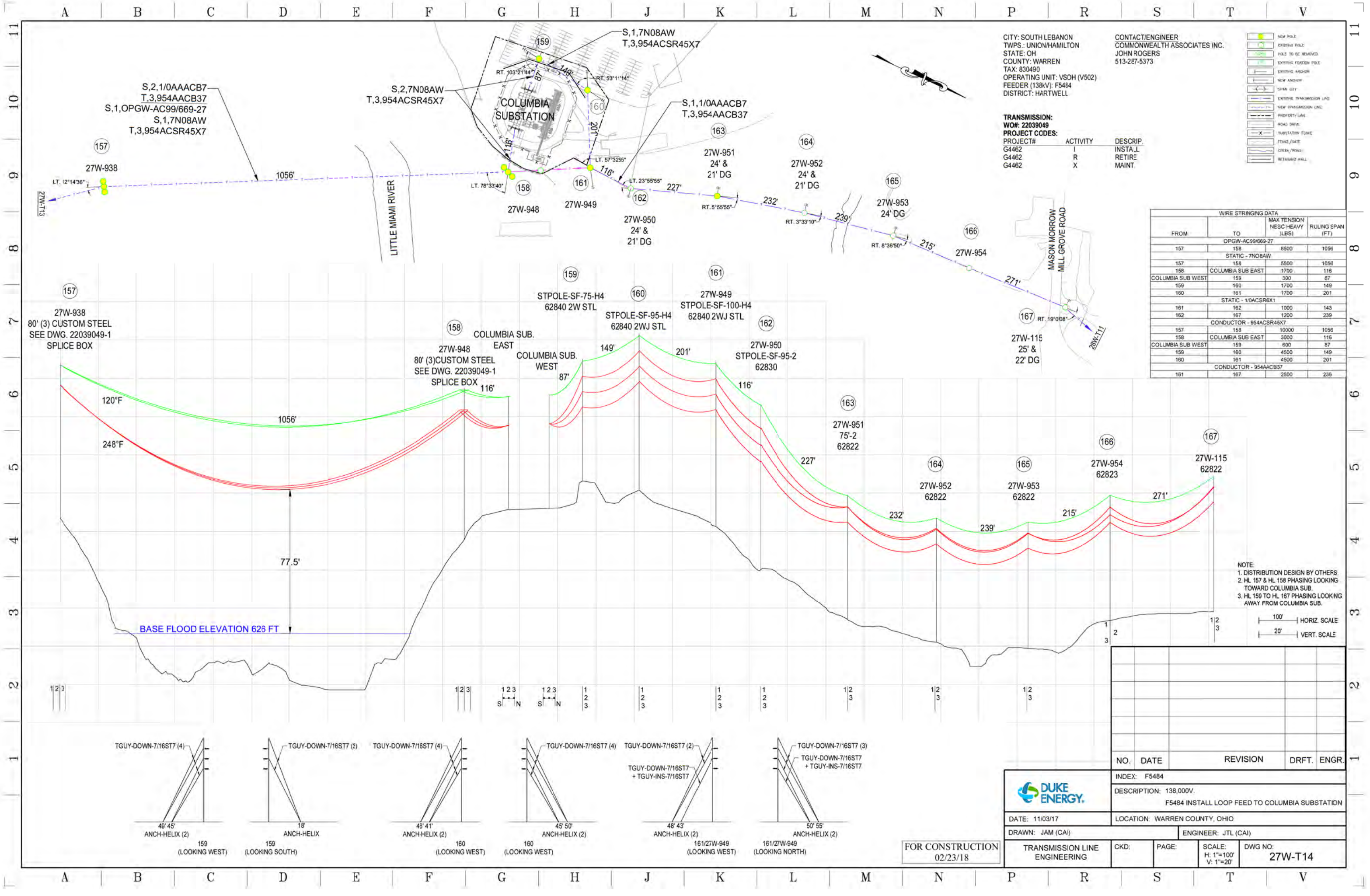
100' | HORIZ. SCALE  
20' | VERT. SCALE

NO.	DATE	REVISION	DRFT.	ENGR.

	INDEX: F5484			
	DESCRIPTION: 138,000V, F5484 INSTALL LOOP FEED TO COLUMBIA SUBSTATION			
	DATE: 11/03/17		LOCATION: WARREN COUNTY, OHIO	
	DRAWN: JAM (CAI)		ENGINEER: JTL (CAI)	
TRANSMISSION LINE ENGINEERING	CKD:	PAGE:	SCALE: H: 1"=100' V: 1"=20'	DWG NO: 27W-T13

FOR CONSTRUCTION  
02/23/18





CITY: SOUTH LEBANON  
TOWNSHIP: UNION/HAMILTON  
STATE: OH  
COUNTY: WARREN  
TAX: 830490  
OPERATING UNIT: VSOH (V502)  
FEEDER (138KV): F5484  
DISTRICT: HARTWELL

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

TRANSMISSION:  
WO#: 22039049  
PROJECT#S:  
G4462  
G4462  
G4462

ACTIVITY	DESCRIP.
I	INSTALL
R	RETIRE
X	MAINT.

WIRE STRINGING DATA			
FROM	TO	MAX TENSION NESC-HEAVY (LBS)	RULING SPAN (FT)
OPGW-AC99/669-27			
157	158	8500	1056
STATIC - 7N08AW			
157	158	5500	1056
158	159	1700	116
159	160	300	87
160	161	1700	149
STATIC - 1/0ACSR6X1			
161	162	1000	143
162	163	1200	239
CONDUCTOR - 954ACSR45X7			
157	158	10000	1056
158	159	3000	116
159	160	600	87
160	161	4500	149
161	162	4500	201
CONDUCTOR - 954AACB37			
161	167	2500	236

NOTE:  
1. DISTRIBUTION DESIGN BY OTHERS  
2. HL 157 & HL 158 PHASING LOOKING TOWARD COLUMBIA SUB.  
3. HL 159 TO HL 167 PHASING LOOKING AWAY FROM COLUMBIA SUB.

100' HORIZ. SCALE  
20' VERT. SCALE

NO.	DATE	REVISION	DRFT.	ENGR.

INDEX: F5484

DESCRIPTION: 138,000V,  
F5484 INSTALL LOOP FEED TO COLUMBIA SUBSTATION

DATE: 11/03/17

LOCATION: WARREN COUNTY, OHIO

DRAWN: JAM (CAI)

ENGINEER: JTL (CAI)

TRANSMISSION LINE ENGINEERING

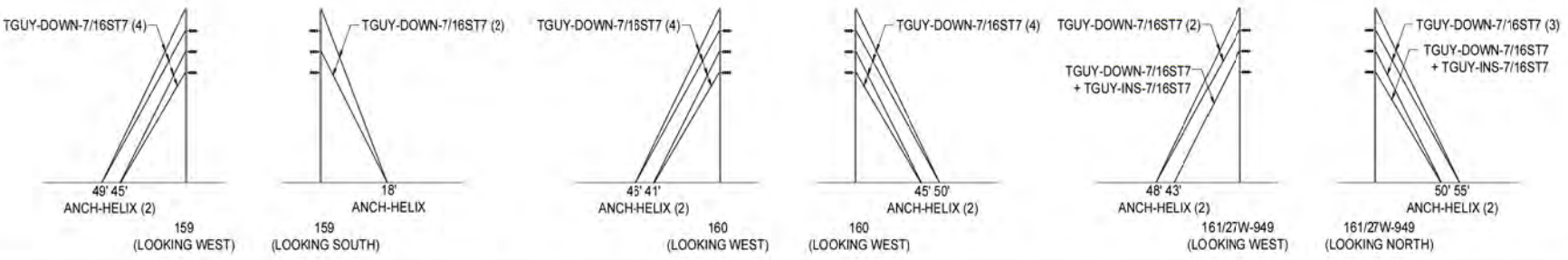
CKD:

PAGE:

SCALE: H: 1"=100'  
V: 1"=20'

DWG NO: 27W-T14

FOR CONSTRUCTION  
02/23/18





# Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

**Office of Real Estate**  
*Paul R. Baldrige, Chief*  
2045 Morse Road – Bldg. E-2  
Columbus, OH 43229  
*Phone: (614) 265-6649*  
*Fax: (614) 267-4764*

September 18, 2018

Cori Jansing  
Cardno  
11121 Canal Road  
Cincinnati, Ohio 45241

**Re:** 18-852; F5484 kV 138 Columbia Substation Project

**Project:** The proposed project involves expanding existing line approximately 550 LF to facilitate the construction of the new Columbia Substation in addition to the removal and replacement of approximately 0.4 miles of existing transmission line.

**Location:** The proposed project is in South Lebanon and Hamilton Townships, Warren County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

**Natural Heritage Database:** The Natural Heritage Database has the following records at or within a one-mile radius of the project area:

Snuffbox (*Epioblasma triquetra*), E, FE  
Fawnsfoot (*Truncilla donaciformis*), T  
Mountain madtom (*Noturus eleutherus*), T  
Little Miami State Scenic River  
Little Miami Scenic State Park – ODNR Division of Parks & Watercraft  
Deerfield Gorge Scenic River Lands – ODNR Scenic Rivers Program  
City of Lebanon, River Bend Land Co., TEJ Holdings, Taft Broadcast, & Tournament Players  
Club Scenic Rivers Easements – ODNR Scenic Rivers Program

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity. Additional comments on some of the features may be found in pertinent sections below.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; A = species recently added to state inventory, status not yet determined; X = presumed extirpated in Ohio; FE = federal endangered, FT = federal threatened, FSC = federal species of concern, FC = federal candidate species.

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

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniata*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the club shell (*Pleurobema clava*), a state endangered and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federally endangered mussel, the snuffbox (*Epioblasma triquetra*), a state endangered and federally endangered mussel, the washboard (*Megalania nervosa*), a state endangered mussel, the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel, the black sandshell (*Ligumia recta*), a state threatened mussel, and the fawnsfoot (*Truncilla donaciformis*), a state threatened mussel. The DOW has reviewed this project with the assumption that in-water work within the Little Miami River will not be necessary. Therefore, this project is not likely to impact these or other mussel species.

The project is within the range of the northern brook lamprey (*Ichthyomyzon fossor*), a state endangered fish, the goldeye (*Hiodon alosoides*), a state endangered fish, the mountain brook lamprey (*Ichthyomyzon greeleyi*), a state endangered fish, the bigeye shiner (*Notropis boops*) a state threatened fish, the American eel (*Anguilla rostrata*), a state threatened fish, and the paddlefish (*Polyodon spathula*) a state threatened fish. The DOW recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to indigenous aquatic species and



their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as drier upland habitat. Due to the location, the type of habitat present at the project site and within the vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but is also known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat present at the project site and within the vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. Due to the location, the type of habitat present at the project site and within the vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus cyaneus*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. Due to the location, the type of habitat present at the project site, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Sloan's crayfish (*Orconectes sloanii*), a state threatened species. Due to the location, and the habitat within the project area, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

**Scenic Rivers:** The Ohio Scenic Rivers Program has the following comment.

The proposed Duke Energy F5484 kv 138 Columbia Substation expansion project falls within 1,000 of the Little Miami State and National Scenic River in Warren County, Ohio. It crosses the Little Miami State and National Scenic River, the Little Miami State Park and protected conservation land owned and managed by the ODNR Scenic Rivers Program. Scenic Rivers and Park Management staff request that Cardno and Duke Energy schedule a time to meet on site to discuss the project in greater detail, including any potential real estate and mitigation needs, before the project moves forward. Please contact the ODNR regional manager, Melissa Clark at [Melissa.clark@dnr.state.oh.us](mailto:Melissa.clark@dnr.state.oh.us) or (937)408-8554.

**Water Resources:** The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

[http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List\\_8\\_16.pdf](http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf)

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

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



**From:** Cori Jansing  
**To:** [Danielle Thompson](#)  
**Subject:** FW: Cardno - F5484 Columbia Substation Expansion 138 kV Project, Warren County  
**Date:** Monday, September 24, 2018 6:35:04 AM  
**Attachments:** [image001.jpg](#)  
[image002.jpg](#)

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**Corrine Jansing**  
PROJECT SCIENTIST  
CARDNO

**Office** +1 513 489 2402 **Direct** +1 513 233 7034 **Mobile** +1 513 833 6392  
**Address** 11121 Canal Rd., Cincinnati (Sharonville), Ohio 45241  
**Email** [cori.jansing@cardno.com](mailto:cori.jansing@cardno.com) **Web** [www.cardno.com](http://www.cardno.com)

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**From:** susan\_zimmermann@fws.gov <susan\_zimmermann@fws.gov> **On Behalf Of** Ohio, FW3  
**Sent:** Monday, July 23, 2018 8:50 AM  
**To:** Cori Jansing <cori.jansing@cardno.com>  
**Subject:** Cardno - F5484 Columbia Substation Expansion 138 kV Project, Warren County



TAILS# 03E15000-2018-TA-1693

Dear Ms. Jansing,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. We recommend that proposed activities minimize water quality impacts, including fill in streams and wetlands. Best management practices should be utilized to minimize erosion and sedimentation.

**FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS:** Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees =3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the federally listed endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*), we do not anticipate adverse effects to any 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 (Service) should be initiated to assess any potential impacts.



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

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at [john.kessler@dnr.state.oh.us](mailto:john.kessler@dnr.state.oh.us).

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](mailto:ohio@fws.gov).

Sincerely,



Scott Pruitt  
Acting Field Supervisor



**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**11/14/2018 1:08:34 PM**

**in**

**Case No(s). 18-1571-EL-BNR**

Summary: Notification CONSTRUCTION NOTICE FOR THE F5484 – 138 kV COLUMBIA SUBSTATION- PART 3 electronically filed by Carys Cochern on behalf of Kingery, Jeanne W Ms.