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DUKE ENERGY
139 East Fourth St.
Cincinnati, OH 45202

RECEIVED-DOCKETING DIV

2009 JUL 15 PM 12:42

PUCO

July 13, 2009

Ms. Renee Jenkins, Secretary
Public Utilities Commission of Ohio
180 East Broad Street
Docketing Division 13th Floor
Columbus, Ohio 43215-3973

Re: Letter of Notification – Line F5689 138 kV Electric Transmission Line Loop to
Rockies Express Substation
PUCO Case No. 09-597-EL-BLN

Ms. Jenkins:

Enclosed for filing are one original and ten copies of a Letter of Notification (LON)
regarding a Duke Energy project.

If you have any questions regarding this submittal, please contact me at (513) 287-2379.

Sincerely,
Duke Energy

Stephen R. Lane
Environmental Scientist

Enclosures

Cc Mr. Jim O'Dell (OPSB)
Mr. Rick Hicks (Duke Energy)
Mr. Gabe Seibel (Duke Energy)

This is to certify that the images appearing are an
accurate and complete reproduction of a case file
document delivered in the regular course of business.
Technician SM Date Processed JUL 15 2009

LETTER OF NOTIFICATION FOR

LINE F5689 138 KV ELECTRIC TRANSMISSION

LINE LOOP TO ROCKIES EXPRESS SUBSTATION

PUCO Case Number 09- _ _ _ -EL- BLN

Submitted pursuant to OAC 4906-11-01

Duke Energy Ohio

July 13, 2009

(A) Need Statement

(1) Project Name, Description, and Need

(a) Name: This proposed project is the Line F5689 138,000 (138 kV) Electric Transmission Line Loop to Rockies Express Substation.

This project qualifies as a Letter of Notification (LON) because it fits the criteria of OAC 4906-1-01, Appendix A (1)(c), "Line(s) one hundred twenty-five kV and above but less than three hundred kV, and not greater than two miles in length." The proposed new 138 kV transmission line loop is approximately 1.3 miles in length and will extend from Duke Energy Ohio's 138 kV Line F5689 north and east to the Rockies Express Substation. There is approximately 3,400 feet of new line north to the new substation, then back again about the same distance to Line F5689 from the substation

(b) Description: This project will provide 138 kV service to the Rockies Express Substation. This project is required to provide electric service to the Rockies Express Hamilton Compressor Station.

A project vicinity map and engineering line drawings for the project are included.

(c) Need: This project is required to provide 138kV electric service to the Rockies Express Hamilton Compressor Station.

(2) Reference per Long-Term Forecast Report (LTFR)

This proposed project is not included in the 2009, or earlier, LTFRs.

(3) Alternatives Considered

A LON for an alternative along Interstate 75 was filed with the Public Utilities Commission on June 16, 2008 (PUCO Case No. 08-0736-EL-BLN). The Staff Investigation Report and Recommendation dated July 24, 2008 recommended project approval with the condition of a required cultural resource investigation. This LON was withdrawn by Duke Energy on January 16, 2009 due to strong landowner resistance to the project along what the landowner considered "prime frontage real estate". Pursuing the route along the Interstate would have required full condemnation procedures, the filing of an Application for a Certificate of Environmental Compatibility and Public Need for the project, and as a consequence the development of an alternate route for the project. The goal was to determine whether or not the landowner would be amenable to the alternate route before beginning condemnation proceedings. This LON is for that alternate route for which the easement rights have now been obtained. Although the proposed alternative in this LON is slightly more expensive than the original route proposed in Case No. 08-0736-EL-BLN, this additional cost will not be borne by the Ohio rate-payer as the project will be fully paid for by Rockies Express. Except for the additional cost the expected impacts of the 2 routes are comparable.

(4) Construction Schedule

Work on the project is planned to begin mid-September 2009. The overall project has an in-service date of early June 2009.

(5) Area Maps and Directions to Project Area

A street line map of the project vicinity is attached to this LON; smaller scale engineering line drawings of the project route is also attached. One way to reach the project location from Columbus is to take I-71 south for about 73 miles then take exit #32 west on State Route 123 (SR-123) for 3.4 miles to Lebanon. Continue to travel west on SR-123/48

through Lebanon and on SR-63 for approximately 7 miles to the west side of I-75. After crossing over I-75 turn right onto New Garver Road, then left onto Garver Road. Drive north on Garver Road approximately 0.9 mile, turn right onto Reed Road and drive east for approximately 1,500 feet mile. Drive through the BEI Trailer & Construction gate at the end of Reed Road and take an immediate left. As this is private property there is a recommendation of visiting the on-site BEI office before proceeding. Drive north past the trailers, from this location you can walk west-northwest until you reach the southwestern end of the project route. The northern end of the project route can be reached by following SR-63 (Hamilton Lebanon Road East) west to Cincinnati-Dayton Road (North Main Street), north on Cincinnati-Dayton Road, and then east on Greentree Road to the construction entrance for the substation.

(B) Technical Features

(1) Operating Characteristics

The proposed transmission line loop will operate at 138 kV and require approximately 1.3 miles feet of new 954ACSR45x7 conductor, 26 new steel poles, 4 H-frame structures, and the associated appurtenances. The locations of the new poles are identified on the included engineering line drawings, the poles will be between 75 and 85 feet in height. The specifications for these structures are included in Appendix A. At the south-western end of the project route the loop passes under the 345 kV Dayton Power & Light transmission line located north of F5689 and over an agricultural drainage ditch using H-frame structures.

(2) Electric and Magnetic Fields

Duke Energy ran estimates of the electric and magnetic fields using the "Enviro" program for the proposed 138 kV transmission line loop at the lowest point of conductor sag along the length of the loop. This study shows that the maximum magnetic field directly under

the middle conductor at one meter above ground would be a maximum of 212 milligauss (mG) at , tapering off to 8.4 mG at 300 feet if the line were loaded to its maximum winter rating. At the distance of the nearest residence to the transmission line loop, located approximately 950 feet west of the south-western end of the project route, magnetic fields are expected to be at background levels.

It is reasonable that the electric field strengths, measured in kilovolts per meter (kV/m), are the same regardless of line loadings because the electric fields are dependent on voltage, which is held constant at 138,000, while magnetic field strengths depend on amperage, which varies by demand for electricity.

Duke Energy designs its facilities according to the National Electric Safety Code (NESC), at a minimum. The structure height and configuration was chosen based on the NESC, engineering parameters, and cost.

(3) Estimated Cost

The project is expected to cost approximately \$2,000,000.

(C) Socioeconomic Data

(1) Land Use

At the time of this filing Duke Energy Ohio has secured an easement with the property owner. Land use in the vicinity of the project route is undeveloped agricultural, light industrial/commercial, and scattered residential. The project right-of-way is 120 feet wide in addition to 50 feet along the north side of the easement to avoid disturbing existing billboards and to avoid having to clear trees in the woodlot north of the section of route that runs east and west.

The nearest residence to the transmission line loop is located on East Garver Road approximately 950 feet west of the south-western end of the project route. The nearest industrial/commercial facility is located about 1,700 feet south of the line, south of Line F5689 and the 345 kV Dayton Power & Light transmission line.

(2) Agricultural District Land

According to data received from the Warren County Auditors' Office, no property along the project route is included in the ORC 929 agricultural district program.

(3) Cultural Resources

Natural and Ethical Environmental Solutions, a cultural resource services consultant, will be retained to perform a Section 106 compliance Phase I Cultural Resources Study for pole locations along the project route, which will include a literature review and field survey to identify existing cultural or historic resources within the immediate project vicinity. A copy of the Phase I Archaeology Survey will be forwarded to the Ohio Power Siting Board Staff (OPSB) staff under separate cover.

(4) Notification of Officials

Copies of the letters transmitting this Letter of Notification to officials of Warren County, Turtle Creek Township, and the City of Monroe are included in Appendix B. No public information program, materials, or meetings were conducted for the siting of this proposed facility although public meetings have been held by Rockies Express for the Hamilton Compressor Station and associated natural gas pipeline.

(5) Current and Pending Litigation

There is no current or pending litigation involving the proposed facility.

(6) Other Agency Permits and Requirements

No other agency permits or requirements exist for the transmission line loop.

(D) Environmental Data

A Duke Energy biologist/environmental scientist conducted a field survey of the project route on June 18, 2009. This survey included an evaluation of potential habitat for species of concern likely to be found on the project route, a wetland determination, and an assessment of surface drainages in the project vicinity. A summary of the findings is given below.

(1) Species of Concern

No species of concern or habitat suitable for such species were observed during the field survey. The habitat along the project route is primarily active agricultural land currently in soybean production. The south-western end of the project route crosses an agricultural drainage ditch bordered by a thin strip of wooded scrub/shrub. At the line crossing location characteristic early successional tree species are dominated by 8 to 12 inch dbh black locust (*Robinia pseudoacacia*), box elder (*Acer negundo*), and black willow (*Salix nigra*). No suitable Indiana bat roosting trees were observed.

At the crossing location the man-made drainage ditch does represent amphibian habitat, but only for those common species that can handle the excess pesticide and herbicide runoff from the adjacent farm field. Evidence of this agricultural runoff and the resulting eutrophication (i.e. high levels of nitrogen and/or phosphates) include duckweed presence in the drainage ditch and the lack of any observed fish. Removal of limited tree cover on either side of this drainage ditch is not expected to affect this limited water resource.

(2) Areas of Ecological Concern

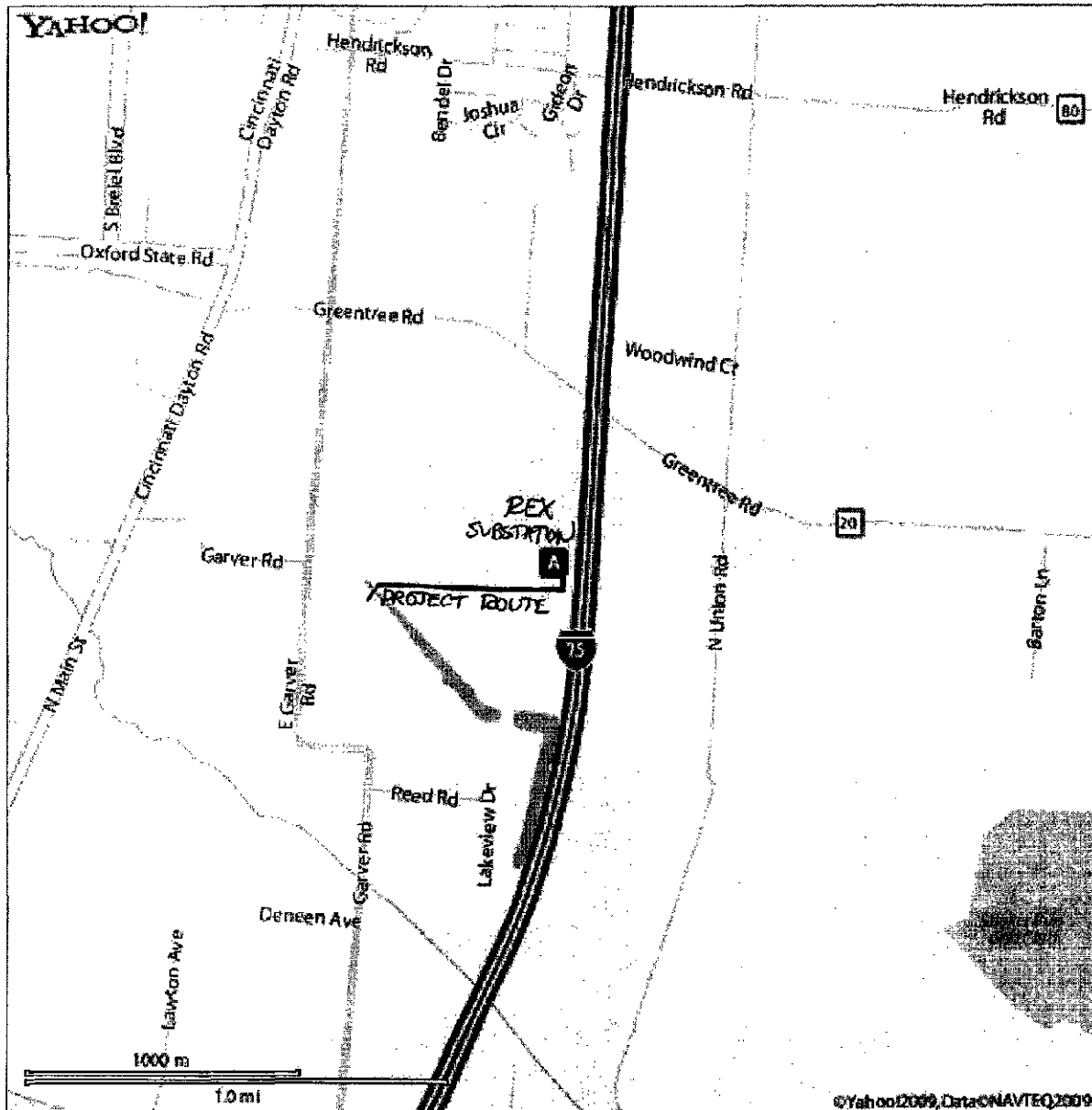
No wetlands or other areas of ecological concern were identified along the project route. One man-made agricultural drainage ditch is crossed at the south-western end of the project route, this drainage ditch is representative of low quality limited resource water.

(3) Additional Information

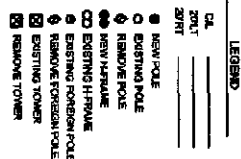
There is no known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

Map of 39.46301,-84.328092

YAHOO!

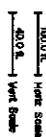


When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.



PROJECT NO. 20ACR72
CITY/TWP.
RAW RECD: YES
PERMIT: YES
TRIM TREES: YES
OUT CLAIM RECD: NO
TAX DIST:
JUR NO:

WORK	LOG
<u>CODE</u>	<u>RESP CNTR</u>
TRANS W/ BMT/ROLL	ET20P2
TRANS PAM BMT/ROLL	ET20P2
TRANS MAINT:	



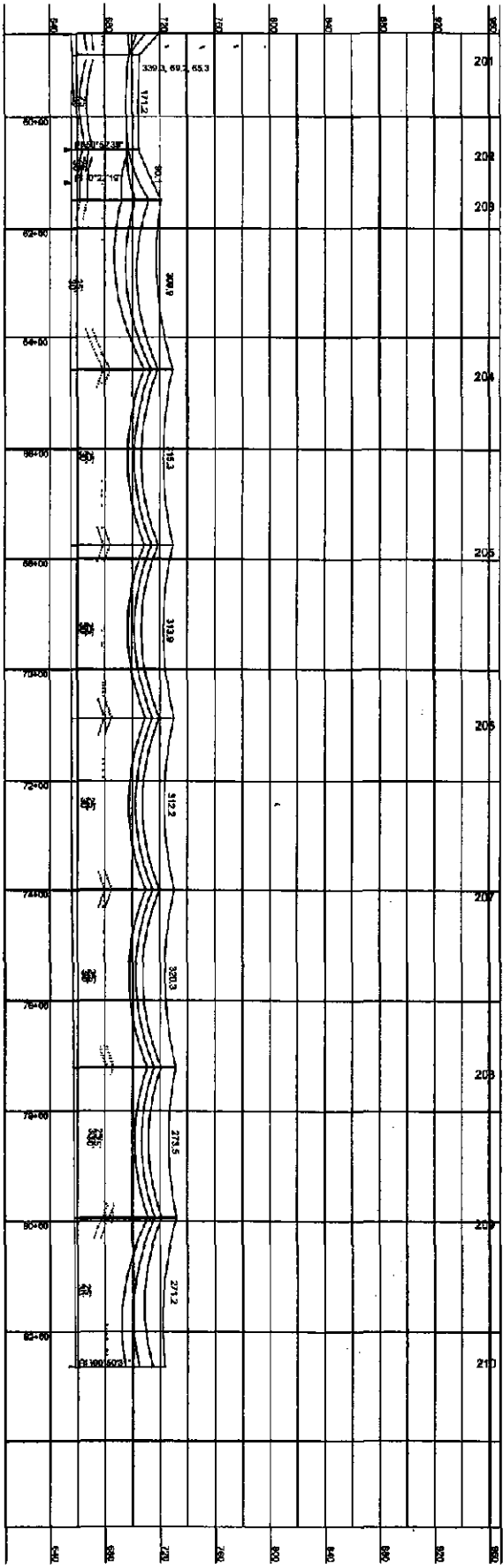
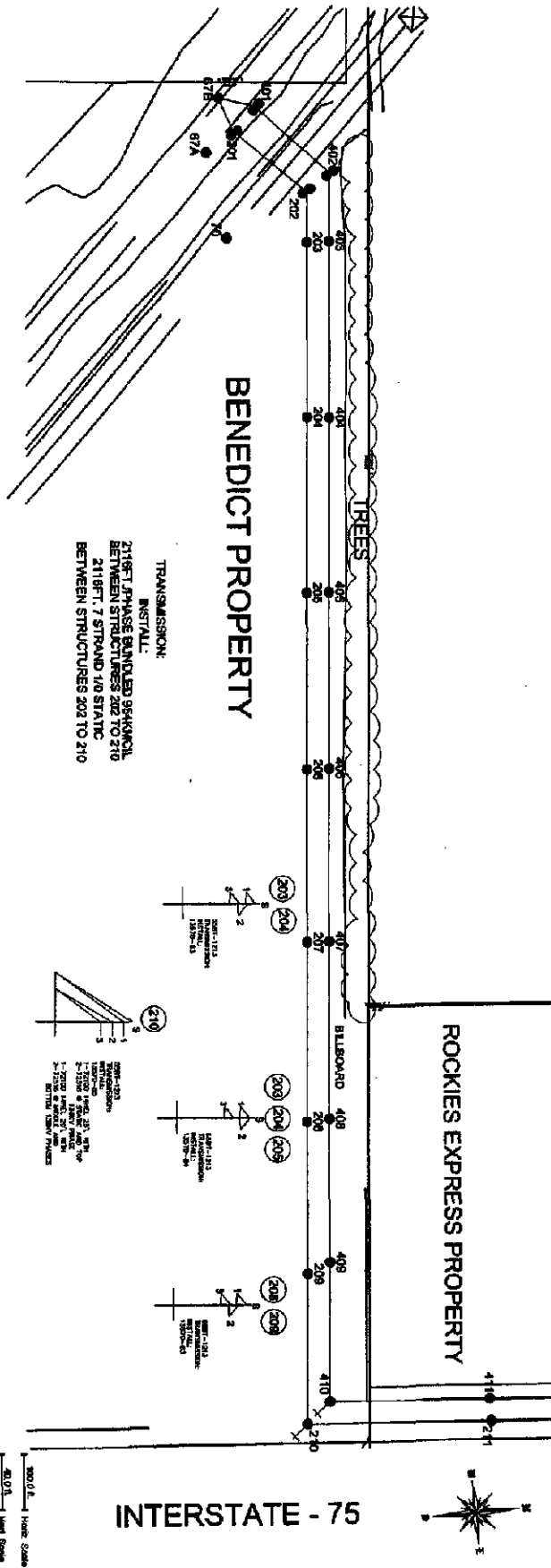
F5689 -- 138KV LOOP THRU ROCKIES EXPRESS

FOR IDS 14
06/12/2008
Page 1/7

REX-2



128 EAST FOURTH STREET
#2 BOX 788
CHICAGO, IL 60601-0988
TELEPHONE NO. (312) 332-3000



INTERSTATE - 75

ROCKIES EXPRESS PROPERTY

BENEDICT PROPERTY

TRANSMISSION:
INSTALL:
218FT. 7 STRAND 1/0 STATIC
BETWEEN STRUCTURES 202 TO 210
218FT. 7 STRAND 1/0 STATIC
BETWEEN STRUCTURES 202 TO 210

LEGEND

- DL
- 20FT
- 20FT
- NEW POLE
- D EXISTING POLE
- REMOVE POLE
- NEW TOWER
- D EXISTING TOWER
- REMOVE TOWER
- EXISTING TOWER
- REMOVE TOWER

PROJECT NO. 2002722
CITY/TOWN
STATE
COUNTY
TAX MAP
DATE

DATE
BY
CHECKED
DATE
BY
APPROVED
DATE
BY
APPROVED

REVISIONS:

WARRANTY COUNTY, OHIO



138 EAST TOWNSHIP, OHIO
CINCINNATI, OH 45202-1000

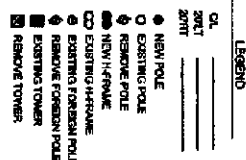
F5689 -- 138KV LOOP THRU ROCKIES EXPRESS

REVISIONS

REX-1



FOOT
400 ft
Vert. Scale



WARREN COUNTY, OHIO



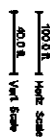
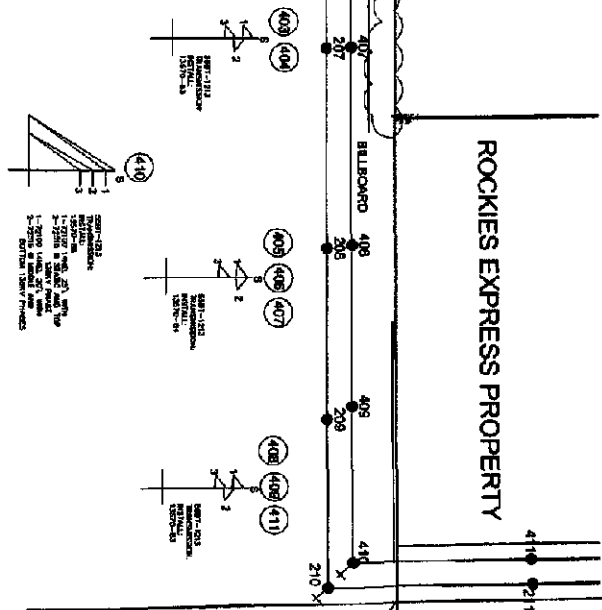
134 EAST 800TH STREET
PO BOX 280
CINCINNATI OH 45207-0280
NATIONAL AND INTERNATIONAL





BENEDICT PROPERTY

TRANSMISSION:
INSTALL:
2205FT. PHASE BUNDLED 95KACIL
BETWEEN STRUCTURES 402 TO 419
2205FT. 7 STRAND NO STATIC
BETWEEN STRUCTURES 402 TO 419



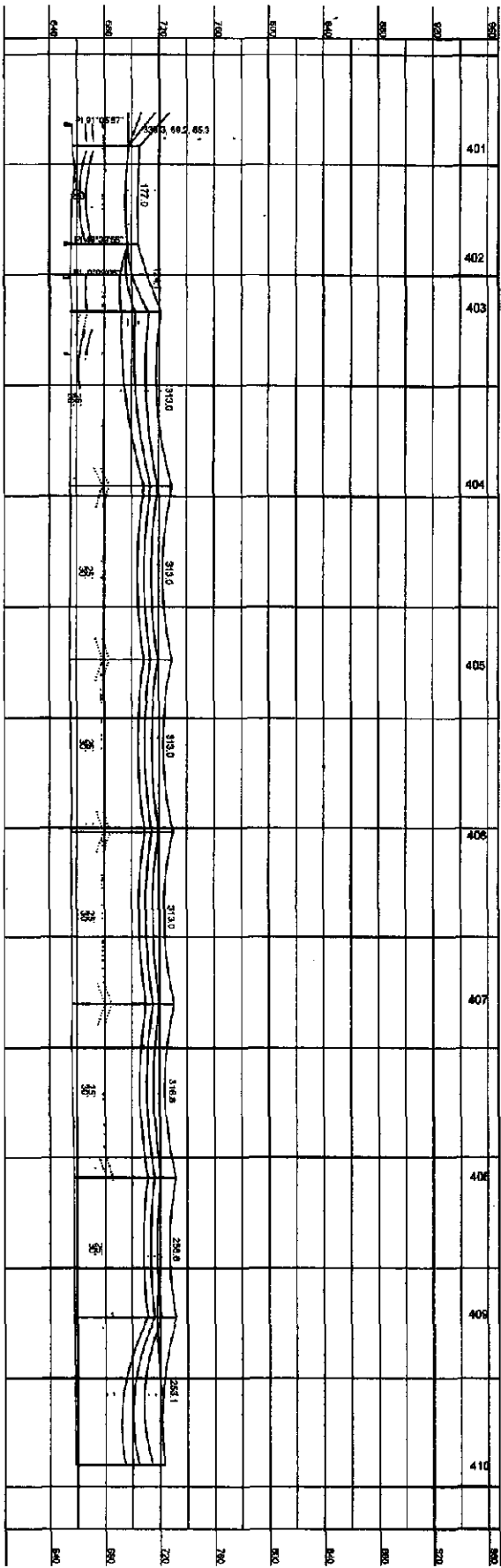
LEGEND

CA	2011	2012	2013	2014	2015	2016	2017
CA							
2011							
2012							
2013							
2014							
2015							
2016							
2017							

- NEW POLE
- EXISTING POLE
- ✂ REMOVE POLE
- 🔧 NEW H-FRAME
- 🔧 EXISTING H-FRAME
- 🔧 EXISTING PORTION POLE
- ✂ REMOVE PORTION POLE
- 🔧 EXISTING TOWER
- ✂ REMOVE TOWER

PROJECT NO. 204CT77
CITY/TWP:
R/W REQD: YES
FEDMT: YES
TRIM TREES: YES
OUT CLAIM REQD. NO
TAX DIST:
JUR NO:

WORK CODE	LOW	REP DATE	TIME
TRANS US 5747001	ETACP2	M	1
TRANS RAB 8067400	ETACP2	M	1
TRANS MARI	ETACP2	M	1
DIST US 200101010	EDICP2	M	1
DIST RAB 200101010	EDICP2	M	1
DIST MARI 56800101	EDICP2	M	1



F5689 -- 138KV LOOP THRU ROCKIES EXPRESS

ROCKWELL
 6672008
 Page 117

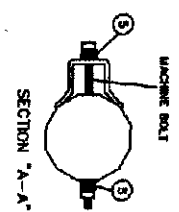
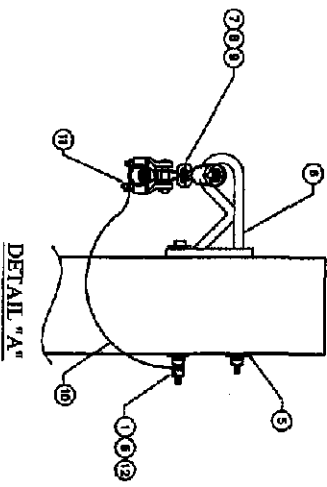
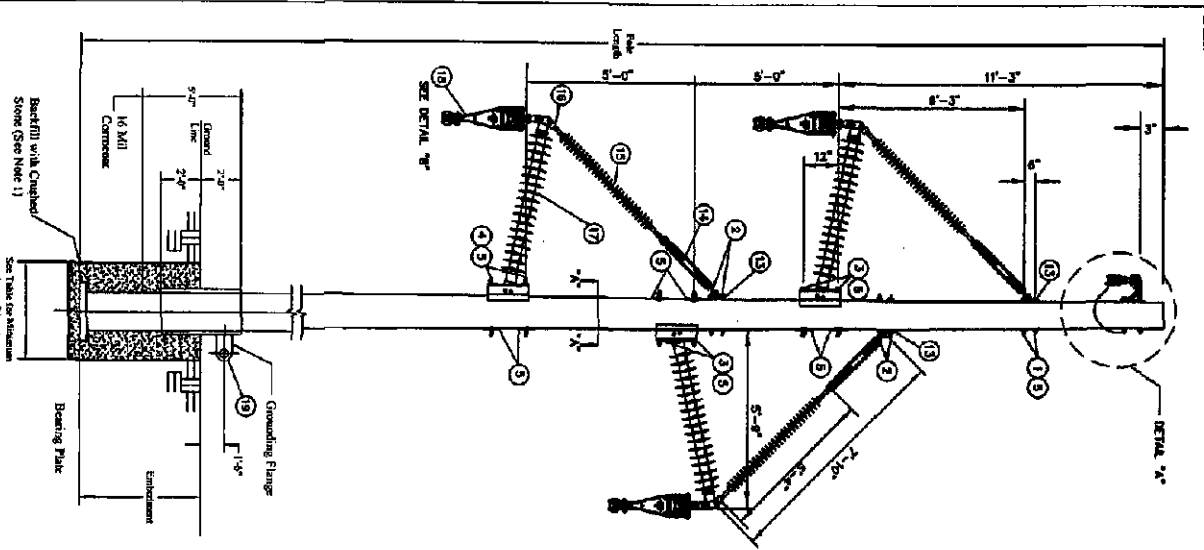
REX-2



WABASH COUNTY, OHIO

1425 EAST 77TH STREET
PO BOX 580
CHICAGO, IL 60649-0580
TELEPHONE NO. (800) 424-7000

APPENDIX A
ENGINEERING SPECIFICATIONS



INSTALLATION NOTES:
 1. Cap and Insulator must be assembled thoroughly in 6" before.
 2. Insulator Ground Wire and Rod per Standard 72001

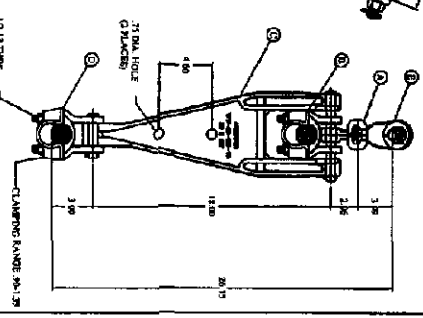
POLE LENGTH	BOTTOM INSULATOR HEIGHT	EMBEDMENT	MINIMUM AUGER DIAMETER
85'-0"	51'-0"	12'-6"	31'-0"

Item Number	Part Number	Description	Qty.
1.	5011706	Turnbuckle, Eye and Clevis Ends, 3/4" Dia, 12"	3
2.	50115894	Insulator, Line, Susp., Polymer, 138KV, 25, 000LB	3
3.	0090247	Socket-y Clevis, 2-5/8"	3
4.	00930861	Bolt, Double Aiming, 3/4" Dia, 26" LG, Galv Steel	2
5.	00930033	Washer, Lock, Double Coil Spring, 3/4" NOM, Galv Steel	18
6.	00930033	Washer, Square, 2-1/4" NOM, 13/16" ID, 3" OD	12
7.	50124576	Plate, Dead End, Tee	3
8.	50115896	Insulator, Post, Line, 138KV, Polymer, Tongue	3
9.	50117345	Shield Wire Support Bracket	2
10.	00931707	Bolt, Machine, 3/4" Dia, UNC TRD, 22" LG, Galv Steel	2
11.	0090249	y Clevis-Eye, 90°	1
12.	00931675	Bolt, Machine, 3/4" Dia, UNC TRD, 14" LG, Galv Steel	3
13.	00931683	Bolt, Machine, 3/4" Dia, UNC TRD, 16" LG, Galv Steel	2
14.	50123999	Vertical Bundle Assembly, SEE DETAIL B	3
15.	00906601		3
16.	50092058		3
17.	00933100		6
18.	00982531		1
19.	00982420	Clamp, Suspension, 18AW	1
20.			
21.	00934511	Tap, Lug, Connect Ground Wire to Steel Pole	1

ITEM	CATALOG NO	DESCRIPTION	MATERIAL	W/BEAN LBS	UTTER QTY
A	34-15	SOCKET EYE	ALUMINUM	1.80	5000
B	14-15-16-17	SUSPENSION CLAMP	ALUMINUM	3.00	2500
C	17-18-19-20	RINGER AND TIE	ALUMINUM	3.50	4000
D	14-15-16-17	SUSPENSION CLAMP	ALUMINUM	3.20	2500
E	17-18-19-20	Y-CLEVIS EYE	ALUMINUM	1.80	5000

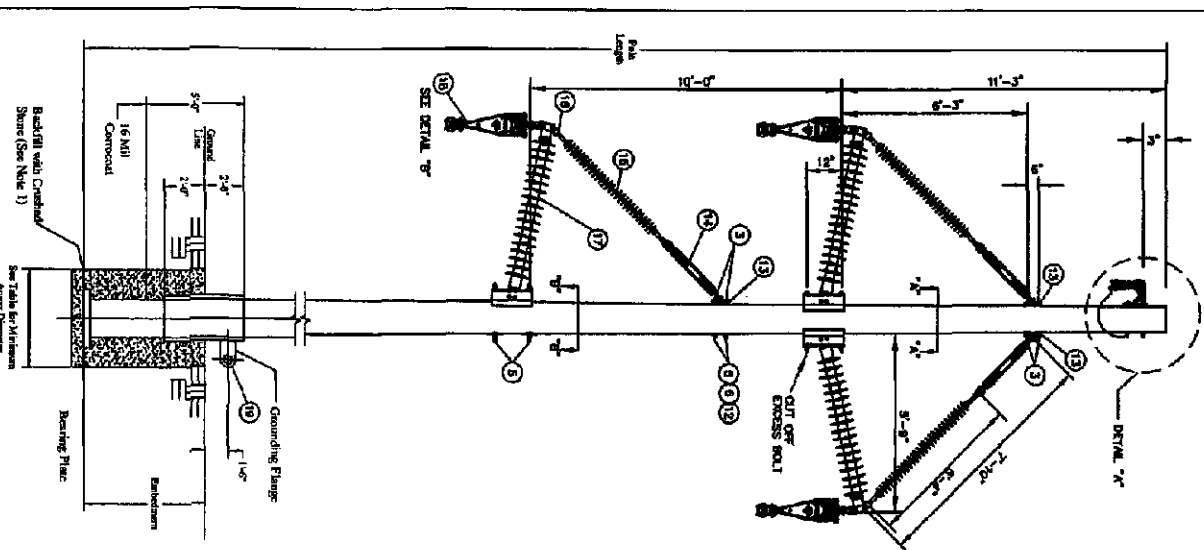
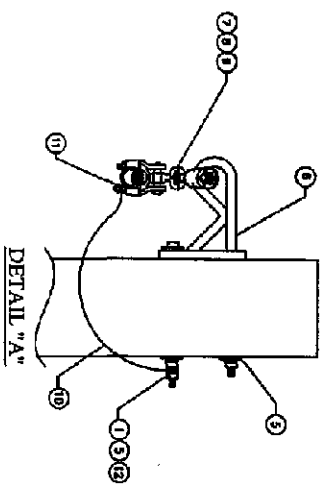
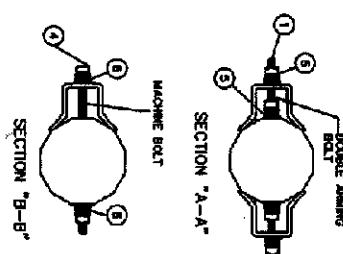
NOTES:
 1) HRS (ANDERSON)
 PART NO. TAT21W-1605
 DWO NO. CC-1866
 2) ALL FERROUS MATERIAL
 SHALL BE GALV. VANIZED
 3) SHIP UNASSEMBLED

DETAIL "B"



DATA		INDEX	
DATE: 05-20-2008		DETAIL: ROCKING EXPRESS 138KV LOOP	
DRAWN: S. REISING		LOCATION: MONROE, OH	
TRANSMISSION ENGINEERING		DWG NO: 13570-83	

ITEM	NAME PART NUMBER (S)	DESCRIPTION	STRUCTURE QUANTITY
1	800601	Washer, Lock, Double Coil Spring, 3/4" DIA. Galv Steel	8
2	800601	Flat, Double Spring, 3/4" DIA. 20" LG. Galv Steel	2
3	801675	Bot. Machine, 3/4" DIA. UNCL THRD, 1/4" LG. Galv Steel	4
4	801675	Bot. Machine, 3/4" DIA. UNCL THRD, 1/4" LG. Galv Steel	4
5	801715	Bot. Machine, 3/4" DIA. UNCL THRD, 1/4" LG. Galv Steel	4
6	801715	Washer, Square, 2-1/4" DIA. 13/16" TH. 3" OD	12
7	8017245	Stand V-Wire Support Bracket	1
8	80251	Clamp, Suspension, 7000ALV	1
9	80251	Y-Clamp-Ball	1
10	80251	Social Chain	1
11	80251	Grounding Strap	1
12	80251	Y-Clamp	1
13	80251	Y-Clamp	1
14	80251	Y-Clamp	1
15	80251	Y-Clamp	1
16	80251	Y-Clamp	1
17	80251	Y-Clamp	1
18	80251	Y-Clamp	1
19	80251	Y-Clamp	1



INSTALLATION NOTES:
 1. Coated limestone ball to be completed thoroughly in 6" layers
 2. Insulated Ground Wire and Rod per Standard 72001

POLE LENGTH	INSULATOR	EMBEDMENT	MINIMUM AUGER DIAMETER
8.5'-0"	51'-0"	12'-6"	3'-0"

DETAIL "B"

NOTES:
 1) HPS (ANDERSON)
 PART NO. TAT-121W-18065
 DWD NO. CC-18065
 2) ALL FIBERGLASS MATERIAL
 SHALL BE QUALITY INSULATED
 3) SHIP UNASSEMBLED

DETAIL "B"

INDEX
 ROCKIES EXPRESS 138KV LOOP
 STEEL POLE ASSEMBLY DETAILS
 FOSTER, TOWNSHIP
 MONROE, OH

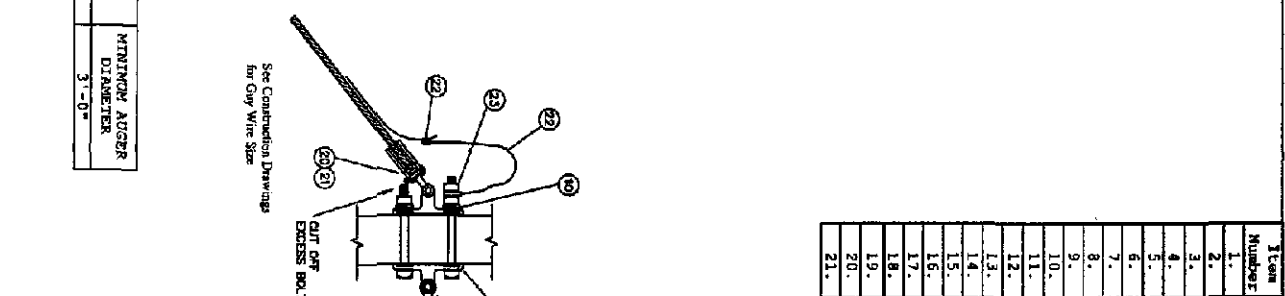
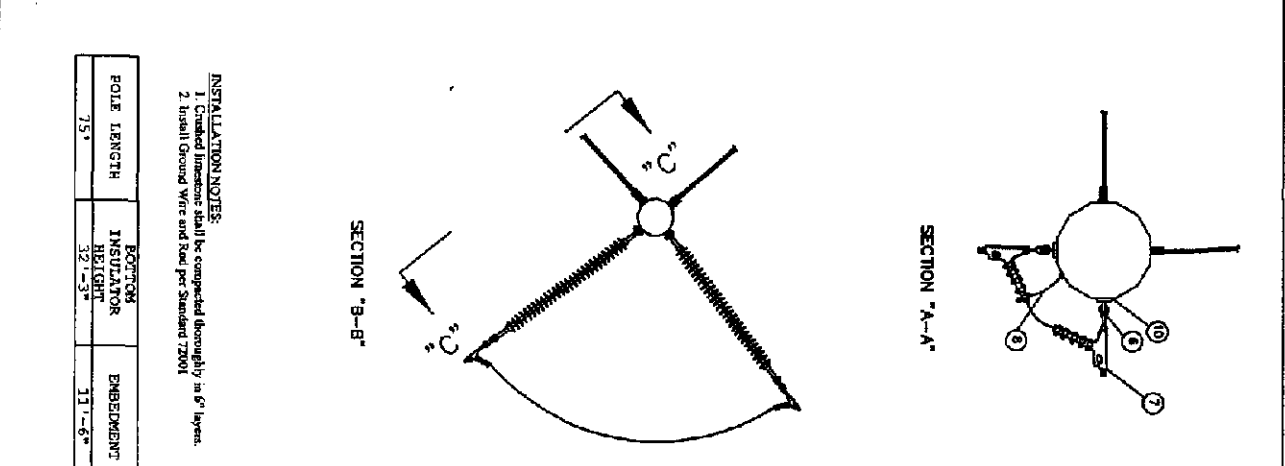
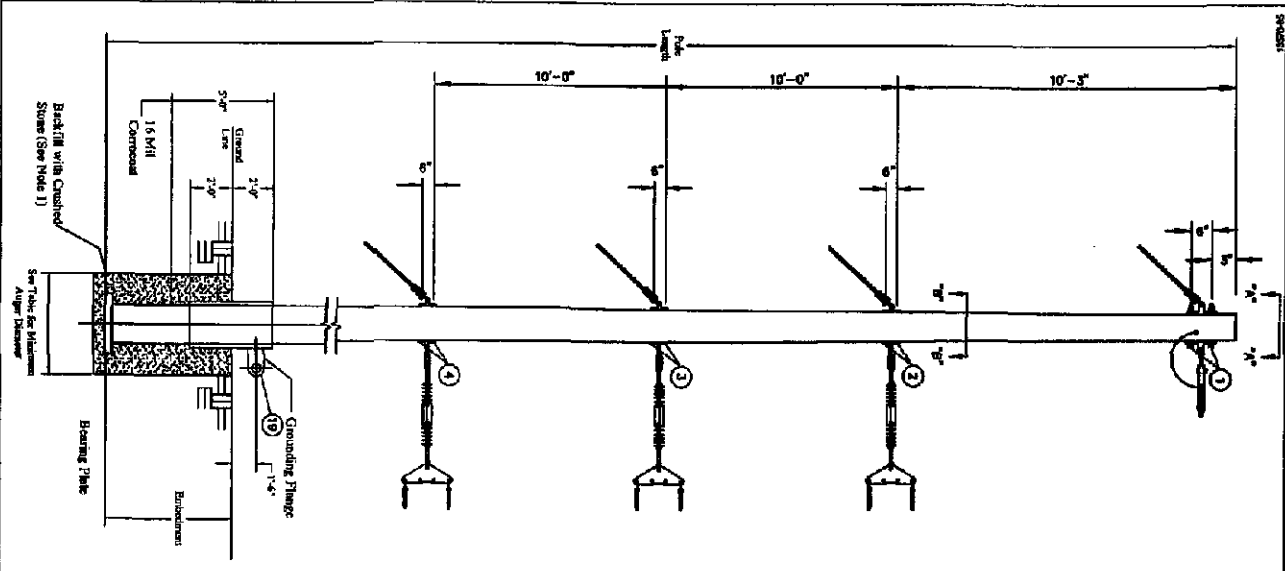
DATE 02-20-2008
DRAWN S. REISING
TRANSMISSION ENGINEERING

ITEM **CATALOG NO** **DESCRIPTION** **MATERIAL** **WT (LBS)** **LTG (FTS)** **QTY**

A	801675	SOCKET BOLT	QALV. DUCT. BORN	1.80	1.80	1
B	801675	SUSPENSION CLAMP	ALUMINUM	1.80	1.80	1
C	801675	SUSPENSION CLAMP	ALUMINUM	1.80	1.80	1
D	801675	SUSPENSION CLAMP	ALUMINUM	1.80	1.80	1
E	801675	SUSPENSION CLAMP	ALUMINUM	1.80	1.80	1

ITEM **CATALOG NO** **DESCRIPTION** **MATERIAL** **WT (LBS)** **LTG (FTS)** **QTY**

A	801675	SOCKET BOLT	QALV. DUCT. BORN	1.80	1.80	1
B	801675	SUSPENSION CLAMP	ALUMINUM	1.80	1.80	1
C	801675	SUSPENSION CLAMP	ALUMINUM	1.80	1.80	1
D	801675	SUSPENSION CLAMP	ALUMINUM	1.80	1.80	1
E	801675	SUSPENSION CLAMP	ALUMINUM	1.80	1.80	1



Item Number	Pole Part Number	Description	Qty.
1.	50124576	Plate, Dead End, Tee	7
2.	50062546	Shackle, Anchor	5
3.	50115894	Insulator, Line, Susp., Polymer, 138KV, 25, 000LB	3
4.	00080247	Socket-Y Clevis, 2-5/8"	3
5.	50120392	Plate, Yoke, Crescent Configuration	3
6.	00933100	Clevis-Eye	6
7.	00082531	Clamp, Suspension, 954ACSR or 1113ACSR	4
8.	00083937	Clevis-Eye 90°	4
9.	00088636	Clevis, Thimble	4
10.	50117345	Shield Wire Support Bracket	1
11.	50116783	OEGR Double Suspension Clamp	1
12.	00931675	Bolt, Machine, 3/4" Dia, DMC THD, 14" LG, Galv Steel	2
13.	00931683	Bolt, Machine, 3/4" Dia, DMC THD, 16" LG, Galv Steel	2
14.	00934511	Tap, Inrg, Connect Ground Wire to Steel Pole	1
15.	50120392	Plate, Yoke, Delta Configuration	1
16.	00933100	Clevis-Eye	2
17.	00933100	Clevis-Eye	2
18.	00930031	Washer, Lock, Double Coil Spring, 3/4" NOM Galv Steel	8
19.	00939033	Washer, Square, 2-1/4" NOM, 13/16" ID, 3" OD	2
20.	00931707	Bolt, Machine, 3/4" Dia, DMC THD, 22" LG, Galv Steel	2
21.	00931707	Bolt, Machine, 3/4" Dia, DMC THD, 22" LG, Galv Steel	2

INSTALLATION NOTES:
 1. Cracked limestone shall be compacted thoroughly in 6" layers.
 2. Install Ground Wire and Rod per Standard 72001

POLE LENGTH	BOTTOM INSULATOR HEIGHT	EMBEDMENT	MINIMUM ANCHOR DIAMETER
75'	32'-3"	11'-6"	3'-0"

Pete Energy

INDEX: ROOKIES EXPRESS 138KV LOOP

DETAIL: STEEL POLE ASSEMBLY DETAILS

DATE: 05-20-2008

LOCATION: MONROE, OH

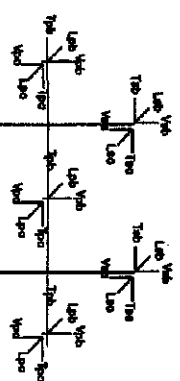
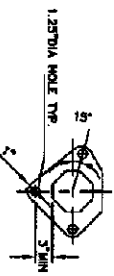
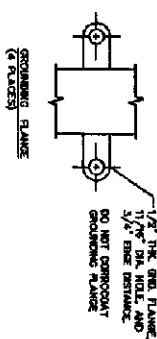
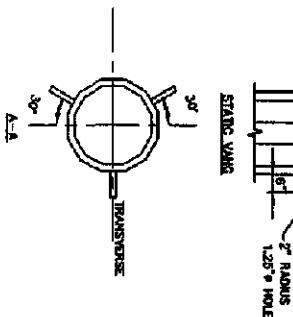
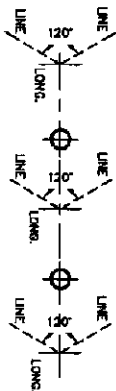
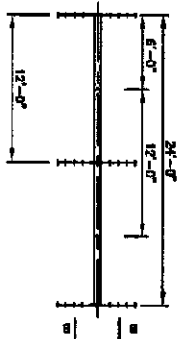
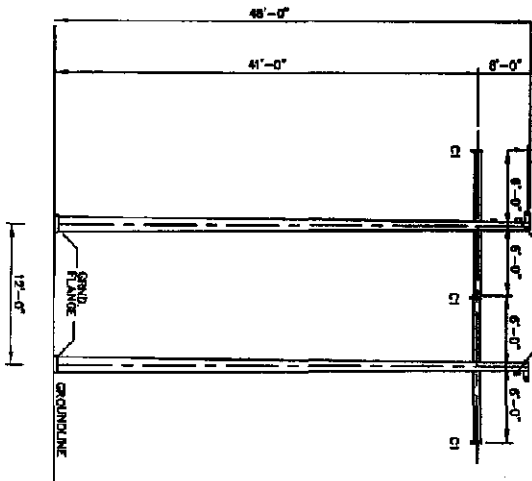
DESIGNER: S. REISING

ENGINEER: F5689

PROJECT NO: 13570-85

Conductor: 2-954 KCMIL 45/7 ACSR CONDUCTOR/PHASE
 ORIG: 1- 7 NO. 8 ALUMINUM/D/ATTACHMENT
 WIND SPAN: 30ft. Back, 120ft. Ahead
 WEIGHT SPAN: 30ft. Back, 120ft. Ahead
 WIND ANGLE: 30 DEGREES

LOADING CONDITIONS				DESIGN LOADS (KIPS)															
NO.	DESCRIPTION	TEMP. F	ICE IN.	ICE WIND MPH	Vsa	Tsa	Lsa	Vsb	Tsb	Lsb	Vpa	Tpa	Lpa	Vpb	Tpb	Lpb	W	Θ	K
1	MISC HEAVY	0	0.5	40	0.15	1.7	2.95	-0.41	1.45	-2.96	0.88	5.88	11.50	2.33	7.70	-11.3	10.0	90.0	1.5
2	EXT. WIND	60	0	99	0.40	0.56	1.15	-0.23	0.50	-1.10	0.33	2.55	4.56	-0.74	1.97	-3.01	25.0	90.0	1.0
3	EXT. ICE	32	1	0	0.23	1.20	2.20	-0.33	0.84	-1.76	0.88	4.10	8.40	1.17	3.74	-6.10	0.0	90.0	1.25
4	EXT. ICE W/ CONC. WIND	15	0.75	40	0.16	1.10	1.91	-0.34	0.90	-1.66	0.77	3.76	7.50	1.46	3.98	-6.13	4.0	90.0	1.25
5	NORMAL	60	0	0	0.40	0.27	0.50	-0.18	0.42	-0.79	0.30	1.20	2.51	0.32	1.20	-2.50	0.0	90.0	1.0
6	CONSTRUCTION	20	0	0	3.00	1.00	1.50	1.50	1.00	1.50	3.00	3.00	3.00	5.00	3.00	-6.00	0.0	90.0	1.25



LOADING TIME

NOTES:
1. ALL INDICATED LOADS ARE ULTIMATE AND INCLUDE OVERLAP FACTORS.

VERTICAL, TRANSVERSE AND LONGITUDINAL AXIS RESPECTIVELY.

3. W IS THE WIND LOAD APPLIED TO THE STRUCTURE IN PSF. A SHAPE FACTOR OF 1.0 SHALL BE APPLIED TO "W".

4. θ IS THE ANGLE IN DEGREES BETWEEN THE L-Axis AND WIND DIRECTION AS SHOWN ON THE LOADING TREE DIAGRAM.

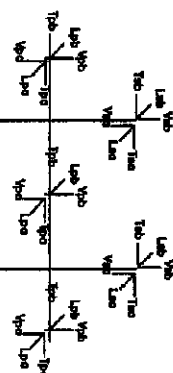
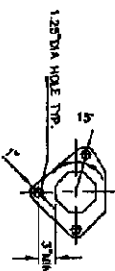
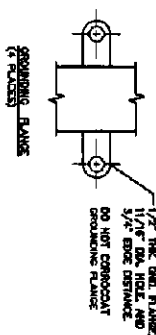
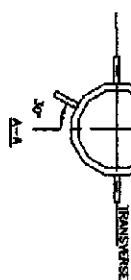
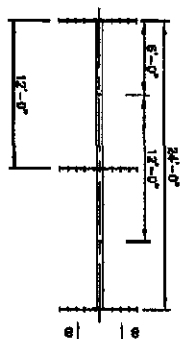
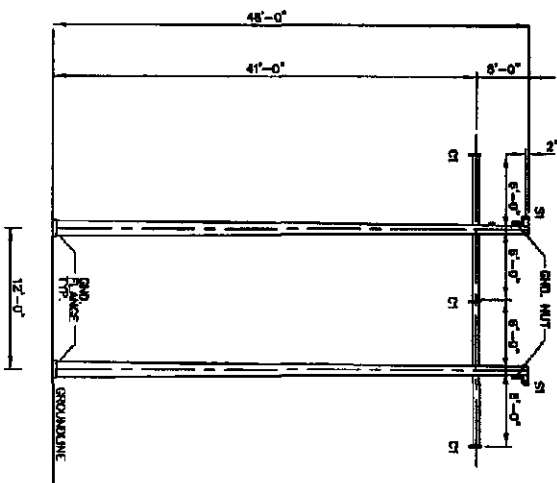
5. THE DEAD LOAD OF THE STRUCTURE SHALL BE MULTIPLIED BY K.

6. PROVIDE A MINIMUM OF TWO STRUTS, SPACING AND POSITIONING THEM TO BE SUBSTANTIALLY EQUAL TO THE STRUCTURAL DESIGN. THE TRANSVERSE SPACING OF THE STRUTS SHALL BE 10 FEET OR LESS, UNLESS OTHERWISE SPECIFIED. ADDITIONAL LATER CLIPS ON FLAYS WHERE NECESSARY, SO THAT ALL PARTS OF THE STRUCTURE, INSULATOR, AND HARDWARE ASSEMBLIES CAN BE REACHED FOR MAINTENANCE.
7. THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING CASES:
 - A. ALL CONDUCTORS AND GROUND WIRES INSTALLED FOR ALL LOAD CASES.
 - B. ALL CABLE SPANS ONLY INSTALLED FOR, EXCEPT LOAD CASE 1.
 - C. ONE GROUND WIRE OR ONE PHASE WIRE BROKEN FOR LOAD CASE 1.
 - D. VANGS AND VANE CONNECTION TO POLE SHALL BE DESIGNED TO WITHSTAND THE RESULTANT LOAD, TO DECREASE THE SIZE OF INDICATED LINE ANCHORS.

GALVANIZED STEEL POLES

CONDUCTOR: 2-364 RKMIL 45/7 ACSR CONDUCTOR/PHASER
 OREGON: 1- 7 NO. 8 ALUMOWELD/ATTACHMENT
 WIND SPAN: 130FT. BACK; 200FT. Ahead
 WEIGHT SPAN: 120FT. BACK; 200FT. Ahead
 LINE ANGLE: 30 DEGREES

LOADING CONDITIONS										DESIGN LOADS (KIPS)										
NO.	DESCRIPTION	TEMP. ICE R. WIND	P	IN.	NPH	Vse	Tes	Uss	Veb	Teb	Lbb	Vps	Tps	Lps	Vpb	Tpb	Lpb	W	Q	E
1	WESC. HEAVY	0	0.5	40	0.17	1.5	3.80	0.10	1.30	-3.20	0.35	6.40	11.70	0.70	4.75	-11.3	10.0	80.0	1.5	5.0
2	EXT. WIND	60	0	99	0.13	0.63	1.50	0.04	0.55	-1.10	0.59	3.10	5.20	0.24	2.40	-4.68	25.0	90.0	3.0	7.0
3	EXT. ICE	32	1	0	0.12	1.00	2.74	0.22	0.85	-2.34	0.43	4.43	9.14	0.81	3.87	8.10	0.0	90.0	1.25	5.0
4	EXT. ICE W/ COMC. WIND	15	0.75	40	0.14	0.93	2.40	0.15	0.80	-2.02	0.30	4.10	8.20	0.62	3.10	-7.14	4.0	90.0	1.3	5.0
5	NORMAL	60	0	0	0.07	0.33	0.51	0.04	0.15	-0.05	0.14	1.33	2.74	0.25	3.10	-2.37	0.0	90.0	1.0	5.0
6	CONSTRUCTION	20	0	0	2.00	3.00	1.00	2.00	2.00	-1.50	3.00	3.00	4.90	3.00	3.00	-3.90	0.0	90.0	1.25	5.0



KOZMETIK

NOTES

OVERLOAD FACTORS.

Z, Y, I & J ARE IN RIPS AND ARE THE STRUCTURES VERTICAL, TRANSVERSE AND LONGITUDINAL AIDS RESPECTIVELY.

3. W IS THE WIND LOAD APPLIED TO THE STRUCTURE IN PSF.
A SHAPE FACTOR OF 1.0 SHALL BE APPLIED TO "W".

4. THETA IS THE ANGLE IN DEGREES BETWEEN THE L-AXIS AND THE WIND DIRECTION AS SHOWN ON THE LOADING TREE

5 THE DEAD LOAD OF THE STRUCTURE SHALL BE AS FOLLOWS:

1. POSSIBLE 1 ADULT 7 CHILD 2 WOMAN 2 EMERGENCY

APPROXIMATELY 8-0' ABOVE GROUND TO THE TOP OF THE STRUCTURE IN THE TRANSVERSE AXIS PLANE. PROVIDE

THAT ALL PARTS OF THE STRUCTURE, INSULATORS, AND HARDWARE ASSEMBLIES CAN BE REACHED FOR MAINTENANCE.

7. THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING CASES:

A. ALL CONDUCTORS AND GROUND WIRES INSTALLED FOR ALL LOAD CASES

B: ALL AHEAD SPANS ONLY INSTALLED FOR, EXCEPT LOAD CASE 5.

CASE 1.

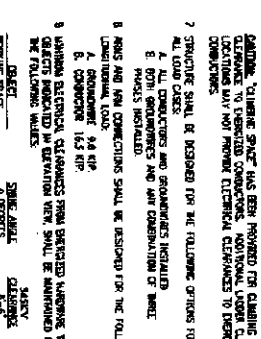
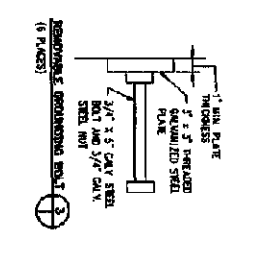
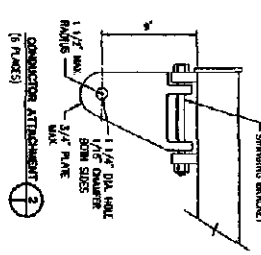
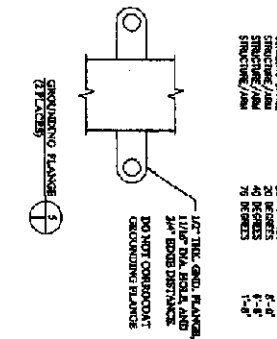
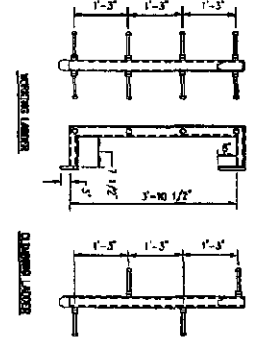
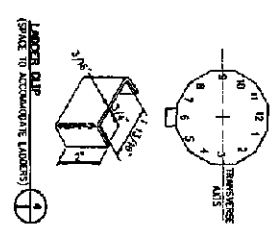
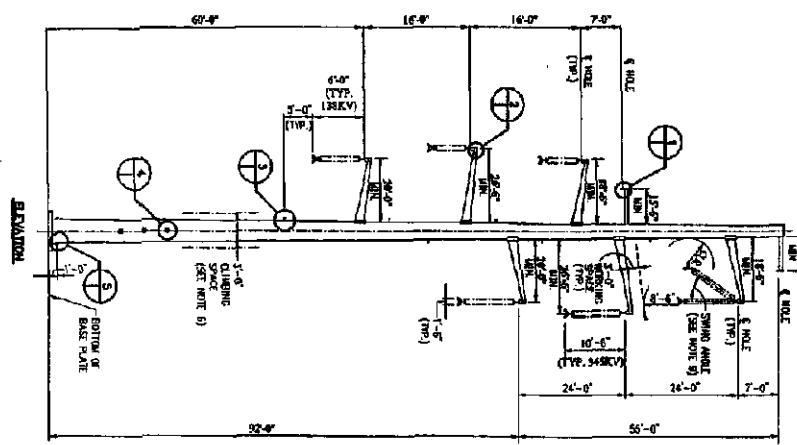
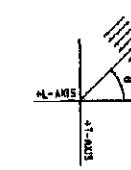
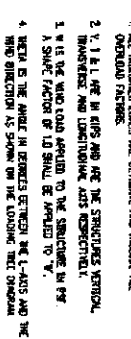
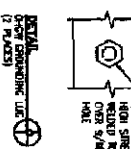
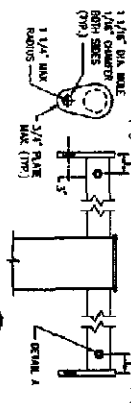
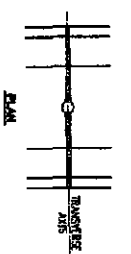
DESIGNED TO WITHSTAND THE RESULTANT LOAD, 10 DEGREES
EITHER SIDE OF INDICATED LINE ANGLES

Durco
Energies

DATE	06/07/08	LOCATION	CITY OF MONROVIE
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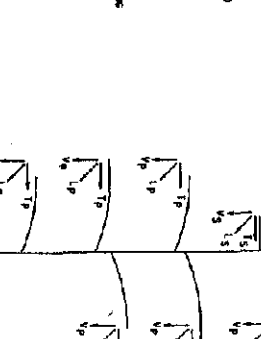
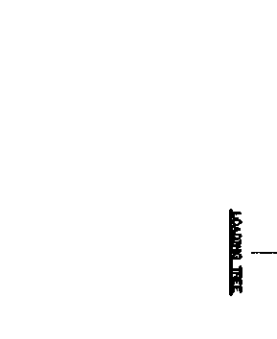
ELECTRIC TRANSMISSION A DISTRIBUTION	LINE NO	ORG NO	HERY-2
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LOADING CONDITIONS									
NO.	DESCRIPTION	TYPE	ICE	WIND	1	2	3	4	5
1	NEAR HEAVY	0	0.50	40	1.5	1.5	1.5	1.5	1.5
2	CRITICAL WIND	0	0.50	90	0.60	0.75	0.90	1.05	1.20
3	SEVERE WIND	0	1.00	0	1.07	0.96	0.80	0.60	0.40
4	CRITICAL WIND	15	0.75	40	1.42	0.72	0.40	0.20	0.10
5	CRITICAL WIND	60	0.00	0	0.30	0.08	0.00	0.00	0.00
6	CONSTRUCTION	20	0.00	0	1.14	0.21	0.04	0.00	0.00

STRUCTURE RESISTANCE
 DESIGN WIND SPEED: 110 MPH
 WIND DIRECTION: 100°
 WIND DURATION: 100 HOURS
 WIND DURATION: 100 HOURS



1. ALL INDICATED LOADS ARE ULTIMATE AND INCLUDE ALL OVERHEAD WEIGHTS.
2. 1.5 LBS PER SQ FT ARE THE STRUCTURAL WEIGHT, TRANSFER AND LIFTING WEIGHTS RESPECTIVELY.
3. IF THE WIND LOAD APPLIED TO THE STRUCTURE IN #4 IS SHOWN AS 0, IT SHALL BE APPLIED TO "V".
4. IF THE WIND IS SHOWN AS 0, IT SHALL BE APPLIED TO "V".
5. THE DEAD LOAD OF THE STRUCTURE SHALL BE MULTIPLIED BY 1.5.
6. THE LIVE LOAD OF THE STRUCTURE SHALL BE MULTIPLIED BY 1.5.
7. THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING LOADS:
 - A. DEAD LOAD: 100 PSF
 - B. LIVE LOAD: 100 PSF
 - C. WIND LOAD: 100 PSF
 - D. SEISMIC LOAD: 100 PSF
8. THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING LOADS:
 - A. DEAD LOAD: 100 PSF
 - B. LIVE LOAD: 100 PSF
 - C. WIND LOAD: 100 PSF
 - D. SEISMIC LOAD: 100 PSF
9. THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING LOADS:
 - A. DEAD LOAD: 100 PSF
 - B. LIVE LOAD: 100 PSF
 - C. WIND LOAD: 100 PSF
 - D. SEISMIC LOAD: 100 PSF



DRAWING NOT TO SCALE
 REX-DCTAN

FOSTER - TODHUNTER (ROCKIES EXPRESS LOOP) - DOUBLE CIRCUIT, TANGENT, REX-DCTAN

DATE: 10/1/01
 DRAWN BY: J. J. JONES
 CHECKED BY: J. J. JONES
 APPROVED BY: J. J. JONES

APPENDIX B
LETTERS TO OFFICIALS



DUKE ENERGY
139 East Fourth St.
Cincinnati, OH 45202

July 13, 2008

Natural Resources Management
Room 409A
139 East Fourth Street
Cincinnati, Ohio 45202

Mr. C. Michael Kilburn, Commissioner
Warren County Commissioner Administration Building
406 Justice Dr.
Lebanon, Ohio 45036

Dear Mr. Kilburn:

RE: Line F5689 138 kV Electric Transmission Line Loop to Rockies Express Substation

Please find enclosed a copy of a Letter of Notification that Duke Energy Ohio sent to the Ohio Power Siting Board regarding a planned new 138 kV transmission line loop. This project will connect Duke Energy Ohio's existing F5689 138 kV transmission line to the Rockies Express Substation, currently under construction and required for the Rockies Express Hamilton Compressor Station. This Letter of Notification replaces the project information that was originally sent on June 12, 2008 (PUCO Case No. 08-0736-EL-BLN).

In accordance with Ohio Administrative Code (OAC) 4906-1-01 Appendix A, we are required to prepare this Letter of Notification for the Ohio Power Siting Board and in compliance with OAC 4906-11-02(B), we are hereby providing you with a copy. Please feel free to call me at (513) 287-2379 if you have any questions about this project.

Sincerely,
Duke Energy

Stephen R. Lane
Environmental Scientist

Enclosure

Cc Mr. James VanDeGrift, Turtle Creek Township Trustees
Mayor Robert Routson, City of Monroe
Public Utilities Commission of Ohio



DUKE ENERGY
139 East Fourth St.
Cincinnati, OH 45202

July 13, 2008

Natural Resources Management
Room 409A
139 East Fourth Street
Cincinnati, Ohio 45202

Mr. James VanDeGrift, Trustee
Turtle Creek Township Trustees
670 N. State Route 123
Lebanon, OH 45036

Dear Mr. VanDeGrift:

RE: Line F5689 138 kV Electric Transmission Line Loop to Rockies Express Substation

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Sincerely,
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Stephen R. Lane
Environmental Scientist

Enclosure

Cc Mr. C. Michael Kilburn, Warren County Board of Commissioners
Mayor Robert Routson, City of Monroe
Public Utilities Commission of Ohio



DUKE ENERGY
139 East Fourth St.
Cincinnati, OH 45202

July 13, 2008

Natural Resources Management
Room 409A
139 East Fourth Street
Cincinnati, Ohio 45202

Mayor Robert Routson
City of Monroe
233 South Main Street,
Monroe, Ohio 45050

Dear Mayor Routson:

RE: Line F5689 138 kV Electric Transmission Line Loop to Rockies Express Substation

Please find enclosed a copy of a Letter of Notification that Duke Energy Ohio sent to the Ohio Power Siting Board regarding a planned new 138 kV transmission line loop. This project will connect Duke Energy Ohio's existing F5689 138 kV transmission line to the Rockies Express Substation, currently under construction and required for the Rockies Express Hamilton Compressor Station. This Letter of Notification replaces the project information that was originally sent on June 12, 2008 (PUCO Case No. 08-0736-EL-BLN).

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