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January 9, 2009

Mr. Jon Pawley
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215

Reference: Letter of Notification: Carroll Electric Cooperative 138 KV Radial
Transmission Line
PUCO Case Number 08-0053 - EL - BLN

Dear Mr. Pawley,

Enclosed for filing are one original and eleven copies of a Letter of Notification regarding a Carroll Electric Cooperative's 138 KV Radial Transmission Line project. This project is a 1.3 mile extension of a 138 KV transmission line from ATSI's Burger-Knox 138 KV Transmission Line to the Carroll Electric Cooperative's Washington Substation located at the intersection of SR 171 and SR 9 in Carrollton Village, Carroll County, Ohio.

After docketing this filing, please return one time-stamped copy of the Letter of Notification for our records. Copies of the transmittal letters addressed to the specific agencies contacted are enclosed in the appendix.

If you have any questions regarding this submittal, please contact me at (937) 433-8262.

Sincerely,

Patrick J. Wheeler, PE
Utility Systems Engineering

Enclosures

Cc: Larry Fenbers, General Manager
Joel Valley, Manager of Engineering and Operations
Carroll Electric Cooperative, Inc.
350 Canton Rd. NW
P.O. Box 67
Carrollton, Ohio 44615-0067

Christina J. Todd, Associate Engineer
Transmission Engineering
FirstEnergy Corp.
76 South Main Street
Akron, OH 44308-1890

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DO NOT

LETTER OF NOTIFICATION

138 KV ELECTRIC RADIAL TRANSMISSION LINE

FOR

**CARROLL ELECTRIC COOPERATIVE
OHIO - 84 - CARROLL
CARROLLTON, OHIO**

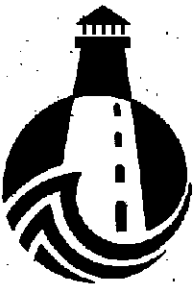
PUCO CASE NUMBER 00 0053 - EL - BLN

Submitted pursuant to OAC 4906 - 11 - 01

Carroll Electric Cooperative, Inc.
350 Canton Rd. NW
P.O. Box 67
Carrollton, Ohio 44615-0067

Utility Systems Engineering, Inc.
7601 Paragon Road, Suite 101
Centerville, Ohio 45459

December 12, 2008



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December 12, 2008

Mr. Jon Pawley
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215

Reference: Letter of Notification: Carroll Electric Cooperative 138 KV Radial
Transmission Line
PUCO Case Number 08 - _____ - EL - BLN

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July 8, 2008

Dr. Leon Winget
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215
leon.winget@opuc.state.oh.us

Reference: Ohio-84-Carroll 138 kV Transmission Tap

Dear Dr. Winget,

This is a notification to Ohio Power Siting Board regarding a proposed 1.3 mile, 3 phase, 336 ACSR, 138kV Transmission line for Carroll Electric Cooperative that would run west with the majority of the route along the south side of CR 71 to the existing First Energy 138 kV transmission line located between Mobile Rd. NE and Andora Rd. NE. Please see the following specifics regarding the project as related to document 4906-11-01 "Letter of notification requirements".

- **Project Name:** Washington Substation 138 kV Transmission tap less than 2 miles—Carroll Electric Cooperative, Inc.
- **Need for project:** The Washington Meter Point is currently served by a 12 kV feeder. Capacity and reliability require the conversion of the Washington Meter Point to a 138/12 kV, 20 MVA Substation which calls for a transmission tap and the 138 kV transmission line is the closest to the project, meeting the project requirements.
- **Location of project:** Please see Buckeye Power Transmission map along with the attached USGS map.
- **Project alternatives:** This transmission route is the most direct and has the least impact in the area as there is an existing distribution line along the same route.
- **Construction Schedule:** Plan to build late 2008 / early 2009 with a planned in service date in-service date of Summer 2009.
- **Area Maps:** Please see attached USGS Map.
- **Operating Characteristics:** (31)-60 or 70', class 2 wooden poles placed inside private right-of-way over-building on existing 12 kV line.
- **EMF Discussion:** The transmission line is a tap to a 20 MVA substation. At 138kV, there is a minimal amount of field produced due to low current and as such will have minimal impact. EMF calculations are in the process of being completed.
- **Design Alternatives:** The preferred design uses the First Energy horizontal insulators on wooden poles to provide for future operation and maintenance requirements.

- **Estimated Cost:** We estimate the cost of the line to be \$700,000.
- **Land use in vicinity:** The project is located in Washington Township, Carroll County, Ohio where area land is used for farming. The county is 399 sq. miles with a population of 28,836 and a density of 33 people / sq mile. The township is 26 sq. miles with a population of 1,061 and a density of nearly 41 people / sq. mile. There are no municipalities within the township. The transmission tap is located within the road right-of-way and the surrounding area consist of rolling fields and rural land with some being utilized for farming. The crops consist of mostly hay fields along with some corn and beans. The proposed line route tends not to stray into the farm fields. Two homes and the township trustee hall are located within 200' of the proposed route. Trees are located in 8 places and will need to be cut along with the widening of the right-of-way. Pictures beginning at the transmission tap and continuing along the transmission route until reaching the substation are included.
- **Archeological or cultural Resources:** The Resource Protection and Review Department of the Ohio Historical Preservation Office has / will be contacted for their comments.
- **Public notification:** The Washington Township trustees will be contacted. The Cooperative will make a press release in the local newspaper.
- **Current / Pending Litigation:** None
- **Local, state, federal Agencies:** USDA-RUS Electric Division. The work will be executed with a RUS Contract Form 830.
- **Federal and State Endangered Species:** Both the US Department of the Interior - Fish and Wildlife Service and the Division of Wildlife - Ohio Department of Natural Resources have / will be contacted for their comments.
- **Ecological Concerns:** The Division of Wildlife -Ohio Department of Natural Resources, Division of Real Estate and Land Management - Ohio Department of Natural Resources, U.S. Army Corps of Engineers, Huntington District and the Natural Resources Conservation Service - U.S. Department of Agriculture have / will be contacted for their comments.

The above information fulfills the requirements regarding notification as best as can be completed at this time. Please feel free to contact us regarding any questions or concerns you may have.

Sincerely,

Jill Parrett
Utility Systems Engineering

Mr. Larry Fenbers, Executive Manager
Carroll Electric Cooperative, Inc.
350 Canton Rd. NW
P.O. Box 67
Carrollton, Ohio 44615-0067

Mr. William F. McDevitt,
General Field Representative
Rural Utilities Service
P.O. Box 12602
Columbus, Ohio 43212

Letter of Notification
138 KV Radial Transmission Line
Carroll Electric Cooperative, Inc.
Washington Substation

The following information is being provided in accordance with the OAC 4906 – 11 – 01: Letter of Notification Requirements of the Ohio Power Siting Board.

This project qualifies as a Letter of Notification (LON) because it fits the criteria of OAC 4906 – 11 – 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."

A Need Statement

1) Project Name, Description and Need

- a) **Name:** Washington Substation 138 kV Transmission tap less than 2 miles—Carroll Electric Cooperative, Inc.

The proposed new 138 KV radial transmission line is 1.3 miles in length and will extend from Carroll Electric Cooperative's Washington Substation to the First Energy Burger-Knox 138 KV transmission line.

- b) **Description:** This project will provide 138 KV service to the Carroll Electric Cooperative's Washington Substation, which is currently served by a 12.47 KV distribution line from American Electric Power's Carrollton Substation.

The requested transmission connection point will be from the Burger-Knox 138 KV line, traveling West to East. The line extension will be 1.3 miles long, slightly North of Carrollton City near Cobbler Rd. The proposed in-service date is June 1, 2009.

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

- c) **Need:** The Washington Meter Point is currently served by a 12 kV feeder. Capacity and reliability require the conversion of the Washington Meter Point to a 138/12 kV, 20 MVA Substation which calls for a transmission tap and the 138 kV transmission line is the closest to the project, meeting the project requirements.

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

This project is not included in the 2008, or earlier, LTFR.

3) Alternatives Considered:

This transmission route is the most direct and has the least impact in the area as there is an existing distribution line along the same route. It is the least cost alternative.

4) Construction Schedule:

Plan to build early 2009 with a planned in-service date of Summer 2009.

5) Area Maps and Directions to Project Area:

A USGS map of the project location is attached to this LON in Appendix D; a smaller scale engineering line drawing of the project route is also attached.

From East Main Street, Carrollton, Ohio, turn right on North Lisbon Street / SR 9 for 3.7 miles, turn right on Cobbler Road / SR 171 / CR 71 for 2.7 miles to the intersection of Cobbler Road and Squirrel Road.

B Technical Features

1) Operating Characteristics:

The proposed transmission radial line will operate at 138 kV and require approximately 1.3 miles of 477 ACSR conductor, 39 new wood poles and 4 new steel poles along with the associated construction units. The locations of the new poles are identified on the included engineering line drawing. The poles will be between 50 and 95 feet in height.

2) Electric Magnetic Fields:

Carroll Electric Cooperative ran estimates of the electric and magnetic fields using the "Enviro" program for the proposed 138 kV radial transmission line at the lowest point of conductor sag along the length of the project for the worst case loading scenario. A graph of the results is attached in Appendix C.

The study shows that the maximum magnetic field directly under the middle conductor would be a maximum of 17 milligauss (mG), tapering off quickly to 2 mG at 75 feet if the line were loaded to its maximum substation rating. At the distance of the nearest residence, approximately 75 feet West of transmission line pole #11, magnetic fields are expected to be less than 2 mG.

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 kV, while magnetic field strengths depend on amperage, which varies by demand for electricity.

Carroll Electric Cooperative has designed its facilities according to First Energy standards which adhere to the Nation Electric Safety Code (NESC), at a minimum. The structure height and configuration was chosen based on the NESC, engineering parameters and cost.

- 3) **Estimated Costs:** The project is expected to cost approximately \$350,000.

C Socioeconomic Data

- 1) **Land Use:** The project is located entirely on easement that has already been secured by Carroll Electric Cooperative. Land use in the vicinity of the project route is residential, commercial and farmland.

The nearest residence is located approximately 75 feet North of the proposed radial line.

- 2) **Agricultural District Land:**

According to the NRCS, there will be no adverse impact to the project route nor any adjacent properties.

- 3) **Cultural Resources:**

The Ohio Historical Society's opinion is the undertaking will not affect properties listed in or eligible for listing in the National Register of Historic Places. No further coordination is required.

- 4) **Notification of Officials:**

Washington Township trustees were informed of the project through verbal communication. In addition, all environmental agencies were informed in writing of the project and solicited for the comments.

No public information program, materials or meetings were conducted for the siting of this proposed facility.

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 permit requirements exist for this project.

D Environmental Data

Carroll Electric Cooperative solicited comments from environmental agencies including the following:

Division of Real Estate and Land Management, Ohio Dept. of Natural Resources
Division of Wildlife, Ohio Dept. of Natural Resources
Fish and Wildlife Service, US Dept. of the Interior
US Army Corps of Engineers, Huntington District
Ohio Historical Preservation Office

The agencies were asked to state any concerns they may have in regards to natural resources, wetlands, flood plains, river crossings, wildlife, endangered species, wildlife refuges and historical or archeological properties.

Ohio Department of Natural Resources and the US Department of Fish and Wildlife's main concern is the habitat of the Indiana Bat. No tree cutting will be done between the months of April and September where the potential habitat is likely to be found along the project route. Two locations, pole # 25 and pole # 3, potentially are located within a wetland area. The two poles will be placed in matting to accommodate the concern.

1) Species of Concern:

A field survey was conducted November 14, 2008.
Several trees that would be suitable habitat for the Indiana Bat were noted.

In addition, two poles, pole numbers 3 and 25, will require matting for access.

2) Areas of Ecological Concern:

Several trees and two potential wetlands areas were identified along the project route.

3) Additional Information:

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

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APPENDIX A LETTERS TO AGENCIES



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July 8, 2008

Mr. Paul Baldrige
Division of Real Estate and Land Management
Ohio Department of Natural Resources
2045 Morse Rd, bldg C-4.
Columbus, OH 43229

Reference: Ohio-84-Carroll 138 kV Transmission Tap

Dear Mr. Paul Baldrige:

Carroll Electric Cooperative is preparing for the conversion of the Washington Meter Point to a 138/12 kV, 20 MVA Substation on the existing site at the intersection of CR71 (Cobbler Rd. NE) and TR 627 (Squirrel Rd.) in Washington Township, Carroll County, Ohio. This conversion requires the construction of 1.3 miles of 3 phase, 336 ACSR, 138kV line from the existing Washington Meter Point site west along CR 71 to the existing First Energy 138 kV transmission line located between Mobile Rd. NE and Andora Rd. NE. The reason for this project is to provide service for increased power requirements, reduce delivery cost and for general system improvement and reliability. The Cooperative has identified the transmission line route shown on the attached area print. The 138kV line will be built over an existing distribution circuit and will be just inside private right of way following road right-of-way and will be a single pole construction. The proposed powerline route will be where there is currently constructed powerlines with the majority of the route on the south side of the road and a minimal amount to the north.

Due to the 138kV voltage level and that the line will be less than two miles, the Ohio Power Siting Board requires a letter of notification from your agency addressing the environmental impact that the proposed construction has in relationship to important natural resources in the project area. To avoid unnecessary delays, we would appreciate receiving your written comments within thirty (30) days.

A copy of a portion of a boundaries map and a USGS topographic map locating the proposed facilities is enclosed. If you have any questions, or need additional information, please contact me at (937) 433-8262.

Sincerely,

Jill Parrett

Attachment

cc:

Dr. Leon Winget,
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215
leon.winget@opuc.state.oh.us

Mr. William F. McDevitt,
General Field Representative
Rural Utilities Service
P.O. Box 12602
Columbus, Ohio 43212

Mr. Larry Fenbers, Executive Manager
Carroll Electric Cooperative, Inc.
350 Canton Rd. NW
P.O. Box 67
Carrollton, Ohio 44615-0067



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July 8, 2008

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Division of Real Estate and Land Management
Ohio Department of Natural Resources
2045 Morse Rd, bldg C-4
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180 East Broad Street
Columbus, Ohio 43215
leon.winget@opuc.state.oh.us

Mr. William F. McDevitt,
General Field Representative
Rural Utilities Service
P.O. Box 12802
Columbus, Ohio 43212

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Carroll Electric Cooperative, Inc.
350 Canton Rd. NW
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July 8, 2008

Ms. Becky Jenkins
Division of Wildlife
Ohio Department of Natural Resources
2045 Morse Rd, Bldg. G.
Columbus, Ohio 43224

Reference: Ohio-84-Carroll 138 kV Transmission Tap

Dear Ms. Jenkins:

Carroll Electric Cooperative is preparing for the conversion of the Washington Meter Point to a 138/12 kV, 20 MVA Substation on the existing site at the intersection of CR71 (Cobbler Rd. NE) and TR 627 (Squirrel Rd.) in Washington Township, Carroll County, Ohio. This conversion requires the construction of 1.3 miles of 3 phase, 336 ACSR, 138kV line from the existing Washington Meter Point site west along CR 71 to the existing First Energy 138 kV transmission line located between Mobile Rd. NE and Andora Rd. NE. The reason for this project is to provide service for increased power requirements, reduce delivery cost and for general system improvement and reliability. The Cooperative has identified the transmission line route shown on the attached area print. The 138kV line will be built over an existing distribution circuit and will be just inside private right of way following road right-of-way and will be a single pole construction. The proposed powerline route will be where there is currently constructed powerlines with the majority of the route on the south side of the road and a minimal amount to the north.

Due to the 138kV voltage level and that the line will be less than two miles, the Ohio Power Siting Board requires a letter of notification from your agency addressing the environmental impact that the proposed construction has in relationship to wetlands, flood plains and wildlife in the project area. To avoid unnecessary delays, we would appreciate receiving your written comments within thirty (30) days.

A copy of a portion of a boundaries map and a USGS topographic map locating the proposed facilities is enclosed. If you have any questions, or need additional information, please contact me at (937) 433-8262.

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Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215
leon.winget@opuc.state.oh.us

Mr. William F. McDevitt,
General Field Representative
Rural Utilities Service
P.O. Box 12602
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July 8, 2008

Dr Mary M Knapp
US Department of the Interior
Fish and Wildlife Service
Reynoldsburg Field Office
6950-H Americana Parkway
Reynoldsburg, Ohio 43068-4115

Reference: Ohio-84-Carroll 138 kV Transmission Tap

Dear Dr. Knapp:

Carroll Electric Cooperative is preparing for the conversion of the Washington Meter Point to a 138/12 kV, 20 MVA Substation on the existing site at the intersection of CR71 (Cobbler Rd. NE) and TR 627 (Squirrel Rd.) in Washington Township, Carroll County, Ohio. This conversion requires the construction of 1.3 miles of 3 phase, 336 ACSR, 138kV line from the existing Washington Meter Point site west along CR 71 to the existing First Energy 138 kV transmission line located between Mobile Rd. NE and Andora Rd. NE. The reason for this project is to provide service for increased power requirements, reduce delivery cost and for general system improvement and reliability. The Cooperative has identified the transmission line route shown on the attached area print. The 138kV line will be built over an existing distribution circuit and will be just inside private right of way following road right-of-way and will be a single pole construction. The proposed powerline route will be where there is currently constructed powerlines with the majority of the route on the south side of the road and a minimal amount to the north.

Due to the 138kV voltage level and that the line will be less than two miles, the Ohio Power Siting Board requires a letter of notification from your agency addressing the environmental impact that the proposed construction has in relationship to threatened and endangered species, wildlife, wildlife refuges, wetlands and other important natural resource concerns. To avoid unnecessary delays, we would appreciate receiving your written comments within thirty (30) days.

A copy of a portion of a boundaries map and a USGS topographic map locating the proposed facilities is enclosed. If you have any questions; or need additional information, please contact me at (937) 433-8262.

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July 8, 2008

Mr. Michael D. Gheen, Chief
Regulatory Functions Branch
U.S. Army Corps of Engineers, Huntington District
502 Eighth Street
Huntington, West Virginia 25701-2070

Reference: Ohio-84-Carroll 138 kV Transmission Tap

Dear Mr. Gheen:

Carroll Electric Cooperative is preparing for the conversion of the Washington Meter Point to a 138/12 kV, 20 MVA Substation on the existing site at the intersection of CR71 (Cobbler Rd. NE) and TR 627 (Squirrel Rd.) in Washington Township, Carroll County, Ohio. This conversion requires the construction of 1.3 miles of 3 phase, 336 ACSR, 138kV line from the existing Washington Meter Point site west along CR 71 to the existing First Energy 138 kV transmission line located between Mobile Rd. NE and Andora Rd. NE. The reason for this project is to provide service for increased power requirements, reduce delivery cost and for general system improvement and reliability. The Cooperative has identified the transmission line route shown on the attached area print. The 138kV line will be built over an existing distribution circuit and will be just inside private right of way following road right-of-way and will be a single pole construction. The proposed powerline route will be where there is currently constructed powerlines with the majority of the route on the south side of the road and a minimal amount to the north.

Due to the 138kV voltage level and that the line will be less than two miles, the Ohio Power Siting Board requires a letter of notification from your agency addressing the environmental impact that the proposed construction has in relationship to wetlands, floodplains, 100-year floodplain elevation and river crossings. To avoid unnecessary delays, we would appreciate receiving your written comments within thirty (30) days.

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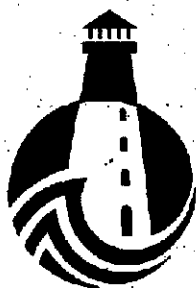
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July 8, 2008

Mr James Strider, Director
Resource Protection and Review Department
Ohio Historical Preservation Office
567 East Hudson Street
Columbus, Ohio. 43211-2497

Reference: Ohio-84-Carroll 138 kV Transmission Tap

Dear Dr. Strider:

Carroll Electric Cooperative is preparing for the conversion of the Washington Meter Point to a 138/12 kV, 20 MVA Substation on the existing site at the intersection of CR71 (Cobbler Rd. NE) and TR 627 (Squirrel Rd.) in Washington Township, Carroll County, Ohio. This conversion requires the construction of 1.3 miles of 3 phase, 336 ACSR, 138kV line from the existing Washington Meter Point site west along CR 71 to the existing First Energy 138 kV transmission line located between Mobile Rd. NE and Andora Rd. NE. The reason for this project is to provide service for increased power requirements, reduce delivery cost and for general system improvement and reliability. The Cooperative has identified the transmission line route shown on the attached area print. The 138kV line will be built over an existing distribution circuit and will be just inside private right of way following road right-of-way and will be a single pole construction. The proposed powerline route will be where there is currently constructed powerlines with the majority of the route on the south side of the road and a minimal amount to the north.

Due to the 138kV voltage level and that the line will be less than two miles, the Ohio Power Siting Board requires a letter of notification from your agency addressing the environmental impact that the proposed construction has in relationship to properties of historical and archeological significance currently listed or eligible for inclusion in the National Register of Historical Places and any other areas of specific cultural resource concern in the project area. To avoid unnecessary delays, we would appreciate receiving your written comments within thirty (30) days.

A copy of a portion of a boundaries map and a USGS topographic map locating the proposed facilities is enclosed. If you have any questions, or need additional information, please contact me at (937) 433-8262.

Sincerely,

Jill Parrett

Attachment

cc:

Dr. Leon Winget,
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215
leon.winget@opuc.state.oh.us

Mr. William F. McDevitt,
General Field Representative
Rural Utilities Service
P.O. Box 12602
Columbus, Ohio 43212

Mr. Larry Fenbers, Executive Manager
Carroll Electric Cooperative, Inc.
350 Canton Rd. NW
P.O. Box 67
Carrollton, Ohio 44615-0067

I. SCOPE AND PURPOSE

Carroll Electric Cooperative is preparing for the conversion of the Washington Meter Point to a 138/12 kV, 20 MVA Substation at an existing site in Washington Township, Carroll County, Ohio and for the construction of 1.3 miles of 3 phase, 336 ACSR, 138kV line from the existing Washington Meter Point site at the intersection of CR71 (Cobbler Rd. NE) and TR 627 (Squirrel Rd.) west along CR 71 to the existing First Energy 138 kV transmission line located between Mobile Rd. NE and Andora Rd. NE. The reason for this project is to provide service for increased power requirements, reduce delivery cost and for general system improvement and reliability. The Cooperative has identified the transmission line route shown on the attached area print. The 138kV line will be built along private right of way that follows the existing road right-of-way and will be a single pole construction. The proposed powerline route will be where there is currently constructed powerlines.

II. PROJECT DESCRIPTION

A. 138kV transmission line (Item 802)

The construction of the 138kV transmission line will comply with the guidelines defined by the RUS Bulletin 1724E-200, "Design Manual for High Voltage Transmission Lines". The construction will be a single pole vertical type construction. Existing distribution lines currently on the proposed route will be repositioned to the new poles, under the proposed transmission line conductors.

The proposed route along CR 71 from the existing Washington Meter Point to the current First Energy 138kV transmission line is shown on the attached USGS map. The proposed route will be at the edge of the existing right-of-way. The overall length of the 138 kV line will be 1.3 miles.

III. NEED FOR THE PROJECT

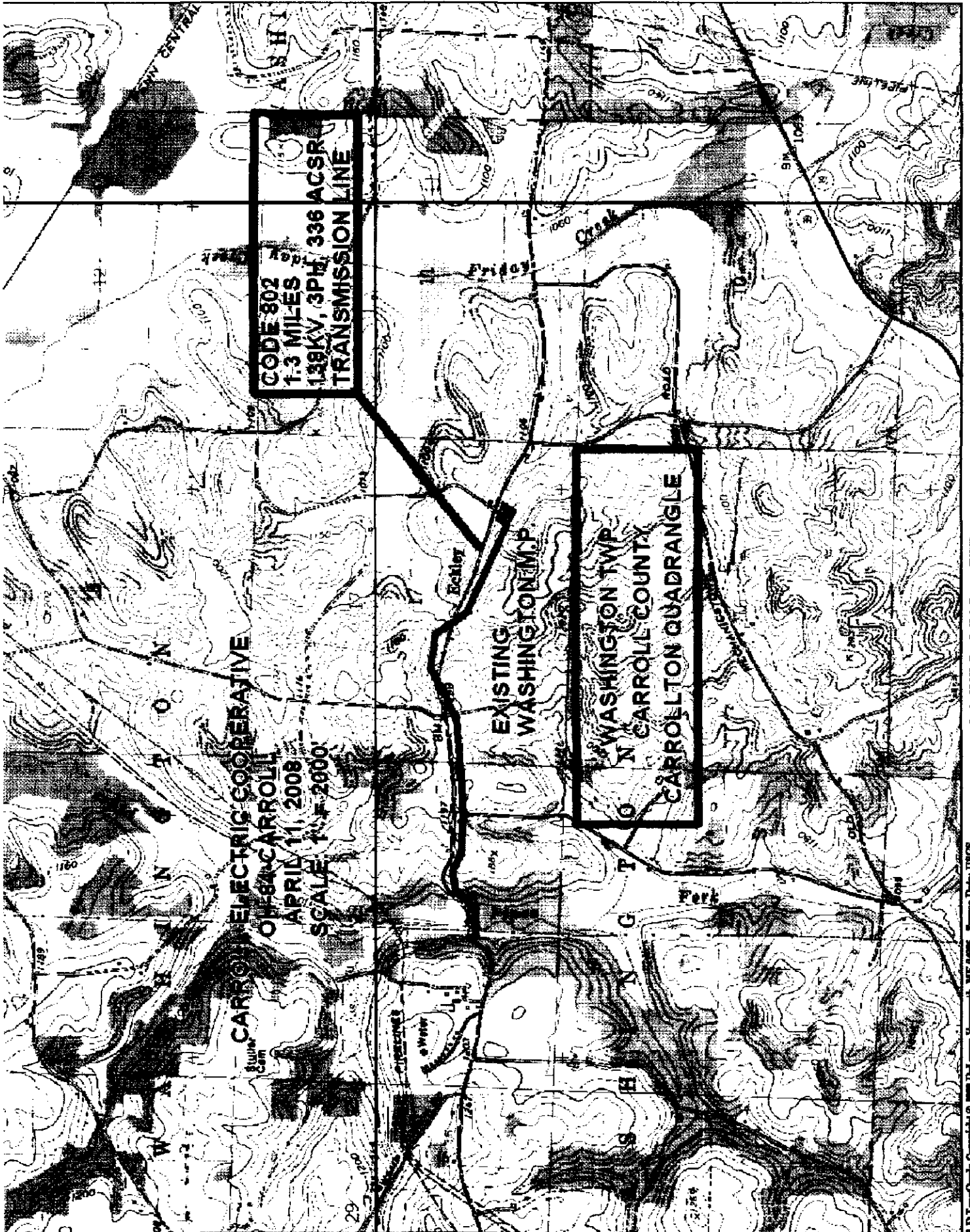
The conversion of the existing Washington M.P. to a 138/12 kV, 20 MVA Substation requires that a 138kV transmission tap be constructed. The new Washington substation and the 138kV transmission line are required to provide service for increased power requirements, reduce delivery cost and increase general system improvement and reliability.

IV. ALTERNATIVE CONSIDERTIONS TO THE PROJECT

It is the ultimate goal to serve all delivery points with transmission Voltage. Washington has enough initial load to make this conversion possible. Since this is the load center, and a substation has already been developed here, other locations would also require substantial investment in transmission and substation plant.

V. AFFECTED ENVIRONMENT

The 138 kV transmission line will be constructed along CR 71 west of the town of Eckley in Washington Township, Carroll County, Ohio.



APPENDIX B
RESPONSES FROM AGENCIES



Natural Resources Conservation Service
200 North High Street, Room 522
Columbus, Ohio 43215
614-255-2472 Fax: 614-255-2549

July 21, 2008

Jill Parrett
Utility Systems Engineering
7601 Paragon Rd. Suite 101
Centerville, OH 45459

Dear Ms. Parrett:

The Natural Resources Conservation Service has reviewed the OHIO-84-CARROLL 138 kV TRANSMISSION TAP supplied by you in your July 8, 2008 letter. Our review has been limited to potential impacts on prime or important farmland. Our review was based on information contained in the published soil survey for Carroll County and did not include any field review of the sites.

Within the proposed areas, there are areas mapped as either prime farmland or locally important farmland. However, given that the transmission line will be constructed in an area where there are already constructed power lines, NRCS does not believe there will be any adverse impacts to prime or important farmland in the area.

If federal funding is used for this project, Farmland Protection Policy Act compliance will need to be considered. The local NRCS office can be contacted for assistance in completing the Farmland Conversion Impact Rating (Form AD-1006).

Thank you for the opportunity to review this proposal. If you have any questions, you may contact me at 614-255-2462.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark D. DeBrock", is written over a horizontal line.

MARK D. DEBROCK
Biologist



September 3, 2008

Jill Parrett
Utility Systems Engineering
7601 Paragon Road, Suite 101
Centerville, Ohio 45459

Dear Ms. Parrett:

Re: Ohio-84-Carroll 138 kV Transmission Tap, Washington Township, Carroll County, Ohio

This is in response to your correspondence, received on July 15, 2008, regarding construction of 1.3 miles of 138 kV utility line at this location. My comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800. Based on the information submitted, I concur with the opinion that the proposed undertaking will not affect properties listed in or eligible for listing in the National Register of Historic Places. No further coordination is required unless the project changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted as per 36 CFR 800.13.

Please be aware that we have implemented new submission standards for projects submitted to OHPO beginning in January 2007. Most projects will need to be submitted using our new Project Summary Form (PSF). The PSF, detailed instructions for completing it, and associated documentation are available for download at <http://www.ohiohistory.org/resource/histpres/services/PSDF.html>.

We developed the PSF as a means to streamline the Section 106 consultation process. The PSF provides agencies, applicants, and their consultants with a form designed to assist them in compiling a level of documentation sufficient to meet the requirements established in 36 CFR Section 800.11. The instructions available for download at the website referenced above provide valuable guidance regarding how to complete the form and assemble the necessary supporting documentation. If, after reading the instructions, you have questions about the new Project Summary Form, please contact OHPO staff by phone at (614) 298-2000 or by e-mail at section106@ohiohistory.org.

If you have any questions, please contact me at (614) 298-2000, or by email at nyoung@ohiohistory.org.

Sincerely,

Nathan J. Young, Project Reviews Manager
Resource Protection and Review

1020590

OHIO HISTORICAL SOCIETY

Ohio Historic Preservation Office

567 East Hudson Street, Columbus, Ohio 43211-1030 ph: 614.298.2000 fx: 614.298.2037

www.ohiohistory.org



Ohio Department of Natural Resources

TED STRICKLAND, GOVERNOR

SEAN D. LOGAN, DIRECTOR

Division of Wildlife
David M. Graham, Chief
2045 Morse Rd., Bldg. G
Columbus, OH 43229-6693
Phone: (614) 265-6300

August 14, 2008

Jill Parrett
Utility Systems Engineering
7601 Paragon Rd.
Suite 101
Centerville, OH 45459

RE: Ohio-84-Carroll 138 kV Transmission Tap

Dear Ms. Parrett:

This is in response to your letter to Becky Jenkins dated July 8, 2008. In that letter you request information regarding environmental impacts the project referenced above may have on wetlands, flood plains and wildlife in the area. After reviewing the information provided, the Ohio Department of Natural Resources, Division of Wildlife (DOW) has the following comments.

The project is within the range of the Indiana bat (*Myotis sodalis*), a state and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: Shagbark hickory (*Carya ovata*), Shellbark hickory (*Carya laciniosa*), Bitternut hickory (*Carya cordiformis*), Black ash (*Fraxinus nigra*), Green ash (*Fraxinus pennsylvanica*), White ash (*Fraxinus americana*), Shingle oak (*Quercus imbricaria*), Northern red oak (*Quercus rubra*), Slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), Eastern cottonwood (*Populus deltoides*), Silver maple (*Acer saccharinum*), Sassafras (*Sassafras albidum*), Post oak (*Quercus stellata*), and White oak (*Quercus alba*). Indiana bat habitat consists of suitable trees that include dead and dying trees of the species listed above with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees of the species listed above with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. If suitable trees occur within the project area, these trees must be conserved. If suitable habitat occurs on the project area and trees must be cut, cutting must occur between September 30 and April 1. If suitable trees must be cut during the summer months of April 2 to September 29, a net survey must be conducted in May or June prior to cutting. Net surveys shall incorporate either two net sites per square kilometer of project area with each net site containing a minimum of two nets used for two consecutive nights, or one net site per kilometer of stream within the project limits with each net site containing a minimum of two nets used for two consecutive nights. If no tree removal is proposed, the project is not likely to impact this species.

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



PAGE TWO
Jill Parrett
August 14, 2008

The project is within the range of the loggerhead shrike (*Lanius ludovicianus*), a state endangered bird. Due to the land use of the project area and surrounding area, the DOW believes the project is not likely to impact this species.

Otherwise, the Ohio Department of Natural Resources, Division of Wildlife, is not aware of any threatened or endangered species or unique habitat in the vicinity of this project. However, the Ohio Department of Natural Resources, Division of Natural Areas and Preserves maintains the Natural Heritage Database, the state's most comprehensive record of Ohio threatened and endangered species. If you have not already done so, it is recommended you contact the Division of Natural Areas and Preserves at (614) 265-6453. To process future projects more efficiently, I recommend you contact the Division of Natural Areas and Preserves prior to contacting the Division of Wildlife. To help expedite the process, please include the results of the Division of Natural Areas and Preserves' Natural Heritage Database request when contacting us regarding future projects.

The Ohio Department of Natural Resources, Division of Wildlife is available to provide guidance on avoiding or minimizing impacts to any listed fauna and/or their habitat. If you should need further assistance, please feel free to contact Becky Jenkins at (614) 265-6631.

Sincerely,



JOHN NAVARRO
Program Administrator

JN/BJ/al



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4132

(614) 469-6923 / FAX (614) 469-6919
July 30, 2008

Ms. Jill Parrett
Utility Systems Engineering
7601 Paragon Rd. Suite 101
Centerville, Oh 45459

TAILS: 2008-TA-0916

Re: Ohio-84-Carroll 138 kV Transmission Tap

Dear Ms. Parrett:

This is in response to your July 8, 2008 letter requesting information we may have regarding the occurrence or possible occurrence of Federally-listed threatened or endangered species within the vicinity of the proposed project located at the intersection of CR 71 and TR 627 in Washington Township, Carroll County, Ohio. We understand that the project includes the construction of 1.3 miles of phase 3, 336 ACSR, 138kV line from the existing Washington Meter Mobile Rd. NE and Andora Rd. NE. We understand that the proposed line will be built over an existing distribution circuit and will be just inside private right of way following road right-of-way and will be a single pole construction.

There are no Federal wildlife refuges, wilderness areas, or Critical Habitat within the vicinity of this site.

In general, the U.S. Fish and Wildlife Service recommends that proposed activities minimize water quality impacts and impacts to quality fish and wildlife habitat, such as forests, streams, and wetlands. Note that wetlands may exist on sites that are not designated wetland by the National Wetland Inventory. We recommend that the proposed action use best construction techniques to minimize erosion. Prevention of non-native, invasive plant establishment is critical in maintaining quality habitats. All disturbed areas should be mulched and re-vegetated with native plants. Biologists from this office are available to assist with selection of native plant seed mixes. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions.

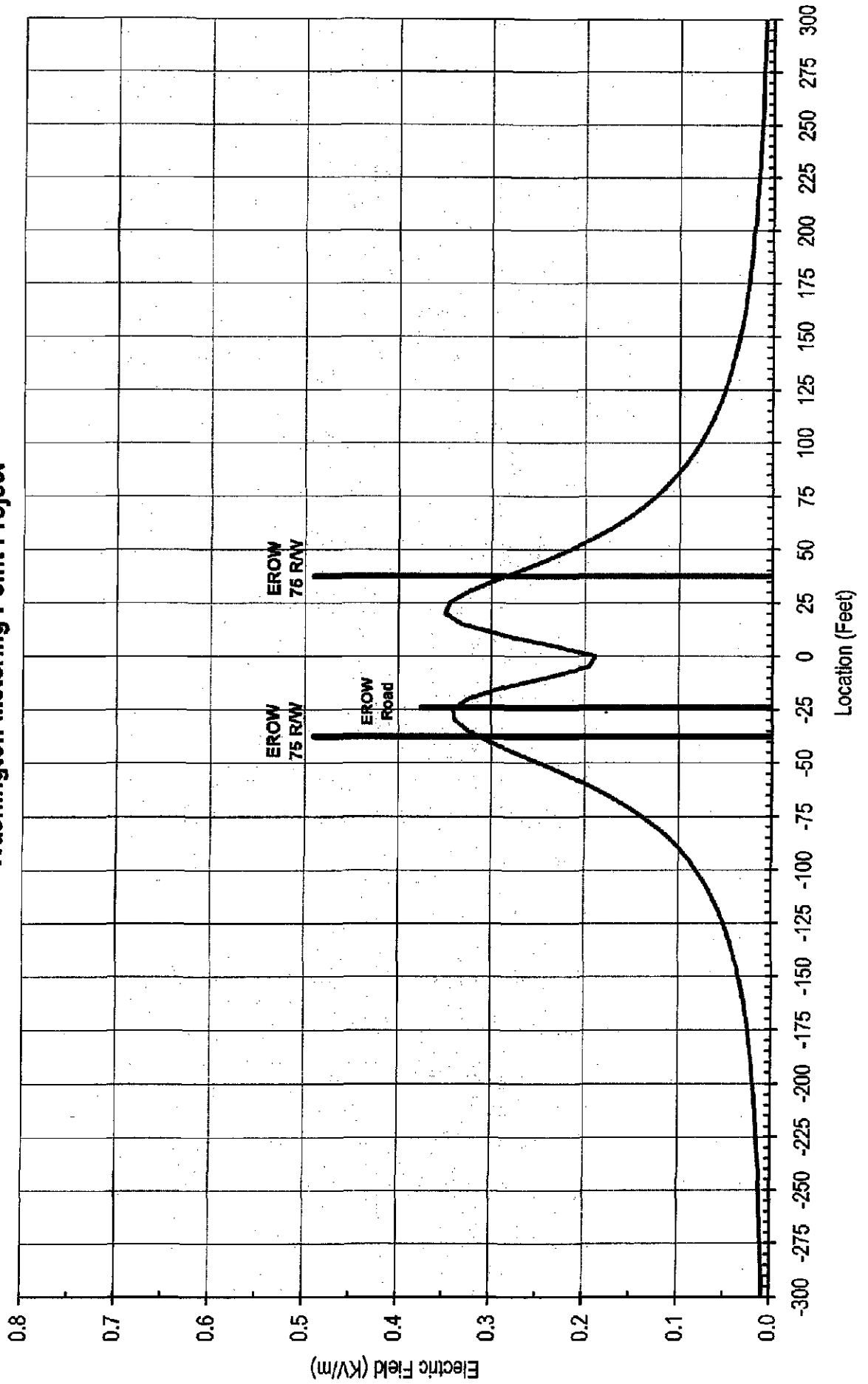
ENDANGERED SPECIES COMMENTS: The proposed project lies within the range of the **Indiana bat** (*Myotis sodalis*), a Federally-listed endangered species. Since first listed as endangered in 1967, their population has declined by nearly 60%. Several factors have contributed to the decline of the Indiana bat, including the loss and degradation of suitable hibernacula, human disturbance during hibernation, pesticides, and the loss and degradation of forested habitat, particularly stands of large, mature trees. Fragmentation of forest habitat may also contribute to declines.

APPENDIX C

EMF STUDY

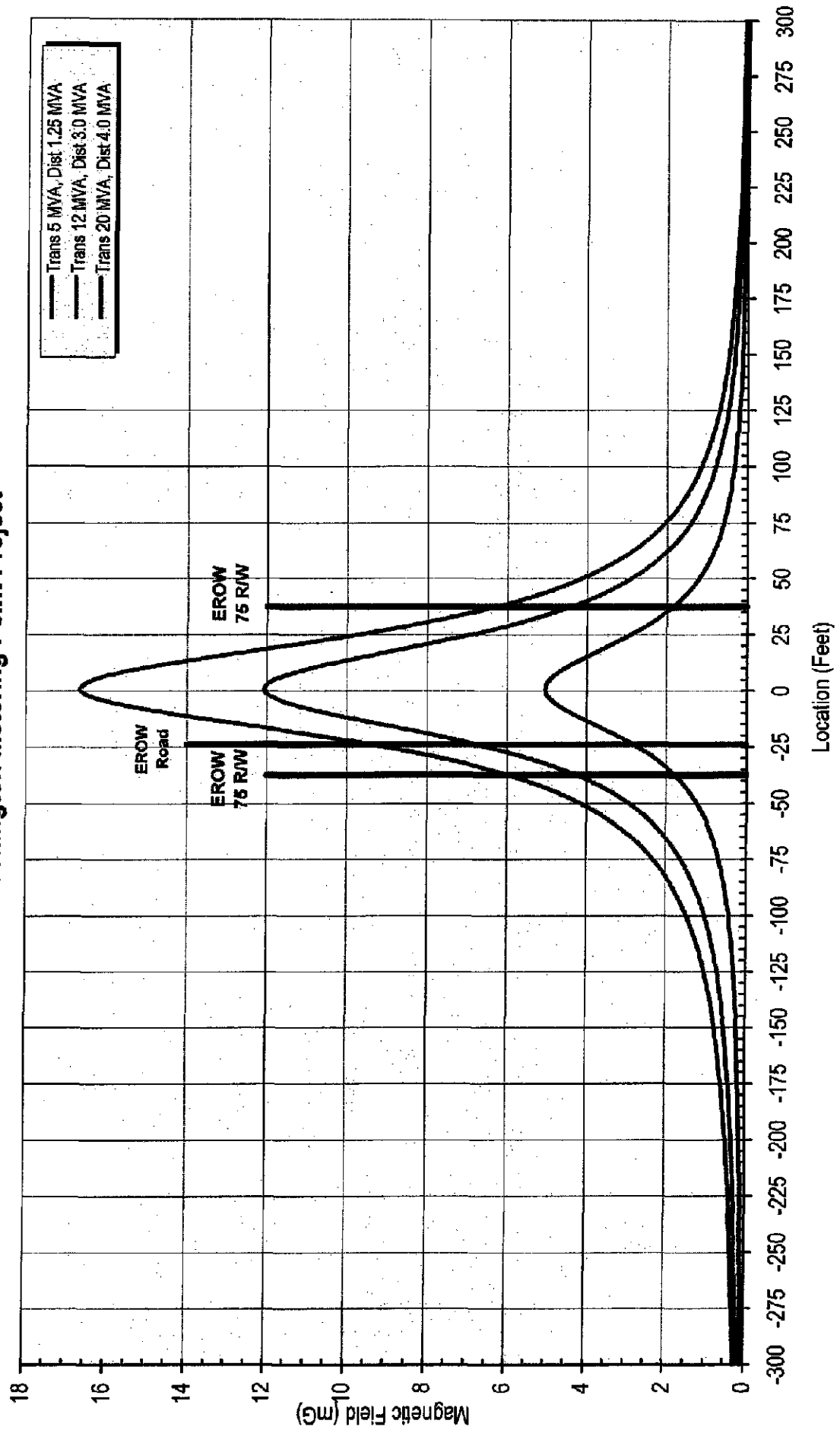
EMF STUDY

Exhibit 3 Electric Field Case 2: 138 kV Tap Line With Underbuild Washington Metering Point Project



EMF STUDY

Exhibit 4 Magnetic Field Case 2: 138 kV Tap Line With Underbuild Washington Metering Point Project



EMF STUDY

Exhibit 5 Coordinate, Voltage and Loading Assumptions for Exhibits 1 - 4

Assumptions Without and With Underbuild

Phase	Conductor Coordinates			Ground Wire	Structure	Load (Amps)
	A	B	C			
Case 1a	(6, 51)	(-6, 45)	(6, 39)	(0, 61.5)	138 kV without underbuild	Trans 21 amps, 5 MVA
Case 1b	(6, 51)	(-6, 45)	(6, 39)	(0, 61.5)	138 kV without underbuild	Trans 50 amps, 12 MVA
Case 1c	(6, 51)	(-6, 45)	(6, 39)	(0, 61.5)	138 kV without underbuild	Trans 84 amps, 20 MVA
Phase	a	b	c	Neutral	Structure	Load (Amps)
Case 2a	(4.5, 29)	(-1.5, 29)	(-4.5, 29)	(0.5, 24)	138 kV with 12.47 kV underbuild	Trans 21 amps, 5 MVA Dist 58 amps, 1.25 MVA
Case 2b	(4.5, 29)	(-1.5, 29)	(-4.5, 29)	(0.5, 24)	138 kV with 12.47 kV underbuild	Trans 50 amps, 12 MVA Dist 139 amps, 3.0 MVA
Case 2c	(4.5, 29)	(-1.5, 29)	(-4.5, 29)	(0.5, 24)	138 kV with 12.47 kV underbuild	Trans 84 amps, 20 MVA Dist 185 amps, 4.0 MVA

(x,y) x horizontal coordinate from right-of-way centerline, feet

y vertical coordinate, conductor height above ground at minimum design clearance, feet

APPENDIX D
USGS MAP OF PROJECT ROUTE
AND LOCATION

138 KV RADIAL TRANSMISSION LINE ROUTE

CODE 802
1.3 MILES
138KV, 3PH, 336 ACSR
TRANSMISSION LINE

CARROLL ELECTRIC COOPERATIVE

OH-84-CARROLL

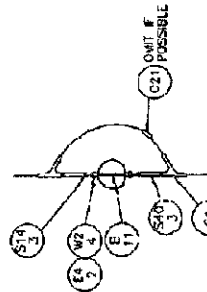
APRIL 11, 2008

SCALE: 1" = 2000'

EXISTING
WASHINGTON M.P.

WASHINGTON TWP
N CARROLL COUNTY
CARROLLTON QUADRANGLE

APPENDIX E
PROJECT STRUCTURE DESIGNS
AND
PLAN AND PROFILE



STR. #24C
SHIELDWIRE DEADEND

STR. #24C SHELDON WIRE DEADEND MATERIAL[illegible]

CF
CARROLL ELECTRIC
COOPERATIVE, INC.

150kV SINGLE CIRCUIT TANGENT HORIZONTAL POST INSULATORS

DATE 11/20/08	SCALE N.T.S.	PROJECT NO. -	DRAWING NO. 18-620
DRAWN BY JAN	CHECKED RAR	APPROVED DDD	SHEET 1 OF 1
			NOTES

THIS IS A CALCULATING SHEET FOR THE PROJECT.

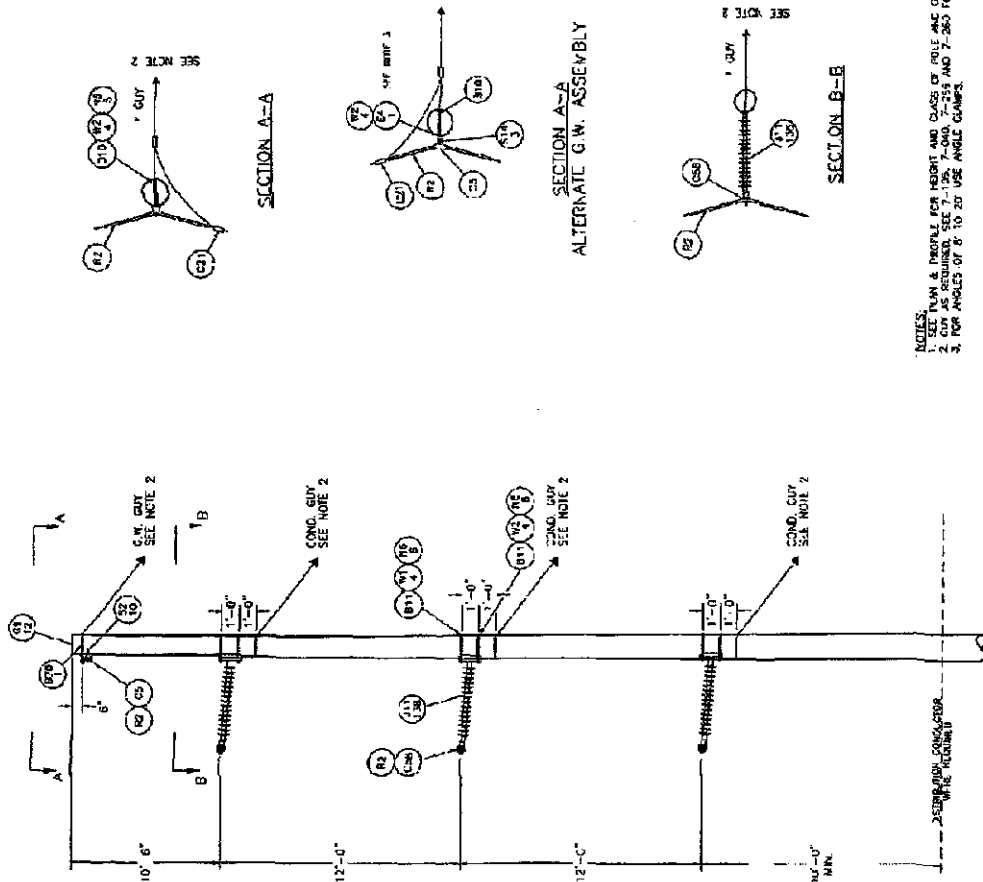
THIS IS A CLASS TRAINING. ITS NOT A JOBS OPPORTUNITY

CAI
Commonwealth Associates Inc.
Jackson, Michigan

engineers consultants construction management

engineers consultants construction management

BY: JAM	DATE: 11/17/08	TIME:	DWG #:	
ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NO.
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089/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
090/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
091/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
092/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
093/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
094/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
095/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
096/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
097/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
098/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
099/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN
100/1	1	CLAMP, 1/2" x 1/2" (SEE NOTE 2)	UNISTRAN	UNISTRAN



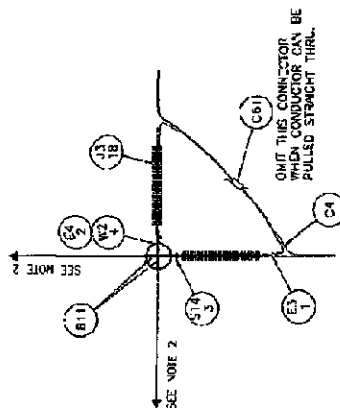
NOTES:
 1. SEE PLAN & PROFILE FOR HEIGHT AND CLASS OF POLE AND CROSSING DATA.
 2. SEE PLAN & PROFILE FOR HEIGHT AND CLASS OF POLE AND CROSSING DATA.
 3. FOR ANGLES OF 0° TO 20° USE POLE CLAMP.

CE CARROLL ELECTRIC COOPERATIVE, INC.

1381V SINGLE CIRCUIT LIGHT POLE
 SINGLE POLE
 ANGLES 0° TO 20°

CAJ Commonwealth Associates Inc.
 Jackson, Michigan
 engineers consultants construction management

DATE	SCALE	PROJECT NO.	DRAWING NO.
11/17/08	N.T.S.	—	18-615
DRAWN BY	CHECKED	APPROVED	SHEET
JAM	RJR	DDO	1 OF 1
THIS IS A CAD DRAWING. DO NOT REUSE MATERIALS.			



SECTION 8-B

NOTES:
1. SEE
2. GUY

DATE	SCALE	PROJECT NO.	REMOVED NO.
11/17/09	A.T.S.	-	18-850
DESIGNED BY	CHECKED	APPROVED	SHEET
JAL	BAR	DDG	1 OF 1

CAL
Commonwealth Associates Inc.
Jackson, Michigan
engineers consultants construction management

CONST

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