Commonwealth of Kentucky
Alison Lundergan Grimes, Secretary of State

Alison Lundergan Grimes
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
http://www.sos.ky.gov

Certificate of Existence

Authentication number: 203477
Visit https://app.sos.ky.gov/ftshow/certvalidate.aspx to authenticate this certificate.

I, Alison Lundergan Grimes, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

KENTUCKY POWER COMPANY

is a corporation duly incorporated and existing under KRS Chapter 14A and KRS Chapter 271B, whose date of incorporation is July 21, 1919 and whose period of duration is perpetual.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that Articles of Dissolution have not been filed; and that the most recent annual report required by KRS 14A.6-010 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 8th day of June, 2018, in the 227th year of the Commonwealth.

Alison Lundergan Grimes
Secretary of State
Commonwealth of Kentucky
203477/0028317

EXHIBIT 2
PROJECT LOCATION MAP

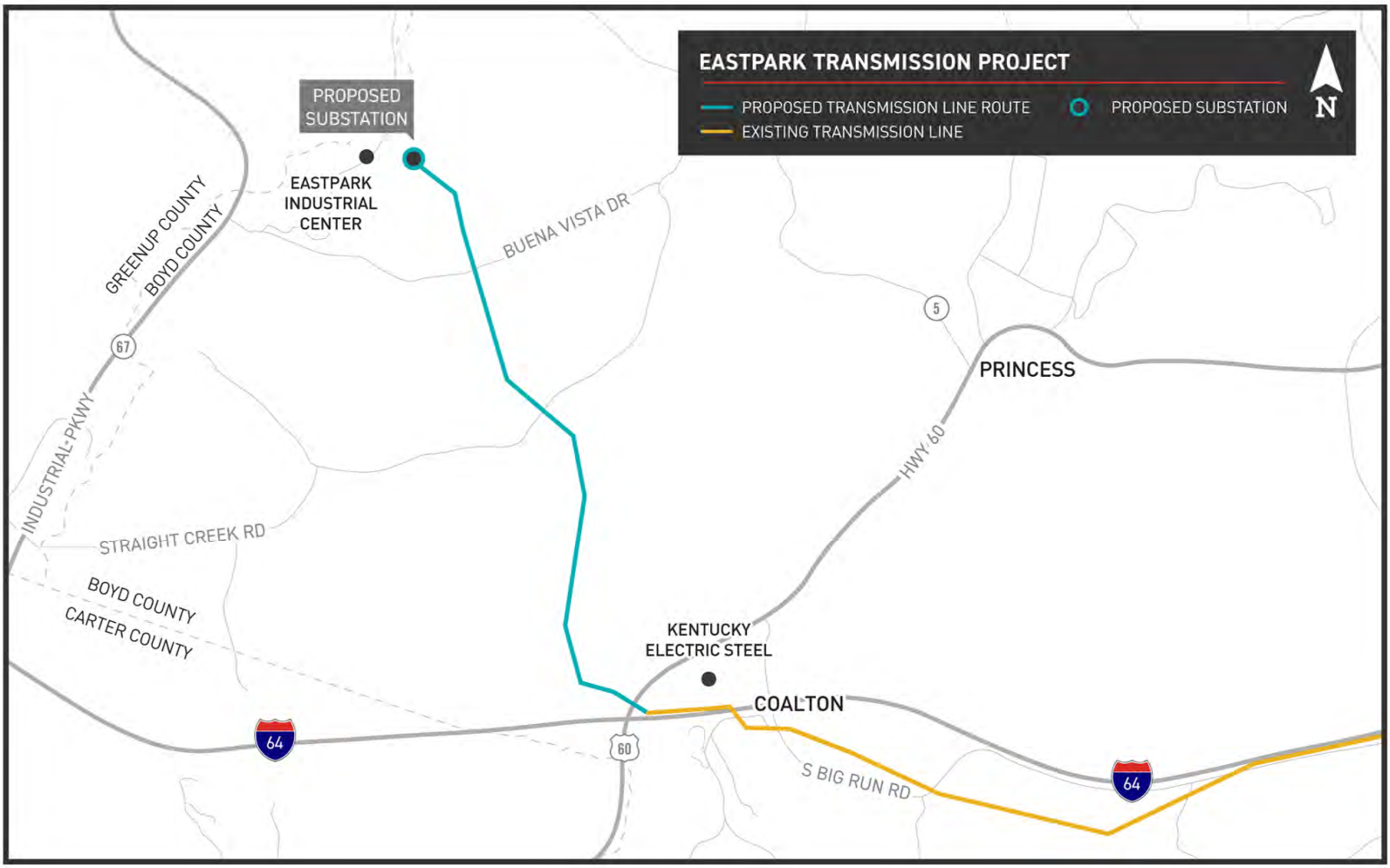


EXHIBIT 3
PRESENT SYSTEM AND PROJECT COMPONENTS

N

Greenup

Boyd

Carter

Lawrence

Wayne

Ashland

Ashland Substation

Howard Collins Substation

Hoods Creek Substation

Princess Substation

Kentucky Electric Steel

Coalton Substation

Chadwick Substation

Cannonsburg Substation

Baker - Don Marquis 765 kV Line

Bellefonte - Coalton 69 kV Line

Bellefonte - South Point 69 kV Line

Big Sandy - Bellefonte 138 kV Line

KES - Chadwick 138 kV Line

South Neal - Coalton 69 kV Line

Coalton - Leon 69 kV Line

EastPark Industrial Center

Proposed 138 kV Substation

Proposed 2.7 mile 138 kV Transmission Line Extension

Nearest Existing 138 kV Source

Proposed minor associated protection & control work.

Ohio River

Argillite

Catlettsburg

South Point

Fayette Twp

Kenova

Ceredo

Huntington Tri-State Airport

0 0.5 1 2 3 4 Miles

EXHIBIT 4

PROPOSED ROUTE MAP

SHEETS 1 AND 2

* Shown is a preliminary design. This design is not the final route centerline or structure locations. Final line route and structure locations will be determined during final engineering, which includes ground survey and geotechnical and environmental studies. Nonetheless, the Company believes the centerline illustrated is the most suitable alignment based upon preliminary analysis.

** A 100-foot wide right-of-way will be sited within the 500-foot Filing Corridor. The Company needs the flexibility to shift the centerline no more than 200 feet in either direction from the centerline indicated as necessary after completion of the final engineering, ground surveys and interviews with the landowners.

***The PVA parcels are not based on an accurate ground survey and should not be construed or used as exact descriptions of legal boundaries. See Exhibits 6 and 12 for list of landowners in proposed ROW and 500-Foot Filing Corridor.

KENTUCKY POWER
An AEP Company

EastPark Transmission Project

Proposed Route: Aerial Background

(For higher resolution and detailed maps, see Attachment E of Exhibit 24.)

Sheet 1 of 2

Legend

- Proposed Substation
- Proposed Structure*
- Proposed Route*
- Proposed 100-foot ROW**
- 500-foot Filing Corridor**
- Existing Transmission Line
- The Property Value Administrator (PVA) Parcels and Landowner Reference No.***

0 300 600 1,200 1,800 2,400 Feet

1 inch = 600 feet

N

Date: 4/27/2018

Sheet: 1 of 1

Z:\Energy\2017\C170066.30 - AEP - East Park 138 kV TI\GIS\MXD\Siting_StudyMap1A_2018_04_27.mxd

EXHIBIT 4
PROPOSED ROUTE MAP
SHEET 2 of 2

* Shown is a preliminary design. This design is not the final route centerline or structure locations. Final line route and structure locations will be determined during final engineering, which includes ground survey and geotechnical and environmental studies. Nonetheless, the Company believes the centerline illustrated is the most suitable alignment based upon preliminary analysis.

** A 100-foot wide right-of-way will be sited within the 500-foot Filing Corridor. The Company needs the flexibility to shift the centerline no more than 200 feet in either direction from the centerline indicated as necessary after completion of the final engineering, ground surveys and interviews with the landowners.

***The PVA parcels are not based on an accurate ground survey and should not be construed or used as exact descriptions of legal boundaries. See Exhibits 6 and 12 for list of landowners in proposed ROW and 500-Foot Filing Corridor.

KENTUCKY POWER
An AEP Company

EastPark Transmission Project

Proposed Route: Topographic Background

(For higher resolution and detailed maps, see Attachment E of Exhibit 24.)

Sheet 2 of 2

Legend

- Proposed Substation
- Proposed Structure*
- Proposed Route*
- Proposed 100-foot ROW**
- 500-foot Filing Corridor**
- Existing Transmission Line
- The Property Value Administrator (PVA) Parcels and Landowner Reference No.***

0 300 600 1,200 1,800 2,400 Feet

1 inch = 600 feet

N

Date: 4/27/2018

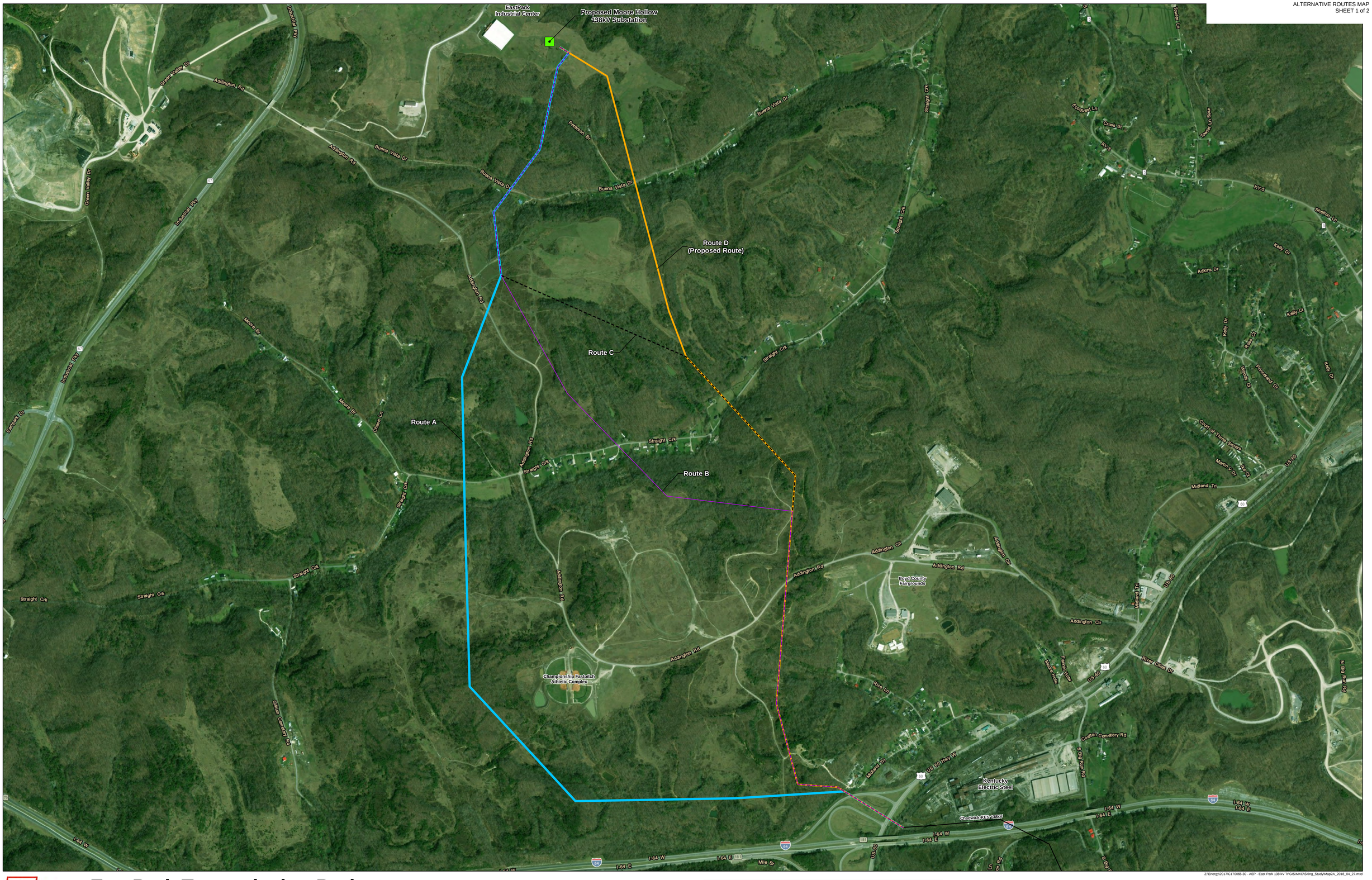
Sheet: 1 of 1

Z:\Energy\2017\C170066.30 - AEP - East Park 138 kV TrGIS\MXD\Siting_StudyMap1B_2018_04_27.mxd

EXHIBIT 5

ALTERNATIVES ROUTE MAP

SHEETS 1 AND 2



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KENTUCKY POWER
An AEP Company

EastPark Transmission Project

Alternative Routes Map: Aerial Background

Sheet 1 of 2

Legend

- Proposed Substation
- Route A
- Route B
- Route C
- Route D (Proposed Route)
- Existing Transmission Line

0 300 600 1,200 1,800 2,400 Feet

1 inch = 600 feet

N

Date: 4/27/2018

Sheet: 1 of 1

EastPark Industrial Center

Proposed Moore Hollow 138kV Substation

Route D (Proposed Route)

Route C

Route A

Route B

Championship Fastpitch Athletic Complex

Boyd County Fairgrounds

Kentucky Electric Steel

Chadwick-KES 138kV

Z:\Energy\2017\C1700066.30 - AEP - East Park 138 kV TrGIS\MXD\Siting_Study\Map2B_2018_04_27.mxd

KENTUCKY POWER
An AEP Company

EastPark Transmission Project

Alternative Routes Map: Topographic Background

Sheet 2 of 2

Legend

- Proposed Substation
- Route A
- Route B
- Route C
- Route D (Proposed Route)
- Existing Transmission Line

0 300 600 1,200 1,800 2,400 Feet

1 inch = 600 feet

N

Date: 4/27/2018

Sheet: 1 of 1

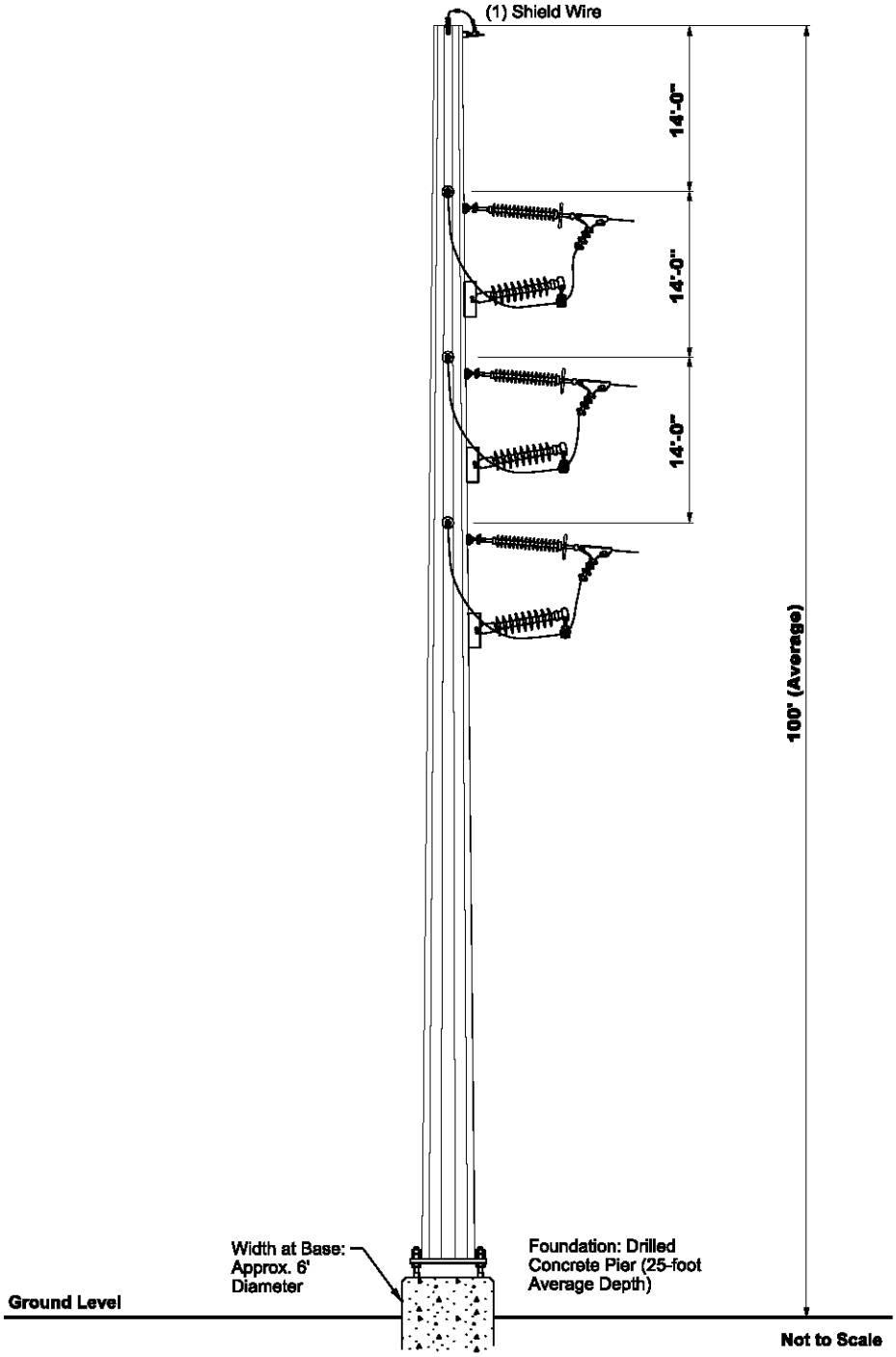
LIST OF LANDOWNERS WITHIN THE RIGHT-OF-WAY

EASTPARK 138KV TRANSMISSION PROJECT: PHASE I

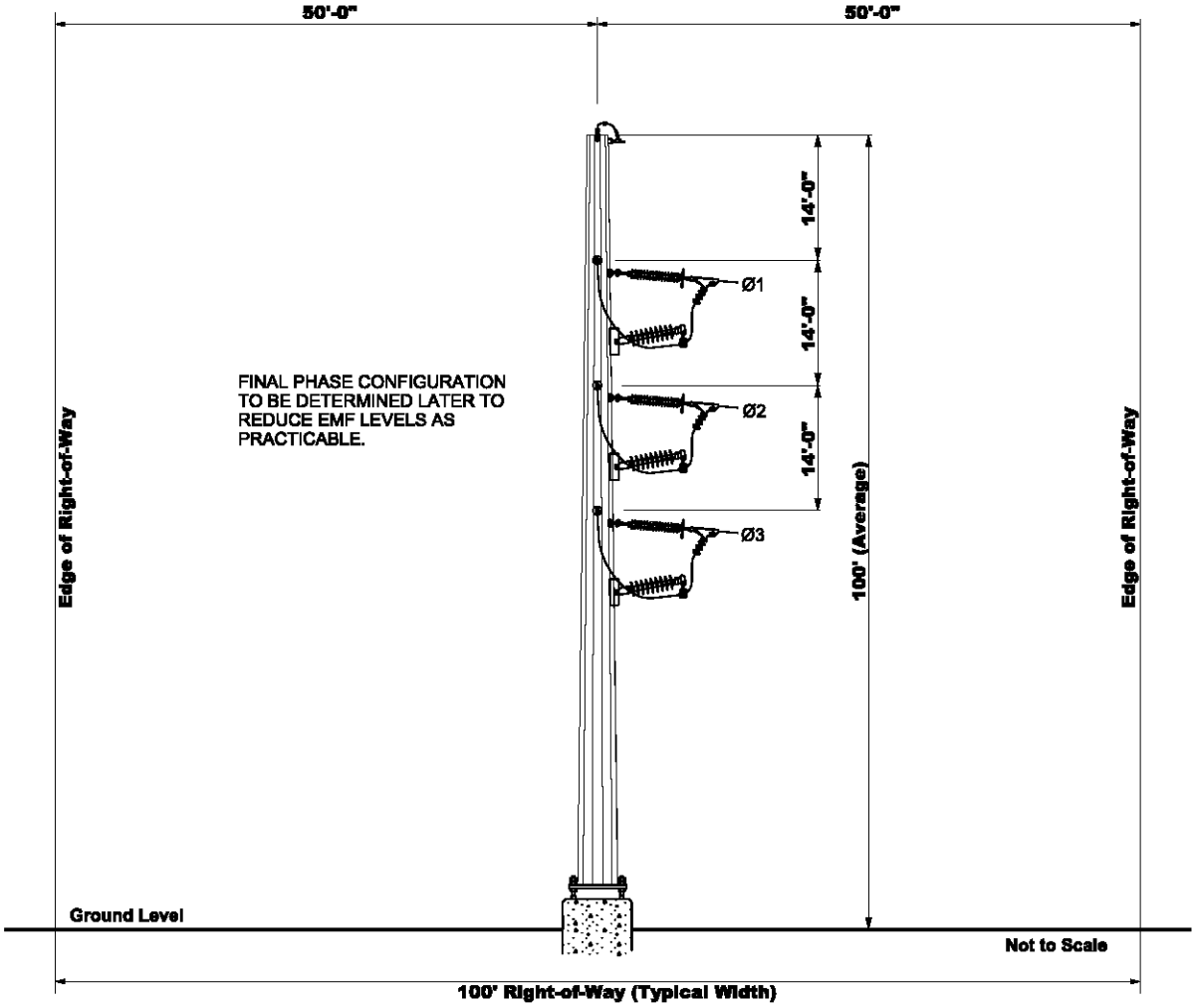
AS OF MARCH 27, 2018

REFERENCE NUMBER	PARCEL ID	OWNER NAME	ADDRESS	CITY	STATE	ZIP CODE
21	002-00-00-004.01	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484
16	001-00-00-026.00	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484
25	001-00-00-028.00	BEAMAN PATRICK G & TONI	3519 STRAIGHT CREEK ROAD	ASHLAND	KY	41102
46	001-00-00-026.03	CARMON ANDREA RAE	1152 TERRY STREET	RACELAND	KY	41169
50	002-00-00-003.00	COMMONWEALTH OF KENTUCKY	N/A	FRANKFORT	KY	40622
63	009-01-00-057.00	DAVIDSON BETTY LEE	152 WEAVER DRIVE	CATLETTSBURG	KY	41129
81	001-00-00-011.00	JONES VIRGINIA	3022 W BUENA VISTA ROAD	ASHLAND	KY	41102
83	009-01-00-005.00	KES ACQUISITION COMPANY LLC	PO BOX 2119	ASHLAND	KY	41105
84	002-00-00-004.00	KINGS CROSSING LLC	P O BOX 1699	ASHLAND	KY	41105
97	001-00-00-012.01	MILES BRIAN KEITH C/O MILDRED HARTMAN	6806 VIENNA WOODS TRAIL	DAYTON	OH	45459
110	001-00-00-027.00	MOORE HOWARD F	3327 W STRAIGHT CREEK	ASHLAND	KY	41102
116	001-00-00-010.01	BRAIDY INDUSTRIES, INC.	1544 WINCHESTER AVENUE, 3RD FLOOR	ASHLAND	KY	41101
160	N/A	COMMONWEALTH OF KENTUCKY	N/A	FRANKFORT	KY	40622

SOURCE: BOYD COUNTY PROPERTY VALUE ADMINISTRATOR

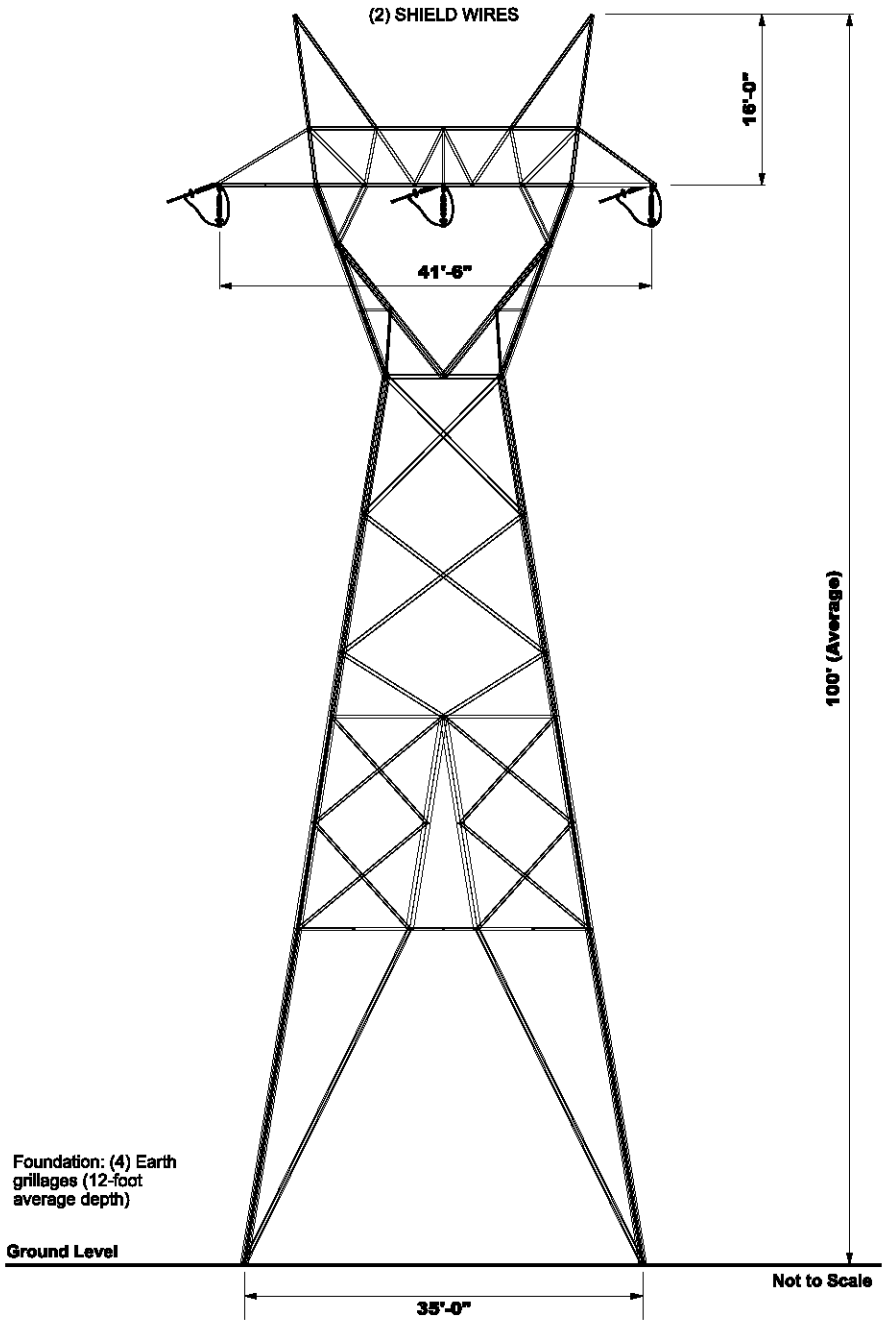


TYPICAL SCHEMATIC

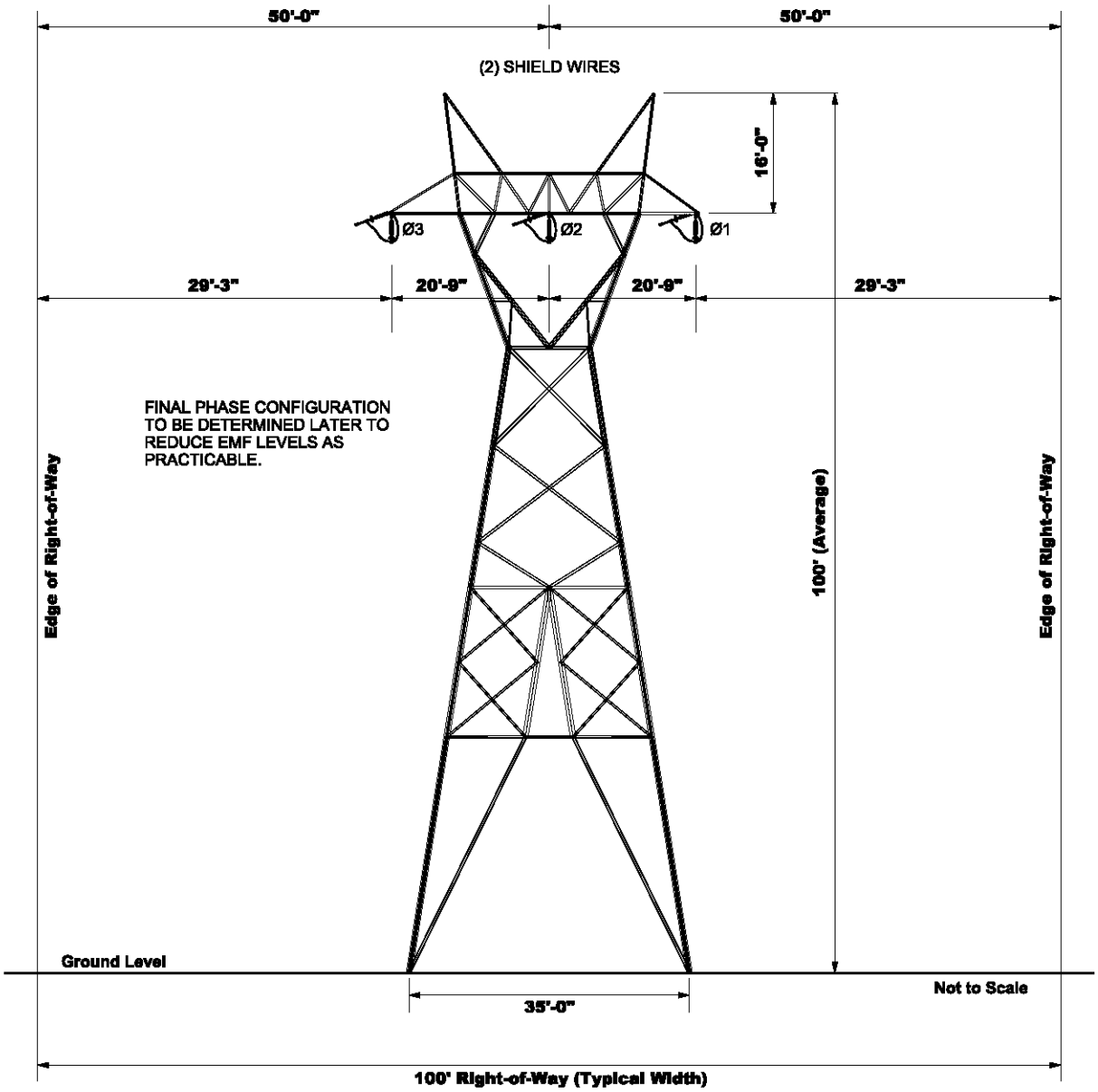


TYPICAL RIGHT-OF-WAY CROSS SECTION

COMPARABLE MONOPOLE STRUCTURE PHOTOGRAPH

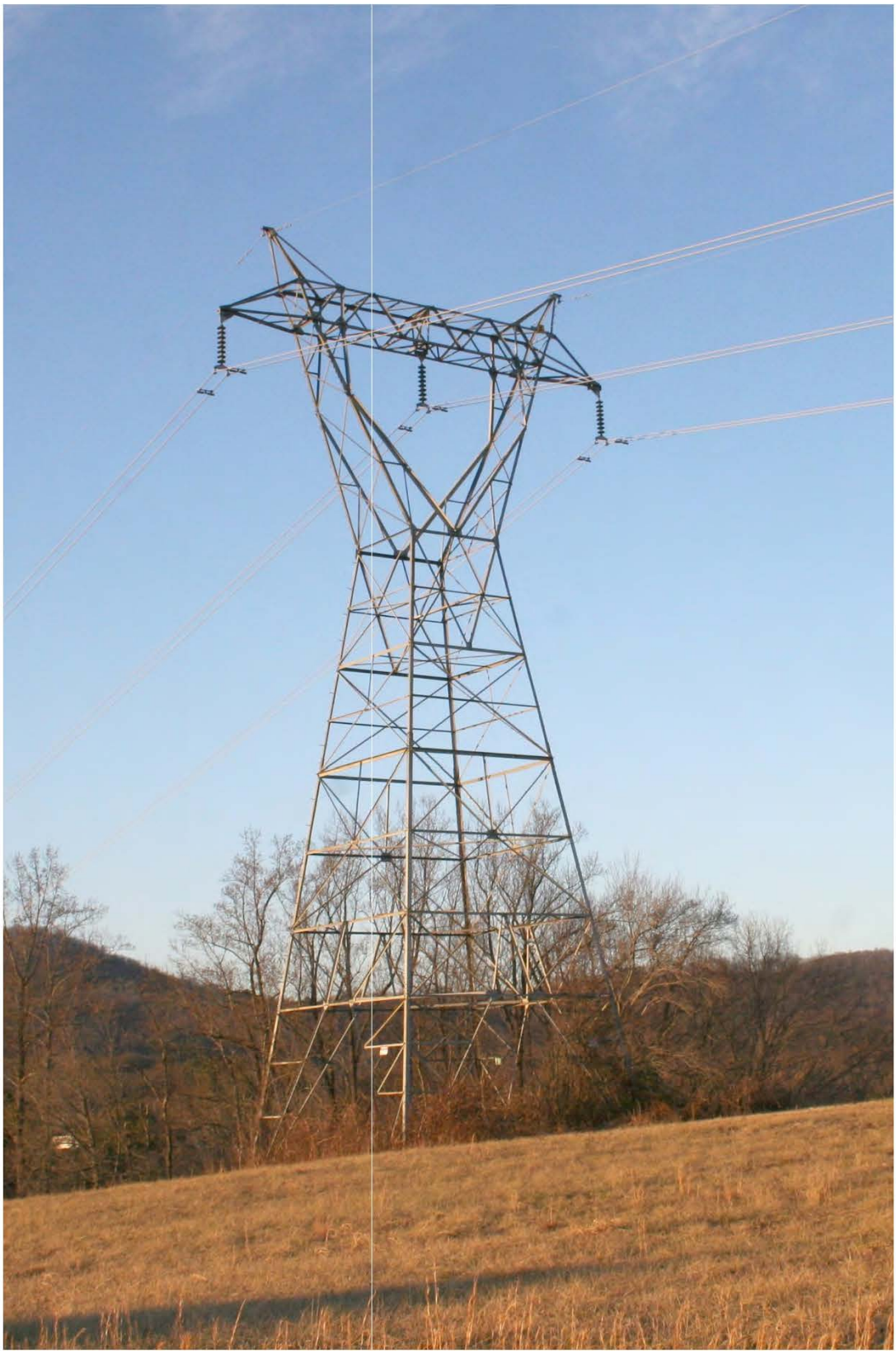


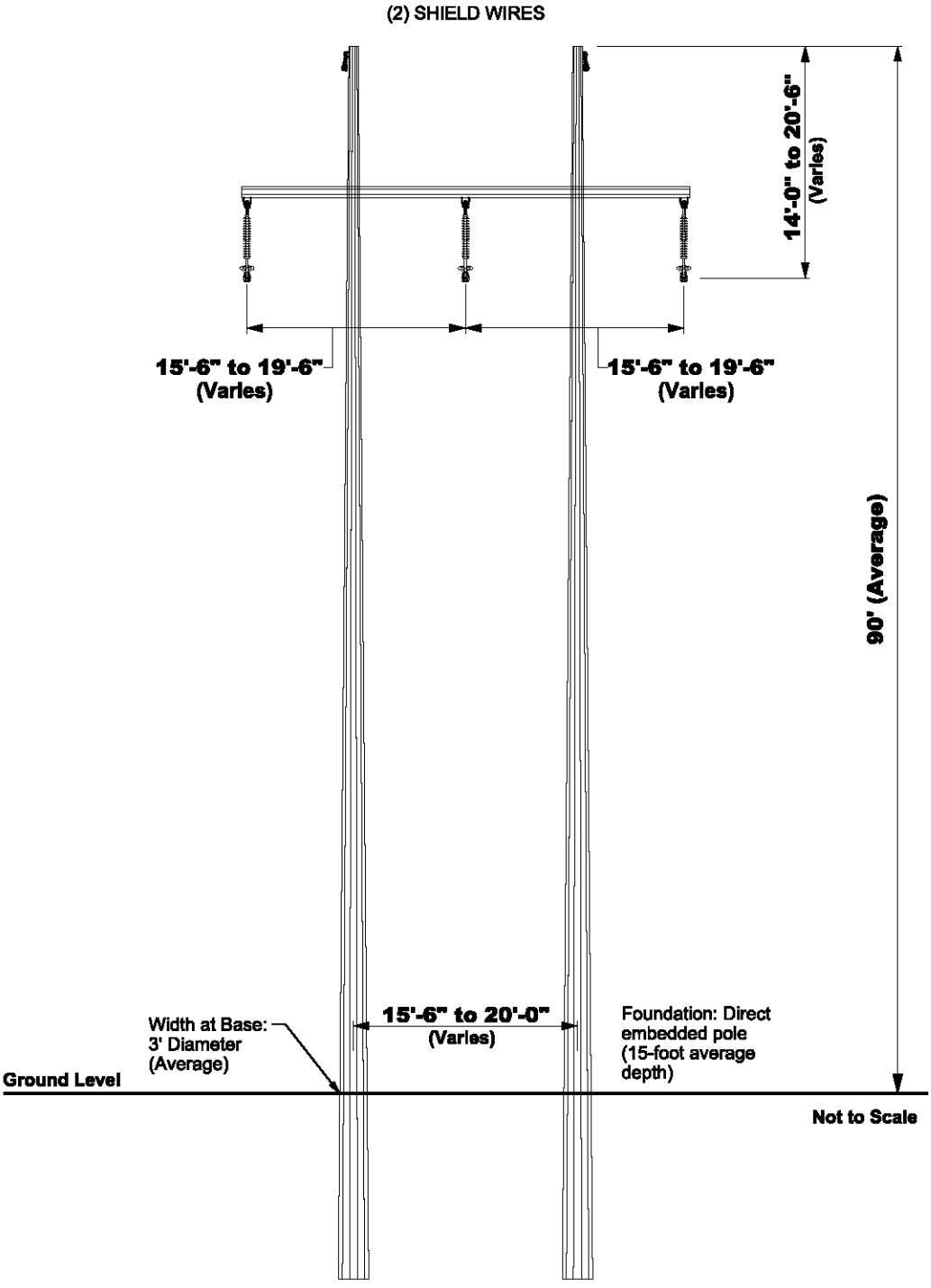
TYPICAL SCHEMATIC



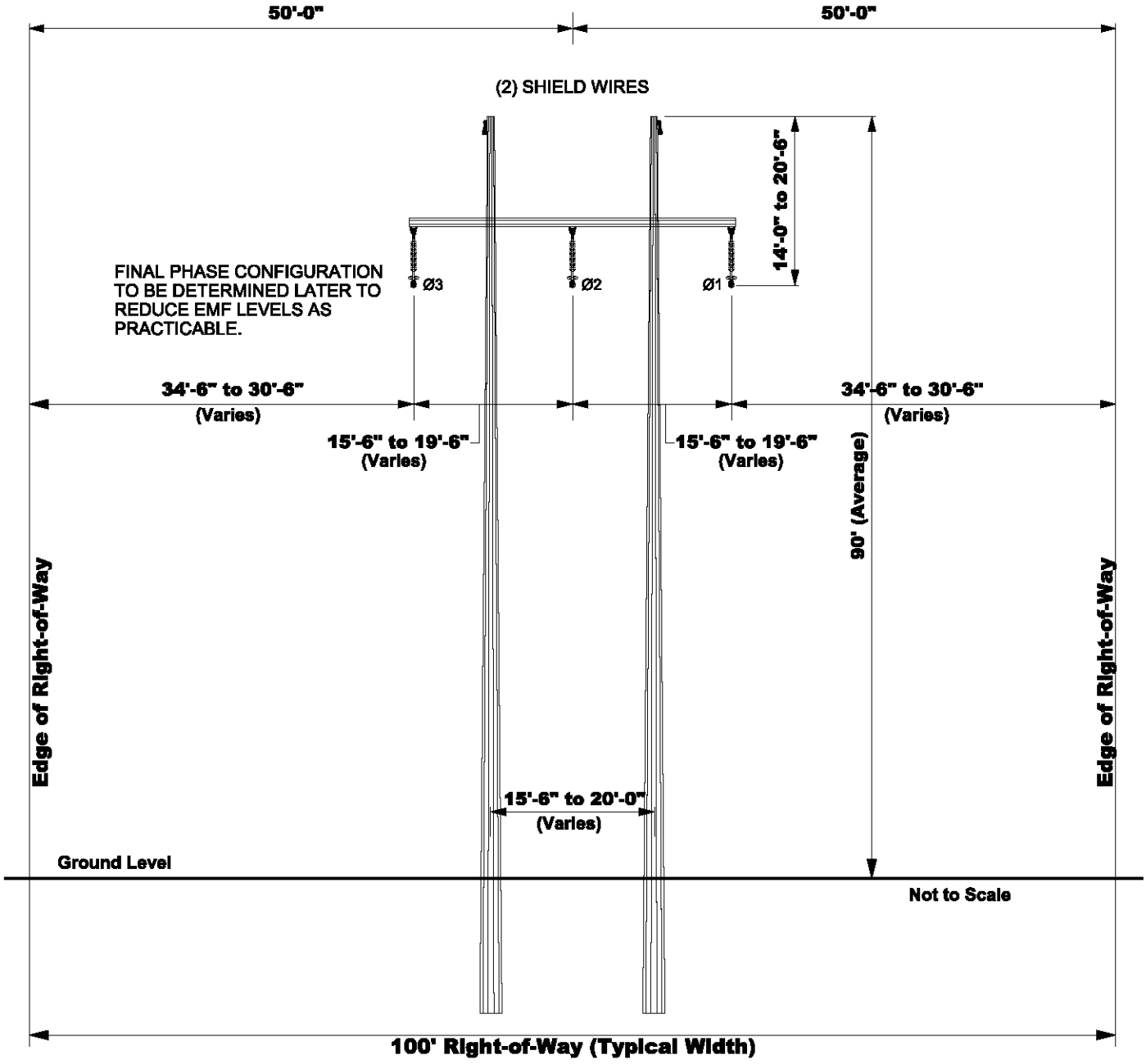
TYPICAL RIGHT-OF-WAY CROSS SECTION

COMPARABLE LATTICE TOWER PHOTOGRAPH





TYPICAL SCHEMATIC


50'-0"
50'-0"
(2) SHIELD WIRES
14'-0" to 20'-6"
FINAL PHASE CONFIGURATION TO BE DETERMINED LATER TO REDUCE EMF LEVELS AS PRACTICABLE.
Ø3
Ø2
Ø1
34'-6" to 30'-6"
(Varies)
34'-6" to 30'-6"
(Varies)
15'-6" to 19'-6"
(Varies)
15'-6" to 19'-6"
(Varies)
90' (Average)
Edge of Right-of-Way
Edge of Right-of-Way
15'-6" to 20'-0"
(Varies)
Ground Level
Not to Scale
100' Right-of-Way (Typical Width)

COMPARABLE H-FRAME STRUCTURE PHOTOGRAPH

EXHIBIT 10
MOORE HOLLOW 138kV SUBSTATION LOCATION AND LAYOUT
SHEET 1 OF 2

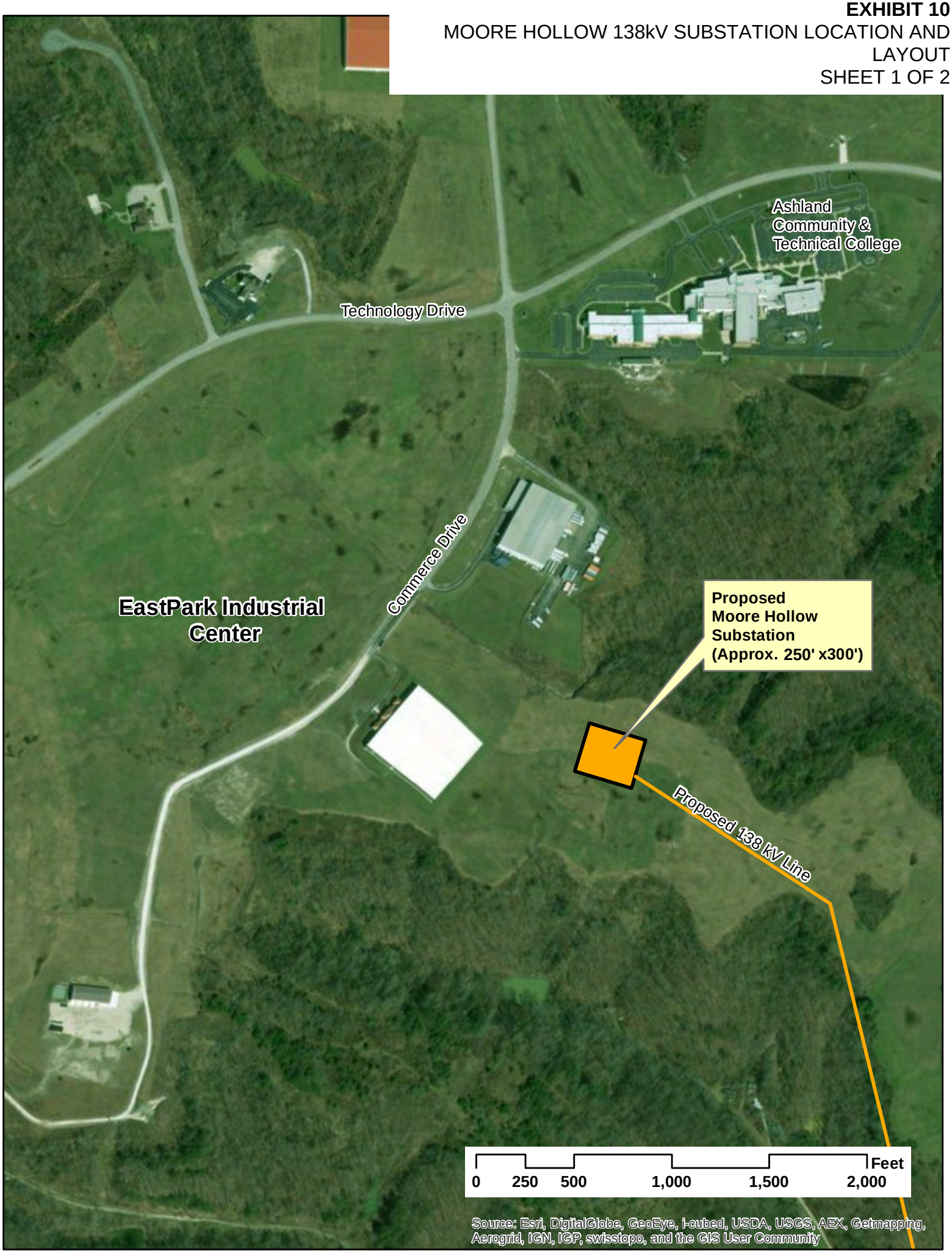


EXHIBIT 10
MOORE HOLLOW 138 kV SUBSTATION LOCATION AND LAYOUT
SHEET 2 OF 2

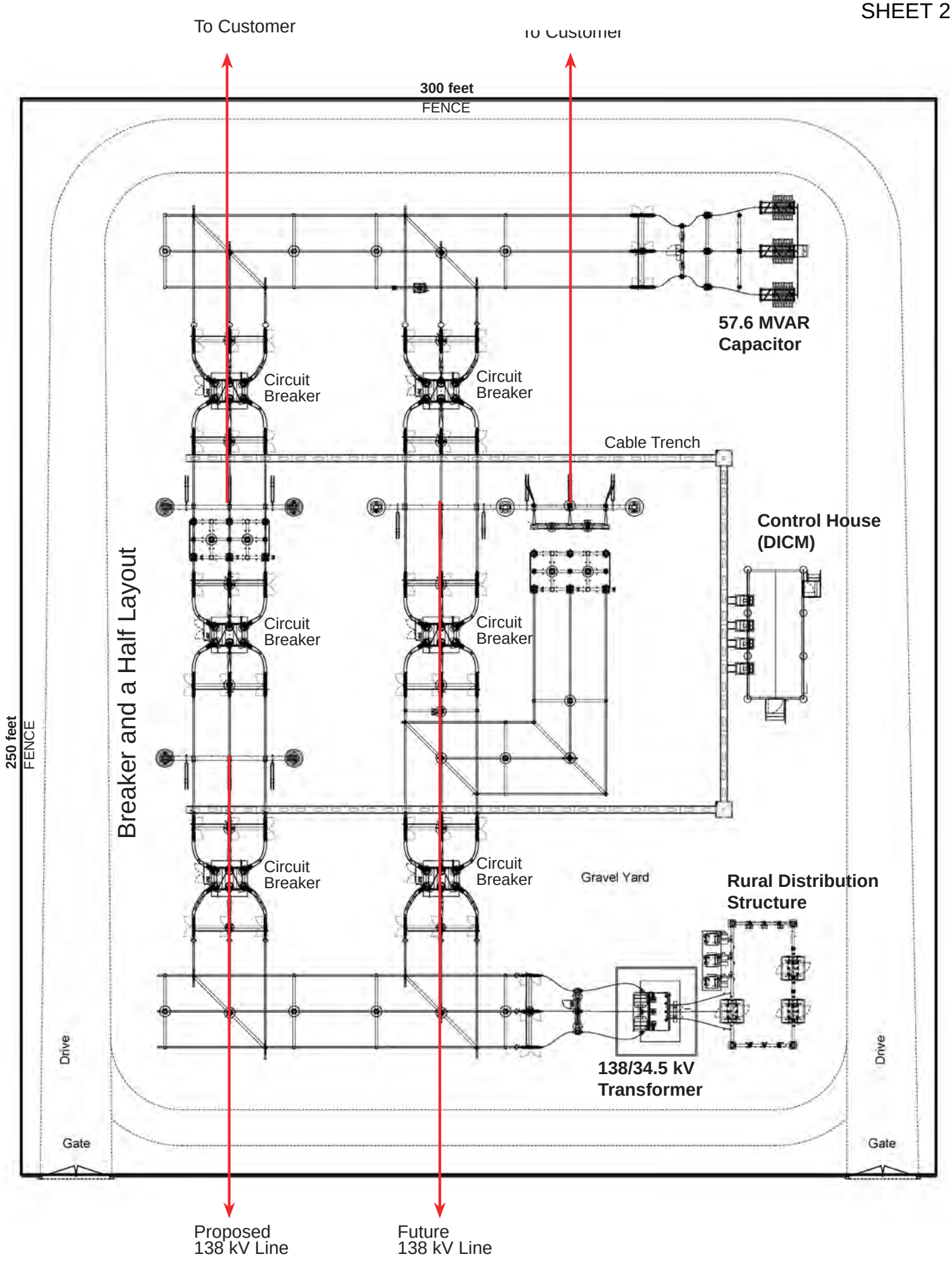


EXHIBIT 11
CHADWICK 138kV SUBSTATION LAYOUT AND LOCATION

LIST OF LANDOWNERS WITHIN THE 500-FOOT FILING CORRIDOR

(AFFECTED LANDOWNER NOTICE LIST)

EASTPARK 138KV TRANSMISSION PROJECT: PHASE I

AS OF MARCH 27, 2018

REFERENCE NUMBER	PARCEL ID	OWNER NAME	ADDRESS	CITY	STATE	ZIP CODE
18	001-00-00-029.00	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484
21	002-00-00-004.01	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484
16	001-00-00-026.00	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484
24	001-00-00-028.02	BEAMAN JONATHAN SCOTT	3517 W STRAIGHT CREEK RD	ASHLAND	KY	41102
25	001-00-00-028.00	BEAMAN PATRICK G & TONI	3519 STRAIGHT CREEK ROAD	ASHLAND	KY	41102
26	001-00-00-028.01	BEAMAN PATRICK GALE & TONI C/O BEAMAN JONATHON SCOTT	3517 STRAIGHT CREEK ROAD	ASHLAND	KY	41102
46	001-00-00-026.03	CARMON ANDREA RAE	1152 TERRY STREET	RACELAND	KY	41169
50	002-00-00-003.00	COMMONWEALTH OF KENTUCKY	N/A	FRANKFORT	KY	40622
63	009-01-00-057.00	DAVIDSON BETTY LEE	152 WEAVER DRIVE	CATLETTSBURG	KY	41129
81	001-00-00-011.00	JONES VIRGINIA	3022 W BUENA VISTA ROAD	ASHLAND	KY	41102
83	009-01-00-005.00	KES ACQUISITION COMPANY LLC	PO BOX 2119	ASHLAND	KY	41105
84	002-00-00-004.00	KINGS CROSSING LLC	P O BOX 1699	ASHLAND	KY	41105
96	001-00-00-017.00	MEADE ROBERT E JR	2056 HUCKLEBERRY CIRCLE	LEXINGTON	KY	40514
97	001-00-00-012.01	MILES BRIAN KEITH C/O MILDRED HARTMAN	6806 VIENNA WOODS TRAIL	DAYTON	OH	45459
100	001-00-00-012.00	MILES DENNIS K & CAROL	3114 BUENA VISTA ROAD	ASHLAND	KY	41102
110	001-00-00-027.00	MOORE HOWARD F	3327 W STRAIGHT CREEK	ASHLAND	KY	41102
116	001-00-00-010.01	BRAIDY INDUSTRIES, INC.	1544 WINCHESTER AVENUE, 3RD FLOOR	ASHLAND	KY	41143
118	001-00-00-016.00	PARSONS CAROL JEAN	10231 PETERSON BRANCH	ASHLAND	KY	41102
129	009-01-00-053.00	RUTH LEONARD T & MARGARET	2049 LAKESIDE DRIVE	LEXINGTON	KY	40502
156	009-01-00-056.00	WILLIAMS GLEN	2447 W MIDLAND TRAIL	RUSH	KY	41168
160	N/A	COMMONWEALTH OF KENTUCKY	N/A	FRANKFORT	KY	40622

SOURCE: BOYD COUNTY PROPERTY VALUE ADMINISTRATOR

STATUS OF RIGHTS-OF-WAY ACQUISITION NEGOTIATIONS

EASTPARK 138KV TRANSMISSION PROJECT: PHASE I

AS OF MARCH 27, 2018

REFERENCE NUMBER	PARCEL ID	OWNER NAME	ADDRESS	CITY	STATE	ZIP CODE	SURVEY PERMISSION
21	002-00-00-004.01	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484	Signed
16	001-00-00-026.00	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484	Signed
25	001-00-00-028.00	BEAMAN PATRICK G & TONI	3519 STRAIGHT CREEK ROAD	ASHLAND	KY	41102	Signed
46	001-00-00-026.03	CARMON ANDREA RAE	1152 TERRY STREET	RACELAND	KY	41169	Signed
50	002-00-00-003.00	COMMONWEALTH OF KENTUCKY	N/A	FRANKFORT	KY	40622	Verbal
63	009-01-00-057.00	DAVIDSON BETTY LEE	152 WEAVER DRIVE	CATLETTSBURG	KY	41129	Signed
81	001-00-00-011.00	JONES VIRGINIA	3022 W BUENA VISTA ROAD	ASHLAND	KY	41102	Signed
83	009-01-00-005.00	KES ACQUISITION COMPANY LLC	PO BOX 2119	ASHLAND	KY	41105	Signed
84	002-00-00-004.00	KINGS CROSSING LLC	P O BOX 1699	ASHLAND	KY	41105	Signed
97	001-00-00-012.01	MILES BRIAN KEITH C/O MILDRED HARTMAN	6806 VIENNA WOODS TRAIL	DAYTON	OH	45459	Signed
110	001-00-00-027.00	MOORE HOWARD F	3327 W STRAIGHT CREEK	ASHLAND	KY	41102	Signed
116	001-00-00-010.01	BRAIDY INDUSTRIES, INC.	1544 WINCHESTER AVENUE, 3RD FLOOR	ASHLAND	KY	41101	Pending
160	N/A	COMMONWEALTH OF KENTUCKY	N/A	FRANKFORT	KY	40622	Verbal

SOURCE: BOYD COUNTY PROPERTY VALUE ADMINISTRATOR

EXAMPLE OF PROPERTY ACQUISITION UPDATE FORMAT

REFERENCE NUMBER	PARCEL ID	OWNER NAME	ADDRESS	CITY	STATE	ZIP CODE	ACQUISITION STATUS
18	001-00-00-029.00	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484	N/A
21	002-00-00-004.01	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484	N/A
16	001-00-00-026.00	BCG LAND LLC	99 LANCASTER ST	STANFORD	KY	40484	N/A
24	001-00-00-028.02	BEAMAN JONATHAN SCOTT	3517 W STRAIGHT CREEK RD	ASHLAND	KY	41102	N/A
25	001-00-00-028.00	BEAMAN PATRICK G & TONI	3519 STRAIGHT CREEK ROAD	ASHLAND	KY	41102	N/A
26	001-00-00-028.01	BEAMAN PATRICK GALE & TONI C/O BEAMAN JONATHON SCOTT	3517 STRAIGHT CREEK ROAD	ASHLAND	KY	41102	N/A
46	001-00-00-026.03	CARMON ANDREA RAE	1152 TERRY STREET	RACELAND	KY	41169	N/A
50	002-00-00-003.00	COMMONWEALTH OF KENTUCKY	COMMONWEALTH OF KY	FRANKFORT	KY	40622	N/A
63	009-01-00-057.00	DAVIDSON BETTY LEE	152 WEAVER DRIVE	CATLETTSBURG	KY	41129	N/A
81	001-00-00-011.00	JONES VIRGINIA	3022 W BUENA VISTA ROAD	ASHLAND	KY	41102	N/A
83	009-01-00-005.00	KES ACQUISITION COMPANY LLC	PO BOX 2119	ASHLAND	KY	41105	N/A
84	002-00-00-004.00	KINGS CROSSING LLC	P O BOX 1699	ASHLAND	KY	41105	N/A
96	001-00-00-017.00	MEADE ROBERT E JR	2056 HUCKLEBERRY CIRCLE	LEXINGTON	KY	40514	N/A
97	001-00-00-012.01	MILES BRIAN KEITH C/O MILDRED HARTMAN	6806 VIENNA WOODS TRAIL	DAYTON	OH	45459	N/A
100	001-00-00-012.00	MILES DENNIS K & CAROL	3114 BUENA VISTA ROAD	ASHLAND	KY	41102	N/A
110	001-00-00-027.00	MOORE HOWARD F	3327 W STRAIGHT CREEK	ASHLAND	KY	41102	N/A
116	001-00-00-010.01	NORTHEAST KENTUCKY REGIONAL INDUSTRI	32 FIVCO COURT	GRAYSON	KY	41143	N/A
118	001-00-00-016.00	PARSONS CAROL JEAN	10231 PETERSON BRANCH	ASHLAND	KY	41102	N/A
129	009-01-00-053.00	RUTH LEONARD T & MARGARET	2049 LAKESIDE DRIVE	LEXINGTON	KY	40502	N/A
156	009-01-00-056.00	WILLIAMS GLEN	2447 W MIDLAND TRAIL	RUSH	KY	41168	N/A
160	N/A	COMMONWEALTH OF KENTUCKY	COMMONWEALTH OF KY	FRANKFORT	KY	40622	N/A

SOURCE: BOYD COUNTY PROPERTY VALUE ADMINISTRATOR

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct A 138 kV Transmission Line In Boyd County, Kentucky (EastPark 138 kV Transmission Line (Phase 1)	)))))	Case No. 2018-00072

Verified Statement In Accordance With 807 KAR 5:120, Section 2(3)

Vickie L. Stone, Transmission Right of Way Agent Lead, Kentucky Power Company, being duly sworn, states as follows:

1. The statements contained in this verification are based upon my personal knowledge, or my review of the records of Kentucky Power Company within the purview of my duties for the Company.

2. The records of the Property Valuation Administrator of Boyd County, Kentucky indicate the filing corridor (including the currently proposed right-of-way) for Kentucky Power Company's EastPark 138 kV Transmission Line (Phase 1) will cross the property owned by the persons listed on Exhibit A to this verification.

3. On June 18, 2018 the persons on Exhibit A were mailed, or delivered by hand-delivery, the notice required by 807 KAR 5:120, Section 2(3). The form of the notice mailed or hand-delivered is attached to this verification as Exhibit B.

Further the affiant sayeth naught.

4. You have the right to submit a timely written request for intervention in Case No. 2018-00072. The motion must be submitted to the Public Service Commission, 211 Sower Boulevard, P. O. Box 615, Frankfort, Kentucky 40602-0615, and must establish the grounds for your request to intervene, including your status and the nature of your interest in the proceeding. Please see 807 KAR 5:001, Section 4(11) for further information regarding the requirements and procedure for requesting intervention. 807 KAR 5:001, Section 4(11) may be accessed here: http://www.lrc.state.ky.us/kar/807/005/001.htm. If no request for intervention is received within 30 days of the filing of the application the Commission may take final action on the application

5. You also have the right to request a local public hearing regarding the application and the proposed 138 kV transmission line. The requirements for requesting a local public hearing are set forth in 807 KAR 5:120, Section 3. 807 KAR 5:120, Section 3 may be accessed here: http://www.lrc.state.ky.us/kar/807/005/120.htm.

6. Written comments may also be filed at the above address, or by sending an e-mail to the Commission's public information officer at psc.info@ky.gov. The comments should reference Case No. 2018-00072.

7. Project updates and further information may also be found on the Company's website: www.KentuckyPower.com/EastPark.

Vickie L. Stone

Vickie L. Stone

COMMONWEALTH OF KENTUCKY)
) SS
COUNTY OF PIKE)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Vickie L. Stone this the 20th day of June, 2018.

Ryan Howell

Notary Public

LIST OF LANDOWNERS WITHIN THE 500-FOOT FILING CORRIDOR

(AFFECTED LANDOWNER NOTICE LIST)

EASTPARK 138KV TRANSMISSION PROJECT: PHASE I

AS OF MARCH 27, 2018

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26	001-00-00-028.01	BEAMAN PATRICK GALE & TONI C/O BEAMAN JONATHON SCOTT	3517 STRAIGHT CREEK ROAD	ASHLAND	KY	41102
46	001-00-00-026.03	CARMON ANDREA RAE	1152 TERRY STREET	RACELAND	KY	41169
50	002-00-00-003.00	COMMONWEALTH OF KENTUCKY	N/A	FRANKFORT	KY	40622
63	009-01-00-057.00	DAVIDSON BETTY LEE	152 WEAVER DRIVE	CATLETTSBURG	KY	41129
81	001-00-00-011.00	JONES VIRGINIA	3022 W BUENA VISTA ROAD	ASHLAND	KY	41102
83	009-01-00-005.00	KES ACQUISITION COMPANY LLC	PO BOX 2119	ASHLAND	KY	41105
84	002-00-00-004.00	KINGS CROSSING LLC	P O BOX 1699	ASHLAND	KY	41105
96	001-00-00-017.00	MEADE ROBERT E JR	2056 HUCKLEBERRY CIRCLE	LEXINGTON	KY	40514
97	001-00-00-012.01	MILES BRIAN KEITH C/O MILDRED HARTMAN	6806 VIENNA WOODS TRAIL	DAYTON	OH	45459
100	001-00-00-012.00	MILES DENNIS K & CAROL	3114 BUENA VISTA ROAD	ASHLAND	KY	41102
110	001-00-00-027.00	MOORE HOWARD F	3327 W STRAIGHT CREEK	ASHLAND	KY	41102
116	001-00-00-010.01	BRAIDY INDUSTRIES, INC.	1544 WINCHESTER AVENUE, 3RD FLOOR	ASHLAND	KY	41143
118	001-00-00-016.00	PARSONS CAROL JEAN	10231 PETERSON BRANCH	ASHLAND	KY	41102
129	009-01-00-053.00	RUTH LEONARD T & MARGARET	2049 LAKESIDE DRIVE	LEXINGTON	KY	40502
156	009-01-00-056.00	WILLIAMS GLEN	2447 W MIDLAND TRAIL	RUSH	KY	41168
160	N/A	COMMONWEALTH OF KENTUCKY	N/A	FRANKFORT	KY	40622

SOURCE: BOYD COUNTY PROPERTY VALUE ADMINISTRATOR

EXHIBIT B

Notice Of Proposed Construction Of Electric Transmission Line

This is to notify you that Kentucky Power Company intends to file with the Public Service Commission of Kentucky an application seeking a certificate of public convenience and necessity in connection with its plans to build Phase 1 of the EastPark 138 kV electric transmission line and related work located in Boyd County, Kentucky (East Park Phase 1 Project). The proposed line will be approximately 2.7 miles in length.

This notice is being provided to you because the records of the Boyd County Property Valuation Administrator indicate the proposed transmission line may cross property owned by you.

1. The EastPark Phase 1 Project is expected to involve the following work:

(a) The construction of a new 2.7 mile 138 kV transmission line connecting the Company's existing Chadwick-Kentucky Electric Steel 138 kV circuit near the I-64/ U.S. 60 exit (Exit 181) and the Kentucky Electric Steel plant and the EastPark Industrial Center where the Company proposes to build the new Moore Hollow 138 kV substation. The proposed transmission line will provide service to EastPark Industrial Center, including the planned Braidy Industries facility;

(b) The construction of the new proposed Moore Hollow 138 kV Substation to be located near 297 South Commerce Drive in the EastPark Industrial Center;

(c) Related work at the Company's existing Chadwick Substation located near Alley Branch Road, Catlettsburg, Kentucky;

(d) The proposed line will require a 100-foot wide right-of-way (50 feet on each side of the centerline). In certain areas a wider right-of-way may be required;

(e) To enable the safe operation of the line, the required right-of-way width, as well as the location of the centerline, will be determined during detailed engineering design and construction phases, and will included in the negotiations with landowners. Both the centerline and the right-of-way will lie within the filing corridor described immediately below;

(f) Kentucky Power anticipates building the transmission line on the centerline shown on the enclosed map. Kentucky Power is seeking authority to re-locate the line within a 500 foot filing corridor (250 feet on each side of the illustrated centerline shown on the enclosed map) if required by constructability, safety, or access issues that may not be discovered until detailed design or construction is underway; and

(g) The proposed transmission line will be supported by approximately 14 138 kV single-circuit, steel galvanized structures. The structures will average approximately 90 feet above ground level.

2. Enclosed is a map showing the route of the proposed transmission line.

3. The Public Service Commission of Kentucky will process Kentucky Power's application in Case No. 2018-00072. The address and telephone number of the Executive Director of the Public Service Commission of Kentucky are:

Executive Director
Public Service Commission of Kentucky
211 Sower Boulevard
P. O. Box 615
Frankfort, Kentucky 40602-0615
(502) 564-3940

Kentucky Power anticipates filing its application with the Public Service Commission of Kentucky on or before June 29, 2018. The application when filed may be viewed on the Commission's website at http://psc.ky.gov/PSC_WebNet/ViewCaseFolders.aspx under Case No. 2018-00072. Project updates and further information may also be found on the Company's website: www.KentuckyPower.com/EastPark.

EASTPARK
TRANSMISSION PROJECT

KENTUCKY POWER
An AEP Company
BOUNDLESS ENERGY™

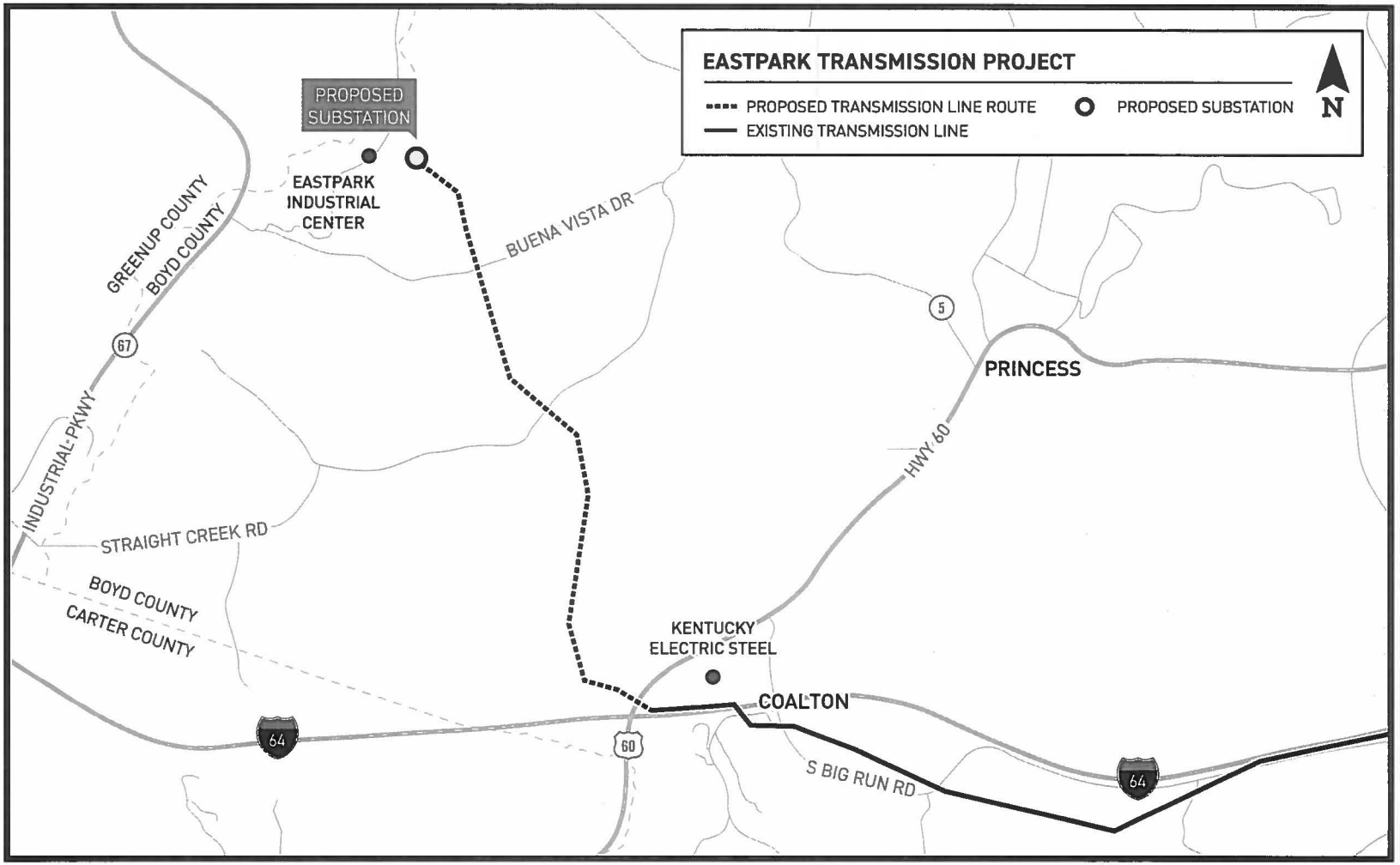


EXHIBIT 16
PUBLISHED NOTICE IN DAILY INDEPENDENT

730. AUTOS

HYUNDAI- 2006 Elantra, white, sun roof, 118,000 miles, runs good, new tires, $1,300. Call 606-665-5931.

TOP DOLLAR for some unwanted trucks, cars & vans. Free pick up. Call 740-727-3134.

735. BOAT ACCESS. & EQUIPMENT

HOUSEBOAT- CarlCraft, 37ft, sleeps 8, kitchen, bath w/shower/sink. New 350 marine engines. New AC, full remodel. Trailer/slip optional. $32,500. 606-225-0709.

745. MOTORCYCLES, ATVS

HARLEY - 2012 Street Glide, one owner, $14,000, 14,000 miles, $4,000 options, new tires, brakes, battery, adult owner, garage kept. 606-286-5124.

HARLEY – 2003 Anniversary Model FXST, over 55K in extras, beautiful bike, 7,000 miles, lots of chrome. $7,000. 606-547-5677.

HARLEY DAVIDSON- 2008 Ultra Classic, black w/lots of chrome, loaded, new battery, tires & brakes, $8,500. Ready to ride! Call 606-473-6267.

HARLEY FLHT- 2001 Electra Glide, beautiful, well maintained bike, $7,000. Call 606-325-4017 or 606-694-2550.

HONDA 1999 Goldwing Anniversary Edition New Tires, New Battery, Lots of Extras including 2 Helmets, $4,600 OBO. CALL 606-331-6902.

HONDA- red 2001 Shadow Spirit, 1100 CC, 18,000 miles, saddle bags, never wrecked, good tires, one owner, $2,500. 606-922-4269.

JACK DANIELS TITAN 2002, all S&S, 110hp, mint condition, very low mileage, $7,500. Possibly trade. Call 606-928-8302 or 606-923-1877.

750. CAMPER/RV

CATALINA- 1994 30ft. Coachman camper, new appliances, new tires, needs work. Asking $2,000. Call anytime, 606-369-8928, ask for Danny.

CLASS "C" MOTOR HOME 2014, Thor Four Winds SIE, 32.5 ft. bunkhouse, sleeps eight, leather captain's chairs & sofa, rear & side view cameras, auto leveling jacks, excellent condition, less than 3500 miles, $58,500. Call 740-533-8428.

750. CAMPER/RV

GEORGETOWN - 2015 motor home, garage kept, used 6 times, king bed, washer/dryer, 3 slide-outs, lots of extras! Call 606-585-4084.

PREMIER- 2016 37 ft. Fifth Wheel, 3 slide-outs, pet & smoke free, self-contained, good condition, $25,000 OBO. Call 606-331-6951.

ROCKWOOD 2009 31 ft. camper, all seasons, sleeps 9, 2 super slides, 3 TVs, used very little, $12,900 OBO. 606-923-8719.

Don't depend on word of mouth - depend on classified when you have something to sell!

755. SPORTS CARS

CHEVY CAMARO SS 2016, 6-spd., 6.2 eng., Kentucky blue w/white stripe, 5,600 mi., one owner, excellent condition, factory warranty, $29,900. 606-922-3692

CORVETTE - 2004 Convertible, magnet red, light beige top/interior, all the bells & whistles, 100k miles. $16,000. 606-547-5677.

780. VANS

DODGE– 2016 Grand Caravan, V6 automatic, stow-n-go seats, power doors, 65,000 miles, excellent condition, rebuilt title-$11,750 OBO. Call 606-922-0148.

780. VANS

FORD E350- 2013, auto., V8, all power, towing package, 39,000 miles, excellent cond., asking $15,100. 606-483-2469.

READ YOUR OWN AD

Make sure you read your own ad the first day it appears. The Daily Independent is only responsible for one incorrect insertion. Read your own ad the first day!

Two chances are better than one

North dealer.
Both sides vulnerable.

NORTH
♠A8
♥72
♦AQ9763
♣K105

WEST
♠Q952
♥K98543
♦8
♣J8

EAST
♠K6
♥QJ6
♦J1052
♣9743

SOUTH
♠J10743
♥A10
♦K4
♣AQ62

The bidding:

North	East	South	West
1♦	Pass	1♠	Pass
2♦	Pass	3 NT	

Opening lead — five of hearts.

One peculiar thing about bridge is not so much that it can sometimes present difficult problems, but that in many cases there is no awareness at all that a problem exists.

Consider this deal where West leads a heart against three notrump. It seems perfectly natural to win East's jack with the ace and start running the diamonds. But when declarer plays the K-A of diamonds, West shows out, and the contract is suddenly in danger.

Continuing to lead diamonds is obviously hopeless, so South shifts his attention to clubs, hoping for a 3-3 break in the suit. When he cashes the A-K, West's jack falls, establishing the ten as a trick, but when declarer next leads the ten from dummy, he finds there is no way of collecting his four club winners whether he allows the ten to hold or overtakes it. South can do no better at this point than cash his remaining winners and go down one.

However, declarer can make the contract easily if he tests the clubs before the diamonds. In that case, after cashing the A-K-10, he can return to his hand with the king of diamonds and cash the queen of clubs to score his ninth trick.

Declarer should reason at the outset that he already has eight top tricks and should then make allowance for the possibility — nearly a 1 in 3 chance — that the diamonds may be unfavorably divided. In that event, the possibility that either opponent might have been dealt the J-x of clubs (a 16 percent chance) may be the only way to salvage the contract. He should therefore test that suit while he still has the king of diamonds in his hand.

Since playing clubs first can do no harm and gives declarer an extra chance for the contract, it is clearly the correct approach.

Tomorrow: Silence is golden.

Notice Of Proposed Electric Transmission Line Construction Project

Kentucky Power Company proposes to build the new EastPark 138 kV Phase 1 transmission line in Boyd County, Kentucky. The new transmission line will connect to the Company's existing Chadwick-Kentucky Electric Steel 138 kV circuit near the I-64/ U.S. 60 exit (Exit 181) and the Kentucky Electric Steel plant. The line will then proceed generally in a northwesterly direction to the EastPark Industrial Center where the Company proposes to build the new Moore Hollow 138 kV Substation. The proposed Moore Hollow 138 kV Substation will be located near 237 South Commerce Drive in the EastPark Industrial Center. The proposed line will measure approximately 2.7 miles in length. The project also will include related work at the Company's existing Chadwick Substation located near Alley Branch Road, Catlettsburg, Kentucky.

The proposed line generally will require a 100-foot wide right-of-way (50 feet on each side of the centerline.) In certain areas a wider right-of-way may be required. Kentucky Power may be required to alter the proposed centerline of the line and adjacent rights-of-way to address conditions discovered during survey and construction that affect constructability and access.

Kentucky Power plans to file an application with the Public Service Commission of Kentucky on or before June 29, 2018 seeking a certificate of public convenience and necessity authorizing the construction of the proposed line and related work. The application and the Commission proceeding have been assigned Case No. 2018-00072.

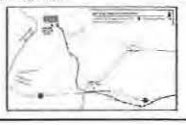
Any interested person under KRS 278.020(6), including any person over whose property the proposed transmission line will cross, may request a local public hearing in the county in which the transmission line is proposed to be constructed. The request must be in writing and should be delivered to the Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602-0615. The request for public hearing must be delivered to the Executive Director no later than thirty days after the date the application is filed. The request for local public hearing must comply with the requirements of 807 KAR 5:120, Section 3.

A person may seek to intervene as a party in the Commission proceeding to review Kentucky Power's application by filing a timely written request for intervention in accordance with the requirements of 807 KAR 5:001, Section 4(11) and 807 KAR 5:120, Section 3(3).

The application and other filings in connection with Kentucky Power's application may be accessed at http://psc.ky.gov under Case No. 2018-00072. Project updates and further information may also be found on the Company's website: www.KentuckyPower.com/EastPark.

A map of the proposed route for the line is shown below.

EASTPARK TRANSMISSION PROJECT



SUDOKU

Sudoku is a number placing puzzle based on a 9x9 grid with several given numbers. The object is to place the numbers 1 to 9 in the empty squares so that each row, each column and each 3x3 box contains the same number only once. The difficulty level of the Concepts Sudoku increases from Monday to Sunday.

Concepts Sudoku By Dave Green

	8	5	6	3	9			
	9		7			5		
6				2			9	
7				4			8	
8	4	3	2	1			6	
	5	1	8				4	
							5	
							2	
				6	2	9	7	8

Difficulty Level ★★★ 6/28

Answer to previous puzzle

9	4	6	8	2	1	7	3	5
5	8	3	6	4	7	2	9	1
2	7	1	3	9	5	8	6	4
8	1	5	2	3	4	6	7	9
3	6	9	7	5	8	4	1	2
7	2	4	9	1	6	3	5	8
6	5	8	1	7	2	9	4	3
1	9	7	4	8	3	5	2	6
4	3	2	5	6	9	1	8	7

Difficulty level ★★ 6/19

NOTARIZED PROOF OF PUBLICATION

STATE OF KENTUCKY

COUNTY OF Franklin

Before me, a Notary Public, in and for said County and State, this 22nd day of June, 2018, came Rachel McCarty

personally known to me, who being duly sworn, states as follows: That he/she is Advertising Assistant of the Ky Press Service

and that Ashland Daily Independent ran the Notice Of Proposed Electric Transmission Line

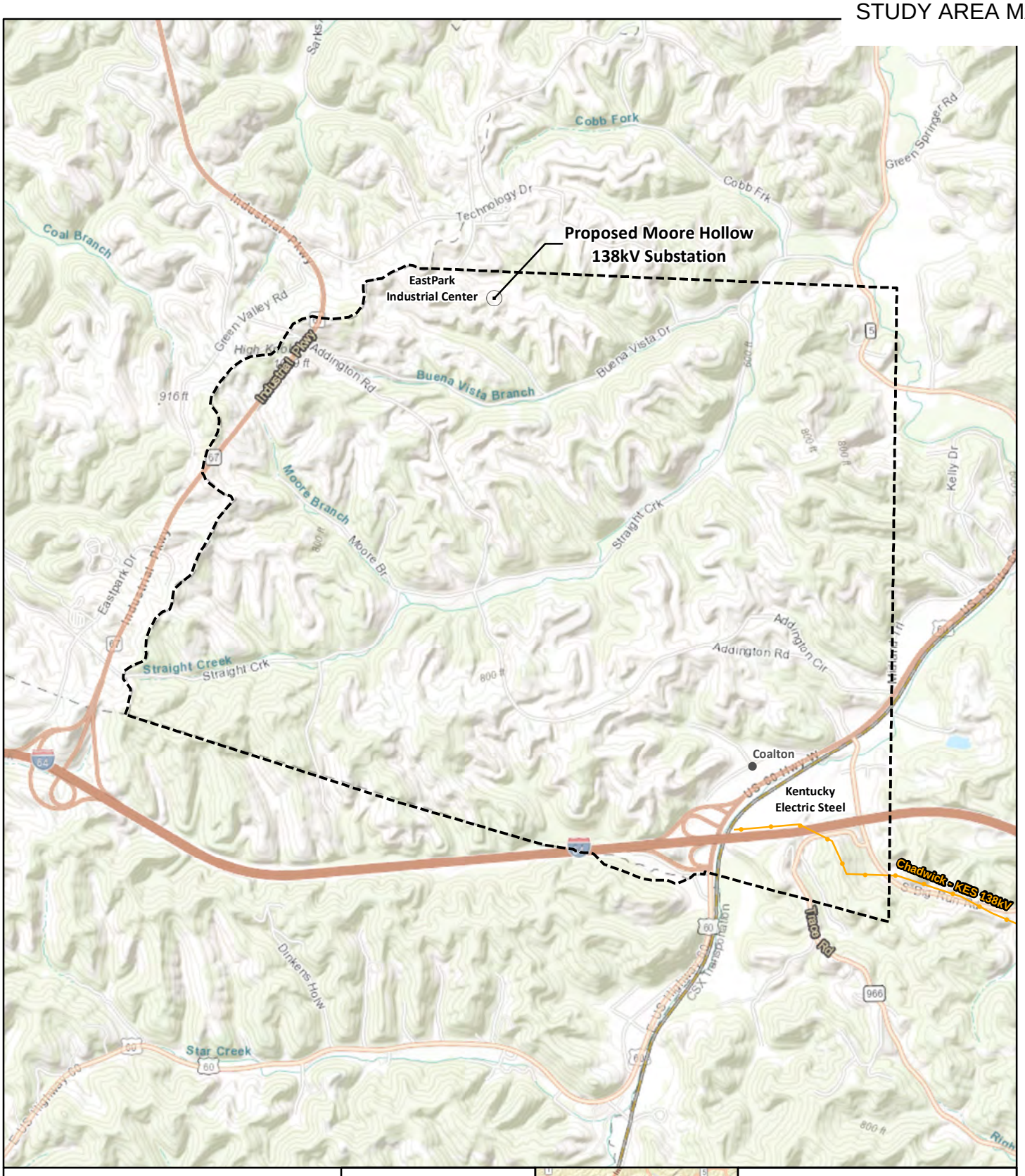
Construction Project for Kentucky Power Company on June 20, 2018.

Rachel McCarty
Signed

Bonnie J. Howard
Notary Public

My commission expires 9-18-20
Id # 563384

EXHIBIT 18
STUDY AREA MAP

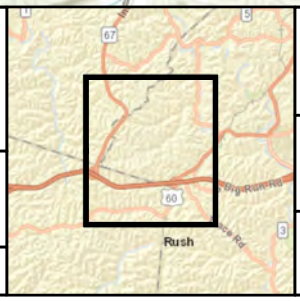


Legend
- Substation Location
- Populated Place
- Study Area
- Existing 138kV Transmission Line

World Topographic, Street Map, Transportation, Esri ArcGIS Online, Accessed 03/2018. Existing AEP Transmission Lines, AEP, 2015.

NAD 1983 State Plane
Kentucky North Feet

March 29, 2018



Study Area

KENTUCKY POWER

EastPark 138kV
Transmission Line: Phase 1

0 3,000
Feet

Open House Photos
EastPark 138 kV Transmission Project: Phase I
Open House Ashland Community and Technical College
February 20, 2018

Filing Requirements

Citation	Requirement	Location
807 KAR 5:001, Section 14(1)	Applicant And Project Information	Application ¶¶ 1-2; *passim*.
807 KAR 5:001, Section 14(2)	Corporate Information	Application ¶ 1; Application Exhibit 1.
807 KAR 5:001, Section 14(3)	Limited Liability Company Information	Not Applicable.
807 KAR 5:001, Section 14(4)	Limited Partnership Information	Not Applicable.
807 KAR 5:001, Section 15(1)	Information Required For Certificates Of Public Convenience And Necessity To Bid On Franchises	Not Applicable.
807 KAR 5:001, Section 15(2)	Requirements of 807 KAR 5:001, Section 14	See Above.
807 KAR 5:001, Section 15(2)(a)	Facts Demonstrating The Proposed Construction Is Required By The Public Convenience And Necessity	Testimony of Michael G. Lasslo; and Application ¶¶ 34-40.
807 KAR 5:001, Section 15(2)(b)	Franchises And Permits.	Testimony of George T. Reese; and Application ¶¶ 31-33.
807 KAR 5:001, Section 15(2)(c)	Proposed Route	Testimony of Ranie K. Wohnhas; Testimony of George T. Reese; Application ¶ 5, 8; and Application Exhibits 2, 3, 4, and 21.
807 KAR 5:001, Section 15(2)(c)	Description Of Construction	Testimony of Michael G. Lasslo; Application ¶¶ 10-14; and Application Exhibits 7-11.
807 KAR 5:001, Section 15(2)(c)	Competitors	Application ¶ 40.
807 KAR 5:001, Section 15(2)(d)(1)	Map To Suitable Scale Showing Route And Neighboring Facilities	Application Exhibits 3 and 4.[1]
807 KAR 5:001, Section 15(2)(d)(2)	Plans And Specifications	Application Exhibits 7-11.[2]

[1] The maps show a preferred centerline and are not an actual design. Kentucky Power will supplement its filing with maps certified in accordance with KRS 322.340 once the project is in service.

[2] The structure exhibit drawings are conceptual representative sketches and not actual designs. Kentucky Power will supplement its filing with plans certified in accordance with KRS 322.340 once the project is in service.

Citation	Requirement	Location
807 KAR 5:001, Section 15(2)(e)	Manner Of Financing	Application ¶ 15; and Testimony of Ranie K. Wohnhas.
807 KAR 5:001, Section 15(2)(f)	Annual Operating Expenses	Application ¶ 16; and Testimony of Ranie K. Wohnhas.
807 KAR 5:001, Section 15(3)	Extensions In Ordinary Course	Not Applicable.
807 KAR 5:001, Section 15(4)	Renewal Applications	Not Applicable.
807 KAR 5:120, Section 1	Notice Of Intent Conforming To The Requirements Of 807 KAR 5:120, Section 1(2)	Filed Of Record On February 19, 2018.
807 KAR 5:120, Section 2(1)(a)	All Information Required By 807 KAR 5:001, Section 14	See 807 KAR 5:001, Section 14 Above. The Required Number Of Copies Will Be Filed.
807 KAR 5:120, Section 2(1)(b)	All Information Required By 807 KAR 5:001, Section 15(2)(a)-(c) And 807 KAR 5:001, Section 15(2)(e)-(f) .	See 807 KAR 5:001, Section 15(2)(a)-(c) And 807 KAR 5:001, Section 15(2)(e)-(f) Above.
807 KAR 5:120, Section 2(2)(a)	Map Showing Centerline, Right-Of-Way, And Boundaries Of Properties Crossed By Right-Of-Way.	Application Exhibits 3 and 4.
807 KAR 5:120, Section 2(2)(b)	Sketches Of Typical Support Structures	Application Exhibits 7-9.
807 KAR 5:120, Section 2(2)(c)	Separate Map Showing Alternate Routes Considered	Testimony of George T. Reese; and Application Exhibits 5 and 21.[3]
807 KAR 5:120, Section (2)(3)	Verified Statement Concerning Mailed Notice To Property Owners	Application Exhibit 15.

[3] The Company is proposing to rebuild an existing line. To limit the impact on property owners and the viewshed, Kentucky Power concluded to rebuild approximately 80% of the line within or near the existing right-of-way. Doing so eliminated the possibility of examining alternative routes. *See* Testimony of Emily S. Larson and Exhibit 16 for a further description of the study area used in the Rebuild Study.

Citation	Requirement	Location
807 KAR 5:120, Section (2)(4)	Sample Copy Of Notices Conforming To 807 KAR 5:001, Section 120, Section (2)(3).	Application Exhibit 15.
807 KAR 5:120, Section (2)(5)	Statement Of Publication Of Notice Of Proposed Electric Transmission Line Project	Application Exhibits 16 and 17; Application ¶ 30; and Testimony of Ranie K. Wohnhas.
807 KAR 5:120, Section (2)(6)	Copy Of Published Notice Of Proposed Electric Transmission Line Project	Application Exhibit 16.
807 KAR 5:120, Section (2)(7)	Capital Outlay	Application ¶ 15; Testimony of Ranie K. Wohnhas.

Siting Study

EastPark 138kV Transmission Line: Phase I

Kentucky Public Service Commission
Case No. 2018-00072

Prepared for:

KENTUCKY POWER
An AEP Company

Prepared by:

GAI Consultants, Inc.
385 East Waterfront Drive
Homestead, Pennsylvania 15120

gai consultants
transforming ideas into reality

April 2018

TABLE OF CONTENTS

Tables

Figures

Attachments

Key Terminology

Alternative Routes	Assemblage of Study Segments that form routes for analysis and comparison
Constraints	Specific areas that should be avoided to the extent reasonably practical during the route development and site selection process
Distribution Line	An electric line that delivers power from a substation to households and businesses
Opportunity Feature	Areas where the transmission line may have less disruption to area land uses and the natural and cultural environment
Project Endpoint	The project starting and ending point(s), which may include substations, switch stations, tap points, or other locations defined by the Company's planners and engineers
Proposed Route	The alignment on which the applicant/Siting Team proposes to construct a transmission line. The Proposed Route (1) reasonably minimizes adverse impacts on area land uses and the natural and cultural environment; (2) minimizes special design requirements and unreasonable costs; and (3) can be constructed and operated in a timely, safe and reliable manner.
Segment Endpoint	The intersection of two or more Study Segments
Siting Team	A multidisciplinary team of experts in transmission line routing, impact assessment for a wide variety of natural resources and the human environment, impact mitigation, engineering, and construction management
Study Area	The territory in which line route alternatives can be sited to feasibly meet the Project's functional requirements and, at the same time, minimize environmental impacts and Project costs
Study Corridor	Initial corridors where Study Segments for the project can be sited to meet a series of general siting and technical guidelines
Study Segments	Study Segments are partial alignments that when combined form a complete route
Substation	Substations are facilities that transform electric power from high to low, or the reverse an enclosed assemblage of equipment, e.g., switches, circuit breakers, buses, and transformers, through which electric energy is passed for the purpose of switching or modifying its characteristics

Tap Point	The location where power is tapped from an existing transmission line to source a substation or customer
Transmission Line	An electric line that moves bulk electric power from a generating plant to a substation or between substations

ACRONYMS

AEP	American Electric Power
ESRI	Environmental Systems Research Institute
FEMA	Federal Emergency Management Agency
GIS	Geographic information system
IPaC	Information, Planning and Conservation System
kV	Kilovolt
KDFWR	Kentucky Department of Fish and Wildlife Resources
KSNPC	Kentucky State Nature Preserves Commission
KYPSC	Kentucky Public Service Commission
KYTC	Kentucky Transportation Cabinet
NERC	North American Electric Reliability Corporation
NCED	National Conservation Easement Database
NHD	National Hydrography Dataset
NLCD	National Land Cover Database
NPS	National Park Service
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
PEM	Palustrine Emergent
PSS	Palustrine Scrub-Shrub
RIBITS	Regulatory In-lieu Fee Bank Information Tracking System
ROW	Right-of-way
SSURGO	Soil Survey Geographic Database
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 PROJECT OVERVIEW

Kentucky Power, a subsidiary of American Electric Power (AEP), is planning to strengthen the power grid and increase economic development opportunities in eastern Kentucky by making significant upgrades to the electric transmission system in Boyd County, Kentucky. The EastPark 138 kilovolt (kV) Transmission Line: Phase I (Project) consists of building approximately 2.7 miles of new 138kV electric transmission line and a new substation to provide service to the proposed Braidy Industries facilities within the EastPark Industrial Center (**Figure 1 - Project Location Map or see Attachment A – Map 1**). Once complete, the work will provide Braidy Industries, and the 1,000-acre industrial center, with a reliable and robust power source capable of handling continued business growth. Construction is expected to start in fall 2018 and be complete by the end of 2019.

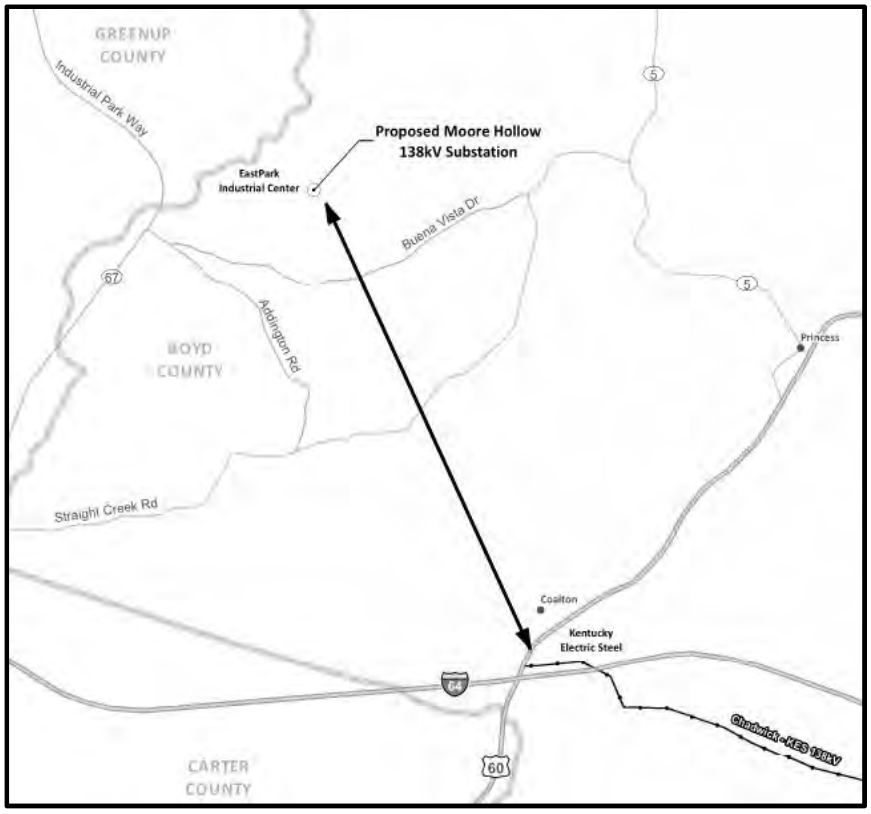


Figure 1. Project Location Map

1.1 Project Purpose and Need Summary

The Project at first will principally provide 138 kV transmission service to the planned Braidy Industries rolling mill. Nevertheless, the Project will make 138 kV transmission service available to the EastPark Industrial Center in connection with future development. It also will provide additional reliability for current residential and commercial distribution customers in the general

area. Kentucky Power has an obligation under KRS 278.030(2) to provide adequate, efficient, and reasonable service to its customers. Encompassed within this duty is the requirement that a utility make reasonable extensions of its facilities to provide the required service.

1.2 Project Characteristics

1.2.1 Project Endpoints and Improvement Description

The proposed transmission line begins at a tap point to the existing Chadwick-KES 138kV Transmission Line near the Kentucky Electric Steel facility located along Interstate 64. The transmission line will extend to the northwest for approximately 2.7 miles across generally undeveloped and formerly mined tracts of land before terminating at the proposed Moore Hollow 138kV Substation.

The proposed Moore Hollow 138kV Substation is located in the EastPark Industrial Center. The Siting Team conducted desktop reviews and field reconnaissance and identified four possible substation sites within the vicinity of the planned Braidy Industries facility. Ultimately, a substation site was selected near South Commerce Drive within the EastPark Industrial Center. The site is located approximately 1,000 feet from the roadway, behind a currently vacant speculative building, and is considered to be the optimal site with regard to location, visibility, topography, and access (see **Photograph 6** on page 30 of this report). The location of the substation will be adequate for servicing the Braidy Industries facility as well as future development within the industrial center, while also allowing for unobtrusive options for routing transmission lines into and out of the substation. Braidy Industries owns the site and has agreed to the location. The other three sites were rejected due to terrain, wetlands and visibility.

1.2.2 Transmission Line and Substation Design and Right-of-Way Requirements

The proposed Project will be designed as a single-circuit (three phase) 138kV transmission line utilizing a combination of galvanized steel H-frame, lattice tower and monopole structures (**Figure 2**). The typical height of the structures will be approximately 90 feet but will vary along the route depending on topography and constraints. In order to meet long-term maintenance and safety criteria, the Project will utilize a typical right-of-way (ROW) width of approximately 100 feet, however, this may vary along the route depending on Project needs, topography, and specific parcel uses and configurations. The Project will also require the construction of the Moore Hollow 138kV Substation. A site has been determined for this facility within the EastPark Industrial Center (see previous Section 1.2.1). Although the exact size and configuration are still undergoing engineering design, it is anticipated that the substation will be approximately 300 feet by 255 feet in size.

Figure 2. Typical Transmission Structures

(H-frame, lattice tower and monopole structures)

1.2.3 Construction and Maintenance Considerations

The proposed transmission line Project requires surveying, ROW clearing, foundation installation, structure assembly and erection, conductor and shield wire installation, and restoration of work areas upon completion. Construction operations will be conducted with attention to the preservation and enhancement of the natural habitat and the conservation of natural resources. The following criteria will be used to attain this goal. These criteria are subject to adjustment according to the rules and judgments of any public agencies whose lands may be crossed by the proposed line. Construction activities should be conducted in accordance with all applicable local, state, and federal permits.

1. Disturbance of construction areas and laydown yards will be minimized. These areas will be graded in a manner that will minimize erosion and conform to the natural topography.

2. Soil excavated during construction and not used for other purposes will be evenly backfilled onto a cleared area. Backfilled soil will be sloped gradually to conform to the terrain and adjacent land.

3. Erosion control devices will be constructed where necessary to reduce soil erosion in the ROW.

4. Access roads will not be constructed on unstable slopes.

5. Clearing and construction activities near streambeds will be performed in a manner that will minimize damage to the natural condition of the area. Stream banks will be restored as necessary to minimize erosion.

6. Concerted and diligent effort will be made to prevent accidental oil spills and other types of pollution, particularly while performing work near waterbodies.

7. Precautions will be taken to prevent the possibility of accidentally starting fires.

8. Tension stringing of conductors will be employed, which may reduce the amount of vegetation clearing necessary.

9. Precautions will be taken to protect natural features and cultural resources (identified by site-specific studies of the project) along the ROW, if any are found.

10. If federal-protected species or habitat is present, guidance from the U.S. Fish and Wildlife Service (USFWS) will be obtained prior to clearing or construction activities.

11. Soil disturbance during construction will be kept to a minimum, and restorative measures will be taken in a reasonable length of time.

1.3 Project Timeline and Overview of Regulatory Approvals

The Project will require preparation, submittal, and approval of a Certificate of Public Convenience and Necessity from the Kentucky Public Service Commission (KYPSC) before construction activities can begin. Kentucky Power initiated the siting process for the Project in October 2017, with initial study segments being designed and reviewed throughout fall 2017. Study segments were further assessed and refined in February 2018 and were presented to the public during an Open House on February 20, 2018. Following the Open House meeting, Kentucky Power combined the study segments into four routes. Pending approval from the KYPSC, and issuance of all other required federal, state and/or local permits, construction is expected to begin in fall 2018 to and be complete by the end of 2019.

1.4 Goal of the Siting Study

The goal of the Siting Study is to gain an understanding of the opportunities and constraints in the Study Area to facilitate the development of Alternative Routes, evaluate potential impacts associated with the Alternative Routes, and identify a Proposed Route. The Proposed Route is the route that (1) is most consistent with the siting guidelines; (2) reasonably minimizes adverse impacts on area land uses and the natural and cultural environment; (3) minimizes special design requirements and unreasonable costs; and (4) can be constructed and operated in a timely, safe and reliable manner.

2.0 ROUTE AND SITE DEVELOPMENT PROCESS

2.1 Route Development Process Summary/Methodology

The route development process is inherently iterative with frequent modifications made throughout the study as a result of the identification of new constraints, input from agencies, landowners, and other stakeholders, periodic reassessment of routes with respect to the siting criteria, and adjustments to the overall route network. As a result of the evolving nature of the route development process, the Siting Team (see **Section 2.2**) uses specific vocabulary to describe the routes at different stages of development.

Initial route development efforts start with the identification of large area constraints and opportunity features within the **Study Area**, which encompasses the endpoints of the Project and areas in between **(Figure 3, Step 1)**. These areas are typically identified using a combination of readily available public data sources.

The Siting Team uses this information to first develop **Study Corridors** for the Project adhering to a series of general siting and technical guidelines **(Figure 3, Step 2)**.

Within these Study Corridors, **Conceptual Routes** are developed as options for routing a transmission line between the Project endpoints. Where two or more of the conceptual routes intersect, **Study Segments** are formed between two common nodes or points of intersection. Together, the assemblage of Study Segments and their intersecting nodes are referred to as the **Study Segment Network (Figure 3, Step 3)**.

As the route development process progresses, the Siting Team continues to evaluate new data and modifies, if necessary, the Study Segments included in the network to develop a **Refined Study Segment Network (Figure 3, Step 4)**. Eventually, formal **Alternative Routes** are developed by assembling the Study Segments that best meet the siting guidelines into individual routes for analysis **(Figure 3, Step 5)**. Alternative Routes are assessed and compared with land uses, natural and cultural resources, and engineering and construction concerns. Ultimately, through a quantitative and qualitative analysis and comparison of the Alternate Routes, the Siting Team identifies a **Proposed Route (Figure 3, Step 6)**.

2.2 Siting Team Members

A multi-disciplinary Siting Team performed the siting study. Team members were selected to bring wide experience to the siting study to achieve a thorough review of all aspects of developing the route. Members of the Siting Team have experience in transmission line siting, impact assessment for a wide variety of natural resources and the human environment, impact mitigation, engineering, and construction management.

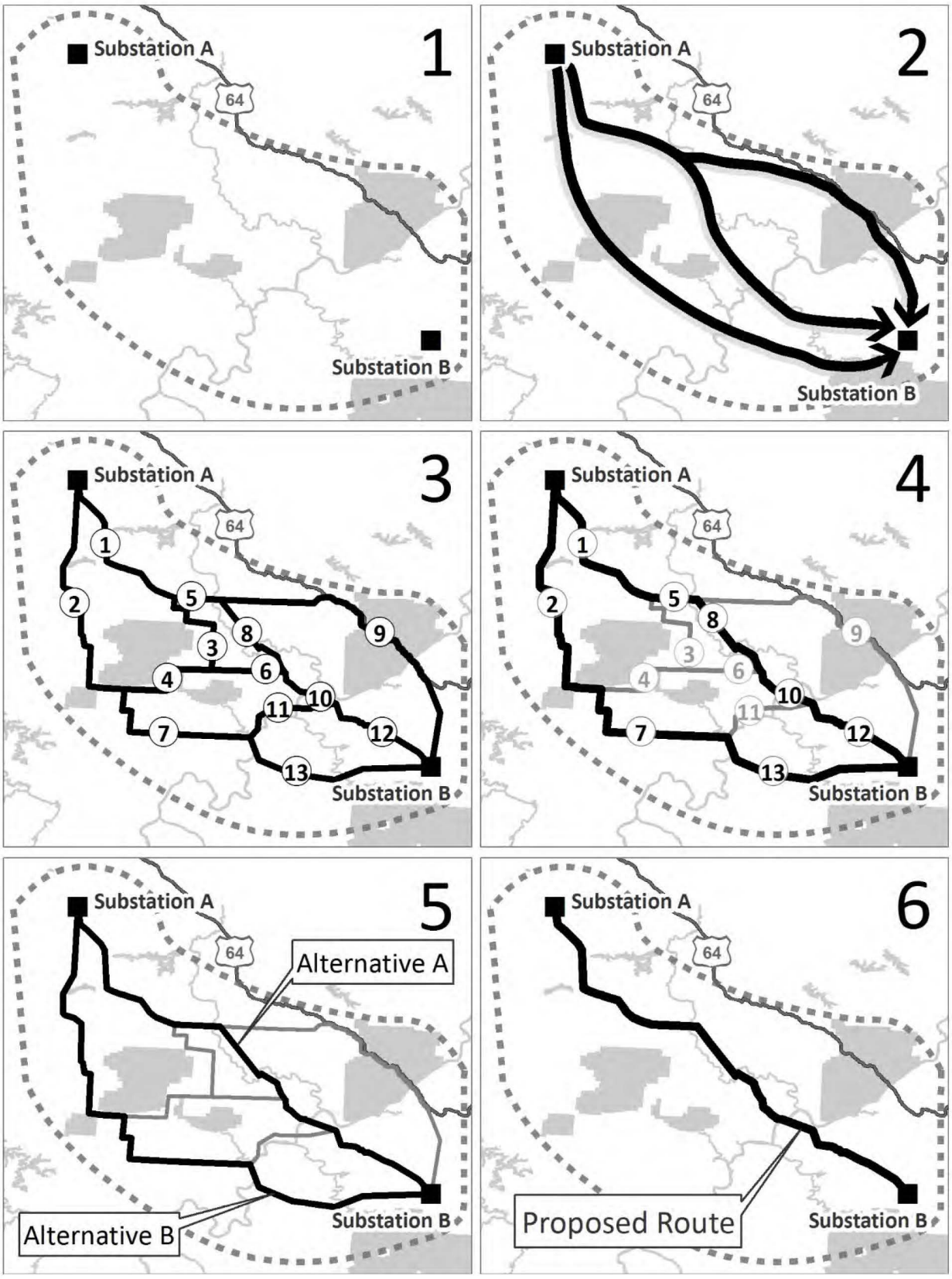


Figure 3. Route Development Process Steps

The team worked together during the Siting Study to define the Study Area, develop siting criteria, identify siting constraints and opportunities, collect and analyze environmental and design data, solicit public input and concerns, consult with natural resource and permitting agencies, develop and revise the siting alternatives, and analyze and report on the selection of a Proposed Route. **Attachment B** identifies the Siting Team members and their areas of responsibility.

2.3 Data Collection

The following sources of information were used to develop data for the Siting Study. A detailed table of data sources is provided in **Attachment C**.

2.3.1 Geographic Information System Data Collection

Aerial photography is an important tool for route selection. The primary sources of aerial imagery used in the route identification, analysis, and selection effort for the Project include:

- Environmental Systems Research Institute (ESRI) Imagery
- Google Imagery
- Digital Globe
- Imagery obtained during LIDAR surveys

Updated information, such as the location of new residences and other constraints, was annotated to the photography by either paper maps (at the public meetings) and transferred into the Geographic Information System (GIS), or digitized directly into the GIS as identified during field inspections. Existing paper and electronic maps were obtained for the Study Area and examined as part of the siting process. These included U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps and state and county road maps in digital form.

The study made extensive use of information in existing GIS data sets, obtained from many sources, including federal, state, and local governments. Some of this information was obtained through official agency GIS data access websites, some was provided directly by government agencies, and the Siting Team created some by digitizing information from paper-based maps, aerial photograph interpretation, interviews with stakeholders and field inspections.

GIS data sources vary with respect to their accuracy and precision. For this reason, GIS-based calculations and maps presented throughout this study should be considered reasonable approximations of the resource or geographic feature they represent and not absolute measures or counts. The data and calculations presented in this study allow for relative comparisons among

Alternative Routes, with the assumption any inherent errors or inaccuracies would be generally equal across all Alternative Routes. Field reconnaissance is conducted to verify certain features (e.g., locations of residential, commercial and industrial buildings).

2.3.2 Field Reconnaissance

Siting Team members conducted field inspections throughout the Study Area. The team members examined Study Segments by automobile from public roads and other points of public access and correlated observed features to information shown on aerial photography, USGS 7.5-minute topographic maps, road maps, and the range of GIS sources compiled. Prior to fieldwork, some key features such as residences, outbuildings, places of worship, cemeteries, and commercial and industrial areas were identified and mapped in GIS. These features were then field verified, and added to the GIS database using laptops/tablets running GIS software supported by real-time Global Positioning System during field reconnaissance efforts.

2.3.3 Federal, State and Local Government Coordination

The Siting Team obtained information from various federal, state, and local agencies and/or officials or contacted them to inform them of the Project and request data for the route planning process. The agencies contacted are listed below. Copies of agency correspondence are included as **Attachment D**.

Federal Agency

- USFWS, Kentucky Ecological Services Office

State Agencies

- Kentucky Department of Fish and Wildlife Resources (KDFWR)
- Kentucky State Nature Preserves Commission (KSNPC)
- Kentucky Office of State Archaeology
- Kentucky Heritage Council
- Kentucky Transportation Cabinet (KYTC)

Local Agencies and/or Officials

The Siting Team coordinated with local government agencies/officials to aid the route development process. This process included a meeting between the Siting Team and representatives of Boyd and Greenup Counties. On January 16, 2018 the Siting Team presented preliminary study segment options to the Greenup and Boyd County representatives via aerial

and topographic mapping and discussed the Project. County representatives were encouraged to provide feedback on preliminary study segments and to provide any information that may be relevant to the Project. Representatives expressed optimism regarding the Project and toward the establishment of the Braidy Industries facilities as a whole. County representatives attending the meeting included:

- Bobby Allen - Greenup County Director of Economic Development
- Robert Carpenter - Greenup County Judge Executive
- Nickie Smith - Boyd County Director of Community and Economic Development

2.3.4 Other Stakeholders

Kentucky Power representatives attempted to contact all landowners crossed by one of the nine total study segments. In total, 20 landowners were affected. All but three of the affected landowners were reached prior to the Open House. Feedback from the 17 landowners that were reached prior to the Open House was brought to the Siting Team in order to address concerns, criticism, and support of the Project. One of the outstanding landowners attended the Open House. Kentucky Power representatives continued to attempt to establish contact with the two remaining outstanding landowners via phone or in person. Subsequently, both outstanding landowners were reached.

2.4 Siting Guidelines

2.4.1 General Guidelines

The primary goal for this siting effort was to identify a route for the Project that (1) reasonably minimizes adverse impacts on area land uses and the natural and cultural environment; (2) minimizes special design requirements and unreasonable costs; and (3) can be constructed and operated in a timely, safe, and reliable manner. Although no Proposed Route can optimally minimize impacts across all area resources, the Siting Team used a series of general siting guidelines to direct the development, evaluation, and selection of routes toward this overall goal.

The following guidelines were considered for this effort:

- Consider parallel alignments along existing ROWs or other infrastructure.
- Maximize the separation distance from and/or minimize impact on dwellings, schools, daycare facilities, hospitals, and other community facilities.
- Consider stakeholder input, as practical.

- Avoid or minimize visibility from populated areas, scenic roadways, and designated scenic resources.
- Minimize interference with economic activities, including agricultural and natural gas activities.
- Avoid or minimize conflict with existing and proposed future development and land uses.
- Avoid crossing or minimize conflict with designated public resource lands such as national and state forests and parks, large camps and other recreation lands, designated battlefields, nature preserves or other designated historic resources and sites, and conservation areas.
- Minimize environmental impact and construction/maintenance cost by selecting shorter, direct routes; route corridors through terrain where economical construction and environmental best management practices can be employed, and where line operational/maintenance is most feasible (e.g., use existing access roads where practicable).
- Avoid or minimize new crossings of large lakes, rivers and large wetland complexes, critical habitat, and other unique or distinct natural resources.
- Minimize habitat fragmentation and impacts on designated areas of biodiversity concern.

2.4.2 Technical Guidelines

Technical guidelines are driven by the physical characteristics and engineering limitations of the structures and lines themselves, and the design criteria necessary to meet Kentucky Power design standards, North American Electric Reliability Corporation (NERC) reliability standards, National Electric Safety Code (NESC), and industry best practices for construction. The technical guidelines were informed by (1) the technical expertise of engineers and other industry professionals responsible for the reliable, safe and economical construction, operation, and maintenance of electric system facilities, (2) NERC reliability standards as implemented by PJM, and (3) industry best practices.

The Siting Team considered the following technical guidelines during the development, evaluation, and comparison of routes.

- Minimize crossing lines of higher voltage.
- Maintain a minimum distance of 50 feet from the proposed centerline to existing residential structures, commercial structures, or out buildings.

- Avoid angles greater than 65 degrees and steep slopes (more than 20 degree slopes for angle structures, and more than 30 degrees for tangent structures).
- Cross roadways as close to 90 degrees as feasible.
- Site structures in locations that would allow conductors to be spanned over steep valleys, as opposed to placing structures on hillsides to descend into the valley

2.5 Public Involvement Process

The Project team began public outreach efforts in winter 2017 with initial contacts to representatives within Greenup and Boyd Counties. A meeting with representatives from Greenup and Boyd Counties took place on January 16, 2018. Following this meeting, Kentucky Power representatives began contacting all landowners potentially affected by a proposed study segment. Landowners were encouraged to discuss the Project with Kentucky Power representatives, detail any concerns, and provide any information about the study segments that may be helpful to the Siting Team. Prior to the Public Open House meeting in February 2018, all but three landowners affected by a study segment had been contacted by Kentucky Power representatives.

2.5.1 Public Open House

A Public Open House was conducted on February 20, 2018 at the Ashland Community and Technical College in Grayson, Kentucky. The Siting Team staffed stations at the meeting and provided information related to engineering and design of the structures, Project need, real estate and ROW issues, and the siting process. The community was notified about the time and location of the meeting through the following means:

1. Landowners located within 250 feet of the centerline of a study segment were contacted by phone and letter concerning the Project
2. A public website was established to collect comments
3. An advertisement was included in the Daily Independent newspaper

Printed maps at a scale of one-inch equals 200 feet were provided at the Open House for the public to review and were used to record written comments concerning sensitive resources in the local environment. Members of the Siting Team greeted meeting attendees, answered questions about the Project, and aided attendees in locating their property or other features of concern on aerial maps showing the array of Study Segments under consideration. Participants were encouraged to document the location of their houses, places of business, property of

concern, or other sensitive resources on the printed maps. After the Public Open House, handwritten comments were digitized and entered into a GIS database.

Comment sheets were distributed to all meeting attendees. Attendees were asked to fill out the sheet completely, including contact information. The Siting Team read all comment sheets, and scanned and stored them in the project database as a record of meeting attendance and public comments. A total of 16 people attended the Public Open House, generating six comment cards. The comments included a request to adjust the alignment slightly to avoid a potential future development site, a homeowner was concerned the alignment would be too close to their existing house, a homeowner concerned with electromagnetic fields, and requests to move the line to avoid agricultural fields. Additionally, Boyd County Judge Executive Steve Towler and Boyd County Director of Economic and Community Development Nickie Smith attended the Public Open House.

2.5.2 Project Website and Virtual Open House

A Project-specific website was developed with a live link connecting to AEP's Kentucky "current projects" website. This website provided project overviews, updates, alternative alignment maps, and schedule information, as well as other methods for submitting comments directly to AEP representatives. As of March 8, 2018, this website had received 351 individual views with no additional comments being submitted through the website.

2.5.3 Consideration of Public Input

In addition to the six comments submitted on the Project at the Public Open House, any comments received via phone calls, U.S. mail, email, or the Project website would be added into the GIS database. However, no additional comments have been received to date. In general, the Project received supportive comments and a number of landowners indicated a willingness to negotiate with Kentucky Power if impact to their properties was expected. Concerns with the Project included impact to aesthetics, future land use of residential parcels, future development concerns for parcels identified as potential industrial/commercial developments, concerns of impact to a cemetery close to a study segment, and impact to land utilized for farming. Two landowners indicated an unwillingness to negotiate with Kentucky Power, citing no interest in having the transmission line cross their properties.

The Siting Team reviewed all comments, and where applicable, incorporated the information when reviewing, revising and comparing study segments. Comments were discussed during Project meetings and uploaded to an online database accessible by the Siting Team and were reviewed during the selection of the Proposed Route.

3.0 ALTERNATIVE ROUTE IDENTIFICATION

3.1 Study Area Description

The Siting Team developed a Study Area which is described as the territory in which alternative routes could be sited to feasibly meet the Project's functional requirements and, at the same time, minimize environmental impacts and Project costs. The boundaries of the Study Area were determined by the geographic area encompassing the termini of the proposed transmission line (the connection point to the existing Chadwick-Kentucky Electric Steel 138kV transmission line and the Moore Hollow 138kV Substation). The Study Area was intended to encompass the reasonable Conceptual Routes between these end points. Given these considerations, the Siting Team identified a Study Area encompassing approximately 4,330 acres (6.75 square miles) in Boyd County (see **Map 2**). The Project Study Area is generally bounded on its northern end by a point approximately 0.1-mile north of the Moore Hollow 138kV Substation, on its eastern side by the stream valley of Williams Creek, on its western side by the Boyd County - Greenup County line, and on its southern side by the Boyd County - Carter County line. The Study Area is dominated by undeveloped land on former surface mining sites, forested areas on slopes, and scattered residential development located along roadways (Straight Creek and Buena Vista Drive) in two intervening valley bottoms.

3.2 Opportunities and Constraints

The Siting Team identified and mapped siting constraints and opportunities within the Study Area.

Siting Constraints

Constraints are specific areas that should be avoided to the extent practical during the route development and selection process. The Siting Team initially identifies larger constraints during the conceptual siting process. As the Siting Team develops specific siting alignments, smaller constraints are identified and avoided where feasible. The following is a list of general large constraints:

- Urban areas, including towns, small villages, and other high concentrations of residential, commercial and industrial development areas.
- National Register Historic Districts and adjacent areas.
- Recreational areas such as parks and large recreational reservoirs.
- Large streams, wetlands, flood zones or unique natural resource features, and critical habitat areas.

- Designated federal or state forests, parks, state game lands, and other natural and conservation areas.
- Large mining areas.
- Areas identified by local real estate developers as future commercial, industrial or residential developments.

As the Siting Team develops specific alignments, smaller constraints are identified. These constraints encompass other feature types found within smaller geographic areas, or site-specific locations. Through the iterative process of route development described above, the routes are adjusted to avoid small constraints where feasible, including:

- individual existing residences (houses, mobile homes, and multi-family buildings)
- future land use on individual residential properties
- commercial and industrial buildings
- outbuildings and barns
- cemeteries
- churches
- schools
- hospitals
- recorded sites of designated historic buildings and sites
- small wetlands
- specific recreational sites, facilities, and trails
- radio and communications towers
- designated scenic vista points

Siting Opportunities

The Siting Team defined siting opportunities as locations where the proposed transmission line might be located while reasonably minimizing adverse impacts. Siting opportunities typically include other linear infrastructure and utility corridors, such as the existing electric network, rail lines, and roads, but may also include reclaimed mine lands, or unused portions of industrial or

commercial areas. However, due to the limited existing electric infrastructure within the Study Area, coupled with the directional orientation of roadway infrastructure, the substantial utilization of these standard siting opportunities with the Study area were not feasible.

A unique siting opportunity within the Study Area is the large tracts of undeveloped land, owned by local real estate development firms, located between the two endpoints of the Project. Coordination with the largest of these property holders indicated a willingness to negotiate with Kentucky Power as long as the most conducive land for commercial and industrial development be avoided.

3.3 Siting Concepts

Siting concepts are developed to aid in locating feasible transmission line corridors. These corridors are used for siting Study Segments between the termini of a project. In general, the siting concepts had five primary objectives, including avoiding or minimizing present and anticipated future land use conflicts; limiting the effect of the proposed construction on human, natural, cultural, and visual resources; minimizing regulatory conflict; address construction, operation, maintenance, and project completion requirements; and assess stakeholder support and concerns. With these objectives in mind, the Siting Team utilized several siting concepts in the development of transmission line corridors, including:

- Utilize ridgelines to minimize crossings of steep slopes.
- Span steep valleys by placing structures at the summit of hills.
- Site Study Segments so that roadway corridors could be crossed in locations of least residential development.
- Avoid areas of prime economic development potential.
- Parallel parcel boundaries where feasible.

3.4 Study Segments

3.4.1 Description of Study Segments

The Siting Team developed a series of Study Segments based on the siting process and criteria developed above. Study Segments are partial alignments developed based on the siting concepts (see **Figure 3**). As the siting effort evolved, Study Segments were revised, removed, or added. These eliminations or adjustments were based on the likelihood of impacts on residential, commercial and industrial areas, agricultural areas, planned and future development and natural areas. **Map 3** shows the resulting network of Study Segments evaluated by the Siting Team.

3.4.2 Study Segment Evaluation

Initial desktop analysis of the Study Area concluded with the identification of two main corridors, identified as the eastern and western corridors. The western corridor lies generally to the west of the Championship FastPitch Athletic Complex, the residential cluster along Straight Creek Road, and areas identified as having high future development potential. The eastern corridor lies to the east of these features. Within these two corridors, or in advantageous locations connecting them, a total of 11 Study Segments were created. In particular, the Siting Team attempted to identify Study Segments that could be used to construct the most feasible alternative routes, while avoiding major environmental and socio-economic impacts. These Study Segments were further evaluated, with segments being added and deleted based upon field reviews, requests from landowners, and input from state and local officials and agencies.

Several Study Segments were refined, moving their centerlines within several hundred feet of the original centerline, to accommodate information gathered from the efforts detailed above. One Study Segment, which was located within a parcel identified for future development, was eliminated from consideration at the request of the landowner. At the conclusion of these efforts, nine Study Segments were advanced for analysis and displayed to the public during the Open House meeting in February 2018. The Siting Team reviewed all comments received during the open house, and where applicable, revised the Study Segments based on the requests and information presented by the public. No Study Segments were eliminated following the Open House. Following the Open House, the Study Segments were combined into four Alternative Routes.

3.5 Alternative Routes

The Siting Team met frequently throughout the route identification and review process, continually reviewing, modifying, and eliminating the Study Segments based on new field analysis and stakeholder input. At the end of this iterative process, the Siting Team compiled the Study Segments into four Alternative Routes (A, B, C, and D) for analysis and comparison. These Alternative Routes are described in the following sections and are shown in more detail on **Map 4.**

3.5.1 Alternative Route A

Alternative Route A is the western-most route, and at approximately 3.3 miles is the longest of the routes considered. In an effort to avoid residential development along Midland Trail Road and Straight Creek Road, the Championship FastPitch Athletic Complex, and future development areas, the route was located in a combination of forested and previously mined areas. Coordination with landowners affected by Alternative Route A resulted in the identification of two major landowners expressing significant opposition to this option.

3.5.2 Alternative Route B

Alternative Route B is a hybrid route that utilizes the eastern corridor to a point north of Addington Road, where it then proceeds northwestward across forested and previously mined areas to join with Alternative Route A north of Straight Creek Road. It then continues along the same alignment as Alternative Route A until reaching the proposed Moore Hollow 138kV Substation site. This Alternative Route was designed to take into consideration the request of a landowner, who had requested that the areas most conducive for future development be avoided. As such, the flat and non-forested portions of this landowners parcel were avoided, resulting in an approximately 3.0-mile-long Alternative Route.

3.5.3 Alternative Route C

Similarly to Alternative Route B, Alternative Route C is a hybrid route that utilizes the eastern corridor to avoid areas of future development at the request of the landowner. Alternative Route C utilizes the eastern corridor until reaching a point north of Straight Creek Road. It then proceeds northeast across a combination of forested and open land to intersect Alterative Route A near Addington Road. It then continues along the same alignment as Alternative Route A until reaching the proposed Moore Hollow 138kV Substation site. Alternative Route C is approximately 3.0 miles long.

3.5.4 Alternative Route D

Alternative Route D is the easternmost route which was, similarly to Alternative Route A, designed to avoid residential development along Straight Creek Road and future development areas. Also similarly to Alternative Route A, in order to avoid the residential and future development areas, it traverses a combination of forested and open areas. It is the shortest route at approximately 2.7 miles in length.

4.0 ALTERNATIVE ROUTE COMPARISON

This section further discusses the Alternative Routes and provides a quantitative and qualitative analysis of potential impacts to local communities, the environment and cultural resources. The Alternative Routes were reviewed in detail and compared using a combination of information collected in the field, GIS data sources, public input, supporting documents, and the collective knowledge and experience of the Siting Team.

4.1 Natural Resources

Natural resource impacts include potential impacts to vegetation and habitat, surface waters, threatened and endangered species, and conservation and recreation lands. Potential impacts discussed in this section are based on publically available maps and data as well as consultation

with federal and state agencies (see **Attachment D**) along with some field truthing. Once a proposed route is identified and prior to beginning Project construction, Kentucky Power will obtain all required environmental compliance permits and complete the required field studies. A comparison of the natural environment considerations for the Alternative Routes is presented at the end of this section in **Table 2**.

4.1.1 Soil and Water Resources

Resource Characteristics

The Study Area is characterized by a moderately rolling topography and does not experience the substantial peaks and valleys commonly found within the counties to the south. Elevations range from 600 feet along Williams Creek in the southeastern corner of the Study Area to nearly 1,000 feet on ridgetops. The Study Area is located within the Little Sandy watershed (Hydrologic Unit Code #05090104). Major stream drainages within the Study Area include Williams Creek, Mile Branch, Straight Creek, and Buena Vista Branch. Known National Wetlands Inventory (NWI) wetland locations within the Study Area include numerous ponds, with few other wetlands being mapped. Given the history of the Study Area, which includes historic mining operations, a large portion of the Study Area soils are previously disturbed. The disturbance has resulted in areas of small, seemingly isolated wetlands forming in low lying topography. Again, no field delineations were performed at this point, but will be conducted after a route is selected. All wetland and stream data was obtained through National Hydrography Dataset (NHD) and NWI datasets. Water Resources are identified in **Map 5**.

Alternative Route Comparison

Given the generally homogenous nature of the Study Area, impacts to soil and water resources between the four Alternative Routes are similar. Alternative Route A crosses more acres (0.5-acre to 0.6-acre) of Federal Emergency Management Agency (FEMA)-designated 100-year floodplains as compared to the other Alternative Routes. Stream crossing totals and the number of previously mined areas crossed are similar between the four Alternative Routes. There are no NWI-mapped Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS), or Palustrine Forested wetlands crossed by any Alternative Route. Alternative Route A and B cross Palustrine Unconsolidated Bottom wetlands with totals of 0.6-acre and 0.2- acre, respectively. There are no substantial resource difference between the four Alternative Routes as they pertain to soil and water resources.

4.1.2 Wildlife Habitat and Sensitive Species

Resource Characteristics

The Study Area is mainly comprised of undeveloped forest, previously mined open space, agricultural fields, and residential land. A request for information was sent to the USFWS Kentucky Field Office. A letter in response to the request directed the Siting Team to utilize the USFWS' Information, Planning and Conservation System (IPaC). A preliminary review was conducted for the Study Area for the potential occurrence of federally-listed rare, threatened or endangered species in the Project vicinity using the IPaC.

Requests for information were also sent to the KDFWR and the KSNPC. The KDFWR responded to the request with several state-listed species as being known to occur within 1.0-mile of the Study Area. The letter also detailed that no known caves occur within 1.0-mile of the Study Area, and requests that Project proponents coordinate with the U.S. Army Corps of Engineers (USACE), Kentucky Division of Water, and USFWS. The KDFWR concluded the letter with recommendations for erosion and sedimentation control measures and culvert installation recommendations. The KSNPC responded to the request for information with lists of monitored species within one-mile, five miles, and 10 miles of the Study Area.

In total, this preliminary evaluation phase indicated three federally-listed bat species, and several state-listed and -monitored species could potentially occur within the study area. These species are identified in **Table 1**.

Table 1. Threatened and Endangered Species

Species Name	Status	Habitat Type
Northern Brook Lamprey (*Ichthyomyzon fossor*)	KSNPC Status - Threatened	Clean, clear gravel riffles or sand-silt bottoms and runs of small rivers, in moderately warm water.
American Brook Lamprey (*Lampetra appendix*)	KSNPC Status - Threatened	Inhabit gravel-sand riffles and runs of creeks and small to medium rivers with strong flow; cool, clear water.
Trout Perch (*Percopsis omiscomaycus*)	KSNPC Status - Special Concern	Lakes and deep flowing pools of creeks and small to large rivers; usually over sand.
Salamander Mussel (*Simpsonaias ambigua*)	KSNPC Status - Threatened	Clear, freshwater habitat, including creeks, streams, rivers and lakes; it is found on a variety of substrates in areas of swift current.
Peregrine Falcon (*Falco peregrinus*)	KSNPC Status - Endangered	Open lands in mountain ranges, river valleys, farmlands, and human population centers. Nests on ledge or hole on face of rocky cliff, but may also use manmade structures or old stick nests.

Table 1. Threatened and Endangered Species		
Species Name	**Status**	**Habitat Type**
Yellow-crowned Night-heron (*Nyctanassa violacea*)	KSNPC Status - Threatened	Marshes, swamps, and lakes. Nests in trees in wooded situations near water, or sometimes on ground.
Little Spectaclecase (*Villosa lienosa*)	KSNPC Status - Special Concern	Typically inhabits small creeks to medium-sized rivers, usually along banks in slower currents, in substrates that range from muddy to sandy.
Grey Treefrog (*Hyla versicolor*)	KDFWR - State Listed KSNPC - Special Concern	Inhabits various wooded and forested habitats and may occur on ground or in shrubs or trees. Breeding habitat includes shallow woodland ponds and marshes or puddles.
Savannah Sparrow (*Passerculus sandwichensis*)	KDFWR - State Listed	Habitat includes natural or pasture/hayfield grasslands with short to intermediate vegetation height, intermediate vegetation density, and a well-developed litter layer.
Henslow's Sparrow (*Ammodramus henslowii*)	KDFWR - State Listed	Tall, dense grass and herbaceous vegetation found in open fields, meadows, and unmowed hayfields.
Red-breasted Nuthatch (*Sitta Canadensis*)	KDFWR - State Listed	Coniferous, deciduous and mixed forest, scrub areas or riparian woodlands.
Bobolink (*Dolichonyx oryzivorus*)	KDFWR - State Listed	Non-breeding habitat includes marshes and open woody areas.
Osprey (*Pandion haliaetus*)	KDFWR - State Listed	Primarily located along rivers and other large bodies of water. Nests built on living or dead trees, or structures such as utility poles.
Rose-breasted Grosbeak (*Pheuticus ludovicianus*)	KDFWR - State Listed	Hardwood forests, scrub, or old orchards, typically second growth or on the edge of forested upland, swamps or riparian. Nests in thickets or small trees.
Indiana Bat (*Myotis sodalis)*	USFWS - Endangered	Summer habitat consists of wooded areas where the bat usually roosts under loose tree bark on dead or dying trees. Winter habitat for hibernation consist of caves or abandoned mines.
Northern Long-eared Bat (*Myotis septentrionalis)*	USFWS - Threatened	Summer habitat consists of wooded areas where the bat usually roosts under loose tree bark on dead or dying trees, and occasionally will roost in caves or mines. Rarely the bat will roost in manmade structures. Winter habitat for hibernation consist of caves or abandoned mines.
Gray Bat (*Myotis grisescens)*	USFWS - Endangered	Generally inhabit caves year-round.

Alternative Route Comparison

Three species of federally-listed bats were identified during the IPaC review. Generally, the USFWS recommends that alternatives with the lowest forested impacts are favorable since it reduces the potential to impact bat habitat. All four Alternative Routes impact forested land, however, due to its length and its western orientation, Alternative Route A impacts the highest amount of forest (23.0 acres). In contrast, Alternative Route D impacts approximately 38 percent less forest than Alternative Route A with 14.2 acres. One cave dwelling bat species was identified during the IPaC review. Although no known caves or mine portals were identified by federal or state agencies as part of data requests, the Study Area contains large tracts of historically mined land. In addition, one landowner commented that a mine opening was located in the vicinity of Alternative Route D. The Siting Team adjusted Alternative Route D away from the vicinity of the portal at the request of the landowner.

Coordinates provided by the KSNPC of the potential location of monitored species within and near the Study Area were plotted. Two species, the Trout Perch and the Grey Treefrog, were plotted within the Study Area. The location of the Trout Perch was plotted within Williams Creek, in the southeastern corner of the Study Area. All four Alternative Routes will require spanning the creek, however, no direct impacts to the creek are anticipated. The Grey Treefrog was plotted on the edge of the Study Area in two places, on the border of Greenup and Boyd Counties, in the western portion of the Study Area and along Route 5 in the northeast corner of the Study Area. Although these locations are within the Project Study Area, no Alternative Routes come close to the locations of the Grey Treefrog. Alternative Route A is the closest to the western location at 4,700 feet away. Alternative Route D is the closest to the eastern location at 7,300 feet away.

Table 2. Natural Resource Evaluation Criteria					
Alternative Route	**Unit**	**A**	**B**	**C**	**D**
General					
Length	miles	3.3	3.0	3.0	2.7
Water Resources					
Total streams crossed	count	5	6	6	4
High/exceptional streams crossed	count	0	0	0	0
Forested wetlands in the ROW (NWI)	acres	0	0	0	0
PEM/PSS wetlands in the ROW (NWI)	acres	0	0	0	0
PUB wetlands in the ROW (NWI)	acres	0.6	0.2	0.0	0.0
Large waterbody crossings (rivers, large streams)	feet	0	0	0	0
FEMA-designated floodplain crossed by ROW	acres	1.2	0.7	0.7	0.6
FEMA-designated floodway crossed by ROW	acres	0.3	0.3	0.3	0.3
Geological, Topographical, and Soil Resources					
Prime and unique farmland foil in the ROW[1]	acres	0.8	0.9	1.4	1.4
Farmland of statewide importance in the ROW[2]	acres	0	0	0	0
Karst topography in the ROW	acres	0	0	0	0
Known permitted mines in the ROW	count	7	8	8	7
Wildlife and Habitat					
Tree clearing required in the ROW (digitized based on aerial imagery)	acres	23.0	15.9	18.3	14.2
Length of clearing parallel to existing linear infrastructure	miles	0	0	0	0
Special natural areas crossed by the ROW	acres	0	0	0	0
Special natural areas within 250 feet of the ROW	count	0	0	0	0

Notes:

1 Prime farmland is land that has the best combination of physical and chemical characteristics for producing crops.

2 Soils that do not meet the prime farmland category but are still recognized for their productivity by states may qualify as soils of statewide importance.

4.2 Land Use

Land use impacts include direct and indirect impacts to residential, commercial and industrial development, institutional uses (e.g., schools, places of worship, cemeteries, and hospitals), cultural resources, and land use. Construction of a new transmission line can result in changes in land use and aesthetic impacts to residents, commuters and travelers, employees, and recreational users. A comparison of the land use considerations for the Alternative Routes is presented at the end of this section in **Table 3.** Land use within the Study Area are shown on **Map 6.**

4.2.1 Agricultural and Forestry Resources

Resource Characteristics

As mentioned previously, the majority of the Study Area is characterized by forest or undeveloped open field previously utilized for mining. No large parcels appear to be utilized for timber management, and agricultural practices appear to be limited. The few open areas utilized for agricultural practices appear to be for hay production or pasture. There are no public federal- or state-protected lands within the Study Area.

Alternative Comparison

Although few agricultural land uses exist within the Study Area, Alternative Route B has the highest impacts to pasture/rangeland, with 4.1 acres. The lowest impacts are associated with Alternative Route A, with 2.7 acres. However, the narrow strip of hayfield crossed by Alternative Route A belongs to a landowner who expressed strong opposition to the Project and an unwillingness to negotiate with Kentucky Power. Alternative Routes C and D have a moderate amount of impact with 3.5 acres each. This impact was discussed with the landowner. The landowner indicated a willingness to negotiate with Kentucky Power, as long as the transmission line across his property was placed at the edge of his hayfields, thereby minimizing potential impacts to his farming operation.

Impact to agricultural land is anticipated to be limited to structure footprints, and the temporary disturbances associated with construction, including access roads and laydown yards. There are no known agricultural easements, tree farms, or orchards crossed by any Alternative Route. As mentioned previously, the highest forested impacts are associated with Alternative Route A. Although none of the parcels crossed by this Alternative appear to be managed for timber, impacts to forested land are of concern when considering rare, threatened and endangered species.

4.2.2 Recreation and Conservation Lands

Resource Characteristics

Recreation within the Study Area includes the Champion Fastpitch Athletic Complex located in the south-central portion of the Study Area. At the time of this study the facility was for sale for potential commercial development and appeared to not be in use. Additionally, the Boyd County Fairgrounds are located in the southeastern corner of the Study Area along Addington Road. No other recreational areas occur within the Study Area. There are also no known conservation lands within the Study Area.

Alternative Route Comparison

Although the Champion Fastpitch Athletic Complex appeared to not be in use, the Siting Team developed the Alternative Routes to avoid impact to the facility and at the landowner's request due to its future development potential. Alternative Route A, although not impacting the facility directly, is the closest alternative at approximately 750 feet to its southwest. Similarly, there are no Alternative Route impacts to the Boyd County Fairgrounds. Alternative Routes B, C, and D are approximately 800 feet from the fairgrounds. Impacts to these sensitive resources are not anticipated, with the exception of potential minor alterations to the viewshed.

4.2.3 Developed Land Use

Resource Characteristics

Existing commercial and industrial development is limited to the southeastern corner of the Study Area where Kentucky Electric Steel facilities are located, and the northeastern corner of the Study Area where the EastPark Industrial Center is being developed. Residential development is located along the few secondary roads, including Straight Creek Road and Buena Vista Drive.

Although the majority of the Study Area is presently undeveloped, extensive economic development is anticipated with the construction of Braidy Industries within the EastPark Industrial Center. During coordination with the major stakeholders controlling the land within the center portion of the Study Area, the need to avoid land considered prime development areas was repeatedly expressed to the Siting Team. This included some of the largest, flattest, and most open regions within the Study area.

Alternative Route Comparison

Due to the anticipation of an economic boom in the region associated with the development of the Braidy Industries facility, major stakeholders were resolute about Alternative Routes avoiding the most prime areas for development. As such, the Siting Team coordinated closely with major stakeholders and landowners to site the Alternative Routes to minimize impact to these areas to

the extent feasible. However, due to the location of these prime development areas in relation to the Braidy site, they are not completely avoidable.

Alternative Route A, in a quest to avoid the flatter topographies conducive for development, was placed within a large parcel in the western corridor owned by Kings Crossing LLC. Further discussion with Kings Crossing LLC, indicated an unwillingness to negotiate with Kentucky Power for a transmission line ROW across this parcel. A total of 1.5 miles of the overall 3.3-mile transmission line would be located within the Kings Crossing, LLC parcel. Kings Crossing, LLC also owns additional parcels crossed by Alternative Routes B, C, and D. Representatives from Kings Crossing, LLC indicated a willingness to negotiate with Kentucky Power for crossings associated with Alternative Routes B, C, and D. Additionally, another major stakeholder, BCG Land, LLC, met with the Siting Team in the field to review Alternative Routes B, C, and D and provided feedback on where to place the Alternative Routes to best suit future development. The Siting Team utilized this information in further development of Alternative Routes B, C, and D.

In summary, future land use plans expressed by Kings Crossing, LLC (and the landowner identified in Section 4.2.1) appear to be non-conducive to the siting of a transmission line within these parcels. Additionally, these two property owners expressed strong opposition and an unwillingness to negotiate with Kentucky Power regarding Alternative Route A. Alternatively, BCG Land, LLC, provided critical feedback for the siting of Alternative Routes B, C, and D across their various parcels and indicated a willingness to negotiate with Kentucky Power regarding acquisition of ROW. Concerning residential impacts, all alternative routes traverse north to south and must cross the two intervening valley bottoms (Straight Creek Road and Buena Vista Drive) and have similar impacts. Alternative Routes A and D have slightly less number of residences within 250 feet of the centerline: Alternative A has three; Alternative B has seven; Alternative C has five; and Alternative D has four.

4.2.4 Historic and Archeological Resources

Resource Characteristics

The Siting Team requested digital files of architectural and historical resources from the Kentucky Heritage Council, as well as digital files of archaeologically significant resources from the Kentucky Office of State Archaeology. At the Kentucky Heritage Council request, the correspondence and data is confidential and not for public release. The digital files included 11 previously recorded architectural or historical resources within the Study Area. All resources were listed as National Register of Historic Places (NRHP) status undetermined. The highest concentration of the resources is located in the southeastern corner of the Study Area near the Kentucky Electric Steel facility and Route 60. Two resources are located in the northeastern portion of the Study Area along Straight Creek Road. Digital files provided from the Kentucky

Office of State Archaeology indicated a large area of the south-central portion of the Study Area had been previously surveyed for archaeological resources, presumably as part of historic mining operations in the region. No archaeological sites were identified within the Study Area. Additionally, no NRHP-listed sites, historic districts, or concentrated areas of cultural resources were identified during desktop reviews or as part of the digital files obtained by the state agencies.

Alternative Route Comparison

One previously identified architectural resource, a barn located off Route 60, is located approximately 550 feet to the east of a common segment between all four Alternative Routes. All identified architectural resources occur within the eastern half of the Study Area, and are generally closest to Alternative Routes B, C, and D. With the exception of the barn resource described above, given the fact these resources are located at distances between 2,000 and 6,000 feet from the Alternative Routes, and with all being listed as undetermined for NRHP eligibility, no major differences between Alternative Routes are identified associated with architectural and historical resources. All four Alternative Routes cross similar amounts of archaeologically surveyed land and disturbed landscapes yielding a similar likelihood of recovery of archaeological resources. Therefore, no Alternative Route appears to be superior to another in this category.

4.2.5 Scenic Resources

Resource Characteristics

Aesthetics are defined as a mix of landscape visual character, the context in which the landscape is viewed (viewer/user groups), and the scenic integrity of the landscape. This study reviewed the potential visibility and visual impact of the Alternative Routes through landscape character assessment, field evaluation, viewshed analysis, and environmental factor tabulations.

Visual character encompasses the patterns of landform (topography), vegetation, land use, and aquatic resources (i.e., lakes, streams, and wetlands). Multiple elements influence visual character, such as natural systems, human interactions, and land use. In natural settings, the visual character attributes are natural elements such as forested mountains or scenic rivers and lakes, whereas rural or pastoral/agricultural settings may include manmade elements such as fences, walls, barns and outbuildings, and occasional residences. In a more developed setting, the visual character may include commercial or industrial buildings, manicured lawns, pavement, and other infrastructure.

The Siting Team observed two distinctive landscapes within the Study Area: the undeveloped, formerly mined landscape prevalent within the central and northern portions of the Study Area,

and the residential landscape present along the roadways (Straight Creek Road and Buena Vista Drive) and valley bottoms bisecting the Study Area. The generally undeveloped land constitutes the majority of the Study Area. Large portions of this undeveloped land are previously mined landscapes, with large open areas (**Photograph 1**). Low herbaceous vegetative cover has been reestablished within these previously mined areas (**Photograph 2**) and some development has taken place, as seen with the establishment of the Championship Fastpitch Athletic Complex (**Photograph 3**). The visual character in the residential area is generally rural and located in the valley bottoms where the views are limited to short- to mid-ground views due to terrain and vegetation (**Photograph 4**). These residential areas include a mix of older and modern construction housing stock. Residences vary in distance from one another, ranging from less than 100 feet to over 500 feet or more between structures.

The endpoints of the Project are located in industrial areas in various stages of development. The beginning of the Project is located outside the Kentucky Electric Steel facility (**Photograph 5**). This area has been previously developed and disturbed as part of the facilities operations. The terminus of the Project is located within the EastPark Industrial Center, which is an area primed for future industrial and commercial development, but is currently only moderately developed (**Photograph 6**). There are no existing or proposed scenic resources known within the Study Area.

Photograph 1. Undeveloped, previously mined landscapes within the central portion of the Study Area

Photograph 2. Vegetation re-established on higher elevations within the previously mined landscape

Photograph 3. Championship Fastpitch Athletic Complex

Photograph 4. Scattered residential development along roadways and valley bottoms within the Study Area (Straight Creek Road near Alternative Route D crossing, facing northeast)

Photograph 5. Kentucky Electric Steel (KES) facility showing the Chadwick-KES 138kV Transmission Line and Interstate 64

Photograph 6. EastPark Industrial Center and proposed Moore Hollow 138kV Substation site (terminus of the Project)

Alternative Route Comparison

Given the homogenous landscape traversed by the four Alternative Routes, differences in impacts associated with each route are generally not substantial. Alternative Route A crosses more forested and undeveloped land, and spans roadways in areas that have minimal residential development. Similarly, Alternative Route D is located within a mostly undeveloped landscape and spans roadways in areas of minimal development. However, Alternative Route D is the closest route option to the Boyd County Fairgrounds (approximately 800 feet away, see **Map 4**) and may be visible to its patrons.

Although Alternative Route B shares a significant number of study segments with Alternative Routes A and D, it crosses Straight Creek Road in a more densely developed area, splitting a 330-foot gap between two residences and crossing Straight Creek Road at an approximate 45 degree angle. Alternative Route C is similarly located in undeveloped areas and crosses Straight Creek Road in the same location as Alternative Route D and crosses Buena Vista Drive in the same location as Alternative Route A.

Regardless of which Alternative Route is selected, a combination of steel lattice, H-Frame, and single pole structures will be utilized as part of the Project. Roadways in the valleys where residential development is prevalent will be spanned by the conductors of the transmission line,

with the intent of situating structures in such a way to minimize visual impacts to the residences. Additionally, Alternative Routes were designed to maximize distance from residences. Within the undeveloped previously mined areas, structures will be placed in areas of less economic development potential. Although structures of these types may appear unusual in the current undeveloped setting, it is anticipated they will be conducive to the industrial and commercial development anticipated for these areas.

Table 3. Land Use Evaluation Criteria					
Alternative Route	**Unit**	**A**	**B**	**C**	**D**
General					
Length	miles	3.3	3.0	3.0	2.7
Number of parcels[1] crossed	count	14	19	17	13
Landowners within ROW	count	11	13	11	12
Municipalities, Counties, and Townships Crossed					
Boyd County	miles	3.3	3.0	3.0	2.7
Residential					
Barns, outbuildings, sheds, garages and silos in the ROW	count	1	1	1	1
Abandoned structures within ROW	count	2	2	2	0
Residences/single-family dwellings within ROW	count	0	0	0	0
Residences/single-family dwellings within 250 feet of centerline	count	3	7	5	4
Residences/single-family dwellings within 500 feet of centerline	count	6	15	8	15
Multi-family dwellings within 500 feet of centerline	count	0	0	0	0
Commercial/Industrial					
Businesses/commercial buildings[2] within 500 feet of the centerline	count	0	0	0	0
Active Mining areas crossed	count	0	0	0	0
Quarries crossed	count	0	0	0	0
Agricultural					
Pasture/rangeland crossed in ROW [based on National Land Cover Database (NLCD) data]	acres	2.7	4.1	3.5	3.5
Cropland crossed in ROW (based on NLCD data)	acres	0	0	0	0
Tree farms/orchards crossed in ROW	acres	0	0	0	0
Community/Recreational Facilities					
Schools within 1,000 feet of centerline	count	0	0	0	0
Designated places of worship within 1,000 feet of centerline	count	0	0	0	0
Cemeteries within 250 feet of centerline	count	0	0	0	1

Table 3. Land Use Evaluation Criteria					
Alternative Route	**Unit**	**A**	**B**	**C**	**D**
Hospitals, and assisted living facilities within 250 feet of centerline	count	0	0	0	0
Parks and recreation areas crossed by the ROW	count	0	0	0	0
Scenic byways crossed	count	0	0	0	0
Protected Land					
Federal/state land crossed by ROW	acres	0	0	0	0
Conservation easements crossed by the ROW	acres	0	0	0	0
Local public lands crossed by ROW	acres	0	0	0	0
Cultural Resources					
NRHP-listed sites within one mile of the centerline	count	0	0	0	0
National Landmarks within one mile of the centerline	count	0	0	0	0
Historic Districts within one mile of the centerline	count	0	0	0	0
Known NRHP-eligible sites within one mile of the centerline	count	0	0	0	0
Listed archaeological sites within ROW	count	0	0	0	0
Listed archaeological sites within 250 feet of centerline	count	0	0	0	0

Notes:

[1] The number of parcels crossed refers to the number of individual plots of owned land recorded within the County. The number of landowners within the ROW represent the number of individual landowners, who each may own one or more parcels.

[2] Commercial development includes retail, service, office, restaurants, and lodging establishments

4.3 Constructability

This section discusses the feasibility of a proposed transmission line, as it relates to engineering and construction concerns. Constructability evaluates the use of existing transmission corridors, engineering challenges, and accessibility issues of a proposed route. Major factors that affect constructability include, but are not limited to, steep topography, condensed ROWs, high angles, proximity to major highways, accessibility, safety and cost. A comparison of the engineering and construction considerations for the four Alternative Routes is presented at the end of this section in **Table 4.**

4.3.1 Engineering Design Considerations

Transmission ROW

Kentucky Power attempted to minimize route length and ROW acquisition. Where possible and practical, Kentucky Power considers using existing transmission ROW, paralleling existing electric lines, or paralleling other infrastructure (i.e., roadways, railways or gas lines). However, due to the location and orientation of the existing infrastructure corridors within the Study Area, this was not possible when developing Alternative Routes. Additionally, landowners affected by Alternative Routes had the opportunity to disclose their concerns or comments about the Project and its associated ROW during a public open house. A summary of these discussions can be found in Section 2.5.

Engineering and Construction Considerations

Potential engineering and construction challenges are important to consider when siting a transmission line. Heavy angles, steep topography, nearby towers, antennas, highways, and airfields along with narrow ROW alignments are all elements that could ultimately require extensive or non-standard engineering and lead to increases in impacts and overall cost.

The proximity to existing roadway, transmission, and gas pipeline infrastructure could also pose potential engineering and construction challenges. As with paralleling existing infrastructure, crossing over transmission lines, roadways, and gas pipelines may require specialized construction techniques, and transmission crossings may require outages. Kentucky Power coordinated with the KYTC to obtain design files of potential reconstruction along US 60 near Interstate 64 and utilized those documents to site proposed structure locations outside the access control limits (**Attachment D**). The KYTC also indicated any work within the access control fence of Interstate 64 would require review from the Federal Highway Administration. Kentucky Power does not anticipate any construction within the access control fence.

Although the topography in the Study Area is not as rugged as experienced in counties to the south, between 50 and 60 percent of each Alternative Route is located on slopes greater than 20 percent. In addition, long spans will be necessary to span the residential areas along Straight Creek Road and Buena Vista Drive. This will be done to avoid the visual impacts associated with siting structures that descend into the valleys and up the adjacent landforms. By spanning the topography from peak to peak, visual impacts should be minimized to the residences, which will see fewer structures as opposed to a transmission line that would descend the landforms via additional structures.

The proposed Moore Hollow 138kV Substation will be designed to allow the proposed transmission line to enter on its southeastern side, which is ideal given the direction the transmission line will be coming from. However, a 34.5kV distribution line is also located on the proposed substation's southeastern edge. Therefore, the proposed transmission line will be designed to span the distribution line before entering the proposed substation.

4.3.2 Access Roads

The Siting Team did consider access issues when identifying Alternative Routes, including whether existing public roads in the vicinity of the Study Segment were in a condition that would support heavy traffic from large construction vehicles. In areas where structure locations could not be accessed from a public road, access roads will need to be developed and constructed. Given the past disturbance to soils within the Study Area, some pockets of wetlands in poorly regraded areas are anticipated to be encountered by access roads. These wetlands will be avoided, crossed utilizing timber mats, or permitted for impacts associated with construction. Based on field reviews by Kentucky Power's construction personnel, the topography of the Study Area and the prevalence of existing roadbeds, access road construction is not anticipated to be a major concern for this Project.

Alternative Routes Comparison

Alternative D would require fewer structures and fewer angles when compared to the other alternatives. Additionally, due to its length, the location of existing roads in its vicinity, Alternative Route D would require the fewest new access roads for construction. Kentucky Power's construction personnel reviewed preliminary access roads for Alternative D and verified a large amount of access roads exist. Alternative Route A is the longest of all four Alternative Routes and would require the most structures, and consequently the most access roads. Additionally, there appear to be the least existing roadbeds associated with Alternative Route A, as visible utilizing aerial imagery.

Table 4. Constructability Evaluation Criteria					
Alternative Route	**Unit**	**A**	**B**	**C**	**D**
General					
Length	miles	3.3	3.0	3.0	2.7
Transportation Resources					
Interstate highways crossed	count	0	0	0	0
U.S. highways crossed	count	1	1	1	1
State highways crossed	count	0	0	0	0
Local roads and streets crossed	count	3	3	3	3
Railroads crossed	count	1	1	1	1
Airports within one mile of the centerline	count	0	0	0	0
Utility Resources					
Oil and gas pipelines crossed	count	0	0	0	0
Oil and gas wells within 250 feet from edge of ROW	count	0	0	0	0
Communication towers within 1,000 feet of the centerline	count	2	2	2	2
Existing Kentucky Power Transmission Lines Crossed	count	0	0	0	0
Engineering and Construction Considerations					
Steep slopes crossed by ROW (> 20%), percent of total length	percent	59.6	53.3	55.4	53.1
Heavy angles, greater than 30%	count	5	5	5	3
ROW Rebuild/Parallel					
Existing transmission lines paralleled	miles	0	0	0	0
Existing distribution lines paralleled or underbuilt	miles	0	0	0	0
Existing transmission lines rebuilt	miles	0	0	0	0
Oil and Gas Pipeline	miles	0	0	0	0

Table 4. Constructability Evaluation Criteria					
Alternative Route	**Unit**	**A**	**B**	**C**	**D**
Interstate highways, U.S. highways, State highways, and local roads	miles	0	0	0	0
Railroad	miles	0	0	0	0
Total length paralleled	miles	0	0	0	0
Total percentage paralleled	percent	0	0	0	0
Total length rebuilt	miles	0	0	0	0
Total percentage rebuilt	percent	0	0	0	0

5.0 IDENTIFICATION OF THE PROPOSED ROUTE

As stated in the introductory chapters, the goal in selecting a suitable route for the Project is to minimize impacts on land use and natural and cultural resources while avoiding circuitous routes, extreme costs, and non-standard design requirements. However, in practice, it is not usually possible to optimally minimize all potential impacts at all times. There are often inherent tradeoffs in potential impacts to every siting decision. For example, in heavily forested study areas, the route that avoids the most developed areas will likely have the greatest amount of forest clearing, while the route that has the least impact on vegetation and wildlife habitats often impact more residences or farm lands. Thus, an underlying goal of a siting study is to reach a reasonable balance between minimizing potential impacts on one resource versus increasing the potential impacts on another.

The following section summarizes the rationale for selection of the Proposed Route, and thus, the route the Siting Team considered to best minimize the overall impacts of the Project. The rationale presented is derived from the accumulation of the siting decisions made throughout the process, the knowledge and experience of the Siting Team, comments from the public and regulatory agencies, and the comparative analysis of potential impacts presented in Chapter 4. As a result of this process, one proposed route was selected.

5.1 Proposed Route

Based on a qualitative and quantitative review of information obtained from GIS data, field reconnaissance, landowner and stakeholder coordination, agency consultation and public outreach as well as preliminary engineering for the Project, **the Siting Team recommends Alternative Route D as the "Proposed Route."** An overview of the Proposed Route is provided in a detailed aerial map book in **Attachment E**.

Conclusion

Given the generally undeveloped landscape associated with the Study Area and the four Alternative Routes, a primary major factor for identifying a Proposed Route was landowner cooperation. Of the 3.3-mile length of Alternative Route A, 1.9 miles (57 percent) of it was located on properties with landowners who expressed an unwillingness to negotiate ROW acquisition with Kentucky Power. Therefore, the need for employment of eminent domain procedures has a high potential with this alternative. Additionally, Alternative Route A would require the most tree clearing, structures, and subsequently the most access roads.

Conversely, all landowners impacted by Alternative Route D expressed a willingness to negotiate ROW acquisition with Kentucky Power. Although some landowners expressed concerns over the location of the Alternative Route D, Kentucky Power representatives were able to make minor adjustments to the route to satisfy landowners. Alternative Route D also is the shortest in length, requiring the fewest structures and fewest access roads. Although landowners associated with Alternative Routes B and C were also willing to negotiate with Kentucky Power, these routes are unnecessarily long when compared to Alternative Route D, and provide no additional advantages over those associated with Alterative Route D.

In summary, Alternative Route D is recommended as the Proposed Route because:

- Alternative Route D is the shortest route, thereby reducing the overall potential for impacts as compared to the other alternatives.
- Strong landowner opposition was expressed to Alternative Route A, and moderate opposition to Alternative Routes B and C. In contrast, no landowners have expressed objections to Alternative Route D to date.
- Alternative Route D has a low number (4) of residences within 250 feet of the centerline.
- Alternative Route D requires the least amount of forest clearing and has fewer stream crossings than the other alternatives.
- Alternative Route D is considered to have greater constructability advantages over the other alternatives. In addition to being shorter, it requires fewer structures, fewer angles, and can make the greatest use of existing access roads for construction and maintenance.

Collectively, the Siting Team believes the Proposed Route meets the goal of minimizing impacts on land use, and the natural and cultural resources along the route, while avoiding circuitous routes, extreme costs, and non-standard design requirements. Additionally, the Proposed Route is (1) most consistent with the siting guidelines; (2) reasonably minimizes adverse impacts on area land uses and the natural and cultural environment; (3) minimizes special design requirements and unreasonable costs; and (4) can be constructed and operated in a timely, safe, and reliable manner.

6.0 REFERENCES

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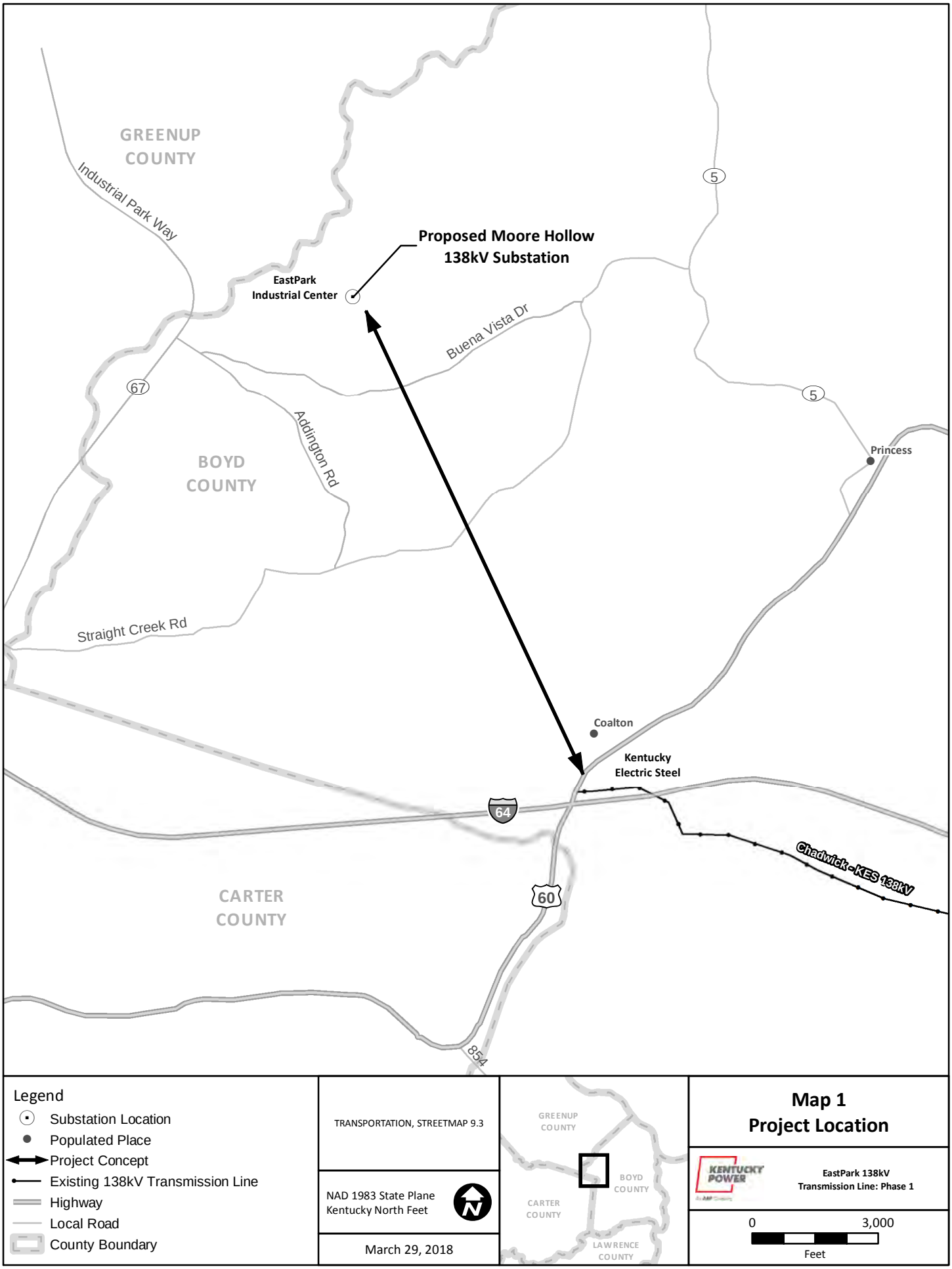
*Data sources used for GIS analysis are referenced in Attachment C

Attachment A: Maps


GREENUP COUNTY
Industrial Park Way
Proposed Moore Hollow 138kV Substation
EastPark Industrial Center
Buena Vista Dr
5
67
Addington Rd
BOYD COUNTY
Princess
Straight Creek Rd
Coalton
Kentucky Electric Steel
64
Chadwick - KES 138kV
CARTER COUNTY
60
854
Legend
Substation Location
Populated Place
Project Concept
Existing 138kV Transmission Line
Highway
Local Road
County Boundary
TRANSPORTATION, STREETMAP 9.3
NAD 1983 State Plane Kentucky North Feet
March 29, 2018
GREENUP COUNTY
BOYD COUNTY
CARTER COUNTY
LAWRENCE COUNTY
Map 1
Project Location
KENTUCKY POWER
EastPark 138kV
Transmission Line: Phase 1
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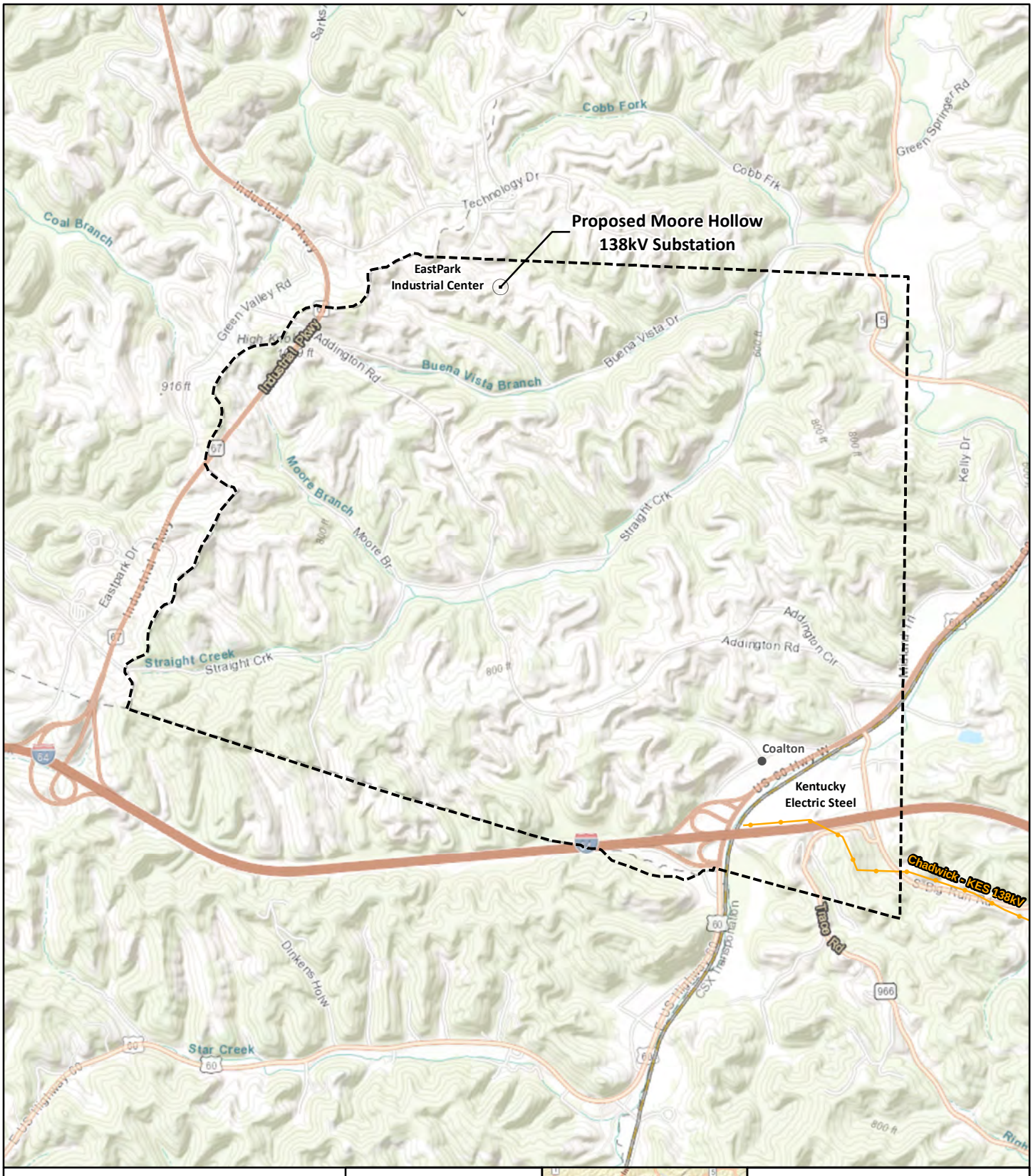
3,000
Feet



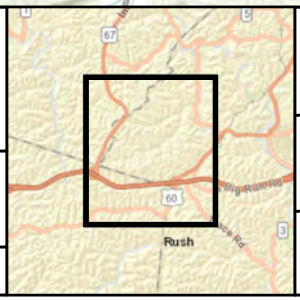
Legend

- Substation Location
- Populated Place
- Study Area
- Existing 138kV Transmission Line

World Topographic, Street Map, Transportation, Esri ArcGIS Online, Accessed 03/2018. Existing AEP Transmission Lines, AEP, 2015.

NAD 1983 State Plane
Kentucky North Feet

March 29, 2018

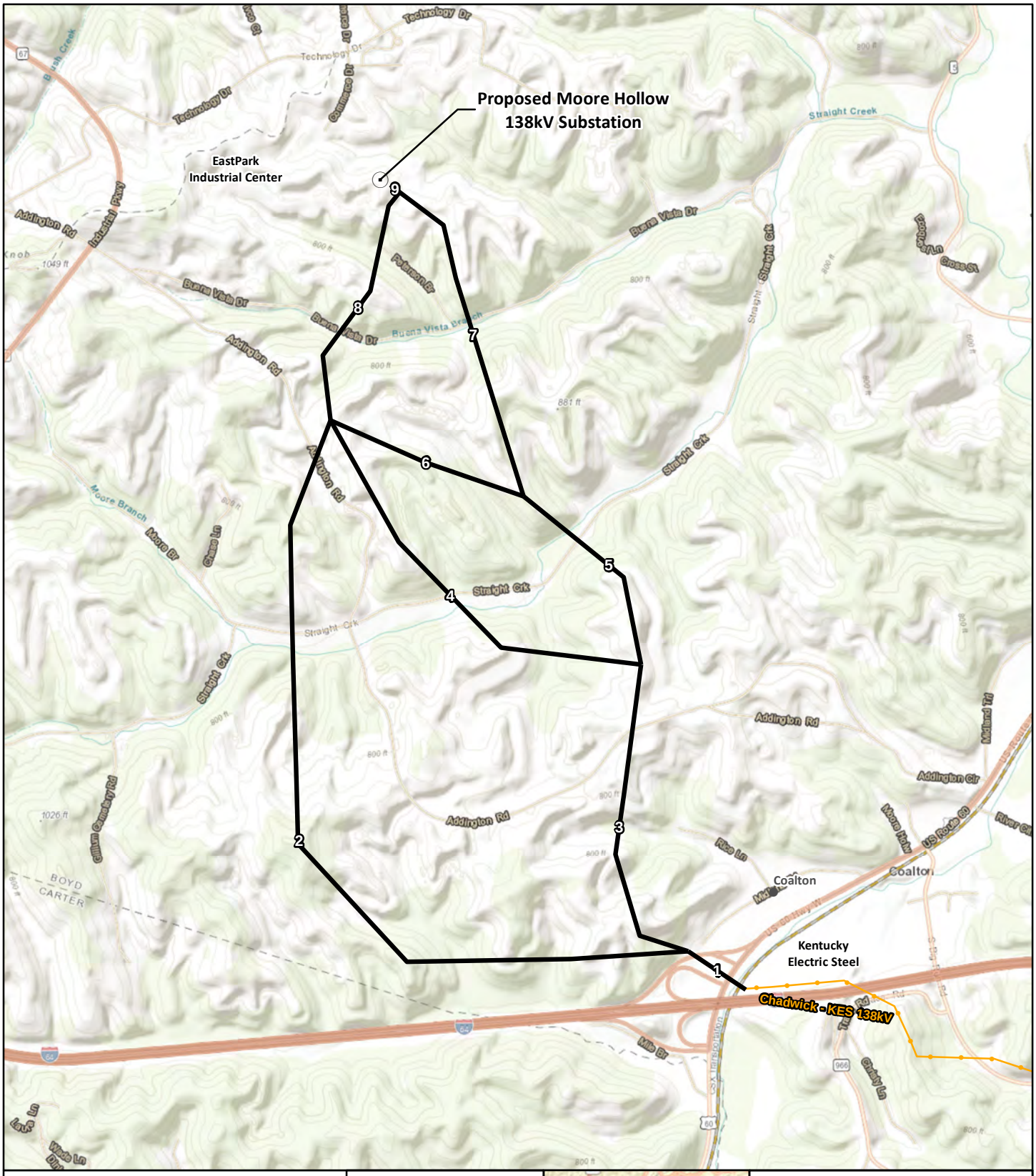


Map 2
Study Area

KENTUCKY POWER

EastPark 138kV
Transmission Line: Phase 1

0 3,000
Feet



Legend

- Substation Location
- Populated Place
- Study Segment
- Existing 138kV Transmission Line

World Topographic, Street Map, Transportation, Esri ArcGIS Online, Accessed 03/2018. Existing AEP Transmission Lines, AEP, 2015.

NAD 1983 State Plane
Kentucky North Feet

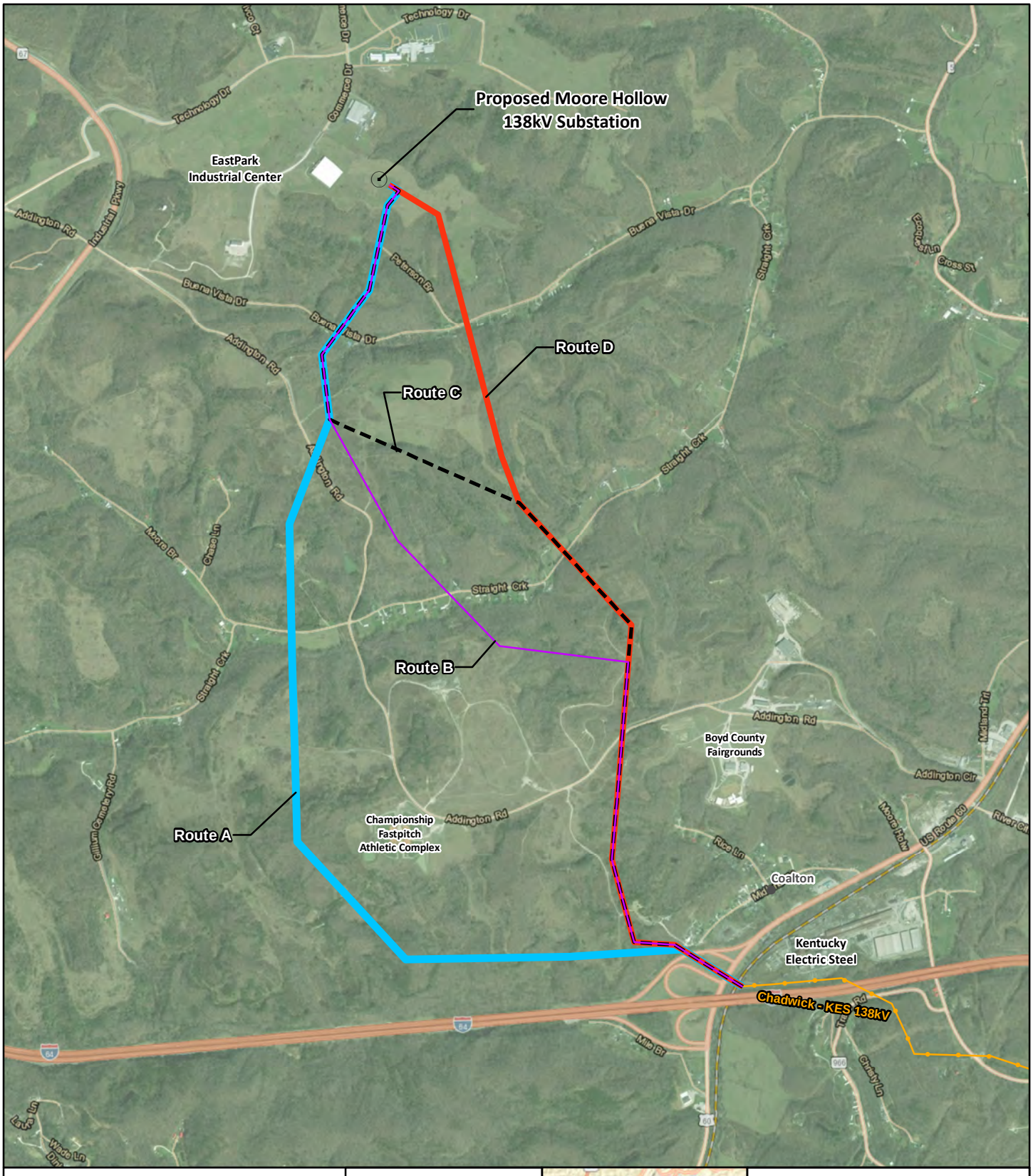
March 29, 2018

Map 3
Study Segment Network

KENTUCKY POWER

EastPark 138kV
Transmission Line: Phase 1

0 2,000
Feet



Legend

- Substation Location
- Populated Place
- Route A
- Route B
- Route C
- Route D
- Existing 138kV Transmission Line

Esri Aerial Imagery, Street Map, Transportation, Esri ArcGIS Online, Accessed 03/2018. Existing AEP Transmission Lines, AEP, 2015.

NAD 1983 State Plane
Kentucky North Feet

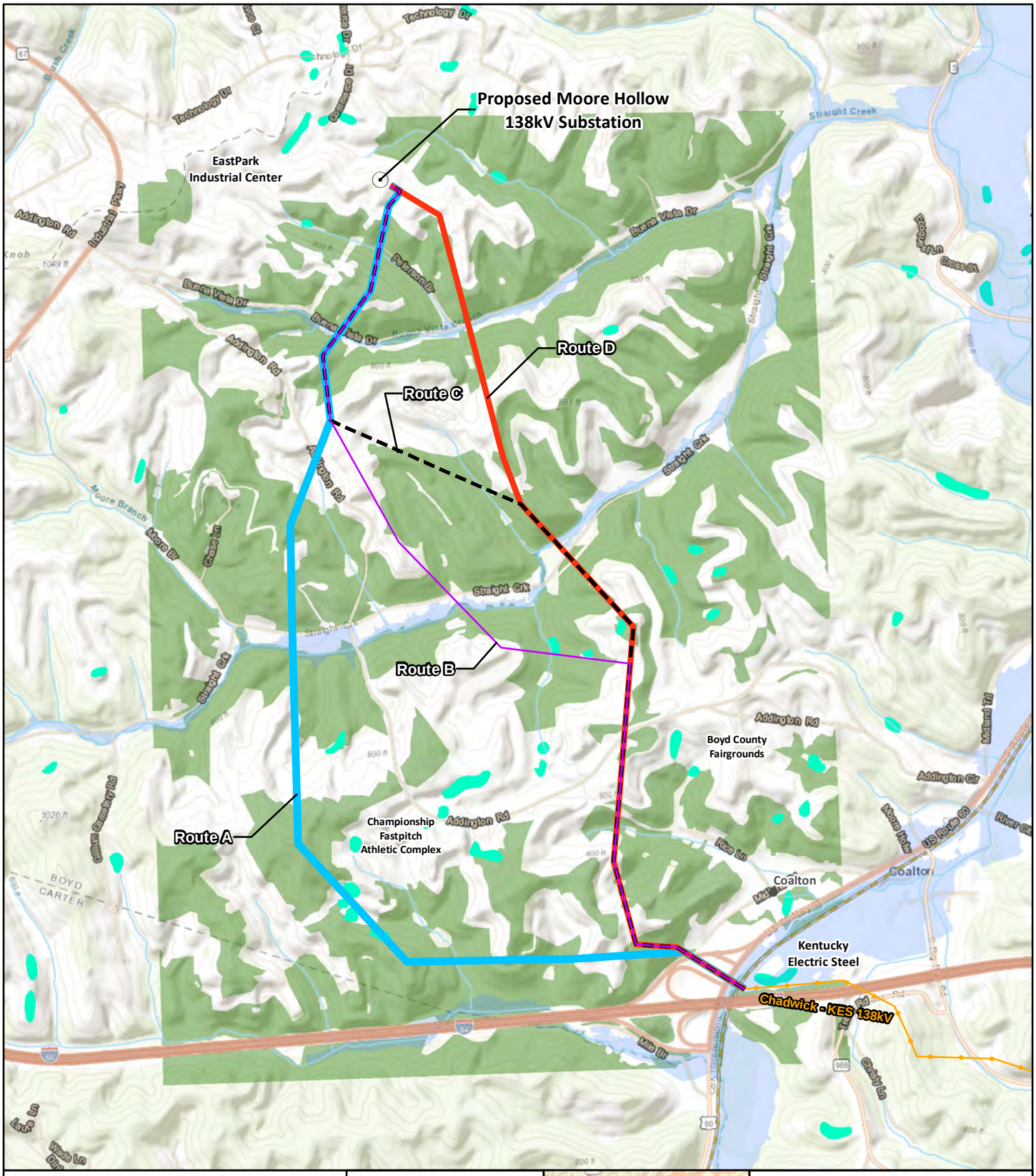
March 30, 2018

Map 4
Alternative Routes

KENTUCKY POWER

EastPark 138kV
Transmission Line: Phase 1

0 2,000
Feet



Legend

- Substation Location
- Populated Place
- Route A
- Route B
- Route C
- Route D
- Existing 138kV Transmission Line
- High Quality Stream
- NHD Stream
- FEMA Floodplain
- NWI Wetland
- Forest

World Topographic, Street Map, Transportation, Esri ArcGIS Online, Accessed 03/2018. National Hydrography Dataset (NHD), USGS, 2015. Exceptional Use Waters, KY DOW, 2008. National Wetland Inventory (NWI) Wetlands, USFWS, 2017. National Flood Hazard Layer, Federal Emergency Management Agency (FEMA), Kentucky, 2015.

NAD 1983 State Plane
Kentucky North Feet

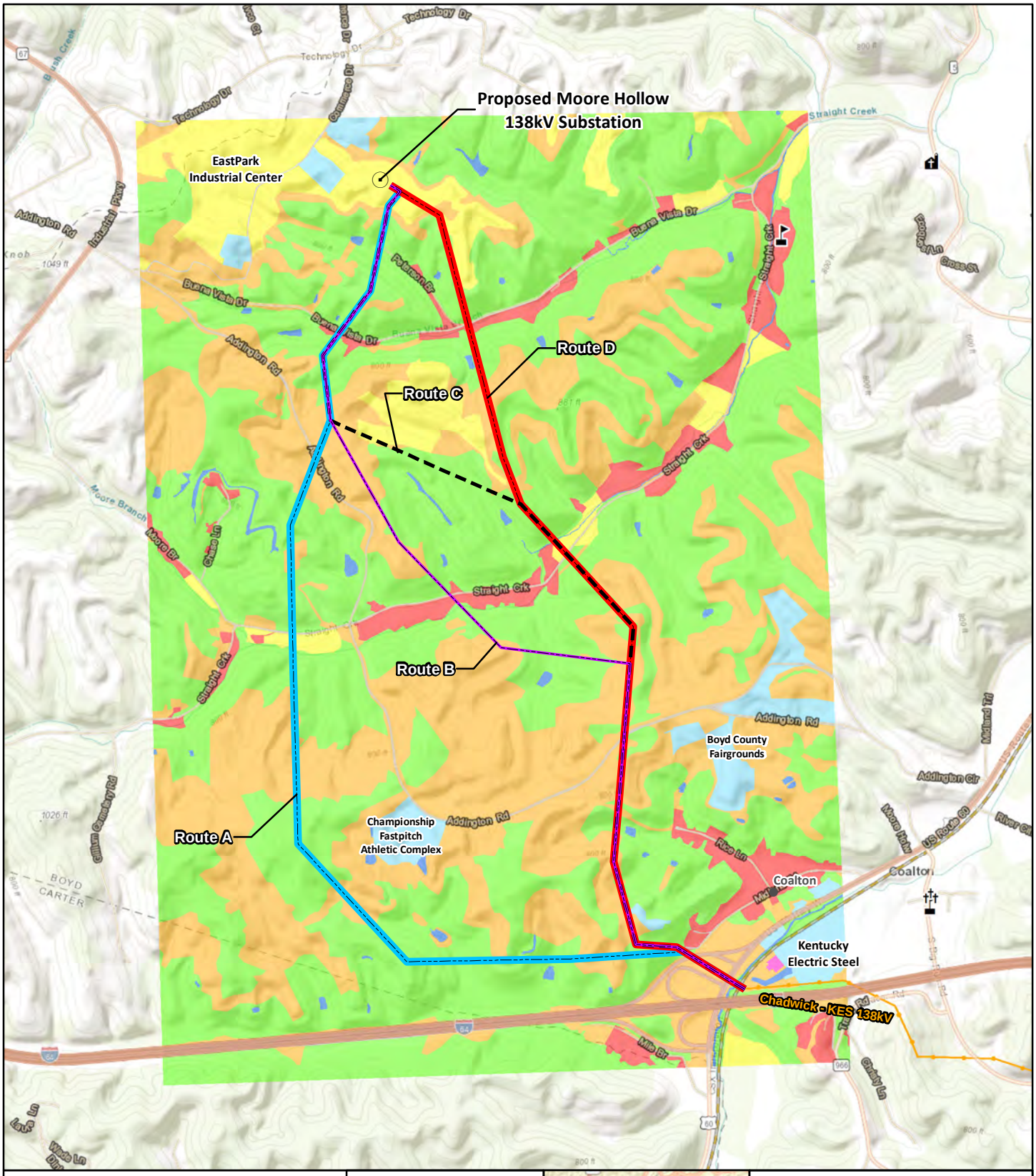
March 30, 2018

Map 5
Forested Land and Water Resources

KENTUCKY POWER

EastPark 138kV
Transmission Line: Phase 1

0 2,000
Feet


Proposed Moore Hollow
138kV Substation
EastPark
Industrial Center
Route A
Route B
Route C
Route D
Championship
Fastpitch
Athletic Complex
Boyd County
Fairgrounds
Kentucky
Electric Steel
Chadwick - KES 138kV
Coalton
Addington Rd
Straight Crk
Buena Vista Dr
Technology Dr
Industrial Pkwy
Moore Branch
Rise Ln
US Route 60
Rush
Legend
Substation Location
Populated Place
Route A
Route B
Route C
Route D
Existing 138kV Transmission Line
Cemetery
Church
School
Land Use:
Agricultural
Commercial
Forest
Rangeland
Residential
Transportation
Urban
Water
World Topographic, Street Map, Transportation, Esri ArcGIS Online, Accessed 03/2018. USA Institutions (Schools, Churches, and Cemeteries), Esri & TomTom, Esri ArcGIS Online, Accessed 03/2018.
NAD 1983 State Plane
Kentucky North Feet
March 30, 2018
Map 6
Land Use
KENTUCKY POWER
EastPark 138kV
Transmission Line: Phase 1
0
2,000
Feet

Attachment B: Siting Team Members

Table B-1. Siting Team Members		
Siting Team Member	**Company**	**Role**
Michael Lasslo	Kentucky Power	Distribution Manager
Scott Kennedy	AEP	Siting
Shawn Smith	AEP	Project Management
George Porter	AEP	Public Outreach
Vickie Stone	AEP	ROW
Eric Witt	AEP	Engineering
Katie Earnest	AEP	Engineering
Jared Webb	AEP	Environmental
Larry Hall	AEP	Construction
Michael Scott Blevins	ORC	ROW Consultant
Richard McNally	ORC	ROW Consultant
George Reese	GAI	Siting Consultant
Leah Zeidler	GAI	Siting Consultant

Attachment C: GIS Data Sources

Attachment C. GIS Data Sources		
Siting Criteria	**Source**	**Description**
Land Use		
Number of parcels crossed by the ROW	Parcel data purchased from Boyd County Property Valuation Administrator (2018)	Count of the number of parcels crossed by the ROW
Number of residences within up to 500 feet of the route centerline	Digitized from Google Earth imagery (2016) and imagery obtained during LIDAR surveys (2018) and field verified from points of public access	Count of the number of residences within the ROW and within 500 feet of potential routes
Number of commercial buildings within 500 feet of the route centerline	Digitized from Google Earth imagery (2016) and imagery obtained during LIDAR surveys (2018) and field verified from points of public access	Count of the number of commercial buildings within the ROW and within 500 feet of potential routes
Land use acreage crossed by the ROW	National Conservation Easement Database (NCED)(2011)	The NLCD 2011 compiled by the Multi-Resolution Land Characteristics Consortium includes 15 classes of land cover from Landsat satellite imagery
Acres of conservation easements crossed	National Conservation Easement Database (NCED)(2011) Regulatory In-lieu Fee Bank Information Tracking System (RIBITS) (2018)	NCED - Private conservation easements crossed by the routes from the NCED which is comprised of voluntarily reported conservation easement information from land trusts and public agencies RIBITS - USACE database developed to provide information on mitigation and conservation banking and in-lieu fee programs across the country
Number of archeological resources within the ROW, within 250 feet of the route centerline Number of NRHP-listed archaeological resources within one-mile	Obtained by data request to the Kentucky Office of State Archaeology (2018) National Park Service (NPS) NRHP interactive mapping (2014)	Previously identified archeological sites and survey areas acquired from the Kentucky Office of State Archaeology (2018) Previously identified archeological resources listed or eligible on the (NRHP) acquired through NPS
Number of architectural resources within the ROW, within 250 feet of the route centerline Number of NRHP-listed architectural resources within one-mile	Obtained by data request to the Kentucky Heritage Council (2018) NPS NRHP interactive mapping (2014)	Previously identified archeological sites and survey areas acquired from the Kentucky Heritage Council (2018) Previously identified archeological resources listed or eligible on the (NRHP) acquired through NPS

Attachment C. GIS Data Sources		
Siting Criteria	**Source**	**Description**
Institutional uses including: • Schools and places of worship within 1,000 feet of the route centerline • Cemeteries and hospitals within 250 feet of the route centerline • Parks crossed by the route centerline	ESRI ArcGIS Online (2015) and digitized based on Google Earth aerial imagery from varying years and field verified from aerial review and points of public access	This dataset includes the locations of cemeteries, churches, hospitals, parks, and schools.
Airfield and heliports within one-mile of the route centerline	ArcGIS Online (2018) and digitized based on Google Earth aerial imagery from 2016	Distance from airfields and heliports
Natural Environment		
Forest clearing within the ROW	Digitized based Google Earth aerial imagery from 2016	Acres of forest within the ROW
Number of NHD stream and waterbody crossings within the ROW	USGS (2015)	The NHD is a comprehensive set of digital spatial data prepared by the USGS that contains information about surface water features such as lakes, ponds, streams, rivers, springs and wells
Acres of (NWI) wetland crossings within the ROW	USFWS (2017)	The NWI produces information on the characteristics, extent, and status of the nation's wetlands and deepwater habitats
Acres of 100-year floodplain crossing within the ROW	U.S. FEMA (2015)	Acres of 100-year floodplain and floodway within the ROW
Miles of public lands crossed by the route	The Protected Areas Database of the United States 2016	Miles of federal, state and local lands crossed by the ROW
Threatened, endangered, rare or sensitive species occurrence within the Project vicinity	Obtained through data requests to the KDFWR, the KSNPC), and the USFWS IPaC tool (2018)	Known occurrences; locations of potential habitat based on land use
Percent of hydric soils within the ROW	United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database (2016)	Percent of soil associations crossed by the ROW characterized as hydric, predominantly hydric, partially hydric and non-hydric

Attachment C. GIS Data Sources		
Siting Criteria	**Source**	**Description**
Percent of prime farmland soils within the ROW	USDA-NRCS SSURGO Database (2016)	Percent of soil associations crossed by the ROW characterized as prime farmland
Technical		
Route length	Measured in GIS	Length of route in miles
Number and severity of angled structures	Developed in GIS	Anticipated number of angled structures greater than 30 percent
Number of road crossings	Census Bureau Tigerline Files (2015)	Count of federal, state and local roadway crossings
Number of pipeline crossings	U.S. Department of Transportation National Pipeline Mapping System accessed in 2018	Number of known pipelines crossed by the transmission ROW
Number of transmission line crossings	Kentucky Power	Number of high voltage (100kV or greater) transmission lines crossed by the ROW
Distance of steep slopes crossed	Derived from seamless Digital Elevation Models obtained from the U.S. Geologic Survey 2017	Miles of slope greater than 20 percent crossed by the routes
Length of transmission line parallel	Kentucky Power	Miles of the route parallel to existing high voltage transmission lines
Length of pipeline parallel	U.S. Department of Transportation National Pipeline Mapping System accessed in 2018	Miles of the route parallel to existing pipelines
Length of road parallel	Census Bureau Tigerline Files (2015)	Miles of the route parallel to existing roadways

Attachment D: Agency Correspondence

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES

Matthew G. Bevin
Governor

Don Parkinson
Secretary

#1 Sportsman's Lane
Frankfort, Kentucky 40601
Phone (502) 564-3400
1-800-858-1549
Fax (502) 564-0506
fw.ky.gov

Regina Stivers
Deputy Secretary

Gregory K. Johnson
Commissioner

14 February 2018

GAI Consultants, Inc.
Attn: Leah M. Zeidler
Pittsburgh Office
385 East Waterfront Drive
Homestead, Pennsylvania 15120

RE: Kentucky Power
East Park 138 kV Transmission Line Project
Boyd County, Kentucky

Dear Ms. Zeidler:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for information pertaining to the subject project. The Kentucky Fish and Wildlife Information System indicates that the federally - listed Northern Long-eared bat *(Myotis septentrionalis)* is known to occur 10 miles of the project area. The state-listed Grey Treefrog *(Hyla versicolor)*, Savannah Sparrow *(Passerculus sandwichensis)*, Henslow's Sparrow *(Ammodramus henslowii)*, Red-breasted Nuthatch *(Sitta Canadensis)*, Bobolink *(Dolichonyx oryzivorus)*, Osprey *(Pandion haliaetus)*, and Rose-breasted Grosbeak *(Pheuticus ludovicianus)* are known to occur within one mile of the project site. Please be aware that our database is a dynamic one that only represents our current knowledge of various species distributions.

No caves are known to occur within one mile of the project site. If tree clearing will be required for the project, please coordinate with the U.S. Fish and Wildlife Service Kentucky Field Office (502-695-0468) to discuss the project and ways to ensure compliance under the federal Endangered Species Act. To reduce impacts to tree-roosting bats, tree clearing should be conducted from November 15th – March 31st.

KDFWR recommends that you contact the appropriate US Army Corps of Engineers office and the Kentucky Division of Water prior to any work within the waterways or wetland habitats of Kentucky. Additionally, KDFWR recommends the following for the portions of the project that impact streams:

- Channel changes located within the project area should incorporate natural stream channel design.
- If culverts are used, the culvert should be designed to allow the passage of aquatic organisms.
- Culverts should be designed so that degradation upstream and downstream of the culvert does not occur.
- Development/excavation during low flow period to minimize disturbances.
- Proper placement of erosion control structures below highly disturbed areas to minimize entry of silt into area streams.

- Replanting of disturbed areas after construction, including stream banks, with native vegetation for soil stabilization and enhancement of fish and wildlife populations. We recommend a 100 foot forested buffer along each stream bank.
- Return all disturbed instream habitat to a stable condition upon completion of construction in the area.
- Preservation of any tree canopy overhanging any streams within the project area.

To minimize indirect impacts to the aquatic environment, the KDFWR recommends that erosion control measures be developed and implemented prior to construction to reduce siltation into waterways located within the project area. Such erosion control measures may include, but are not limited to silt fences, staked straw bales, brush barriers, sediment basins, and diversion ditches. Erosion control measures will need to be installed prior to construction and should be inspected and repaired regularly as needed.

I hope this information is helpful to you, and if you have questions or require additional information, please call me at (502) 564-7109 extension 4453.

Sincerely,

Daniel Stoelb

Dan Stoelb
Environmental Scientist

Cc: Environmental Section File

Matthew G. Bevin
Governor

Charles G. Snavely
Secretary
Energy and Environment Cabinet

Commonwealth of Kentucky
Kentucky State Nature Preserves Commission
Teton Trail
Frankfort, Kentucky 40601-1403
502-573-2886 Voice
502-573-2355 Fax

Jason L. Weese
Director
KSNPC

February 13, 2018

Leah Zeidler
GAI Consultants
385 E Waterfront Drive
Homestead, PA 15120

Data Request 18-043

Dear Ms. Zeidler,

This letter is in response to your data request on February 9, 2018 for the138kV transmission line in Boyd County, KY. We have reviewed our Natural Heritage Program Database to determine if any of the endangered, threatened, or special concern plants and animals or exemplary natural communities monitored by the Kentucky State Nature Preserves Commission occur within the general area of study on the Rush and Argillite USGS Quadrangles. Please see the **attached reports** for more information.

1-mile for all records – 3 records
5-mile for aquatic records – 11 records
5-mile for federally listed species – 0 records
10-mile for mammals and birds – 2 records

I would like to take this opportunity to remind you of the terms of the data request license, which you agreed upon in order to submit your request. The license agreement states "Data and data products received from the Kentucky State Nature Preserves Commission, including any portion thereof, may not be reproduced in any form or by any means without the express written authorization of the Kentucky State Nature Preserves Commission." The exact location of plants, animals, and natural communities, if released by the Kentucky State Nature Preserves Commission, may not be released in any document or correspondence. These products are provided on a temporary basis for the express project (described above) of the requester, and may not be redistributed, resold or copied without the written permission of the Kentucky State Nature Preserves Heritage Branch (801 Teton Trail, Frankfort, KY, 40601. Phone: (502) 573-2886).

Please note that the quantity and quality of data collected by the Kentucky Natural Heritage

Program are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Kentucky have never been thoroughly surveyed and new plants and animals are still being discovered. For these reasons, the Kentucky Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Kentucky. Heritage reports summarize the existing information known to the Kentucky Natural Heritage Program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. We would greatly appreciate receiving any pertinent information obtained as a result of on-site surveys.

If you have any questions, or if I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Ian Horn
Geoprocessing Specialist

Data Key for Element and Occurrence Reports (v. 9.05)

Kentucky State Nature Preserves Commission
Natural Heritage Program Data Services

Many of the data fields on the enclosed report are easily understood. Other fields, however, use abbreviations and formats that are not always self-explanatory. A key to these fields follows. Your report may contain some or all of the following data fields.

BESTSOURCE: Best available reference to the occurrence: literature citation, collector, collection number, museum or herbarium code, etc.

COMMENTS: Additional information about the occurrence including identification, taxonomy, or date of occurrence.

DIRECTIONS: Directions to an occurrence. This field is masked for sensitive occurrences; contact KSNPC in these cases.

DISTANCE: Distance from a center point to an occurrence's latitude and longitude. Units coded as M (miles), K (kilometers), and F (feet). This field is masked for sensitive occurrences; contact KSNPC in these cases. Omitted for G, U, and Q precision occurrence records.

ELCODE: Element (species) code.

EOCODE: Element (species) code, occurrence number (last three digits), and state.

EODATA: Occurrence population data: date of observation, number of individuals, health, size of colony, flowering data, etc.

EORANK: Judgement of occurrence quality: A = excellent, B = good, C = marginal, D = poor, E = verified extant but quality not judged, H = historically known from site but no known observation or collection since 1975, F = failed to find (site was revisited and none observed but still likely to use the area – further searching needed), X = extirpated from site.

FIRSTOBS: Year of first known observation or collection.

GENDESC: Description of an occurrence's habitat.

GRANK: Estimate of element abundance on a global scale: G1 = extremely rare, G2 = rare, G3 = uncommon, G4 = common, G5 = very common, GH = historically known and expected to be rediscovered, GU = uncertain, GX = extinct. Subspecies and variety abundances are coded with a 'T' suffix; the 'G' portion of the rank then refers to the entire species.

HABITAT: General description of the element's habitat across its range.

IDENT: Whether the identification has been checked by a reliable individual and is believed to be correctly identified: Y = identification confirmed and believed correct, N = No, identification determined to be wrong despite reports to the contrary, ? = Whether identification is correct or not is confusing or disputed, blank or U = unknown whether identification correct or not, assumed correct.

KSNPC: Kentucky State Nature Preserves Commission status: N or blank = none, E = endangered, T = threatened, S = special concern, H = historic, X = extirpated.

LASTOBS: Year(-month-date) of most recent known observation or collection.

LAT: Latitude in degrees minutes and seconds.

LONG: Longitude in degrees minutes and seconds. Lat/long fields are masked for sensitive occurrences; contact KSNPC in these cases.

PREC: See PRECISION.

PRECISION: Precision of the latitude, longitude, directions, and plotted location: S = location accurate to within three seconds of latitude-longitude, M = location accurate to within one minute of latitude-longitude, G = precision within about 8 km or 5 miles, or to place name precision only, C = known to occur within a county but specific location unknown, W = known to occur within a watershed but specific location unknown, U or blank = accuracy of location unknown or not specified.

The accuracy of an occurrence's location is designated by the precision code assigned to the record. Only 'S' precision occurrence records are reliably mapped at or near their

	precise locations. While an attempt is made to map 'M' precision occurrences as accurately as possible, the plotted locations, lat, long, directions, bearing, and distance data fields may or may not be correct. 'G', 'C', and 'W' precision occurrence locations are very unreliable and only should be used to indicate the possibility that the species is in the area.
SPROT:	See KSNPC.
SRANK:	Estimate of element abundance in Kentucky: S1 = extremely rare, S2 = rare, S3 = uncommon, S4 = many occurrences, S5 = very common, SA = accidental in state, SE = exotic, SH = historically known in state, SN = migratory or nonbreeding, SR = reported but without persuasive documentation, SRF = reported falsely in literature, SU = uncertain, SX = extirpated.
USESA:	U.S. Fish and Wildlife Service status: N or blank = none, LT = listed as threatened, LE = listed as endangered, PE-Proposed Endangered, C=Candidate.
OTHER STATUS:	SOMC = Designated by the U.S. Fish and Wildlife Service as a Species of Management Concern.
WATERBODY:	Name of the 11-digit Hydrologic Unit Code EPA Waterbody in which the occurrence is plotted.
WATERSHED:	See WATERBODY.

Matthew G. Bevin
Governor

Charles G. Snavely
Secretary
Energy and Environment Cabinet

Jason L. Weese
Director
KSNPC

Commonwealth of Kentucky
Kentucky State Nature Preserves Commission
Teton Trail
Frankfort, Kentucky 40601-1403
502-573-2886 Voice
502-573-2355 Fax

INVOICE

February 13, 2018

Leah Zeidler
GAI Consultants
385 E Waterfront Drive
Homestead, PA 15120

Purchase Order Number _____ Data Request 18-043

This letter is an invoice for the amount of $ __112.50___ for data services requested of February 9, 2018 for the138kV transmission line in Boyd County, KY.

Please pay the Kentucky Nature Preserves Fund (https://secure.kentucky.gov/formservices/KSNPC/PaymentProcessing) and include the Data Request number on using our online credit card processing payment tool.

Please contact us if we can be of further assistance.

DR# 18-043 1 mile

Standard Occurrence Report

KSNPC monitored species within 1 mile of the proposed 138kV transmission line in Boyd County, Kentucky

EOCODE EOID	SNAME EO Type	SCOMNAME	GRANK	SRANK	SPROT	USESA	OTHER STATUS	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	LAT	LONG	EPA WATERBODY	DIRECTIONS	HABITAT
Extant in Kentucky																		
Amphibians																		
AAABC02130*038 10877	*Hyla versicolor*	Gray Treefrog	G5	S2S3	S			Y	2002-05-01	S	B	Greenup Boyd	Argillite	382354N	0824807W		West side of KY 67, 1.0 [rd] mi N I-64 (038A) and KY 67, 2.1 [rd] mi N I-64 (038B).	
Extant in Kentucky																		
Amphibians																		
AAABC02130*035 9221	*Hyla versicolor*	Gray Treefrog	G5	S2S3	S			Y	2000-05-24	S	C	Boyd	Argillite	382336N	0824532W		KY 5, S side just W of Williams Creek Bridge.	Permanent and temporary ponds in semi-open habitats. Native habitat is unknown.
Extant in Kentucky																		
Freshwater Mussels																		
IMBIV47070*092 1501	*Villosa lienosa*	Little Spectaclecase	G5	S3S4	S			Y	1981-07-19	M	F	Boyd	Ashland	382412N	0824344W		EAST FORK LITTLE SANDY RIVER AT GOLF COURSE.	Inhabits small to medium-sized rivers, usually in shallow water on a sand/mud/detritus bottom (Parmalee 1967, Gordon and Layzer 1989).

Provided to GAI Consultants

Standard Occurrence Report

KSNPC monitored aquatic species within 5 miles of the proposed 138kV transmission line in Boyd County, Kentucky

EOCODE / EOID	SNAME / EO Type	SCOMNAME	GRANK	SRANK	SPROT	USESA	OTHER STATUS	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	LAT	LONG	EPA WATERBODY	DIRECTIONS	HABITAT
Extant in Kentucky																		
Fishes																		
AFBAA01030*006 3364	*Ichthyomyzon fossor*	Northern Brook Lamprey	G4	S2	T			Y	1975-06-26	M	H	Carter	Grayson	382024N	0825515W		LITTLE SANDY RIVER, 1.0 MI BELOW GRAYSON SEWAGE TREATMENT PLANT.	Small to medium-size upland streams where adults live in sand-gravel bottoms of clean riffles and raceways (Burr and Warren 1986, Page and Burr 1991). Ammocoetes require mixed sand, silt, and debris in quiet water.
Extant in Kentucky																		
Fishes																		
AFBAA02020*008 7241	*Lampetra appendix*	American Brook Lamprey	G4	S2	T			Y	1972-06-26	M	H	Boyd	Boltsfork	381649N	0824214W		EAST FORK OF LITTLE SANDY RIVER, 0.25 MI ABOVE CLAY'S JACK FORK.	Raceways, riffles, and flowing margins of permanently flowing streams and rivers with gravel, sand and sediment bottoms (Burr and Warren 1986). Ammocoetes live in sand and sediment of pools and backwaters.
Extant in Kentucky																		
Fishes																		
AFCLC01010*030 9618	*Percopsis omiscomaycus*	Trout-perch	G5	S3	S	SOMC		Y	1985-08-13	M	D	Greenup	Argillite	382646N	0825143W		Little Sandy River, from confluence with Long Branch upstream 2.0 mi, RM 18.0-20.0.	Lives in clear, small to moderate-size streams in pools or raceways over clean sand or mixed sand and gravel bottoms.
Extant in Kentucky																		
Fishes																		
AFCLC01010*034 7202	*Percopsis omiscomaycus*	Trout-perch	G5	S3	S	SOMC		Y	1987-09-30	S	B	Boyd	Boltsfork	382143N	0824215W		EAST FORK LITTLE SANDY RIVER, CA 0.4 MI DOWNSTREAM OF LAUREL CREEK CONFLUENCE.	Lives in clear, small to moderate-size streams in pools or raceways over clean sand or mixed sand and gravel bottoms.

Standard Occurrence Report

KSNPC monitored aquatic species within 5 miles of the proposed 138kV transmission line in Boyd County, Kentucky

EOCODE / EOID	SNAME / EO Type	SCOMNAME	GRANK	SRANK	SPROT	USESA	OTHER STATUS	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	LAT	LONG	EPA WATERBODY	DIRECTIONS	HABITAT
Extant in Kentucky																		
Fishes																		
AFCLC01010*059 3204	*Percopsis omiscomaycus*	Trout-perch	G5	S3	S	SOMC		Y	1998-05-22	S	D	Boyd	Ashland	382412N	0824344W		EAST FORK LITTLE SANDY RIVER AT MEADE SPRINGER RD.	Lives in clear, small to moderate-size streams in pools or raceways over clean sand or mixed sand and gravel bottoms.
Extant in Kentucky																		
Fishes																		
AFCLC01010*060 3205	*Percopsis omiscomaycus*	Trout-perch	G5	S3	S	SOMC		Y	1998-06-02	S	D	Greenup	Argillite	382647N	0824634W		EAST FORK LITTLE SANDY RIVER AT LOST LICK.	Lives in clear, small to moderate-size streams in pools or raceways over clean sand or mixed sand and gravel bottoms.
Extant in Kentucky																		
Fishes																		
AFCLC01010*061 8873	*Percopsis omiscomaycus*	Trout-perch	G5	S3	S	SOMC		Y	1998-06-03	S	C	Greenup Boyd	Argillite	382602N	0824607W		East Fork Little Sandy River at KY 503 at Naples.	Lives in clear, small to moderate-size streams in pools or raceways over clean sand or mixed sand and gravel bottoms.
Extant in Kentucky																		
Fishes																		
AFCLC01010*063 10188	*Percopsis omiscomaycus*	Trout-perch	G5	S3	S	SOMC		Y	1998-07-07	S	D	Carter	Rush	382205N	0825225W		WILSON CREEK CA 0.3 AIR KM N OF I-64.	Lives in clear, small to moderate-size streams in pools or raceways over clean sand or mixed sand and gravel bottoms.
Extant in Kentucky																		
Freshwater Mussels																		

Standard Occurrence Report

KSNPC monitored aquatic species within 5 miles of the proposed 138kV transmission line in Boyd County, Kentucky

EOCODE EOID	SNAME EO Type	SCOMNAME	GRANK	SRANK	SPROT	USESA	OTHER STATUS	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	LAT	LONG	EPA WATERBODY	DIRECTIONS	HABITAT
IMBIV41010*039 5484	*Simpsonaias ambigua*	Salamander Mussel	G3	S2S3	T	SOMC		Y	1981-07-19	M	F	Boyd	Ashland	382452N	0824404W		EAST FORK SANDY RIVER FISHING LAKE (GRANDVIEW).	Often found buried in substrate such as soft mud and/or gravel, and/or under flat stones in shallow water in small streams where the current may be swift (Baker 1928, Buchanan 1980, Goodrich and Van Der Schalie 1944).
Extant in Kentucky **Freshwater Mussels**																		
IMBIV47070*092 1501	*Villosa lienosa*	Little Spectaclecase	G5	S3S4	S			Y	1981-07-19	M	F	Boyd	Ashland	382412N	0824344W		EAST FORK LITTLE SANDY RIVER AT GOLF COURSE.	Inhabits small to medium-sized rivers, usually in shallow water on a sand/mud/detritus bottom (Parmalee 1967, Gordon and Layzer 1989).
Extant in Kentucky **Freshwater Mussels**																		
IMBIV47070*093 9708	*Villosa lienosa*	Little Spectaclecase	G5	S3S4	S			Y	1981-07-19	M	F	Boyd	Ashland	382452N	0824404W		EAST FORK LITTLE SANDY RIVER AT FISHING LAKE (GRANDVIEW).	Inhabits small to medium-sized rivers, usually in shallow water on a sand/mud/detritus bottom (Parmalee 1967, Gordon and Layzer 1989).

DR# 18-043 birds&mammals

Standard Occurrence Report

KSNPC monitored avian and mammalian species within 10 miles of the proposed 138kV transmission line in Boyd County, Kentucky

EOCODE EOID	SNAME EO Type	SCOMNAME	GRANK	SRANK	SPROT	USESA	OTHER STATUS	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	LAT	LONG	EPA WATERBODY	DIRECTIONS	HABITAT
Extant in Kentucky																		
Breeding Birds																		
ABNKD06070*006 12004	*Falco peregrinus*	Peregrine Falcon	G4	S1B	E	SOMC		Y	2007-06	S	C	Greenup	Ironton	383154N	0824123W		Highway bridge between Russell, Ky, and Ironton, Ohio.	
Extant in Kentucky																		
Breeding Birds																		
ABNGA13010*010 3589	*Nyctanassa violacea*	Yellow-crowned Night-heron	G5	S2B	T			Y	1985-06-25	S	C	Greenup	Ironton	383014N	0824108W		White Oak Creek, btwn sta 138-143, just NW of Ashland; approx 0.3 km E of jct HWY 693 and HWY 1172.	Marshes, swamps, lakes, lagoons, and mangroves.

Provided to GAI Consultants

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

Dear Project Proponent:

We have received your request for a species list for your project. The Kentucky Field Office (KFO) is directing project proponents to obtain species lists from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) system located at: https://ecos.fws.gov/ipac/. IPaC will immediately provide you with a current species list appropriate for your proposed project and an official letter on USFWS letterhead. This list will include species currently listed as threatened or endangered, species proposed for listing, critical habitat for listed species, and bird species of conservation concern.

When you open the IPaC site, you will be asked to input a location for your proposed project. The location can be input in different ways. Often, the easiest way is to zoom into the vicinity of the project area on the map and use the sketch tool to approximate the boundaries of the proposed project site, plus an appropriate buffer. This location that you input should represent the entire "action area" of your proposed project by considering all the potential "effects of the action," including potential direct, indirect, and cumulative effects to federally-listed species or their critical habitat as defined in 50 CFR 402.02. This includes effects of any "interrelated actions" that are part of a larger action and depend on the larger action for their justification and "interdependent actions" that have no independent utility apart from the action under consideration (e.g.; utilities, access roads, etc.) and future actions that are reasonably certain to occur as a result of the proposed project (e.g.; development in response to a new road).

IPaC will generate a species list specific to the action area of the proposed project, as you defined it. You can then request an official species list under the "Regulatory Documents" tab. This species list fulfills the requirements of the USFWS under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.) to provide information as to whether any proposed or listed species may be present in the area of a proposed action. The letter generated by IPaC will explain how to request an updated list or a revised list based on project modifications.

The official species list is not a concurrence letter; additional coordination with the KFO may be necessary to ensure ESA compliance. Please read the letter that accompanies the species list for further direction as to how to request technical assistance or section 7 consultation from the KFO. Please include the consultation tracking number on the IPaC-generated letter (e.g., 04EK1000-####-SLI-####) at the top of your future correspondences with the KFO. The KFO

will be able to retrieve the information that you input into IPaC; there is no need to include a printed copy of your IPaC-generated letter or species list with your correspondence.

Thank you for your request. Your concern for the protection of endangered and threatened species is greatly appreciated. If you have any questions or problems obtaining a species list from IPaC, please contact Jessica Blackwood Miller at (502) 695-0468 extension 104 or jessica_miller@fws.gov.

Sincerely,

Virgil Lee Andrews, Jr.
Field Supervisor

Digital files only

Kentucky Office of State Archaeology
University of Kentucky, 1020A Export Street, Lexington, KY 40506
Phone:859-257-1944 Fax:859-323-1698 email:ky-osa@lsv.uky.edu
Confidential Information
Not for Public Release

Preliminary Records Review Coversheet

Date Request Processed: 01/05/2018

Preliminary Review Number: P168816

Paid via: ☐ Check (Check No.:)

☒ Credit Card (Transaction ID: 886215156)

If you have any questions, please contact KyOSA at (859)257-1944 or ky-osa@lsv.uky.edu.

Kentucky Heritage Council

Site Identification Program

410 High Street, Frankfort, KY 40601

Confidential Information Not for Public Release

Please note that those resources for which National Register status is listed as 'undetermined' may include those that have been previously determined eligible for listing in the National Register of Historic Places as part of a consensus determination between the SHPO and a Federal agency, but for which the determination field has not yet been updated.

Project Registration: FY18-3004

Date of check: 1/5/18

KHC Historic Resources

Site #	Sub #	Historic Name	Location	Status

Note: this information report does not constitute Section 106 consultation or "clearance" from the KHC/SHPO.

Leah Zeidler

From: Catchings, Rachel A (KYTC-D09) <Rachel.Catchings@ky.gov>
Sent: Tuesday, March 06, 2018 8:46 AM
To: Eric H Witt
Cc: Suit, Daniel W (KYTC-D09); Scott Kennedy; Leah Zeidler
Subject: FW: 9-8400.00 US 60 road work

Eric,

You're right – I didn't have completed design from you; I was just trying to guess your final layout. The interstate is not limited access, but *fully controlled access*. FHWA review is required for any permit request that encroaches on fully controlled access facilities. As I'm sure you're aware, this includes much area beyond the pavement of mainline interstate itself, extending to the access control fence. Hope that helps. I'm sure Daniel can help more than I can, and clarify further as needed.

Rachel

From: Eric H Witt [mailto:ehwitt@aep.com]
Sent: Thursday, March 01, 2018 3:30 PM
To: Catchings, Rachel A (KYTC-D09)
Cc: Scott Kennedy; Leah Zeidler (L.Zeidler@gaiconsultants.com)
Subject: RE: 9-8400.00 US 60 road work

Rachel,

Thanks for the information. I knew str. 2 was close and when the more detailed design is done we will definitely move it outside the limited access. You mention below the line will span mainline I-64, are you referring to the limited access or the hwy. itself? The new line won't be crossing the actual interstate. Thanks again for your help with this project and we will reach out to Daniel as things progress.

AMERICAN ELECTRIC POWER

ERIC H WITT | **DESIGNER PRIN**
EHWITT@AEP.COM | D:540.562.7048 | C:540.520.2686
1281 N ELECTRIC ROAD, ROANOKE, VA 24019

From: Catchings, Rachel A (KYTC-D09) [mailto:Rachel.Catchings@ky.gov]
Sent: Wednesday, February 14, 2018 10:21 AM
To: Eric H Witt
Cc: Scott Kennedy; Michael S Smith; Vickie L Stone; George Reese (g.reese@gaiconsultants.com); Leah Zeidler (L.Zeidler@gaiconsultants.com); Michael Blevins (mblevins@orcolan.com); Suit, Daniel W (KYTC-D09)
Subject: [EXTERNAL] RE: 9-8400.00 US 60 road work

Eric,

It looks as though you're requesting to span mainline I-64 and one ramp, as well as US 60. The structure you have at location 2 may be within the access control limits. If you pursue this location, FHWA review is also required and may add significant delay beyond the permit review that typically occurs within the KYTC. I'm glad to help with the US 60 project information, but I encourage you to call Daniel Suit at this office. He is much more knowledgeable about the process you'll need to follow.

I've attached some cross sections for your use as you prepare your permit submittal. Let me know if I can help further.

Sincerely,

Rachel Catchings, P.E.
Design Section Supervisor
KYTC District 9, Flemingsburg
office 606.845.2551

From: Eric H Witt [mailto:ehwitt@aep.com]
Sent: Thursday, February 08, 2018 10:26 AM
To: Catchings, Rachel A (KYTC-D09)
Cc: Scott Kennedy; Michael S Smith; Vickie L Stone; George Reese (g.reese@gaiconsultants.com); Leah Zeidler (L.Zeidler@gaiconsultants.com); Michael Blevins (mblevins@orcolan.com)
Subject: RE: 9-8400.00 US 60 road work

Rachel,

Thank you very much for the proposed Hwy plans along US 60. As Scott mentioned to you earlier we have a Transmission project where one of the study segments crosses near your project. I have attached a pdf of your plans with our proposed transmission line and structure locations shown. The three lines represent the centerline and 100' wide right of way. Please take a look and let me know if our plans will work with what you have and cross sections for the crossing area would also be helpful. Thanks again for the quick response and let me know if you have any questions regarding the attached file or anything else about our transmission project.

Thanks,

AMERICAN ELECTRIC POWER

ERIC H WITT | **DESIGNER PRIN**
EHWITT@AEP.COM | D:540.562.7048 | C:540.520.2686
1281 N ELECTRIC ROAD, ROANOKE, VA 24019

From: Catchings, Rachel A (KYTC-D09) <rachel.catchings@ky.gov>
Sent: Wednesday, February 7, 2018 3:02 PM
Subject: RE: 9-8400.00 US 60
To: Michael Blevins <mblevins@orcolan.com>

Scott,

The US 60 reconstruction project does continue all the way to KY 180. I've attached just some of the plan sheets that it sounds like you'll need, based on our conversation. I don't expect much to change in the vicinity, but do keep in mind that these are not final construction plans. The profile elevation will be raised in this area, so you may need cross sections in addition to further plan information. Just let me know how I can help.

Sincerely,

Rachel Catchings, P.E.
Design Section Supervisor
KYTC District 9, Flemingsburg
office 606.845.2551

From: Michael Blevins [mailto:mblevins@orcolan.com]
Sent: Wednesday, February 07, 2018 2:14 PM
To: Catchings, Rachel A (KYTC-D09)
Subject: 9-8400.00 US 60

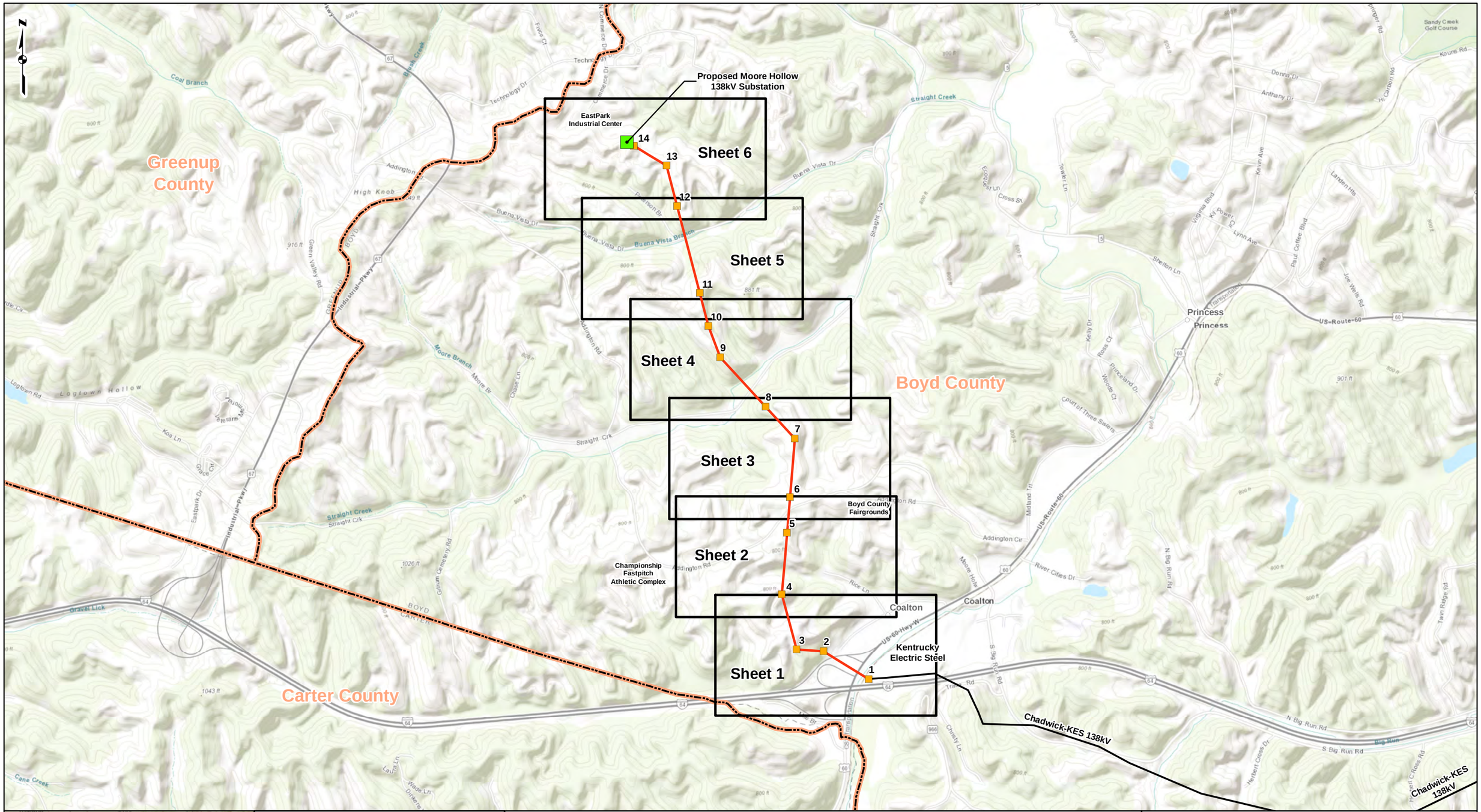
Rachel,

Thank you for supplying me with the design files. Our design team should be able to incorporate our planned facilities now with minimal impact if any at all. DWF, DWG or DGN extensions should be just fine. To be on the safe side just send what you have regardless of .ext and I'm sure there is a way to convert them.

Thanks again.

Scott Blevins, *Lead Right of Way Agent*
ORC Utility & Infrastructure Land Services, LLC
7500 Cannonsburg Rd | Ashland, KY 41102
direct: 606-226-1514 |mblevins@orcolan.com

Attachment E: Aerial Mapbook



REFERENCE: ESRI WORLD TOPOGRAPHIC, ARCGIS ONLINE, ACCESSED 04/2018.

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LEGEND

- Proposed Substation
- Proposed Structure*
- Proposed Route*
- Existing Transmission Line
- County Boundary
- Sheet Index

0 1,000 2,000 4,000 Feet

DETAILED MAPBOOK SHEET INDEX

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EastPark 138kV
Transmission Line: Phase 1
Kentucky Power

KENTUCKY POWER
An AEP Company

DRAWN BY: EFJ DATE: 4/27/2018
CHECKED: LMZ APPROVED: LMZ

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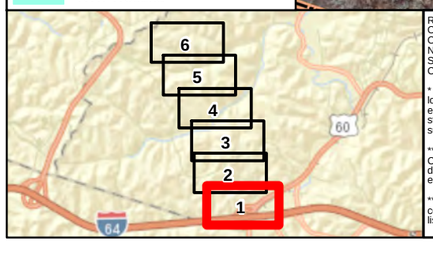
Constraints

- Residential Structure (Within 250' of Proposed Route)
- Non-Residential Structure (Within 250' of Proposed Route)
- Cemetery
- NHD Stream
- NWI Wetland



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***The PVA parcels are not based on an accurate ground survey and should not be construed or used as exact descriptions of legal boundaries. See Exhibits 6 and 12 for list of landowners in proposed ROW and 500-Foot Filing Corridor.

LEGEND

- Proposed Route*
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- Proposed Substation
- Proposed Structure*
- Proposed 100-foot ROW**
- 500-foot Filing Corridor**
- The Property Value Administrator (PVA) Parcels and Landowner Reference No.***
- County Boundary

0 150 300 600 Feet

DETAILED MAPBOOK SHEET 1 OF 6

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EastPark 138kV
Transmission Line: Phase 1
Kentucky Power

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DRAWN BY: EFJ
CHECKED: LMZ

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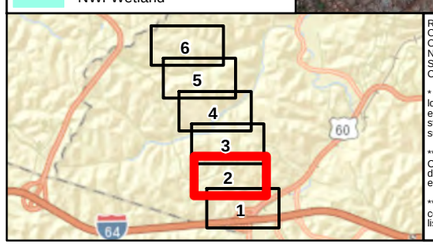

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0 150 300 600 Feet

DETAILED MAPBOOK SHEET 2 OF 6

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EastPark 138kV
Transmission Line: Phase 1
Kentucky Power

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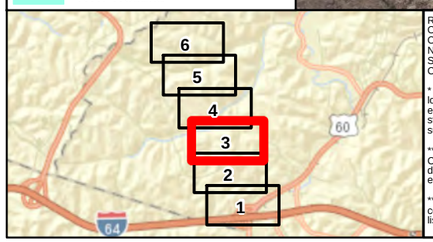

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0 150 300 600 Feet

DETAILED MAPBOOK SHEET 3 OF 6

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EastPark 138kV
Transmission Line: Phase 1
Kentucky Power

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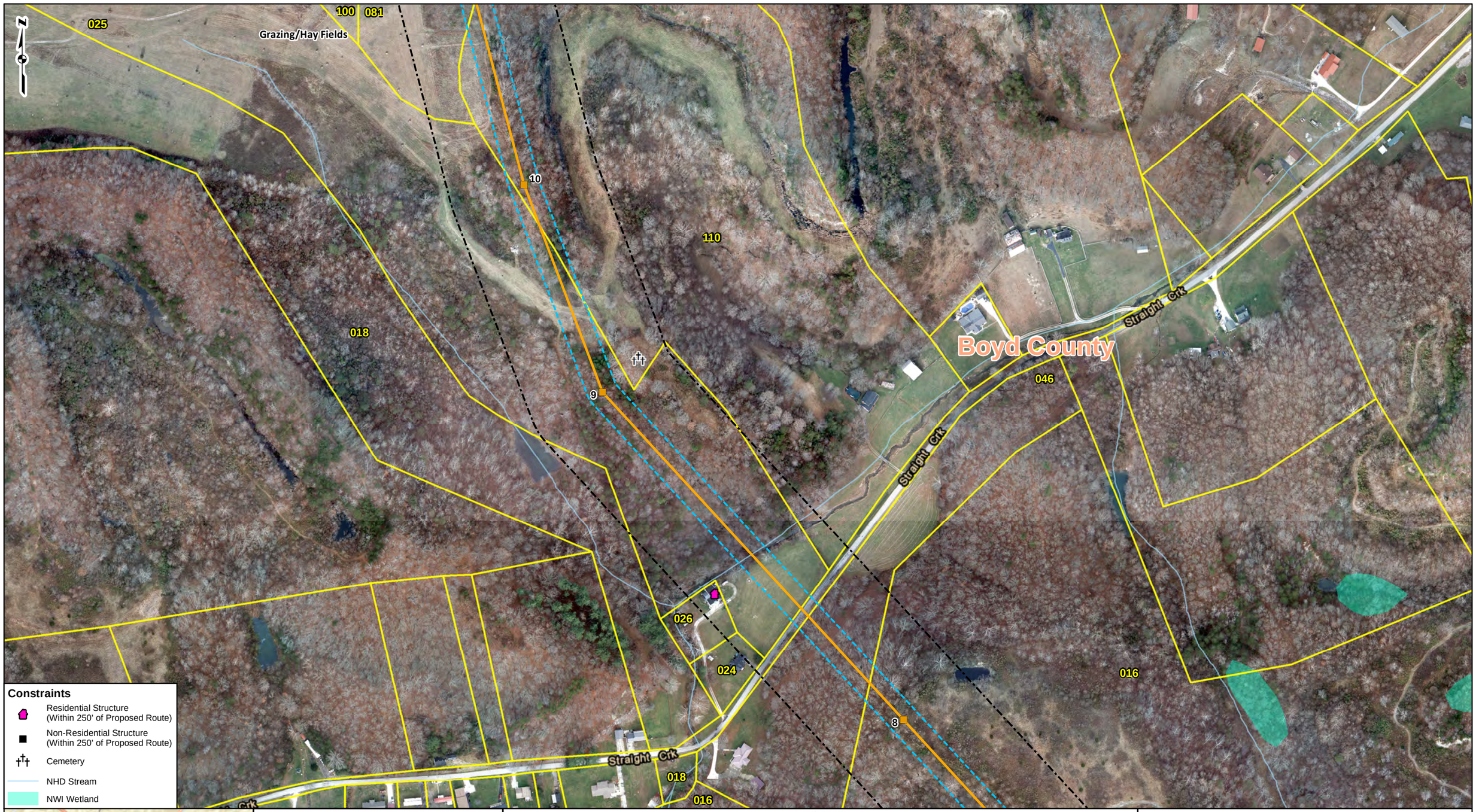

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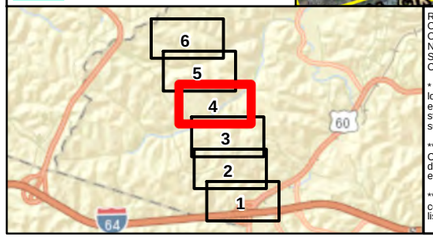

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DETAILED MAPBOOK SHEET 4 OF 6

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EastPark 138kV
Transmission Line: Phase 1
Kentucky Power

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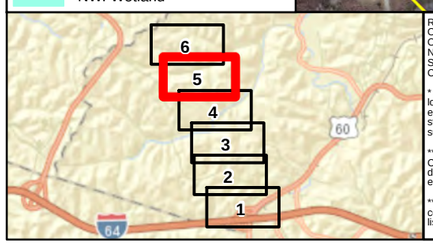

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DETAILED MAPBOOK SHEET 5 OF 6

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EastPark 138kV
Transmission Line: Phase 1
Kentucky Power

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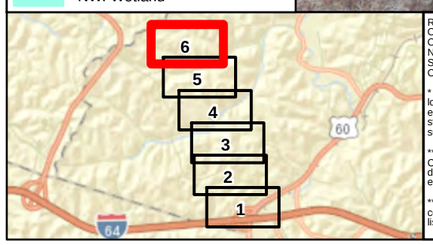

REFERENCE: AERIAL IMAGERY, AEP, 2018. ESRI WORLD IMAGERY, ARCGIS ONLINE, ACCESSED 04/2018. CEMETERIES, KY SHPO AND ESRI ARCGIS ONLINE, 2018. NATIONAL HYDROGRAPHY DATASET (NHD), USGS, 2015. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2017. EXISTING STRUCTURES IDENTIFIED VIA AERIAL IMAGERY, 2017. PARCEL DATA, BOYD COUNTY, 2018.

* Shown is a preliminary design. This design is not the final route centerline or structure locations. Final line route and structure locations will be determined during final engineering, which includes ground survey and geotechnical and environmental studies. Nonetheless, the Company believes the centerline illustrated is the most suitable alignment based upon preliminary analysis.

** A 100-foot wide right-of-way will be sited within the 500-foot Filing Corridor. The Company needs the flexibility to shift the centerline no more than 200 feet in either direction from the centerline indicated as necessary after completion of the final engineering, ground surveys and interviews with the landowners.

***The PVA parcels are not based on an accurate ground survey and should not be construed or used as exact descriptions of legal boundaries. See Exhibits 6 and 12 for list of landowners in proposed ROW and 500-Foot Filing Corridor.

LEGEND

- Proposed Route*
- Existing Transmission Line
- Proposed Substation
- Proposed Structure*
- Proposed 100-foot ROW**
- 500-foot Filing Corridor**
- The Property Value Administrator (PVA) Parcels and Landowner Reference No.***
- County Boundary

0 150 300 600 Feet

DETAILED MAPBOOK SHEET 6 OF 6

gai consultants

EastPark 138kV
Transmission Line: Phase 1
Kentucky Power

KENTUCKY POWER
An AEP Company

DRAWN BY: EFJ
CHECKED: LMZ

DATE: 4/27/2018
APPROVED: LMZ

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