

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke Energy)	
Kentucky, Inc. for a Certificate of Public)	
Convenience and Necessity to Construct A)	Case No. 2022-00364
138-kV Transmission Line And Associated)	
Facilities In Boone County (Hebron to Oakbrook))	
Transmission Line Project))	

APPLICATION

Now comes Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the Company), pursuant to KRS 278.020(2) and 807 KAR 5:001, Sections 8 and 9, and 807 KAR 5:120, and other applicable law, and hereby respectfully requests from the Kentucky Public Service Commission (Commission) an Order granting a Certificate of Public Convenience and Necessity (CPCN) for approval to construct and operate a new single circuit 138-kilovolt (kV) transmission line. The new circuit will utilize portions of the existing #15268 circuit, 69 kV transmission line, and approximately 2.1 linear miles of proposed new transmission line. In support of this CPCN Application (Application), Duke Energy Kentucky respectfully states as follows:

Introduction

1. Pursuant to 807 KAR 5:001, Section 14(2), Duke Energy Kentucky is a Kentucky corporation originally incorporated on March 20, 1901, in good standing, and a public utility as that term is defined in KRS 278.010(3), and, therefore, is subject to the Commission’s jurisdiction.

2. Duke Energy Kentucky is engaged in the business of generation, purchasing, transmission, and distribution and sale of electric power, as well as furnishing natural gas utility services to various municipalities and unincorporated areas in Boone, Bracken, Campbell, Gallatin, Grant, Kenton, and Pendleton Counties in the Commonwealth of Kentucky.

3. The Company's local office in Kentucky is Duke Energy Erlanger Ops Center, 1262 Cox Road, Erlanger, Kentucky 41018. The Company further states that its electronic mail address for purposes of this matter is KYfilings@duke-energy.com.

4. Copies of all orders, pleadings and other communications related to this proceeding should be sent to:

Rocco O. D'Ascenzo
Deputy General Counsel
Duke Energy Kentucky, Inc.
139 East Fourth Street, Cincinnati, OH 45202
Rocco.D'Ascenzo@duke-energy.com
KYfilings@duke-energy.com

Background

5. Duke Energy Kentucky has identified a need to construct a new 138 kV electric transmission line, approximately 2.1 linear miles in length, in Boone County, Kentucky extending from the existing Hebron Substation to the existing 15268 circuit and additionally rebuild another 1.5 of the existing 15268 circuit (the Project). A map showing the proposed location of the Project is included in Exhibit 1. This Project is necessary due to load growth and system reliability of the surrounding Duke Energy Kentucky transmission and distribution systems.

6. Boone County is the fourth most populous and is one of the fastest developing counties in the Commonwealth of Kentucky.¹ Upon information and belief, this growth includes all three customer segments: residential; commercial; and industrial electric loads. This rapid growth has resulted in customer demand reaching near the limits of the Company's existing transmission system's capacity. The Company is projecting growth to continue in this area, necessitating additional capacity construction to meet projected demand.

The Project

7. Duke Energy Kentucky is seeking authority to construct and operate a new single circuit 138 kilovolt (kV) transmission line (circuit #6763; the Project). The new circuit will utilize portions of the existing #15268 circuit 69 kV transmission line and approximately 2.1 linear miles of proposed new transmission line. To accommodate the new circuit, the current three-terminal circuit at the Hebron Substation will be split into two two-terminal circuits. One terminal circuit (#6523) will connect the Hebron Substation to the Oakbrook Substation and the other circuit (#15268) will connect the Hebron Substation to the Constance Substation. The proposed new transmission line will connect the Company's existing Hebron Substation to the existing #15268 circuit creating circuit #6763. After the connection of the new transmission line, new circuit #6763 will follow the existing #15268 circuit to the existing Oakbrook Substation (Exhibit 1). As part of the Project, approximately 1.5 miles of the existing circuit #15268 will be rebuilt in place to 138 kV capacity. Once the rebuild is complete, the new circuit (#6763) will connect the Hebron and Oakbrook Substations and the existing circuit (#15268) will connect the

¹ [Kentucky Population Growth Rate \(2010 - 2019\) by County \(indexmundi.com\)](http://indexmundi.com)

Hebron and Constance Substations. The new circuit will be energized to 69 kV initially with future plans to energize to 138 kV.

8. Structure types and numbers will be determined during final engineering, which includes ground survey and geotechnical studies, and will depend upon terrain crossed, spans, turning angles, final right-of-way (ROW) acquisition, and other engineering considerations. Based upon preliminary engineering, the Company anticipates approximately 26 foundation based galvanized steel poles and 50 direct embedded galvanized steel poles will be required. It is anticipated that angle and dead-end structures will utilize either guy wires and anchors or foundations. Duke Energy transmission line 138-kV standards are included in Confidential Exhibit 4.

9. The transmission line structure heights will vary depending on placement, terrain, and clearance requirements. The transmission engineering design has the average structure height above ground at approximately 80 feet. The proposed structures will have one 138-kV transmission circuit supporting a total of three phase conductors and one overhead ground/shield wire. In addition, the design incorporates potential distribution under build to further enhance the distribution system in some of the locations. The phase conductors will utilize 954 kcmil aluminum conductor steel-reinforced (ACSR) conductor.

Request for Certificate of Public Convenience and Necessity

10. Duke Energy Kentucky is requesting a CPCN pursuant to KRS 278.020 and 807 KAR 5:001, Section 15, for its Hebron to Oakbrook Transmission Project for the reasons set forth above.

11. The Hebron to Oakbrook Transmission Project will not result in a wasteful duplication of facilities. The Hebron to Oakbrook Transmission Project will be located

within Duke Energy Kentucky’s electric service territory and is necessary to serve both increased load and new customers in the area. The existing facilities in the area are insufficient to support the new load and customers in the area.

12. In accordance with 807 KAR 5:001 Section 12(2)(a)-(i). Duke Energy Kentucky is filing the following information in Exhibit 5, which is incorporated herein and made a part of this Application filed in this proceeding:

<u>Exhibit 5</u>	<u>Description</u>	<u>807 KAR 5:001</u>
<u>Page</u>		<u>Section Reference</u>
	Financial Exhibit	12(2)
1	Amount and kinds of stock authorized	12(2)(a)
1	Amount and kinds of stock issued and outstanding	12(2)(b)
1	Terms of preference or preferred stock	12(2)(c)
1	Brief description of each mortgage on property of Duke Energy Kentucky	12(2)(d)
1-2	Amount of bonds authorized and issued and related information	12(2)(e)
2	Notes outstanding and related information	12(2)(f)
2-3	Other indebtedness and related information	12(2)(g)
3	Dividend information	12(2)(h)
4-5	Detailed Income Statement and Balance Sheet	12(2)(i)

13. In accordance with Section 15(2)(a), the Application and supporting testimony provide the evidence to show that the Hebron to Oakbrook Transmission Project is required by public convenience or necessity. The Hebron to Oakbrook Transmission Project will allow Duke Energy Kentucky to continue to provide safe, reliable, and

reasonable electric service to its customers.

14. In accordance with Section 15(2)(b), regarding the filing of franchise agreements, the Company states that it has previously filed with the Commission the applicable franchises from the proper public authorities. Additionally, to the extent a local city or municipality requires the Company obtain a construction permit, the Company will follow such local regulations and obtain any necessary local permits prior to beginning any work. Duke Energy Kentucky will apply for applicable state and federal permits needed for construction of the Project. Duke Energy Kentucky is not aware of any additional permits that will be necessary to complete construction.

15. In accordance with Section 15(2)(c), which requires the Company to provide a full description of the proposed location, route, or routes, including a description of the manner in which the facilities will be constructed, Duke Energy Kentucky respectfully states that the Hebron to Oakbrook Transmission Project will be constructed as described in the testimony accompanying this Application. Exhibit 7 includes a copy of the siting study which depicts the full description of the route and alternative routes considered. Exhibit 8 shows the proposed route and Exhibit 9 shows the alternative route segments considered as part of the route selection study. Because the Company's proposal is applicable only in the Company's service territory, the Project will not compete with any other public utilities, corporations, or persons.

16. In accordance with 807 KAR 5:120 Sections 2(2)(a)-(c), requiring maps showing: a) the location of proposed transmission line centerline and right of way, and boundaries of each property crossed by the transmission line right-of-way as indicated on the property valuation administrator's maps, facilities and plans and specifications and

drawings of the proposed plant, equipment, and facilities; b) sketches of proposed typical transmission line support structures, and; c) a separate map of the same scale showing alternative routes considered, Duke Energy Kentucky respectfully states that Confidential Exhibit 4 and Exhibits 8, 9, and 10 contain the required information.

17. In accordance with 807 KAR 5:120 Sections 2(3) Exhibit 11 includes a verified statement that, according to county property valuation administrator records, each property owner over whose property the transmission line right-of-way is proposed to cross has been sent by first-class mail, addressed to the property owner at the owner's address as indicated by the county property valuation administrator records, or hand delivered. The November 10, 2022, notice included the following information:

- a. Notice of the proposed construction;
- b. The docket number (Case No. 2022-00364) under which the Application will be processed;
- c. The address and telephone number of the Commission's Executive Director;
- d. A description of the property owner's rights to request a public hearing and the right to request intervention, and;
- e. A description of the Project and a map of the proposed transmission line route.

18. In accordance with 807 KAR 5:120 Sections 2(4), Exhibit 12 includes a sample copy of the notice provided to a property owner and a list of the names and addresses of the property owners to whom the notice has been sent.

19. In accordance with 807 KAR 5:120 Sections 2(5), Exhibit 13 includes a copy of the notice of the intent to construct the proposed transmission line that has been published in a newspaper of general circulation in the county or counties in which the construction is proposed.

20. In accordance with 807 KAR 5:120 Sections 2(7), the Company states that Project does not involve sufficient capital outlay to materially affect the existing financial condition of the Company.

21. In accordance with Section 15(2)(e), the Company states that it proposes to finance the construction through continuing operations and debt instruments, as necessary.

22. In accordance with Section 15(2)(f), the Company states that the total estimated cost of the initial construction for the Project is approximately \$34 million. The estimated annual ongoing cost of operation of the Hebron to Oakbrook Transmission Line Project once completed is expected to be approximately \$10,000 (capital and operations and maintenance (O&M)). Exhibit 6 contains a cost estimate for the Project.

23. Duke Energy Kentucky respectfully states that the Project is needed to provide reliability to growing customer load in Boone County, primarily new expansion at the Greater Cincinnati/Northern Kentucky Airport, as well as other anticipated load growth in the area. Exhibit 14 shows the proposed Project components and the existing system in the area of the Project.

Testimony and Exhibits

24. Additional facts supporting this Application are set forth in the following Direct Testimony attached to this Application as Exhibits 15 through 17:

- a. Yanthi W. Boutwell, General Manager of Midwest Transmission Resource & Project Management, provides the need for its construction, engineering components, anticipated schedule and cost for construction;²

² Exhibit 15.

- b. John K. Hurd, Director of Stakeholder Engagement, discusses the siting study that was performed, the proposed route, and permitting for construction of the line, and;³
- c. Lisa D. Steinkuhl, Director of Rates and Regulatory Planning Ohio/Kentucky, discusses the financial aspects of the Company's Application.⁴

³ Exhibit 16.

⁴ Exhibit 17.

WHEREFORE, Duke Energy Kentucky respectfully requests that the Commission:

- 1) Issue a CPCN for the construction and implementation of the proposed Hebron to Oakbrook Transmission Line Project.
- 2) Grant all waivers requested and necessary and other relief to which the Company may be entitled.

Respectfully submitted,

Rocco O. D'Ascenzo (92796)
Deputy General Counsel
Larisa Vaysman
Senior Counsel (98944)
Duke Energy Business Services LLC
139 East Fourth Street, 1303 Main
Cincinnati, Ohio 45201-0960
Phone: (513) 287-4320
Fax: (513) 287-4385
E-mail: rocco.d'ascenzo@duke-energy.com

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing Application of Duke Energy Kentucky, Inc. has been served via overnight mail to the following party on this _____ day of March 2023.

Hon. John G. Horne
Office of the Attorney General
Utility Intervention and Rate Division
700 Capital Avenue, Ste. 20
Frankfort, Kentucky 40601

Rocco O. D'Ascenzo

List of Exhibits

- Exhibit 1: Project Location Map
- Exhibit 2: Siting Study Area
- Exhibit 3: Rebuild Area
- Exhibit 4: Duke Energy 138-kV Transmission Line Standards – Confidential
- Exhibit 5: Financial Statement
- Exhibit 6: Project Cost Estimate
- Exhibit 7: Siting Study
- Exhibit 8: Proposed New Route
- Exhibit 9: Alternative Route Segments
- Exhibit 10: Proposed Rebuild Route
- Exhibit 11: Verified Statement
- Exhibit 12: Copy of Notice and Landowner List
- Exhibit 13: Newspaper Notice
- Exhibit 14: Present System and Proposed Project Components
- Exhibit 15: Yanthi W. Boutwell Testimony
- Exhibit 16: John K. Hurd Testimony
- Exhibit 17: Lisa D. Steinkuhl Testimony

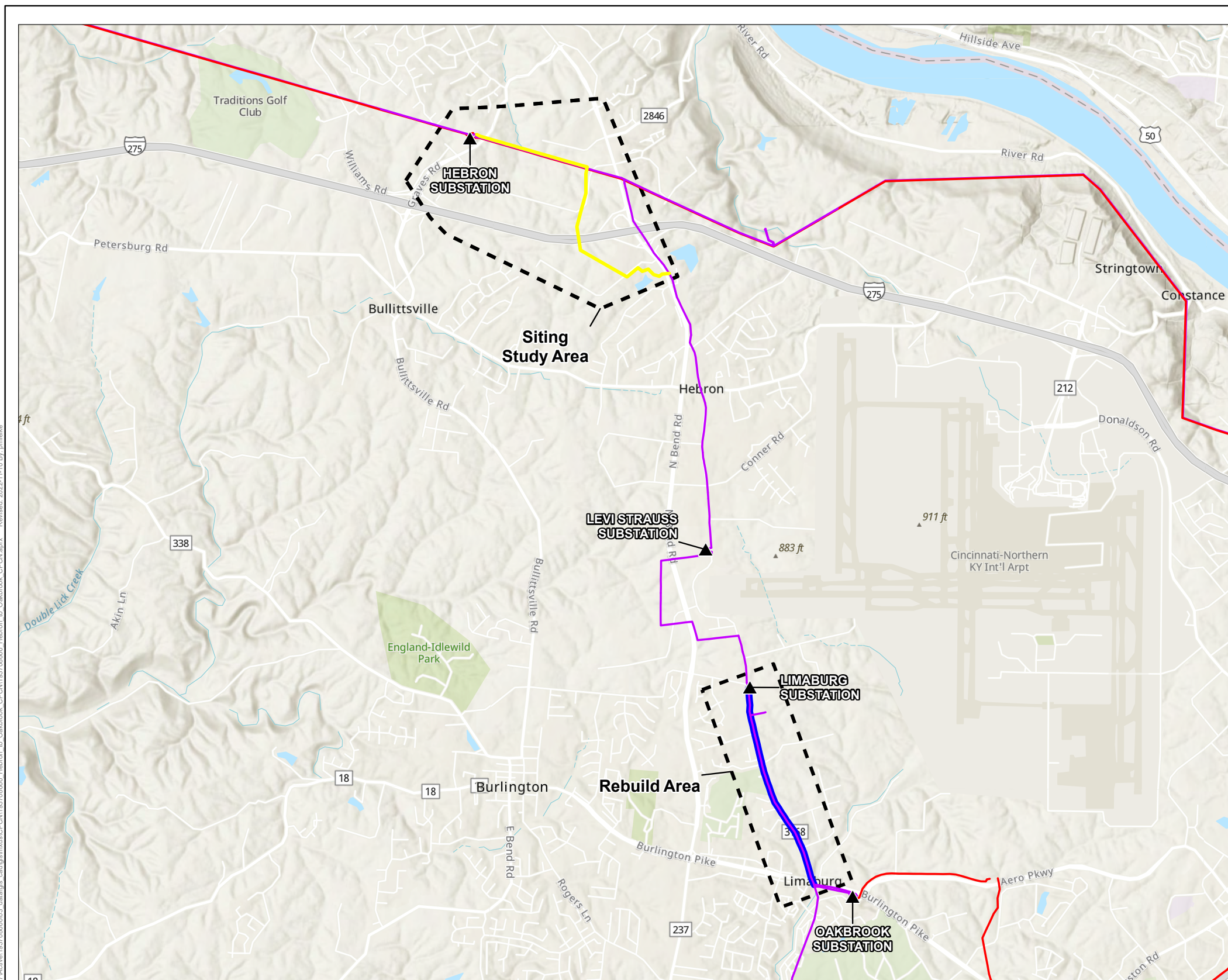


Figure No.

1

Title

Project Location

Client/Project: Duke Energy Kentucky Hebron to Oakbrook 138 kV Transmission Line Project
 193708666

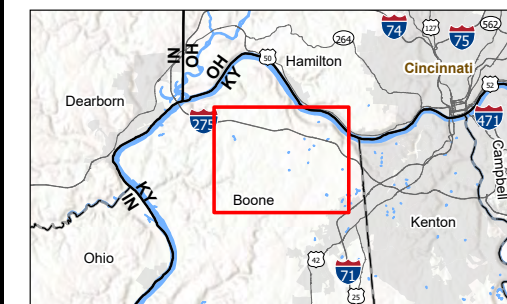
Project Location: Boone Co., Kentucky
 Prepared by PM on 2022-08-22
 TR by BT on 2021-11-09
 IR by TR on 2022-09-08



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Legend

- Study Area
- Duke-owned Existing Substation
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Preferred Route
- Rebuild Section



Notes

1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKPC
3. Background: Esri Topographic Map



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 Revised: 2022-11-10 By: pmlake
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 Revised: 2022-11-10 By: pmlake

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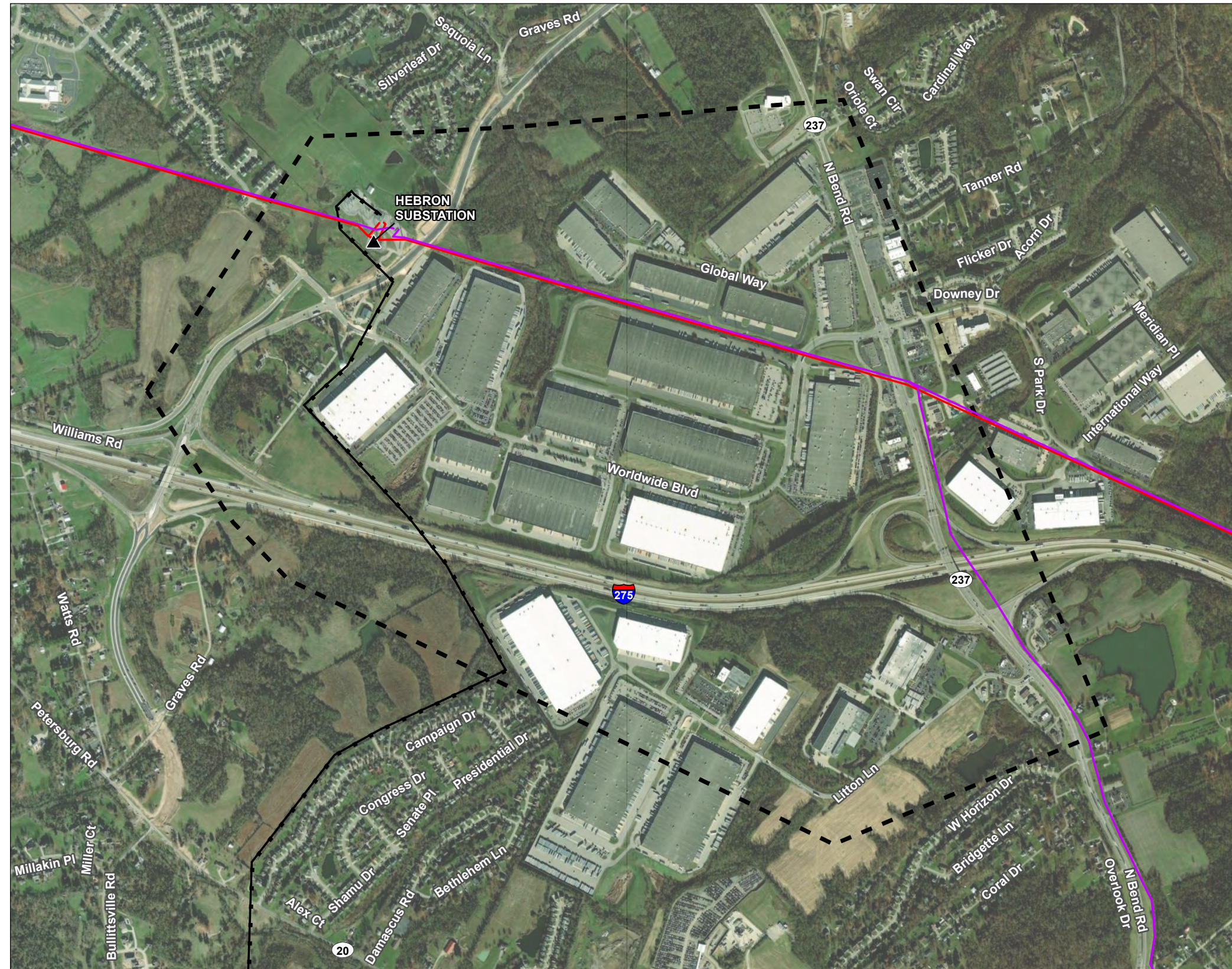


Figure No.

2

Title

Siting Study Area

Client/Project
 Duke Energy Kentucky
 Hebron to Oakbrook 138 kV Transmission Line Project

193708666

Project Location
 Boone Co., Kentucky

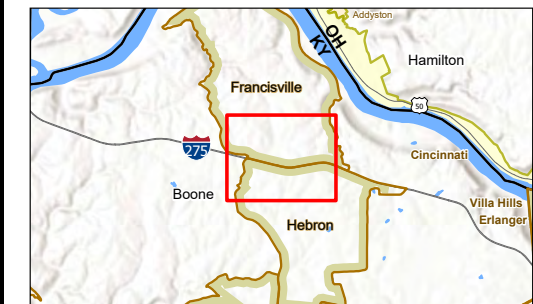
Prepared by PM on 2022-08-22
 TR by BT on 2021-11-09
 IR by TR on 2022-09-08



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Legend

- Study Area
- Duke-owned Existing Substation
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Foreign Owned Existing Transmission Line



Notes

1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKPC
3. Background: Esri World Imagery



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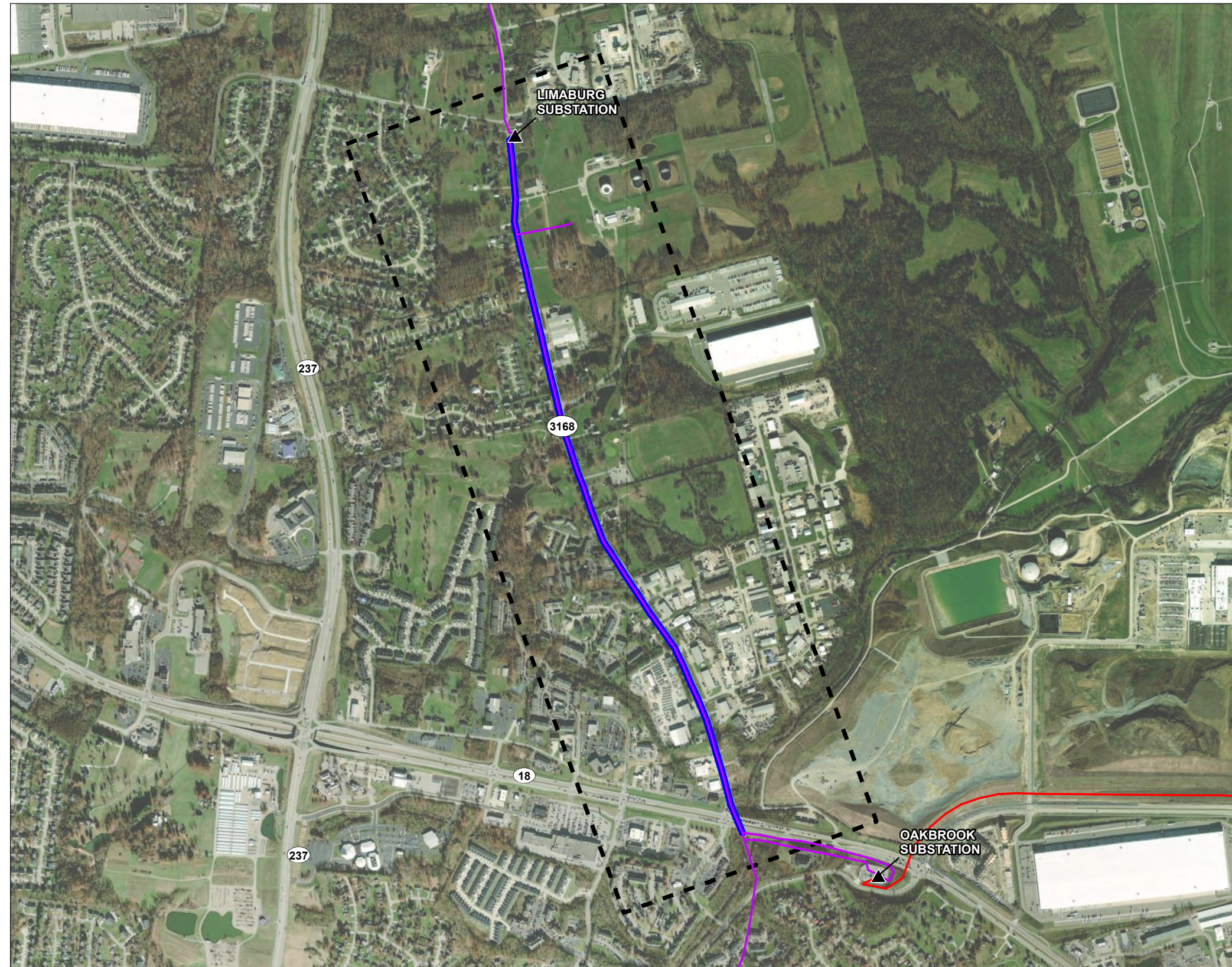


Figure No.

3

Title

Rebuild Project Area

Client/Project
 Duke Energy Kentucky
 Hebron to Oakbrook 138 kV Transmission Line Project

193708666

Project Location
 Boone Co., Kentucky

Prepared by PM on 2022-08-22

TR by BT on 2021-11-09

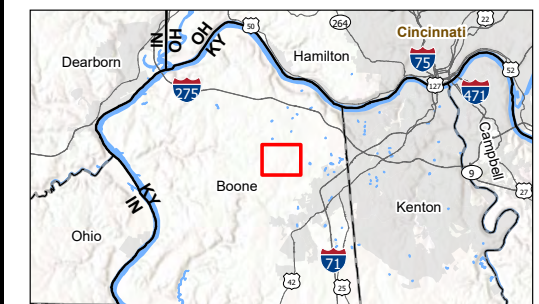
IR by TR on 2022-09-08



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Legend

- Rebuild Area
- Duke-owned Existing Substation
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Rebuild Section



Notes

1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKPC
3. Background: Esri World Imagery



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**CONFIDENTIAL PROPRIETARY TRADE
SECRET**

**APPLICATION
CONFIDENTIAL EXHIBIT 4**

FILED UNDER SEAL

FINANCIAL EXHIBIT**(1) Section 12(2)(a) Amount and kinds of stock authorized.**

1,000,000 shares of Capital Stock \$15 par value amounting to \$15,000,000 par value.

(2) Section 12(2)(b) Amount and kinds of stock issued and outstanding.

585,333 shares of Capital Stock \$15 par value amounting to \$8,779,995 total par value. Total Capital Stock and Additional Paid-in Capital as of December 31, 2022:

Capital Stock and Additional Paid-in Capital
As of December 31, 2022
(\$ per 1,000)

Capital Stock	\$8,780
Premiums thereon	18,839
Total Capital Contributions from Parent (since 2006)	133,594
Contribution from Parent Company for Purchase of Generation Assets	<u>140,061</u>
Total Capital Stock and Additional Paid-in-Capital	<u>\$301,274</u>

(3) Section 12(2)(c) Terms of preference or preferred stock, cumulative or participating, or on dividends or assets or otherwise.

There is no preferred stock authorized, issued or outstanding.

(4) Section 12(2)(d) Brief description of each mortgage on property of applicant, giving date of execution, name of mortgagor, name or mortgagee, or trustee, amount of indebtedness authorized to be secured, and the amount of indebtedness actually secured, together with any sinking fund provision.

Duke Energy Kentucky does not have any liabilities secured by a mortgage.

(5) Section 12(2)(e) Amount of bonds authorized, and amount issued, giving the name of the public utility which issued the same, describing each class separately, and giving the date of issue, face value, rate of interest, date of maturity and how secured, together with the amount of interest paid thereon during the last fiscal year.

The Company has fourteen outstanding issues of unsecured senior debentures issued under an Indenture dated December 1, 2004, between itself and Deutsche Bank Trust Company Americas, as Trustee, as supplemented by eight Supplemental Indentures. The Indenture

allows the Company to issue debt securities in an unlimited amount from time to time. The Debentures issued and outstanding under the Indenture are the following:

Supplemental Indenture	Date of Issue	Principal Amount Authorized and Issued	Principal Amount Outstanding	Rate of Interest	Date of Maturity	Interest Paid Year 2022
1 st Supplemental	3/7/2006	65,000,000	65,000,000	6.200%	3/10/2036	4,030,000
3 rd Supplemental	1/5/2016	45,000,000	45,000,000	3.420%	1/15/2026	1,539,000
3 rd Supplemental	1/5/2016	50,000,000	50,000,000	4.450%	1/15/2046	2,225,000
4 th Supplemental	9/7/2017	30,000,000	30,000,000	3.350%	9/15/2029	1,005,000
4 th Supplemental	9/7/2017	30,000,000	30,000,000	4.110%	9/15/2047	1,233,000
4 th Supplemental	9/7/2017	30,000,000	30,000,000	4.260%	9/15/2057	1,278,000
5 th Supplemental	10/3/2018	25,000,000	25,000,000	4.010%	10/15/2023	1,002,500
5 th Supplemental	10/3/2018	40,000,000	40,000,000	4.180%	10/15/2028	1,672,000
5 th Supplemental	12/12/2018	35,000,000	35,000,000	4.620%	12/15/2048	1,617,000
6 th Supplemental	7/17/2019	40,000,000	40,000,000	4.320%	7/15/2049	1,728,000
7 th Supplemental	9/15/2019	95,000,000	95,000,000	3.230%	10/01/2025	3,068,500
7 th Supplemental	9/15/2019	75,000,000	75,000,000	3.560%	10/01/2029	2,670,000
8 th Supplemental	9/15/2020	35,000,000	35,000,000	2.650%	9/15/2030	927,500
8 th Supplemental	9/15/2020	35,000,000	35,000,000	3.660%	9/15/2050	1,281,000
			630,000,000			25,276,500

(6) **Section 12(2)(f) Each note outstanding, giving date of issue, amount, date of maturity, rate of interest, in whose favor, together with amount of interest paid thereon during the last fiscal year.**

The Company has one outstanding \$50,000,000 unsecured, two-year bank term loan note issued on October 12, 2021. Interest accrues at an annual rate equal to 60 basis points plus Daily Simple SOFR (Secured Overnight Financing Rate) and is paid quarterly. The term loan will mature on October 12, 2023.

<u>Note Outstanding</u>	<u>Date of Issue</u>	<u>Principal Amount Authorized and Outstanding</u>	<u>Rate of Interest</u>	<u>Date of Maturity</u>	<u>Interest Paid Year 2022</u>
Term Loan	10/12/2021	50,000,000	SOFR + 60bps	10/12/2023	1,257,234

(7) **Section 12(2)(g) Other indebtedness, giving same by classes and describing security, if any, with a brief statement of the devolution or assumption of any portion of such indebtedness upon or by person or corporation if the original**

liability has been transferred, together with amount of interest paid thereon during the last fiscal year.

The Company has two series of Pollution Control Revenue Refunding Bonds issued under a Trust Indenture dated as of August 1, 2006 and a Trust Indenture dated as of December 1, 2008, between the County of Boone, Kentucky and Deutsche Bank National Trust Company as Trustee. The Company's obligation to make payments equal to debt service on the Bonds is evidenced by a Loan Agreement dated as of August 1, 2006 and December 1, 2008 between the County of Boone, Kentucky and Duke Energy Kentucky. The Bonds issued under the Indentures are below. On Nov 1, 2021, the Company bought in the Series 2008A bond, and remarketed the bond in June 2022.

Indenture	Date of Issue	Principal Amount Authorized and Issued	Principal Amount Outstanding	Rate of Interest	Date of Maturity	Interest Paid Year 2022
Series 2010	11/24/2010	26,720,000	26,720,000	3.86% ⁽¹⁾	8/1/2027	1,031,392
Series 2008A	12/01/2011	50,000,000	<u>50,000,000</u> 76,720,000	3.70% ⁽²⁾	8/1/2027	<u>945,558</u> 1,976,950

⁽¹⁾ The bonds were issued at a variable-rate and were swapped to a fixed rate of 3.86% for the life of the debt.

⁽²⁾ Bonds were remarketed in June 2022 under a fixed-to-maturity interest rate mode (3.70% coupon).

The Company has no outstanding financing leases as of December 31, 2022.

The Company also has \$106,232,000 of money pool borrowings outstanding as of December 31, 2022, \$25,000,000 of which is classified as Long-Term Debt payable to affiliated companies. This obligation, which is short-term by nature, is classified as long-term due to Duke Energy Kentucky's intent and ability to utilize such borrowings as long-term financing.

(8) Section 12(2)(h) Rate and amount of dividends paid during the last five (5) previous fiscal years, and the amount of capital stock on which dividends were paid each year.

DIVIDENDS PER SHARE

Year Ending	Per Share	Total	No. of Shares	Par Value of Stock
December 31, 2018	0	0	585,333	8,779,995
December 31, 2019	0	0	585,333	8,779,995
December 31, 2020	0	0	585,333	8,779,995
December 31, 2021	0	0	585,333	8,779,995
December 31, 2022	0	0	585,333	8,779,995

(9) Section 12(2)(i) A detailed Income Statement and Balance Sheet.

DUKE ENERGY KENTUCKY, INC.
CONDENSED STATEMENTS OF OPERATIONS
(Unaudited)
(In thousands)

	Twelve Months Ended December 31 2022
Operating Revenues	
Electric	512,319
Gas	155,810
Total operating revenues	668,129
Operating Expenses	
Fuel used in electric generation and purchased power	240,849
Natural gas purchased	70,707
Operation, maintenance and other	140,987
Depreciation and amortization	90,912
Property and other taxes	22,427
Goodwill and other impairment charges	6,910
Total operating expenses	572,792
Gains on Sales of Other Assets and Other, net	180
Operating Income	95,517
Other Income and Expenses, net	3,856
Interest Expense	28,815
Income Before Income Taxes	70,558
Income Tax Expense	12,006
Income From Continuing Operations	58,552
Income From Discontinued Operations, net of tax	-
Net Income	58,552

DUKE ENERGY KENTUCKY, INC.
Condensed Balance Sheets
(Unaudited)

(in thousands, except share amounts)	December 31, 2022
ASSETS	
Current Assets	
Cash and Cash Equivalents	3,326
Receivables (net of allowance for doubtful accounts)	21,799
Receivables from affiliated companies	55,519
Notes Receivables from affiliated companies	-
Inventory	58,276
Regulatory Assets	34,489
Other	31,208
Total Current Assets	204,617
Property, Plant and Equipment	
Cost	3,231,542
Less Accumulated Depreciation and Amortization	(1,069,120)
Generation Facilities To Be Retired	-
Net Property Plant and Equipment	2,162,422
Other Noncurrent Assets	
Regulatory Assets	70,541
Operating Lease Right-of-Use assets	8,016
Other	17,562
Total Other Noncurrent Assets	96,119
Total Assets	2,463,158
LIABILITIES AND COMMON STOCKHOLDERS' EQUITY	
Current Liabilities	
Accounts Payable	65,534
Accounts payable to affiliated companies	20,648
Notes payable to affiliated companies	81,232
Taxes Accrued	43,692
Interest Accrued	7,797
Current Maturities of Long-Term Debt	74,980
Asset Retirement Obligations	17,065
Regulatory Liabilities	25,644
Other	15,260
Total Current Liabilities	351,852
Long-Term Debt	679,177
Notes payable to affiliated companies	25,000
Other Noncurrent Liabilities	
Deferred Income Taxes	276,717
Asset Retirement Obligations	90,756
Regulatory Liabilities	103,361
Operating Lease Liabilities	8,034
Accrued Pension and Other Post-Retirement Benefit Costs	27,057
Other	21,019
Total Other Noncurrent Liabilities	526,944
Commitments and Contingencies	-
Equity	
Common Stock, \$15.00 par value, 1,000,000 shares authorized and 585,333 shares outstanding	8,780
Additional Paid in Capital	292,494
Retained Earnings	578,911
Total Duke Energy Corporation Stockholders' Equity	880,185
Noncontrolling Interests	-
Total Liabilities and Equity	2,463,158

Detail Project: M21037401 Limaburg-Oakbrook RLE

Category	Estimated Cost	FERC Account / Plant	Description	Estimated Cost
Labor	\$ 59,134.00	355	Poles and Fixtures	\$ -
Outside Services	\$ 600.00	356	Overhead Conductors and Devices	\$ -
Material	\$ 485.00	354	Towers and Fixtures	\$ -
Indirects	\$ 16,177.00	350	Land and Land Rights	\$ 200,766.00
Contingency	\$ 33,461.00	357	Underground Conduit	\$ -
Grants and Easements	\$ 90,909.00	358	Underground Conductors and Devices	\$ -
Total	\$ 200,766.00	Total		\$ 200,766.00

Detail Project: M21037402 Hebron-Route 237 RLE

Category	Estimated Cost	FERC Account / Plant	Description	Estimated Cost
Labor	\$ 191,241.00	355	Poles and Fixtures	\$ -
Outside Services	\$ 2,067.00	356	Overhead Conductors and Devices	\$ -
Material	\$ 356.00	354	Towers and Fixtures	\$ -
Indirects	\$ 113,828.00	350	Land and Land Rights	\$ 2,768,990.00
Contingency	\$ 461,498.00	357	Underground Conduit	\$ -
Grants and Easements	\$ 2,000,000.00	358	Underground Conductors and Devices	\$ -
Total	\$ 2,768,990.00	Total		\$ 2,768,990.00

Detail Project: M19030902 Hebron to 15268C Tap-Install New 69 kV Line

Category	Estimated Cost	FERC Account / Plant	Description	Estimated Cost
Labor	\$ 5,026,044.00	355	Poles and Fixtures	\$ 16,509,252.00
Outside Services	\$ 2,405,100.00	356	Overhead Conductors and Devices	\$ 1,242,632.00
Material	\$ 4,509,590.00	354	Towers and Fixtures	\$ -
Indirects	\$ 3,495,687.00	350	Land and Land Rights	\$ -
Contingency	\$ 2,315,463.00	357	Underground Conduit	\$ -
Grants and Easements	\$ -	358	Underground Conductors and Devices	\$ -
Total	\$ 17,751,884.00	Total		\$ 17,751,884.00

Detail Project: M19030903 Feeder 6763-Rebuild Oakbrook to Limaburg

Category	Estimated Cost	FERC Account / Plant	Description	Estimated Cost
Labor	\$ 2,493,754.00	355	Poles and Fixtures	\$ 6,399,764.00
Outside Services	\$ 2,131,500.00	356	Overhead Conductors and Devices	\$ 1,501,180.00
Material	\$ 1,666,688.00	354	Towers and Fixtures	\$ -
Indirects	\$ 1,890,408.00	350	Land and Land Rights	\$ -
Contingency	\$ 1,227,353.00	357	Underground Conduit	\$ -
Grants and Easements	\$ -	358	Underground Conductors and Devices	\$ -
		108	Cost of Removal	\$ 1,508,759.00
Total	\$ 9,409,703.00	Total		\$ 9,409,703.00

Detail Project: M190309DL1 F6763 Underbuild Limaburg

Category	Estimated Cost	FERC Account / Plant	Description	Estimated Cost
Labor	\$ 225,296.00	364	Poles and Fixtures	\$ 115,414.00
Outside Services	\$ 40,633.00	365	Overhead Conductors and Devices	\$ 363,754.00
Material	\$ 22,562.00	364	Towers and Fixtures	\$ -
Indirects	\$ 145,345.00	360	Land and Land Rights	\$ -
Contingency	\$ 65,075.00	366	Underground Conduit	\$ -
Grants and Easements	\$ -	367	Underground Conductors and Devices	\$ 19,743.00
Total	\$ 498,911.00	Total		\$ 498,911.00

Detail Project: M190309DL3 New 15264 Transfer

Category	Estimated Cost
Labor	\$ 9,585.00
Outside Services	\$ 127.00
Material	\$ -
Indirects	\$ 5,015.00
Contingency	\$ 2,209.00
Grants and Easements	\$ -
Total	\$ 16,936.00

FERC Account / Plant	Description	Estimated Cost
364	Poles and Fixtures	\$ -
365	Overhead Conductors and Devices	\$ 16,936.00
364	Towers and Fixtures	\$ -
360	Land and Land Rights	\$ -
366	Underground Conduit	\$ -
367	Underground Conductors and Devices	\$ -
Total		\$ 16,936.00

Detail Project: M19030901 Hebron Install 69kV CB

Category	Estimated Cost
Labor	\$ 1,215,115.00
Outside Services	\$ 270,300.00
Material	\$ 663,747.00
Indirects	\$ 677,494.00
Contingency	\$ 423,998.00
Grants and Easements	\$ -
Total	\$ 3,250,654.00

FERC Account / Plant	Description	Estimated Cost
355	Poles and Fixtures	\$ -
356	Overhead Conductors and Devices	\$ -
354	Towers and Fixtures	\$ -
350	Land and Land Rights	\$ -
352	Structures and Improvements	\$ 2,763,056.00
353	Station Equipment	\$ 487,598.00
Total		\$ 3,250,654.00

Detail Project: M19030906 Limaburg Station Uprate

Category	Estimated Cost
Labor	\$ 81,723.00
Outside Services	\$ 17,900.00
Material	\$ 4,420.00
Indirects	\$ 31,858.00
Contingency	\$ 20,385.00
Grants and Easements	\$ -
Total	\$ 156,286.00

FERC Account / Plant	Description	Estimated Cost
355	Poles and Fixtures	\$ -
356	Overhead Conductors and Devices	\$ -
354	Towers and Fixtures	\$ -
350	Land and Land Rights	\$ -
352	Structures and Improvements	\$ 156,286.00
353	Station Equipment	\$ -
Total		\$ 156,286.00

Detail Project: M19030907 Levi Strauss Station Uprate

Category	Estimated Cost
Labor	\$ 39,715.00
Outside Services	\$ 9,000.00
Material	\$ 2,210.00
Indirects	\$ 16,418.00
Contingency	\$ 10,101.00
Grants and Easements	\$ -
Total	\$ 77,444.00

FERC Account / Plant	Description	Estimated Cost
355	Poles and Fixtures	\$ -
356	Overhead Conductors and Devices	\$ -
354	Towers and Fixtures	\$ -
350	Land and Land Rights	\$ -
352	Structures and Improvements	\$ 77,444.00
353	Station Equipment	\$ -
Total		\$ 77,444.00

Detail Project: M19030908 Oakbrook Sub 15264 Changes

Category	Estimated Cost
Labor	\$ 58,720.00
Outside Services	\$ 13,300.00
Material	\$ 16,575.00
Indirects	\$ 29,019.00
Contingency	\$ 17,642.00
Grants and Easements	\$ -
Total	\$ 135,256.00

FERC Account / Plant	Description	Estimated Cost
355	Poles and Fixtures	\$ -
356	Overhead Conductors and Devices	\$ -
354	Towers and Fixtures	\$ -
350	Land and Land Rights	\$ -
352	Structures and Improvements	\$ 135,256.00
353	Station Equipment	\$ -
Total		\$ 135,256.00



**Hebron to Oakbrook Reliability Project
138 kV Transmission Line Route
Selection Study Report**

Boone County, Kentucky

Project No. M210374

November 2, 2022

Prepared for:

Duke Energy Kentucky, Inc.
139 East Main Street
Cincinnati, OH 45202

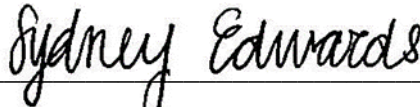
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Sign-off Sheet

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HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

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HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

Executive Summary

Stantec Consulting Services Inc. (Stantec) was retained by Duke Energy Kentucky, Inc. (Duke Energy) to conduct a Route Selection Study for a new 138 kV transmission line from the Hebron Substation to the Oakbrook Substation located in the Cities of Francisville and Hebron in Boone County, Kentucky (the Project). As part of the Project, the current three-terminal circuit at the Hebron Substation will be split into two, two-terminal circuits, allowing for the retirement of circuit #6763 that currently feeds the Oakbrook Substation. Future plans include increasing the new line to 138 kV although it will initially be operated at 69 kV. The Project will alleviate reliability concerns and prepare for expected load growth within Boone County.

To select a Preferred Route for this new transmission line, a Siting Team followed a detailed siting process to review opportunities and constraints in the Study Area. The Route Selection Study included identification of an approximately 1.6-square mile Study Area, data collection, identification of Route Segments, identification of Route Alternatives, quantification of siting criteria for each Route Alternative, evaluation of qualitative factors, alternatives comparison, and the selection of a Preferred Route. The Study Area is primarily made up of industrial and commercial land uses with a few small areas of residential and undeveloped lands. Twenty-nine route alternatives were identified within the Study Area that require from 1.7 to 2.5 miles of new circuit. Primary factors driving the evaluation include engineering, land use, and ecological impacts. There are no anticipated impacts to cultural resources along any of the route alternatives. The main ecological drivers included wetlands, tree clearing, and streams crossed, mostly associated with Sand Run. There are a few residences, institutional, and sensitive land uses throughout the study area but most of the properties crossed are industrial and commercial businesses. Route length, steep slope crossings, length of existing utilities within ROW, and number of turn angles were the major drivers of the engineering challenges identified during the route analysis.

The Siting Team identified a Segment Network comprised of 27 Route Segments based on opportunities and constraints in the Study Area. After the Segment Network was developed, Duke Energy was informed by EKPC during the public outreach portion of the Study, that they also plan to construct a 69 kV transmission line within the Study Area and have a preferred route selected. This resulted in the removal of all segments that conflicted with EKPC's proposed route (Route Segments 11, 16, 17, and 18) from further consideration because there was not sufficient room to build both the EKPC line and this proposed transmission line along those segments. This reduced the potential route alternatives from 43 to 29. The remaining 29 route alternatives were all considered feasible and were evaluated for selection as the preferred route.

After the 29 route alternatives were identified, additional information about proposed development in the study area was discovered that impacted the route selection process. It was discovered that St. Elizabeth started constructing new medical office buildings along segments 20, 22, and 23 and has plans for more development on those properties that conflicts with being able to construct a transmission line. Therefore, based on the qualitative and quantitative review, route alternatives that utilized segments 20, 22, and 23 were not chosen as the preferred route.

Based on the comprehensive quantitative and qualitative evaluation, Route L was selected as the preferred route. This route is approximately 2.1 miles in length and utilizes segments 2, 5, 7, 13, 14, 15, 19, 21, and 24. While Route L scored 12th out of 29 potential routes, there were numerous



HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

qualitative factors that resulted in it being selected as the preferred route. It was determined that routes that utilized segments 25 and 26 along North Bend Road north of Interstate 275 would require crossing over the new EKPC line along North Bend Road. The crossing of the EKPC line in this area would require potential pole heights of 150' to 160' near the Federal Aviation Administration (FAA) height threshold for Cincinnati/Northern Kentucky International Airport (CVG). The area around segment 12 crossing North Bend Road north of Interstate 275 is very congested with existing utilities and commercial business and would potentially require engineered poles that could significantly impact the gas station on the east side of North Bend Road as well as additional businesses. Routes that utilized segment 19 were identified as beneficial because it would allow Duke Energy Kentucky to relocate the existing transmission line within KYTC road right of way (ROW) and construct the new line without any new structures within KYTC ROW. Segments 21 and 24 were selected south of Interstate 275 to avoid impacting the development on St. Elizabeth's property. To traverse the industrial park, the team selected segments 2, 5, 7, 13, and 14, over segments 1, 3, and 10 to utilize the existing transmission corridor and reduce impacts to commercial buildings and existing infrastructure along Worldwide Boulevard.



HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

Abbreviations

CPCN	Certificate of Public Convenience and Necessity
Duke Energy	Duke Energy Kentucky, Inc.
EKPC	Eastern Kentucky Power Cooperative
FEMA	Federal Emergency Management Agency
GIS	geographic information system
IPaC	U.S. Fish & Wildlife Service Information for Planning and Consultation
kV	kilovolt
KYTC	Kentucky Transportation Cabinet
NAIP	National Agriculture Imagery Program
NLAA	not likely to adversely affect
NRCS	Natural Resources Conservation Service
NHD	National Hydrography Dataset
NPS	National Park Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
PSC	Public Service Commission
ROW	right-of-way
Stantec	Stantec Consulting Services Inc.
T/E	threatened or endangered
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey



HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

1.0 INTRODUCTION

Duke Energy Kentucky, Inc. (Duke Energy) is planning a new 138 kilovolt (kV) transmission line in the Cities of Francisville and Hebron in Boone County, Kentucky. The new line will connect the existing Hebron Substation with the Oakbrook Substation via a tie-in with a Duke Energy-owned 69 kV line between Limaburg and Oakbrook Substations (the Project) (Figure 1). Duke Energy retained Stantec Consulting Services Inc. (Stantec) to complete a Route Selection Study to identify and evaluate potential routes for the proposed Project.

As part of the Project, the current three-terminal circuit at the Hebron Substation will be split into two two-terminal circuits, allowing for the retirement of circuit #15268. Future plans include increasing the voltage of this new circuit between Hebron and Oakbrook to 138 kV although it will initially be operated at 69 kV. The future upgrade to 138 kV will require rebuilding portions of the existing circuit to handle the increased voltage. Because the future plan to operate this circuit to 138 kV, the plan is to construct this new line to 138 kV capacity to avoid rebuilding the line in the future. Since the line is expected to be over 1 mile in length and capable of handling 138 kV capacity, a certificate of public convenience and necessity (CPCN) from the Kentucky Public Service Commission (PSC) is required prior to construction.

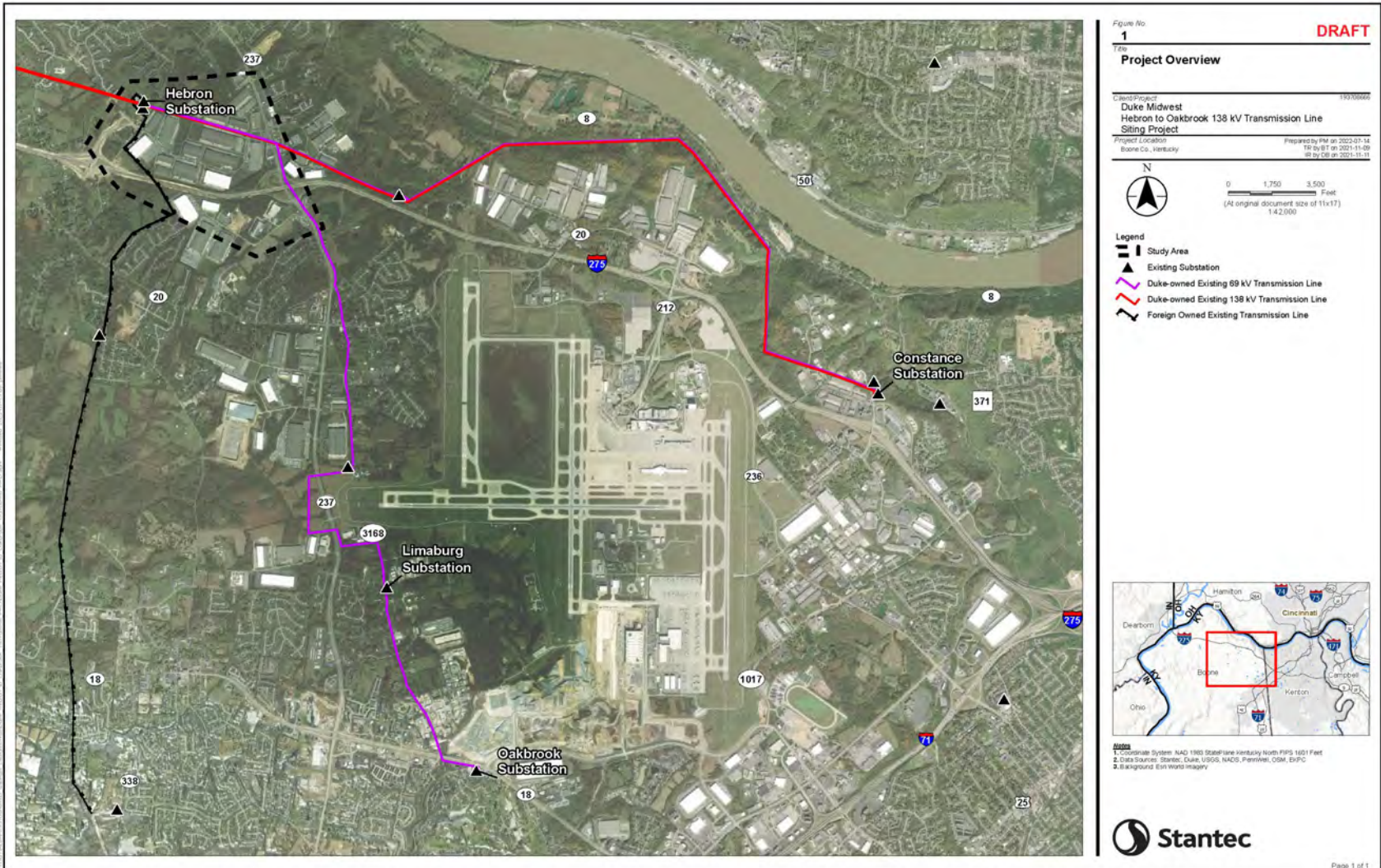
1.1 PURPOSE AND NEED

The Project is planned to address expected load growth and reliability concerns within Boone County. This Project will add capacity for future growth in the region, increase reliability by providing alternatives for operations during planned or unexpected outages, allow flexibility for providing critical energy, and help maintain a robust system for supplying and delivering electric service. Future plans to account for expected load growth include energizing the new line to 138 kV. The Project is part of a larger reliability project that will include rebuilding an existing 69 kV transmission line and its associated equipment from Limaburg Substation along Limaburg Road in Hebron to Burlington Pike in Burlington.

Duke Energy has a state and federally mandated responsibility to provide reliable electric service. The Project will deliver safe, reliable electricity via an optimized route that minimizes project costs and impacts to existing utility infrastructure (substations and transmission lines) and property owners and minimizes or avoids impacts to the natural and built environment. The purpose of the Route Selection Study was to evaluate potential routes for the Project to alleviate reliability concerns and prepare for future growth while meeting these other objectives.



HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY



Disclaimer: This document has been prepared based on information provided by others as cited in the notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.



HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

1.2 PROJECT DESCRIPTION AND REQUIREMENTS

1.2.1 Project Description

The Project will include a new transmission line between the Hebron Substation and Tap to Limaburg 69 kV line along Highway 237/North Bend Road in Boone County, Kentucky (**Appendix A, Figures A-1 and A-2**). The proposed line will be owned and operated by Duke Energy Kentucky.

1.2.2 Project Requirements

The siting guidelines below were applied throughout the route evaluation process:

1.2.2.1 System Planning Requirements

- Meet the electrical need and requirements in an economic and reliable way.

1.2.2.2 Engineering Requirements/Planning Considerations

- Secure right-of-way (ROW) width of 100 feet cross-country and 70 feet parallel and adjacent to road ROW.
- Evaluate paralleling existing utility and transportation corridors
- Avoid or minimize severance of parcel boundaries to extent practicable
- Avoid or minimize interference with existing land uses
- Avoid or minimize route angles greater than 30 degrees
- Avoid or minimize slopes steeper than 20%
- Avoid or minimize spans greater than 400 feet
- Minimize route length, circuitry, cost, and special design requirements

1.2.2.3 Impacts to the Natural Environment and Land Use

Where possible:

- Avoid or minimize the removal or substantial interference with existing residences.
- Minimize the removal of existing barns, garages, commercial buildings, and other non-residential structures.
- Avoid or minimize interference with the use and operation of existing schools, recognized places of worship, cemeteries, and facilities used for cultural, historical, and recreational purposes.
- Maximize the sharing or paralleling of existing ROWs unless paralleling interferes with the safe operation or maintenance of the new line or existing facility.
- Avoid or minimize interference with economic activities, including agricultural and silvicultural activities.
- Avoid or minimize interference with existing/future land uses (planned developments/road construction activities)
- Avoid or minimize siting structures within Federal Emergency Management Agency (FEMA)-mapped floodways
- Avoid or minimize the crossing of environmentally and culturally sensitive lands, such as recreation lands; historic sites; national and state forests and parks; nature

HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

preserves; conservation lands and easements; large reservoirs and large wetland complexes; critical habitat; and other unique or distinct natural resources.

- Where crossings of sensitive lands are unavoidable, maximize the use of existing crossings.
- Avoid crossing federal, state, and municipal lands.
- Avoid or minimize substantial visual impact on residential areas and public resources.
- Avoid or minimize interference with regulated airspace.

1.3 PROJECT TIMELINE AND REGULATORY APPROVALS

Duke Energy plans to begin construction on the Project in early 2024 with a goal of having the new line constructed and in service by December 2024. Because the future plan is to energize the line to 138 kV and the line is expected to be over 1 mile in length, the requirement for a CPCN from the Kentucky PSC is triggered.

Through coordination with the U.S. Fish and Wildlife Service (USFWS), several threatened or endangered (T/E) species have been identified as possibly existing within the Study Area. Upon selection of a Preferred Route, additional agency coordination may be required to determine the need for species/habitat surveys and if construction restrictions are necessary. County construction and environmental permits will need to be obtained prior to construction.

1.4 GOAL OF THE ROUTE SELECTION STUDY

The goal of the Route Selection Study was to evaluate potential routes and select a preferred route to prepare for expected load growth within Boone County and alleviate reliability concerns while considering Duke Energy's long-term business needs and avoiding or minimizing undesired impacts to the environment and community.

HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

2.0 ROUTE SELECTION METHODOLOGY

At the beginning of the route selection process, a multidisciplinary Siting Team was established to evaluate the site requirements, opportunities, and constraints. The Siting Team was comprised of Duke Energy and Stantec staff experienced in siting, planning, public engagement, engineering, permitting, vegetation management, project management, asset protection, community and government relations, construction, and real estate.

2.1 STUDY AREA

In consultation with the Siting Team, a siting Study Area was established. The Study Area is defined as the area in which alternative routes can be identified to meet the Project's purpose and need while minimizing social and ecological impacts and Project costs.

2.2 SITING CRITERIA SELECTION AND DATA COLLECTION

Environmental, cultural, land use, social, and engineering data were collected and mapped in a geographic information system (GIS) to identify constraints and opportunities within the Study Area. Constraints are specific areas that should be avoided to the extent practicable during the route selection process. Opportunities are locations where the proposed line routes might be located while minimizing or avoiding adverse ecological or social impacts. After the Siting Team reviewed the specific opportunities and constraints in the Study Area, Project-specific siting criteria were established for identifying and evaluating Route Alternatives.

2.3 IDENTIFICATION OF ROUTE ALTERNATIVES

The Siting Team used the guidelines (see Section 1.2.2) and opportunities and constraints observed in the Study Area to develop a Segment Network. The Siting Team then reviewed this network to identify any fatal flaws, engineering feasibility and constructability issues, and data gaps. Members of the Siting Team reviewed segments in the field, and then combined them to create full-length Route Alternatives, which were used in the evaluation process.

2.4 ALTERNATIVE ROUTE EVALUATION

Once the Route Alternatives were identified, Stantec conducted a comparative analysis using Project-specific data, which included quantitative scoring and ranking based on the evaluation criteria (see Section 2.2). The quantitative analysis began by grouping the opportunities and constraint data assembled as part of the Project GIS into three tiers (criteria group, criteria, and sub-criteria). The data were then weighted with regards to sensitivity to electrical transmission line construction and operation. The weights assigned to the criteria were based on Project-specific considerations and the combined experience of the Siting Team.

Each sub-criterion was calculated by route and the raw data were normalized so that the data could be combined in the analysis. The following formula was used for the normalization:

Normalized value for criterion = value of criterion for route / maximum value for all routes

An example is provided below:

HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

Properties with unique ownership crossed by ROW criterion for Route A = 24 / 27

Where: 24 is the number of properties with unique ownership for Route A

27 is the maximum number of properties with unique ownership for any route

A weighted multiplier was then applied to the normalized value to arrive at a score for that sub-criterion. The weighted multipliers for each sub-criterion were established by multiplying the criteria group, criteria, and sub-criteria weights together. For example, the weighted multiplier for the “Number of properties with unique ownership” sub-criterion was 0.0350, whereby the sub-criteria weight of 100 percent was multiplied by properties crossed criteria weight of 10 percent and the land use criteria group weight of 35 percent. The sub-criterion scores for each route were then added together to arrive at a composite score for that route, with lower scores being more favorable.

2.4.1 Public and Stakeholder Engagement

Project evaluation included two virtual open houses and a 30-day public comment period. Public engagement specialists prepared a virtual open house, which provided an overview of the Project need, details, schedule, and construction details, and an interactive map of the Route Alternatives. Details about the virtual open house were distributed by mail to property owners within 500 feet of the Routes. Comments could be submitted by comment form, email, or phone and were considered in the refinement of Route Alternatives.

2.5 SELECTION OF PREFERRED ROUTE

The Siting Team reviewed the evaluation results and public comments received, assessed potential impacts to the community and natural environment, and identified potential barriers or challenges to the construction and operation of the Route Alternatives. Using the quantitative and qualitative criteria, the Siting Team selected a Preferred Route that met the overall need of the Project while minimizing potential impacts to the extent possible.

HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

3.0 ROUTE EVALUATION RESULTS

3.1 STUDY AREA DELINEATION

The Siting Team identified a 1.6-square mile Study Area for data collection and identification of Route Alternatives. The Study Area is primarily comprised of commercial and industrial buildings and associated facilities with some small residential developments and areas of fields and forest (**Appendix A, Figures A-1 and A-2**).

The Study Area encompassed the Hebron Substation in the northwest corner and is crossed by Interstate 275 east/west through the southern portion of the Study Area. Highway 237/North Bend Road forms the Study Area's eastern edge. The boundary extends south to include Litton Lane but largely excludes the residential areas to the south of Interstate 275. The northern boundary bisects a forested/agricultural area to include the industrial area to the north of Duke Energy's existing 69-kV and 138-kV transmission lines. The western boundary extends west of the Hebron Substation and around the new Graves Road and Interstate 275 interchange. There are small residential areas located in the western most portion of the Study Area, north of the Hebron Substation, and along the southern and eastern boundaries of the Study Area. There is a commercial district along Highway 237/North Bend Road that includes multiple restaurants and commercial facilities, two childcare facilities, a public library, a church, and a few primary care offices. Additionally, there is a fire station located immediately south of the existing Hebron Substation (**Appendix A, Figure A-6**).

There is one perennial stream, Sand Run, and multiple intermittent streams and potential waterbodies and wetlands within the Study Area (**Appendix A, Figure A-5**). There were no FEMA flood zones associated with Sand Run or any of the intermittent streams within the Study Area (**Appendix A, Figure A-5**).

According to the cultural and archeological review report, there were 15 previously recorded archaeological sites recorded within the Study Area (**Appendix A, Figure A-5**). All archaeological sites either do not meet National Register criteria or are considered totally disturbed¹. There were 34 Kentucky Heritage Council Historic Resources identified within the Study Area (**Appendix A, Figure A-5**); none of them are listed on the National Register of Historic Places (NRHP) and most are likely ineligible or destroyed. Only one Historic Resource (BE 109, William Watts House) was determined eligible for the NRHP; however, the owner objected so the property was not listed, and the house now appears to have been demolished.

Numerous existing transmission lines, distribution lines, gas mains, sewer lines, stormwater lines, and water lines crisscross the Study Area to serve the industrial, commercial, and residential areas. Additionally, there are two planned projects within the Study Area. The Kentucky Transportation Cabinet (KYTC) is planning to conduct the Graves Road Widening Project in the western portion of the Study Area, near the existing Hebron Substation and the East Kentucky Power Cooperative (EKPC) is planning to build a new 69 kV transmission line that comes out of the Hebron substation to the south and follows Interstate 275 through the Study Area (**Appendix**

¹ While Figure A-5 states that the archaeological inventory sites are of undetermined eligibility, the report states that all are either destroyed or likely ineligible for listing.

HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

A, Figure A-7). The topography is relatively hilly, with steep slopes (>20%) surrounding much of the existing infrastructure within the Study Area (**Appendix A, Figure A-7**).

3.2 ESTABLISHMENT OF EVALUATION CRITERIA

After the Study Area was delineated, the Siting Team collected constraint and opportunity data to support the identification and evaluation of Route Alternatives. The sources of the environmental, cultural, land use, social, and engineering data used in the study are provided in **Appendix B, Table 1**. Weights applied to each of the criteria are provided in **Appendix B, Table 2**. The evaluation criteria were selected by the Siting Team based on specifics of the Study Area and what would meet Project requirements for constructability, schedule, cost, and operations and maintenance while avoiding or minimizing undesired impacts to the environment and community.

There were no features present along any of the Route Alternatives for several of the sub-criteria, and therefore no data to measure (grayed sub-criteria text in **Appendix B, Table 2**). All criteria shown in **Appendix B** reflect the final, adjusted weights used in the analysis.

Agency correspondence was conducted to learn more about the Study Area. The Kentucky Energy and Environment Cabinet, Office of Kentucky Nature Preserves provided information from the Natural Heritage Program Database on T/E or special concern plants and animals or exemplary natural communities within the Study Area. In addition, Stantec reviewed the USFWS Information Planning and Consultation (IPaC) online system and obtained an official species list from the USFWS to identify any federally listed T&E species or mapped critical habitat within the Study Area.

The Siting Team contracted Weller & Associates, Inc. to complete a cultural and archeological literature review, including a review of the Kentucky Archaeological Inventory files, Boone County atlases, histories, and historic maps, and the NRHP, among other resources. A summary of the cultural resources within the study area is provided above in section 3.1.

3.3 IDENTIFICATION OF ROUTE ALTERNATIVES

The Siting Team identified a Segment Network comprised of 27 Route Segments based on opportunities and constraints in the Study Area (**Appendix A, Figure A-3**). The Route Segments were located primarily within the center and eastern edge of the Study Area within the industrial/commercial complex and the Highway 237/North Bend Road ROW. Numerous constraints were present in the western and northeastern portions of the Study Area. No segments were identified southwest of the Hebron Substation because of tight clearances between residential properties, road ROW, the KYTC Graves Road Widening Project, Hebron Fire Protect District Station 2, an existing EKPC transmission line, and a water tower. No segments were identified within the northeastern portion of the Study Area because of the presence of a library, Lakeside Church of Christ, residential areas, and the constrained nature the development along Highway 237 road ROW in this area. The Siting Team identified segments paralleling the existing transmission corridor. It was determined the segments should parallel along the northern side of the transmission corridor due to challenges of existing utilities and terrain on the south side.

Numerous segments were identified in the industrial/commercial complex. The industrial/commercial complex provided routing challenges because of exiting utilities and short

HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

distances between built infrastructure. Southern segments were included to provide an additional option for crossing Interstate 275, away from the 237 interchange.

After the Segment Network was developed, Duke Energy was informed by EKPC during the public outreach portion of the Study, that they also plan to construct a 69 kV transmission line within the Study Area and have a preferred route selected. This resulted in the removal of all segments that conflicted with EKPC's proposed route (Route Segments 11, 16, 17, and 18) from further consideration (**Appendix A, Figure A-3**). These segments were removed because there is not adequate horizontal space parallel to EKPC's route to accommodate two new transmission lines parallel and adjacent to one another due to existing utilities and buildings. Additionally, collocating the new Hebron to Oakbrook transmission line on the same facilities is not preferred due to planning, operational, reliability, and safety concerns.

The Duke Energy and Stantec Siting Team leads, completed field reconnaissance of the Segment Network from public ROW on December 15, 2021. During the reconnaissance, sensitive receptors (residences, schools, and churches) were verified, and photographs were taken to document existing site conditions. A follow-up site visit was conducted on June 29, 2022 to confirm additional resources within the Study Area.

After the segments that paralleled EKPC's route were removed, the segments were combined into the 29 full-length Route Alternatives as depicted on in the **Figure A-4 inset (Appendix A)**.

Broadly speaking, Route Alternatives were grouped into two categories based on where they crossed Interstate 275, either within the clover leaf or west of the clover leaf.

In the clover leaf

Routes A, G, M, AC, and AI utilized the clover leaf. These Route Alternatives took various routes through/around the industrial/commercial complex north of Interstate 275 before connecting to Segment 12 to cross Highway 237/North Bend Road north of the clover leaf. They then paralleled Highway 237/North Bend Road through the clover leaf, rebuilding the existing line in place.

West of the clover leaf

Routes C-F, I-L, O-R, T-W, AE-AH, and AK-AN avoided the clover leaf interchange. These Route Alternatives took the same various routes through and around the industrial/commercial complex north of Interstate 275 but then connected to Segment 19 at the southern edge of the industrial/commercial complex to cross Interstate 275 west of the clover leaf. They then traversed the land south of Interstate 275 either by paralleling KYTC ROW or cutting directly across to Litton Lane. The routes then connected to the existing line at one of two tap points, one to the north of Litton Lane and one to the south of Litton Lane.

3.4 ALTERNATIVE ROUTE EVALUATION

The Route Alternatives were evaluated for ecological, land use, cultural, and engineering constraints. The Route Alternatives were weighted and ranked with the lower scoring considered more favorable. The scores were not considered to be the definitive ranking of the routes, but as a measure of how impactful the routes would be based on the criteria established for the comparison. The results of the quantitative analysis are provided in **Appendix B, Table 3 and Appendix B, Figure 1** and described in detail in Sections 3.4.2 to 3.4.5.

In addition to the quantitative analysis, qualitative factors were important for the Siting Team to consider during the evaluation of the Route Alternatives. These factors include observations from

HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

field reconnaissance, comments from stakeholder interactions, and Siting Team experience. Stakeholder feedback is described below.

3.4.1 Public and Stakeholder Engagement

Duke Energy sent out a public engagement letter to individuals with property within 500 feet of the Route Alternatives and requested input on the Project during a 30-day comment period that began on March 7, 2022. Duke Energy also hosted two virtual open houses during which the public could provide comment. There were three comments received; the Siting Team took these into consideration when choosing the Preferred Route.

Based on public comments received regarding planned development in the Study Area, Duke Energy reached out to and held meetings with St. Elizabeth Physicians (St. Elizabeth) located at 1980 Litton Lane. They indicated that they are under active construction on the southern adjacent parcel (impacting Segment 20) with plans to develop the eastern adjacent parcel (impacting Segment 22) as well. A site visit confirmed this additional development. Based on a review of ongoing construction and conceptual site plans provided by St. Elizabeth, it was determined that developing segments 20 and 22 would directly impact the active construction and planned construction of the medical office buildings.

3.4.2 Ecological

Ecological resources including streams, wetlands, and forested lands, were factors in the analysis; there were no floodplains or protected species occurrences within the Study Area. Wetland and stream complexes were mainly associated with Sand Run in the north central portion of the Study Area but also included intermittent streams associated with storm water drainage; all routes crossed at least one stream. Forest impacts were also present mainly in the area of Sand Run and the currently undeveloped parcels located immediately south of Interstate 275 and in the north central portion of the Study Area (**Appendix A, Figure A-5**). Forested land clearing was the most influential ecological factor in the quantitative analysis, with forested acres in ROW ranging from 1.19 to 9.62 acres with Routes that utilized Segment 4 having the highest impacts to forested lands (Routes A and C-F).

Duke Energy conducted agency consultation with Kentucky Natural Heritage Program and US Fish and Wildlife Service (USFWS). There were no records of Kentucky Natural Heritage Program monitored species within the Study Area. No impacts to listed mussel species are expected as no stream impacts are anticipated. Habitat for listed bat species potentially occurs within the Study Area and may be impacted by tree clearing activities. The USFWS provided the guidance document "Revised Conservation Strategy for Forest-Dwelling Bats In the Commonwealth of Kentucky" and recommended that Duke Energy conduct tree clearing activities in the winter during the unoccupied timeframe (November 15 - March 31).

3.4.3 Land Use

Land use constraints were also influential in the route analysis due to the presence of extensive industrial and commercial districts (**Appendix A, Figure A-6**). The Study Area is predominantly industrial development with some commercial development, residential properties, and undeveloped land. Institutional uses within the Study Area include the Boone County Public Library along the northern border of the Study Area, Lakeside Church of Christ and Children's

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House Hebron along Highway 237/North Bend Road north of Interstate 275, and St. Elizabeth and Elijah's Creek Kindercare along Highway 237/North Bend Road to the south of Interstate 275.

The majority of the Study Area is heavily constrained throughout by an existing industrial/commercial complex. Additionally, commercial development is extensive along Highway 237/North Bend Road and residential developments border the Study Area on all sides. The Boone County Public Library located along the northern border of the Study Area was considered a sensitive resource.

3.4.4 Cultural Resources

While historic and archaeological resources were identified in the Study Area (**Appendix A, Figure A-5**), all were deemed ineligible for listing on the NRHP or destroyed. Therefore, cultural resources were not a factor in the analysis (**Appendix B, Table 3**).

3.4.5 Engineering

All routes were considered constructable, though there were several engineering constraints within the Study Area that factored into the quantitative and qualitative analysis (**Appendix A, Figure A-7**). The number of turn angles ranged from 4 to 18 due to the heavily constrained nature of the Study Area. The Study Area also has significant portions of steep slopes throughout, most notably along the Sand Run corridor and surrounding Interstate 275 infrastructure. Segments that span the interstate would require long span lengths, with those crossing at the clover leaf requiring long spans at the clover leaf and at Highway 237/North Bend Road, affecting routes A, G, M, AC, and AI.

Additionally, the numerous existing buildings, transmission and distribution lines, gas mains, sewer lines, water lines, stormwater lines, and other existing infrastructure throughout the Study Area made for highly congested routes within the industrial/commercial complex and along Highway 237/North Bend Road. Upon closer inspection of the Highway 237/North Bend Road crossing, proximity to an existing gas station was identified as an additional engineering constraint. For this Project, the sharing or paralleling of existing transmission ROW was considered a benefit. This most notably benefited routes that utilized Segment 2,5, and 7 (Routes G and I-L).

3.5 ROUTE SELECTION

Route selection was conducted focusing on a qualitative analysis of the Study Area. As discussed in Section 3.4.1, based on public comment and additional coordination with St. Elizabeth, it was determined that Duke Energy would be unable to place their transmission line on St. Elizabeth's property without direct impacts to the development under construction and additional development planned for these parcels. This included Routes C-E, I-K, O-Q, T-V, AE-AG, and AK-AM which each utilized Segment 20 and/or Segment 22 (**Appendix A, Figure A-4**).

While on the site visit, the Siting Team noted that Segment 12, which spanned Highway 237/North Bend Road north of Interstate 275, was going to be heavily constrained by existing infrastructure. Upon further investigation, it was observed that the segment would connect near a Shell gas station where there is already a lattice tower nearby and many existing utilities. Additionally, it was determined that the transmission line in this area would require an engineered pole within KYTC ROW which typically are not allowed within road ROW. The Team's prior siting experience has indicated that the engineering and coordination associated with placing a structure in this

HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

area with the constraints associated with the gas station, KYTC, and other utilities would be costly and difficult to implement without significantly impacting the gas station's operations. Additional engineering constraints occur on the west side of Highway 237/North Bend Road near the Amazon facility including extensive existing utilities, retaining walls, and parking impacts (**Appendix A, Figures A-6 and A-7**). Overall, Segment 12 would be challenging to build as there are widespread engineering constraints limiting the ability to build new infrastructure without significant impacts to existing land uses.

The sequencing of the construction for the EKPC Project and the Oakbrook to Hebron transmission line needs to be accounted for during the siting process. EKPC's Project is planned to be constructed prior to the Oakbrook to Hebron Project. This will require the EKPC Project to cross above the existing 69 kV transmission line. When Duke Energy rebuilds to 138 kV (Segments 25 and 26), they would need to construct the line above the 69 kV EKPC line. This would require Duke Energy to have structures in this area that would be close to exceeding Federal Aviation Administration clearance standards associated with the nearby Cincinnati/Northern Kentucky International Airport, which is located 2 miles to the southeast. Therefore, Segments 12, 25, and 26 would potentially require significant FAA lighting requirements and thus cause a significant expense and challenge both during the design, build, and operation and maintenance of this transmission line. This includes Routes A, G, M, AC, and AI.

Due to the qualitative/quantitative concerns discussed above on Segments 12, 20, 22, 25, and 26 it was determined Segments 19 to 21 to 24 were the preferred last half of the route to connect to the existing transmission line.

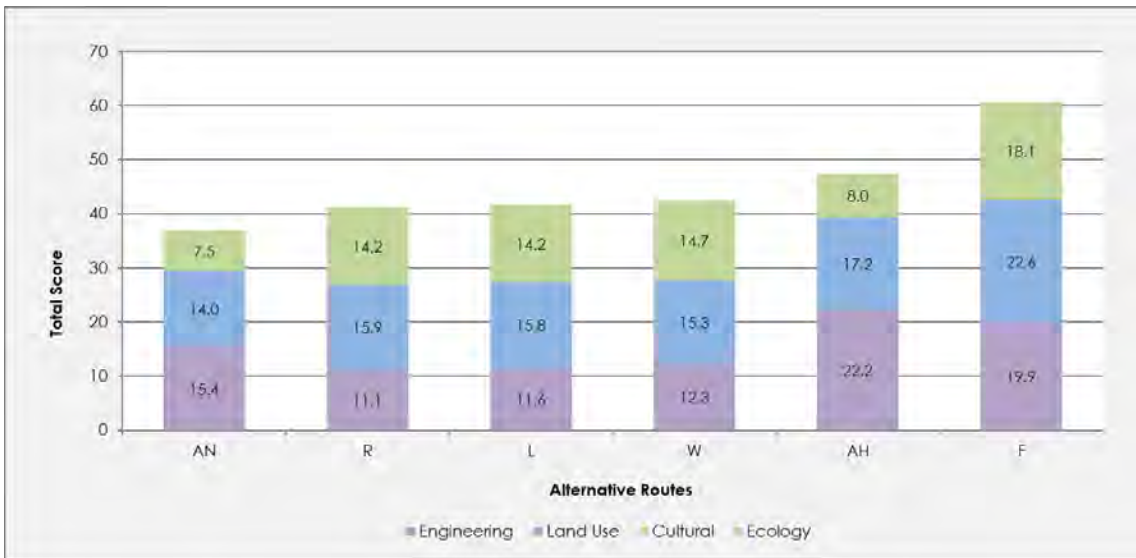
After pairing down the segments discussed above, from highest ranked to lowest ranked, Routes AN, R, L, W, AH and F remained (Figure 2). Route F scored highest due to heavy ecological constraints associated with Sand Run and the forested parcels north of Duke Energy's existing transmission corridor, engineering constraints including route length, span length, and turn angles, and land use constraints including number of unique properties and amount of new easement required. Route AH also has extensive engineering constraints including steep slopes, existing utilities, turn angles, and route length. Routes R, L, and W all scored very similarly, with only 1.18 points separating the three routes.

Route AN scored lowest due to significantly reduced ecological impacts because the route avoids impacts to forested wetlands associated with Sand Run, crosses fewer streams, and would require less forested land clearing. However, Route AN scored higher in engineering because it did not utilize the existing transmission corridor and the existing utilities along Worldwide Boulevard. In addition to the other existing utilities along Worldwide Boulevard, engineering concerns not included in the quantitative analysis along the western stretch of Worldwide Boulevard include very tight clearances, an existing bus stop and streetlights, and impacts to traffic with trucks and employee vehicles continuously coming in and out of the business within the industrial/commercial complex.

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Routes R, L, and W utilized the existing transmission corridor past Sand Run; however, Route W still utilized the constrained western stretch of Worldwide Boulevard. Route L utilized the longest stretch of the existing corridor which resulted in the fewest acres of new easement required. Additionally, the eastern portion of Worldwide Boulevard is wider and has more adjacent green space to allow for construction crew access to avoid traffic impacts and also has less existing above ground infrastructure that could conflict with the construction and operation of the transmission line. Therefore, Route L was chosen as the preferred route.

Figure 2. Distribution of Quantitative Route Analysis Scores



3.5.1 Description of Preferred Route

Route L was selected as the Preferred Route for the Project and is depicted in **Appendix A, Figure A-8**. Route L extends east out of the Hebron Substation, following Duke Energy’s existing transmission line corridor for approximately 0.77 mile until it reaches Worldwide Boulevard. The route then turns south and parallels Worldwide Boulevard to the west for approximately 0.28 mile before it crosses Worldwide Boulevard in between the Wayfair warehouse and Amazon Fulfillment Center. The route then continues south for approximately 0.25 mile, crossing Interstate 275, before it turns southeast towards Litton Lane, which it crosses after an additional 0.38 mile. The Route then follows Litton Lane northeast until it reaches the businesses on the south side of Litton Lane. The Route goes around these businesses to the south, cutting between the Burger King and Domino’s Pizza where it connects to the Tap to Limaburg 69 kV line along Highway 237/North Bend Road. In total, Route L is 2.05 miles long.

Route L utilized a longer portion of the existing Duke Energy transmission line corridor, minimizing the need for new ROW and minimizing impacts to new landowners. It avoids the highly congested western portion of Worldwide Boulevard where light posts, a bus stop, signs, consistent traffic, and engineering challenges associated with steep slopes are present. Route L also avoids crossing Interstate 275 within the clover leaf and would result in having no transmission structures

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within KYTC ROW. Route L met the purpose and need for the Project while minimizing impacts to the community.

4.0 CONCLUSION

The Route Selection Study included the delineation of an approximately 1.6-square mile Study Area, data collection, identification of potential Route Segments and Route Alternatives, a quantitative and qualitative comparative evaluation of the Route Alternatives, and the selection of a Preferred Route. The Study Area is predominantly industrial and commercial. A total of 27 Route Segments were identified and combined into 29 Route Alternatives. All Route Alternatives were in Boone County, Kentucky.

Route Alternatives were pared down based on the challenge to construct Segment 12 due to extensive engineering constraints and planned construction on parcels owned by St. Elizabeth affecting Segments 20 and 22. This resulted in Route Segments 19 to 21 to 24 being chosen as the preferred last half of the route to connect to the existing Tap to Limaburg 69 kV line.

After pairing down the segments discussed above there were four routes with comparative scores, Route AN, L, R and W. The highest ranked route (Route AN) did not follow the existing transmission corridor and scored lower due to the avoidance of ecological impacts to forested wetlands associated with Sand Run. Qualitative concerns with Route AN include very tight clearances along Worldwide Boulevard, an existing bus stop and streetlights, and impacts to traffic with trucks and employee vehicles continuously coming in and out.

Routes R, L, and W utilized the existing transmission corridor past Sand Run; however, Route W still utilized the constrained western stretch of Worldwide Boulevard. Route L utilized the longest stretch of the existing corridor which results in the fewest acres of new easement required. Additionally, the eastern portion of Worldwide Boulevard is wider and has more adjacent green space to allow for construction crew access to avoid traffic impacts and also has less existing above ground infrastructure that would need to be moved. Therefore, Route L was chosen as the preferred route.

After the completion of the Route Selection Study, a public announcement of the Preferred Route will be provided to the property owners and key external stakeholders that were communicated with during the route evaluation step of the Route Selection Study. Then, the project team will begin preparing for transmission line engineering and easement negotiations with the affected property owners.

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National Land Cover Database: Requirements, Research Priorities, Design, and Implementation Strategies, p. 108–123.

APPENDIX A

Constraints Mapping



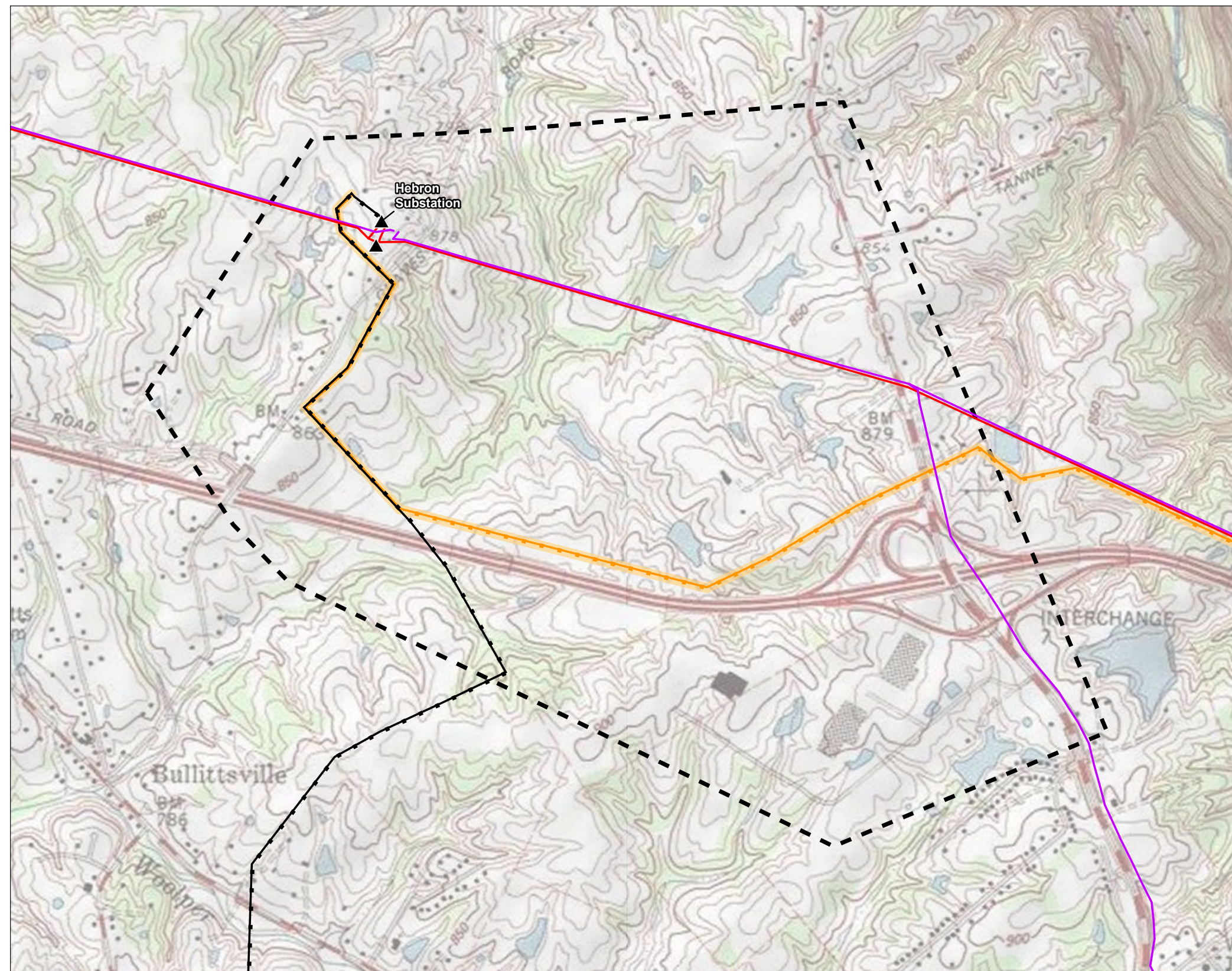


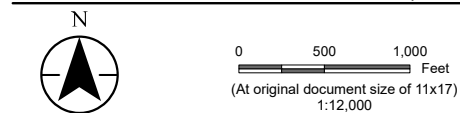
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A-1

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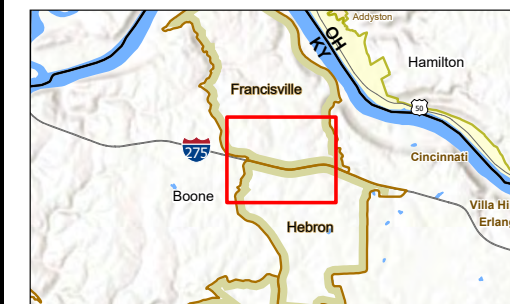
Project Location and Topography

Client/Project	193708666
Duke Midwest	
Hebron to Oakbrook 138 kV Transmission Line	
Siting Project	
Project Location	Prepared by PM on 2021-11-09
Boone Co., Kentucky	TR by BT on 2021-11-09
	IR by DB on 2021-11-11



Legend

- Study Area
- Existing Substation
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Foreign Owned Existing Transmission Line
- Proposed EKPC Transmission Line
- Proposed EKPC Transmission Line 100ft ROW



- Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKCP
 3. Background: USGS 7.5' Topographic Quadrangles



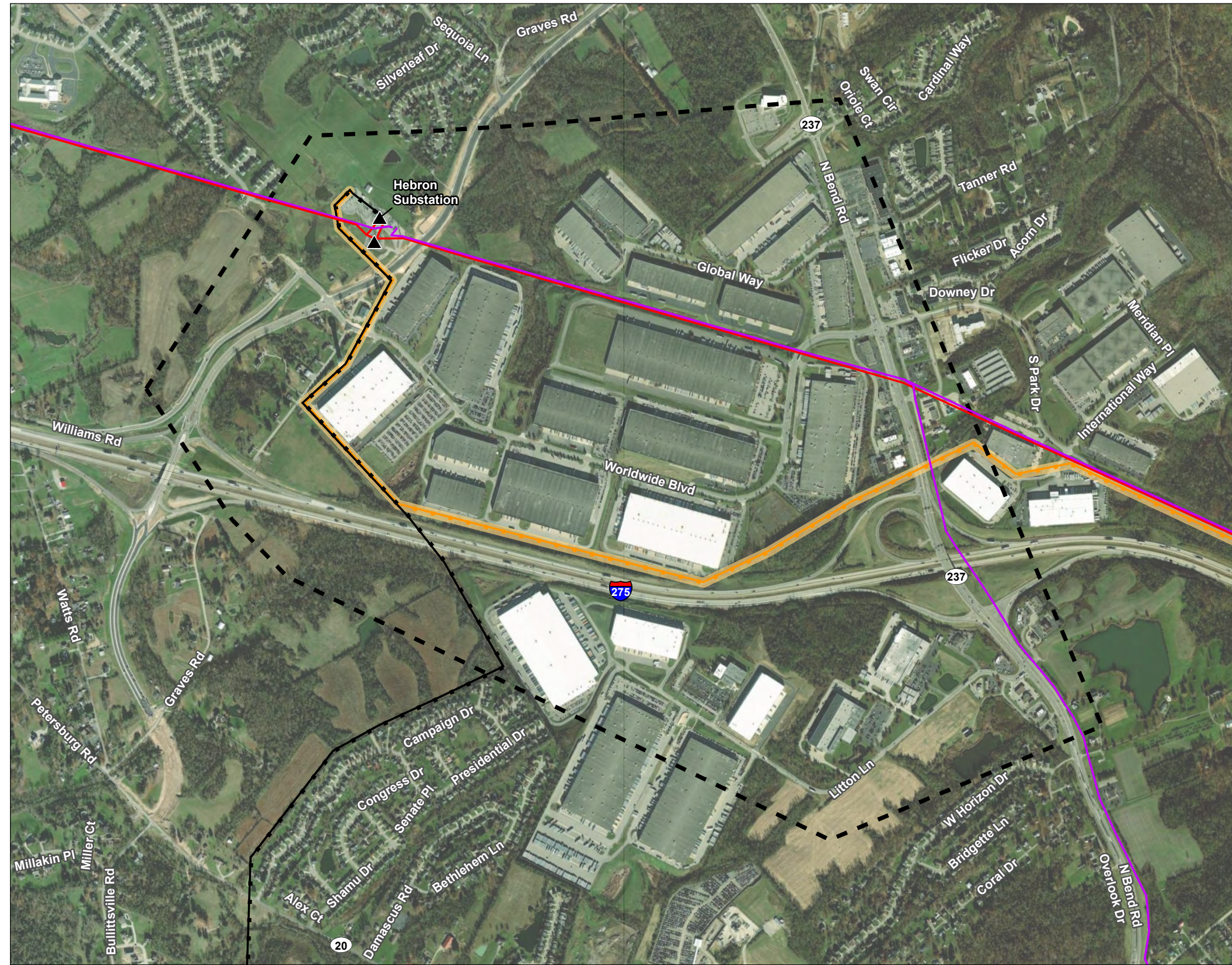
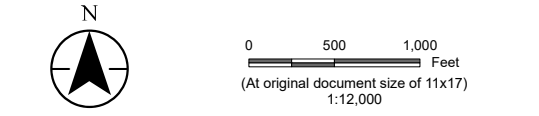
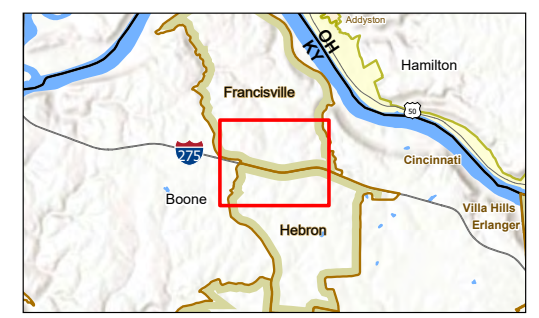


Figure No. **A-2**
 Title **Project Location - Orthophotography**

Client/Project: Duke Midwest Hebron to Oakbrook 138 kV Transmission Line Siting Project 193708666
 Project Location: Boone Co., Kentucky Prepared by PM on 2021-11-09 TR by BT on 2021-11-09 IR by DB on 2021-11-11



- Legend
- Study Area
 - Existing Substation
 - Duke-owned Existing 69 kV Transmission Line
 - Duke-owned Existing 138 kV Transmission Line
 - Foreign Owned Existing Transmission Line
 - Proposed EKPC Transmission Line
 - Proposed EKPC Transmission Line 100ft ROW



Notes
 1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKPC
 3. Background: Esri World Imagery



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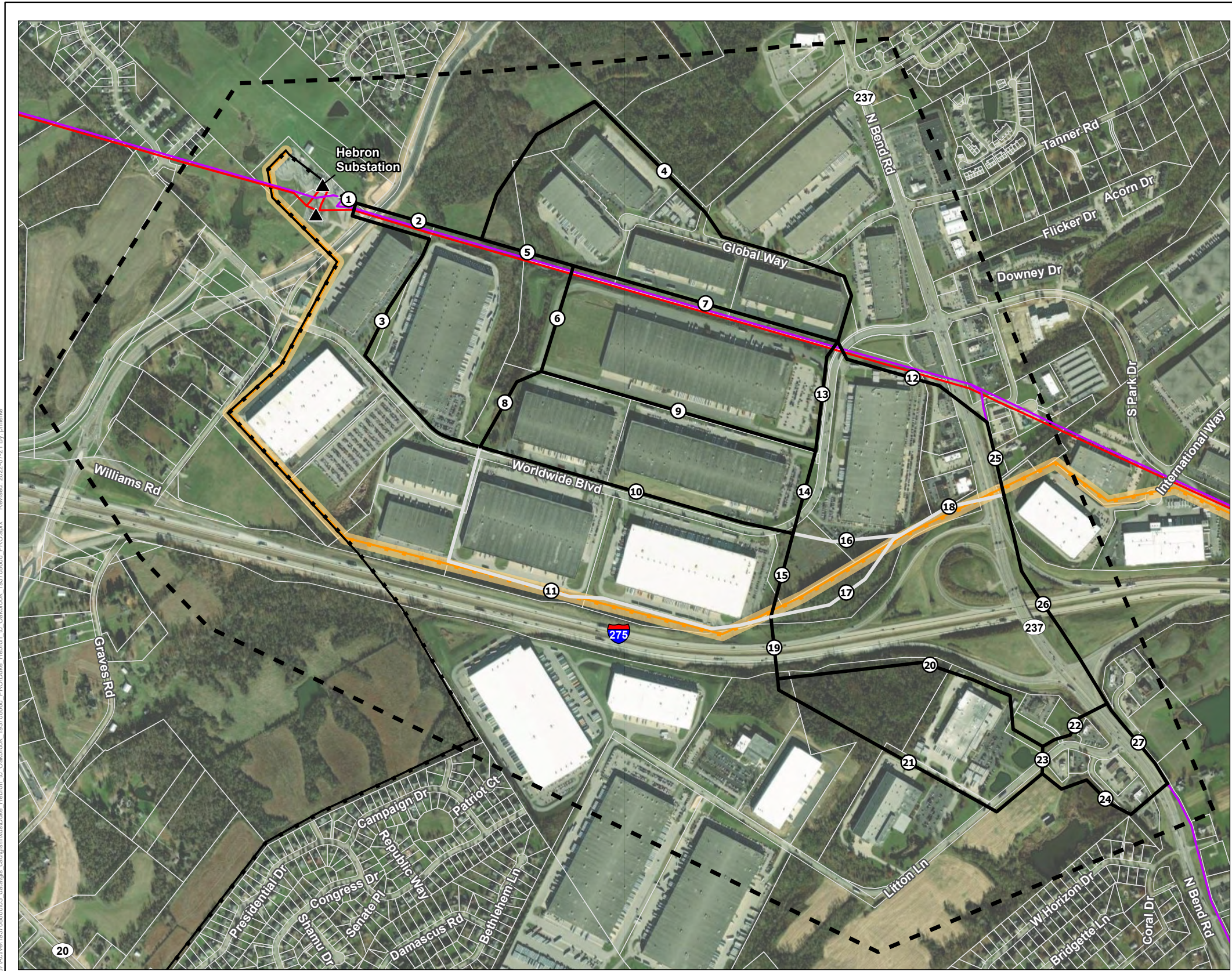


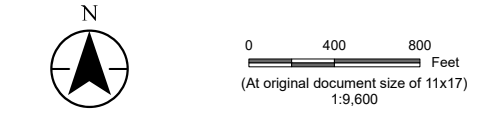
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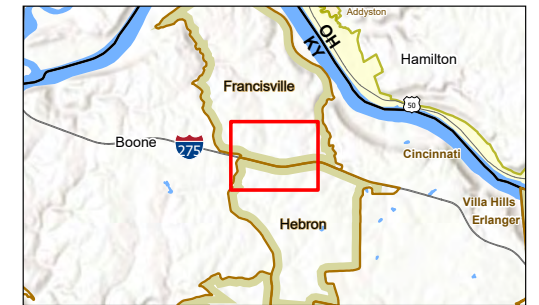
Segment Network

Client/Project: Duke Midwest Hebron to Oakbrook 138 kV Transmission Line Siting Project 193708666
 Project Location: Boone Co., Kentucky Prepared by PM on 2022-07-14 TR by BT on 2021-11-09 IR by TR on 2021-07-21



Legend

- Study Area
- Existing Substation
- Segment Network
- Segments Removed From Study (EKPC Conflict)
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Foreign Owned Existing Transmission Line
- Proposed EKPC Transmission Line
- Proposed EKPC Transmission Line 100ft ROW
- Parcel Boundary



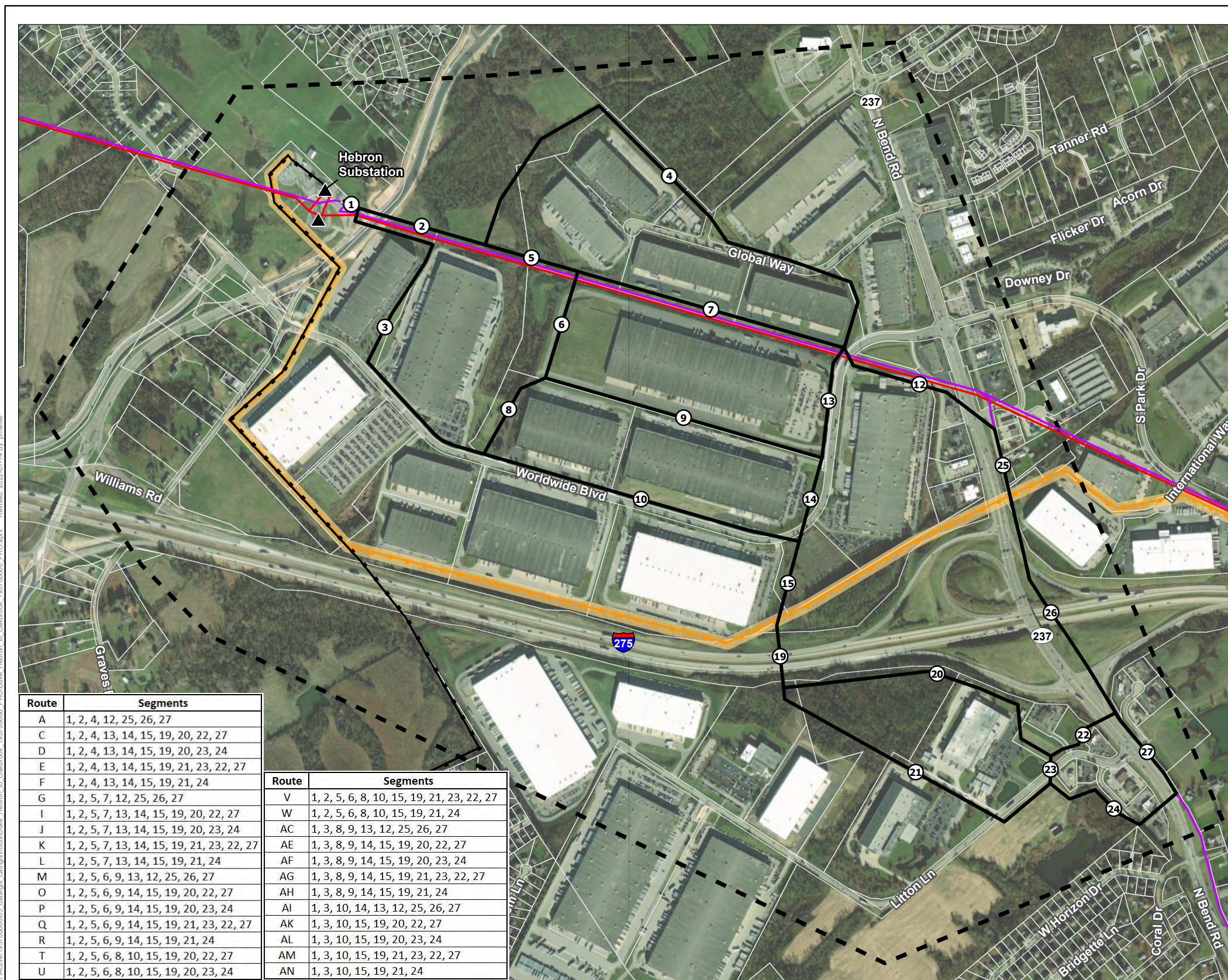
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1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKPC
3. Background: Esri World Imagery



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Route	Segments
A	1, 2, 4, 12, 25, 26, 27
C	1, 2, 4, 13, 14, 15, 19, 20, 22, 27
D	1, 2, 4, 13, 14, 15, 19, 20, 23, 24
E	1, 2, 4, 13, 14, 15, 19, 21, 23, 22, 27
F	1, 2, 4, 13, 14, 15, 19, 21, 24
G	1, 2, 5, 7, 12, 25, 26, 27
I	1, 2, 5, 7, 13, 14, 15, 19, 20, 22, 27
J	1, 2, 5, 7, 13, 14, 15, 19, 20, 23, 24
K	1, 2, 5, 7, 13, 14, 15, 19, 21, 23, 22, 27
L	1, 2, 5, 7, 13, 14, 15, 19, 21, 24
M	1, 2, 5, 6, 9, 13, 12, 25, 26, 27
O	1, 2, 5, 6, 9, 14, 15, 19, 20, 22, 27
P	1, 2, 5, 6, 9, 14, 15, 19, 20, 23, 24
Q	1, 2, 5, 6, 9, 14, 15, 19, 21, 23, 22, 27
R	1, 2, 5, 6, 9, 14, 15, 19, 21, 24
T	1, 2, 5, 6, 8, 10, 15, 19, 20, 22, 27
U	1, 2, 5, 6, 8, 10, 15, 19, 20, 23, 24

Route	Segments
V	1, 2, 5, 6, 8, 10, 15, 19, 21, 23, 22, 27
W	1, 2, 5, 6, 8, 10, 15, 19, 21, 24
AC	1, 3, 8, 9, 13, 12, 25, 26, 27
AE	1, 3, 8, 9, 14, 15, 19, 20, 22, 27
AF	1, 3, 8, 9, 14, 15, 19, 20, 23, 24
AG	1, 3, 8, 9, 14, 15, 19, 21, 23, 22, 27
AH	1, 3, 8, 9, 14, 15, 19, 21, 24
AI	1, 3, 10, 14, 13, 12, 25, 26, 27
AK	1, 3, 10, 15, 19, 20, 22, 27
AL	1, 3, 10, 15, 19, 20, 23, 24
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Figure No.

A-4

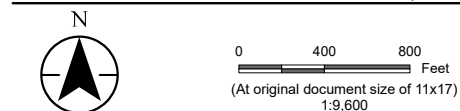
Title

Route Alternatives

Client/Project 193708666

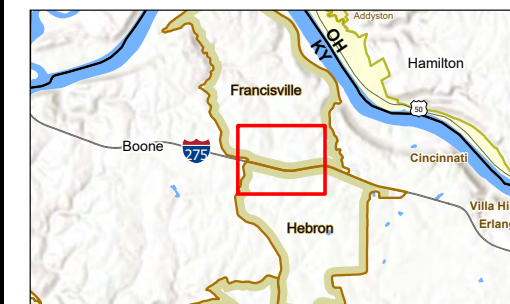
Duke Midwest
Hebron to Oakbrook 138 kV Transmission Line
Siting Project

Project Location Boone Co., Kentucky
Prepared by PM on 2021-11-09
TR by BT on 2021-11-09
IR by DB on 2021-11-11



Legend

- Study Area
- Existing Substation
- Segment Network
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Foreign Owned Existing Transmission Line
- Proposed EKPC Transmission Line
- Proposed EKPC Transmission Line 100ft ROW
- Parcel Boundary



Notes
 1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKPC
 3. Background: Esri World Imagery



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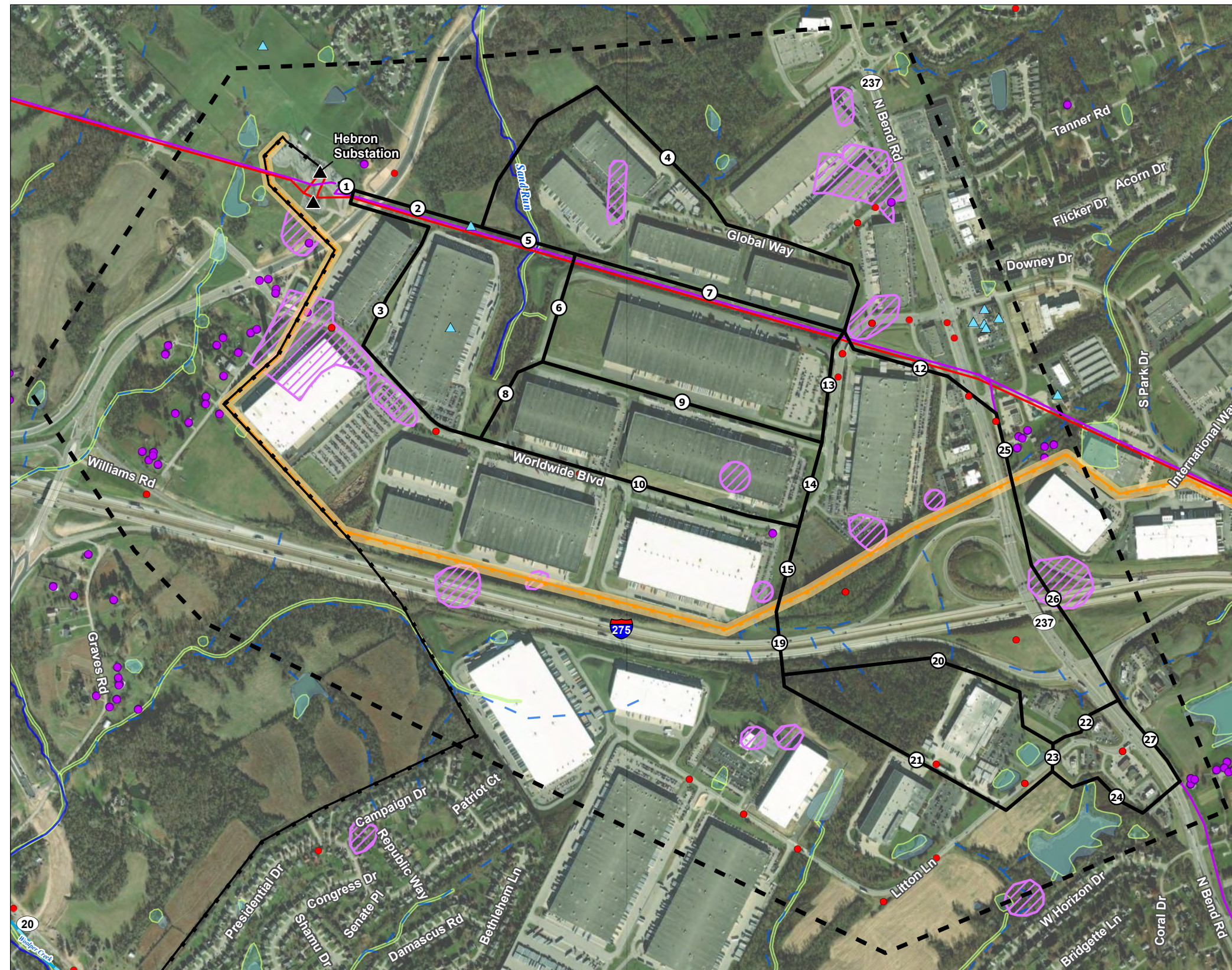


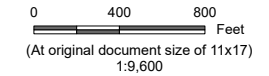
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A-5

Title

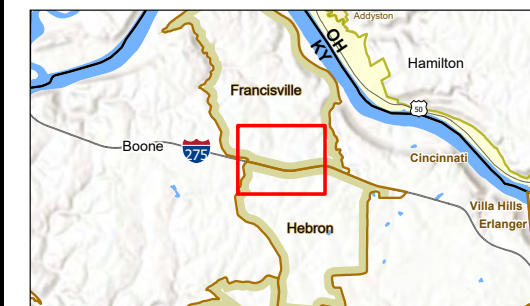
Environmental and Cultural Resources

Client/Project	193708666
Duke Midwest Hebron to Oakbrook 138 kV Transmission Line Siting Project	
Project Location	Boone Co., Kentucky
	Prepared by PM on 2021-11-04 TR by BT on 2021-11-09 IR by DB on 2021-11-11



Legend

- Study Area
- Existing Substation
- Segment Network
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Foreign Owned Existing Transmission Line
- Proposed EKPC Transmission Line
- Proposed EKPC Transmission Line 100ft ROW
- Historic Structure - Eligibility Undetermined
- Archaeological Inventory Site - Eligibility Undetermined
- Potential Contamination Site
- Water Well
- 303d Impaired Stream
- National Wetlands Inventory Feature
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Waterbody



- Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EPA, USFWS, Weller, EKPC
 3. Background: Esri World Imagery



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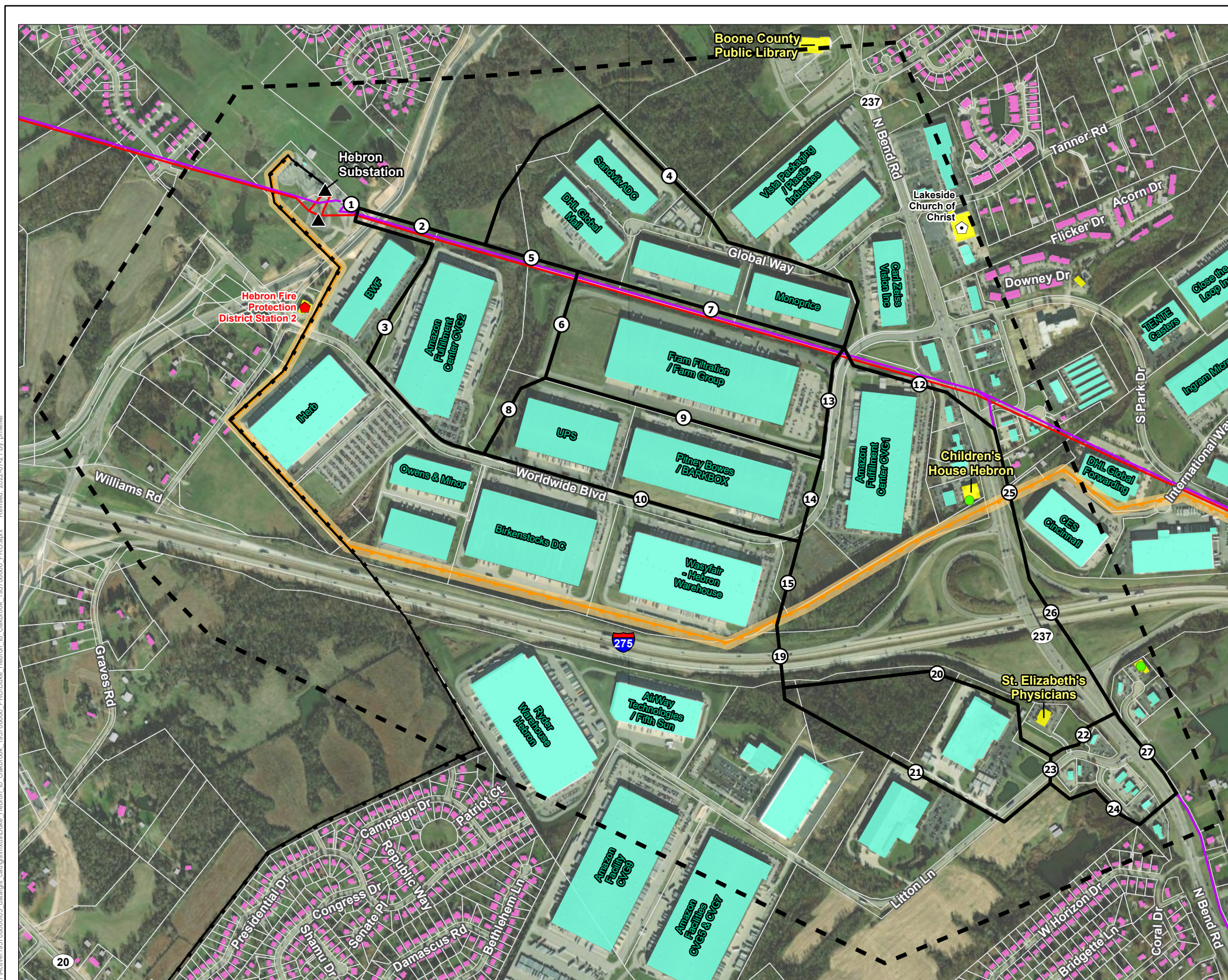


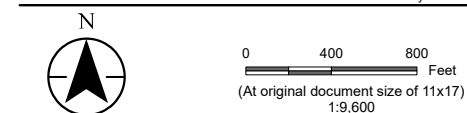
Figure No.

A-6

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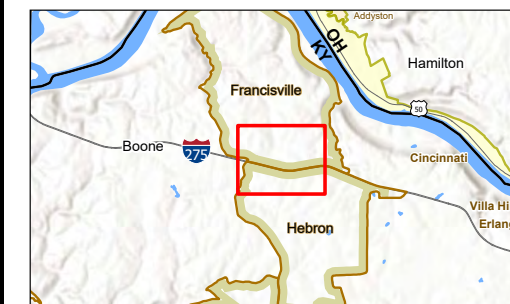
Land Use and Social Constraints

Client/Project: Duke Midwest Hebron to Oakbrook 138 kV Transmission Line Siting Project 193708666
 Project Location: Boone Co., Kentucky Prepared by PM on 2021-11-04 TR by BT on 2021-11-09 IR by DB on 2021-11-11



Legend

- Study Area
- Existing Substation
- Segment Network
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Foreign Owned Existing Transmission Line
- Proposed EKPC Transmission Line
- Proposed EKPC Transmission Line 100ft ROW
- School
- Place of Worship
- Child Care Facility
- Fire Station
- Parcel Boundary
- Structure Use**
- Commercial & Industrial
- Community Facility
- Residential
- Outbuilding



Notes
 1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, Esri, HIFLD, Microsoft, EKPC
 3. Background: Esri World Imagery



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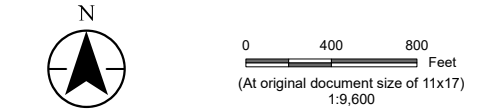
Figure No.

A-7

Title

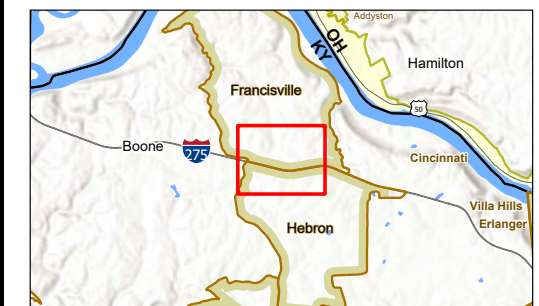
Engineering Constraints

Client/Project	193708666
Duke Midwest Hebron to Oakbrook 138 kV Transmission Line Siting Project	
Project Location	Boone Co., Kentucky
Prepared by PM on	2021-11-04
TR by BT on	2021-11-09
IR by DB on	2021-11-11



Legend

- Study Area
- Existing Substation
- Segment Network
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Foreign Owned Existing Transmission Line
- Proposed EKPC Transmission Line
- Proposed EKPC Transmission Line 100ft ROW
- Duke Existing Distribution Line
- Duke Existing Gas Main
- Tall Structure
- Sewer Line
- Stormwater Line
- Water Line
- KYDOT Graves Rd Widening Project
- 10ft Elevation Contour
- Slope Greater Than 20%



Notes

- Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
- Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, FAA, USDA, FEMA, EKPC
- Background: Esri World Imagery



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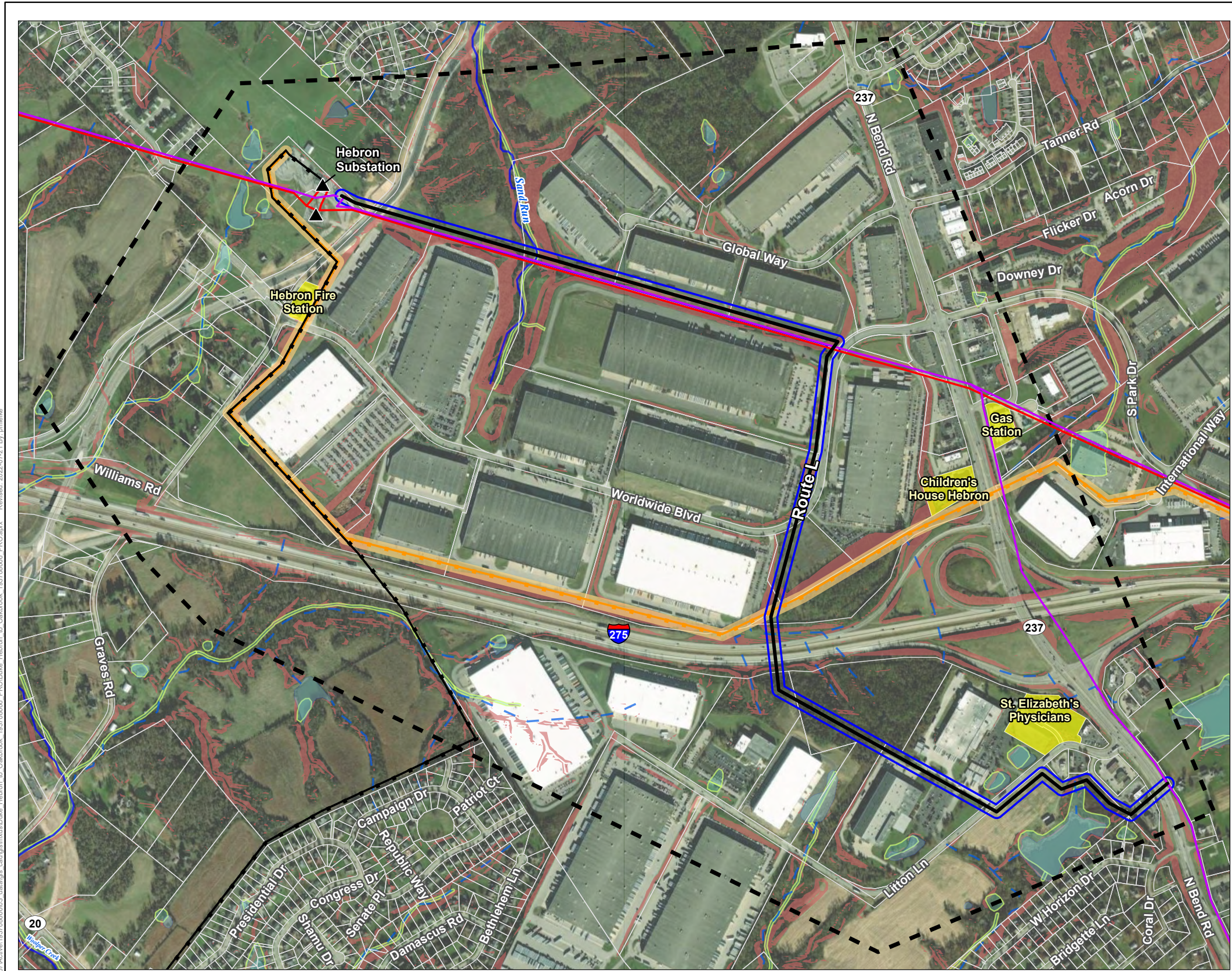
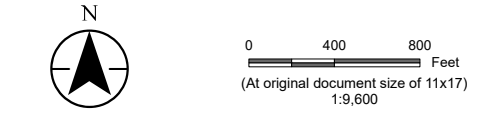


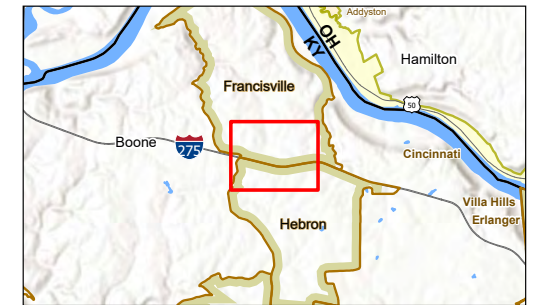
Figure No.
A-8

Title
Preferred Route

Client/Project: Duke Midwest Hebron to Oakbrook 138 kV Transmission Line Siting Project 193708666
 Project Location: Boone Co., Kentucky Prepared by PM on 2022-07-11 TR by BT on 2021-11-09 IR by TR on 2022-07-11



- Legend
- Study Area
 - Existing Substation
 - Route L
 - Preferred Route ROW
 - Duke-owned Existing 69 kV Transmission Line
 - Duke-owned Existing 138 kV Transmission Line
 - Foreign Owned Existing Transmission Line
 - Proposed EKPC Transmission Line
 - Proposed EKPC Transmission Line 100ft ROW
 - Parcel Boundary
 - Routing Land Use Constraints
 - Slope Greater Than 20%
 - National Wetlands Inventory Feature
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Waterbody



Notes
 1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, USFWS
 3. Background: Esri World Imagery



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HEBRON TO OAKBROOK 138 KV TRANSMISSION LINE SITING STUDY

APPENDIX B

Tables



Table 1. Data Sources

Category	Sub-Category	Source	Published Date of Data*
Ecological Resources	Potential Environmental Contamination	United States Environmental Protection Agency	11/5/2020
	Critical Habitat	USFWS	2/17/2021
	Wetlands	USFWS National Wetlands Inventory (NWI)	2/25/2021
	Streams & Waterbodies	United States Geological Survey (USGS) National Hydrography Dataset (NHD)	2/25/2021
	Impaired Waters	United States Environmental Protection Agency	5/1/2015
	Protected Species	USFWS	11/17/2021
Land Use	Existing infrastructure	Duke Energy	11/23/2021
		PennWell Map Search	9/28/2020
	Roads	ArcGIS North America Detailed Streets	11/19/2020
	Pipelines	National Pipeline Mapping System	11/2/2021
		US Energy Information Administration (USEIA) Homeland Infrastructure Foundation-Level Data (HIFLD)	2/1/2018
	Railroads	Homeland Infrastructure Foundation-Level Data (HIFLD)	4/9/2019
	Building Footprints	Microsoft	4/29/2020
	Institutions (hospitals, places of worship, schools, daycares)	ESRI	11/1/2021
	Land Use	National Land Cover Dataset (NLCD)	2019
		U.S. Department of Agriculture (USDA) National Agriculture Imagery Program	2019
	Soils	Natural Resources Conservation Services	12/11/2018
	Protected Lands	USGS Protected Areas Database – US	2/19/2021
		National Conservation Easement Database (NCED)	8/28/2020
	Cell Towers and Antennas	Homeland Infrastructure Foundation-Level Data	4/7/2021
Planned Projects	Boone County	11/11/2021	

Category	Sub-Category	Source	Published Date of Data*
	Municipal Utilities (Sewer, Stormwater, Fiber Lines)	Boone County	11/16/2021
Cultural	Archaeological and Cultural Resources	State Historic Preservation Office (SPHO) (Weller & Associates, Inc. Report)	12/3/2021
	Cultural Resources	National Park Service (NPS) National Register of Historic Places (NRHP)	9/17/2020
	Historic or Scenic Byways	Federal Highway Administration	5/26/2017
	Cemeteries	Environmental Systems Research Institute (ESRI)	2/11/2020
		SHPO (Weller & Associates, Inc. Report)	12/3/2021
	Historic Structures	SHPO (Weller & Associates, Inc. Report)	12/3/2021
	Parcel Data	Duke Energy	11/9/2021
	Elevation and Slope	USDA	2002-2017
	Flood Areas	FEMA Flood Hazard Map	11/1/2021
	Airports and Airport Equipment	Federal Aviation Administration (FAA)	5/24/2021
	Karst Geology	USFWS	2014
	Geological Areas	USGS	6/18/2018
	Aerial imagery	U.S. Department of Agriculture (USDA) National Agriculture Imagery Program	2019

*Data acquisition date used when vintage date unavailable.

Table 2. Criteria Group, Criteria, and Sub-Criteria Weights

Criteria Group & Weight		Criteria & Weight		Sub-Criteria & Weight		
Ecology	30%	Wetlands	20%	Acres of PFO/PSS wetlands in ROW	70%	
				Acres of PEM, PAB, PUB wetlands and riverine in ROW	30%	
		Streams	20%	Number of streams crossed by centerline		100%
		Forest	35%	Acres of forested land within ROW		100%
		Protected Species	5%	Count of Federal & state T&E occurrences within 1,000 feet of centerline		100%
		Floodplain	20%	Linear feet of floodway crossed by centerline		85%
Linear feet of 100-year floodplain crossed by centerline				15%		
Land Use	35%	Residences	25%	Number of residences within the ROW		0%
				Number of residences within 200 feet of ROW		60%
				Number of residences between 200-500 feet of ROW		40%
		Business/Commercial/Industrial	15%	Number of businesses, commercial, and industrial buildings within 250 feet of centerline		100%
		Properties Crossed	10%	Number of properties crossed by ROW		100%
		Institutional Land Use	15%	Number of institutional uses crossed by ROW		70%
				Number of institutional uses within 1,000 feet of centerline		30%
		Sensitive Lands	20%	Acres of sensitive lands within ROW		70%
Acres of sensitive lands within 1,000 feet of centerline				30%		
Agricultural & Industrial Uses	5%	Acres of agricultural and other industrial uses in ROW		100%		
New easement required	10%	Acres of new easement required		100%		
Cultural	0%	NRHP Listed Resources	40%	Number of NRHP listed resources within 1,000 feet of centerline		100%
		State Architectural Resources	30%	Number of state historic resources within 1,000 feet of centerline		100%
		Archaeological Sites	15%	Number of known archaeological resources in ROW		100%
		Cemeteries	15%	Number of cemeteries in ROW		100%

Criteria Group & Weight		Criteria & Weight		Sub-Criteria & Weight	
Engineering	35%	Route Length	20%	Length of route in linear feet	100%
		Highway & Rail Crossings	10%	Number of highway, road, or railroad crossings	100%
		Slope	15%	Linear feet of centerline within slope >20%	100%
		Angles	20%	Number of turn angles >20 degrees	100%
		Span	5%	Linear feet of longest span (if a span greater than 400 feet is required)	100%
		Other Linear Utilities	20%	Length or Route with underground utilities in ROW	100%
		Paralleling Linear Infrastructure	10%	Percent of centerline not paralleling existing transmission ROW	100%

PAB- Palustrine Aquatic Bed, PEM- Palustrine Emergent Wetland, PFO- Palustrine Forested Wetland, PSS- Palustrine Scrub/Shrub Wetland, T&E- Threatened and Endangered Species. Wetland types based on Cowardin classification (Cowardin et al. 1979). Sub-criteria with gray shading indicate there were no data recorded for any of the routes.

Table 3. Weighted Results Table

Route	Segments	Route Length (mi)	ECOLOGY CRITERIA GROUP																				
			Streams			Wetlands			Forest			Floodplain			Protected Species								
			Stream crossings by centerline (count)			PFO & PSS wetlands in ROW (acres)			PEM, PAB, PUB and riverine in ROW (acres)			Forested land in ROW (acres)			Floodway crossed by centerline (feet)			100-Year floodplain crossed by centerline (feet)			Federal and state threatened and endangered species occurrences within 1,000 feet of centerline (count)		
Criteria Group Weight:			30%			30%			30%			30%			30%			30%					
Criteria Weight:			20%			20%			20%			35%			20%			5%					
Sub-Criteria Weight:			100%			70%			30%			100%			85%			15%			100%		
Weighted Multiplier:			0.0600			0.0420			0.0180			0.1050			0.0510			0.0090			0.0150		
			Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value
ROUTES																							
A	1, 2, 4, 12, 25, 26, 27	1.99	2	25	1.50	0.06	100	4.20	0.00	0	0.00	5.08	46	4.85	0.00	0	0.00	0.00	0	0.00	0	0	0.00
C	1, 2, 4, 13, 14, 15, 19, 20, 22, 27	2.37	4	75	4.50	0.06	100	4.20	0.00	0	0.00	9.35	97	10.16	0.00	0	0.00	0.00	0	0.00	0	0	0.00
D	1, 2, 4, 13, 14, 15, 19, 20, 23, 24	2.37	5	100	6.00	0.06	100	4.20	0.05	100	1.80	9.62	100	10.50	0.00	0	0.00	0.00	0	0.00	0	0	0.00
E	1, 2, 4, 13, 14, 15, 19, 21, 23, 22, 27	2.43	2	25	1.50	0.06	100	4.20	0.00	0	0.00	8.21	83	8.75	0.00	0	0.00	0.00	0	0.00	0	0	0.00
F	1, 2, 4, 13, 14, 15, 19, 21, 24	2.35	3	50	3.00	0.06	100	4.20	0.05	100	1.80	8.48	87	9.08	0.00	0	0.00	0.00	0	0.00	0	0	0.00
G	1, 2, 5, 7, 12, 25, 26, 27	1.69	2	25	1.50	0.05	84	3.55	0.00	0	0.00	2.53	16	1.67	0.00	0	0.00	0.00	0	0.00	0	0	0.00
I	1, 2, 5, 7, 13, 14, 15, 19, 20, 22, 27	2.07	4	75	4.50	0.05	84	3.55	0.00	0	0.00	6.80	66	6.98	0.00	0	0.00	0.00	0	0.00	0	0	0.00
J	1, 2, 5, 7, 13, 14, 15, 19, 20, 23, 24	2.07	5	100	6.00	0.05	84	3.55	0.05	100	1.80	7.06	70	7.32	0.00	0	0.00	0.00	0	0.00	0	0	0.00
K	1, 2, 5, 7, 13, 14, 15, 19, 21, 23, 22, 27	2.13	2	25	1.50	0.05	84	3.55	0.00	0	0.00	5.66	53	5.56	0.00	0	0.00	0.00	0	0.00	0	0	0.00
L	1, 2, 5, 7, 13, 14, 15, 19, 21, 24	2.05	3	50	3.00	0.05	84	3.55	0.05	100	1.80	5.93	56	5.90	0.00	0	0.00	0.00	0	0.00	0	0	0.00
M	1, 2, 5, 6, 9, 13, 12, 25, 26, 27	2.02	2	25	1.50	0.05	84	3.55	0.00	0	0.00	2.53	16	1.67	0.00	0	0.00	0.00	0	0.00	0	0	0.00
O	1, 2, 5, 6, 9, 14, 15, 19, 20, 22, 27	2.08	4	75	4.50	0.05	84	3.55	0.00	0	0.00	6.80	66	6.98	0.00	0	0.00	0.00	0	0.00	0	0	0.00
P	1, 2, 5, 6, 9, 14, 15, 19, 20, 23, 24	2.08	5	100	6.00	0.05	84	3.55	0.05	100	1.80	7.06	70	7.32	0.00	0	0.00	0.00	0	0.00	0	0	0.00
Q	1, 2, 5, 6, 9, 14, 15, 19, 21, 23, 22, 27	2.14	2	25	1.50	0.05	84	3.55	0.00	0	0.00	5.66	53	5.56	0.00	0	0.00	0.00	0	0.00	0	0	0.00
R	1, 2, 5, 6, 9, 14, 15, 19, 21, 24	2.06	3	50	3.00	0.05	84	3.55	0.05	100	1.80	5.93	56	5.90	0.00	0	0.00	0.00	0	0.00	0	0	0.00
T	1, 2, 5, 6, 8, 10, 15, 19, 20, 22, 27	2.16	4	75	4.50	0.05	84	3.55	0.00	0	0.00	7.19	71	7.47	0.00	0	0.00	0.00	0	0.00	0	0	0.00
U	1, 2, 5, 6, 8, 10, 15, 19, 20, 23, 24	2.17	5	100	6.00	0.05	84	3.55	0.05	100	1.80	7.46	74	7.81	0.00	0	0.00	0.00	0	0.00	0	0	0.00
V	1, 2, 5, 6, 8, 10, 15, 19, 21, 23, 22, 27	2.22	2	25	1.50	0.05	84	3.55	0.00	0	0.00	6.05	58	6.05	0.00	0	0.00	0.00	0	0.00	0	0	0.00
W	1, 2, 5, 6, 8, 10, 15, 19, 21, 24	2.14	3	50	3.00	0.05	84	3.55	0.05	100	1.80	6.32	61	6.39	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AC	1, 3, 8, 9, 13, 12, 25, 26, 27	2.23	1	0	0.00	0.00	0	0.00	0.00	0	0.00	1.55	4	0.45	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AE	1, 3, 8, 9, 14, 15, 19, 20, 22, 27	2.30	3	50	3.00	0.00	0	0.00	0.00	0	0.00	5.82	55	5.77	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AF	1, 3, 8, 9, 14, 15, 19, 20, 23, 24	2.30	4	75	4.50	0.00	0	0.00	0.05	100	1.80	6.09	58	6.10	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AG	1, 3, 8, 9, 14, 15, 19, 21, 23, 22, 27	2.36	1	0	0.00	0.00	0	0.00	0.00	0	0.00	4.68	41	4.35	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AH	1, 3, 8, 9, 14, 15, 19, 21, 24	2.28	2	25	1.50	0.00	0	0.00	0.05	100	1.80	4.95	45	4.68	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AI	1, 3, 10, 14, 13, 12, 25, 26, 27	2.27	1	0	0.00	0.00	0	0.00	0.00	0	0.00	1.19	0	0.00	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AK	1, 3, 10, 15, 19, 20, 22, 27	2.07	3	50	3.00	0.00	0	0.00	0.00	0	0.00	5.46	51	5.32	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AL	1, 3, 10, 15, 19, 20, 23, 24	2.08	4	75	4.50	0.00	0	0.00	0.05	100	1.80	5.73	54	5.66	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AM	1, 3, 10, 15, 19, 21, 23, 22, 27	2.13	1	0	0.00	0.00	0	0.00	0.00	0	0.00	4.32	37	3.90	0.00	0	0.00	0.00	0	0.00	0	0	0.00
AN	1, 3, 10, 15, 19, 21, 24	2.05	2	25	1.50	0.00	0	0.00	0.05	100	1.80	4.59	40	4.23	0.00	0	0.00	0.00	0	0.00	0	0	0.00
Min			1	--	--	0.00	--	--	0.00	--	--	1.19	--	--	0.00	--	--	0.00	--	--	0	--	--
Max			5	--	--	0.06	--	--	0.05	--	--	9.62	--	--	0.0	--	--	0.00	--	--	0	--	--
Range			4	--	--	0.06	--	--	0.05	--	--	8.43	--	--	0.0	--	--	0.00	--	--	0	--	--
Criteria Description:			National Hydrography Dataset perennial (46006) and intermittent (46003) streams. Visually inspected other stream categories for evidence of stream channel on aerial. Stream feature presence verified during field reconnaissance where possible.			National Wetland Inventory Data PFO and PSS wetlands. Wetland feature presence not verified during field reconnaissance.			National Wetland Inventory Data PEM, PAB, PUB and Riverine wetlands. Wetland feature presence not verified during field reconnaissance.			Forested land digitized from most recent Aerial Imagery (NAIP).			FEMA Flood Hazard Dataset features that have a determined flood zone sub-type as Floodway.			FEMA Flood Hazard Dataset features that have a determined flood zone type as A.			1000 ft buffer of centerline that intersects federal and state threatened and endangered species polygons.		

Table 3. Weighted Results Table

Route	Segments	Route Length (mi)	LAND USE CRITERIA GROUP																	
			Institutional Land Use						Sensitive Areas						Agriculture & Industrial Uses			Easement Required		
			Institutional uses within ROW (count)			Institutional uses within 1,000 feet of ROW (count)			Sensitive areas within ROW (acres)			Sensitive areas within 1,000 feet of ROW (acres)			Agricultural and Industrial land use in ROW (acres)			New easement required (acres)		
Criteria Group Weight:			35%			35%			35%			35%			35%					
Criteria Weight:			15%			15%			20%			20%			5%			10%		
Sub-Criteria Weight:			70%			30%			70%			30%			100%			100%		
Weighted Multiplier:			0.0368			0.0158			0.0490			0.0210			0.0175			0.0350		
			Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value
ROUTES																				
A	1, 2, 4, 12, 25, 26, 27	1.99	0	0	0.00	5	100	1.58	0.00	0	0.00	17.06	100	2.10	13.33	23	0.40	15.15	36	1.26
C	1, 2, 4, 13, 14, 15, 19, 20, 22, 27	2.37	1	100	3.68	3	33	0.53	0.00	0	0.00	17.06	100	2.10	17.56	74	1.30	24.90	90	3.14
D	1, 2, 4, 13, 14, 15, 19, 20, 23, 24	2.37	1	100	3.68	3	33	0.53	0.00	0	0.00	17.06	100	2.10	18.24	83	1.44	26.78	100	3.50
E	1, 2, 4, 13, 14, 15, 19, 21, 23, 22, 27	2.43	1	100	3.68	3	33	0.53	0.00	0	0.00	17.06	100	2.10	18.33	84	1.46	25.36	92	3.23
F	1, 2, 4, 13, 14, 15, 19, 21, 24	2.35	0	0	0.00	4	67	1.05	0.00	0	0.00	17.06	100	2.10	18.42	85	1.48	26.24	97	3.39
G	1, 2, 5, 7, 12, 25, 26, 27	1.69	0	0	0.00	4	67	1.05	0.00	0	0.00	0.71	4	0.09	11.48	0	0.00	8.58	0	0.00
I	1, 2, 5, 7, 13, 14, 15, 19, 20, 22, 27	2.07	1	100	3.68	2	0	0.00	0.00	0	0.00	0.71	4	0.09	15.68	51	0.90	18.32	54	1.87
J	1, 2, 5, 7, 13, 14, 15, 19, 20, 23, 24	2.07	1	100	3.68	2	0	0.00	0.00	0	0.00	0.71	4	0.09	16.36	60	1.04	20.21	64	2.24
K	1, 2, 5, 7, 13, 14, 15, 19, 21, 23, 22, 27	2.13	1	100	3.68	2	0	0.00	0.00	0	0.00	0.71	4	0.09	16.46	61	1.06	18.78	56	1.96
L	1, 2, 5, 7, 13, 14, 15, 19, 21, 24	2.05	0	0	0.00	3	33	0.53	0.00	0	0.00	0.71	4	0.09	16.54	62	1.08	19.66	61	2.13
M	1, 2, 5, 6, 9, 13, 12, 25, 26, 27	2.02	0	0	0.00	4	67	1.05	0.00	0	0.00	0.00	0	0.00	15.44	48	0.85	14.10	30	1.06
O	1, 2, 5, 6, 9, 14, 15, 19, 20, 22, 27	2.08	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	15.82	53	0.93	21.20	69	2.43
P	1, 2, 5, 6, 9, 14, 15, 19, 20, 23, 24	2.08	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	16.50	61	1.07	23.09	80	2.79
Q	1, 2, 5, 6, 9, 14, 15, 19, 21, 23, 22, 27	2.14	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	16.59	62	1.09	21.66	72	2.52
R	1, 2, 5, 6, 9, 14, 15, 19, 21, 24	2.06	0	0	0.00	3	33	0.53	0.00	0	0.00	0.00	0	0.00	16.68	64	1.11	22.54	77	2.68
T	1, 2, 5, 6, 8, 10, 15, 19, 20, 22, 27	2.16	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	16.82	65	1.14	20.65	66	2.32
U	1, 2, 5, 6, 8, 10, 15, 19, 20, 23, 24	2.17	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	17.50	73	1.29	22.54	77	2.68
V	1, 2, 5, 6, 8, 10, 15, 19, 21, 23, 22, 27	2.22	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	17.59	75	1.30	21.11	69	2.41
W	1, 2, 5, 6, 8, 10, 15, 19, 21, 24	2.14	0	0	0.00	3	33	0.53	0.00	0	0.00	0.00	0	0.00	17.68	76	1.32	22.00	74	2.58
AC	1, 3, 8, 9, 13, 12, 25, 26, 27	2.23	0	0	0.00	4	67	1.05	0.00	0	0.00	0.00	0	0.00	18.43	85	1.48	17.11	47	1.64
AE	1, 3, 8, 9, 14, 15, 19, 20, 22, 27	2.30	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	18.81	90	1.57	24.21	86	3.01
AF	1, 3, 8, 9, 14, 15, 19, 20, 23, 24	2.30	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	19.49	98	1.71	26.10	96	3.37
AG	1, 3, 8, 9, 14, 15, 19, 21, 23, 22, 27	2.36	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	19.58	99	1.73	24.67	88	3.09
AH	1, 3, 8, 9, 14, 15, 19, 21, 24	2.28	0	0	0.00	3	33	0.53	0.00	0	0.00	0.00	0	0.00	19.67	100	1.75	25.55	93	3.26
AI	1, 3, 10, 14, 13, 12, 25, 26, 27	2.27	0	0	0.00	4	67	1.05	0.00	0	0.00	0.00	0	0.00	18.88	90	1.58	15.93	40	1.41
AK	1, 3, 10, 15, 19, 20, 22, 27	2.07	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	16.08	56	0.98	19.87	62	2.17
AL	1, 3, 10, 15, 19, 20, 23, 24	2.08	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	16.77	65	1.13	21.76	72	2.53
AM	1, 3, 10, 15, 19, 21, 23, 22, 27	2.13	1	100	3.68	2	0	0.00	0.00	0	0.00	0.00	0	0.00	16.85	66	1.15	20.33	65	2.26
AN	1, 3, 10, 15, 19, 21, 24	2.05	0	0	0.00	3	33	0.53	0.00	0	0.00	0.00	0	0.00	16.94	67	1.17	21.21	69	2.43
Min			0	--	--	2	--	--	0.00	--	--	0	--	--	11.48	--	--	8.58	--	--
Max			1	--	--	5	--	--	0.00	--	--	17	--	--	19.67	--	--	26.78	--	--
Range			1	--	--	3	--	--	0.00	--	--	17	--	--	8.19	--	--	18.21	--	--
Criteria Description:			Schools, hospitals, churches, child care institutional land uses within ROW. For example, two buildings in a school complex would be counted as one. Institutions were verified during field reconnaissance.			Schools, hospitals, churches, child care institutional land uses within 1000 ft of centerline. For example, two buildings in a school complex would be counted as one. Institutions were verified during field reconnaissance.			Parks, preserves, trails, agency-managed areas, golf courses and airport property within ROW. Included public library. Confirm with Duke.			Parks, preserves, trails, agency-managed areas, golf courses, and airport property within 1,000 feet of ROW. Included public library. Confirm with Duke.			Agricultural and Industrial land use was determined NAIP imagery.			Total ROW area. Variable width ROW along exiting transmission and roadways.		

Table 3. Weighted Results Table

Route	Segments	Route Length (mi)	LAND USE CRITERIA GROUP														
			Residences									Business/Commercial/Industrial			Properties Crossed		
			Residential buildings within ROW (count)			Residential buildings within 200 feet of edge of ROW (count)			Residential buildings within 200-500 feet of edge of ROW (count)			Business, Commercial, and Industrial Buildings within 250 Feet of Centerline			Properties with unique ownership crossed by ROW (count)		
Criteria Group Weight:			35%			35%			35%			35%			35%		
Criteria Weight:			25%			25%			25%			15%			10%		
Sub-Criteria Weight:			0%			60%			40%			100%			100%		
Weighted Multiplier:			0.0000			0.0525			0.0350			0.0525			0.0350		
			Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value
ROUTES																	
A	1, 2, 4, 12, 25, 26, 27	1.99	0	0	0.00	3	50	2.63	3	7	0.25	23	100	5.25	24	70	2.45
C	1, 2, 4, 13, 14, 15, 19, 20, 22, 27	2.37	0	0	0.00	2	0	0.00	2	0	0.00	21	71	3.75	24	70	2.45
D	1, 2, 4, 13, 14, 15, 19, 20, 23, 24	2.37	0	0	0.00	4	100	5.25	16	100	3.50	19	43	2.25	27	100	3.50
E	1, 2, 4, 13, 14, 15, 19, 21, 23, 22, 27	2.43	0	0	0.00	2	0	0.00	2	0	0.00	22	86	4.50	25	80	2.80
F	1, 2, 4, 13, 14, 15, 19, 21, 24	2.35	0	0	0.00	4	100	5.25	16	100	3.50	20	57	3.00	25	80	2.80
G	1, 2, 5, 7, 12, 25, 26, 27	1.69	0	0	0.00	3	50	2.63	3	7	0.25	21	71	3.75	21	40	1.40
I	1, 2, 5, 7, 13, 14, 15, 19, 20, 22, 27	2.07	0	0	0.00	2	0	0.00	2	0	0.00	19	43	2.25	21	40	1.40
J	1, 2, 5, 7, 13, 14, 15, 19, 20, 23, 24	2.07	0	0	0.00	4	100	5.25	16	100	3.50	17	14	0.75	24	70	2.45
K	1, 2, 5, 7, 13, 14, 15, 19, 21, 23, 22, 27	2.13	0	0	0.00	2	0	0.00	2	0	0.00	20	57	3.00	22	50	1.75
L	1, 2, 5, 7, 13, 14, 15, 19, 21, 24	2.05	0	0	0.00	4	100	5.25	16	100	3.50	18	29	1.50	22	50	1.75
M	1, 2, 5, 6, 9, 13, 12, 25, 26, 27	2.02	0	0	0.00	3	50	2.63	3	7	0.25	21	71	3.75	22	50	1.75
O	1, 2, 5, 6, 9, 14, 15, 19, 20, 22, 27	2.08	0	0	0.00	2	0	0.00	2	0	0.00	18	29	1.50	22	50	1.75
P	1, 2, 5, 6, 9, 14, 15, 19, 20, 23, 24	2.08	0	0	0.00	4	100	5.25	16	100	3.50	16	0	0.00	25	80	2.80
Q	1, 2, 5, 6, 9, 14, 15, 19, 21, 23, 22, 27	2.14	0	0	0.00	2	0	0.00	2	0	0.00	19	43	2.25	23	60	2.10
R	1, 2, 5, 6, 9, 14, 15, 19, 21, 24	2.06	0	0	0.00	4	100	5.25	16	100	3.50	17	14	0.75	23	60	2.10
T	1, 2, 5, 6, 8, 10, 15, 19, 20, 22, 27	2.16	0	0	0.00	2	0	0.00	2	0	0.00	18	29	1.50	20	30	1.05
U	1, 2, 5, 6, 8, 10, 15, 19, 20, 23, 24	2.17	0	0	0.00	4	100	5.25	16	100	3.50	16	0	0.00	23	60	2.10
V	1, 2, 5, 6, 8, 10, 15, 19, 21, 23, 22, 27	2.22	0	0	0.00	2	0	0.00	2	0	0.00	19	43	2.25	21	40	1.40
W	1, 2, 5, 6, 8, 10, 15, 19, 21, 24	2.14	0	0	0.00	4	100	5.25	16	100	3.50	17	14	0.75	21	40	1.40
AC	1, 3, 8, 9, 13, 12, 25, 26, 27	2.23	0	0	0.00	3	50	2.63	3	7	0.25	22	86	4.50	20	30	1.05
AE	1, 3, 8, 9, 14, 15, 19, 20, 22, 27	2.30	0	0	0.00	2	0	0.00	2	0	0.00	19	43	2.25	20	30	1.05
AF	1, 3, 8, 9, 14, 15, 19, 20, 23, 24	2.30	0	0	0.00	4	100	5.25	16	100	3.50	17	14	0.75	23	60	2.10
AG	1, 3, 8, 9, 14, 15, 19, 21, 23, 22, 27	2.36	0	0	0.00	2	0	0.00	2	0	0.00	20	57	3.00	21	40	1.40
AH	1, 3, 8, 9, 14, 15, 19, 21, 24	2.28	0	0	0.00	4	100	5.25	16	100	3.50	18	29	1.50	21	40	1.40
AI	1, 3, 10, 14, 13, 12, 25, 26, 27	2.27	0	0	0.00	3	50	2.63	3	7	0.25	22	86	4.50	20	30	1.05
AK	1, 3, 10, 15, 19, 20, 22, 27	2.07	0	0	0.00	2	0	0.00	2	0	0.00	18	29	1.50	17	0	0.00
AL	1, 3, 10, 15, 19, 20, 23, 24	2.08	0	0	0.00	4	100	5.25	16	100	3.50	16	0	0.00	20	30	1.05
AM	1, 3, 10, 15, 19, 21, 23, 22, 27	2.13	0	0	0.00	2	0	0.00	2	0	0.00	19	43	2.25	18	10	0.35
AN	1, 3, 10, 15, 19, 21, 24	2.05	0	0	0.00	4	100	5.25	16	100	3.50	17	14	0.75	18	10	0.35
Min			0	--	--	2	--	--	2	--	--	16	--	--	17	--	--
Max			0	--	--	4	--	--	16	--	--	23	--	--	27	--	--
Range			0	--	--	2	--	--	14	--	--	7	--	--	10	--	--
Criteria Description:			Occupied single family and multi-family residential dwellings. Dwelling type was verified during field reconnaissance.			Occupied single family and multi-family residential dwellings. Dwelling type was verified during field reconnaissance.			Occupied single family and multi-family residential dwellings. Dwelling type was verified during field reconnaissance.			Structure type was verified during field reconnaissance.			Parcels that intersect the ROW dissolved by owner (one owner with multiple parcels counted once).		

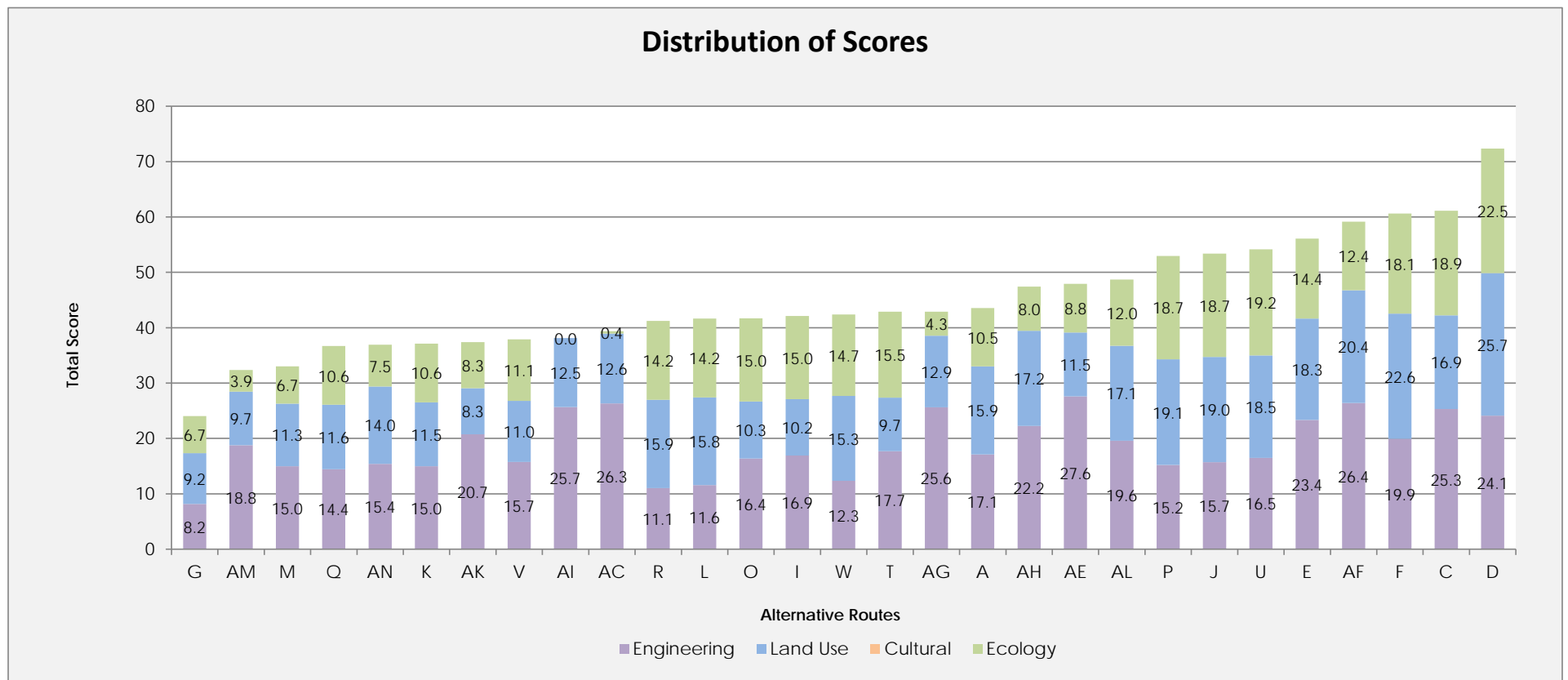
Table 3. Weighted Results Table

Route	Segments	Route Length (mi)	CULTURAL CRITERIA GROUP											
			NRHP Listed Resources			State Listed Resources			Archaeological Sites			Cemeteries		
			NRHP listed resources within 1,000 feet of centerline (count)			State listed resources within 1,000 feet of centerline (count)			Known archaeological sites within ROW (count)			Cemeteries within ROW (count)		
Criteria Group Weight:			0%			0%			0%			0%		
Criteria Weight:			40%			30%			15%			15%		
Sub-Criteria Weight:			100%			100%			100%			100%		
Weighted Multiplier:			0.0000			0.0000			0.0000			0.0000		
			Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value
ROUTES														
A	1, 2, 4, 12, 25, 26, 27	1.99	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
C	1, 2, 4, 13, 14, 15, 19, 20, 22, 27	2.37	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
D	1, 2, 4, 13, 14, 15, 19, 20, 23, 24	2.37	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
E	1, 2, 4, 13, 14, 15, 19, 21, 23, 22, 27	2.43	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
F	1, 2, 4, 13, 14, 15, 19, 21, 24	2.35	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
G	1, 2, 5, 7, 12, 25, 26, 27	1.69	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
I	1, 2, 5, 7, 13, 14, 15, 19, 20, 22, 27	2.07	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
J	1, 2, 5, 7, 13, 14, 15, 19, 20, 23, 24	2.07	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
K	1, 2, 5, 7, 13, 14, 15, 19, 21, 23, 22, 27	2.13	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
L	1, 2, 5, 7, 13, 14, 15, 19, 21, 24	2.05	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
M	1, 2, 5, 6, 9, 13, 12, 25, 26, 27	2.02	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
O	1, 2, 5, 6, 9, 14, 15, 19, 20, 22, 27	2.08	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
P	1, 2, 5, 6, 9, 14, 15, 19, 20, 23, 24	2.08	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
Q	1, 2, 5, 6, 9, 14, 15, 19, 21, 23, 22, 27	2.14	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
R	1, 2, 5, 6, 9, 14, 15, 19, 21, 24	2.06	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
T	1, 2, 5, 6, 8, 10, 15, 19, 20, 22, 27	2.16	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
U	1, 2, 5, 6, 8, 10, 15, 19, 20, 23, 24	2.17	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
V	1, 2, 5, 6, 8, 10, 15, 19, 21, 23, 22, 27	2.22	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
W	1, 2, 5, 6, 8, 10, 15, 19, 21, 24	2.14	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AC	1, 3, 8, 9, 13, 12, 25, 26, 27	2.23	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AE	1, 3, 8, 9, 14, 15, 19, 20, 22, 27	2.30	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AF	1, 3, 8, 9, 14, 15, 19, 20, 23, 24	2.30	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AG	1, 3, 8, 9, 14, 15, 19, 21, 23, 22, 27	2.36	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AH	1, 3, 8, 9, 14, 15, 19, 21, 24	2.28	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AI	1, 3, 10, 14, 13, 12, 25, 26, 27	2.27	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AK	1, 3, 10, 15, 19, 20, 22, 27	2.07	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AL	1, 3, 10, 15, 19, 20, 23, 24	2.08	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AM	1, 3, 10, 15, 19, 21, 23, 22, 27	2.13	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
AN	1, 3, 10, 15, 19, 21, 24	2.05	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
Min			0	--	--	0	--	--	0	--	--	0	--	--
Max			0	--	--	0	--	--	0	--	--	0	--	--
Range			0	--	--	0	--	--	0	--	--	0	--	--
Criteria Description:			National Register of historic places data. Sites need to be listed to qualify for this calculation. Weller data request.			Weller data request.			Weller data request.			Weller data request.		

Table 3. Weighted Results Table

Route	Segments	Route Length (mi)	ENGINEERING CRITERIA GROUP																				
			Route Length			Highway and Rail Crossings			Steep Slopes			Turn Angles			Span Length			Other Linear Utilities			Paralleling Existing Transmission		
			Route length (feet)			Highway or railroad crossings (count)			Route length with slope >20% (feet)			Turn angles > 20 degrees (count)			Span length in excess of 400 feet (feet)			Other Linear Utilities within Proposed ROW			Percentage of line not paralleling existing transmission ROW		
Criteria Group Weight:			35%			35%			35%			35%			35%			35%					
Criteria Weight:			20%			10%			15%			20%			5%			20%					
Sub-Criteria Weight:			100%			100%			100%			100%			100%			100%					
Weighted Multiplier:			0.0700			0.0350			0.0525			0.0700			0.0175			0.0700					
			Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value	Value	Normalized	Weighted Value			
ROUTES																							
A	1, 2, 4, 12, 25, 26, 27	1.99	10,506	41	2.85	4	100	3.50	1926	42	2.19	10	43	3.00	517	100	1.75	5280.7	30	2.08	51.0	49	1.73
C	1, 2, 4, 13, 14, 15, 19, 20, 22, 27	2.37	12,516	92	6.42	2	0	0.00	2335	59	3.11	17	93	6.50	285	44	0.77	7511.4	77	5.39	85.1	89	3.11
D	1, 2, 4, 13, 14, 15, 19, 20, 23, 24	2.37	12,535	92	6.46	2	0	0.00	2095	49	2.57	18	100	7.00	285	44	0.77	6518.2	56	3.92	91.6	96	3.38
E	1, 2, 4, 13, 14, 15, 19, 21, 23, 22, 27	2.43	12,840	100	7.00	2	0	0.00	2296	58	3.03	16	86	6.00	285	44	0.77	6190.3	49	3.43	85.5	89	3.13
F	1, 2, 4, 13, 14, 15, 19, 21, 24	2.35	12,420	89	6.25	2	0	0.00	2055	47	2.48	15	79	5.50	285	44	0.77	4928.9	22	1.56	91.5	96	3.37
G	1, 2, 5, 7, 12, 25, 26, 27	1.69	8,901	0	0.00	4	100	3.50	1978	44	2.31	4	0	0.00	334	56	0.98	4813.3	20	1.39	8.6	0	0.00
I	1, 2, 5, 7, 13, 14, 15, 19, 20, 22, 27	2.07	10,911	51	3.57	2	0	0.00	2387	62	3.23	11	50	3.50	102	0	0.00	7044.0	67	4.70	55.5	55	1.91
J	1, 2, 5, 7, 13, 14, 15, 19, 20, 23, 24	2.07	10,930	52	3.61	2	0	0.00	2147	51	2.69	12	57	4.00	102	0	0.00	6050.7	46	3.22	63.0	63	2.21
K	1, 2, 5, 7, 13, 14, 15, 19, 21, 23, 22, 27	2.13	11,235	59	4.15	2	0	0.00	2348	60	3.14	10	43	3.00	102	0	0.00	5722.8	39	2.74	56.8	56	1.96
L	1, 2, 5, 7, 13, 14, 15, 19, 21, 24	2.05	10,815	49	3.40	2	0	0.00	2108	50	2.60	9	36	2.50	102	0	0.00	4461.5	12	0.87	62.6	63	2.20
M	1, 2, 5, 6, 9, 13, 12, 25, 26, 27	2.02	10,646	44	3.10	4	100	3.50	1832	38	1.98	6	14	1.00	334	56	0.98	5908.2	43	3.01	42.9	40	1.39
O	1, 2, 5, 6, 9, 14, 15, 19, 20, 22, 27	2.08	10,976	53	3.69	2	0	0.00	1897	41	2.13	12	57	4.00	102	0	0.00	6459.1	55	3.83	76.0	78	2.74
P	1, 2, 5, 6, 9, 14, 15, 19, 20, 23, 24	2.08	10,995	53	3.72	2	0	0.00	1657	30	1.59	13	64	4.50	102	0	0.00	5465.9	34	2.36	83.4	87	3.04
Q	1, 2, 5, 6, 9, 14, 15, 19, 21, 23, 22, 27	2.14	11,300	61	4.26	2	0	0.00	1858	39	2.04	11	50	3.50	102	0	0.00	5138.0	27	1.87	76.7	79	2.77
R	1, 2, 5, 6, 9, 14, 15, 19, 21, 24	2.06	10,880	50	3.52	2	0	0.00	1618	29	1.50	10	43	3.00	102	0	0.00	3876.7	0	0.00	83.2	87	3.03
T	1, 2, 5, 6, 8, 10, 15, 19, 20, 22, 27	2.16	11,414	64	4.47	2	0	0.00	1231	12	0.63	14	71	5.00	102	0	0.00	7118.4	69	4.81	76.9	79	2.78
U	1, 2, 5, 6, 8, 10, 15, 19, 20, 23, 24	2.17	11,433	64	4.50	2	0	0.00	991	2	0.09	15	79	5.50	102	0	0.00	6125.2	48	3.34	84.0	88	3.07
V	1, 2, 5, 6, 8, 10, 15, 19, 21, 23, 22, 27	2.22	11,738	72	5.04	2	0	0.00	1192	10	0.54	13	64	4.50	102	0	0.00	5797.3	41	2.85	77.6	80	2.80
W	1, 2, 5, 6, 8, 10, 15, 19, 21, 24	2.14	11,318	61	4.30	2	0	0.00	952	0	0.00	12	57	4.00	102	0	0.00	4536.0	14	0.98	83.9	87	3.06
AC	1, 3, 8, 9, 13, 12, 25, 26, 27	2.23	11,795	73	5.14	4	100	3.50	3219	97	5.10	11	50	3.50	334	56	0.98	7974.9	87	6.08	58.4	58	2.03
AE	1, 3, 8, 9, 14, 15, 19, 20, 22, 27	2.30	12,125	82	5.73	2	0	0.00	3284	100	5.25	17	93	6.50	102	0	0.00	8525.8	99	6.90	88.0	92	3.23
AF	1, 3, 8, 9, 14, 15, 19, 20, 23, 24	2.30	12,144	82	5.76	2	0	0.00	3043	90	4.71	18	100	7.00	102	0	0.00	7532.6	77	5.42	94.6	100	3.50
AG	1, 3, 8, 9, 14, 15, 19, 21, 23, 22, 27	2.36	12,449	90	6.31	2	0	0.00	3245	98	5.16	16	86	6.00	102	0	0.00	7204.7	71	4.94	88.3	93	3.24
AH	1, 3, 8, 9, 14, 15, 19, 21, 24	2.28	12,029	79	5.56	2	0	0.00	3004	88	4.62	15	79	5.50	102	0	0.00	5943.3	44	3.07	94.6	100	3.50
AI	1, 3, 10, 14, 13, 12, 25, 26, 27	2.27	11,988	78	5.49	4	100	3.50	3013	88	4.64	8	29	2.00	334	56	0.98	8596.0	100	7.00	59.1	59	2.05
AK	1, 3, 10, 15, 19, 20, 22, 27	2.07	10,934	52	3.61	2	0	0.00	2361	60	3.17	14	71	5.00	102	0	0.00	7773.8	83	5.78	86.7	91	3.17
AL	1, 3, 10, 15, 19, 20, 23, 24	2.08	10,980	53	3.70	2	0	0.00	2121	50	2.63	15	79	5.50	102	0	0.00	6780.6	62	4.31	93.8	99	3.47
AM	1, 3, 10, 15, 19, 21, 23, 22, 27	2.13	11,258	60	4.19	2	0	0.00	2322	59	3.09	13	64	4.50	102	0	0.00	6452.7	55	3.82	87.0	91	3.19
AN	1, 3, 10, 15, 19, 21, 24	2.05	10,838	49	3.44	2	0	0.00	2082	48	2.54	12	57	4.00	102	0	0.00	5191.3	28	1.95	94.0	99	3.47
Min			8901	--	--	2	--	--	952	--	--	4	--	--	102	--	--	3876.7	--	--	8.6	--	--
Max			12840	--	--	4	--	--	3284	--	--	18	--	--	517	--	--	8596.0	--	--	94.6	--	--
Range			3939	--	--	2	--	--	2331	--	--	14	--	--	415	--	--	4719.3	--	--	86.0	--	--
Criteria Description:			Length determine by route centerline.						Slopes were derived from Lidar elevation data. Elevation data was converted into percent slope and then summarized by if it was greater that 20%.			Turn angles were measured at each point of inflection along the route.			Crossing a river, highway, or other access-limited area. This number should be length in feet of span exceeding 400'. For example, a span of 415ft, would be shown in this table as 15.								

Figure 1. Distribution of Quantitative Route Analysis Scores



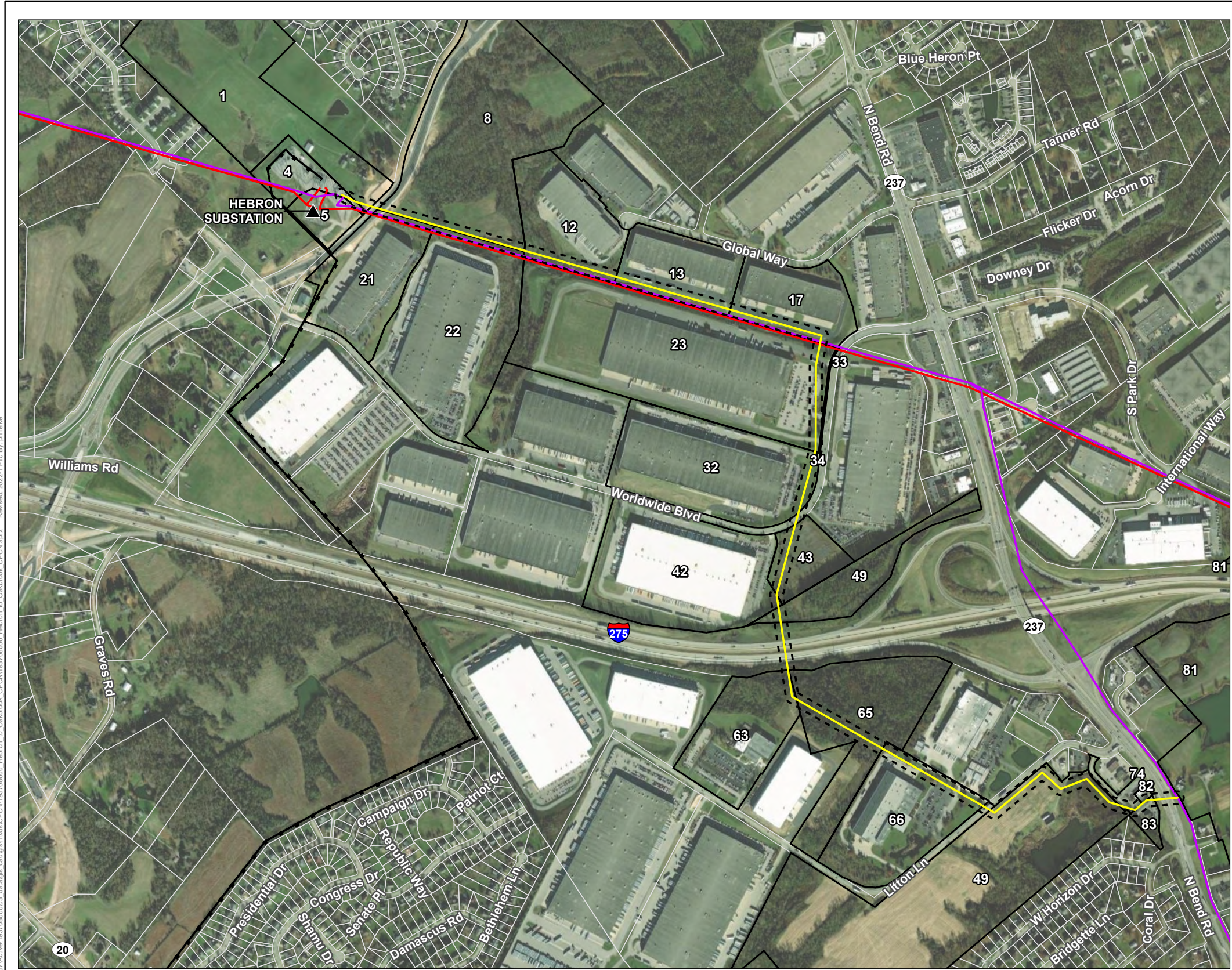
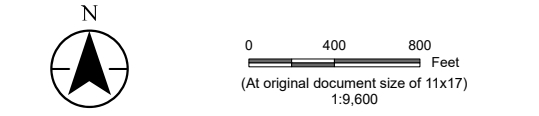


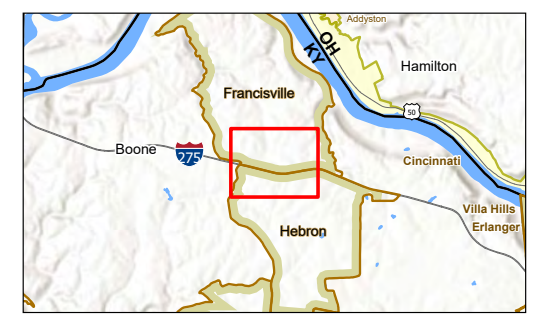
Figure No. **8**
 Title **Preferred Route**

Client/Project: Duke Energy Kentucky, Hebron to Oakbrook 138 kV Transmission Line Project
 Project Location: Boone Co., Kentucky
 Prepared by PM on 2022-08-22, TR by BT on 2021-11-09, IR by TR on 2022-09-08



- Legend
- Duke-owned Existing Substation
 - Duke-owned Existing 69 kV Transmission Line
 - Duke-owned Existing 138 kV Transmission Line
 - Foreign Owned Existing Transmission Line
 - Hebron to Oakbrook Preferred Route Centerline
 - Proposed ROW
 - Parcels Impacted by Project (Duke Unq. ID)
 - Parcel Boundary

*Exhibit reflects parcels impacted by anticipated ROW associated with preferred route at the time of CPCN submission.



- Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, USFWS
 3. Background: Esri World Imagery



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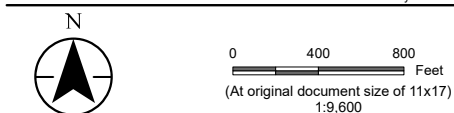
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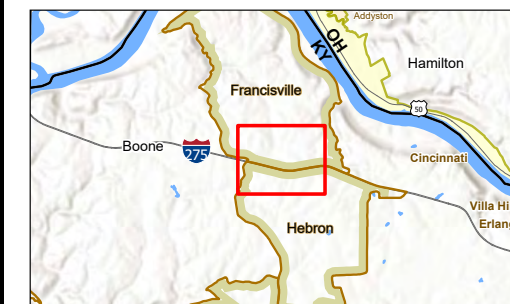
Figure No. **9**
 Title **Alternative Route Segments**

Client/Project **Duke Energy Kentucky** 193708666
Hebron to Oakbrook 138 kV Transmission Line Project

Project Location **Boone Co., Kentucky** Prepared by PM on 2022-08-23
 TR by BT on 2021-11-09
 IR by TR on 2022-09-08



- Legend
- Duke-owned Existing Substation
 - Duke-owned Existing 69 kV Transmission Line
 - Duke-owned Existing 138 kV Transmission Line
 - Foreign Owned Existing Transmission Line
 - Segment Network



- Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKPC
 3. Background: Esri World Imagery



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Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

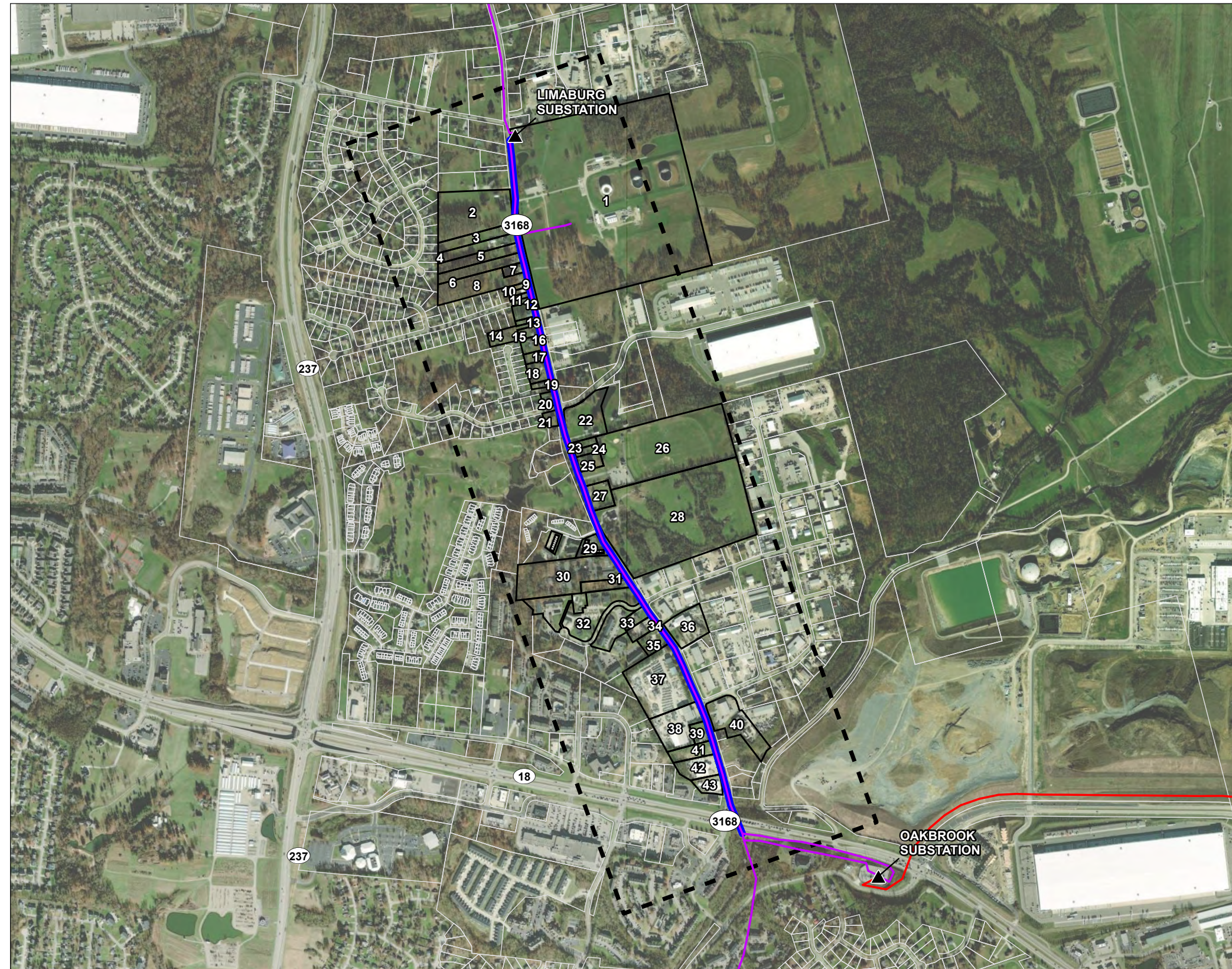


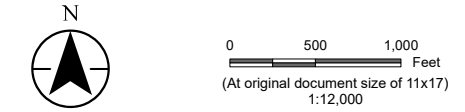
Figure No.
10

Title
Rebuild Area

Client/Project
 Duke Energy Kentucky
 Hebron to Oakbrook 138 kV Transmission Line Project

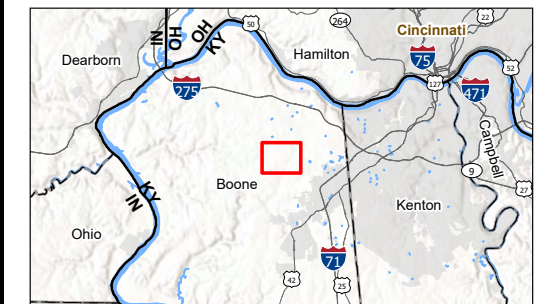
Project Location
 Boone Co., Kentucky

Prepared by PM on 2022-08-23
 TR by BT on 2021-11-09
 IR by TR on 2022-09-08



Legend

- Rebuild Area
- Duke-owned Existing Substation
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Rebuild Section
- Parcels Impacted by Project (Duke Unq. ID)
- Parcel Boundary



- Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKPC
 3. Background: Esri World Imagery



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 Reviser: 2022-11-10 By: pmltke

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke Energy)	
Kentucky, Inc. for a Certificate of Public)	
Convenience and Necessity to Construct A)	Case No. 2022-00364
138-kV Transmission Line and Associated)	
Facilities in Boone County (Hebron to)	
Oakbrook Transmission Line Project))	

Verified Statement in Accordance with 807 KAR 5:120, Section 2(3)

Dawn M. Fuller, Senior Stakeholder Engagement Manger, 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 Duke Energy Kentucky, Inc. within the purview of my duties for the Company.

2. The records of the Boone County Property Valuation Administrator, except as corrected or updated upon landowner contact or other research, located within the filing corridor (including the currently proposed right-of-way) for Duke Energy Kentucky, Inc.’s Hebron to Oakbrook Transmission Line Project will cross the property owned by the persons listed in Exhibit 12 of the Application.

3. On November 10, 2022 the persons in Exhibit 12 were mailed the notice as required by 807 KAR 5:120, Section 2(3)(a) – (e):

A verified statement that, according to county property valuation administrator records, each property owner over whose property the transmission line right-of-way is proposed to cross has been sent by first-class mail, addressed to the property owner at the owner’s address as indicated by the county property valuation administrator records, or hand delivered:

(a) Notice of the proposed construction;

- (b) *The commission docket number under which the application will be processed and a map showing the proposed route of the line;*
- (c) *The address and telephone number of the executive director of the commission;*
- (d) *A description of his or her rights to request a local public hearing and to request to intervene in the case; and*
- (e) *A description of the project.*

4. The form of the notice mailed is attached in Exhibit 12.

FURTHER AFFIANT SAYETH NAUGHT.


 Dawn M. Fuller

STATE OF OHIO)
) SS
 COUNTY OF HAMILTON)

Subscribed and sworn to before me, a Notary Public in and before said County and State,
 by Dawn M. Fuller this 23rd day of March 2023.


 Notary Public
 My Commission Expires: NO EXPIRATION



ROCCO O. D'ASCENZO
 ATTORNEY AT LAW
 Notary Public, State of Ohio
 My Commission Has No Expiration
 Section 147.03 R.C.



November 10, 2022

ACW PARTNERS LLC
3814 WEST ST STE 100
CINCINNATI, OH 45227

Project Reference: Hebron to Oakbrook Reliability Project, Notice of Proposed Electric Transmission Line Construction Project

Dear Property Owner:

As you are probably aware, Duke Energy Kentucky, Inc., (Duke Energy) is proposing a new electric transmission line project in Boone County. We are contacting you as part of the process to file an application seeking a certificate of public convenience and necessity from the Kentucky Public Service Commission. This project involves the approximate 2.1-mile construction of a new transmission line starting from Hebron Substation at 2139 Graves Road, in Hebron, Ky., to Route 237.

You are receiving this notice because county property records indicate either the proposed transmission line right-of-way crosses your property, or you own property within the filing corridor.

1. The construction of the proposed transmission line between the Hebron Substation and Route 237 involves the following work:

- The construction of approximately 2.1 miles of transmission line with capacity for 138-kV but will initially be operated at 69-kV.
- The transmission line will be supported by approximately 40 steel poles with an average above-ground height of 80-100 feet.
- The distance between poles will run an average of 200 to 400 feet.
- Right-of-way width for the project is anticipated to be 70 feet when the line is running parallel and adjacent to a public road, and 100 feet when the line is running cross-country.
- To enable the safe operation of the line, the required right-of-way width and location of the centerline will be finalized during the detailed engineering design and construction phases, and will be discussed in land rights negotiations with landowners.

The project is described as Case No. 2022-00364 on the Kentucky Public Service Commission's website at <https://psc.ky.gov/Case/ViewCaseFilings/2022-00364/>.

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

3. The Kentucky Public Service Commission will process Duke Energy's application under Case No. 2022-00364.

Contact information for the Executive Director of the Kentucky Public Service Commission:

Linda Bridwell, Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602
502.564-3940
800.772.4636

Duke Energy anticipates filing its application with the Kentucky Public Service Commission on or after November 28, 2022. The application when filed may be viewed under Case No. 2022-00364 on the commission's website at <https://psc.ky.gov/Case/ViewCaseFilings/2022-00364/>.

4. You have the right to submit a timely written request for intervention in Case No. 2022-00364. The motion must be submitted to the Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, KY 40602, 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) at <http://kyrules.elaws.us/rule/807kar5:001> for additional information regarding the requirements and procedure for requesting intervention. 807 KAR 5:001, Section 4(11) may be accessed at <http://kyrules.elaws.us/rule/807kar5:001>.

If no request for intervention is received within 30 days of the filing of the application, the Kentucky Public Service Commission may take final action on the application. The request for intervention should reference Case No. 2022-00364.

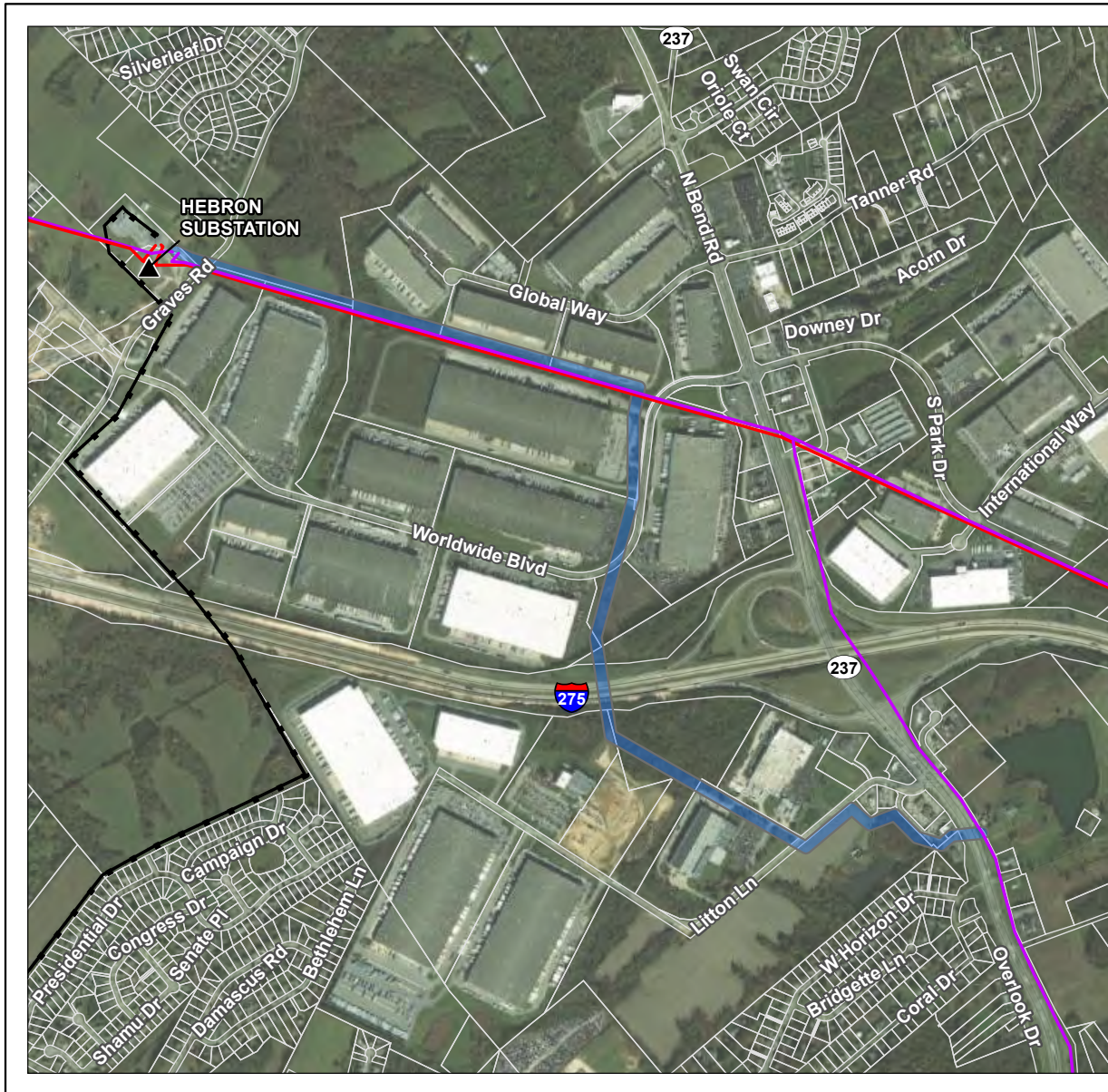
5. You also have the right to request a local public hearing regarding the application and the proposed 69-kV transmission line and related work. The requirements for requesting a local public hearing are described in 807 KAR 5:120, Section 3. See <http://kyrules.elaws.us/rule/807kar5:120> for additional information.

6. Written comments may also be filed at the above address, or by sending an email to the commission's public information officer at **psc.info@ky.gov**. The comments should reference Case No. 2022-00364.

7. Project updates may also be found on the Duke Energy Hebron to Oakbrook Reliability Project website at duke-energy.com/hebron.

Sincerely,

Duke Energy



Title
Preferred Route Corridor

Client/Project
Hebron to Oakbrook
138 kV Transmission Line Project

Project Location
Boone County,
Kentucky



0 600 1,200 Feet
(At original document size of 8.5x11)
1:15,000

Legend

- Duke-owned Existing Substation
- Duke-owned Existing 69 kV Transmission Line
- Duke-owned Existing 138 kV Transmission Line
- Foreign Owned Existing Transmission Line
- Preferred Route Corridor
- Parcel Boundary



Notes

1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Data Sources: Duke Energy, Stantec, NADS
3. Background: NAIP 2018

Hebron to Oakbrook Mailing List

OWNER1	MAILADDRES	Mailcsz	Mailing_List_ID	COUNTYPIN	PHYSICALAD	PHYSICALCI	PHYSICALST	PHYSICALZI
ACW PARTNERS LLC	3814 WEST ST STE 100	CINCINNATI, OH 45227	63	036.00-09-001.02	2300 LITTON LN	HEBRON	KY	41048
CINCINNATI MACHINE LLC	2200 LITTON LN	HEBRON, KY 41048	65	036.00-09-002.00	2250 LITTON LN	HEBRON	KY	41048
COMMONWEALTH OF KENTUCKY TRANSPORTAT	200 MERO ST	FRANKFORT, KY 40622	34	035.00-10-010.01			KY	
DCT PARK WEST LLC IDI SERVICES GROUP	1800 WAZEE ST	DENVER, CO 80202	12	035.00-10-007.00	2305-2335 GLOBAL WAY	HEBRON	KY	41048
DCT/SPF PARK WEST LLC	1800 WAZEE ST	DENVER, CO 80202	22	035.00-10-012.02	1596-1600 WORLDWIDE BLVD		KY	
DUKE ENERGY KENTUCKY INC	400 S TRYON ST	CHARLOTTE, NC 28285	5	035.00-00-051.02	2139 GRAVES RD	HEBRON	KY	41048
EAST KENTUCKY POWER COOPERATIVE INC	4775 LEXINGTON RD	WINCHESTER, KY 40391	4	035.00-00-051.04	2131 GRAVES RD	HEBRON	KY	41048
FARM MEMORIES LLC	2093 GRAVES RD	HEBRON, KY 41048	1	035.00-00-051.00	2123 GRAVES RD	HEBRON	KY	41048
HEBRON LAND COMPANY LLC	45 FAIRFIELD AVE SUITE 200	BELLEVUE, WA 41073	83	036.00-00-058.00	2575 NORTH BEND RD	HEBRON	KY	41048
I&G DIRECT REAL ESTATE 33D LP	270 PARK AVE	NEW YORK, NY 10017	21	035.00-10-012.01	1770-1800 WORLDWIDE BLVD		KY	
I&G DIRECT REAL ESTATE 34 LP	270 PARK AVE	NEW YORK, NY 10017	23	035.00-10-009.00	1100 WORLDWIDE BLVD	HEBRON	KY	41048
IPT PARK WEST DC LLC	1800 WAZEE ST SUITE 500	DENVER, CO 80202	43	035.00-00-044.02			KY	
MCGLOSSON MELVIN	2580 NORTH BEND RD	HEBRON, KY 41048	81	047.00-00-005.00	2538 NORTH BEND RD	HEBRON	KY	41048
MCGLOSSON MELVIN R LIVING TRUST	1856 PERRY LN	BURLINGTON, KY 41005	49	036.00-00-057.00			KY	
SUGAR CAMP PARTNERSHIP	2272 WILLIAMS RD	HEBRON, KY 41048	8	035.00-00-052.00	2807 GRAVES RD	HEBRON	KY	41048
TRANSPORTATION CABINET DEPT OF HIGH	200 MERO ST	FRANKFORT, KY 40622	33	035.00-10-009.01			KY	
			13	035.00-10-004.00	2205-2255 GLOBAL WAY	HEBRON	KY	41048
			17	035.00-10-003.00	2055-2095 GLOBAL WAY	HEBRON	KY	41048
			32	035.00-10-010.00	1200 WORLDWIDE BLVD	HEBRON	KY	41048
TREEVIEW INDUSTRIAL LLC	1600 JOHN F KENNEDY BLVD SUITE 1010	PHILADELPHIA, PA 19103	42	035.00-10-014.00	1405 WORLDWIDE BLVD	HEBRON	KY	41048
			74	036.00-00-057.02			KY	
YACOUB NIDAL K	PO BOX 6969	SYRACUSE, NY 13217	82	036.00-00-057.01	2549 NORTH BEND RD	HEBRON	KY	41048

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery 11-14</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>ACW PARTNERS LLC 3814 WEST ST STE 100 CINCINNATI, OH 45227</p>	<p>3. Service Type <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6456</p>	<p>9590 9402 6783 1074 3155 22</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DCT PARK WEST LLC IDI SERVICES GROUP 2305-2335 GLOBAL WAY HEBRON, KY 41048</p>	<p>3. Service Type <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6524</p>	<p>9590 9402 6783 1074 3154 61</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery Brandon Whisman 11-14-2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>EAST KENTUCKY POWER COOPERATIVE 4775 LEXINGTON RD WINCHESTER, KY 40391</p>	<p>3. Service Type <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6562</p>	<p>9590 9402 6783 1074 3154 23</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery NOV 15 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>COMMONWEALTH OF KENTUCKY TRANSPORTAT 200 MERO ST FRANKFORT, KY 40622</p>	<p>3. Service Type <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6470</p>	<p>9590 9402 6783 1074 3155 15</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery NOV 13 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DCT/SPF PARK WEST LLC 1800 WAZEE ST DENVER, CO 80202</p>	<p>3. Service Type <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6517</p>	<p>9590 9402 6783 1074 3154 78</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>FARM MEMORIES LLC 2093 GRAVES RD HEBRON, KY 41048</p>	<p>3. Service Type <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6586</p>	<p>9590 9402 6783 1074 3154 09</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery NOV 15 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DCT PARK WEST LLC IDI SERVICES 1800 WAZEE ST DENVER, CO 80202</p>	<p>3. Service Type <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6494</p>	<p>9590 9402 6783 1074 3154 92</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery 11/17/22</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DUKE ENERGY KENTUCKY INC 400 S TRYON ST CHARLOTTE, NC 28285</p>	<p>3. Service Type <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6531</p>	<p>9590 9402 6783 1074 3154 54</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>FARM MEMORIES LLC 2123 GRAVES RD HEBRON, KY 41048</p>	<p>3. Service Type <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6609</p>	<p>9590 9402 6783 1074 3153 86</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

IPT PARK WEST DC LLC
1800 WAZEE ST SUITE 500
DENVER, CO 80202

2. Article Number (Transfer from service label)
7021 2720 0003 4166 6678

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X JODIBROOKS Agent Addressee

B. Received by (Printed Name) JODIBROOKS C. Date of Delivery NOV 14 2022

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Adult Signature Priority Mail Express®
 Adult Signature Restricted Delivery Registered Mail™
 Certified Mail® Registered Mail Restricted Delivery
 Certified Mail Restricted Delivery Signature Confirmation™
 Collect on Delivery Signature Confirmation Restricted Delivery
 Collect on Delivery Restricted Delivery Restricted Delivery

Mail Restricted Delivery (0)

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MCGLASSON MELVIN
2538 NORTH BEND RD
HEBRON, KY 41048

2. Article Number (Transfer from service label)
7021 2720 0003 4166 6661

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Dan McGlasson Agent Addressee

B. Received by (Printed Name) Dan McGlasson C. Date of Delivery NOV 15 2022

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Adult Signature Priority Mail Express®
 Adult Signature Restricted Delivery Registered Mail™
 Certified Mail® Registered Mail Restricted Delivery
 Certified Mail Restricted Delivery Signature Confirmation™
 Collect on Delivery Signature Confirmation Restricted Delivery
 Collect on Delivery Restricted Delivery Restricted Delivery

Mail Restricted Delivery (0)

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MCGLASSON MELVIN R LIVING TRUST
1856 PERRY LN
BURLINGTON, KY 41005

2. Article Number (Transfer from service label)
7021 2720 0003 4166 6722

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Dan McGlasson Agent Addressee

B. Received by (Printed Name) Dan McGlasson C. Date of Delivery NOV 14 2022

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Adult Signature Priority Mail Express®
 Adult Signature Restricted Delivery Registered Mail™
 Certified Mail® Registered Mail Restricted Delivery
 Certified Mail Restricted Delivery Signature Confirmation™
 Collect on Delivery Signature Confirmation Restricted Delivery
 Collect on Delivery Restricted Delivery Restricted Delivery

Mail Restricted Delivery (0)

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

TRANSPORTATION CABINET DEPT
200 MERO ST
FRANKFORT, KY 40622

2. Article Number (Transfer from service label)
7021 2720 0003 4166 6777

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature] Agent Addressee

B. Received by (Printed Name) [Signature] C. Date of Delivery NOV 15 2022

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Adult Signature Priority Mail Express®
 Adult Signature Restricted Delivery Registered Mail™
 Certified Mail® Registered Mail Restricted Delivery
 Certified Mail Restricted Delivery Signature Confirmation™
 Collect on Delivery Signature Confirmation Restricted Delivery
 Collect on Delivery Restricted Delivery Restricted Delivery

Mail Restricted Delivery (0)

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

TREEVIEW INDUSTRIAL LLC
1600 JOHN F KENNEDY BLVD
SUITE 1010
PHILADELPHIA, PA 19103

2. Article Number (Transfer from service label)
7021 2720 0003 4166 6784

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature] Agent Addressee

B. Received by (Printed Name) [Signature] C. Date of Delivery NOV 10 2022

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Adult Signature Priority Mail Express®
 Adult Signature Restricted Delivery Registered Mail™
 Certified Mail® Registered Mail Restricted Delivery
 Certified Mail Restricted Delivery Signature Confirmation™
 Collect on Delivery Signature Confirmation Restricted Delivery
 Collect on Delivery Restricted Delivery Restricted Delivery

Mail Restricted Delivery (0)

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

YACUB NIDAL K
PO BOX 6969
SYRACUSE, NY 13217

2. Article Number (Transfer from service label)
7021 2720 0003 4166 6791

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature] Agent Addressee

B. Received by (Printed Name) [Signature] C. Date of Delivery NOV 10 2022

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Adult Signature Priority Mail Express®
 Adult Signature Restricted Delivery Registered Mail™
 Certified Mail® Registered Mail Restricted Delivery
 Certified Mail Restricted Delivery Signature Confirmation™
 Collect on Delivery Signature Confirmation Restricted Delivery
 Collect on Delivery Restricted Delivery Restricted Delivery

Mail Restricted Delivery (over \$500)



November 10, 2022



Project Reference: Limaburg to Oakbrook Reliability Project, Notice of Proposed Electric Transmission Line Construction Project

Dear Property Owner:

Duke Energy Kentucky, Inc., (Duke Energy) is proposing the rebuild of an existing electric transmission line in Boone County. We are contacting you as part of the process to file an application seeking a certificate of public convenience and necessity from the Kentucky Public Service Commission. This project involves rebuilding an existing 1.5-mile section of a 69-kV transmission line and its associated equipment from Limaburg Substation along Limaburg Road in Hebron, Ky., to Burlington Pike in Burlington, Ky. Part of this project involves building a new transmission line starting from Hebron Substation at 2139 Graves Road, in Hebron, Ky., to Route 237.

You are receiving this notice because county property records indicate either the proposed transmission line right-of-way crosses your property, or you own property within the filing corridor.

1. The rebuild of an existing 69-kV transmission line between the Limaburg Substation and Burlington Pike involves the following work:
 - Rebuilding of 1.5 miles of an existing transmission line with capacity for 138-kV but will initially be operated at 69-kV.
 - The rebuilt transmission line will be supported by approximately 54 steel poles with an average above-ground height of 80-100 feet.
 - The distance between poles will run an average of 100 to 300 feet.
 - Additional right-of-way may be required for guy wires and will be determined during the engineering phase of the transmission line.

The project is described as Case No. 2022-00364 on the Kentucky Public Service Commission's website at <https://psc.ky.gov/Case/ViewCaseFilings/2022-00364/>.

2. Enclosed is a map that shows the route of the proposed transmission line rebuild.

3. The Kentucky Public Service Commission will process Duke Energy's application under Case No. 2022-00364.

Contact information for the Executive Director of the Kentucky Public Service Commission:

Linda Bridwell, Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602
502.564-3940
800.772.4636

Duke Energy anticipates filing its application with the Kentucky Public Service Commission on or after November 28, 2022. The application when filed may be viewed under Case No. 2022-00364 on the commission's website at <https://psc.ky.gov/Case/ViewCaseFilings/2022-00364/>.

4. You have the right to submit a timely written request for intervention in Case No. 2022-00364. The motion must be submitted to the Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, KY 40602, 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) at <http://kyrules.elaws.us/rule/807kar5:001> for additional information regarding the requirements and procedure for requesting intervention. 807 KAR 5:001, Section 4(11) may be accessed at <http://kyrules.elaws.us/rule/807kar5:001>.

If no request for intervention is received within 30 days of the filing of the application, the Kentucky Public Service Commission may take final action on the application. The request for intervention should reference Case No. 2022-00364.

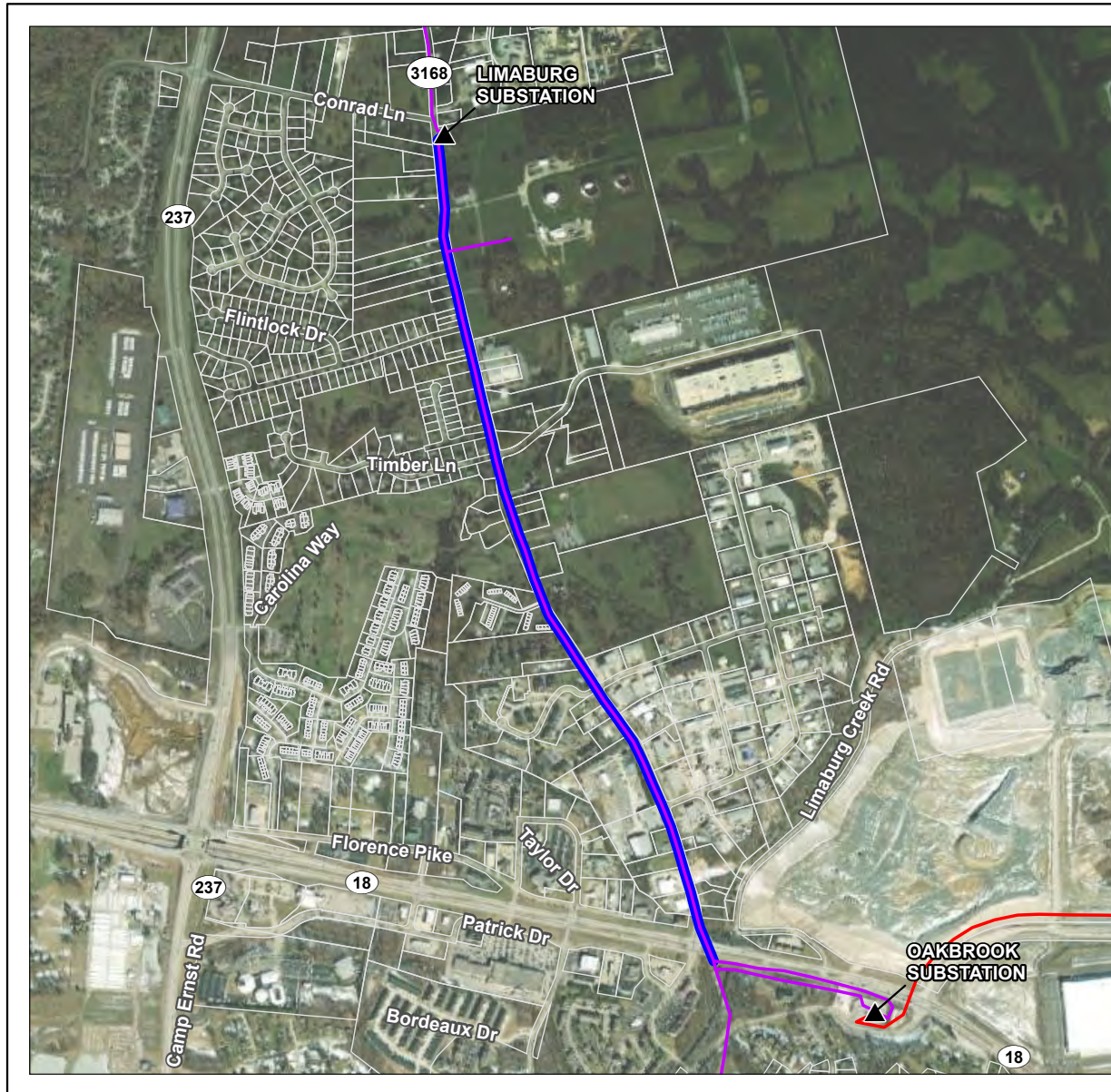
5. You also have the right to request a local public hearing regarding the application and the proposed 69-kV transmission line and related work. The requirements for requesting a local public hearing are described in 807 KAR 5:120, Section 3. See <http://kyrules.elaws.us/rule/807kar5:120> for additional information.

6. Written comments may also be filed at the above address, or by sending an email to the commission's public information officer at psc.info@ky.gov. The comments should reference Case No. 2022-00364.

7. Project updates may also be found on the Duke Energy Project website at duke-energy.com/hebron.

Sincerely,

Duke Energy



Title
Rebuild Section






Client/Project
Hebron to Oakbrook
138 kV Transmission Line Project

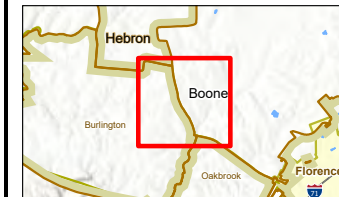
Project Location
Boone County,
Kentucky



0 600 1,200 Feet
(At original document size of 8.5x11)
1:15,000

Legend

-  Duke-owned Existing Substation
-  Duke-owned Existing 69 kV Transmission Line
-  Duke-owned Existing 138 kV Transmission Line
-  Rebuild Section
-  Parcel Boundary



Notes

1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Data Sources: Duke Energy, Stantec, NADS
3. Background: NAIP 2018

Limaburg to Oakbrook Rebuild Mailing List

OWNER1	MAILADDRESS1	MAILCITY	MAILSTATE	PHYSICALADDRESS1	PHYSICALCITY	PHYSICALSTATE
A M S TIRE REALTY LTD	4175 MUHLHAUSER RD	FAIRFIELD	OH	1675 PRODUCTION DR	BURLINGTON	KY
BLACKBURN GAYLE L AND BEVERLY	1723 TIMBER LN	BURLINGTON	KY		BURLINGTON	KY
CRAWFORD MARK D	5320 LIMABURG RD	BURLINGTON	KY	5320 LIMABURG RD	BURLINGTON	KY
CRESSCO LLC	7159 PLEASANT VALLEY RD	FLORENCE	KY	5941 LIMABURG RD	BURLINGTON	KY
DRDD FAMILY TRUST	2179 WILLIAMS RD	HEBRON	KY		BURLINGTON	KY
FELTNER VERONIKA	713 BLACKMOORE GATE LN	ST AUGUSTINE	FL	5207 LIMABURG RD	BURLINGTON	KY
FINKENSTEDT DAVID F	1710 HARVEST CT	BURLINGTON	KY	1710 HARVEST CT	BURLINGTON	KY
FUGATE EMMA J	5019 LIMABURG RD	BURLINGTON	KY	5019 LIMABURG RD	BURLINGTON	KY
GOETZ PHILIP G	5065 LIMABURG RD	BURLINGTON	KY	5065 LIMABURG RD	BURLINGTON	KY
GROSS TODD E	7645 PLOW SHARE CT	FLORENCE	KY	5183 LIMABURG RD	BURLINGTON	KY
HAYFIELD PARK APTS #232100 EPIRIAN P	40 WALL ST 60TH FLOOR	NEW YORK	NY	5519 LIMABURG RD	BURLINGTON	KY
HICKS FLOYD AND MAXINE TRUSTEES OF T	1729 PIONEER BLVD	BURLINGTON	KY		BURLINGTON	KY
HOGAN PATRICIA A TRUST HOGAN PATRICI	5372 LIMABURG RD	BURLINGTON	KY	5372 LIMABURG RD	BURLINGTON	KY
HUNT CRAIG D & SALLY J	5147 LIMABURG RD	BURLINGTON	KY		BURLINGTON	KY
JACOBS JOAN M REVOCABLE TRUST	3536 GARBER LN	BURLINGTON	KY	5468 LIMABURG RD	BURLINGTON	KY
K AND T DEVELOPMENT LLC	2533 RITCHIE AVE	CRESCENT SPRINGS	KY	5559 LIMABURG RD	BURLINGTON	KY
					BURLINGTON	KY
KLOENTRUP JEREMY	6322 REMINGTON COVE	BURLINGTON	KY	4999 LIMABURG RD	BURLINGTON	KY
				5659 LIMABURG RD	BURLINGTON	KY
				5719 LIMABURG RD	BURLINGTON	KY
LIMABURG PROPERTIES LLC	5719 LIMABURG RD	BURLINGTON	KY	5719 LIMABURG RD	BURLINGTON	KY
					BURLINGTON	KY
MAXWELL WAYNE C	5923 LIMABURG RD	BURLINGTON	KY	5923 LIMABURG RD	BURLINGTON	KY
MCCARTHY PAUL T & BELINDA G	5853 LIMABURG RD	BURLINGTON	KY	5853 LIMABURG RD	BURLINGTON	KY
MCGRATH DAWN M	4965 LIMABURG RD	BURLINGTON	KY	4965 LIMABURG RD	BURLINGTON	KY
MID VALLEY PIPELINE	1900 DALROCK RD	ROWLETT	TX	4826 LIMABURG RD	BURLINGTON	KY
PIERSON GREGORY W	5127 LIMABURG RD	BURLINGTON	KY	5127 LIMABURG RD	BURLINGTON	KY
PRECISION CONSTRUCTION CORP	14 ROGER LN	FLORENCE	KY		BURLINGTON	KY
REEVES GILBERT & RUBY	5057 LIMABURG RD	BURLINGTON	KY	5057 LIMABURG RD	BURLINGTON	KY
ROBERTSON DONNA J	5077 LIMABURG RD	BURLINGTON	KY	5077 LIMABURG RD	BURLINGTON	KY
RYLE ELDON W & CLARA M TRUST	5613 LIMABURG RD	BURLINGTON	KY	5613 LIMABURG RD	BURLINGTON	KY
SCHWARTZ BRIAN S & KEMPER ALICIA B	5340 LIMABURG RD	BURLINGTON	KY	5340 LIMABURG RD	BURLINGTON	KY
SKAS PROPERTIES LLC	961 WHIRLAWAY DR	UNION	KY	5390 LIMABURG RD	BURLINGTON	KY
SKY HARBOR LLC	PO BOX 961009	FT WORTH	TX	1735 TANGLEWOOD CT	BURLINGTON	KY
SMITH JUANITA	5039 LIMABURG RD	BURLINGTON	KY		BURLINGTON	KY
STAHL DARRELL & BETHANY	4376 BELLEVIEW RD	PETERSBURG	KY		BURLINGTON	KY
THIEL DREW B	5159 LIMABURG RD	BURLINGTON	KY		BURLINGTON	KY
VAL COURT TOWNHOMES HOMEOWNERS C/O A	PO BOX 36305	CINCINNATI	OH		BURLINGTON	KY
VALENTINE DON C & CAROLE R	1724 TIMBER LN	BURLINGTON	KY	1724 TIMBER LN	BURLINGTON	KY
WILLOUGHBY CARL RAY SR & MARY E	5115 LIMABURG RD	BURLINGTON	KY		BURLINGTON	KY
WILLOUGHBY TRACIE M	1813 PEARL ST APT 1	COVINGTON	KY	5071 LIMABURG RD	BURLINGTON	KY
WOLFE CHARLES S & CHERIE	5360 LIMABURG RD	BURLINGTON	KY	5360 LIMABURG RD	BURLINGTON	KY
YARD DESIGNS, LLC	5637 LIMABURG RD	BURLINGTON	KY	5637 LIMABURG RD	BURLINGTON	KY

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		<p>A. Signature <input checked="" type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
1. Article Addressed to: A M S TIRE REALTY LTD 4175 MUHLHAUSER RD FAIRFIELD, OH 45014		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery	
2. Article Number (Transfer from service label) 7021 2720 0003 4166 6814		<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery	
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt			

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
1. Article Addressed to: A M S TIRE REALTY LTD 1675 PRODUCTION DR BURLINGTON, KY 41005		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery	
2. Article Number (Transfer from service label) 7021 2720 0003 4166 6975		<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery	
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt			

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
1. Article Addressed to: CHARLES S & CHERIE WOLFE 5360 LIMABURG RD BURLINGTON, KY 41005		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery	
2. Article Number (Transfer from service label) 7021 2720 0003 4166 7170		<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery	
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt			

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
1. Article Addressed to: A M S TIRE REALTY LTD 5045 WINTON RD CINCINNATI, OH 45232		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery	
2. Article Number (Transfer from service label) 7021 0350 0001 9166 8533		<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery	
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt			

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
1. Article Addressed to: AKRAM & AMANI OTHMAN 2306 KENYON CT HEBRON, KY 41048		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery	
2. Article Number (Transfer from service label) 7022 0410 0000 6021 0047		<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery	
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt			

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
1. Article Addressed to: COUNTY OF BOONE KENTUCKY 2950 WASHINGTON SQ BURLINGTON, KY 41005		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery	
2. Article Number (Transfer from service label) 7021 0350 0001 9166 8595		<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery	
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt			

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
1. Article Addressed to: A M S TIRE REALTY LTD 1675 PRODUCTION DR BURLINGTON, KY 41005		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery	
2. Article Number (Transfer from service label) 7021 0350 0001 9166 8250		<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery	
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt			

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
1. Article Addressed to: BHAVIN V PATEL 9159 ARMISTEAD CT UNION, KY 41091		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery	
2. Article Number (Transfer from service label) 7022 0410 0000 6021 0054		<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery	
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt			

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
1. Article Addressed to: CRAIG D & SALLY J HUNT 5147 LIMABURG RD BURLINGTON, KY 41005		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery	
2. Article Number (Transfer from service label) 7021 2720 0003 4166 6944		<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery	
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt			

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>CRESSCO LLC 7159 PLEASANT VALLEY RD FLORENCE, KY 41042</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6845</p>	<p>Barcode: 9590 9402 7595 2098 8425 48</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DARRELL & BETHANY STAHL 4376 BELLEVIEW RD PETERSBURG, KY 41080</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7118</p>	<p>Barcode: 9590 9402 7595 2098 8400 56</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DE MOISEY VIRGINIA D 4847 LIMABURG RD BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8625</p>	<p>Barcode: 9590 9402 7772 2152 4004 83</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>CRESSCO LLC 5941 LIMABURG RD BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6982</p>	<p>Barcode: 9590 9402 7595 2098 8402 54</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DAVID F FINKENSTEDT 1710 HARVEST CT BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6876</p>	<p>Barcode: 9590 9402 7595 2098 8425 17</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DON C & CAROLE R VALENTINE 1724 TIMBER LN BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7149</p>	<p>Barcode: 9590 9402 7595 2098 8400 25</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DANNY S DELPH 4907 LIMABURG RD BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8632</p>	<p>Barcode: 9590 9402 7772 2152 4004 90</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DAWN M MCGRATH 4965 LIMABURG RD BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7224</p>	<p>Barcode: 9590 9402 7589 2098 3056 60</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>DONNA J ROBERTSON 5077 LIMABURG RD BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7279</p>	<p>Barcode: 9590 9402 7589 2098 3056 15</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Ivy Rhodes</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) Ivy Rhodes</p> <p>C. Date of Delivery NOV 15 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>IVY RHODES 1679 VAL COURT DR BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input checked="" type="checkbox"/> USPS <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7022 0410 0000 6021 0078</p>	<p>2. Article Number (Transfer from service label)</p> <p>7022 0410 0000 6021 0085</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>John Robertson</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) John Robertson</p> <p>C. Date of Delivery NOV 15 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>JOHN ROBERTSON PO BOX 837 BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7022 0410 0000 6021 0085</p>	<p>2. Article Number (Transfer from service label)</p> <p>7022 0410 0000 6021 0085</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Amy Mounce</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) Amy Mounce</p> <p>C. Date of Delivery NOV 17 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>KUNKA FAMILY LIVING TRUST 1677 VAL COURT DR BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8724</p>	<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8724</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Jeremy Kloentrup</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) Jeremy Kloentrup</p> <p>C. Date of Delivery NOV 19 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>JEREMY KLOENTRUP 6322 REMINGTON COVE BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6807</p>	<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7033</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>K and T Development LLC</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) K and T Development LLC</p> <p>C. Date of Delivery NOV 14 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>K AND T DEVELOPMENT LLC 5559 LIMABURG RD BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7033</p>	<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7064</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Mid Valley Pipeline</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) Mid Valley Pipeline</p> <p>C. Date of Delivery DEC 01 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>MID VALLEY PIPELINE 4826 LIMABURG RD BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7064</p>	<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7064</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Joan Jacobs</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) Joan Jacobs</p> <p>C. Date of Delivery 11-15</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>JOAN JACOBS REVOCABLE TRUST 3536 GARBER LN BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6951</p>	<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8700</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Kevin B & Lisa S Hillman</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) Kevin B & Lisa S Hillman</p> <p>C. Date of Delivery DEC 01 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>KEVIN B & LISA S HILLMAN 4827 LIMABURG RD BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8700</p>	<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8496</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Harry Lawrence</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) Harry Lawrence</p> <p>C. Date of Delivery NOV 17 2022</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>NORSELAND LLC 1911 GOLF CLUB DR BURLINGTON, KY 41005</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8496</p>	<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8496</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Jackie Herrington</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>Jackie Herrington</i></p> <p>C. Date of Delivery <i>NOV 28 2022</i></p>	
<p>1. Article Addressed to:</p> <p>PATRICIA A HOGAN TRUST 5372 LIMABURG RD BURLINGTON, KY 41005</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>9590 9402 7595 2098 8400 94</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6937</p>	<p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p>	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name)</p> <p>C. Date of Delivery</p>	
<p>1. Article Addressed to:</p> <p>PRECISION CONSTRUCTION CORP 14 ROGER LN FLORENCE, KY 41042</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>9590 9402 7589 2098 3056 39</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7255</p>	<p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p>	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name)</p> <p>C. Date of Delivery</p>	
<p>1. Article Addressed to:</p> <p>SKAS PROPERTIES LLC 961 WHIRLAWAY DR UNION, KY 41091</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>9590 9402 7589 2098 3055 85</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7309</p>	<p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p>	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Belinda McCarthy</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>Belinda McCarthy</i></p> <p>C. Date of Delivery <i>NOV 14 2022</i></p>	
<p>1. Article Addressed to:</p> <p>PAUL T & BELINDA G MCCARTHY 5853 LIMABURG RD BURLINGTON, KY 41005</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>9590 9402 7589 2098 3056 77</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7217</p>	<p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p>	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Robert Ehlinger</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>Robert Ehlinger</i></p> <p>C. Date of Delivery <i>NOV 17 2022</i></p>	
<p>1. Article Addressed to:</p> <p>ROBERT J & TERESA A EHLINGER 5459 LIMABURG RD BURLINGTON, KY 41005</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>9590 9402 7772 2152 4005 13</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8656</p>	<p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p>	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Jared Hill</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>Jared Hill</i></p> <p>C. Date of Delivery <i>11/16/22</i></p>	
<p>1. Article Addressed to:</p> <p>SKAS PROPERTIES LLC 5390 LIMABURG RD BURLINGTON, KY 41005</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>9590 9402 7595 2098 8401 62</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 7071</p>	<p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p>	

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<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Phil Goetz</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>PHIL GOETZ</i></p> <p>C. Date of Delivery <i>12/3/22</i></p>	
<p>1. Article Addressed to:</p> <p>PHILIP G GOETZ 5065 LIMABURG RD BURLINGTON, KY 41005</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>9590 9402 7595 2098 8401 31</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7021 2720 0003 4166 6890</p>	<p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p>	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Paul Morris</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>Paul Morris</i></p> <p>C. Date of Delivery <i>11/18/2022</i></p>	
<p>1. Article Addressed to:</p> <p>RONALD G & JANET ANDERSON 5226 LIMABURG RD BURLINGTON, KY 41005</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>9590 9402 7772 2152 4003 15</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7021 0350 0001 9166 8540</p>	<p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p>	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
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<p>1. Article Addressed to:</p> <p>SKILCRAFT ACQUISITION LLC 5184 LIMABURG RD BURLINGTON, KY 41005</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>9590 9402 7535 2098 4386 19</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery</p>	
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<p>1. Article Addressed to:</p> <p>TIMOTHY PHEAREN 4865 LIMABURG RD BURLINGTON, KY 41005</p>		<p>3. Service Type</p> <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery	
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<p>1. Article Addressed to:</p> <p>UNION LIGHT HEAT AND POWER COMPANY 139 E 4TH ST CINCINNATI, OH 45201 45202</p>		<p>3. Service Type</p> <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery	
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<p>1. Article Addressed to:</p> <p>WAYNE C MAXWELL 5923 LIMABURG RD BURLINGTON, KY 41005</p>		<p>3. Service Type</p> <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery	
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<p>1. Article Addressed to:</p> <p>WOLFE WOLFE PROPERTIES LLC 5578 LIMABURG RD BURLINGTON, KY 41005</p>		<p>3. Service Type</p> <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery	
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<p>1. Article Addressed to:</p> <p>YARD DESIGNS, LLC 5637 LIMABURG RD BURLINGTON, KY 41005</p>		<p>3. Service Type</p> <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Restricted Delivery	
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<p>1. Article Addressed to:</p> <p>SKY HARBOR LLC 1735 TANGLEWOOD CT BURLINGTON, KY 41005</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
 9590 9402 7595 2098 8401 55	<p>3. Service Type</p> <ul style="list-style-type: none"> <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Mail Restricted Delivery (0) <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation™ Restricted Delivery
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PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

NOTICE OF PROPOSED ELECTRIC TRANSMISSION LINE CONSTRUCTION PROJECT

Duke Energy Kentucky, Inc. (Duke Energy Kentucky or Company) proposes to construct a new 138-kilovolt (kV) transmission line in Boone County, Kentucky (Hebron to Oakbrook Transmission Line Project). The Hebron to Oakbrook Transmission Line Project involves the approximate two-mile construction of a new 138-kV transmission line and rebuild of a 1.5-mile portion of an existing 69 kV transmission line to 138-kV capacity. The proposed 138-kV transmission line runs east-southeast from the Hebron substation through an industrial complex crossing Interstate 275 to the west of Route 237. After crossing route 275 it runs east to connect to the existing transmission line along Route 237 across the street from the Burger King and Domino's Pizza. The rebuild portion of the transmission line runs south from Limaburg Substation along Limaburg Road in Hebron, Kentucky, to Burlington Pike in Burlington, Kentucky.

The proposed transmission line generally will require a 100-foot-wide right-of-way. Duke Energy Kentucky may also be required to alter the proposed centerline of the Hebron to Oakbrook Transmission Line Project and adjacent rights-of-way to address landowner preference or conditions discovered during survey and construction that affect constructability and access.

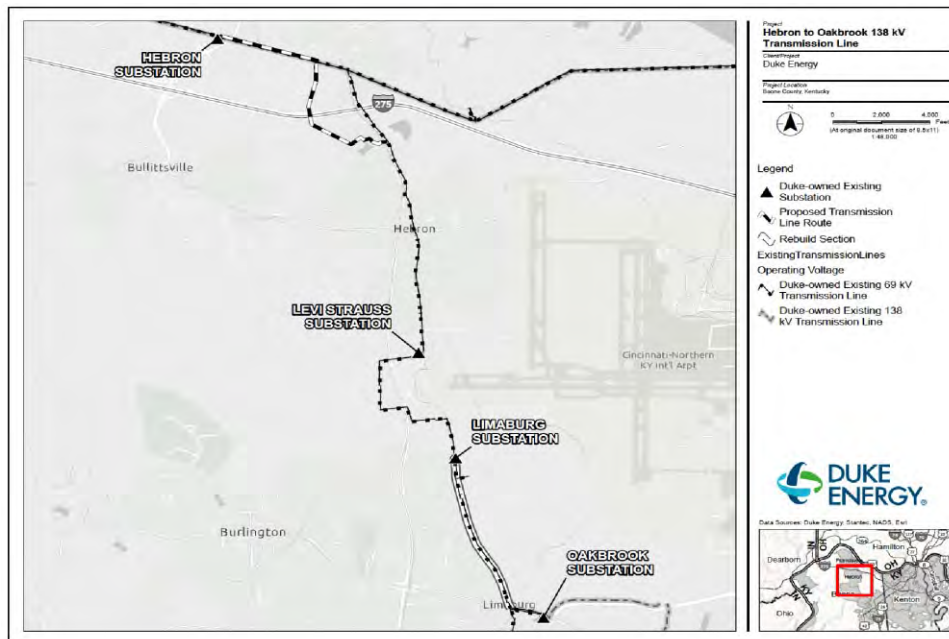
Duke Energy Kentucky plans to file an application with the Public Service Commission of Kentucky on or soon after March 27, 2023 seeking a certificate of public convenience and necessity authorizing the Hebron to Oakbrook Transmission Line Project. The application and the Commission proceeding have been assigned Case No. 2022-00364.

Any interested person, 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. The request for local 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 Duke Energy Kentucky'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 Duke Energy Kentucky's application may be accessed at <http://psc.ky.gov> under Case No. 2022-00364 once filed. Project updates and further information may also be found on the Company's website: www.duke-energy.com/Hebron

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



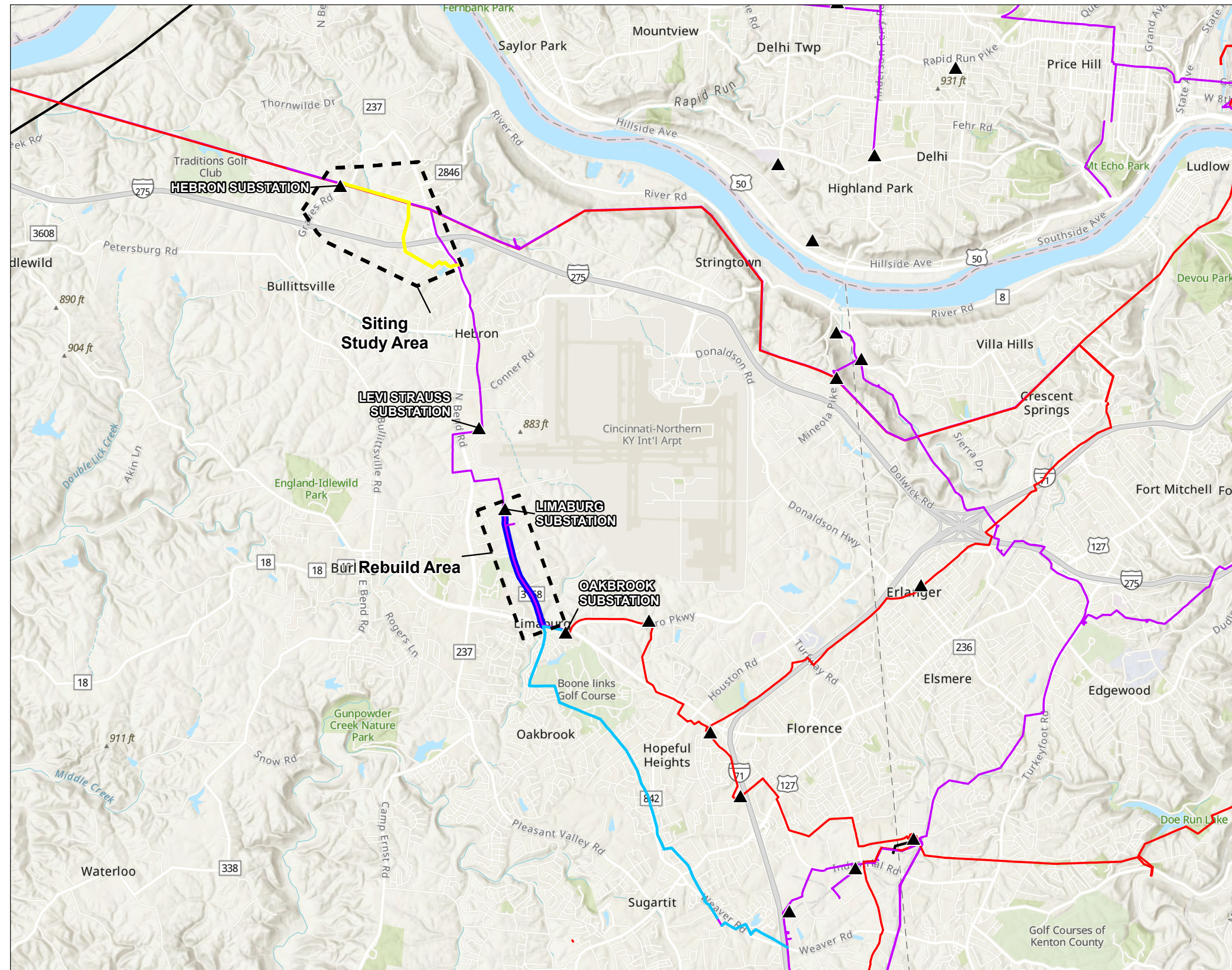
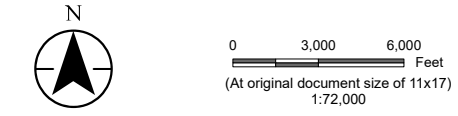


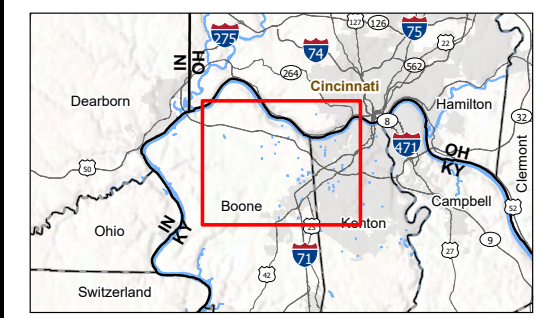
Figure No. **14**
 Title **Present System and Proposed Project Components**

Client/Project: Duke Energy Kentucky 193708666
 Hebron to Oakbrook 138 kV Transmission Line Project

Project Location: Boone Co., Kentucky
 Prepared by PM on 2022-08-23
 TR by BT on 2021-11-09
 IR by TR on 2022-09-08



- Legend**
- Study Area
 - Duke-owned Existing Substation
 - Duke-owned Existing 69 kV Transmission Line
 - Duke-owned Existing 138 kV Transmission Line
 - Duke-owned Existing 345 kV Transmission Line
 - Preferred Route
 - Rebuild Section
 - Buffington 6763 Retirement



- Notes**
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
 2. Data Sources: Stantec, Duke, USGS, NADS, PennWell, OSM, EKPC
 3. Background: Esri World Imagery



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Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke Energy)
Kentucky, Inc. for a Certificate of Public)
Convenience and Necessity to Construct A) Case No. 2022-00364
138 kV Transmission Line In Boone County)
(Hebron to Oakbrook Transmission Line Project)

DIRECT TESTIMONY OF

YANTHI W. BOUTWELL

ON BEHALF OF

DUKE ENERGY KENTUCKY, INC.

March 30, 2023

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V. FINANCIAL ASPECTS OF THE PROJECT	15
VI. REVIEW OF THE PROJECT AND STAKEHOLDER INPUT	16
VII. CONCLUSION	17

I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Yanthi W. Boutwell, and my business address is 139 East Fourth Street,
3 Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 I am employed by Duke Energy Business Services, LLC (DEBS) as General
6 Manager of Midwest Transmission Resource & Project Management. DEBS
7 provides various administrative and other services to Duke Energy Kentucky, Inc.,
8 (Duke Energy Kentucky or Company) and other affiliated companies of Duke
9 Energy Corporation (Duke Energy).

10 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL AND**
11 **PROFESSIONAL BACKGROUNDS.**

12 A. I hold a Bachelor of Science and a Master of Science in Electrical Engineering from
13 the University of Alabama at Birmingham and a Master of Business Administration
14 from Xavier University. I am a licensed Professional Engineer in the states of Ohio,
15 Kentucky, Pennsylvania, and Alabama. I joined Duke Energy in 2001 and have
16 held various leadership and engineering roles within Transmission Engineering.
17 Prior to joining Duke Energy, I worked as an engineer for Alabama Power
18 Company in Birmingham, Alabama and for Allegheny Power in Greensburg,
19 Pennsylvania. I have design experience in transmission line, substation, Protection
20 & Control, and substation standards. In May of 2019, I became Director of
21 Transmission Resources & Project Management where I was responsible for
22 providing strategic direction relative to project and resource management to the

1 Transmission Department. In November of 2019, I assumed my current role as
2 General Manager of Transmission Resource & Project Management.

3 **Q. PLEASE SUMMARIZE YOUR DUTIES AS GENERAL MANAGER OF**
4 **MIDWEST RESOURCE & PROJECT MANAGEMENT.**

5 A. As General Manager of Midwest Resource & Project Management, I am
6 responsible for providing strategic direction relative to project and resource
7 management to the Transmission Department as it relates to project development
8 and execution, project portfolio management, and project controls. I am
9 accountable for the Midwest portion of the overall Transmission project portfolio
10 with large capital spending that equates to a portfolio of 100's of projects. I play a
11 key role in providing oversight on the Duke Energy Midwest Transmission capital
12 and Operation and Maintenance (O&M) budget. I serve as the department
13 management point of contact with other departments and organizations, both
14 internally and externally to the Company as it relates to Midwest Transmission
15 projects.

16 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
17 **PUBLIC SERVICE COMMISSION?**

18 A. Yes. I previously provided testimony in support of the Company's Applications for
19 Certificates of Public Convenience and Necessity in Case Nos. 2019-00251 and
20 2019-00361.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
2 **PROCEEDING?**

3 A. I am testifying in support of Duke Energy Kentucky's application for a certificate
4 of public convenience and necessity (CPCN) to build the Hebron to Oakbrook
5 Transmission Line Project (the Project). In doing so, I provide an overview of the
6 Project, Project need, details on Project components, and details the Company's
7 compliance with the notice requirements for this proceeding. Finally, I sponsor
8 Confidential Exhibit 4 and Exhibits 6, 11, 12, 13, and 14 to the Company's
9 Application.

II. OVERVIEW OF THE PROJECT AND SUMMARY OF NEED

10 **Q. PLEASE BRIEFLY SUMMARIZE DUKE ENERGY KENTUCKY'S**
11 **PROPOSAL IN THIS APPLICATION.**

12 A. Duke Energy Kentucky is seeking authority to construct and operate a new single
13 circuit 138-kilovolt (kV) transmission line. The proposed line connects the existing
14 Duke Energy owned Hebron and Oakbrook Substations via a tie-in with a Duke
15 Energy-owned 69 kV line between the Limaburg and Oakbrook Substations. As
16 more fully explained by Company witness, John Hurd (see Exhibit 16 John K. Hurd
17 Testimony), Duke Energy Kentucky is seeking authority to construct and operate a
18 new single circuit 138 kilovolt (kV) capacity transmission line (circuit #6763). The
19 new circuit will utilize portions of the existing #15268 circuit 69 kV transmission
20 line and approximately 2.1 linear miles of proposed new transmission line. To
21 accommodate the new circuit, the current three-terminal circuit at the Hebron
22 Substation will be split into two two-terminal circuits. One terminal circuit (#6523)

1 will serve Hebron to Oakbrook and the other circuit (#15268) will serve Hebron to
2 Constance. As part of the Project, approximately 1.5 miles of the existing circuit
3 #15268 will be rebuilt in place to 138 kV capacity. Once the rebuild is complete,
4 the new circuit (#6763) will connect the Hebron and Oakbrook Substations and the
5 existing circuit (#15268) will connect the Hebron and Constance Substations. The
6 new circuit will be energized to 69 kV initially with future plans to energize to 138
7 kV. The individual portions of the Project are described in Exhibit 16 (John K. Hurd
8 Testimony). As a result of the new circuit, the portion of circuit #15268 that
9 currently feeds the Oakbrook Substation will be retired. The retirement is discussed
10 in further detail below.

11 **Q. IN WHAT COUNTY IS THE PROJECT LOCATED?**

12 A. The Project will be in Boone County, Kentucky.

13 **Q. PLEASE DESCRIBE THE PATH OF THE PROPOSED NEW CIRCUIT**
14 **#6763 138-kV TRANSMISSION LINE.**

15 A. The Project location is shown in Exhibit 1. The proposed line begins at the Hebron
16 Substation, located west of the industrial/commercial complex along Graves Road.
17 The route exits the substation to the east, follows the existing transmission line
18 corridor and then turns south along Worldwide Boulevard. The route then crosses
19 Worldwide Boulevard and continues south to cross Interstate 275. Once across
20 Interstate 275, the route turns east, bisecting a parcel before following a parcel line
21 and then crossing Litton Lane. The route then follows Litton Lane and parcel
22 boundaries east before it crosses Highway 237 to meet the existing transmission
23 line where it travels south to the Oakbrook Substation completing circuit #6763.

1 **Q. WHAT IS THE PURPOSE OF THE PROJECT AND WHY IS IT**
2 **NECESSARY?**

3 A. Duke Energy Kentucky is proposing to construct and operate a new single circuit
4 138 kV transmission line (circuit #6763). The new circuit includes construction of
5 a new transmission line and rebuild of approximately 1.5 miles of the existing
6 circuit. The purpose of the Project is to reinforce Duke Energy Kentucky's
7 transmission system that supplies the Company's service area west and south of the
8 Cincinnati/Northern Kentucky International Airport (CVG). Aero Substation is the
9 source of supply to the Amazon Air Hub as well as other loads in the area west and
10 south of CVG. Duke Energy Kentucky has recently completed several projects to
11 supply the Aero Substation via a 138 kV line extension to Aero from the
12 Woodspoint Substation. As part of this recent effort to reinforce the system, Aero
13 Substation was connected at 138 kV to the Oakbrook Substation, where it was tied
14 into the existing 69 kV system west of CVG via the installation of a 138-69 kV
15 transformer. This configuration of connection between the Aero and Oakbrook
16 substations enables the 138 kV source from Woodspoint through Aero to support
17 the 69 kV system, and also provides a source to Aero in the event that the
18 Woodspoint to Aero circuit experiences an interruption or is otherwise unavailable
19 for service. The existing 69 kV system has limited capacity to support the loads
20 supplied from Oakbrook and Aero if the Woodspoint to Aero 138 kV circuit is
21 unavailable. Based on recent load growth trends, it appears that the current system
22 will not be able to supply all Oakbrook and Aero loads by the summer of 2025. The
23 69 kV system also has limited capacity to support expected load growth in the

1 region to be supplied from the planned new Litton substation. The proposed new
2 circuit #6763 will provide sufficient capacity such that load requirements of the
3 area can be met without risk of overload. The upgraded system will have sufficient
4 capacity to meet the projected requirements of the area for several years.
5 Constructing the new line portions for future operation at 138 kV will facilitate
6 increasing the capacity to the area when the area load exceeds the capacity that can
7 be provided at 69 kV.

8 **Q. WHEN IS THE PROPOSED IN-SERVICE DATE FOR THE PROJECT?**

9 A. The proposed in-service date for the Project is December 31, 2025.

10 **Q. COULD DUKE ENERGY KENTUCKY RELIABLY SERVE THE**
11 **ANTICIPATED NEW LOAD IN THE AREA WITHOUT THE PROJECT?**

12 A. No. The existing and planned electric infrastructure in the area would not reliably
13 support the future load, including that of the Amazon Prime Air Hub facility.
14 Without this Project, it is anticipated that a low-capacity section of an existing 69
15 kV circuit will be susceptible to overload during high-load and or other system
16 conditions. This susceptibility will require placing the system in a radial
17 configuration any time it is determined that the overload would occur for a
18 reasonably foreseeable event. This will subject various substations and the
19 customers supplied from them to interruption for events that would otherwise not
20 result in interruption, or to longer interruption rather than brief interruption.

1 **Q. COULD THE SERVICE TO BE FURNISHED BY THE PROJECT BE**
2 **REASONABLY PROVIDED BY REBUILDING AN EXISTING**
3 **TRANSMISSION LINE OR EXTENDING SERVICE FROM AN EXISTING**
4 **SUBSTATION?**

5 A. The low-capacity section of an existing 69 kV circuit is approximately 5 miles in
6 length and is routed through a heavily developed residential area. Rebuilding this
7 section to provide the needed capacity would have much greater impacts to the
8 public than the proposed project. It would also not provide the same capacity
9 benefits to the local system, nor the possibility to meet future needs via upgrade to
10 138 kV.

11 **Q. WHY WILL THE NEW LINE SECTION BE CONSTRUCTED TO ALLOW**
12 **FOR FUTURE CONVERSION TO 138 KV OPERATION?**

13 A. The capacity needs of the area can reliably be met by operating the new facilities
14 at 69 kV. Continued operation at 69 kV minimizes the amount of work required to
15 supply the area load requirements for the foreseeable future. However, Duke
16 Energy Kentucky anticipates that the load in this area has the potential to increase
17 such that 69 kV supply will become inadequate at some point. The Company feels
18 that it would be wasteful of resources and more impactful to the public to build the
19 new facilities capable of operation at only 69 kV and then return in 5 or 10 years
20 and have to essentially completely rebuild the same facilities to upgrade to
21 operation at 138 kV.

III. PROJECT CONSTRUCTION

A. Transmission Line

1 **Q. PLEASE DESCRIBE THE PROPOSED NEW TRANSMISSION LINE**
2 **PORTION OF THE PROJECT IN MORE DETAIL.**

3 A. Duke Energy Kentucky proposes to construct approximately 2-miles of new single
4 circuit 138 kV transmission line in Boone County, Kentucky. The new line will
5 connect the existing Hebron Substation with the Oakbrook Substation via a tie-in
6 with a Duke Energy-owned 69 kV line along North Bend Road. The new electrical
7 transmission line will have approximately 34 galvanized steel monopoles installed
8 in private easements.

9 **Q. PLEASE DESCRIBE THE AREA THE PROPOSED LINE WILL**
10 **TRAVERSE.**

11 A. The area of the proposed line is located in the City of Francisville, Kentucky, and
12 the City of Hebron, Kentucky. The area is relatively hilly, with steep slopes (>20%)
13 surrounding much of the existing infrastructure. It is characterized by mixed
14 industrial and commercial development, interspersed by vacant wooded lots, and
15 residential areas. Existing development includes the Boone County public library,
16 suburban housing development, warehouse facilities, Hebron Fire Protection
17 District Station 2, Children’s House Hebron, medical facilities, storage facilities,
18 restaurants, and other retail buildings. Major travel corridors include Interstate 275,
19 State Route 237, and Graves Road. Buried utilities, including water, sanitary sewer,
20 storm sewer, and gas lines are sited along most roadsides and under parking lots in
21 the area. There is one stream, Sand Run, and minimal presence of wetlands and

1 other jurisdictional waters or water features. Woodlots are present in the northern
2 portion of the area, along Sand Run, and throughout vacant lots in the southern
3 portion of the area.

4 **Q. PLEASE DESCRIBE THE PRINCIPAL TYPES OF STRUCTURES THAT**
5 **WILL BE USED FOR THE PROPOSED TRANSMISSION LINE.**

6 A. Structure types and numbers will be determined during final engineering, which
7 includes ground survey and geotechnical studies, and will depend upon terrain
8 crossed, spans, turning angles, and other engineering considerations. Based upon
9 preliminary engineering, the Company anticipates approximately 26 foundation
10 based galvanized steel poles and 50 direct embedded galvanized steel poles will be
11 required for the project. It is anticipated that angle and dead-end structures will
12 utilize either guy wires and anchors or foundations.

13 **Q. WHAT ARE THE PROJECTED HEIGHTS OF THE STRUCTURES THAT**
14 **WILL BE ERECTED AS PART OF THE PROJECT?**

15 A. The structure heights will vary depending on placement, terrain, and clearance
16 requirements. The transmission engineering design has the average height above
17 ground at approximately 80 feet.

18 **Q. PLEASE DESCRIBE THE TYPES OF CONDUCTORS THAT WILL BE**
19 **USED FOR THE PROPOSED TRANSMISSION LINE.**

20 A. The proposed structures will have one 138 kV transmission circuit supporting a
21 total of three phase conductors and one overhead ground/shield wire. In addition,
22 the design incorporates potential distribution under build to further enhance the

1 distribution system in some of the locations. The phase conductors will utilize 954
2 kcmil aluminum conductor steel-reinforced (ACSR) conductor.

3 **Q. WHAT IS THE STATUS OF THE ENGINEERING AND DESIGN WORK**
4 **FOR THE HEBRON TO OAKBROOK 138-kV TRANSMISSION LINE?**

5 A. Engineering and design work are ongoing and will be finalized once surveying and
6 property rights are obtained. Duke Energy Kentucky has hired a contractor to
7 perform surveys on underground utilities based on the commercial area. Structures
8 may require minor field changes to accommodate any additional identified utility
9 during construction.

10 **Q. WHAT IS THE WIDTH OF THE RIGHT-OF-WAY FOR THE PROPOSED**
11 **LINE?**

12 A. Where the proposed transmission line is cross country, the standard right-of-way
13 for new lines is 100 feet. Where the proposed transmission line parallels an existing
14 road right-of-way, the right-of-way guidelines for new lines is 70 feet.

15 **Q. WILL THE PROPOSED LINE'S RIGHT-OF-WAY EXCEED 100 FEET IN**
16 **SOME CIRCUMSTANCES?**

17 A. No. It is not anticipated that a greater right-of-way width will be needed.

18 **Q. WHAT RIGHT-OF-WAY ACTIVITIES HAS DUKE ENERGY**
19 **KENTUCKY UNDERTAKEN TO DATE?**

20 A. Letters announcing the preferred route have been sent to property owners within
21 125 feet of the selected route notifying them of the placement of the line within or
22 near their property. This letter included the 10-day notification in compliance with
23 KRS 416.560(4) which has allowed engineering, testing, and surveying to proceed

1 with site visits to gather additional details to continue the design of the route. A bid
2 event is in progress for selecting a land acquisition vendor to start contacting
3 property owners in early 2023.

4 **Q. DUKE ENERGY KENTUCKY FILED MAPS ILLUSTRATING THE**
5 **CENTERLINE OF THE PROPOSED TRANSMISSION LINE AS EXHIBIT**
6 **8 TO ITS APPLICATION. COULD THAT CENTERLINE CHANGE?**

7 A. Yes. However, no change is anticipated at the time of filing, but discussions with
8 property owners during the easement acquisition process could result in the
9 adjustment of the centerline. Duke Energy Kentucky will work with property
10 owners to minimize impacts and accommodate preferences to the extent practical.
11 Underground utilities could shift the centerline slightly during final engineering and
12 construction. The proposed centerline of the right-of-way for the new portion of the
13 transmission line is shown on Exhibit 8. The centerline for the rebuild portion of
14 the Project will likely not change, see Exhibit 10. Duke Energy Kentucky seeks
15 authority to place the centerline and associated right-of-way in the filing corridor if
16 required based on field conditions encountered.

17 **Q. WHAT IS THE WIDTH OF THE FILING CORRIDOR?**

18 A. The width of the Filing Corridor is 200 feet. This corridor would allow for 50 feet
19 on either side of the proposed right-of-way to account for adjustments required
20 during finalized negotiations with landowners and access needs. This does not
21 include construction access if alternative access is required.

B. Construction

1 **Q. WHEN DOES DUKE ENERGY KENTUCKY PROPOSE TO BUILD THE**
2 **TRANSMISSION LINE IF THE CERTIFICATE IS GRANTED?**

3 A. Construction on the line would begin in Fall of 2024 pending easement acquisition.
4 The line is scheduled to be energized by end of 2025 and restoration of these
5 construction areas will continue into spring of 2026. Retirement of the current 69kV
6 structures will occur throughout 2026.

7 **Q. WILL THE COMPANY NEED TO OBTAIN ANY PERMITS FOR**
8 **CONSTRUCTION OF THE PROJECT?**

9 A. Yes. There are several permits that Duke Energy Kentucky has or is in the process
10 of obtaining. Duke Energy Kentucky witness John K. Hurd fully describes the
11 required permits in his Direct Testimony (Exhibit 16).

12 Duke Energy Kentucky has active electric franchises in many of the
13 communities that will be affected by the electric transmission line construction. It
14 is my understanding that those franchises are filed with the Commission. To the
15 extent any of these local communities require additional construction permitting,
16 the Company will follow those local rules and work with the communities to obtain
17 any and all necessary permits prior to beginning actual construction.

18 **Q. PLEASE BRIEFLY DESCRIBE HOW THE COMPANY WILL EXECUTE**
19 **AND COMPLETE CONSTRUCTION UNDER THE PROJECT.**

20 A. Duke Energy Kentucky will use both Company and contractor crews where
21 appropriate to complete this Project. If contractor crews are deployed, awarding of
22 contracts will be accomplished through Company contractors that have

1 successfully accomplished work in prior construction projects. Duke Energy
2 Kentucky will use industry standard equipment, materials, and designs to construct
3 the Project in accordance with the work specifications.

4 **Q. IS DUKE ENERGY KENTUCKY SEEKING DISCRETION TO LOCATE**
5 **THE TRANSMISSION LINE AND RIGHT-OF-WAY WITHIN THE**
6 **PROPOSED FILING CORRIDOR?**

7 A. Duke Energy Kentucky is seeking authority to move the electric transmission line
8 and associated right-of-way only within the indicated Filing Corridor.

9 **Q. WILL THE COMMISSION BE INFORMED OF THE FINAL LOCATION**
10 **OF THE LINE AND THE ADJACENT RIGHTS-OF-WAY?**

11 A. Yes. Duke Energy Kentucky will file with the Commission a revised plan showing
12 the location of the proposed line and structures upon the completion of construction.

13 **Q. PLEASE DESCRIBE THE CONSTRUCTION OF THE TRANSMISSION**
14 **LINE.**

15 A. Construction of the transmission line will start with installation of erosion and
16 sediment controls followed by tree clearing and vegetation removal along the
17 proposed right-of-way. Once the site is cleared, access roads will be installed as
18 needed. Since the proposed route is along established roads and near stable surfaces
19 these may be utilized, and public roads could be used. A drill rig will set up at each
20 location to dig the hole for each structure. Some structures will be directed
21 embedded, and others will have concrete foundations requiring concrete trucks
22 come to the site to pour concrete into the hole and cure prior to the structure being
23 erected. Structures are then erected with cross arms and pullies installed. After all

1 structures are set, pull ropes will be strung through each pulley for conductors to be
2 strung. Once conductor is pulled in insulators will be installed with the conductor
3 clipped in. After the line is energized and work is complete, the site will be restored.

4 **Q. WILL ANY EQUIPMENT OR INFRASTRUCTURE BE RETIRED AS**
5 **PART OF THE PROJECT?**

6 A. Yes. As a result of the new circuit, the portion of existing circuit #6763 that
7 currently feeds the Oakbrook Substation will be retired. Approximately 6 miles of
8 this circuit will be retired from the Oakbrook Substation along KY 18 south towards
9 I-71/75 along Weaver Road. The transmission conductor and insulators will be
10 removed, and the poles will be cut to allow the distribution circuits on the poles to
11 remain. Figure 14 depicts the retirement of circuit #6763.

IV. FILING COMPLIANCE

12 **Q. DID DUKE ENERGY KENTUCKY COMPLY WITH THE**
13 **REQUIREMENTS OF 807 KAR 5:120, SECTION 2(3) BY PROVIDING**
14 **NOTICE TO ADJOINING LANDOWNERS WHOSE PROPERTY MIGHT**
15 **BE AFFECTED BY THE PROJECT?**

16 A. Yes. Duke Energy Kentucky mailed notices to the owners of record for all parcels
17 within the proposed right-of-way and the filing corridor.

18 **Q. WHEN WAS THE LANDOWNER NOTICE MAILED?**

19 A. The landowner notification was mailed on November 11, 2022. The list of
20 landowners within the proposed right-of-way and filing corridor to whom the notice
21 was mailed is attached to the application in Exhibit 12. The required verification of
22 mailing is attached to the application in Exhibit 11.

1 **Q. DID THE NOTICE CONTAIN THE INFORMATION REQUIRED BY 807**
2 **KAR 5:120, SECTION 2(3)(A)-(E)?**

3 A. Yes. The form of the notice is attached to the application as Exhibit 12.

4 **Q. DID DUKE ENERGY KENTUCKY PUBLISH THE REQUIRED NOTICE**
5 **IN THE NEWSPAPER OF RECORD?**

6 A. Yes. A copy of the notice and publication affidavit is provided as Exhibit 13.

V. FINANCIAL ASPECTS OF THE PROJECT

7 **Q. WHAT IS THE PROJECTED COST OF THE PROJECT?**

8 A. The overall Project is estimated to cost approximately \$34 million. That sum
9 comprises the construction of the overhead line, including right-of-way acquisition
10 and the retirement of a portion of existing circuit #6763. Costs are summarized in
11 Exhibit 6.

12 **Q. DOES THE \$34 MILLION COST ESTIMATE DESCRIBED ABOVE AND**
13 **SET OUT IN THE APPLICATION REPRESENT A FIXED AND FINAL**
14 **COST?**

15 A. No. The \$34 million provided in Exhibit 6 is based on a Class 4 estimate that
16 represents plus 50 percent and minus 30 percent. This estimate will be further
17 refined once engineering is finalized and prior to start of construction. The final
18 cost for the Project will not be known until all work is complete and the right-of-
19 way is restored.

1 **Q. WHAT IS THE PROJECTED COST OF OPERATION FOR THE**
2 **PROPOSED FACILITIES AFTER THEY ARE COMPLETED?**

3 A. Duke Energy Kentucky projects the annual operating cost will be on average
4 approximately \$10,000 for general maintenance and inspection.

VI. REVIEW OF THE PROJECT AND STAKEHOLDER INPUT

5 **Q. IS THE PROJECT DENOMINATED BASELINE OR SUPPLEMENTAL**
6 **PJM INTERCONNECTION LLC?**

7 A. This will be considered a Supplemental Project. PJM Supplemental Project Number
8 s1782.1.

9 **Q. PLEASE EXPLAIN WHAT BEING A SUPPLEMENTAL PJM PROJECT**
10 **MEANS.**

11 A. Supplemental projects are expansions of the system that do not address reliability
12 criteria, but other needs. This need includes items like equipment condition,
13 performance and risk, operational flexibility and efficiency, infrastructure
14 resilience, and customer service. The driver for this Project is customer service and
15 being able to meet a customer's schedule for when it will need electric service.

16 **Q. IS DUKE ENERGY KENTUCKY RELYING ON THE PJM REVIEW OF**
17 **THE PROJECT TO DEMONSTRATE THE NEED FOR THE PROJECT?**

18 A. No. As a supplemental project, the project is justified by Duke Energy Kentucky to
19 meet internal criteria, in this case provision of service to retail customers. PJM
20 performed a "do-no-harm" analysis to determine if the proposed project could
21 necessitate any other system projects or modifications and none were found which
22 were not already anticipated by Duke Energy Kentucky.

1 **Q. HAVE RELEVANT STAKEHOLDERS BEEN AFFORDED AN**
2 **OPPORTUNITY TO PROVIDE INPUT REGARDING THE PROPOSED**
3 **TRANSMISSION LINE ROUTE?**

4 A. Yes. Duke Energy Kentucky has consulted with stakeholders using formal
5 correspondence with regulatory agencies, in person meetings with local officials,
6 two virtual open houses for landowners and other members of the community, and
7 an online mapping, toll-free hotline, and comment website.

VII. CONCLUSION

8 **Q. WERE EXHIBITS 4, 6, 11, 12, 13, AND 14 PREPARED UNDER YOUR**
9 **DIRECTION AND CONTROL?**

10 A. Yes.

11 **Q. PLEASE EXPLAIN CONFIDENTIAL EXHIBIT 4.**

12 A. Confidential Exhibit 4 are Duke Energy in the Midwest (Duke Energy Indiana,
13 Duke Energy Kentucky, and Duke Energy Ohio) standard structure details for 138-
14 kV electrical structures. Final engineering would use a combination of these
15 standard structures to construct the line.

16 **Q. PLEASE EXPLAIN EXHIBIT 6.**

17 A. Exhibit 6 includes the breakdown of the estimated projects costs.

18 **Q. PLEASE EXPLAIN EXHIBIT 11.**

19 A. Exhibit 11 includes a verified statement that, according to county property
20 valuation administrator records, each property owner over whose property the
21 transmission line right-of-way is proposed to cross has been sent by first-class mail,
22 addressed to the property owner at the owner's address as indicated by the county

1 property valuation administrator records, or hand delivered, a letter notifying them
2 of the proposed transmission line, where to obtain more information, and their
3 rights to submit written comments, requests for intervention, and/or a public
4 hearing.

5 **Q. PLEASE EXPLAIN EXHIBIT 12.**

6 A. Exhibit 12 includes a sample copy of the notice provided to a property owner and
7 a list of the names and addresses of the property owners to whom the notice has
8 been sent.

9 **Q. PLEASE EXPLAIN EXHIBIT 13.**

10 A. Exhibit 13 includes a copy of the notice of the intent to construct the proposed
11 transmission line that has been published in a newspaper of general circulation in
12 the county or counties in which the construction is proposed.

13 **Q. PLEASE EXPLAIN EXHIBIT 14.**

14 A. Exhibit 14 shows the current transmission components in the area as well as the
15 Project components on an aerial map. This exhibit shows where the Project is
16 located in association with other existing Duke Energy transmission lines.

17 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

18 A. Yes.

VERIFICATION

STATE OF OHIO)
) SS:
COUNTY OF HAMILTON)

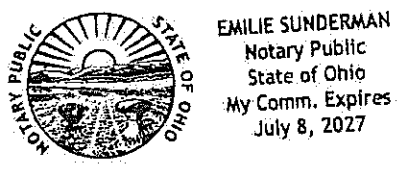
The undersigned, Yanthi W. Boutwell, General Manager Transmission Resource & Project Management, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing testimony and that it is true and correct to the best of her knowledge, information and belief.

Yanthi W. Boutwell
Yanthi W. Boutwell Affiant

Subscribed and sworn to before me by Yanthi W. Boutwell on this 22nd day of March, 2023.

Emilie Sunderman
NOTARY PUBLIC

My Commission Expires: July 8, 2027



COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke Energy)
Kentucky, Inc. for a Certificate of Public)
Convenience and Necessity to Construct A) Case No. 2022-00364
138 kV Transmission Line In Boone County)
(Hebron to Oakbrook Transmission Line Project)

DIRECT TESTIMONY OF

JOHN K. HURD

ON BEHALF OF

DUKE ENERGY KENTUCKY, INC.

March 30, 2023

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I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is John K. Hurd, and my business address is 139 East Fourth Street,
3 Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services, LLC (DEBS) as the Director of
6 Stakeholder Engagement. DEBS provides various administrative and other services
7 to Duke Energy Kentucky, Inc., (Duke Energy Kentucky or Company) and other
8 affiliated companies of Duke Energy Corporation (Duke Energy).

9 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND**
10 **AND BUSINESS EXPERIENCE.**

11 A. I received a Bachelor of Science degree in Physical Geography in 2004 and a
12 Master's degree in Geography in 2007 from the University of Cincinnati. I received
13 a certificate in Geographic Information Systems (GIS) from the University of
14 Cincinnati in 2006. In 2014 I was certified as a Geographic Information Systems
15 Professional (GISP) from the GIS Certificate Institute (GISCI). I began my
16 professional career at URS Corporation as a GIS analyst supporting the siting and
17 permitting of electric and gas utility projects. In 2007, I became a project manager
18 at URS Corporation leading the siting and permitting of transmission line and
19 substation projects. In 2012, I joined CH2M Hill as a project manager for siting and
20 permitting transmission line and substations and in 2013 became a GIS manager. I
21 joined Duke Energy as a Transmission Siting Specialist in 2018 and was promoted
22 to a Lead Transmission Siting Manager in 2019. In 2023 I was promoted to the

1 Director of Stakeholder Engagement for Ohio and Kentucky.

2 **Q. PLEASE SUMMARIZE YOUR DUTIES AS DIRECTOR OF**
3 **STAKEHOLDER ENGAGEMENT.**

4 A. I am responsible for leading the team of engagement managers for Ohio and
5 Kentucky. In my Lead Transmission Siting Manager position I was responsible for
6 leading the siting and routing studies needed for new or relocated substations and
7 transmission lines in Duke Energy's Midwest Territory, which includes Kentucky,
8 Ohio, and Indiana.

9 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
10 **PUBLIC SERVICE COMMISSION?**

11 A. Yes. I recently provided testimony in support of the Company's Applications in
12 Case No. 2019-00251 and No. 2019-00361.

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
14 **PROCEEDING?**

15 A. I am testifying in support of Duke Energy Kentucky's application for a certificate
16 of public convenience and necessity (CPCN) to build the Hebron to Oakbrook
17 Transmission Line Project (the Project). In doing so, I describe the methodology
18 used by Duke Energy Kentucky in conducting the siting study that was used to
19 identify and evaluate the various transmission line route alternatives. I describe the
20 results and conclusions of the siting study as well as the basis for the recommended
21 proposed route. Finally, I sponsor Exhibits 1, 2, 3, 7, 8, 9, and 10 to the Company's
22 Application, which I describe below.

II. THE SITING STUDY

A. OVERVIEW

1 **Q. PLEASE PROVIDE A BRIEF SUMMARY OF THE PROJECT AND ITS**
2 **PURPOSE.**

3 A. Duke Energy Kentucky is seeking authority to construct and operate a new single
4 circuit 138 kilovolt (kV) transmission line (circuit #6763; the Project). The new
5 circuit will utilize portions of the existing #15268 circuit 69 kV transmission line
6 and approximately 2.1 linear miles of proposed new transmission line. To
7 accommodate the new circuit, the current three-terminal circuit at the Hebron
8 Substation will be split into two two-terminal circuits. One terminal circuit (#6523)
9 will connect the Hebron Substation to the Oakbrook Substation and the other circuit
10 (#15268) will connect the Hebron Substation to the Constance Substation. The
11 proposed new transmission line will connect the Company's existing Hebron
12 Substation to the existing #15268 circuit creating circuit #6763. After the
13 connection of the new transmission line, new circuit #6763 will follow the existing
14 #15268 circuit to the existing Oakbrook Substation (Exhibit 1). As part of the
15 Project, approximately 1.5 miles of the existing circuit #15268 will be rebuilt in
16 place to 138 kV capacity. Once the rebuild is complete, the new circuit (#6763) will
17 connect the Hebron and Oakbrook Substations and the existing circuit (#15268)
18 will connect the Hebron and Constance Substations. The new circuit will be
19 energized to 69 kV initially with future plans to energize to 138 kV. The individual
20 portions of the Project are described in more detail below.

1 As a result of the new #6763 circuit, a portion of circuit #15268 will be
2 retired (Exhibit 14). The retirement is discussed in further detail in Exhibit 15
3 (Yanthi W. Boutwell Testimony).

4 As more fully explained by Ms. Boutwell, the purpose of the Project is to
5 address expected load growth and reliability concerns within Boone County. This
6 Project will add capacity for future growth in the region, increase reliability by
7 providing alternatives for operations during planned or unexpected outages, allow
8 flexibility for providing critical energy, and help maintain a robust system for
9 supplying and delivering electric service. Future plans to account for expected load
10 growth include energizing the new line to 138 kV. The Project location is shown in
11 Exhibit 1.

12 **Q. PLEASE PROVIDE A BRIEF SUMMARY OF THE REBUILD PORTION**
13 **OF THE PROJECT.**

14 A. The Project proposes to rebuild approximately 1.5 miles of Duke Energy Kentucky
15 owned circuit #15268 in place from the Limaburg Substation south along Limaburg
16 Road in Hebron to Burlington Pike in Burlington (structure HL800). The rebuild
17 will be designed to 138 kV standards but will initially be energized to 69 kV, like
18 the remainder of the new circuit. The rebuild will consist of retiring approximately
19 29 wood poles and 12 light duty steel poles and installing 38 light duty steel poles
20 with distribution under build. The rebuild portion of the Project is shown in Exhibit
21 3.

1 **Q. WHAT IS THE PURPOSE OF THE REBUILD PORTION OF THE**
2 **PROJECT**

3 A. The rebuild portion of the Project is required to meet capacity needs and is part of
4 a larger Duke Energy Kentucky reliability project. This section of the existing
5 #15268 circuit will have the conductor replaced to increase the capacity. The
6 portion that is being replaced is currently built to 69 kV standards; however,
7 because future plans to accommodate expected growth include energizing the new
8 #6763 circuit to 138 kV.

9 **Q. WHAT IS THE PURPOSE OF A SITING STUDY?**

10 A. The purpose of a siting study is to select a preferred route for the new electrical
11 transmission facility that minimizes impacts to the natural and built environment
12 while also optimizing Duke Energy Kentucky's business needs. The siting study
13 methodology can vary depending on the nature of the project and study area (Siting
14 Study Area).

15 **Q. PLEASE DESCRIBE HOW THE SITING STUDY WAS CREATED.**

16 A. The first step in the siting study was for the siting team to establish a Siting Study
17 Area for the vicinity of load needs with input from planning on system reliability
18 and to create siting guidelines that served to direct the decision-making process.
19 For this Project, it was determined the Siting Study Area would be a 1.6-square
20 mile area surrounding the existing Hebron Substation, the Graves Road and
21 Interstate 275 interchange, and the Highway 237/North Bend Road and Interstate
22 275 interchange. The Siting Study Area is shown in Exhibit 2 in the Application. A
23 broad array of data was then compiled to help the siting team identify opportunities

1 and constraints for siting the new transmission line. Opportunities and constraints
2 included information on ecology, engineering, land use, and cultural resources in
3 the Siting Study Area. Members of the siting team then created a segment network
4 that could later be combined into route alternatives that minimized impacts to siting
5 constraints and took advantage of siting opportunities. This segment network was
6 viewed in the field from public vantage points and opportunities and constraints
7 data were verified at this time to the extent possible. The segment network was then
8 reviewed by the full siting team, updated as necessary, and presented to the public
9 in virtual open houses on March 7, 2022, and March 8, 2022. During the open
10 houses, and for the following 30-day comment period, the siting team received
11 comments from the public. The siting team used this data collection process to
12 create 29 route alternatives for analysis. The analysis consisted of applying weights
13 to criteria considered important to siting electrical transmission lines in this area,
14 normalizing the output, and combining the values to establish a single composite
15 score for each route. Following the analysis, the routes were ranked and reviewed
16 along with qualitative criteria, including public feedback and stakeholder
17 correspondence, to determine the preferred route. Each step in this process is further
18 described in the accompanying Transmission Line Route Selection Study is
19 included in Exhibit 7.

20 **Q. PLEASE DESCRIBE HOW THE SITING STUDY WAS CREATED?**

21 A. I led the siting study, but the siting team was multidisciplinary, consisting of
22 members from Duke Energy Kentucky and Stantec Consulting Services Inc.
23 (Stantec) experienced in transmission line siting, planning, engineering,

1 construction, permitting, public engagement, project management, real estate, and
2 government and community relations.

3 **Q. WHAT ENTITIES PARTICIPATED IN THE CREATION AND DATA**
4 **COLLECTION FOR THE SITING STUDY?**

5 A. Duke Energy Kentucky and Stantec.

B. NEW 138 KV TRANSMISSION LINE

6 **Q. WHAT METHODOLOGY WAS USED TO EVALUATE TRANSMISSION**
7 **ROUTES IN THE SITING STUDY?**

8 A. Duke Energy Kentucky used its standard methodology which includes a
9 quantitative and qualitative evaluations.

10 **Q. WHERE IS THE METHODOLOGY EXPLAINED IN THE SITING**
11 **STUDY?**

12 A. The methodology is explained in Section 2.0 Route Selection Methodology of the
13 Transmission Line Route Selection Study included in Exhibit 7.

14 **Q. WHY DID YOU USE THIS METHODOLOGY?**

15 A. The siting methodology that Duke Energy Kentucky utilized on this Project was
16 able to quickly identify all feasible potential route alternatives. Since the Project
17 end points were less than two (2) miles apart and there is considerable development
18 in the Siting Study Area, Duke Energy Kentucky was able to reasonably identify
19 all feasible route alternatives.

20 Other methodologies were considered, such as Kentucky EPRI
21 methodology. Both the Duke Energy Kentucky and the Kentucky EPRI
22 methodologies utilize Geographic Information Systems (GIS) and incorporate a

1 broad array of criteria that represent the built environment, natural environment,
2 and engineering considerations. Both rely on input from a multi-disciplinary group
3 of subject matter experts. Both aim to identify existing linear features to follow as
4 well as identify cross country alternatives and both methodologies utilize a
5 quantitative approach to compare route alternatives.

6 One of the differences between the two methodologies is the Kentucky
7 EPRI Methodology utilizes a raster-based GIS process to identify the study area
8 and alternative corridors and for this project the Duke Energy Kentucky siting team
9 identified the study area and route alternatives directly. The EPRI methodology
10 uses a stakeholder group to identify weights while the Duke Energy Kentucky
11 methodology uses direct feedback on the Project, as well as many years of public
12 feedback on similar projects combined with the siting team's subject matter
13 expertise to establish the criteria and weighting. The benefits of the Macro and
14 Alternative Corridor steps in the Kentucky EPRI Methodology are realized on
15 longer transmission lines where defining the study area and identifying alternative
16 corridors are more time consuming and complicated.

17 **Q. PLEASE EXPLAIN THE GENERAL STEPS OF THE SITING**
18 **METHODOLOGY USED IN THE SITING STUDY.**

19 A. In general, the siting study methodology consisted of six (6) steps:

- 20 1) Establish Siting Study Area and siting guidelines;
- 21 2) Compile data and map constraints;
- 22 3) Identify a segment network;
- 23 4) Solicit public comments;

- 1 5) Create and analyze route alternatives; and
- 2 6) Select a preferred route.

3 **Q. PLEASE DESCRIBE IN MORE DETAIL THE FIRST STEP USED BY THE**
4 **SITING TEAM.**

5 A. Duke Energy Kentucky’s transmission planning group identified that the three-
6 terminal circuit at the Hebron Substation could be split into two, two-terminal
7 circuits and allow for separate circuits to provide power from the Hebron Substation
8 to the Oakbrook Substation and from the Hebron Substation to the Constance
9 Substation. It was established that this would be possible by constructing a new
10 transmission line that would connect into the existing circuit #15268 69 kV
11 transmission line.

12 The siting team then began by establishing a Study Area that would provide
13 the opportunity to identify unique route alternatives for the new transmission line
14 (the portion from the Hebron Substation to the tie-in point along the existing 15268
15 line). The siting team then met to create siting guidelines that would steer the
16 decision-making process for the Project. The Siting Study Area is shown on the
17 map in Exhibit 2.

18 **Q. PLEASE DESCRIBE THE TOPOGRAPHY AND LAND USE FOUND IN**
19 **THE SITING STUDY AREA.**

20 A. Approximately two thirds of the 1.6-square mile Siting Study Area is located in the
21 City of Francisville, Kentucky, with the remainder located in the City of Hebron,
22 Kentucky. The Siting Study Area is relatively hilly, with steep slopes (>20%)
23 surrounding much of the existing infrastructure. The Siting Study Area is

1 characterized by mixed industrial and commercial development, interspersed by
2 vacant wooded lots, and residential areas. Existing development includes the Boone
3 County public library, suburban housing development, warehouse facilities,
4 Hebron Fire Protection District Station 2, Children’s House Hebron, medical
5 facilities, storage facilities, restaurants, and other retail buildings. Major travel
6 corridors include Interstate 275, State Route 237, and Graves Road. Buried utilities,
7 including water, sanitary sewer, storm sewer, and gas lines are sited along most
8 roadsides and under parking lots in the Siting Study Area. United States Fish and
9 Wildlife Service National Wetland Inventory (USFWS, NWI) data indicates the
10 presence of one stream, Sand Run, and minimal presence of wetlands and other
11 jurisdictional waters or water features. Woodlots are present in the northern portion
12 of the Siting Study Area, along Sand Run, and throughout vacant lots in the
13 southern portion of the Siting Study Area.

14 **Q. PLEASE DESCRIBE THE SECOND STEP IN THE SITING**
15 **METHODOLOGY IN MORE DETAIL.**

16 A. Data collection was the second step in the siting methodology. This included a
17 review of the constraint maps and data collection in the field.

18 **Q. PLEASE DESCRIBE THE DATA COLLECTION PROCESS AND**
19 **CONSTRAINTS MAPPING.**

20 A. Members of the siting team collected data on the natural and built environment for
21 the Siting Study Area from public data sets, agency correspondence, review of
22 aerial photography, and historic maps. Data were compiled in a project GIS. The
23 GIS was then used to produce maps that depicted the ecology, engineering, land

1 use and cultural resource features in the Siting Study Area. The siting lead and
2 members of the analysis team conducted field reconnaissance of the Siting Study
3 Area on multiple occasions from public vantage points to ground truth constraints
4 and opportunities identified during the data collection process.

5 **Q. PLEASE DESCRIBE THE THIRD STEP IN THE SITING**
6 **METHODOLOGY IN MORE DETAIL.**

7 A. The third step in the siting methodology was to identify siting corridors that
8 minimized impacts to the built and natural environment. The siting team then used
9 these corridors and field review of the Siting Study Area to create a segment
10 network that contained 27 feasible study segments. The siting team held several
11 internal meetings with a multi-disciplinary team of subject matter experts to review
12 and refine the study segments. A detailed field reconnaissance was then conducted
13 to verify adjacent buildings, natural features, and types of data that would later be
14 used in analysis.

15 **Q. PLEASE DESCRIBE THE FOURTH STEP IN THE SITING**
16 **METHODOLOGY IN GREATER DETAIL.**

17 A. The fourth step in the siting methodology was to solicit comments from members
18 of the local community. The siting team then sent an invitation to landowners
19 within 500 feet of a study segments to attend an informational open house. Two
20 virtual open houses were held on March 7 and March 8, 2022, and were staffed by
21 experts in transmission planning, permitting, GIS, siting, engineering, and real
22 estate. The open houses were designed to solicit comments and to give participants
23 a broad overview of the purpose and need for the Project, what the Project elements

1 are proposed to look like, the study segments under consideration, and the proposed
2 schedule for construction. Attendees were provided access to interactive mapping
3 to provide comments tied to specific parcels. The open house also initiated a 30-
4 day comment period during which community members could provide comment
5 by phone, email, or through an online interactive map for the Project.

6 **Q. PLEASE DESCRIBE THE FIFTH STEP IN THE SITING**
7 **METHODOLOGY IN GREATER DETAIL.**

8 A. The fifth step in the siting methodology was to combine the study segments into 29
9 unique routes for analysis. Criteria were weighted based on sensitivity to electrical
10 transmission line siting and compiled into a single composite score for each route.
11 Additional qualitative data were also evaluated such as existing and proposed
12 developments and comments from the public.

13 **Q. PLEASE DESCRIBE THE SIXTH AND FINAL STEP IN THE SITING**
14 **METHODOLOGY IN GREATER DETAIL.**

15 A. The sixth step in the siting methodology was to select a preferred route. After the
16 analysis was completed, the siting team held multiple internal, multi-disciplinary
17 meeting to review the analysis, discuss qualitative factors not included in the
18 analysis framework, and select a preferred route. The objective of the meeting was
19 to identify the least impactful route that also met the project need including the need
20 for ongoing maintenance and safe operations. The review included both
21 quantitative and qualitative aspects of each route.

1 **Q. WAS THE ENTIRE STUDY AREA AVAILABLE IN CREATING THE**
2 **ROUTES?**

3 A. Yes.

4 **Q. WHAT OUTREACH WAS PERFORMED DURING THE SITING**
5 **PROCESS?**

6 A. Stakeholders were consulted using formal and informal correspondence with
7 regulatory agencies, a public open house for landowners and other members of the
8 community, and an online mapping, toll-free hotline, and comment website.
9 Additionally, based on public comments received, Duke Energy Kentucky
10 conducted further outreach with affected landowners, including Kentucky
11 Transportation Cabinet (KYTC), as necessary.

12 **Q. WERE LANDOWNERS CONTACTED THROUGHOUT THE SITING**
13 **PROCESS?**

14 A. Yes. Duke Energy Kentucky sent out a public engagement letter to individuals with
15 property within 500 feet of the route alternatives and requested input on the Project
16 during a 30-day comment period that began on March 7, 2022.

17 **Q. ARE THERE OTHER MEANS BY WHICH PUBLIC OFFICIALS AND**
18 **THE GENERAL PUBLIC MAY LEARN MORE ABOUT THE PROJECT**
19 **AND PROVIDE INPUT?**

20 A. Yes. More Project information is available on the Project website ([www.duke-](http://www.duke-energy.com/Hebron)
21 [energy.com/Hebron](http://www.duke-energy.com/Hebron)). On the website there is a toll-free phone number and email
22 address where officials or the public may ask questions and provide input.

1 **Q. WAS STAKEHOLDER AND LANDOWNER INPUT TAKEN INTO**
2 **CONSIDERATION DURING THE ROUTE SELECTION STUDY?**

3 A. Yes. The siting team worked with affected landowners to review study segments
4 and identify issues and alleviate concerns as feasible. Landowner input was
5 considered as part of the preferred route identification. Based on public comments
6 received regarding planned development in the Siting Study Area, Duke Energy
7 Kentucky reached out to and held meetings with affected landowners. One affected
8 landowner informed Duke Energy Kentucky that they were actively constructing
9 new facilities and finalizing plans for further expansion on two parcels along Litton
10 Lane. At the time of the meeting there was active construction on the southern
11 parcel (impacting Segment 20) with plans to develop the eastern parcel (impacting
12 Segment 22) (Exhibit 9). A site visit confirmed the parcel adjacent to Segment 22
13 was under construction. Based on a review of ongoing construction and conceptual
14 site plans provided by the property owner, it was determined that Duke Energy
15 Kentucky would be unable to place their transmission line on their property without
16 significantly impacting business operations and occupied buildings. As a result,
17 Duke Energy Kentucky did not identify any routes which utilized Segments 20
18 and/or 22 as the preferred route.

19 Discussions with property owners during easement acquisition process
20 could result in the adjustment of the centerline and Duke Energy Kentucky will
21 continue to work with property owners to address concerns as feasible.

III. RESULTS OF THE STUDY

1 **Q. YOU PREVIOUSLY INDICATED THAT TWENTY-NINE ALTERNATIVE**
2 **ROUTES WERE DEVELOPED. PLEASE GENERALLY DESCRIBE**
3 **THOSE ROUTES.**

4 A. Generally speaking, routes exited the Hebron substation to the east, utilized various
5 routes through the industrial/commercial complex before either continuing east to
6 tie into the existing line north of Interstate 275 and utilize the existing crossing
7 within the clover leaf or turning south to cross Interstate 275 at a new crossing west
8 of the clover leaf. The routes that crossed Interstate 275 west of the clover leaf
9 turned east to tie-in to the existing line at two different tap points. No routes were
10 created that exit the Hebron Substation to the south and then parallel Interstate 275
11 through the Siting Study Area because during the route evaluation process
12 additional information about proposed development was discovered that impacted
13 the route selection process. Eastern Kentucky Power Cooperative (EKPC) publicly
14 announced in May that they had selected a route for a new 69 kV transmission line
15 within the Study Area. In discussions with Duke Energy Kentucky, EKPC indicated
16 that they have started engineering and plan to begin acquiring easements for the
17 new 69 kV transmission line in fall 2022. The proposed EKPC centerline exits the
18 Hebron Substation to the south after which it parallels Interstate 275 through the
19 Siting Study Area (see Figure A-3 in Exhibit 7). This information required the
20 removal of study segments 11, 16, 17, 18 from further consideration because there
21 was not sufficient room to build both the EKPC line and this proposed transmission
22 line along those segments. This reduced the potential route alternatives from 43 to

1 29. The remaining 29 route alternatives were all considered feasible and were
2 evaluated for selection as the preferred route.

3 After the 29 route alternatives were determined, additional information
4 about proposed development was discovered that impacted the route selection
5 process. It was discovered that an affected property owner started construction
6 along segments 20 and 22 and has plans for more development on those properties
7 that conflicts with the construction of the proposed transmission line. Therefore,
8 based on the qualitative and quantitative review, route alternatives that utilized
9 segments 20, and 22 were not chosen as the preferred route.

10 Route L was selected as the preferred route. Route L begins at the Hebron
11 Substation, located west of the industrial/commercial complex along Graves Road.
12 Route L exits the substation to the east, follows the existing transmission line
13 corridor and then turns south along Worldwide Boulevard. The route then crosses
14 Worldwide Boulevard and continues south to cross Interstate 275. Once across
15 Interstate 275, Route L turns east, bisecting a parcel before following a parcel line
16 and then crossing Litton Lane. The route then follows Litton Lane and parcel
17 boundaries east before it crosses Highway 237 to tie-in to the existing transmission
18 line.

19 **Q. WHY WAS THE PREFERRED ROUTE SELECTED?**

20 A. Based on the comprehensive quantitative and qualitative evaluation, Route L was
21 selected as the preferred route. This route is approximately 2.1 miles in length.
22 While Route L scored 12th out of 29 potential routes, there were numerous
23 qualitative factors that resulted in it being selected as the preferred route. It was

1 determined that routes that utilized segments 25 and 26 along North Bend Road
2 north of Interstate 275 would require crossing over the proposed EKPC line along
3 North Bend Road (see Figure A-3 in Exhibit 7). The crossing of the EKPC line in
4 this area would require potential pole heights of 150 to 160' which is near the
5 Federal Aviation Administration (FAA) height threshold for Cincinnati/Northern
6 Kentucky International Airport (CVG). The area around segment 12 is very
7 congested with existing utilities and commercial business. It is possible that
8 segment 12 would require engineered poles that could significantly impact the gas
9 station on the east side of North Bend Road (see Figure A6 in Exhibit 7). Routes
10 that utilized segment 19 were identified as beneficial. Segment 19 allows Duke
11 Energy Kentucky to relocate the existing transmission line within KYTC road right
12 of way (ROW) and construct the new line without any new structures within KYTC
13 ROW. Segments 21 and 24 were selected south of Interstate 275 to avoid impacting
14 planned development. The team selected segments 2, 5, 7, 13, and 14, over
15 segments 3 and 10 to utilize the existing transmission corridor and reduce impacts
16 to commercial buildings and existing infrastructure along Worldwide Boulevard.

17 **Q. DID ANY AFFECTED LANDOWNERS EXPRESS OPPOSITION TO THE**
18 **ROUTES CONSIDERED OR SELECTED?**

19 A. Yes. Three of the route segments (20, 21, and 22) were of concern to property
20 owners (see Exhibit 9). One landowner was concerned with route segment 21
21 bisecting their property and affecting potential planning for future site expansion
22 and their property values. Another landowner was concerned with route segments
23 20 and 22 affecting current and planned construction. The siting team took the

1 concerns into account during the siting process and worked to avoid impacts to
2 concerned landowners. However, design need dictated the need to use the southern
3 routes that would have potential to impact the concerned property owners. Duke
4 Energy met with the property owner that was under active construction to learn
5 more about their current and future development plans and, based on those
6 meetings, determined that a route on their property (utilizing route segments 20
7 and/or 22) was not feasible without directly impacting their development.
8 Therefore, a preferred route using Segment 21 was required. Through the easement
9 acquisition process, Duke Energy Kentucky will continue to work with the property
10 owners to further reduce the impact if feasible.

11 **Q. WERE ANY ALIGNMENT SHIFTS REQUIRED FOR THE**
12 **ALTERNATIVE ROUTES EXAMINED?**

13 A. Yes. Duke Energy made minor revisions to the centerline within the existing
14 transmission corridor and at the southern end of the Preferred Route to maintain a
15 50-foot clearance from the residential properties located in the southeastern corner
16 of the Siting Study Area.

17 **Q. BASED UPON THE EFFORTS UNDERTAKEN BY THE SITING TEAM AS**
18 **DESCRIBED ABOVE, DO YOU HAVE ANY OPINION ON THE**
19 **COMPANY'S PREFERRED ROUTE FOR THE PROJECT?**

20 A I believe the Preferred Route is optimal for this Project.

IV. PERMITTING AND ENVIRONMENTAL STUDIES

1 **Q. WHAT ENVIRONMENTAL PERMITTING OR STUDIES ARE**
2 **ANTICIPATED FOR THIS PROJECT?**

3 A. Duke Energy Kentucky anticipates the following environmental studies, permits,
4 and/or approvals for construction of the Project:

- 5 • A wetland delineation will be conducted to identify wetlands and
6 waterbodies within the Preferred Route’s ROW and the Rebuild portion
7 of the project to determine if there are any jurisdictional features within
8 the ROW. Impacts to jurisdictional streams and wetlands are regulated
9 in the Commonwealth of Kentucky by the United States Army Corps of
10 Engineers (USACE) and the Kentucky Energy and Environment
11 Cabinet). Discharges of dredged or fill material into ‘waters of the United
12 States’ require permits from the USACE under the provisions of Section
13 404 of the Clean Water Act (CWA), as well as Section 401 of the CWA,
14 also referred to as Water Quality Certification (WQC) from the KDOW.
- 15 • Coordination is in progress with United States Fish and Wildlife Service
16 (USFWS) on potential impacts to federally-listed threatened and/or
17 endangered species. Utilizing the USFWS Information for Planning and
18 Consultation (IPAC) website, an Official Species List was obtained for
19 the Project on November 4, 2021. Based on this Official Species List, it
20 was determined that there are three (3) federally-listed bat species, ten
21 (10) federally-listed mussel/clam species, and one (1) candidate insect

1 species that may occur within the Siting Study Area. Required studies
2 will be coordinated with the USFWS.

3 • The Project is anticipated to have more than an acre of land disturbed
4 during construction. As such, a Kentucky Pollutant Discharge
5 Elimination System (KPDES) construction stormwater permit will be
6 required to be obtained prior to initiation of construction activities. A
7 condition of this permit is to develop a Stormwater Pollution Prevention
8 Plan (SWPPP) for the Project to show the implementation of best
9 management practices (BMPs) to be utilized during construction. Duke
10 Energy Kentucky will also need to communicate with Sanitation District
11 1 (SD1) and coordinate and obtain other permits as required.

12 • Based on a Preliminary Cultural Resource Management Review, all
13 identified archaeological sites and historical properties within the Siting
14 Study Area were determined to be destroyed or ineligible for listing on
15 the National Register of Historic Places (NRHP). Duke Energy Kentucky
16 will conduct Consultation with the Kentucky Heritage Council (KHC) –
17 State Historic Preservation Office (SHPO) documenting the Preliminary
18 Cultural Resource Management Review findings.

19 In addition to environmental permits, there are engineering permits that will need
20 to be obtained. Due to the proximity of the Project to Cincinnati/Northern Kentucky
21 International Airport, permit applications will need to be filed with the FAA and
22 KYTC. The aerial crossing of Interstate 275 will require approval from the KYTC
23 and local temporary access permits for driveways along the transmission route.

1 **Q. HAVE ANY OF THE ENVIRONMENTAL PERMITS OR STUDIES BEEN**
2 **COMPLETED FOR THIS PROJECT?**

3 A. No.

4 **Q. DO YOU EXPECT ANY ENVIRONMENTAL PERMITTING ISSUES OR**
5 **DELAYS TO THE CONSTRUCTION AS A RESULT OF PERMITTING**
6 **FOR THE TRANSMISSION LINE?**

7 A. Duke Energy Kentucky does not expect any environmental permitting issues or
8 delays to the construction as a result of permitting for the transmission line.

V. CONCLUSION

9 **Q. PLEASE EXPLAIN EXHIBIT 1.**

10 A. Exhibit 1 includes a map showing the proposed location of the Project.

11 **Q. PLEASE EXPLAIN EXHIBIT 2.**

12 A. Exhibit 2 includes a map showing the Project Siting Study Area.

13 **Q. PLEASE EXPLAIN EXHIBIT 3.**

14 A. Exhibit 3 includes a map showing the proposed Rebuild Area.

15 **Q. PLEASE EXPLAIN EXHIBIT 7.**

16 A. Exhibit 7 includes a copy of the Transmission Line Route Selection Study report
17 which describes the siting methodology and results in detail and depicts the full
18 description of the route and alternative routes considered for the new line portion
19 of the Project. Company's proposal is applicable only in the Company's service
20 territory and, as such, the Project will not compete with any other public utilities,
21 corporations, or persons.

1 **Q. PLEASE EXPLAIN EXHIBIT 8.**

2 A. Exhibit 8 shows the proposed route for the new line portion of the Project and the
3 impacted parcels.

4 **Q. PLEASE EXPLAIN EXHIBIT 9.**

5 A. Exhibit 9 shows the alternative route segments considered as part of the siting
6 review process.

7 **Q. PLEASE EXPLAIN EXHIBIT 10.**

8 A. Exhibit 10 shows the proposed rebuild route of the Project and the impacted parcels.

9 **Q. WERE EXHIBITS 1, 2, 3, 7, 8, 9, and 10 PREPARED UNDER YOUR**
10 **DIRECTION AND CONTROL?**

11 A. Yes.

12 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

13 A. Yes.

VERIFICATION

STATE OF OHIO)
)
COUNTY OF HAMILTON) SS:

The undersigned, John Hurd, Director of Stakeholder Engagement, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony and that it is true and correct to the best of his knowledge, information and belief.

John Hurd

John Hurd Affiant

Subscribed and sworn to before me by John Hurd on this 22nd day of March, 2023.

Emilie Sunderman

NOTARY PUBLIC

My Commission Expires: July 8, 2027



EMILIE SUNDERMAN
Notary Public
State of Ohio
My Comm. Expires
July 8, 2027

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke Energy)
Kentucky, Inc. for a Certificate of Public)
Convenience and Necessity to Construct A) Case No. 2022-00364
138 kV Transmission Line In Boone County)
(Hebron to Oakbrook Transmission Line Project)

DIRECT TESTIMONY OF

LISA D. STEINKUHL

ON BEHALF OF

DUKE ENERGY KENTUCKY, INC.

March 30, 2023

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I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Lisa D. Steinkuhl, and my business address is 139 East Fourth Street,
3 Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC (DEBS) as Director, Rates
6 and Regulatory Planning for Duke Energy Kentucky, Inc., (Duke Energy Kentucky
7 or Company) and Duke Energy Ohio, Inc. DEBS provides various administrative
8 and other services to Duke Energy Kentucky and other affiliated companies of
9 Duke Energy Corporation (Duke Energy).

10 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
11 **PROFESSIONAL EXPERIENCE.**

12 A. I received a Bachelor's Degree in Mathematics from Western Kentucky University
13 in Bowling Green, Kentucky. After completing my Bachelor's Degree, I received
14 a Post Baccalaureate Certificate in Professional Accountancy from the University
15 of Southern Indiana in Evansville, Indiana. I became a Certified Public Accountant
16 (CPA) in the State of Ohio in 1993. After receiving my Post Baccalaureate
17 Certificate in 1988, I was employed by small public accounting firms. I was hired
18 by Cinergy Services, Inc., the predecessor of DEBS, in 1996, as a tax accountant.
19 I held various positions with Cinergy Services, Inc., including responsibilities in
20 Regulated Business Financial Operations, Commercial Business Asset
21 Management, and Budgets and Forecasts. I joined the Rates Department in April
22 2006 as a Lead Rates Analyst, was promoted to Rates & Regulatory Manager in

1 January 2014 and Utility Strategy Director in May 2018. I have held my current
2 position as Director, Rates & Regulatory Planning since March 2022.

3 **Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AS DIRECTOR,**
4 **RATES AND REGULATORY PLANNING.**

5 A. As Director, I am responsible for the preparation of financial and accounting data
6 used in Duke Energy Ohio and Duke Energy Kentucky, Inc., retail rate filings and
7 changes in various other rate recovery mechanisms, along with filings with the
8 Federal Energy Regulatory Commission (FERC).

9 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
10 **PUBLIC SERVICE COMMISSION?**

11 A. Yes.

12 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THESE**
13 **PROCEEDINGS?**

14 A. The purpose of my testimony is to discuss the financial aspects of the Company's
15 request for a Certificate of Public Convenience and Necessity (CPCN) to construct
16 and operate a new single circuit 138 kilovolt (kV) transmission line (circuit #6763;
17 the Project). The new circuit will utilize portions of the existing #15268 circuit 69
18 kV transmission line and approximately 2.1 linear miles of proposed new
19 transmission line. I also sponsor Exhibit 5 to the Application.

II. FINANCIAL IMPACT OF THE PROJECT

20 **Q. WHAT IS THE PROJECTED COST OF THE PROJECT?**

21 A. The overall Project is estimated to cost approximately \$34 million. That sum
22 comprises: (a) approximately \$32.2 million for the construction of the overhead

1 line, including right-of-way acquisition, (b) approximately \$1.5 million for the cost
2 of removal associated with the retirement of a portion of an existing circuit, and (c)
3 distribution line work of \$0.5 million.

4 **Q. DOES THE \$34 MILLION COST ESTIMATE REPRESENT A FIXED AND**
5 **FINAL COST?**

6 A. No. The \$34 million is based on a Class 4 estimate that represents an expected range
7 of plus 50 percent and minus 30 percent. This estimate will be further refined once
8 engineering is finalized and prior to start of construction. The final cost for the
9 Project will not be known until all work is complete and the right-of-way is
10 restored.

11 **Q. WHAT IS THE PROJECTED ONGOING COST OF OPERATION OF THE**
12 **PROJECT ONCE COMPLETED?**

13 A. The estimated annual ongoing cost of operation of the Project once completed is
14 expected to be approximately \$10,000 for general maintenance and inspection
15 (capital and operations and maintenance (O&M)).

16 **Q. ARE ANY CUSTOMERS DIRECTLY CONTRIBUTING TO THE COST**
17 **OF THE PROJECT?**

18 A. No.

19 **Q. HOW DOES DUKE ENERGY KENTUCKY INTEND TO FINANCE THE**
20 **PROJECT?**

21 A. In response to 807 KAR 5:001, Section 15(2)(e), the Company is proposing to
22 finance the construction through continuing operations and, if necessary, through
23 debt issuances.

1 **Q. WILL THE COST OF THE PROJECT MATERIALLY AFFECT THE**
2 **FINANCIAL CONDITION OF DUKE ENERGY KENTUCKY?**

3 A. No.

4 **Q. PLEASE EXPLAIN HOW THE PROJECT WILL BE TREATED FROM AN**
5 **ACCOUNTING PERSPECTIVE.**

6 A. The Project is nearly all capital in nature because it is adding new facilities to serve
7 our electric customers and improve the reliability of the delivery system. There will
8 be an immaterial impact to the Company's O&M expenses in terms of incremental
9 cost of operation. The capital costs will be accumulated in FERC account 107
10 (Construction Work in Progress) during construction and will accrue Allowance for
11 Funds Used During Construction (AFUDC) until the Project is placed in service.
12 After the Project is placed in-service, capital costs will transfer initially to FERC
13 account 106 (Completed Construction not Classified) where it will begin being
14 depreciated like any other asset that is used and useful. Once unitized, the Project
15 will be transferred to FERC account 101 (Plant in Service). The cost of removal
16 associated with the retirement will be recorded as a debit to FERC account 108
17 (Accumulated Provision for Depreciation).

18 **Q. WHAT IS THE ESTIMATED IN-SERVICE DATE?**

19 A. The estimated in-service date is December 31, 2025.

20 **Q. PLEASE EXPLAIN HOW THE COMPANY WILL RECOVER ITS COSTS**
21 **OF CONSTRUCTION.**

22 A. The Company plans to recover the costs of the Project in the ordinary course of
23 base rate proceedings.

1 **Q. HAS THE COMPANY ESTIMATED THE IMPACT OF THIS PROJECT**
2 **TO CUSTOMER RATES?**

3 A. The Project is not expected to have a material impact on customer rates. Once the
4 Project is in service and included in a base rate case, the estimated revenue
5 requirement is expected to be approximately one percent of total Company
6 revenues.

III. EXHIBITS SPONSORED BY WITNESS

7 **Q. PLEASE LIST AND DESCRIBE EXHIBITS TO THE APPLICATION**
8 **THAT YOU ARE SPONSORING.**

9 A. I am the sponsor of Exhibits 5. Exhibit 5 is the financial statement for month end,
10 December 31, 2022, as required by 807 KAR 5:001, Section 12.

IV. CONCLUSION

11 **Q. WAS EXHIBIT 5 PREPARED UNDER YOUR DIRECTION AND**
12 **CONTROL?**

13 A. Yes.

14 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

15 A. Yes.

VERIFICATION

STATE OF OHIO)
)
COUNTY OF HAMILTON) SS:

The undersigned, Lisa Steinkuhl, Director, Rates and Regulatory Planning, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing testimony and that it is true and correct to the best of her knowledge, information and belief.

Lisa D Steinkuhl
Lisa Steinkuhl Affiant

Subscribed and sworn to before me by Lisa Steinkuhl on this 22nd day of March, 2023.

Emilie Sunderman
NOTARY PUBLIC

My Commission Expires: July 8, 2027



EMILIE SUNDERMAN
Notary Public
State of Ohio
My Comm. Expires
July 8, 2027