

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF EAST)	
KENTUCKY POWER COOPERATIVE, INC.)	
FOR CERTIFICATES OF PUBLIC)	CASE NO.
CONVENIENCE AND NECESSITY FOR)	2024-00108
CONSTRUCTION PROJECTS IN MARION)	
COUNTY, KENTUCKY AND OTHER)	
GENERAL RELIEF)	

VERIFIED APPLICATION

Comes now East Kentucky Power Cooperative, Inc., (“EKPC” or the Company”) by and through the undersigned counsel, pursuant to KRS 278.020, 807 KAR 5:001, 807 KAR 5:120 and other applicable law and hereby tenders its Application with the Kentucky Public Service Commission (“Commission”) requesting approval for two Certificates of Public Convenience and Necessity (“CPCN”) to construct two transmission projects in Marion County, Kentucky. In support of the Application, EKPC respectfully states as follows:

I. INTRODUCTION

1. EKPC is a not-for-profit, rural electric cooperative corporation established under KRS Chapter 279 with its headquarters in Winchester, Kentucky. Pursuant to various agreements, EKPC provides electric generation capacity and electric energy to its sixteen (16) Owner-Member Cooperatives (“owner-members”), which in turn serve over 570,000 Kentucky homes, farms and commercial and industrial establishments in eighty-nine (89) Kentucky counties. EKPC’s Board has stated its strategic objective is to maintain a generation fleet that prudently diversifies its fuel

sources while maximizing the potential of its capital investments and minimizing stranded assets. EKPC is a “utility” as that term is defined in KRS 278.010(3)(a) and a “generation and transmission cooperative” as that term is defined in KRS 278.010(9).

2. In total, EKPC owns and operates approximately 2,963 MW of net summer generating capacity and 3,265 MW of net winter generating capacity. EKPC owns and operates coal-fired generation at the John S. Cooper Station in Pulaski County, Kentucky (341 MW) and the Hugh L. Spurlock Station (1,346 MW) in Mason County, Kentucky. EKPC also owns and operates natural gas-fired generation at the J. K. Smith Station in Clark County, Kentucky (753 MW (summer)/989 MW (winter)) and the Bluegrass Generating Station in Oldham County, Kentucky (501 MW (summer)/567 MW (winter)), landfill gas-to-energy facilities in Boone County, Greenup County, Hardin County, Pendleton County and Barren County (13 MW total), and a Community Solar facility (8.5 MW) in Clark County, Kentucky. Finally, EKPC purchases hydropower from the Southeastern Power Administration at Laurel Dam in Laurel County, Kentucky (70 MW), and the Cumberland River system of dams in Kentucky and Tennessee (100 MW). EKPC also has 200 MWs of interruptible load and approximately 26 MWs in peak reduction mechanisms. EKPC’s record peak demand of 3,754 MW occurred on January 17, 2024.

3. EKPC owns 2,995 circuit miles of high voltage transmission lines in various voltages, mainly 69kV and greater. EKPC also owns the substations necessary to support this transmission line infrastructure. Currently, EKPC has seventy-seven (77) free-flowing interconnections with its neighboring utilities. EKPC’s transmission system is operated by PJM Interconnection, LLC (“PJM”), of which EKPC has been a fully integrated member since June 1, 2013. PJM is a regional electric grid and market operator with operational control of over 185,000

MW of regional electric generation. It operates the largest capacity and energy market in North America.

II. FILING REQUIREMENTS

4. Pursuant to 807 KAR 5:001, Section 14(1) and 807 KAR 5:120 Section 1(2), EKPC's business address is 4775 Lexington Road, Winchester, Kentucky 40391 and its mailing address is Post Office Box 707, Winchester, Kentucky 40392-0707. EKPC's telephone number is (859) 744-4812 and its fax number is (859) 744-6008. EKPC's email address is: psc@ekpc.coop. EKPC requests that the following individuals be included on the service list:

Chris Adams, EKPC's Director of Regulatory and Compliance Services:

chris.adams@ekpc.coop

L. Allyson Honaker, Counsel for EKPC:

allyson@hloky.com

Brittany Haynes Koenig, Counsel for EKPC:

brittany@hloky.com

Heather S. Temple, Counsel for EKPC:

heather@hloky.com

5. Pursuant to 807 KAR 5:001, Section 14(2), EKPC is a Kentucky corporation, in good standing, and was incorporated on July 9, 1941. A certificate of good standing is attached to this Application as Exhibit 1.

6. Pursuant to 807 KAR 5:001, Section 15(2)(a), EKPC has included the facts relied upon to show that the proposed construction is or will be required by public convenience or necessity in the Direct Testimony of Lucas Spencer, included as Exhibit 2 to this Application.

7. Pursuant to 807 KAR 5:001, Section 15(2)(b), EKPC has listed in Exhibit 3, the necessary franchises or permits that will be necessary for construction of the proposed transmission lines. EKPC will file copies of each of the franchises or permits when they are obtained from the proper authorities.

8. Pursuant to 807 KAR 5:001, Section 15(2)(c) and 807 KAR 5:120 Section 1(2), EKPC is requesting two CPCNs. The first project (“Metts Drive 161 kV Tap”) will include the construction of a 161kV Distribution Substation located along Metts Drive in Lebanon, Kentucky as well as the associated 161kV transmission line tap which will be approximately one (1) mile in length. A more detailed description of the proposed location, route, or routes of the proposed construction is contained in the Direct Testimony of Lucas Spencer’s contained in Exhibit 2 to this Application. The second project the (“Marion County Industrial 161 kV Tap Line Loop-In”) will include the construction of a parallel transmission line totaling approximately 2.2 miles in length and will tap EKPC’s 161kV Marion County – Green County transmission line. A more detailed description of the proposed location, route, or routes, of the proposed construction is contained in the Direct Testimony of Lucas Spencer contained in Exhibit 2 to this Application.

9. Pursuant to 807 KAR 5:001, Section 15(2)(c), a description of the manner in which the new lines will be constructed, and the names of all public utilities, corporations, or persons with whom the proposed construction or extension is likely to compete is included in the Direct Testimony of Mr. Spencer, contained in Exhibit 2 to this Application.

10. Pursuant to 807 KAR 5:001, Section 15(2)(e), EKPC plans to initially finance the proposed construction of the Metts Drive 161 kV Tap and the Marion County Industrial 161 kV Tap Line Loop-In with general funds and to refinance with additional items into a larger

refinancing package at a later date. The Projects will not materially affect the financial condition of EKPC.

11. Pursuant to 807 KAR 5:001, Section 15(2)(f), EKPC's estimated annual cost of operation after the Metts Drive 161 kV Tap is placed into service is \$121,552 and the Marion County Industrial 161 kV Tap Line Loop-In is \$243,763.

12. Pursuant to 807 KAR 5:120, Section 1, EKPC filed its Notice of Intent to file this Application on April 17, 2024. A copy of the Notice of Intent is attached as Exhibit 4 to this Application.

13. Pursuant to 807 KAR 5:120 Section 2(2)(a), three maps of suitable scale, no less than one inch equals 1,000 feet for each of the proposed projects are attached as Exhibits 5, the Marion County Industrial 161 kV Tap Line Loop-In, and 6, the Metts Drive 161 kV Tap, to this Application. The maps show the location of the proposed transmission line centerline and right of way, and boundaries of each property crossed by the transmission line right of way, based upon the records of the Marion County Property Valuation Administrator ("PVA").

14. Pursuant to 807 KAR 5:120 Section 2(2)(b), Exhibit 7 also includes sketches of the proposed typical transmission line support structures for the projects.

15. Pursuant to 807 KAR 5:120 Section 2(2)(c), Exhibits 8 through 18 also include additional maps that shows the alternative routes that were considered by EKPC. These alternative routes are also discussed in more detail in the siting studies that were completed by NV5 Geospatial, which are attached at Exhibits 19, the Marion County Industrial 161 kV Tap Line Loop-In, and 20, the Metts Drive 161 kV Tap, to this Application.

16. Pursuant to 807 KAR 5:120 Section 2(4), EKPC has given notice by mailing to each property owner over whose property each of the transmission lines is proposed to cross. The

notices were mailed via first-class mail to the addresses listed by the Marion County PVA records on May 17, 2024. The verification of Nick Comer, External Affairs Manager for EKPC is attached to the Application as Exhibit 21, stating he was responsible for mailing the required notices. Attached to his verification is a copy of the notice containing all of the information required by 807 KAR 5:120 Section 15(3) that was mailed along with a list of names and addresses of the property owners to whom the notice was sent. Additionally included in Exhibit 21, is proof of notice to landowners of the open house EKPC held on February 29, 2024, at the Marion County Extension Office.

17. Pursuant to 807 KAR 5:120 Section 2(6), EKPC also published a notice of the application to request a certificate of public convenience and necessity to construct the transmission lines on May 22, 2024, in *The Lebanon Enterprise*, which is a newspaper of general circulation in Marion County, Kentucky. This notice included all of the necessary information contained in 807 KAR 5:120 Section 2(5), including a map showing the proposed route, a statement of the right to request a local public hearing, and a statement that interested persons have the right to request to intervene. EKPC is attaching a copy of the newspaper notice as Exhibit 22 to the Application. EKPC will provide the publisher's affidavit within the statutory timeframe.

18. Pursuant to KRS 322.340, the engineering plans, specifications, drawings and reports for the proposed construction are signed, sealed and dated by an engineer registered in Kentucky.

REQUEST FOR CPCN

19. EKPC is requesting the Commission to grant a CPCN for the construction of the Metts Drive 161kV Tap. EKPC is also requesting the Commission grant a CPCN for the construction of Marion County Industrial 161 kV Tap Line Loop-In.

20. In addition, EKPC is requesting the Commission to grant it the authority to move the location of the line up to 50 feet on either side of the centerline shown on the map(s) attached as Exhibits 5 and 6, to account for any unexpected conditions that may arise during the construction of the 161 kV transmission lines.

21. EKPC states that the proposed transmission lines and the facilities indicated above are necessary to provide safe and reliable service to its Owner-Member distribution cooperatives and ultimately their end-users. The need for the transmission lines and associated facilities is described in more detail in the Direct Testimony of Darrin Adams, attached at Exhibit 23.

22. EKPC has reviewed the proposed routes and believes the process has selected the route that will have the least impact on the surrounding area and property owners. The 161 kV lines and related investments are projects needed to maintain adequate substation and distribution-feeder capacity and to improve overall reliability in the service area. The parameters of the project were also carefully calibrated to avoid wasteful duplication of investment and the unnecessary cluttering of landscape with utility infrastructure. In order to evaluate the routes thoroughly, EKPC engaged the experts at NV5 Geospatial to conduct a siting study to determine the best route for the project. This siting report(s) are attached as Exhibits 8 and 9, and shows not only the chosen route, but also the alternative routes that were considered.

WHEREFORE, EKPC respectfully requests the Commission to grant:

(1) a CPCN for the construction of the of the Metts Drive 161kV Tap;

(2) a CPCN for the construction of the Marion County Industrial 161 kV Tap Line Loop-

In;

(3) authority to move the location of the line fifty (50) feet on either side of the centerline as shown on the map(s) attached as Exhibits 3 and 4, to account for any unexpected conditions that may arise during the construction of the 161 kV transmission lines; and
(4) all other relief to which EKPC may be entitled.

This 17th day of May, 2024.

Respectfully Submitted,

Heather S. Temple

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Counsel for East Kentucky Power Cooperative, Inc.

EXHIBIT LIST

EXHIBIT NO.	TITLE	RESPONSIBLE PERSON
1	CERTIFICATE OF GOOD STANDING	JACOB WATSON
2	TESTIMONY	LUCAS SPENCER
3	PERMITS AND FRANCHISES	LUCAS SPENCER
4	NOTICE OF INTENT	JACOB WATSON
5	MAP OF PROJECT	LUCAS SPENCER
6	MAP OF PROJECT	LUCAS SPENCER
7	TYPICAL STRUCTURE SKETCHES	LUCAS SPENCER
8 -18	ALTERNATE ROUTE MAPS	LUCAS SPENCER
19	SITING REPORT	LUCAS SPENCER
20	SITING REPORT	LUCAS SPENCER
21	VERIFICATION OF MAILING NOTICE TO PROPERTY OWNERS – SAMPLE NOTICE – LIST OF PROPERTY OWNERS	NICK COMER
22	NEWSPAPER NOTICE AND AFFIDAVIT	NICK COMER
23	TESTIMONY	DARRIN ADAMS

Exhibit 1

Certificate of Good Standing

Commonwealth of Kentucky
Michael G. Adams, Secretary of State

Michael G. Adams
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
<http://www.sos.ky.gov>

Certificate of Existence

Authentication number: 310267

Visit <https://web.sos.ky.gov/ftshow/certvalidate.aspx> to authenticate this certificate.

I, Michael G. Adams, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

EAST KENTUCKY POWER COOPERATIVE, INC.

EAST KENTUCKY POWER COOPERATIVE, INC. is a corporation duly incorporated and existing under KRS Chapter 14A and KRS Chapter 273, whose date of incorporation is July 9, 1941 and whose period of duration is perpetual.

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

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 26th day of April, 2024, in the 232nd year of the Commonwealth.



Michael G. Adams

Michael G. Adams
Secretary of State
Commonwealth of Kentucky
310267/0015195

Exhibit 2

Testimony of Lucas Spencer

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

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COUNTY, KENTUCKY AND OTHER)	
GENERAL RELIEF)	

DIRECT TESTIMONY OF LUCAS SPENCER
ON BEHALF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Filed: May 17, 2024

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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VERIFICATION OF LUCAS SPENCER

STATE OF KENTUCKY)
)
COUNTY OF CLARK }

Lucas Spencer, Senior Engineer in the Project Management Department for East Kentucky Power Cooperative, Inc., being duly sworn, states that he has supervised the preparation of his Direct Testimony and certain filing requirements in the above referenced case and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

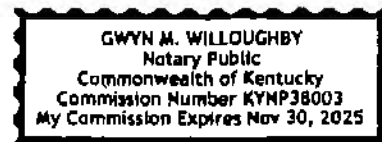
Lucas Spencer

Lucas Spencer

The foregoing Verification was signed, acknowledged and sworn to before me this 13th day of May 2024, by Lucas Spencer.

Gwyn M. Willoughby

Notary Public



1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND**
2 **OCCUPATION.**

3 A. My name is Lucas Spencer and my business address is East Kentucky Power
4 Cooperative, Inc. (“EKPC”), 4775 Lexington Road, Winchester, KY 40391. I am a
5 Senior Engineer in the Construction and Capital Project Department at EKPC.

6 **Q. PLEASE STATE YOUR EDUCATION AND PROFESSIONAL**
7 **EXPERIENCE.**

8 A. I received my Bachelor of Science in Applied Physics from Morehead State
9 University and a Bachelor of Science in Civil Engineering from the University of
10 Kentucky and I am a registered Professional Engineer in the Commonwealth of
11 Kentucky. My professional experience includes time spent working as a
12 transmission line design engineer at EKPC, and serving as a project manager for
13 EKPC. I joined EKPC in 2013, and worked as a student engineer in Power
14 Delivery, where I provided technical assistance and support to various teams in
15 EKPC’s Power Delivery business unit. In 2017, I joined the transmission line
16 design team at EKPC where I designed and managed transmission line projects. In
17 2023, I joined the Project Management Department as a Senior Engineer.

18 **Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR DUTIES AT**
19 **EKPC.**

20 A. As a Senior Engineer in the Project Management Department, I currently manage
21 capital construction projects on behalf of EKPC.

22 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
23 **PUBLIC SERVICE COMMISSION?**

1 A. Yes. I have testified before the Kentucky Public Service Commission
2 (“Commission”) as part of Case No. 2022-00314, which involved approval of the
3 addition of a 138kV circuit to EKPC’s existing 69kV KU Fawkes-Duncannon Lane
4 transmission line.

5 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
6 **PROCEEDING?**

7 A. My testimony will provide an explanation for the transmission line route selection
8 process, project scope and costs for the proposed new Metts Drive 161-25 kV
9 distribution substation (“Metts Drive Substation”) and associated 161 kV tap line
10 extension from EKPC’s existing South Marion County Industrial 161 kV tap line
11 (“Metts Drive 161 kV Tap”), as well as the proposed new 161 kV line section from
12 the existing Marion County-Green County 161 kV line to the existing Marion
13 County Industrial Substation (“Marion County Industrial 161 kV Tap Line Loop-
14 In”).

15 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

16 A. Yes, I am sponsoring the following Exhibits:

17 Application Exhibit 3 – Permit List

18 Application Exhibits 5 and 6 – Proposed Route Maps

19 Application Exhibit 7 – Typical Structure Drawings

20 Application Exhibits 8 through 18 – Alternate Route Maps

21 Application Exhibits 19 and 20 – NV5 Geospatial Siting Studies

22 Each of these exhibits were prepared by me or by subject matter experts acting
23 under my management of the project.

1 **Q. WHAT RELIEF IS EKPC SEEKING IN THIS PROCEEDING?**

2 A. Due to the construction of the Metts Drive Substation, EKPC is requesting a CPCN
3 from the Commission for the new Marion County Industrial 161kV Tap Line Loop-
4 In which will have an approximate line length of 2.2 miles and will have a voltage
5 of 161 kV. Additionally, EKPC is requesting a CPCN from the Commission for
6 the new Metts Drive 161kV Tap which will have a length of 1.02 miles and will
7 have a voltage of 161 kilovolts. These projects will be constructed to serve the new
8 Metts Drive Substation which will, as outlined in Mr. Adams' testimony, support
9 improved reliability of service to the Inter-County customers in the area.

10 **Q. PLEASE PROVIDE A DESCRIPTION FOR EACH ELEMENT OF THE**
11 **PROPOSED PROJECT(S).**

12 A. The Metts Drive Substation is a new 161-25kV distribution substation with an A-
13 frame, additional substation equipment, and associated work, including; but not
14 limited to, metering and controls. This substation will be located near the
15 intersection of Industrial Drive and Metts Drive.

16 The Metts Drive 161 kV Tap is a 161kV transmission line tap that will tap
17 (i.e., start) at the current EKPC transmission line South Marion Industrial Tap and
18 will traverse along Industrial Drive for 1.02 miles until it reaches the termination
19 point (i.e., end point) on the A-frame at the Metts Drive Substation. EKPC plans
20 to install approximately 10 galvanized steel poles, which will resemble the typical
21 structure drawings attached as Exhibit 6. EKPC will install three (3) phases of
22 556.5 MCM ACSR conductor and two (2) shield wires to protect the transmission
23 line from lightning strikes and serve grounding purposes. One (1) shield wire will

1 be a 7no7 alumoweld shield wire, and one (1) shield wire will be an optical ground
2 wire which EKPC utilizes for its own telecommunication infrastructure needs.
3 EKPC will be seeking a 100-foot right of way (“ROW”) for this transmission line.

4 The Marion County Industrial 161 kV Tap Line Loop-In will tap EKPC’s
5 existing Marion County-Green County 161 kV line near the existing tap location of
6 EKPC’s Marion County Industrial Tap. This transmission line will mostly traverse
7 parallel to the existing Marion County Industrial Tap. The locations where the
8 Marion County Industrial 161 kV Tap Line Loop-In is not parallel is because of
9 constructability constraints. The Marion County Industrial 161kV Tap Line Loop-
10 In will be 2.2 miles in length and will utilize approximately 20 galvanized steel
11 poles, which will resemble the typical structure drawings attached as Exhibit 6.
12 EKPC will install three (3) phases of 795 MCM ACSR conductor, and two (2)
13 shield wires. One (1) shield wire will be a 7no7 alumoweld shield wire, and one
14 (1) shield wire will be an optical ground wire which EKPC utilizes for its own
15 telecommunication infrastructure needs. EKPC will be seeking a 75-foot ROW in
16 locations where the ROW will be located adjacent to EKPC’s existing ROW. The
17 transmission structures on the new ROW will be located on the edge of the existing
18 easement of the current Marion County Industrial Tap and 75 feet of the ROW will
19 be on the opposite side. In locations where EKPC cannot build directly adjacent to
20 its existing ROW, EKPC will be seeking a 100-foot ROW.

21 **Q. WHAT ARE THE ESTIMATED CONSTRUCTION COSTS FOR EACH**
22 **ELEMENT OF THE PROPOSED PROJECT?**

23 A. The Metts Drive 161 kV Substation has an estimated cost of \$3,782,240.

- 1 • Major Equipment & Materials - \$2,316,083 (RUS Account 346000)
- 2 • Construction Labor - \$868,250 (RUS Account 341000)
- 3 • Owner's Engineer - \$164,407 (RUS Account 345000)
- 4 • Owner's Costs - \$433,500 (RUS Account 345000)

5 The Metts Drive 161kV Transmission Tap will have an estimated cost of
6 \$2,543,493.

- 7 • Major Equipment & Materials - \$823,610 (RUS Account 346000)
- 8 • Construction Labor - \$468,000 (RUS Account 341000)
- 9 • Owner's Engineer - \$303,463 (RUS Account 345000)
- 10 • Owner's Costs - \$762,280 (RUS Account 345000)
- 11 • Miscellaneous Contracts - \$186,140 (RUS Account 340000)

12 The Marion County Industrial 161 kV Tap Line Loop-In will have an estimated
13 cost of \$4,188,733.

- 14 • Major Equipment & Materials - \$1,679,218 (RUS Account 346000)
- 15 • Construction Labor - \$864,000 (RUS Account 341000)
- 16 • Owner's Engineer - \$244,958 (RUS Account 345000)
- 17 • Owner's Costs - \$603,750 (RUS Account 345000)
- 18 • Miscellaneous Contracts - \$796,807 (RUS Account 340000)

19 **Q. WILL THE PROJECT MATERIALLY AFFECT THE FINANCIAL**
20 **CONDITION OF EKPC?**

21 A. The project will not materially affect the financial condition of EKPC.

22 **Q. HOW IS EKPC PLANNING TO FINANCE THE COSTS OF THE**
23 **PROPOSED PROJECT?**

1 A. EKPC plans to initially finance the Project with general funds and later refinance
2 the Project and other investments through long-term debt issued by the Rural
3 Utilities Service (RUS) or other lenders.

4 **Q. PLEASE DESCRIBE THE PROCESS TAKEN BY EKPC TO EVALUATE**
5 **THE BEST POSSIBLE ROUTE FOR THE TRANSMISSION LINE AND**
6 **WHAT FACTORS WERE INCLUDED IN THAT ANALYSIS.**

7 A. For these transmission lines, EKPC followed the EPRI-Kentucky Transmission
8 Line Siting Methodology. EKPC engaged the experts at NV5 Geospatial to
9 perform a Transmission Route Selection to determine the routing of both the Metts
10 Drive 161 kV Tap and the Marion County Industrial 161 kV Tap Line Loop-In.

11 In accordance with the methodology, NV5 Geospatial developed Macro
12 Corridors based on the GIS information from publicly available data. The publicly
13 available data is used to identify features and a suitability value is assigned in
14 accordance with the EPRI-KY Transmission Line Siting Methodology. Macro
15 Corridors are developed for each of the three environments – Built, Natural and
16 Engineering – and those values are utilized in the development of the Simple
17 Average Alternative Corridor. The top five percent scores are utilized to create a
18 final Phase 1 Study Area.

19 After the Phase 1 Study Area is developed, NV5 Geospatial created
20 suitability surfaces in accordance with the EPRI – KY Transmission Line Siting
21 Methodology. NV5 Geospatial completed a suitability surfaces analysis and
22 provided weighting for features within the study area. The weighting and features
23 analyzed in the Suitability model were defined during the development of the KY

1 Siting Model, with input from stakeholders throughout the Commonwealth.
2 Suitability surfaces were created for each of the three environments: Built, Natural,
3 and Engineering.

4 From the suitability surfaces, NV5 Geospatial developed the Composite
5 Alternate Corridor. More information regarding the development of the Composite
6 Alternate Corridor is included in the NV5 Geospatial report included and found in
7 Exhibits 22 and 23 of the Application which reflect the siting studies of the Metts
8 Drive 161kV Tap and the Marion County Industrial 161kV Tap Line Loop-In
9 respectively. The standard siting methodology utilizes the top 5% scores for the
10 Alternate Corridor development; however, based on the “short” nature of these
11 transmission lines, the team had concerns about the 5% composite corridor
12 potentially minimizing the feasible transmission routes and elected to utilize the top
13 10% alternative corridors for routing. This allowed for a more inclusive and robust
14 analysis.

15 Once EKPC received the Alternative and Composite Corridors, two EKPC
16 routing teams completed field reconnaissance to determine viable and constructible
17 routes. Within this study's context, these potential centerline routes are called
18 Alternate Routes. Each individual route is then scored using the EPRI KY Scoring
19 Methodology. Once routes are scored, perspective weights are applied for final
20 route scores.

21 The Expert Judgement scoring criteria were established prior to receiving
22 route scoring from NV5 Geospatial. The intent of Expert Judgement is to evaluate
23 project factors or impacts that are specific to the area and the project in question

1 but are not captured in the standard model. EKPC discussed and determined the
2 Expert Judgement criteria and weighting that would be utilized for the project.

3 Following receipt by EKPC of NV5's route scoring, the project team agreed
4 that the routing study objectively and quantitatively selected the best routes for both
5 the Metts Drive 161kV Tap and the Marion County Industrial 161 kV Tap Line
6 Loop-In and that there was no need to utilize the expert judgement scoring criteria.

7 **Q. WHAT WAS THE OUTCOME OF THE SITING STUDY?**

8 A. EKPC received the route scores from NV5 which identified Route 5 found in
9 Exhibit 22 to the Application as the best alternative route for the Marion County
10 Industrial 161 kV Tap Line Loop-In transmission line. Route 5 found in Exhibit 21
11 was identified as the best alternative route for the Metts Drive 161 kV Tap
12 transmission line.

13 **Q. PLEASE EXPLAIN WHY CO-LOCATION ON ANY EXISTING EKPC
14 ROW WAS NOT VIABLE.**

15 A. The Marion County Industrial 161 kV Tap Line Loop-In was deemed unsuitable
16 for co-location along EKPC's existing Marion County Industrial Tap due to
17 constructability constraints. This existing tap operates as a radial line, meaning
18 there is no alternative transmission source available to maintain the energization of
19 the substations it serves; specifically, the Marion County Industrial Substation and
20 the South Marion County Industrial Substation. Given this limitation, there isn't a
21 cost-effective, safe, or reliable method to serve these substations other than through
22 EKPC's existing Marion County Industrial Tap.

1 The transmission structures along the existing Marion County Industrial
2 Tap would experience structural overload, as they weren't originally designed to
3 support two transmission circuits. Additionally, the ground clearance on this line
4 isn't sufficient to accommodate the addition of a new transmission circuit. Hence,
5 constructing a new circuit on its dedicated right-of-way (ROW) and paralleling
6 EKPC's existing ROW where feasible is considered the optimal approach.

7 Furthermore, separating the two transmission circuits onto distinct
8 structures and ROWs effectively mitigates the risk of cascading failures. Cascading
9 failures in transmission line infrastructure are triggered by the loss of an angle or
10 deadend structure, typically during severe storm events, initiating a chain reaction
11 of structural failures. This occurs as the sudden redistribution of loads onto adjacent
12 tangent structures surpasses their intended capacity, leading to mechanical
13 overloads and stresses on various structural components, such as poles and support
14 arms. There was no viable transmission line ROW for co-location for the Metts
15 Drive Transmission Tap.

16 **Q. WHAT PERMITS WILL BE REQUIRED FOR THE PROJECT(S)?**

17 A. Please see Exhibit 2 of the Application for the list of permits required for the Marion
18 County Industrial 161 kV Tap Line Loop-In and the Metts Drive 161 kV Tap
19 transmission line projects.

20 **Q. HAS EKPC APPLIED FOR OR RECEIVED ANY OF THE PERMITS OR**
21 **APPROVALS NECESSARY FOR THIS PROJECT?**

22 A. EKPC has not applied for any state or local permits. The permits that will be
23 required for this project are outlined in Exhibit 2.

1 **Q. WILL THE PROJECT RESULT IN UNNECESSARY DUPLICATION OF**
2 **INVESTMENT OR THE CLUTTERING OF THE LANDSCAPE WITH UN-**
3 **NEEDED FACILITIES?**

4 A. Each of the discussed projects fulfills a critical electrical requirement, as
5 substantiated in Darrin Adams' testimony. The implementation of the Metts Drive
6 161kV Tap is required to energize the planned 161kV distribution substation, which
7 will replace EKPC's existing Lebanon Substation. Furthermore, the Marion
8 County Industrial 161kV Tap Line Loop-In is indispensable for upholding
9 reliability in the region, particularly in light of the heightened MW-mile exposure
10 resulting from the introduction of the 'Metts Drive Substation

11 **Q. ARE THERE ANY PUBLIC UTILITIES, CORPORATIONS OR PERSONS**
12 **WITH WHOM THE PROJECT IS LIKELY TO COMPETE?**

13 A. No.

14 **Q. WHAT BENEFITS WILL BE DERIVED FROM THIS PROJECT?**

15 A. The establishment of the Metts Drive Substation and its associated tap is vital for
16 addressing anticipated distribution-substation and distribution-feeder loading
17 challenges linked to the Lebanon Substation. However, the introduction of the
18 Metts Drive Substation would increase the MW-mile exposure on the existing
19 Marion Industrial Tap without other transmission modifications in the area. This
20 underscores the necessity of implementing the Marion County Industrial 161kV
21 Tap Line Loop-In Project. For a comprehensive understanding of the project's
22 advantages, please refer to the detailed testimony provided by Darrin Adams.

23 **Q. WHAT IS THE TIMELINE FOR COMPLETION OF THE PROJECT(S)?**

1 A. The proposed in-service date for all the projects discussed is December 2025.

2 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

3 A. Yes.

Exhibit 3

Permits and Franchises

Exhibit 3 – Metts Drive Transmission Tap Environmental Permitting and Approvals

RUS National Environmental Policy Act Approval

1. US Fish and Wildlife Service Section 7 Coordination
 1. endangered species review
2. Federally Designated Indian Tribe Section 106 Review
3. State Historic Preservation Office Section 106 Review
 1. Archaeology and Cultural Historic surveys
4. Natural Resource Conservation Service
 1. Prime Farmland and Hydric soils data request
5. Archeological Resources Protection Act, 16 U.S.C. 470aa et seq.
6. Clean Air Act, 42 U.S.C. 7401 et seq.
7. Clean Water Act, 33 U.S.C. 1251 et seq.
8. Comprehensive Environmental Response, Compensation, & Liability Act, 42 U.S.C. 9601 et seq.
9. Endangered Species Act, 16 U.S.C. 1531 et seq.
10. Farmland Protection Policy Act, 7 U.S.C. 4201 et seq.
11. National Environmental Policy Act, 42 U.S.C. 4321 et seq.
12. National Historic Preservation Act, 16 U.S.C. 470 et seq.
13. Native American Graves Protection and Repatriation Act of November 16, 1990 (P.L. 101-601, 104 Statute 3048; 25 USC 3001-3013)
14. Resource Conservation & Recovery Act, 42 U.S.C. 6901 et seq.
15. Solid Waste Disposal Act, 42 U.S.C. 3251
16. Safe Drinking Water Act, 42 U.S.C. 300 et seq.
17. E.O. 11514, Protection and Enhancement of Environmental Quality
18. E.O. 11593, Protection and Enhancement of the Cultural Environment
19. E.O. 11988, Floodplain Management
20. E.O. 11990, Protection of Wetlands
21. E.O. 12898, Environmental Justice
22. E.O. 13084, Consultation and Coordination with American Indian Tribes

US Army Corps Of Engineers

1. Nationwide Permit #57 – No Preconstruction Notification required

Kentucky Division of Water

1. General Water Quality Certification – Nationwide Permit #57
2. General Floodplain Permit
3. KYR10 General Stormwater Permit for construction

Kentucky Transportation Cabinet

1. TC99-211 – Overhead Utility Encroachment Diagram for Fully Controlled Highways

2. TC99-212 – Overhead Utility Encroachment Diagram for Non-Fully Controlled Highways
3. TC-99-1A – Application for Encroachment Permit

Additional Required Permits for Substation Work – in addition to those listed above

1. Phase I Environmental Site Assessment per ASTM 1527-13 (Fawkes Substation Expansion, Madison County Switching Station, Industrial Substation)
 1. Substation property acquisitions
2. CSX Railroad Crossing Permit (Madison County Switching Station)
3. KU Crossing Permit (Fawkes Substation Expansion Work)

Exhibit 4
Notice of Intent

April 17, 2024

Via Electronic Filing

Ms. Linda C. Bridwell, P.E.
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

Re: *Electronic Application of East Kentucky Power Cooperative, Inc. for
Certificates of Public Convenience and Necessity for Construction
Projects in Marion County, Kentucky and other General Relief
Case No. 2024-00108*

Dear Ms. Bridwell:

Please let this letter serve as notice, pursuant to KRS 278.020, 807 KAR 5:001 and 807 KAR 5:120 that East Kentucky Power Cooperative, Inc. (“EKPC”) plans to file on or after May 17, 2024, an Application for two Certificates of Public Convenience and Necessity (“CPCN”) to construct two 161 kV electric transmission lines and infrastructure in Marion County, Kentucky. After the completion of a condition assessment showing reliability issues with the existing system in the area, EKPC has determined that both projects are necessary. This project will allow EKPC to continue to provide safe and reliable service to its Owner-Members and their end-use members as well as to add additional transmission capacity for future load growth in the area.

Pursuant to 807 KAR 5:120 Section 1(2)(a), EKPC’s contact information is:

East Kentucky Power Cooperative, Inc.
4775 Lexington Road
Winchester, KY 40391
(859) 744-4812

EKPC has filed a Notice to Use Electronic Filing Procedures in this case.

Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Heather S. Temple

Heather S. Temple

Exhibit 5

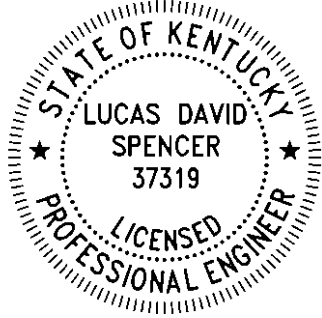
Map of Project

Marion County Industrial

161 kV Tap Line Loop-In

Exhibit 5 Cover Sheet

These maps are issued for the purpose of regulatory approval and do not represent survey-quality data. The information contained herein only serves as a conceptual depiction of the routes proposed. All maps were completed either by me or under my direct supervision.



Signed: DocuSigned by:
Lucas Spencer
1CE232344EC47D...

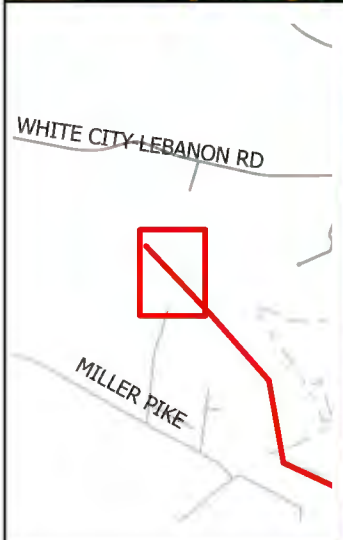
Date: 5/22/2024

Legend

- EKPC Existing Substation
- EKPC Existing Transmission
- Proposed Route
- ▭ Parcel
- ▭ Proposed ROW



Seaboard System Railroad



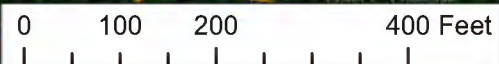
Marion County Industrial
161 kV Parallel Tap Line Loop-In
Exhibit 5 - Proposed Route

Page 1 of 7



EAST KENTUCKY POWER COOPERATIVE
4775 Lexington Road, PO Box 707
Winchester, Kentucky 40392
Phone (859)744-4812 www.ekpc.coop Fax (859)744-6008

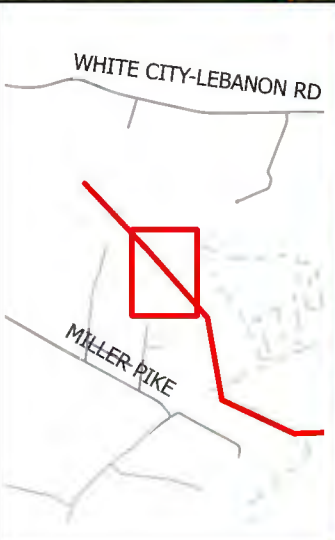
Maxar, Microsoft, Esri Community Map Contributors, City of Bardstown, Nelson County, OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census





Legend

- EKPC Existing Substation
- EKPC Existing Transmission
- Proposed Route
- Parcel
- Proposed ROW

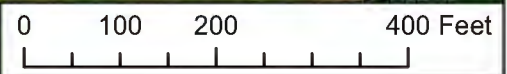


Marion County Industrial
 161 kV Parallel Tap Line Loop-In
 Exhibit 5 - Proposed Route

Page 2 of 7

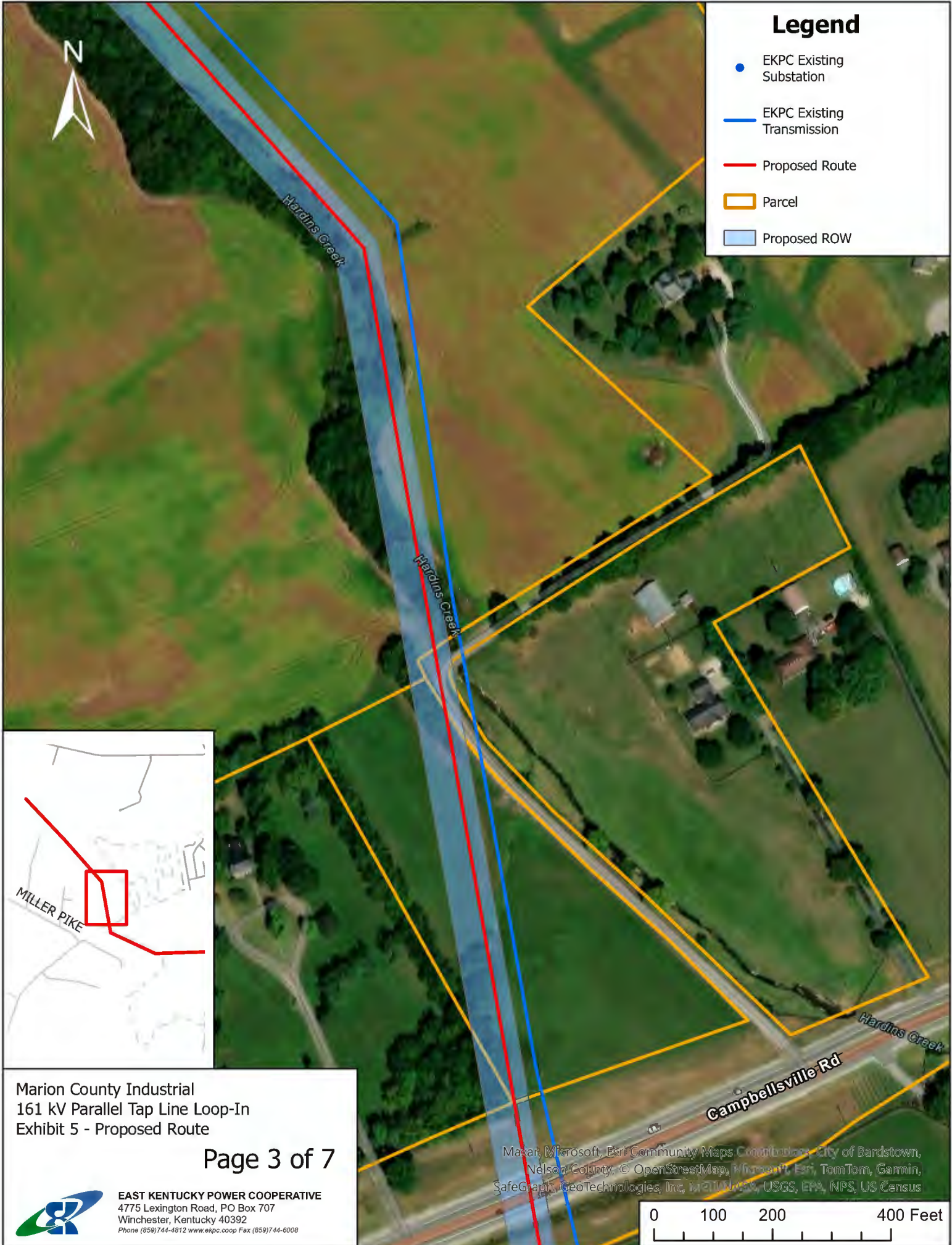
EAST KENTUCKY POWER COOPERATIVE
 4775 Lexington Road, PO Box 707
 Winchester, Kentucky 40392
 Phone (859)744-4812 www.ekpc.coop Fax (859)744-6008

Maxar, Microsoft, Esri Community Maps Contributors, City of Bardstown, Madison County, OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Swiremap, GeoTechnologies Inc., METI/NASA, USGS, EPA, NPS, US Census



Legend

- EKPC Existing Substation
- EKPC Existing Transmission
- Proposed Route
- ▭ Parcel
- ▭ Proposed ROW

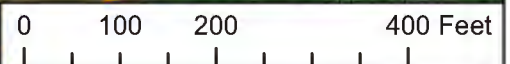


Marion County Industrial
161 kV Parallel Tap Line Loop-In
Exhibit 5 - Proposed Route



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Phone (859)744-4812 www.ekpc.coop Fax (859)744-6008

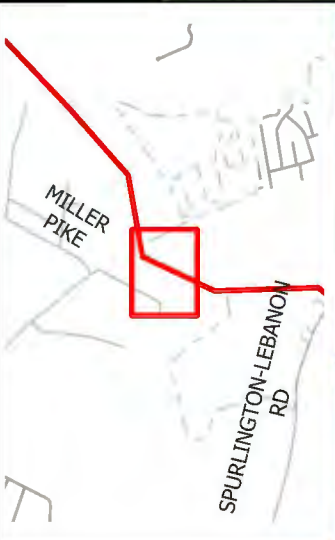
Maxar, Microsoft, Esri Community Maps Contributors, City of Bardstow, Nelson County, © OpenStreetMap, Mapbox, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, HERE, NOAA, USGS, EPA, NPS, US Census





Legend

- EKPC Existing Substation
- EKPC Existing Transmission
- Proposed Route
- Parcel
- Proposed ROW

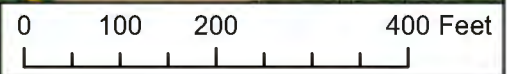


Marion County Industrial
 161 kV Parallel Tap Line Loop-In
 Exhibit 5 - Proposed Route



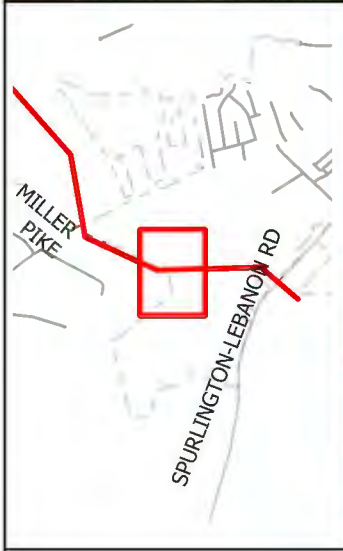
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Maxar, Microsoft, Esri Community Maps Contributors, City of Bardstown, Nelson County, OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Swiremap, GeoTechnics, Inc, METI/NASA, USGS, EPA, NPS, US Census



Legend

- EKPC Existing Substation
- EKPC Existing Transmission
- Proposed Route
- ▭ Parcel
- ▭ Proposed ROW

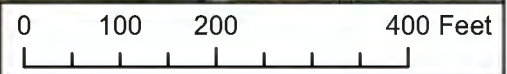


Marion County Industrial
161 kV Parallel Tap Line Loop-In
Exhibit 5 - Proposed Route



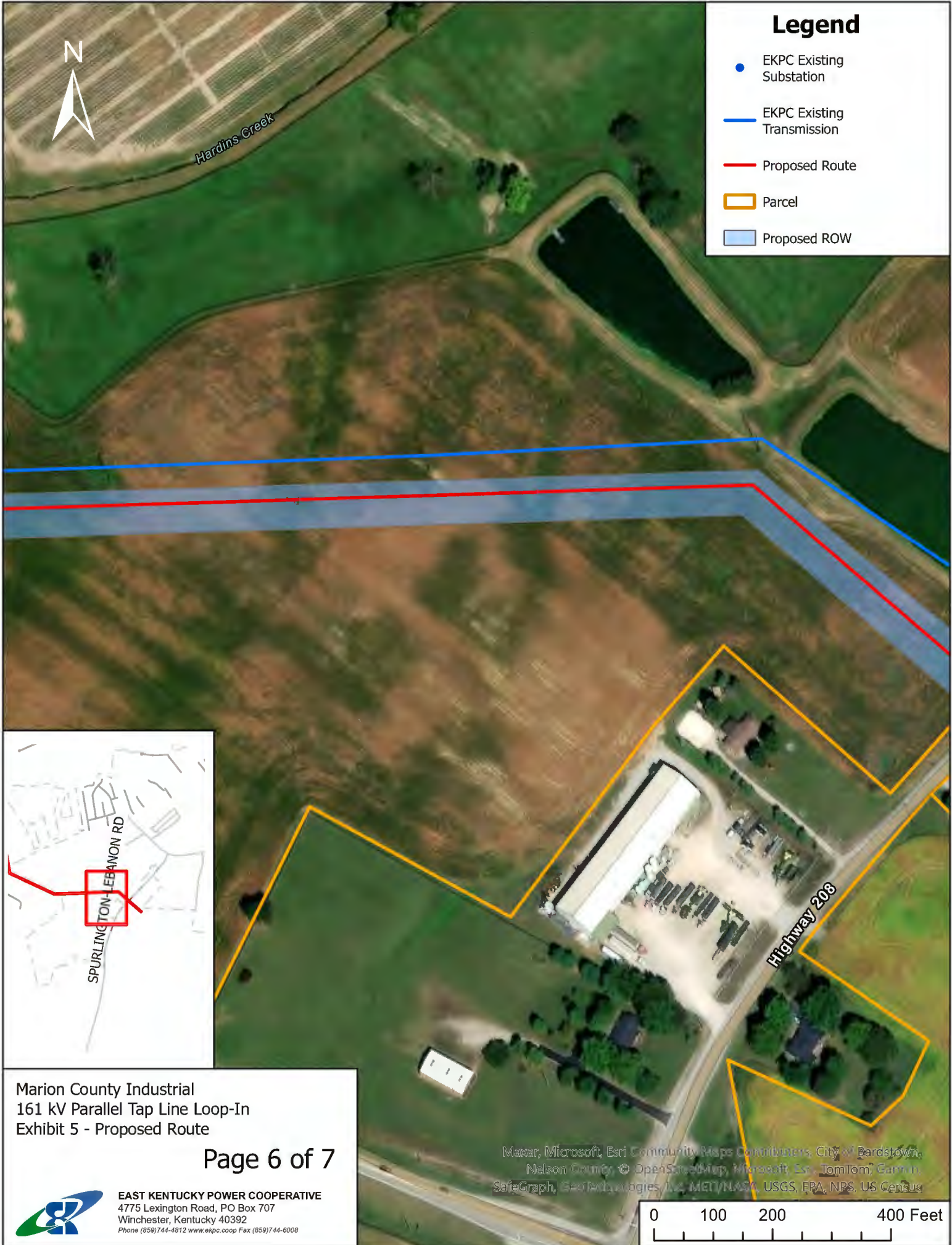
EAST KENTUCKY POWER COOPERATIVE
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Maxar, Microsoft, Esri Community Maps Contributors, City of Bardstown, Nelson County, OpenStreetMap, Microsoft, Esri, TomTom, Garmin, LifeGraph, GeoTechnology, Inc, METI/NASA, USGS, EPA, NPS, US Census



Legend

- EKPC Existing Substation
- EKPC Existing Transmission
- Proposed Route
- ▭ Parcel
- ▭ Proposed ROW



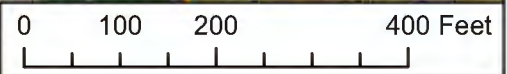
Marion County Industrial
161 kV Parallel Tap Line Loop-In
Exhibit 5 - Proposed Route

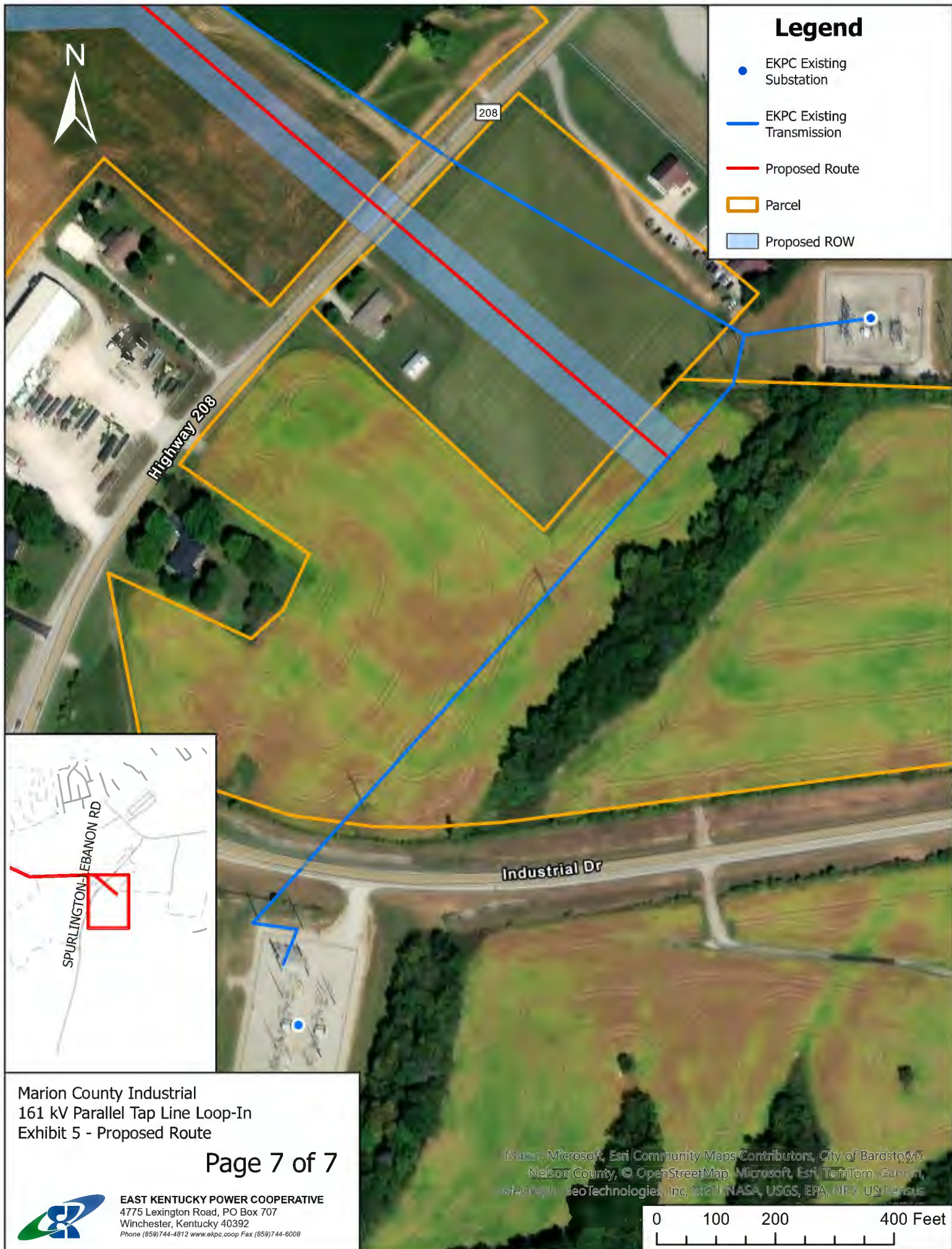
Page 6 of 7



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Legend

- EKPC Existing Substation
- EKPC Existing Transmission
- Proposed Route
- Parcel
- Proposed ROW



Highway 208

208

Industrial Dr

SPURLINGTON-EBANON RD

Marion County Industrial
 161 kV Parallel Tap Line Loop-In
 Exhibit 5 - Proposed Route

Page 7 of 7



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Map data: Microsoft, Esri Community Maps Contributors, City of Bardonia, Nelson County, OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Wikimapia, GeoTechnologies, Inc, NITN, NASA, USGS, EPA, NPS, US Census

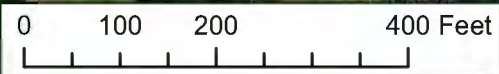
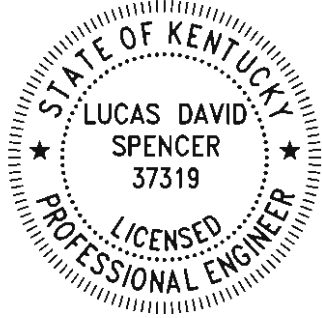


Exhibit 6
Map of Project
Metts Drive 161 kV Tap

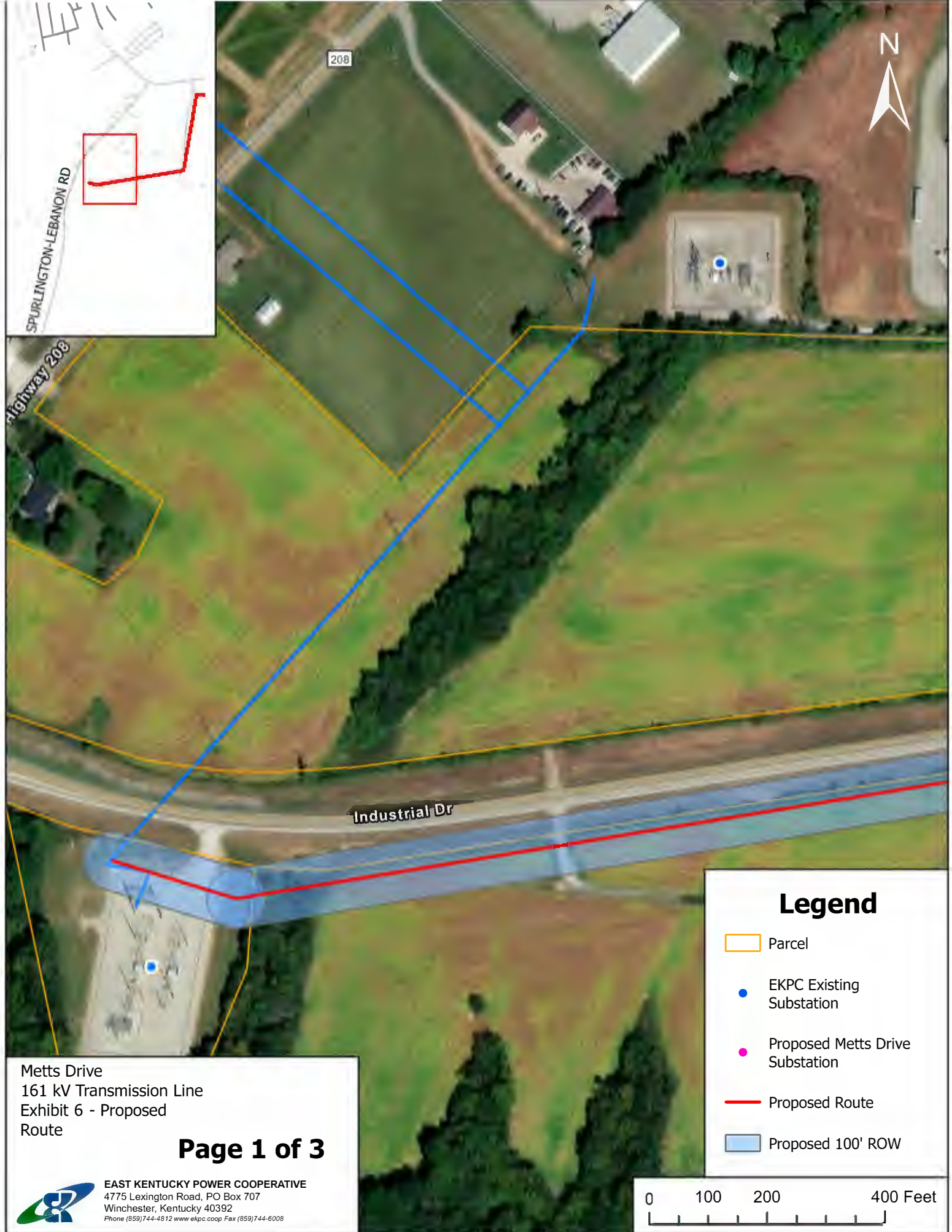
Exhibit 6 Cover Sheet

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Signed: DocuSigned by:
Lucas Spencer
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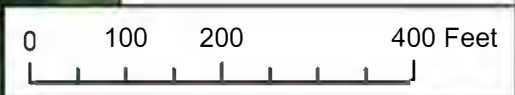
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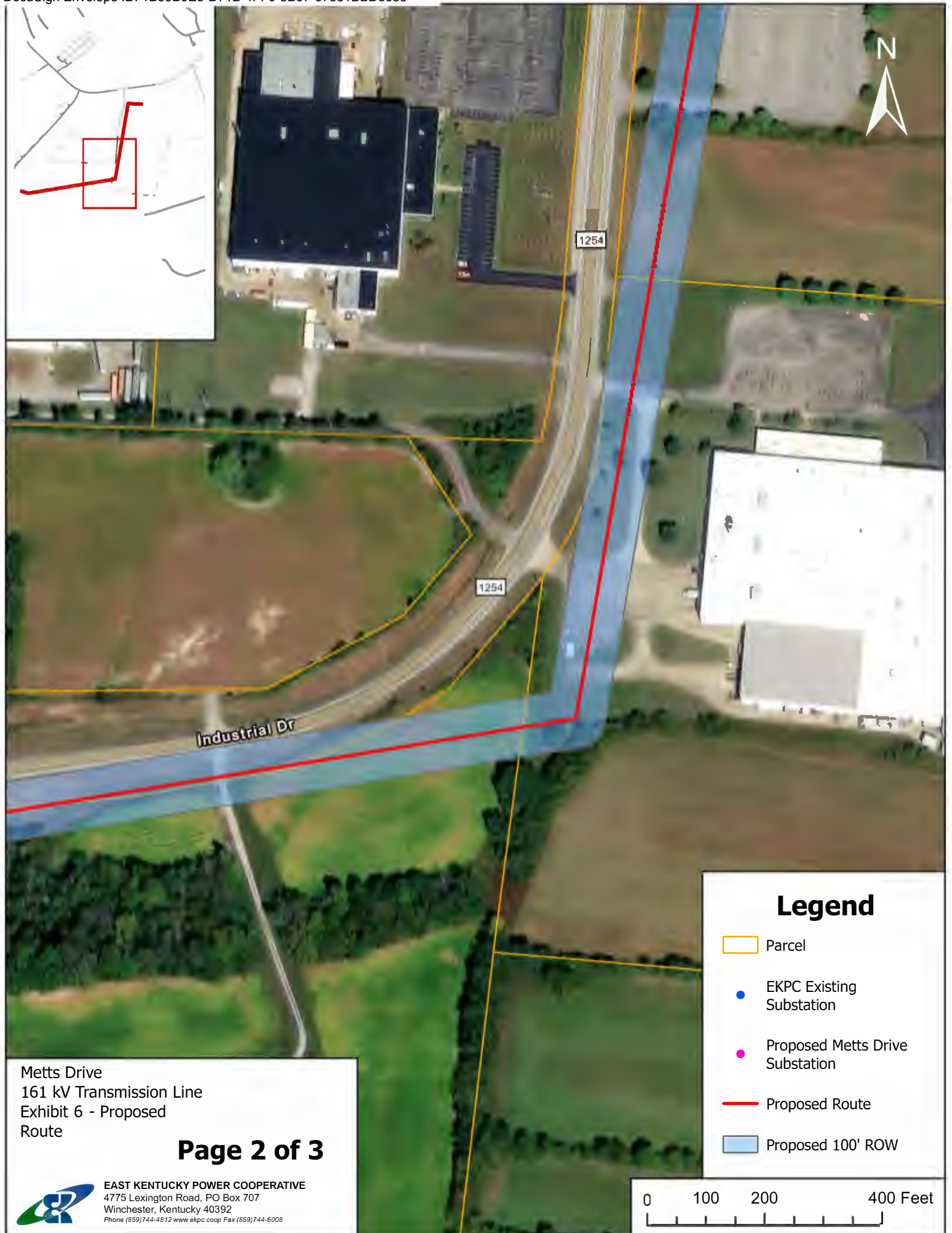


Metts Drive
 161 kV Transmission Line
 Exhibit 6 - Proposed
 Route

Legend

- Parcel
- EKPC Existing Substation
- Proposed Metts Drive Substation
- Proposed Route
- Proposed 100' ROW










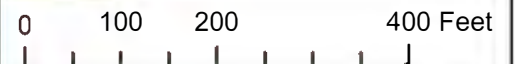
Metts Drive
161 kV Transmission Line
Exhibit 6 - Proposed
Route

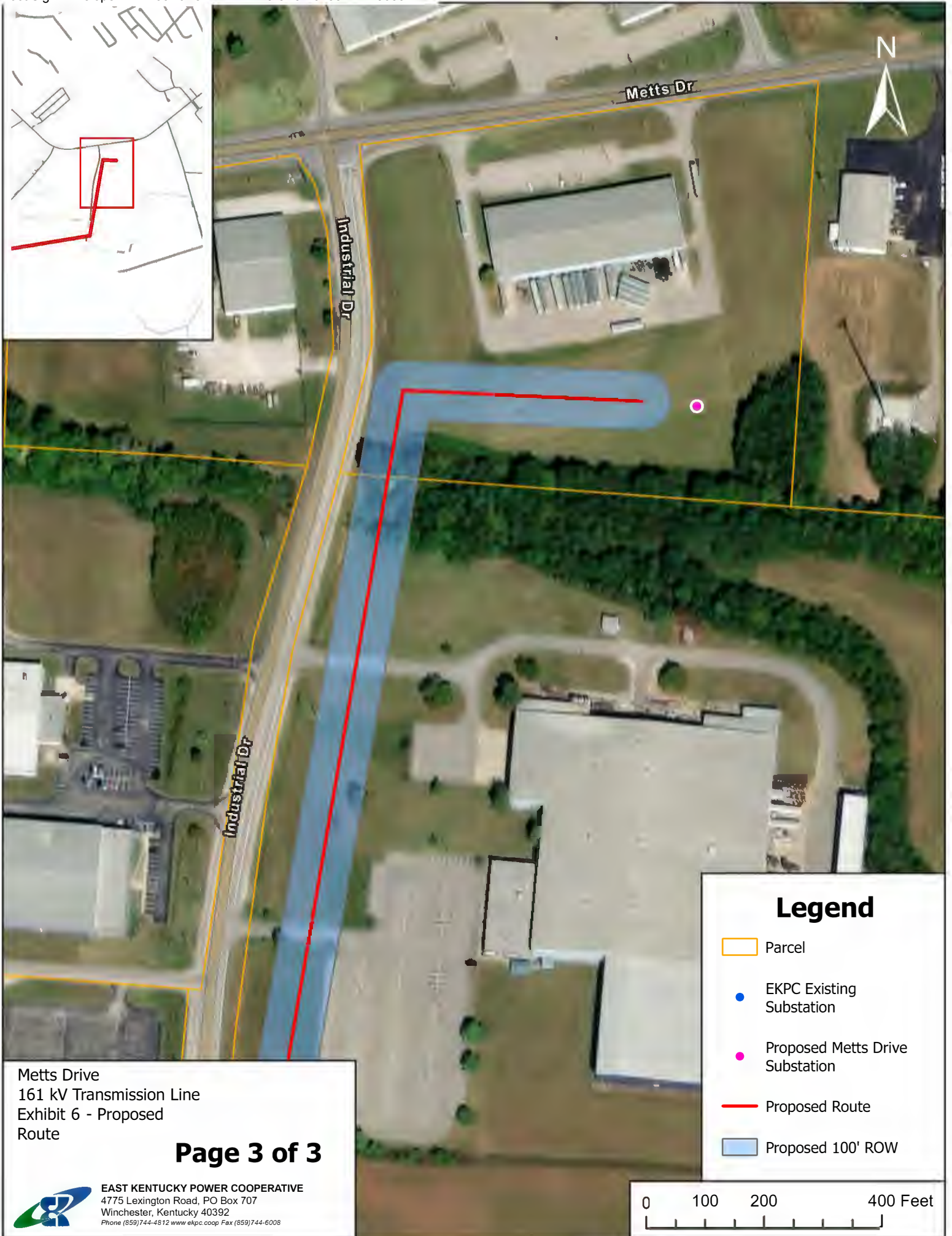


EAST KENTUCKY POWER COOPERATIVE
4775 Lexington Road, PO Box 707
Winchester, Kentucky 40392
Phone (859)744-4812 www.ekpc.coop Fax (859)744-6008

Legend

-  Parcel
-  EKPC Existing Substation
-  Proposed Metts Drive Substation
-  Proposed Route
-  Proposed 100' ROW





Metts Drive
 161 kV Transmission Line
 Exhibit 6 - Proposed
 Route

Legend

- Parcel
- EKPC Existing Substation
- Proposed Metts Drive Substation
- Proposed Route
- Proposed 100' ROW

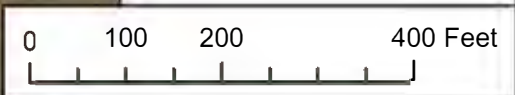
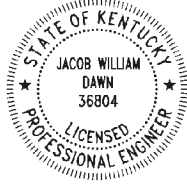


Exhibit 7

Typical Structure Sketches

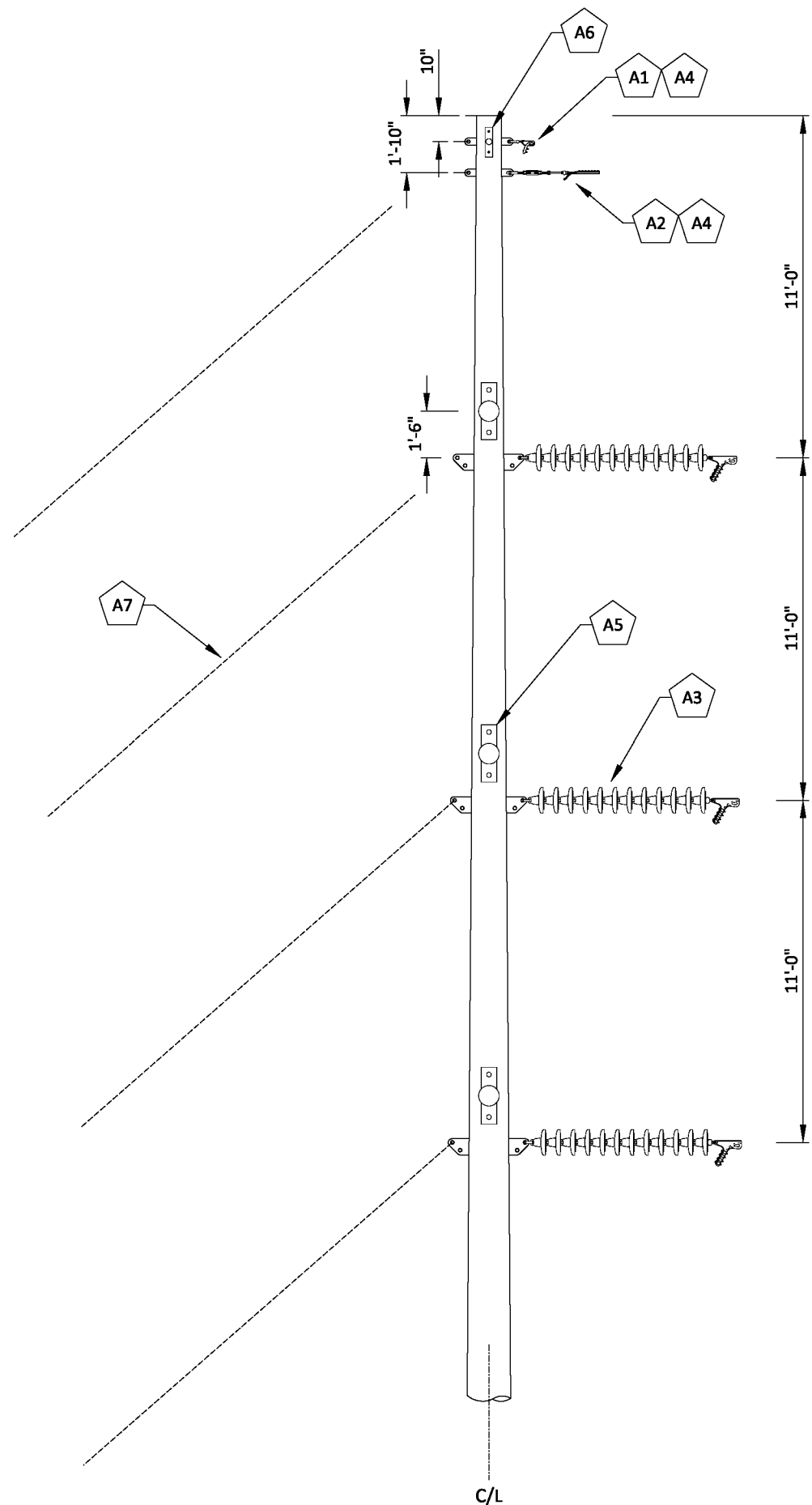
Exhibit 7 Cover Sheet

These drawings are provided for regulatory approval purposes only and do not constitute detailed engineering designs. They are subject to revision and modification as the project progresses through detailed engineering and construction and as such shall not be used for construction without express permission by the engineer of record.



Signed: _____

Date: 5/15/2024

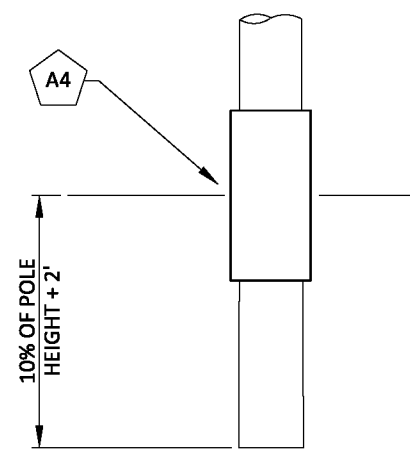


LIST OF MATERIALS

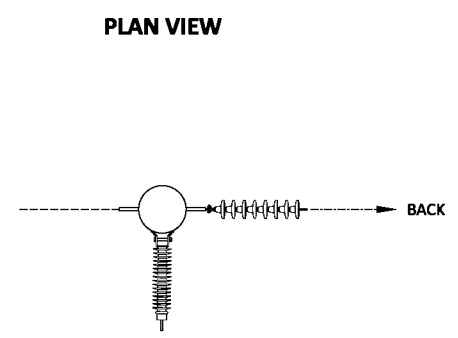
DWG. REF.	QTY	EKPC ITEM ID	MANUFACTURER	PART #	DESCRIPTION

LIST OF ASSEMBLIES

DWG. REF.	QTY	DESCRIPTION
A1	1	TM-4E (OHGW DEADEND ASSY)
A2	1	TM-DE1 (OPGW DEADEND ASSY)
A3	3	TM-1E-161 OR TM-1E-POLY-161 (INSULATOR ASSY)
A4	1	TM-9-SP2A (GROUNDING ASSY)
A5	3	TM-HPJS-161 (POST INSULATOR JUMPER SUPPORT)
A6	1	TM-OPGWJS (OPGW JUMPER SUPPORT ASSY)
A7	*	GUYING ASSY (REFER TO PLAN & PROFILE SHEET)



SETTING DEPTH



PLAN VIEW

APPROVALS

DRAWN R. TERRILL	DATE 1-25-2024
REVIEWED J. DAWN	DATE 2-5-2024
APPROVED	DATE

REVISIONS

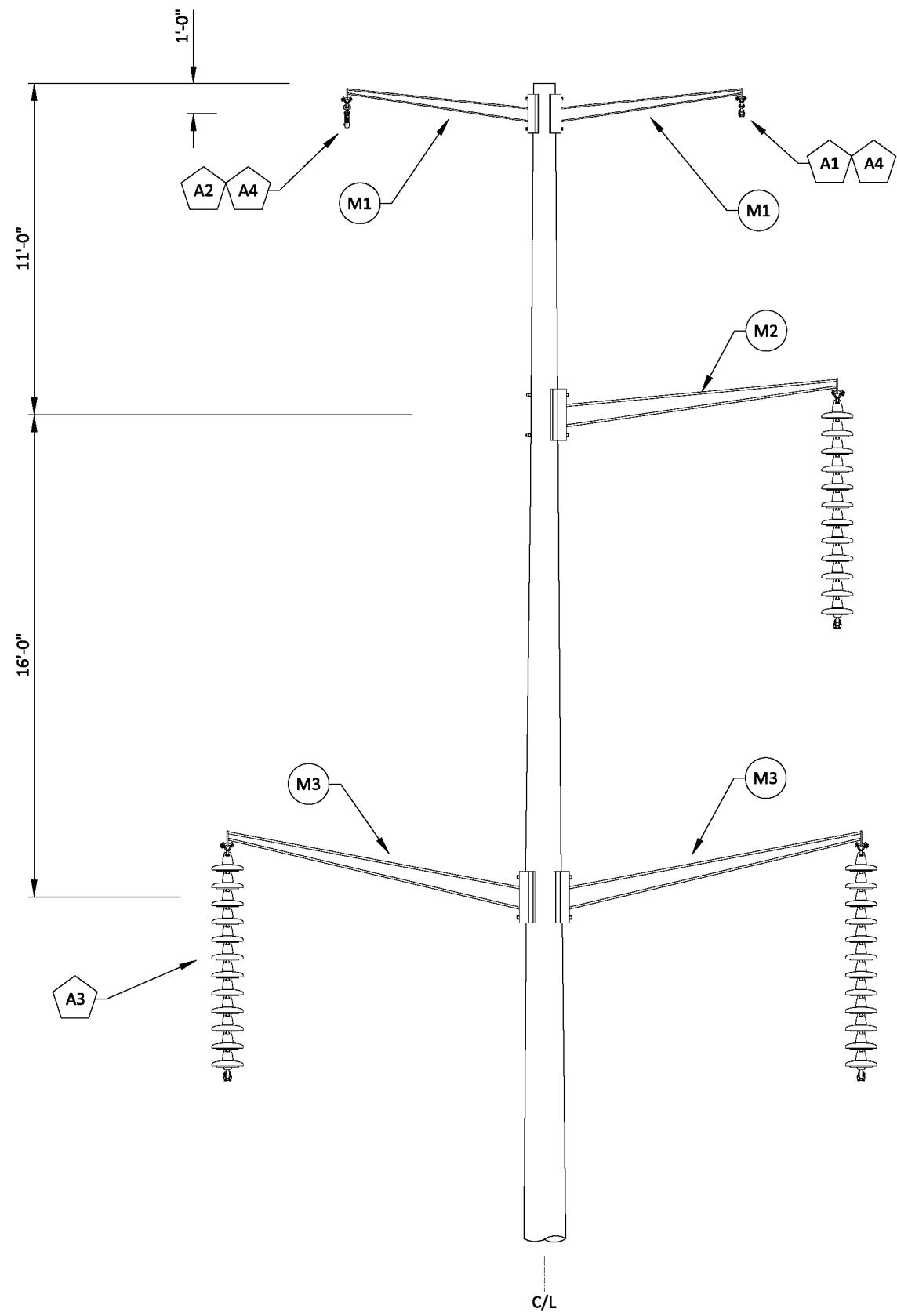
NO.	DESCRIPTION	DATE
1.	ISSUED FOR REVIEW	11-27-2023

GENERAL NOTES


EAST KENTUCKY POWER COOPERATIVE
 4775 LEXINGTON ROAD, PO BOX 707
 WINCHESTER, KENTUCKY 40392

TRANSMISSION ENGINEERING
STANDARD FRAMING DRAWING
FRAMING DESIGNATION
TS-9AS-161
STRUCTURE GROUP
DEADEND

FRAMING MATERIAL	POLE MATERIAL	# POLES
STEEL	STEEL	1
DRAWING SCALE	VOLTAGE	REVISION
1" = 5'	161KV	0

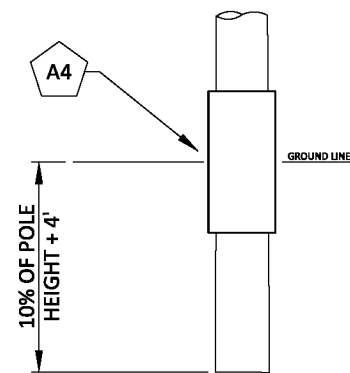


LIST OF MATERIALS

DWG. REF.	QTY	EKPC ITEM ID	MANUFACTURER	PART #	DESCRIPTION
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M2	1				ARM, STEEL DAVIT ARM, 9'
M3	2				ARM, STEEL DAVIT ARM, 10'

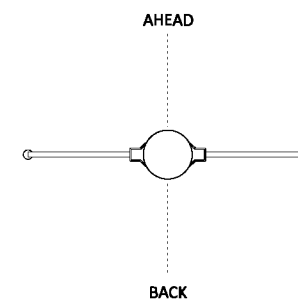
LIST OF ASSEMBLIES

DWG. REF.	QTY	DESCRIPTION
A1	1	TM-4B (OHGW ASSY)
A2	1	TM-SB (OPGW ASSY)
A3	3	TM-1AG-161 (INSULATOR ASSY)
A4	1	TM-9-SP2 (GROUNDING ASSY)



SETTING DEPTH

PLAN VIEW



APPROVALS

DRAWN	DATE
R. TERRILL	1-25-2024
REVIEWED	DATE
J. DAWN	2-5-2024
APPROVED	DATE

REVISIONS

NO.	DESCRIPTION	DATE
1.	ISSUED FOR REVIEW	1-25-2024

GENERAL NOTES

- DAVIT ARMS AND CONNECTION HARDWARE TO BE SUPPLIED BY STEEL POLE MANUFACTURER.

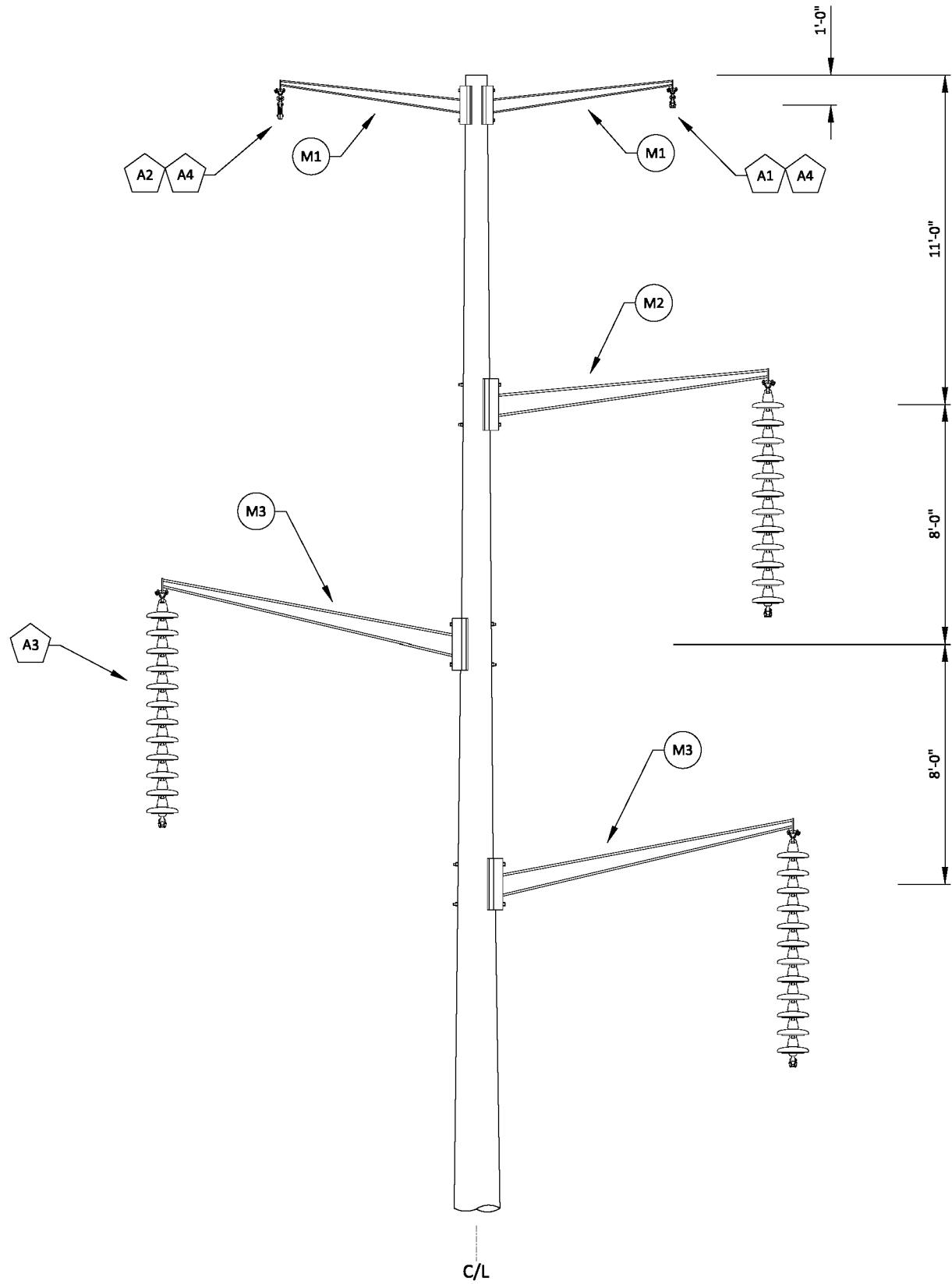
EAST KENTUCKY POWER COOPERATIVE
 4775 LEXINGTON ROAD, PO BOX 707
 WINCHESTER, KENTUCKY 40392

**TRANSMISSION ENGINEERING
 STANDARD FRAMING DRAWING**

FRAMING DESIGNATION
TU-2AS-161

STRUCTURE GROUP
TANGENT

FRAMING MATERIAL	POLE MATERIAL	# POLES
STEEL	STEEL	1
DRAWING SCALE	VOLTAGE	REVISION
1" = 5'	161kV	0

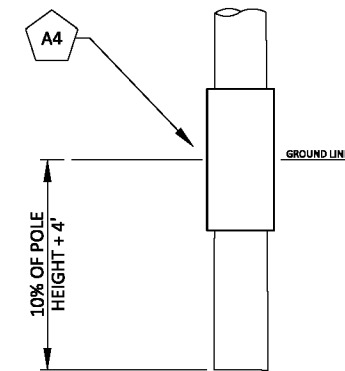


LIST OF MATERIALS

DWG. REF.	QTY	EKPC ITEM ID	MANUFACTURER	PART #	DESCRIPTION
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M2	1				ARM, STEEL DAVIT ARM, 9'
M3	2				ARM, STEEL DAVIT ARM, 10'

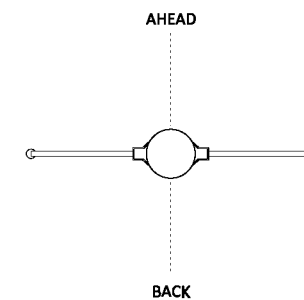
LIST OF ASSEMBLIES

DWG. REF.	QTY	DESCRIPTION
A1	1	TM-4B (OHGW ASSY)
A2	1	TM-5B (OPGW ASSY)
A3	3	TM-1AG-161 (INSULATOR ASSY)
A4	1	TM-9-SP2 (GROUNDING ASSY)



SETTING DEPTH

PLAN VIEW



APPROVALS

DRAWN R. TERRILL	DATE 1-25-2024
REVIEWED J. DAWN	DATE 2-5-2024
APPROVED	DATE

REVISIONS

NO.	DESCRIPTION	DATE
1.	RE-DESIGN FOR REVIEW	1-25-2024

GENERAL NOTES

1. DAVIT ARMS AND CONNECTION HARDWARE TO BE SUPPLIED BY STEEL POLE MANUFACTURER.

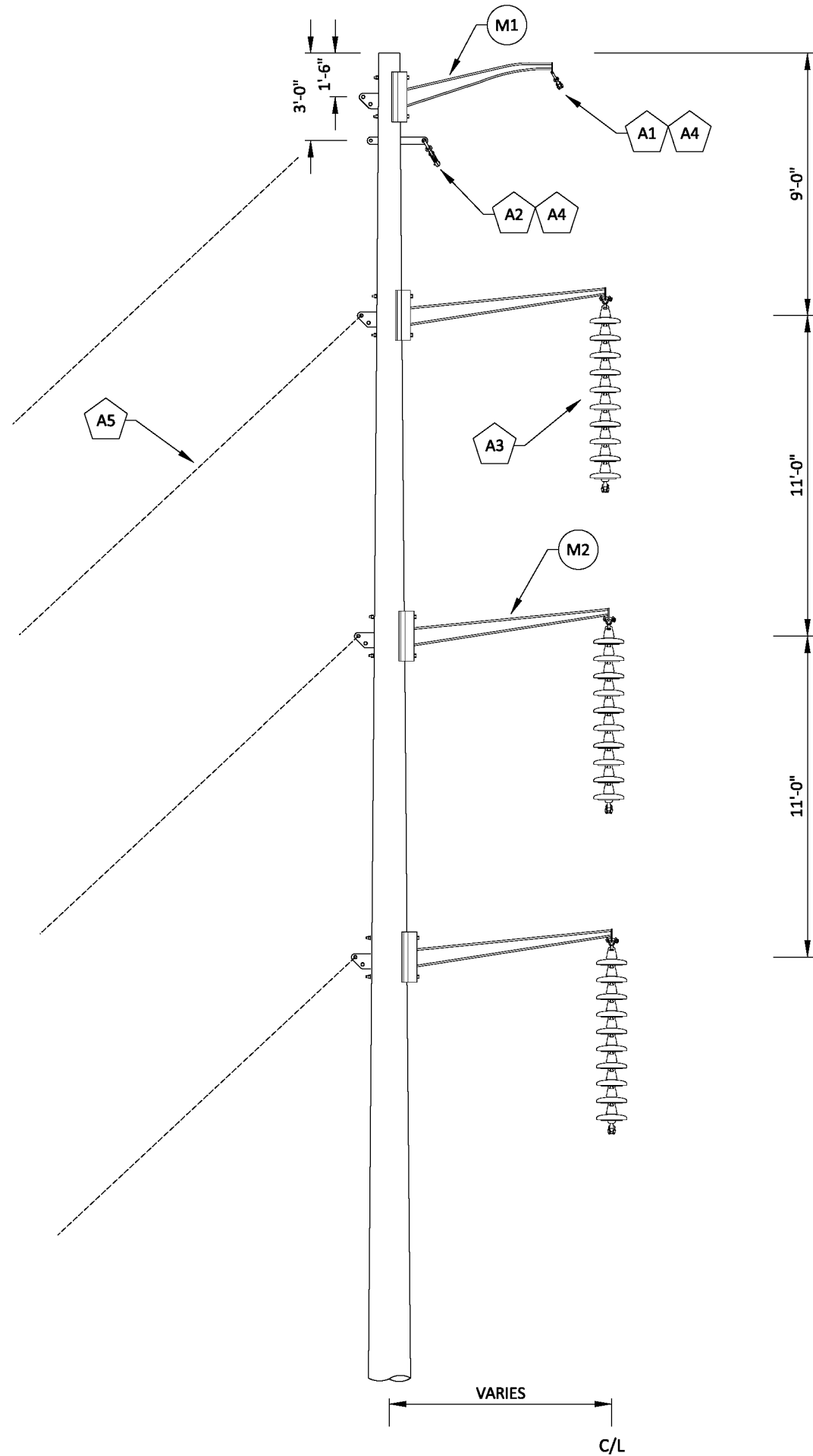
EAST KENTUCKY POWER COOPERATIVE
 4775 LEXINGTON ROAD, PO BOX 707
 WINCHESTER, KENTUCKY 40392

**TRANSMISSION ENGINEERING
 STANDARD FRAMING DRAWING**

FRAMING DESIGNATION
TU-2S-161

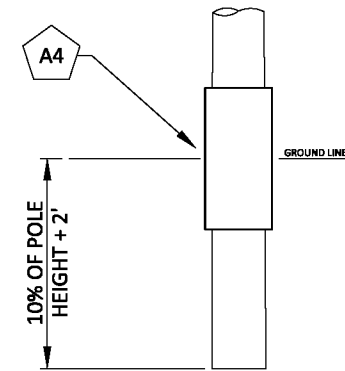
STRUCTURE GROUP
TANGENT

FRAMING MATERIAL	POLE MATERIAL	# POLES
STEEL	STEEL	1
DRAWING SCALE	VOLTAGE	REVISION
1" = 5'	161kV	0

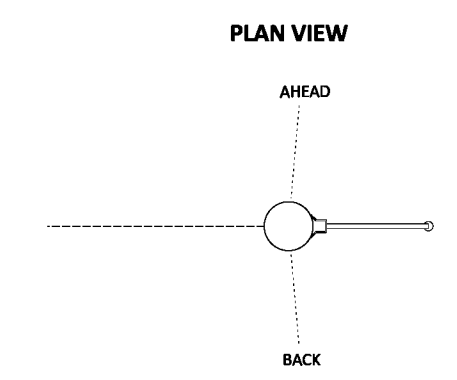


LIST OF MATERIALS					
DWG. REF.	QTY	EKPC ITEM ID	MANUFACTURER	PART #	DESCRIPTION
M1	1				ARM, STEEL DAVIT ARM, 6'
M2	3				ARM, STEEL DAVIT ARM, 8'

LIST OF ASSEMBLIES		
DWG. REF.	QTY	DESCRIPTION
A1	1	TM-4A (OHGW ASSY)
A2	1	TM-S (OPGW ASSY)
A3	3	TM-1AG-138 (INSULATOR ASSY)
A4	1	TM-9-SP2A (GROUNDING ASSY)
A5	*	GUYING ASSY (REFER TO PLAN & PROFILE SHEET)



SETTING DEPTH



PLAN VIEW

APPROVALS	
DRAWN R. TERRILL	DATE 1-25-2024
REVIEWED J. DAWN	DATE 2-5-2024
APPROVED	DATE

REVISIONS	
NO.	DESCRIPTION
1.	REWORK FOR REVIEW

GENERAL NOTES

- DAVIT ARMS AND CONNECTION HARDWARE TO BE SUPPLIED BY STEEL POLE MANUFACTURER.
- TYPE 3 VANG FOR OPGW SUPPORT. REFER TO STANDARD STEEL POLE ATTACHMENTS DRAWING SPD-001 FOR DETAILS.

EAST KENTUCKY POWER COOPERATIVE
 4775 LEXINGTON ROAD, PO BOX 707
 WINCHESTER, KENTUCKY 40392

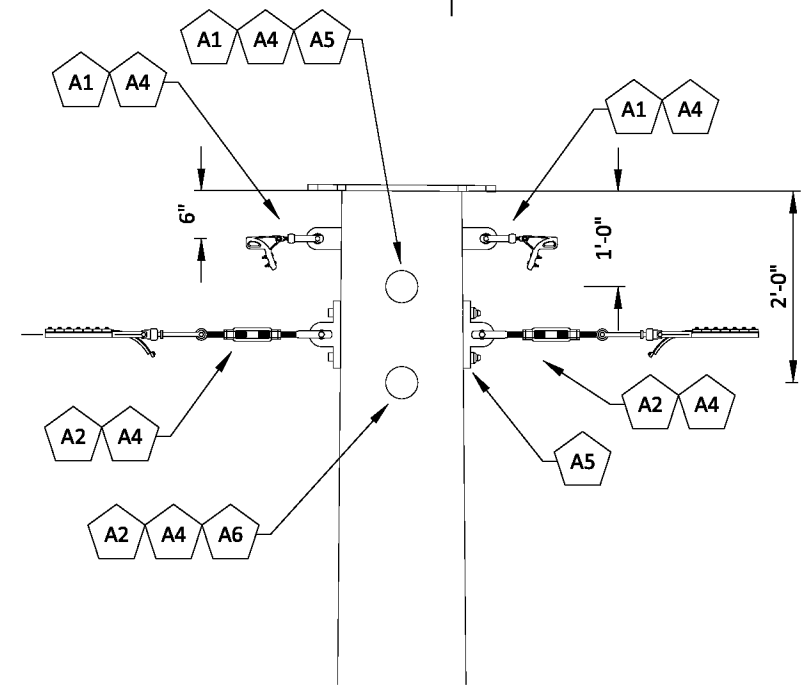
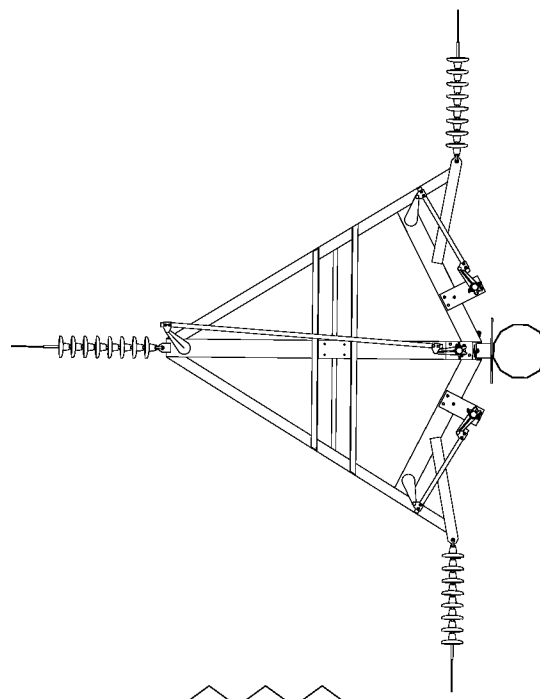
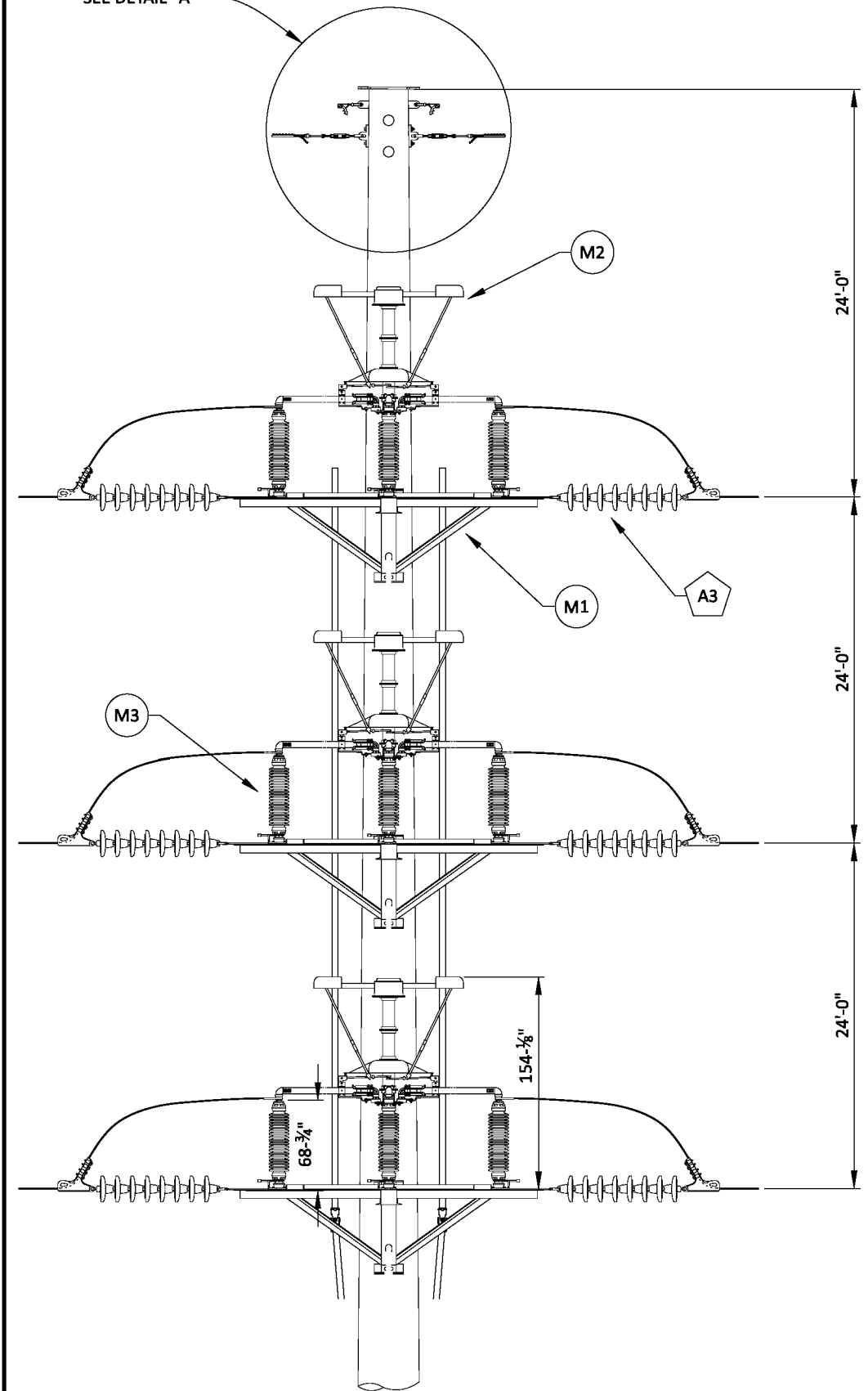
TRANSMISSION ENGINEERING
STANDARD FRAMING DRAWING

FRAMING DESIGNATION
TU-3S-161

STRUCTURE GROUP
SMALL ANGLE

FRAMING MATERIAL	POLE MATERIAL	# POLES
STEEL	STEEL	1
DRAWING SCALE	VOLTAGE	REVISION
1" = 5'	161kV	0

SEE DETAIL "A"



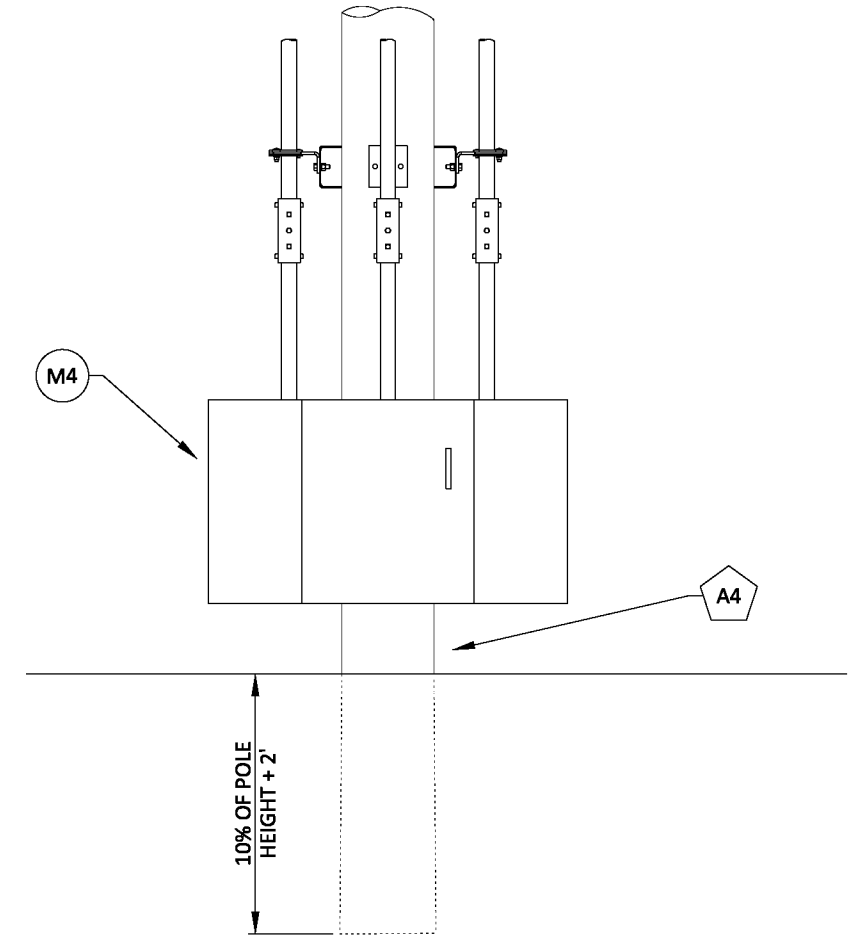
DETAIL "A"
NOT TO SCALE

LIST OF MATERIALS

DWG. REF.	QTY	EKPC ITEM ID	MANUFACTURER	PART #	DESCRIPTION
M1	1		SEECO	3G161206-N	SWITCH, 161kV 2000 AMP, 3-WAY
M2	3		SEECO	3M16120-6	INTERRUPTER, 3-WAY 161kV 2000 AMP
M3	12		SEECO	TR291	INSULATOR, STATION POST 161kV
M4	3		SEECO	MNM2-150243AL	OPERATOR, MOTOR WITH POWER SUPPLY FOR SEECO SWITCH (IF REQUIRED)

LIST OF ASSEMBLIES

DWG. REF.	QTY	DESCRIPTION
A1	3	TM-4E (OHGW DEADEND ASSY)
A2	3	TM-DE1 (OPGW DEADEND ASSY)
A3	9	TM-1E-161 (COND DEADEND ASSY)
A4	1	TM-9C-3WAY (GROUNDING ASSY)
A5	2	TG-27D
A6	1	TG-27C
A7	*	GUYING ASSY (REFER TO PLAN & PROFILE SHEET)



APPROVALS

DRAWN	DATE
R. TERRILL	1-25-2024
REVIEWED	DATE
J. DAWN	2-5-2024
APPROVED	DATE

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	1-25-2024

GENERAL NOTES

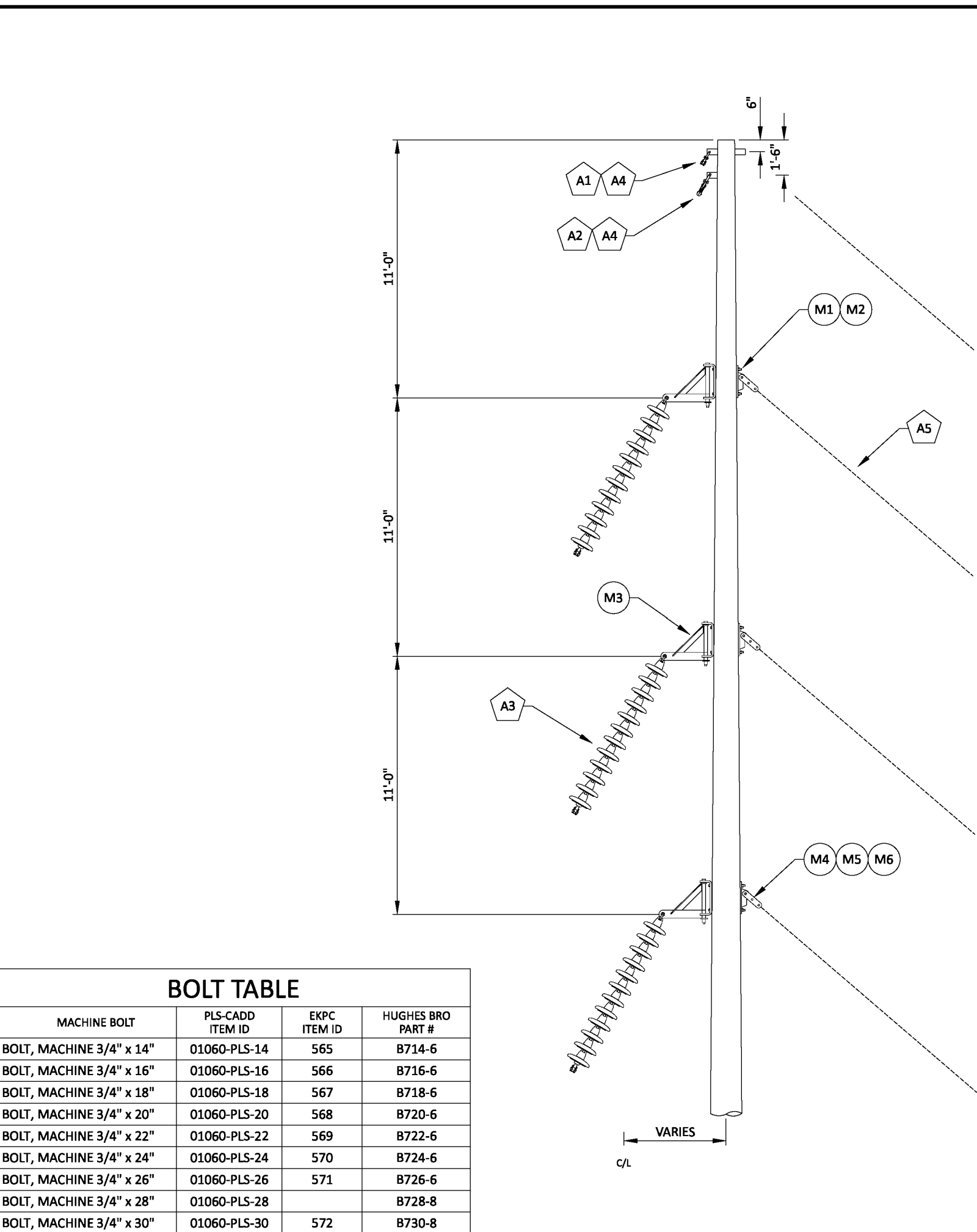
EAST KENTUCKY POWER COOPERATIVE
4775 LEXINGTON ROAD, PO BOX 707
WINCHESTER, KENTUCKY 40392

**TRANSMISSION ENGINEERING
STANDARD FRAMING DRAWING**

FRAMING DESIGNATION
TMS-3C-161

STRUCTURE GROUP
SWITCH

FRAMING MATERIAL	POLE MATERIAL	# POLES
3-WAY SWITCH	STEEL	1
DRAWING SCALE	VOLTAGE	REVISION
1" = 5'	161kV	0

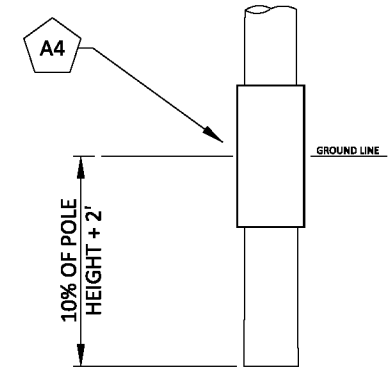


LIST OF MATERIALS

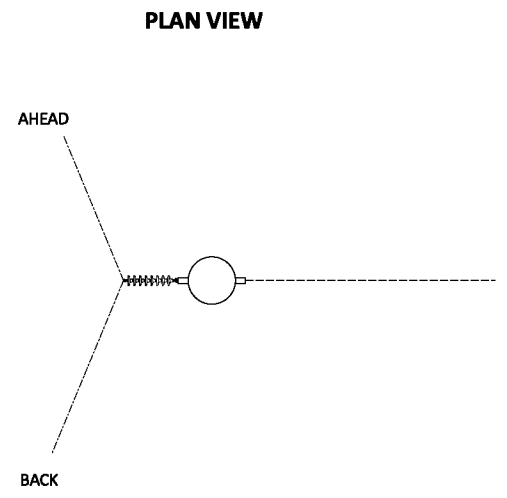
DWG. REF.	QTY	EKPC ITEM ID	MANUFACTURER	PART #	DESCRIPTION
M1	6		HUGHES BRO		BOLT, MACHINE 3/4" x REQ LEN
M2	6	3660	HUGHES BRO	MF70	LOCKNUT, 3/4" GALVANIZED
M3	3	60675	HUGHES BRO	2842.8	BRACKET, SWING ANGLE 18" x 21" WITH GUYING TEE
M4	3	66030	HUGHES BRO	AB82-1/2-1-1/2	BOLT, HIGH STRENGTH MACHINE 7/8" x 2-1/2"
M5	3	3661	HUGHES BRO	MF80	LOCKNUT, GALVANIZED 7/8"
M6	3	4455	HUGHES BRO	1906-9	STRAP, CLEVIS EYE 3" x 9"

LIST OF ASSEMBLIES

DWG. REF.	QTY	DESCRIPTION
A1	1	TM-4A (OHGW ASSY)
A2	1	TM-S (OPGW ASSY)
A3	3	TM-1AG-161 (INSULATOR ASSY)
A4	1	TM-9-SP2A (GROUNDING ASSY)
A5	*	GUY ASSEMBLY (REFER TO PLAN & PROFILE SHEET)



SETTING DEPTH



PLAN VIEW

BOLT TABLE

MACHINE BOLT	PLS-CADD ITEM ID	EKPC ITEM ID	HUGHES BRO PART #
BOLT, MACHINE 3/4" x 14"	01060-PLS-14	565	B714-6
BOLT, MACHINE 3/4" x 16"	01060-PLS-16	566	B716-6
BOLT, MACHINE 3/4" x 18"	01060-PLS-18	567	B718-6
BOLT, MACHINE 3/4" x 20"	01060-PLS-20	568	B720-6
BOLT, MACHINE 3/4" x 22"	01060-PLS-22	569	B722-6
BOLT, MACHINE 3/4" x 24"	01060-PLS-24	570	B724-6
BOLT, MACHINE 3/4" x 26"	01060-PLS-26	571	B726-6
BOLT, MACHINE 3/4" x 28"	01060-PLS-28		B728-8
BOLT, MACHINE 3/4" x 30"	01060-PLS-30	572	B730-8

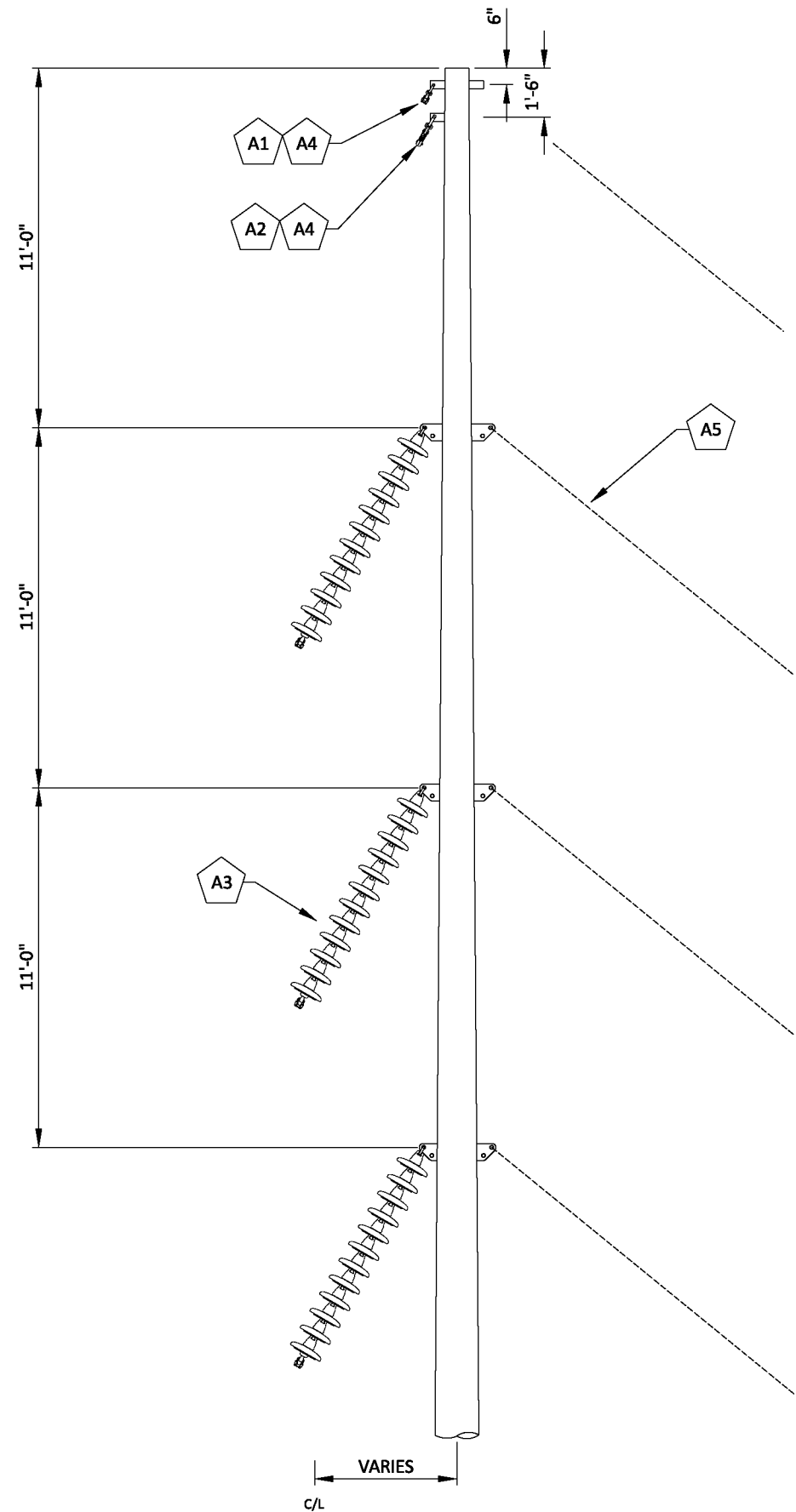
APPROVALS	
DRAWN R. TERRILL	DATE 1-25-2024
REVIEWED J. DAWN	DATE 2-5-2024
APPROVED	DATE

REVISIONS	
DESCRIPTION	DATE

GENERAL NOTES

**EAST KENTUCKY
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TRANSMISSION ENGINEERING STANDARD FRAMING DRAWING		
FRAMING DESIGNATION TS-3S-161		
STRUCTURE GROUP MEDIUM ANGLE		
FRAMING MATERIAL STEEL	POLE MATERIAL STEEL	# POLES 1
DRAWING SCALE 1" = 5'	VOLTAGE 161kV	REVISION 0

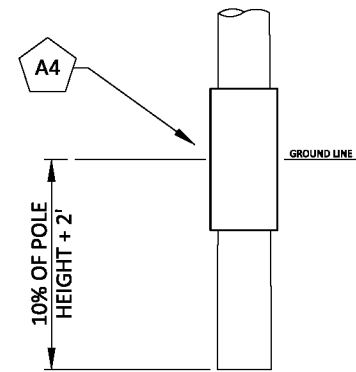


LIST OF MATERIALS

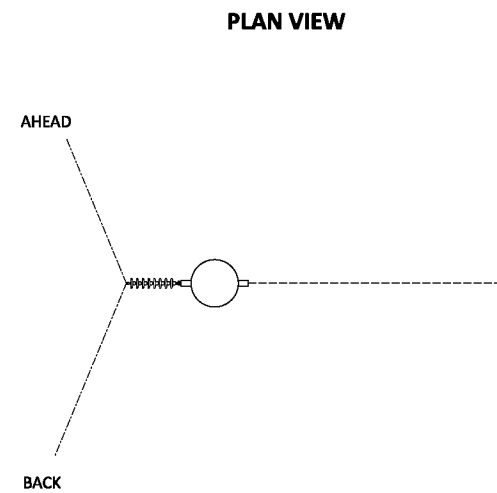
DWG. REF.	QTY	EKPC ITEM ID	MANUFACTURER	PART #	DESCRIPTION

LIST OF ASSEMBLIES

DWG. REF.	QTY	DESCRIPTION
A1	1	TM-4A (OHGW ASSY)
A2	1	TM-SD (OPGW ASSY)
A3	3	TM-2AG-161 (INSULATOR ASSY)
A4	1	TM-9-SP2A (GROUNDING ASSY)
A5	*	GUY ASSEMBLY (REFER TO PLAN & PROFILE SHEET)



SETTING DEPTH



PLAN VIEW

APPROVALS

<small>DRAWN</small> R. TERRILL	<small>DATE</small> 1-25-2024
<small>REVIEWED</small> J. DAWN	<small>DATE</small> 2-5-2024
<small>APPROVED</small>	<small>DATE</small>

REVISIONS

<small>NO.</small>	<small>DESCRIPTION</small>	<small>DATE</small>
A	ISSUED FOR REVIEW	1-25-2024

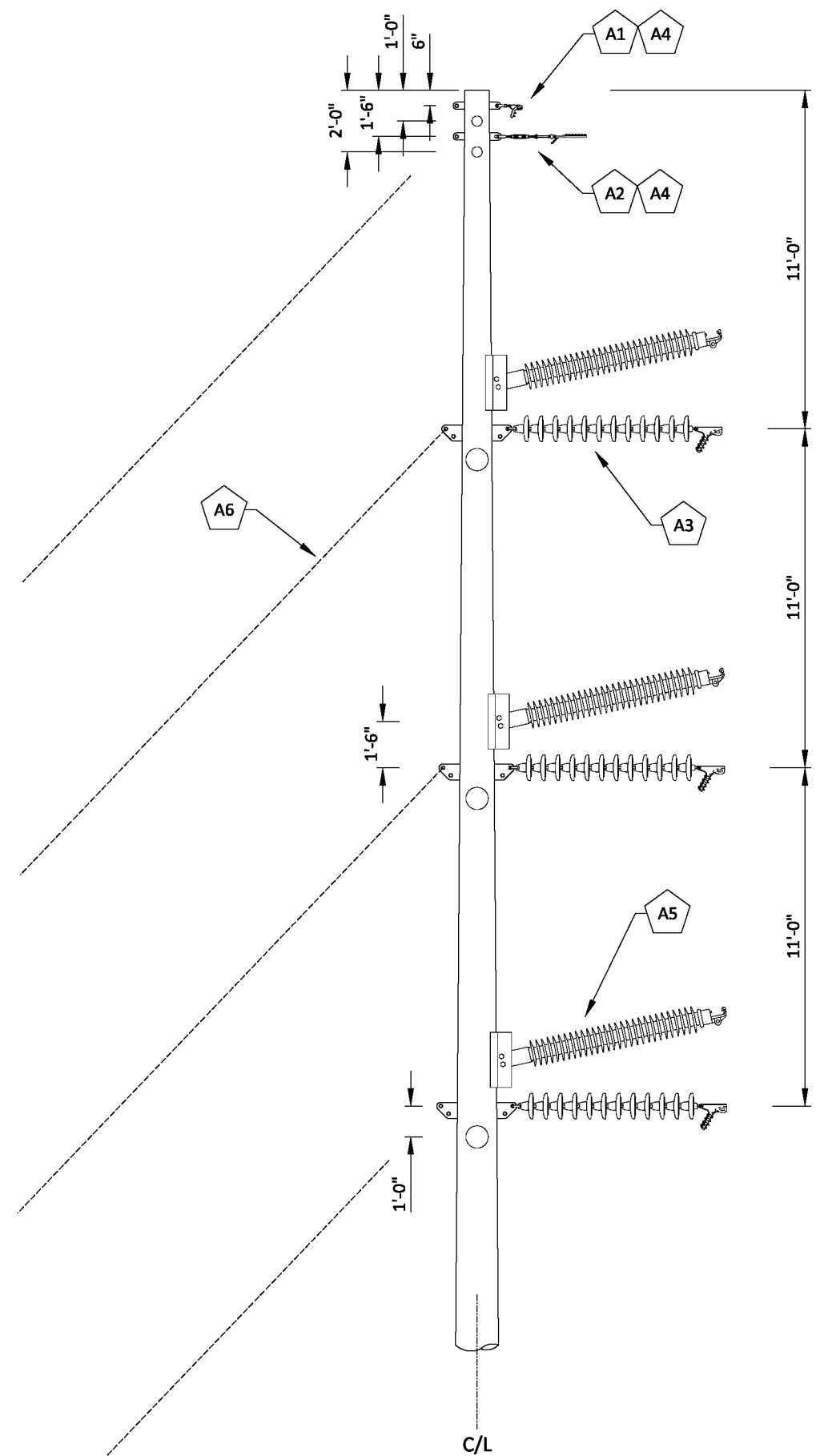
GENERAL NOTES

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POWER COOPERATIVE
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WINCHESTER, KENTUCKY 40392

TRANSMISSION ENGINEERING
STANDARD FRAMING DRAWING
FRAMING DESIGNATION
TS-4S-161
STRUCTURE GROUP

LARGE ANGLE

FRAMING MATERIAL	POLE MATERIAL	# POLES
STEEL	STEEL	1
<small>DRAWING SCALE</small>	<small>VOLTAGE</small>	<small>REVISION</small>
1" = 5'	161kV	0

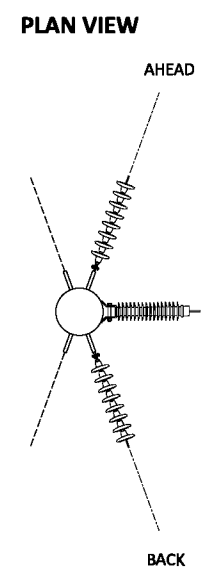
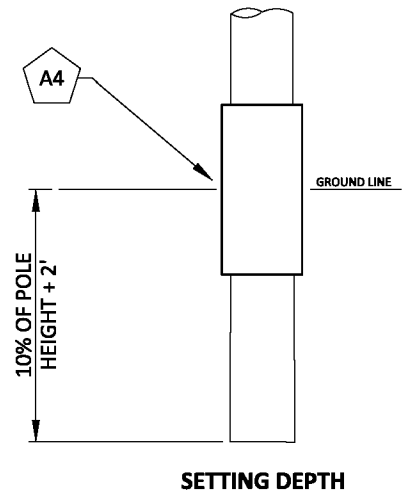


LIST OF MATERIALS

DWG. REF.	QTY	EKPC ITEM ID	MANUFACTURER	PART #	DESCRIPTION

LIST OF ASSEMBLIES

DWG. REF.	QTY	DESCRIPTION
A1	2	TM-4E (OHGW DEADEND ASSY)
A2	2	TM-DE1 (OPGW DEADEND ASSY)
A3	6	TM-1E-161 OR TM-1E-POLY-161 (INSULATOR ASSY)
A4	1	TM-9-SP2D (GROUNDING ASSY)
A5	3	TM-HPJS-161 (POST INSULATOR JUMPER SUPPORT ASSY)
A6	*	GUYING ASSY (REFER TO PLAN & PROFILE SHEET)



APPROVALS

DRAWN R. TERRILL	DATE 1-25-2024
REVIEWED J. DAWN	DATE 2-5-2024
APPROVED	DATE

REVISIONS

DESCRIPTION	DATE

GENERAL NOTES


EAST KENTUCKY POWER COOPERATIVE
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 WINCHESTER, KENTUCKY 40392

TRANSMISSION ENGINEERING
STANDARD FRAMING DRAWING
 FRAMING DESIGNATION
TS-5AS-161
 STRUCTURE GROUP
DEADEND

FRAMING MATERIAL	POLE MATERIAL	# POLES
STEEL	STEEL	1
DRAWING SCALE	VOLTAGE	REVISION
1" = 5'	161kV	0