McGuireWoods

**McGuireWoods LLP**
Gateway Plaza
800 East Canal Street
Richmond, VA 23219-3916
Phone: 804.775.1000
Fax: 804.775.1061
www.mcguirewoods.com

**Vishwa B. Link**
Direct: 804.775.4330
vlink@mcguirewoods.com

February 20, 2025

**BY ELECTRONIC FILING**

Mr. Bernard Logan, Clerk
c/o Document Control Center
State Corporation Commission
1300 East Main Street
Tyler Building – 1st Floor
Richmond, Virginia 23219

*Application of Virginia Electric and Power Company for approval and certification of electric transmission facilities: Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project*
**Case No. PUR-2025-00032**

Dear Mr. Logan:

Please find enclosed for electronic filing in the above-captioned proceeding the application for approval of electric transmission facilities on behalf of Virginia Electric and Power Company (the "Company"). This filing contains the Application, Appendix, Direct Testimony, DEQ Supplement, and Environmental Routing Study, including attachments.

As indicated in Section II.A.12.b of the Appendix, an electronic copy of the map of the Virginia Department of Transportation "General Highway Map" for Culpeper County, Orange County, and Fauquier County, as well as the digital geographic information system ("GIS") map required by § 56-46.1 of the Code of Virginia, which is Attachment II.A.2 to the Appendix, were provided via an e-room to the Commission's Division of Public Utility Regulation on February 18, 2025.

Please do not hesitate to call if you have any questions regarding the enclosed.

Highest regards,

Vishwa B. Link

Enclosures

cc: William H. Chambliss, Esq.

Mr. David Essah (without enclosures)
Mr. Neil Joshipura (without enclosures)
Mr. Michael A. Cizenski (without enclosures)
Charlotte P. McAfee, Esq.
Jontille D. Ray, Esq.
Briana M. Jackson, Esq.
Alexis S. Hills, Esq.

# Application, Appendix, DEQ Supplement, Routing Study, Direct Testimony and Exhibits of Virginia Electric and Power Company

**Before the State Corporation Commission of Virginia**

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

**Application No. 347**

**Case No. PUR-2025-00032**

**Filed: February 20, 2025**

**Volume 1 of 5**

COMMONWEALTH OF VIRGINIA
BEFORE THE
STATE CORPORATION COMMISSION

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

FOR APPROVAL AND CERTIFICATION
OF ELECTRIC TRANSMISSION FACILITIES

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Application No. 347

Containing Information in Response to
"Guidelines for Transmission Line Applications Filed Under title 56 of the Code of Virginia"

Case No. PUR-2025-00032

Filed: February 20, 2025

COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

| | | |
|---|---|---|
| APPLICATION OF | ) | |
| | ) | |
| VIRGINIA ELECTRIC AND POWER COMPANY | ) | Case No. PUR-2025-00032 |
| | ) | |
| For approval and certification of electric transmission facilities: Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project | ) | |

**APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY FOR APPROVAL AND CERTIFICATION OF ELECTRIC TRANSMISSION FACILITIES: CULPEPER TECHNOLOGY ZONE 230 KV LOOP AND LINES #2 AND #1065 CONVERSION PROJECT**

Pursuant to § 56-46.1 of the Code of Virginia ("Va. Code") and the Utility Facilities Act, Va. Code § 56-265.1 *et seq.*, Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company"), by counsel, files with the State Corporation Commission of Virginia (the "Commission") this application for approval and certification of electric transmission facilities (the "Application"). In support of its Application, Dominion Energy Virginia respectfully states as follows:

1. Dominion Energy Virginia is a public service corporation organized under the laws of the Commonwealth of Virginia furnishing electric service to the public within its Virginia service territory. The Company also furnishes electric service to the public in portions of North Carolina. Dominion Energy Virginia's electric system—consisting of facilities for the generation, transmission, and distribution of electric energy—is interconnected with the electric systems of neighboring utilities and is a part of the interconnected network of electric systems serving the continental United States. By reason of its operation in two states and its interconnections with other utilities, the Company is engaged in interstate commerce.

2. In order to perform its legal duty to furnish adequate and reliable electric service, Dominion Energy Virginia must, from time to time, replace existing transmission facilities or construct new transmission facilities in its system. The electric facilities proposed in this Application are necessary so that Dominion Energy Virginia can continue to provide reliable electric service to its customers, consistent with applicable reliability standards.

3. In this Application, in order to provide service requested by three Customers[1] developing separate new data center campuses in Culpeper County and the Town of Culpeper, Virginia, to maintain reliable service for the overall load growth in the area, and to comply with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") proposes in Culpeper County, the Town of Culpeper, Orange County, and Fauquier County, Virginia, to:

(i) Construct new approximately 5.2-mile overhead 230 kilovolt ("kV") double circuit transmission lines: Mt. Pony – Potato Run Line #2437 ("Mt. Pony – Potato Run Line") and the Mt. Pony – Oak Green Line #2438 ("Mt. Pony – Oak Green Line") (collectively the "Mt. Pony Lines") primarily on new right-of-way. The new transmission lines will extend from the converted Potato Run – Remington and Oak Green – Potato Run Lines near Structures #1065/496 / #2331/110, as described below, to the proposed Mt. Pony Substation. The proposed Mt. Pony – Potato Run Line and the Mt. Pony – Oak Green Line will be constructed primarily with double circuit weathering steel monopole structures, utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Mt. Pony Lines will utilize a total of 100 or 160 feet of right-of-way, which includes both new 100-footwide right-of-way, and collocated 160-foot right-of-way. The amount of new right-of-way width for this line will vary from 60 feet to 100 feet.[2]

---

[1] The three Customers (individually, "Customer A," "Customer B," and "Customer C," and collectively the "Customers") have requested that Dominion Energy Virginia serve three new data center campuses in the Project area: Campus A, Campus B, and Campus C (collectively, the "Campuses"). Campus A is owned by Customer A, Culpeper DataBank ("DataBank"), Campus B is owned by Customer B, Stack Infrastructure Inc. ("STACK"), and Campus C is owned by Customer C, Copper Ridge Data Center Campus ("Copper Ridge"). Pursuant to the Company's privacy policy and/or a specific customer non-disclosure agreement, the Company is obligated to maintain the confidentiality of customer information and obtain customer consent prior to public disclosure. All three Customers have provided consent for identification in this filing.

[2] Approximately 1.5 miles of the Mt. Pony Proposed Route will be within new 100-foot-wide right-of-way, including a 1.2-mile segment from the cut-in at existing Structure #2/496 / #2199/110 and the 0.3-mile segment along James Madison Highway that terminates at the proposed Mt. Pony Substation. Approximately 3.7 miles, or approximately 71% of the total length, will be collocated along the existing right-of-way. This collocated 3.7 miles will have 60 feet

(ii) Construct a new approximately 3.7-mile[3] overhead 230 kV double circuit transmission line (the "Cirrus – Mt. Pony Line" of the "Tech Park Lines") primarily on new right-of-way and planned data center campuses. The Tech Park Lines will extend from the proposed 230 kV Mt. Pony Substation to the future 230 kV Cirrus Switching Station[4] and interconnect the proposed 230 kV Chandler, McDevitt, and Palomino Substations. The Tech Park Lines will be constructed primarily with double circuit pre-dulled galvanized steel monopole structures, utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The amount of new right-of-way width for this line will vary from 100 feet to 160 feet.[5]

(iii) Convert and rebuild the Company's existing 2.5-mile overhead double circuit 115 kV Oak Green – Potato Run Line #1065 to 230 kV and rebuild Gordonsville – Oak Green Line #11 to 230 kV[6] from the existing Oak Green Switching Station to existing Structure #2199/164 / #11/550 / #1065/550. This uprate of Line #1065 will create the new Oak Green – Mt Pony Line #2438. A 25-foot expansion of the existing 75-foot right-of-way is required, except where not feasible on Virginia Outdoors Foundation ("VOF") conservation easements. Construct approximately 0.2 mile of two new single circuit 230 kV lines to extend Line #1065 and Line #11 into the relocated Oak Green Switching Station within a variable width right-of-way. The relocation of the existing Oak Green Switching Station will also require construction of 0.2-mile of new single circuit 115 kV transmission line (designed to 230 kV) to extend the existing Oak Green – Pine Glade Line #153 into the new Oak Green Switching Station. Relocation of the existing Oak Green Switching Station is necessary to accommodate the installation of

---

of new right-of-way adjacent to the Company's existing 100-foot right-of-way, utilizing a total right-of-way width of 160 feet.

[3] If Mt. Pony Proposed Route (Route 1) and Tech Park Proposed Route (Route 1) are selected by the Commission, then a 0.3-mile segment of 100-foot wide right-of-way along the south side of US 15/29 will not be needed by the Tech Park Proposed Route, as the Tech Park Proposed Route will tap into the Mt. Pony Proposed Route at proposed Structure # 2437/168 / 2438/126 rather than beginning at the proposed Mt. Pony Substation. In this scenario, the Tech Park Proposed Route is 3.4 miles in length, rather than 3.7 miles, and the Tech Park Proposed Route right-of-way would be reduced by approximately 3.7 acres. If Mt. Pony Alternative Route 2 is selected by the Commission, this 0.3-mile (3.7 acre) segment will be included. To ensure that all potential Project impacts are evaluated, this 0.3-mile segment is included in both the Mt. Pony Proposed Route and Tech Park Proposed Route impacts in this filing.

[4] *See Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: Cirrus – Keyser 230 kV Loop and Related Projects*, Case No. PUR-2022-00198, Final Order (Oct. 23, 2023).

[5] Approximately 3.3 miles of the total 3.7-mile Tech Park Proposed Route would be located within new 100-foot-wide right-of-way, with one 0.2-mile segment collocated with the existing Company Lines #2 and #70, and one 0.2-mile segment collocated with the Company's existing Line #2 rights-of-way that require only 60 additional feet in width. Approximately 0.4 mile, or approximately 11% of the total length, will be collocated with the existing right-of-way. This collocated 0.4 mile will require 60 feet of new right-of-way width adjacent to the Company's existing 100-foot right-of-way, utilizing a total 160-foot-wide right-of-way.

[6] This portion of Line #11 will initially operate at 115 kV, but will be constructed for operations at 230 kV.

230 kV and 115 kV ring busses and two 230 -115 kV transformers ("Oak Green Rebuild and Relocation").

(iv) Convert and rebuild an approximately 0.7-mile segment of the Company's existing 115 kV Potato Run – Remington Line #2 from existing Structure #2/147 to Remington Substation as double circuit 230 kV. This portion of Line #2 is currently double circuit with Company's distribution line #655, which will be rebuilt and converted to 230 kV to accommodate a double circuit 230 kV line, with Line #655 operating at distribution voltage ("Remington Rebuild").

(v) Construct four new 230 kV substations and one relocated 230 kV switching station (i.e., the Oak Green Switching Station as described previously) in Culpeper County, the Town of Culpeper, and Orange County, Virginia (the "Mt. Pony Substation," "McDevitt Substation," "Chandler Substation," "Palomino Substation," and "Relocated Oak Green Switching Station"). The proposed Mt. Pony Substation and Palomino Substation will be on an easement to be acquired by the Company, and the proposed Chandler Substation, McDevitt Substation, and Relocated Oak Green Switching Station will be on Company property. The Mt. Pony Substation will be in Culpeper County; the Chandler, McDevitt, and Palomino Substations will be in the Town of Culpeper; and the Oak Green Switching Station will be relocated within Orange County, Virginia.

The components described above are collectively referred to as the "Project."

4. The Project is needed to interconnect and provide service requested by three Customers developing separate new data center campuses in Culpeper County and the Town of Culpeper, Virginia, to maintain reliable service for the overall load growth in the project area, and to comply with mandatory NERC Reliability Standards.

5. Dominion Energy Virginia's transmission system is responsible for providing transmission service (i) for redelivery to the Company's retail customers; (ii) to Appalachian Power Company, Old Dominion Electric Cooperative, Northern Virginia Electric Cooperative, Central Virginia Electric Cooperative, and Virginia Municipal Electric Association for redelivery to their retail customers in Virginia; and, (iii) to North Carolina Electric Membership Corporation and North Carolina Eastern Municipal Power Agency for redelivery to their customers in North Carolina (collectively, the "DOM Zone"). The Company needs to be able to maintain the overall,

long-term reliability of its transmission system to meet its customers' evolving power needs in the future.

6. As to the federally mandated NERC Reliability Standards, the Company must comply with minimum criteria binding to all public utilities as components of the interstate electric transmission system. Moreover, the Energy Policy Act of 2005 mandates that electric utilities must follow these NERC Reliability Standards and imposes fines on utilities found to be in noncompliance up to $1.3 million a day per violation.

7. Accordingly, the Project as proposed herein is required to provide service requested by the Customers, maintain reliable service for overall load growth in the Project area, and to maintain compliance with mandatory NERC Reliability Standards.

8. For the Mt. Pony Lines, the Company identified an approximately 5.2-mile overhead proposed route ("Mt. Pony Proposed Route" or "Mt. Pony Route 1") in an approximately 100-foot-wide new right-of-way or within a new 60-foot-wide right-of-way collocated with existing Company rights-of-way. One overhead alternative route ("Mt. Pony Alternative Route 2") was also identified entirely in a new 100-foot-wide right-of-way. The Mt. Pony Lines are entirely within Culpeper County, Virginia.

9. For the Tech Park Lines, the Company identified an approximately 3.7-mile overhead proposed route ("Tech Park Proposed Route" or "Tech Park Route 1"), as well as two overhead alternative routes ("Tech Park Alternative Route 2" and "Tech Park Alternative Route 3"). The Tech Park Proposed and Alternative Routes would be primarily within new 100-foot-wide rights-of-way, except for two 0.2-mile segments within a new 60-foot-wide right-of-way collocated within existing Company rights-of-way. Approximately 1.5 miles of each of the Tech Park Lines is within the Town of Culpeper, with the remainder (2.2 miles of the Proposed Route

and 2.0 miles of each Alternative Route) within Culpeper County, Virginia.

10. For the Oak Green Rebuild and Relocation, the Company identified an approximately 2.9-mile overhead proposed route ("Oak Green Proposed Route" or "Oak Green Rebuild"), comprised of 2.5 miles of existing and 0.4-mile new right of way. The existing 2.5-mile right-of-way is 75 feet wide. Of this, approximately 2.0 miles of the existing right-of-way will be expanded by 25 feet to a new total of 100 feet wide, while approximately 0.5 mile will be maintained at 75 feet due to conservation easements which prevent right-of-way expansion. In addition, approximately 0.2 mile of new variable width right-of-way will be acquired to connect the existing Oak Green Switching Station to the proposed relocated Oak Green Switching Station, and 0.2 mile of new 100 feet wide right-of-way will be acquired to connect the proposed relocated Oak Green Switching Station to the existing Oak Green – Pine Glade Line #153.

11. For the Remington Rebuild, the Company identified an approximately 0.7-mile overhead proposed route ("Remington Proposed Route" or "Remington Rebuild"). The Remington Rebuild is located entirely within an existing Company right-of-way or on Company-owned lands. Because the Remington Proposed Route is entirely within existing Company right-of-way, no alternative routes were identified. The Remington Proposed Route is entirely in Fauquier County, Virginia.

12. The Company is proposing all these Proposed and Alternative Routes for Commission consideration and notice. Discussion of these Proposed and Alternative Routes, as well as other overhead routes that the Company studied but ultimately rejected, is provided in Section II of the Appendix and discussed in more detail in the Environmental Routing Study submitted with the Application.

13. The four new Proposed Substations will be constructed with 112 MVA 230-34.5

kV transformers with a six (McDevitt Substation, Chandler Substation, and Palomino Substation) or four (Mt. Pony Substation) circuit breaker configuration, and other associated equipment. The total area of the Mt. Pony Substation is approximately 5.0 acres, the McDevitt Substation is approximately 4.5 acres, the Chandler Substation is approximately 4.7 acres, and the Palomino Substation is approximately 4.4 acres. The Mt. Pony Substation will be in Culpeper County; and the Chandler, McDevitt, and Palomino Substations will be in the Town of Culpeper, Virginia.

14. The desired in-service target date for the proposed Project is May 1, 2028. The Company estimates it will take approximately 27 months for detailed engineering, materials procurement, permitting, real estate, and construction after a final order from the Commission. Accordingly, to support this estimated construction timeline and construction plan, the Company respectfully requests a final order by January 31, 2026. Should the Commission issue a final order by January 31, 2026, to accommodate long-lead materials procurement, the Company estimates that construction should begin around October 15, 2026, and be completed by May 1, 2028. This schedule is contingent upon obtaining the necessary permits and outages. Dates may need to be adjusted based on permitting delays or design modifications to comply with additional agency requirements identified during the permitting application process, as well as the ability to schedule outages, and unpredictable delays due to labor shortages, or materials/supply issues. This schedule is also contingent upon the Company's ability to negotiate for easements with property owners along the approved routes and to purchase land for substation use without the need for additional litigation.

15. In addition, the Company is monitoring actively regulatory changes and requirements associated with the Northern long-eared bat ("NLEB") and how they could potentially impact construction timing associated with time of year restrictions ("TOYRs"). The

U.S. Fish and Wildlife Service ("USFWS") previously indicated that it planned to issue final NLEB guidance to replace the interim guidance by April 1, 2024; however, the interim guidance has been extended by USFWS until late summer 2024. The Company is actively tracking updates from the USFWS with respect to the final guidance. Once issued, the Company plans to review and follow the final guidance to the extent it applies to the Company's projects. Until the final guidance is issued, the Company will continue following the interim guidance. For projects that may require additional coordination, the Company will coordinate with the USFWS.

16. The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat ("TCB"). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered Species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024. The Company is actively tracking this ruling and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

17. Any adjustments to this Project schedule resulting from these or similar challenges could necessitate a minimum of a six- to twelve-month delay in the targeted in-service date. Accordingly, for purposes of judicial economy, the Company requests that the Commission issue a final order approving both a desired in-service target date (*i.e.*, May 1, 2028) and an authorization sunset date (*i.e.*, May 1, 2029) for energization of the Project.

18. The total estimated conceptual cost of the Project as proposed is approximately $253.7 million, which includes approximately $163.5 million for transmission-related work and approximately $90.1 million for substation-related work (2024 dollars).

19. Based on consultations with the Virginia Department of Environmental Quality

("DEQ"), the Company has developed a supplement ("DEQ Supplement") containing information designed to facilitate review and analysis of the proposed facilities by the DEQ and other relevant agencies. The DEQ Supplement is attached to this Application.

20. Based on the Company's experience, the advice of consultants, and a review of published studies by experts in the field, the Company believes that there is no causal link to harmful health or safety effects from electric and magnetic fields generated by the Company's existing or proposed facilities. Section IV of the Appendix provides further details on Dominion Energy Virginia's consideration of the health aspects of electric and magnetic fields.

21. Section V of the Appendix provides a proposed route description for public notice purposes and a list of federal, state, and local agencies and officials that the Company has or will notify about the Application.

22. In addition to the information provided in the Appendix, the DEQ Supplement, and the Environmental Routing Study, this Application is supported by the pre-filed direct testimony of Company Witnesses Vishal S. Dixit, Wesley Strunk, Mohammed M. Othman, Gregory R. Baka, and Jared Brandell-Douglas filed with this Application.

23. Finally, Dominion Energy Virginia requests that, to the extent the Commission modifies the deadline for responses to interrogatories and requests for production of documents in 5 VAC 5-20-260, the Commission grant Staff and the parties seven calendar days to afford adequate time to provide comprehensive responses to discovery.

WHEREFORE, Dominion Energy Virginia respectfully requests that the Commission:

(a) direct that notice of this Application be given as required by § 56-46.1 of the Code of Virginia;

(b) approve pursuant to § 56-46.1 of the Code of Virginia the construction of

the Project; and,

(c) grant a certificate of public convenience and necessity for the Project under the Utility Facilities Act, § 56-265.1 *et seq.* of the Code of Virginia.

**VIRGINIA ELECTRIC AND POWER COMPANY**

By: *[s] Vishwa B. Link*
Counsel for Applicant


Charlotte P. McAfee
Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia 23219
(804) 771-3708 (CPM)
*charlotte.p.mcafee@dominionenergy.com*

Vishwa B. Link
Jontille D. Ray
Briana M. Jackson
Alexis S. Hills
McGuireWoods LLP
Gateway Plaza
800 E. Canal Street
Richmond, Virginia 23219
(804) 775-4330 (VBL)
(804) 775-1173 (JDR)
(804) 775-1323 (BMJ)
(804) 775-4758 (ASH)
*vlink@mcguirewooods.com*
*jray@mcguirewoods.com*
*bmjackson@mcguirewoods.com*
*ahills@mcguirewoods.com*

*Counsel for Applicant Virginia Electric and Power Company*


February 20, 2025

COMMONWEALTH OF VIRGINIA
BEFORE THE
STATE CORPORATION COMMISSION

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

FOR APPROVAL AND CERTIFICATION
OF ELECTRIC TRANSMISSION FACILITIES

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Application No. 347

# Appendix

Containing Information in Response to
"Guidelines for Transmission Line Applications Filed Under title 56 of the Code of Virginia"

Case No. PUR-2025-00032

Filed: February 20, 2025

TABLE OF CONTENTS

## EXECUTIVE SUMMARY

In order to provide service requested by three data center customers[1] (collectively, the "Customers"), to maintain reliable service for the overall load growth in the area, and to comply with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") proposes in Culpeper County, the Town of Culpeper, Orange County, and Fauquier County, Virginia, to:

- Construct new approximately 5.2-mile overhead 230 kilovolt ("kV") double circuit transmission lines: Mt. Pony – Potato Run Line #2437 ("Mt. Pony – Potato Run Line") and the Mt. Pony – Oak Green Line #2438 ("Mt. Pony – Oak Green Line") (collectively the "Mt. Pony Lines") primarily on new right-of-way. The new transmission lines will extend from the converted Potato Run – Remington and Oak Green – Potato Run Lines near Structure #1065/496 / #2331/110, as described below, to the proposed Mt. Pony Substation. The proposed Mt. Pony – Potato Run Line and the Mt. Pony – Oak Green Line will be constructed primarily with double circuit weathering steel monopole structures, utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA.[2] The Mt. Pony Lines will utilize a total of 100 or 160 feet of right-of-way, which includes both new 100-foot wide right-of-way, and collocated 160-foot right-of-way. The amount of new right-of-way width for this line will vary from 60 feet to 100 feet.[3]

- Construct a new approximately 3.7-mile[4] overhead 230 kV double circuit transmission

---

[1] The three Customers (individually, "Customer A," "Customer B," and "Customer C," and collectively the "Customers") have requested that Dominion Energy Virginia serve three new data center campuses in the Project area: Campus A, Campus B, and Campus C (collectively, the "Campuses"). Campus A is owned by Customer A, Culpeper DataBank ("DataBank"), Campus B is owned by Customer B, Stack Infrastructure Inc. ("STACK"), and Campus C is owned by Customer C, Copper Ridge Data Center Campus ("Copper Ridge"). Pursuant to the Company's privacy policy and/or a specific customer non-disclosure agreement, the Company is obligated to maintain the confidentiality of customer information and obtain customer consent prior to public disclosure. All three Customers have provided consent for identification in this filing.

[2] Apparent power, measured in megavolt amperes ("MVA"), is made up of real power (megawatt or "MW") and reactive power (megavolt ampere reactive or "MVAR"). The power factor ("pf") is the ratio of real power to apparent power. For loads with a high pf (approaching unity), real power will approach apparent power and the two can be used interchangeably. Load loss criteria specify real power (MW) units because that represents the real power that will be dropped; however, MVA is used to describe the equipment ratings to handle the apparent power, which includes the real and reactive load components.

[3] Approximately 1.5 miles of the Mt. Pony Proposed Route will be within new 100-foot-wide right-of-way, including a 1.2-mile segment from the cut-in at existing Structure #2/496 / #2199/110 and the 0.3-mile segment along James Madison Highway that terminates at the proposed Mt. Pony Substation. Approximately 3.7 miles, or approximately 71% of the total length, will be collocated along the existing right-of-way. This collocated 3.7 miles will have 60 feet of new right-of-way adjacent to the Company's existing 100-foot right-of-way, utilizing a total right-of-way width of 160 feet.

[4] If Mt. Pony Proposed Route (Route 1) and Tech Park Proposed Route (Route 1) are selected by the Commission, then a 0.3-mile segment of 100-foot wide right-of-way along the south side of US 15/29 will not be needed by the Tech Park Proposed Route, as the Tech Park Proposed Route will tap into the Mt. Pony Proposed Route at proposed Structure # 2437/168 / 2438/126 rather than beginning at the proposed Mt. Pony Substation. In this scenario, the Tech Park Proposed Route is 3.4 miles in length, rather than 3.7 miles, and the Tech Park Proposed Route right-of-way would be reduced by approximately 3.7 acres. If Mt. Pony Alternative Route 2 is selected by the Commission, this

line (the "Cirrus – Mt. Pony Line" of the "Tech Park Lines") primarily on new right-of-way and planned data center campuses. The Tech Park Lines will extend from the proposed 230 kV Mt. Pony Substation to the future 230 kV Cirrus Switching Station[5] and interconnect the proposed 230 kV Chandler, McDevitt, and Palomino Substations. The Tech Park Lines will be constructed primarily with double circuit pre-dulled galvanized steel monopole structures, utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The amount of new right-of-way width for this line will vary from 100 feet to 160 feet.[6]

- Convert and rebuild the Company's existing 2.5-mile overhead double circuit 115 kV Oak Green – Potato Run Line #1065 to 230 kV and rebuild Gordonsville – Oak Green Line #11 to 230 kV[7] from the existing Oak Green Switching Station to existing Structure #2199/164 / #11/550 / #1065/550. This uprate of Line #1065 will create the new Oak Green – Mt Pony Line #2438. A 25-foot expansion of the existing 75-foot right-of-way is required, except where not feasible on Virginia Outdoors Foundation ("VOF") conservation easements. Construct approximately 0.2 mile of two new single circuit 230 kV lines to extend Line #1065 and Line #11 into the relocated Oak Green Switching Station within a variable width right-of-way. The relocation of the existing Oak Green Switching Station will also require construction of 0.2-mile of new single circuit 115 kV transmission line (designed to 230 kV) to extend the existing Oak Green – Pine Glade Line #153 into the new Oak Green Switching Station. Relocation of the existing Oak Green Switching Station is necessary to accommodate the installation of 230 kV and 115 kV ring busses and two 230-115 kV transformers ("Oak Green Rebuild and Relocation").
- Convert and rebuild an approximately 0.7-mile segment of the Company's existing 115 kV Potato Run – Remington Line #2 from existing Structure #2/147 to Remington Substation as double circuit 230 kV. This portion of Line #2 is currently double circuit with Company's distribution line #655, which will be rebuilt and converted to 230 kV to accommodate a double circuit 230 kV line, with Line #655 operating at distribution voltage ("Remington Rebuild").

- Construct four new 230 kV substations and one relocated 230 kV switching station (i.e., the Oak Green Switching Station as described previously) in Culpeper County, the Town of Culpeper, and Orange County, Virginia (the "Mt. Pony Substation,"

0.3-mile (3.7 acre) segment will be included. To ensure that all potential Project impacts are evaluated, this 0.3-mile segment is included in both the Mt. Pony Proposed Route and Tech Park Proposed Route impacts in this filing.

[5] *See Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: Cirrus – Keyser 230 kV Loop and Related Projects*, Case No. PUR-2022-00198, Final Order (Oct. 23, 2023).

[6] Approximately 3.3 miles of the total 3.7-mile Tech Park Proposed Route would be located within new 100-foot wide right-of-way, with one 0.2-mile segment collocated with the existing Company Lines #2 and #70, and one 0.2-mile segment collocated with the Company's existing Line #2 rights-of-way that require only 60 additional feet in width. Approximately 0.4 mile, or approximately 11% of the total length, will be collocated with the existing right-of-way. This collocated 0.4 mile will require 60 feet of new right-of-way width adjacent to the Company's existing 100-foot right-of-way, utilizing a total 160-foot-wide right-of-way.

[7] This portion of Line #11 will initially operate at 115 kV, but will be constructed for operations at 230 kV.

"McDevitt Substation," "Chandler Substation," "Palomino Substation," and "Relocated Oak Green Switching Station"). The proposed Mt. Pony Substation and Palomino Substation will be on an easement to be acquired by the Company, and the proposed Chandler Substation, McDevitt Substation, and Relocated Oak Green Switching Station will be on Company property. The Mt. Pony Substation will be in Culpeper County; the Chandler, McDevitt, and Palomino Substations will be in the Town of Culpeper; and the Oak Green Switching Station will be relocated within Orange County, Virginia.

The components described above are collectively referred to as the "Project."

Culpeper County and the Town of Culpeper have recently approved zoning changes to promote the development of the "Culpeper Tech Zone," which is driving significant new load growth in the area. Three new data center campuses, each consisting of several new data centers, are the main load driver for this Project. Within this area, the Company projects load growth of approximately 188 MW initially by 2028, and expects that load to grow by 1,164 MW by 2034 in Culpeper County and the Town of Culpeper. This load growth is a combination of data center growth (140 MW by 2028; 943 MW by 2034) and other load growth on the Rappahannock Electric Cooperative ("REC") system. The additional REC load on the Mountain Run Substation is projected to be approximately 100 MW by 2034, creating a total of 320 MW load. According to Dominion Energy Virginia transmission planning criteria, a substation cannot serve more than 300 MW of load. Additionally, any substation that serves more than 100 MW of load should be networked to the system and may not be served radially.

As to the need to provide requested service, the Customers' projected load combined with emerging load in the area (approximately 1,372 MW) would lead to a potential 300 MW load drop which is in violation of NERC's criteria to serve all load reliably. Accordingly, the proposed Mt. Pony Lines, Tech Park Lines and the converted Lines #2 and #1065 are essential to reliably serve the Customers as well as emerging load in the Culpeper load area. For purposes of this Application, the Culpeper Load Area is defined generally as the area within Culpeper County and the Town of Culpeper ("Culpeper Load Area").

For the Mt. Pony Lines, the Company identified an approximately 5.2 mile overhead proposed route ("Mt. Pony Proposed Route" or "Mt. Pony Route 1") in an approximately 100-foot-wide new right-of-way or within a new 60-foot-wide right-of-way collocated with existing Company rights-of-way. One overhead alternative route ("Mt. Pony Alternative Route 2") was also identified entirely in a new 100-foot-wide right-of-way. The Mt. Pony Lines are entirely within Culpeper County, Virginia.

For the Tech Park Lines, the Company identified an approximately 3.7-mile overhead proposed route ("Tech Park Proposed Route" or "Tech Park Route 1"), as well as two overhead alternative routes ("Tech Park Alternative Route 2" and "Tech Park Alternative Route 3"). The Tech Park Proposed and Alternative Routes would be primarily within new 100-foot-wide rights-of-way, except for two 0.2-mile segments within a new 60-foot-wide right-of-way collocated with existing Company rights-of-way. Approximately 1.5 miles of each of the Tech Park Lines is within the Town of Culpeper, with the remainder (2.2 miles of the Proposed Route and 2.0 miles of each Alternative Route) within Culpeper County, Virginia.

For the Oak Green Rebuild and Relocation, the Company identified an approximately 2.9-mile overhead proposed route ("Oak Green Proposed Route" or "Oak Green Rebuild"), comprised of 2.5 miles of existing and 0.4 mile of new right-of-way. The existing 2.5-mile right-of-way is 75 feet wide. Of this, approximately 2.0 miles of the existing right-of-way will be expanded by 25 feet to a new total of 100 feet wide, while approximately 0.5 mile will be maintained at 75 feet due to conservation easements which prevent right-of-way expansion. In addition, approximately 0.2 mile of new variable width right-of-way will be acquired to connect the existing Oak Green Switching Station to the proposed relocated Oak Green Switching Station, and 0.2 mile of new 100 feet wide right-of-way will be acquired to connect the proposed relocated Oak Green Switching Station to the existing Oak Green – Pine Glade Line #153.

The proposed Oak Green Switching Station initially will be constructed with four 230 kV circuit breakers, one 230 kV line terminals, two 230 – 115 kV, 224 MVA transformers, six 115 kV circuit breakers, two 115 kV line terminals and other associated equipment. In total, it will be designed to accommodate future growth in the area with a build-out of six additional 230 kV circuit breakers and two additional 115 kV breakers, three additional 230 kV line terminals, two 115 kV line terminals and two 230 kV capacitor banks. Additionally, a new control enclosure will be installed to accommodate the protective relay and communications cabinets. The total area required to build Oak Green Switching Station is approximately 4.7 acres. In addition, an approximately 0.2-mile segment of new 100-foot-wide right-of-way is required to connect the relocated Oak Green Switching Station to the existing Oak Green – Pine Glade Line #153. Due to the utilization of existing right-of-way, no alternative routes were identified for the Oak Green Rebuild. Approximately 0.2 mile of the Oak Green Proposed Route is in Culpeper County and 2.5 miles are in Orange County. The relocated Oak Green Switching Station and 0.2-mile Line #153 tap are also located in Orange County, Virginia.

For the Remington Rebuild, the Company identified an approximately 0.7 mile overhead proposed route ("Remington Proposed Route" or "Remington Rebuild"). The Remington Rebuild is located entirely within existing Company right-of-way or on Company-owned lands. Because the Remington Proposed Route is entirely within existing Company right-of-way, no alternative routes were identified. The Remington Proposed Route is entirely in Fauquier County, Virginia.

The Company is proposing all these Proposed and Alternative Routes for Commission consideration and notice. Discussion of these Proposed and Alternative Routes, as well as other overhead and underground routes that the Company studied but ultimately rejected, is provided in Section II of the Appendix and discussed in more detail in the Environmental Routing Study (or "Routing Study") included with the Application.

The four new Proposed Substations will be constructed with 112 MVA 230-34.5 kV transformers with a six (McDevitt Substation, Chandler Substation, and Palomino Substation) or four (Mt. Pony Substation) circuit breaker configuration, and other associated equipment. The total area of the Mt. Pony Substation is approximately 5.0 acres, the McDevitt Substation is approximately 4.5 acres, the Chandler Substation is approximately 4.7 acres, and the Palomino Substation is approximately 4.4 acres. The Mt. Pony Substation will be in Culpeper County; and the Chandler, McDevitt, and Palomino Substations will be in the Town of Culpeper, Virginia.

The estimated conceptual cost of the Project utilizing the Proposed Routes is approximately $253.7 million which includes approximately $163.5 million for transmission-related work and approximately $90.1 million for substation-related work (2024 dollars).[8]

The desired in-service target date for the Project is May 1, 2028. The Company estimates it will take approximately 27 months for detailed engineering, materials procurement, permitting, real estate, and construction after a final order from the Commission. Accordingly, to support this estimated construction timeline and construction plan, the Company respectfully requests a final order by January 31, 2026. Should the Commission issue a final order by January 31, 2026, to accommodate long-lead materials procurement, the Company estimates that construction should begin around October 15, 2026, and be completed by May 1, 2028. This schedule is contingent upon obtaining the necessary permits and outages, the latter of which may be particularly challenging due to the amount of new load growth, rebuilds, and new builds scheduled to occur in this load area. Dates may need to be adjusted based on permitting delays or design modifications to comply with additional agency requirements identified during the permitting application process, as well as the ability to schedule outages, and unpredictable delays due to labor shortages, or materials/supply issues. This schedule is also contingent upon the Company's ability to negotiate for easements with property owners along the approved routes without the need for additional litigation.

In addition, the Company is actively monitoring regulatory changes and requirements associated with the Northern long-eared bat ("NLEB") and how they could potentially impact construction timing associated with time of year restrictions ("TOYRs"). The U.S. Fish and Wildlife Service ("USFWS") previously indicated that it planned to issue final NLEB guidance to replace the interim guidance by April 1, 2024; however, the interim guidance has been extended by USFWS until late summer 2024. The Company is actively tracking updates from the USFWS with respect to the final guidance. Once issued, the Company plans to review and follow the final guidance to the extent it applies to the Company's projects. Until the final guidance is issued, the Company will continue following the interim guidance. For projects that may require additional coordination, the Company will coordinate with the USFWS.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat ("TCB"). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024. The Company is actively tracking this ruling and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

Any adjustments to this Project schedule resulting from these or similar challenges could necessitate a minimum of a six- to twelve-month delay in the targeted in-service date. Accordingly, for purposes of judicial economy, the Company requests that the Commission issue a final order approving both a desired in-service target date (i.e., May 1, 2028) and an authorization sunset date (i.e., May 1, 2029) for energization of the Project.

[8] These total Project costs are inclusive of projected real estate costs that the Company anticipates will be required to acquire the property rights for the Project.

## I. NECESSITY FOR THE PROPOSED PROJECT

**A. State the primary justification for the proposed project (for example, the most critical contingency violation including the first year and season in which the violation occurs). In addition, identify each transmission planning standard(s) (of the Applicant, regional transmission organization ("RTO"), or North American Electric Reliability Corporation) projected to be violated absent construction of the facility.**

Response: The Project is necessary to provide service requested by three Customers developing separate new data center campuses in Culpeper County and the Town of Culpeper, Virginia; to maintain reliable service for the overall load growth in the Project area; and to comply with mandatory NERC Reliability Standards. See Attachment I.A.1 for an overview map of the proposed Project along the Proposed Routes in the Culpeper Load Area.

Dominion Energy Virginia's transmission system is responsible for providing transmission service (i) for redelivery to the Company's retail customers; (ii) to Appalachian Power Company, Old Dominion Electric Cooperative, Northern Virginia Electric Cooperative, Central Virginia Electric Cooperative, and Virginia Municipal Electric Association for redelivery to their retail customers in Virginia; and, (iii) to North Carolina Electric Membership Corporation and North Carolina Eastern Municipal Power Agency for redelivery to their customers in North Carolina (collectively, the "DOM Zone"). The Company needs to be able to maintain the overall, long-term reliability of its transmission system to meet its customers' evolving power needs in the future.

Dominion Energy Virginia is part of the PJM Interconnection, L.L.C. ("PJM") regional transmission organization ("RTO"), which provides service to a large portion of the eastern United States. PJM is currently responsible for ensuring the reliability and coordinating the movement of electricity through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. This service area has a population of approximately 65 million and, on August 2, 2006, set a record high of 165,563 MW for summer peak demand, of which Dominion Energy Virginia's load portion was approximately 19,256 MW. On July 16, 2024, the DOM Zone set a record high of 23,127 MW for summer peak demand. On January 23, 2025, the DOM Zone set a preliminary winter and all-time record demand of 24,678 MW. Based on the 2024 PJM Load Forecast, the DOM Zone is expected to grow with average growth rates of 5.6% summer and 5.1% winter over the next 10 years compared to the PJM average of 1.7% and 2.0% over the same period for the summer and winter, respectively.[9]

Dominion Energy Virginia is also part of the Eastern Interconnection transmission

[9] A copy of the 2024 PJM Load Report is available at the following: https://www.pjm.com/-/media/library/reports-notices/load-forecast/2024-load-report.ashx. *See, in particular,* page 3 (PJM) and pages 28, 35, 39 (DOM Zone).

grid, meaning its transmission system is interconnected, directly or indirectly, with all of the other transmission systems in the United States and Canada between the Rocky Mountains and the Atlantic coast, except for Quebec and most of Texas. All of the transmission systems in the Eastern Interconnection are dependent on each other for moving bulk power through the transmission system and for reliability support. Dominion Energy Virginia's service to its customers is extremely reliant on a robust and reliable regional transmission system.

NERC has been designated by the Federal Energy Regulatory Commission ("FERC") as the electric reliability organization for the United States. Accordingly, NERC requires that the planning authority and transmission planner develop planning criteria to ensure compliance with NERC Reliability Standards. Mandatory NERC Reliability Standards require that a transmission owner ("TO") develop facility interconnection requirements that identify load and generation interconnection minimum requirements for a TO's transmission system, as well as the TO's reliability criteria.[10]

Federally mandated NERC Reliability Standards constitute minimum criteria with which all public utilities must comply as components of the interstate electric transmission system. Moreover, the Energy Policy Act of 2005 mandates that electric utilities must follow these NERC Reliability Standards and imposes fines on utilities found to be in noncompliance up to $1.3 million a day per violation.

PJM's Regional Transmission Expansion Plan ("RTEP") is the culmination of a FERC-approved annual transmission planning process that includes extensive analysis of the electric transmission system to determine any needed improvements.[11] PJM's annual RTEP is based on the effective criteria in place at the time of the analyses, including applicable standards and criteria of NERC, PJM, and local reliability planning criteria, among others.[12] Projects identified through the RTEP process are developed by the TO in coordination with PJM, and are presented at the Transmission Expansion Advisory Committee ("TEAC") meetings prior to inclusion in the RTEP, which is then presented for approval to the PJM Board of Managers (the "PJM Board").

Outcomes of the RTEP process include three types of transmission system upgrades or projects: (i) baseline upgrades are those that resolve a system reliability criteria violation, which can include planning criteria from NERC, ReliabilityFirst, SERC

[10] The Company's Transmission Planning Criteria (effective September 1, 2024) can be found in Attachment 1 of the Company's Facility Interconnection Requirements ("FIR") document, which is available online at https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/virginia/parallel-generation/sig-on-file--devet-facility-interconnection-requirements-rev23-eff-date-09012024.pdf?rev=116db3b1c4ce4d239843c601616b18e9&hash=64AB2F5B22CE90BE545783726485AE4C.

[11] PJM Manual 14B (effective June 27, 2024) focuses on the RTEP process and can be found at https://www.pjm.com/-/media/documents/manuals/m14b.ashx.

[12] *See* PJM Manual 14B, Attachment D: PJM Reliability Planning Criteria.

Reliability Corporation, PJM, and TOs; (ii) network upgrades are new or upgraded facilities required primarily to eliminate reliability criteria violations caused by proposed generation, merchant transmission, or long-term firm transmission service requests; and (iii) supplemental projects are projects initiated by the TO in order to interconnect new customer load, address degraded equipment performance, improve operational flexibility and efficiency, and increase infrastructure resilience. The Project is classified as a supplemental project initiated by the TO to interconnect new customer load. While supplemental projects are included in the RTEP, the PJM Board does not actually approve such projects. See Section I.J for a discussion of the PJM process as it relates to this Project.

## NEED FOR THE PROJECT

As discussed in more detail below, the Project is needed to interconnect and provide service requested by three data center customers in the Culpeper Load Area, and to maintain compliance with mandatory NERC Reliability Standards. The combination of competitive collocation/cloud environment, fiber connectivity, strategic geographic location, low risk of business disruptions, affordable and reliable power, and the business climate in Virginia has created the largest market for data center capacity in the United States. The data center market continues to rapidly expand in Virginia, and the growing demand for data center space in Virginia has led the industry to locations within other regions of Virginia.

Between 2023 and 2024, the Company's Distribution Planning group submitted delivery point ("DP") requests to the Transmission Planning group for approximately 1,100 MW requiring four new substations, as described below.

To serve the Customers' projected load, the Company is proposing to construct four substations with the targeted sequencing as follows:

| Driver | Station | DP Requested Load | DP Requested ISD Ramp Start Year and Target Sequencing of Substation In-Service |
|---|---|---|---|
| Customer A | Mt. Pony | 259 MW | May 2028 |
| Customer B | McDevitt | 275 MW | May 2028 |
| | Chandler | 270 MW | May 2028 |
| Customer C | Palomino | 295 MW | May 2028 |

## THE PROPOSED PROJECT

To provide service requested by three data center Customers, to maintain reliable service for the overall load growth in the area, and to comply with mandatory NERC Reliability Standards, the Company is proposing in Culpeper County, the Town of Culpeper, Orange County, and Fauquier County, Virginia to construct the Project as follows:

### Mt. Pony Lines and Mt. Pony Substation

As a part of the Project, the Company proposes to construct a new overhead 230 kV double circuit transmission line (i.e., Mt. Pony Lines) by cutting the Company's existing 230 kV Oak Green – Potato Run Line #1065 which is collocated within an existing 100-foot-wide right-of-way, to connect the existing Line #1065/#2331 corridor to the proposed Mt. Pony Substation. Existing Oak Green – Potato Run Line #1065 will be cut at Structure #1065/496 / #2331/110. The new double circuit lines will extend approximately 5.2 miles from the cut-in location before terminating at the new proposed 230-34.5 kV Mt. Pony Substation located on property to be obtained by the Company in Culpeper County, Virginia, resulting in (i) 230 kV Mt. Pony – Potato Run Line #2437 and (ii) 230 kV Mt. Pony – Oak Green Line #2438.

At the cut-in location, the Company will install a new monopole structure at Structure #1065/496 / #2331/110 to provide a network connection that will allow the Takeoff Substation to connect to other existing substations for increased reliability. While the structure installed at the proposed cut-in location is within the existing right-of-way, the proposed 5.2-mile Mt. Pony Lines will be constructed in a new 100-foot-wide right-of-way (1.5 miles) or within a 60-foot right-of-way expansion located adjacent to an existing 100-foot-wide right-of-way (3.7 miles) supported primarily by double circuit weathering steel monopole structures and utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW/HS type conductors with a summer transfer capability of 1,573 MVA, with one new shield wire over each circuit.

For the Mt. Pony Lines, the Company identified an approximately 5.2-mile overhead Mt. Pony Proposed Route (Route 1) within a variable 100-foot new or 60-foot expanded (160-foot total) right-of-way, as well as an approximately 4.8-mile overhead Mt. Pony Alternative Route 2 within a 100-foot right-of-way, both of which the Company is proposing for Commission consideration and notice.

The Company also proposes to construct the 230-34.5 kV Mt. Pony Substation in Culpeper County, Virginia, as part of the Project. See Section II.C for a description of the substation, as well as a one-line diagram and general arrangement.

**Tech Park Lines and McDevitt, Chandler, and Palomino Substations**

As a part of the Project, the Company proposes to construct a new overhead 230 kV double circuit transmission line from the Mt. Pony Substation to McDevitt, Chandler, Palomino, and Cirrus Switching Stations. An approximately 3.7-mile[13] overhead 230 kV double circuit transmission line will connect the proposed substations, which will be primarily on new right-of-way and planned data center campuses. The Tech Park Lines will be supported primarily by double circuit monopole structures of pre-dulled galvanized and weathering steel and utilizing two circuits of three-phase twin-bundled 768.2 ACSS/TW/HS type conductors with a summer transfer capability of 1,573 MVA, with one new shield wire over each circuit. The proposed right-of-way width will be 100 feet where one double circuit line exists and 160 feet where two double circuit lines are parallel. The line names and numbers for the Tech Park Lines are below.

| Line Number | Line Name |
|---|---|
| **2438** | Oak Green – Mt. Pony |
| **2437** | Potato Run – Mt. Pony (Future Potato Run – McDevitt)* |
| **2439** | Potato Run – Remington |
| **2429** | Mt. Pony – McDevitt |
| **2430** | McDevitt – Chandler |
| **2431** | McDevitt – Chandler |
| **2432** | Chandler – Palomino |
| **2433** | Chandler – Palomino |
| **2434** | Palomino – Cirrus |
| **2435** | Palomino – Cirrus |

* Line will terminate into Mt. Pony initially and into McDevitt in the final configuration.

[13] If Mt. Pony Proposed Route (Route 1) and Tech Park Proposed Route (Route 1) are selected by the Commission, then a 0.3-mile segment of 100-foot wide right-of-way along the south side of James Madison Highway will not be needed by the Tech Park Proposed Route, as the Tech Park Proposed Route will tap into the Mt. Pony Proposed Route at proposed Structure # 2437/168 / #2438/126 rather than beginning at the proposed Mt. Pony Substation. In this scenario, the Tech Park Proposed Route is 3.4 miles in length, rather than 3.7 miles, and the Tech Park Proposed Route right-of-way would be reduced by approximately 3.7 acres. If Mt. Pony Alternative Route 2 is selected by the Commission, this 0.3-mile (3.7 acre) segment will be included. To ensure that all potential Project impacts are evaluated, this 0.3-mile segment is included in both the Mt. Pony Proposed Route and Tech Park Proposed Route impacts in this filing.

**Oak Green Rebuild and Relocation**

An approximately 2.5-mile segment of the existing 115 kV Lines #1065/#11 would be rebuilt and uprated to 230 kV in a new variable-width right-of-way from existing Structure #2199/164 / 11/550 / 1065/550 to the existing Oak Green Switching Station. The existing right-of-way is 75 feet wide but will be expanded to 100 feet for the majority of the length to accommodate the rebuild of the Company's uprated Lines #1065/#11. The existing right-of-way crosses two VOF easements, and the right-of-way would not be expanded on these parcels. In addition, 0.2 mile of new variable width right-of-way would be acquired to connect the existing Oak Green Switching Station to the relocated Proposed Oak Green Switching Station, and 0.2 mile of new 100 feet wide right-of-way would be acquired to connect the proposed relocated Oak Green Switching Station to the Oak Green – Pine Glad Line #153. No alternatives are being considered for this segment due to use of existing right-of-way. The Oak Green Rebuild and Relocation spans across Culpeper and Orange Counties.

**Remington Rebuild**

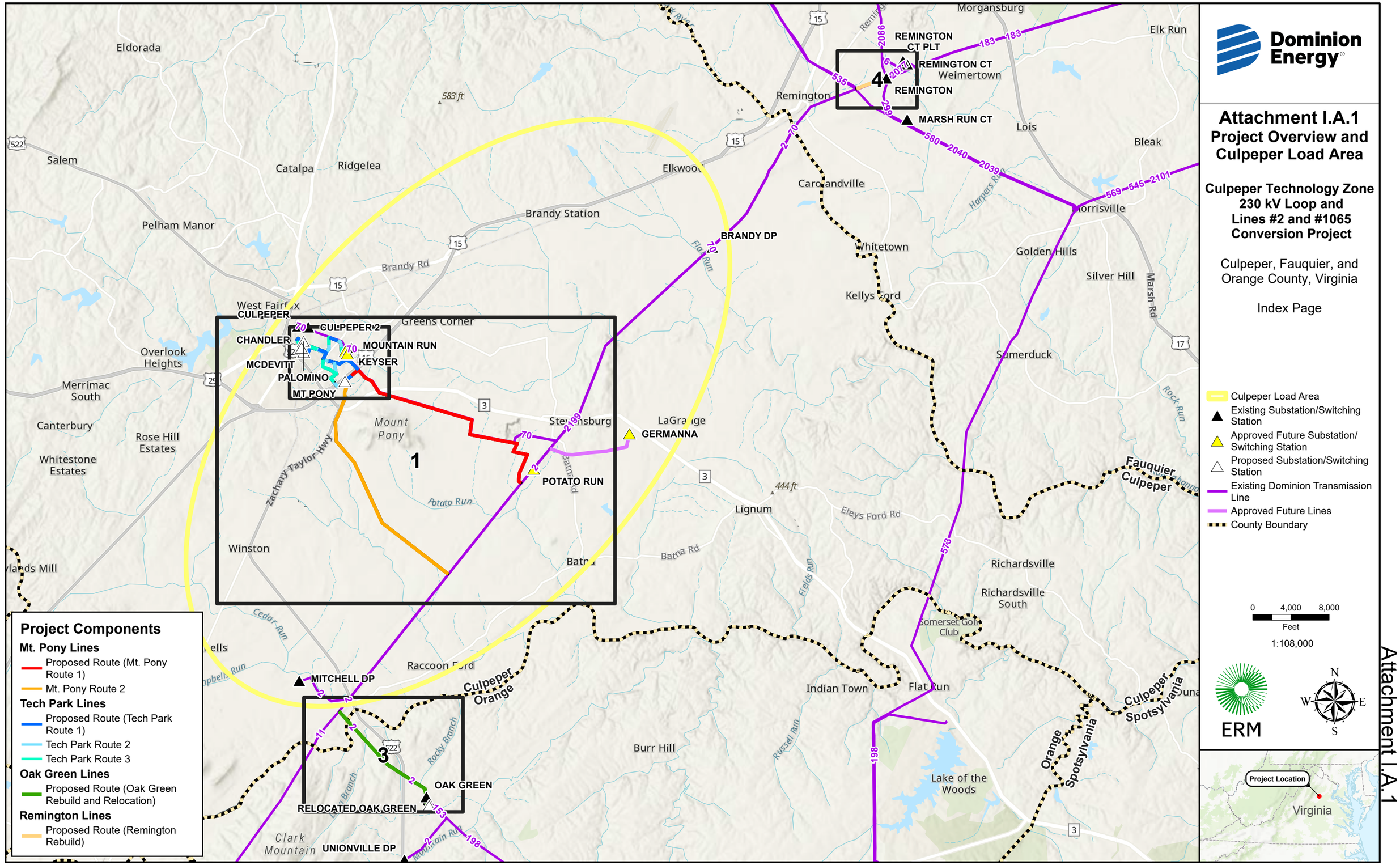
An approximately 0.7-mile segment of the existing Line #2 will be rebuilt within the existing right-of-way from existing Structure #2/147 to the existing Remington Substation. The rebuild will not require any new right-of-way acquisition. The Company's existing distribution line #655 is double circuit with Line #2 in this segment and both will be rebuilt to accommodate a double circuit 230 kV line with Line #655 operating at distribution voltage. No alternatives are being considered for this rebuild due to use of existing right-of-way. The Remington Rebuild is in Fauquier County, Virginia.

See Section II.A.9 for more details regarding the route selection process.

Attachment I.A.2 provides a one-line diagram of the existing transmission system in the Project Area. Attachment I.A.3 provides a one-line diagram of the transmission system in the Project Area with the proposed Project, including future substations presented to PJM in the Project load area.

***

In summary, the proposed Project will provide service requested by the Customers, maintain reliable service for the overall load growth in the area, and comply with mandatory NERC Reliability Standards.



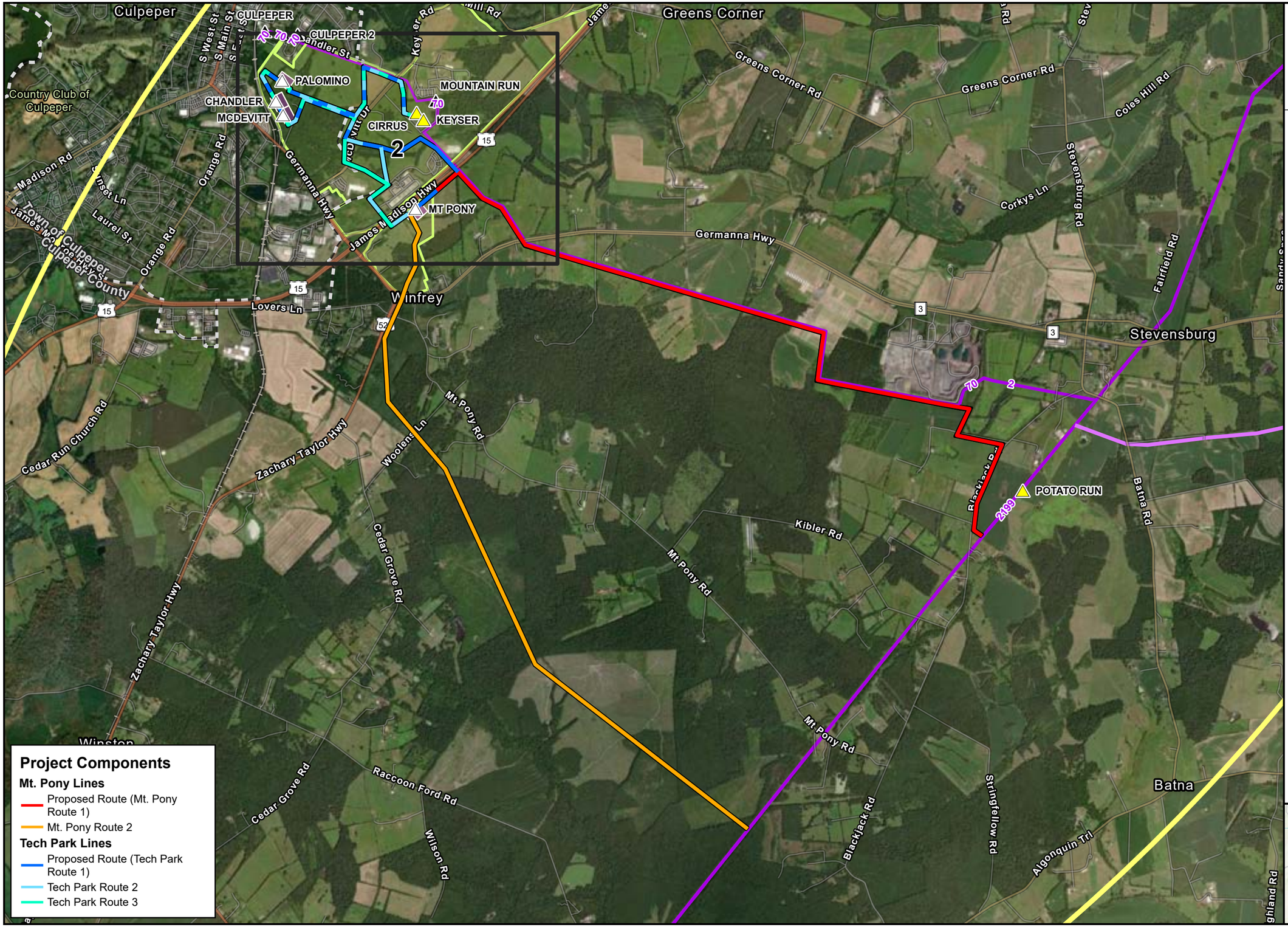

Dominion Energy®

# Attachment I.A.1
## Project Overview and Culpeper Load Area

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper, Fauquier, and Orange County, Virginia

Index Page

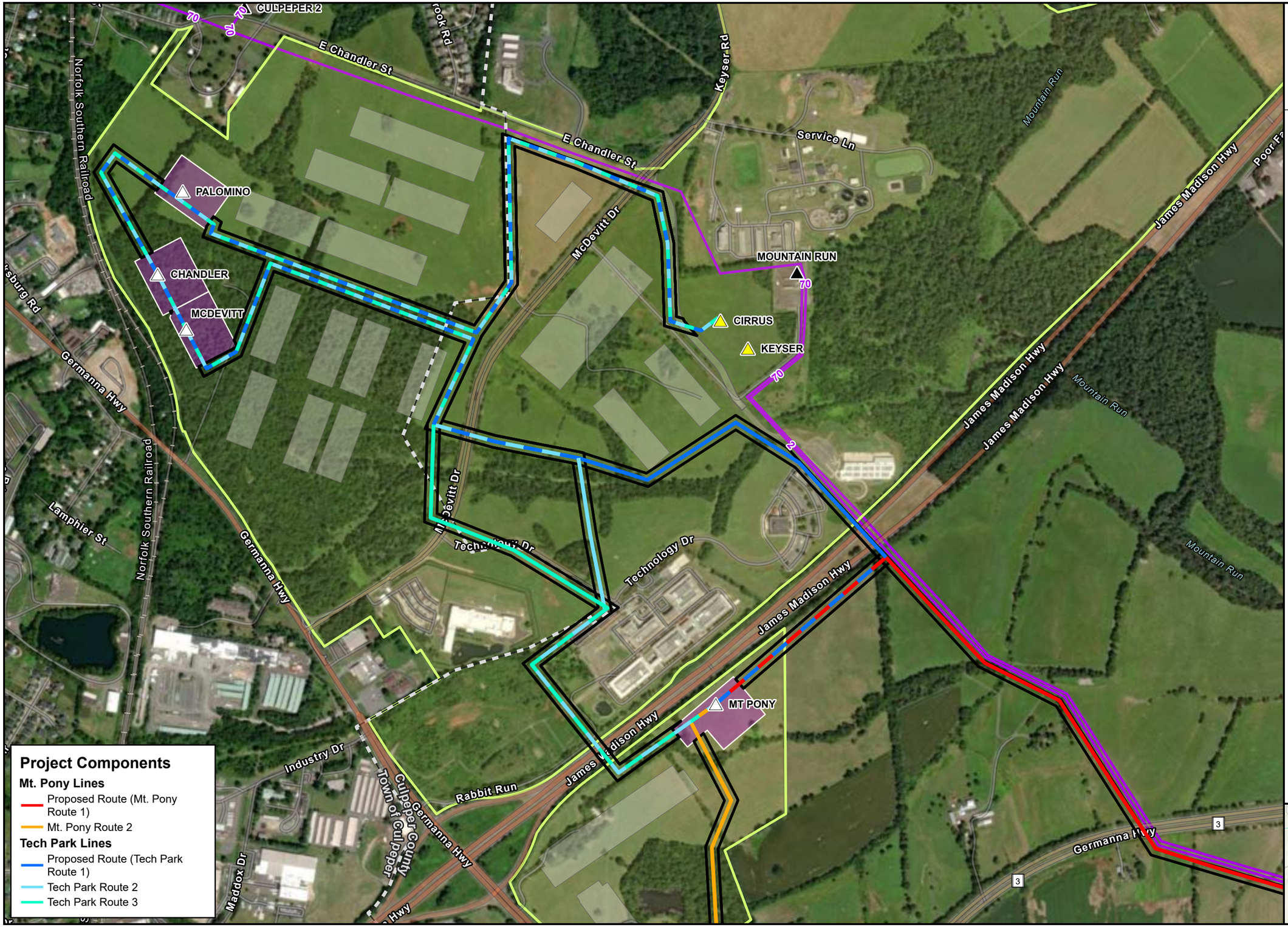



Dominion Energy®

# Attachment I.A.1
## Project Overview and Culpeper Load Area

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County, Virginia




Dominion Energy

# Attachment I.A.1
## Project Overview and Culpeper Load Area

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County, Virginia



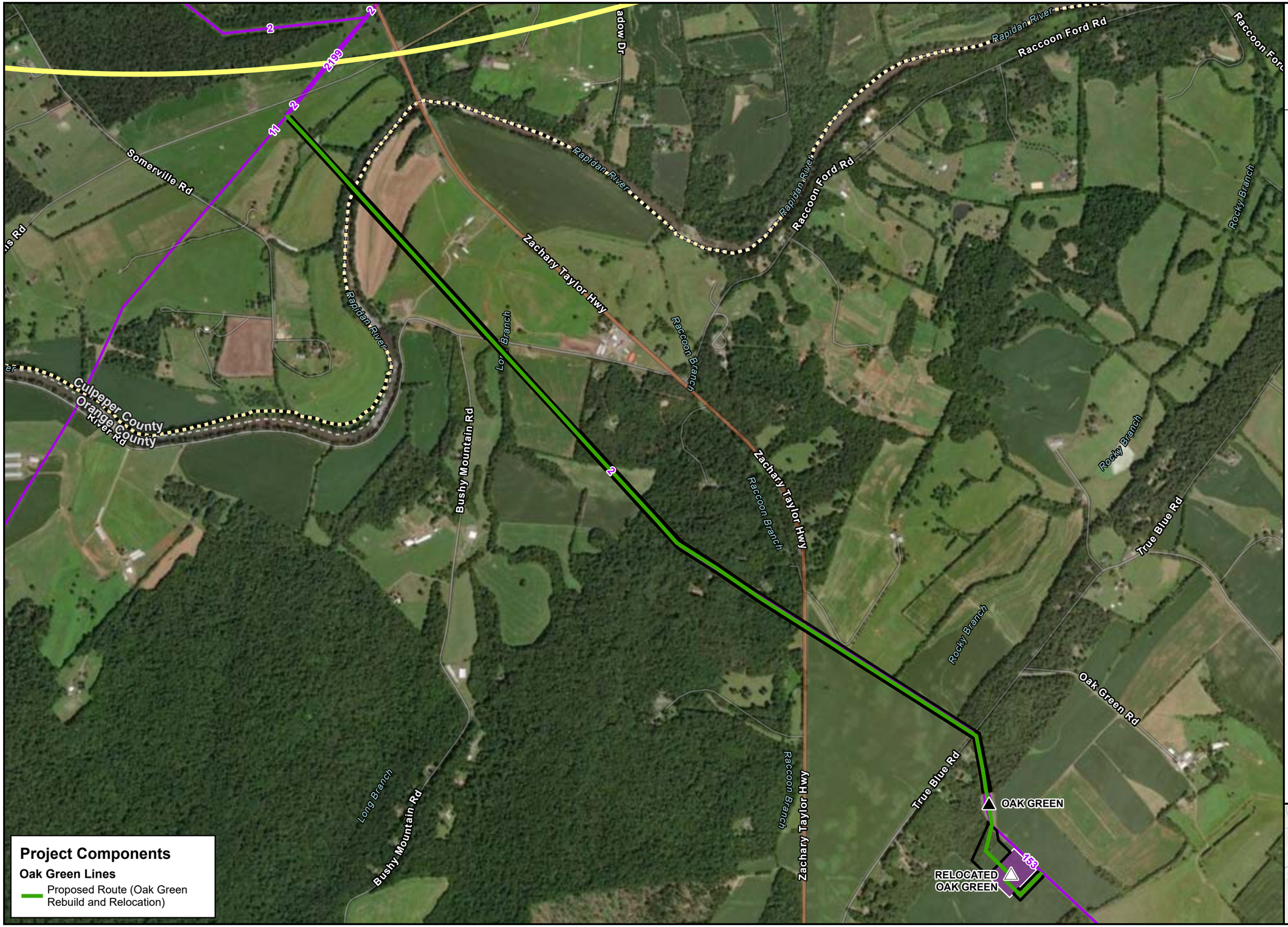
- Existing Substation/Switching Station
- Approved Future Substation/ Switching Station
- Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- County Boundary
- Proposed Data Center Building
- Culpeper Tech Zone
- Right-of-Way

0 390 780
Feet

1:9,000

ERM

N W E S




**Project Components**

**Oak Green Lines**

- Proposed Route (Oak Green Rebuild and Relocation)

Dominion Energy®

# Attachment I.A.1
## Project Overview and Culpeper Load Area

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper and Orange County, Virginia



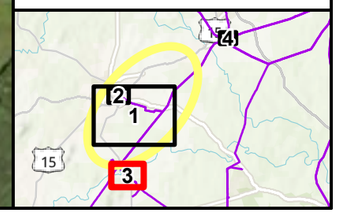
- Culpeper Load Area
- ▲ Existing Substation/Switching Station
- △ Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- County Boundary
- Right-of-Way (Existing and Proposed)

0 600 1,200
Feet

1:14,400

ERM

N
W E
S




Dominion Energy

# Attachment I.A.1
## Project Overview and Culpeper Load Area

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Fauquier County, Virginia



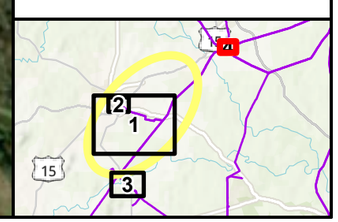
- Existing Substation/Switching Station
- Existing Dominion Transmission Line
- Right-of-Way (Existing)

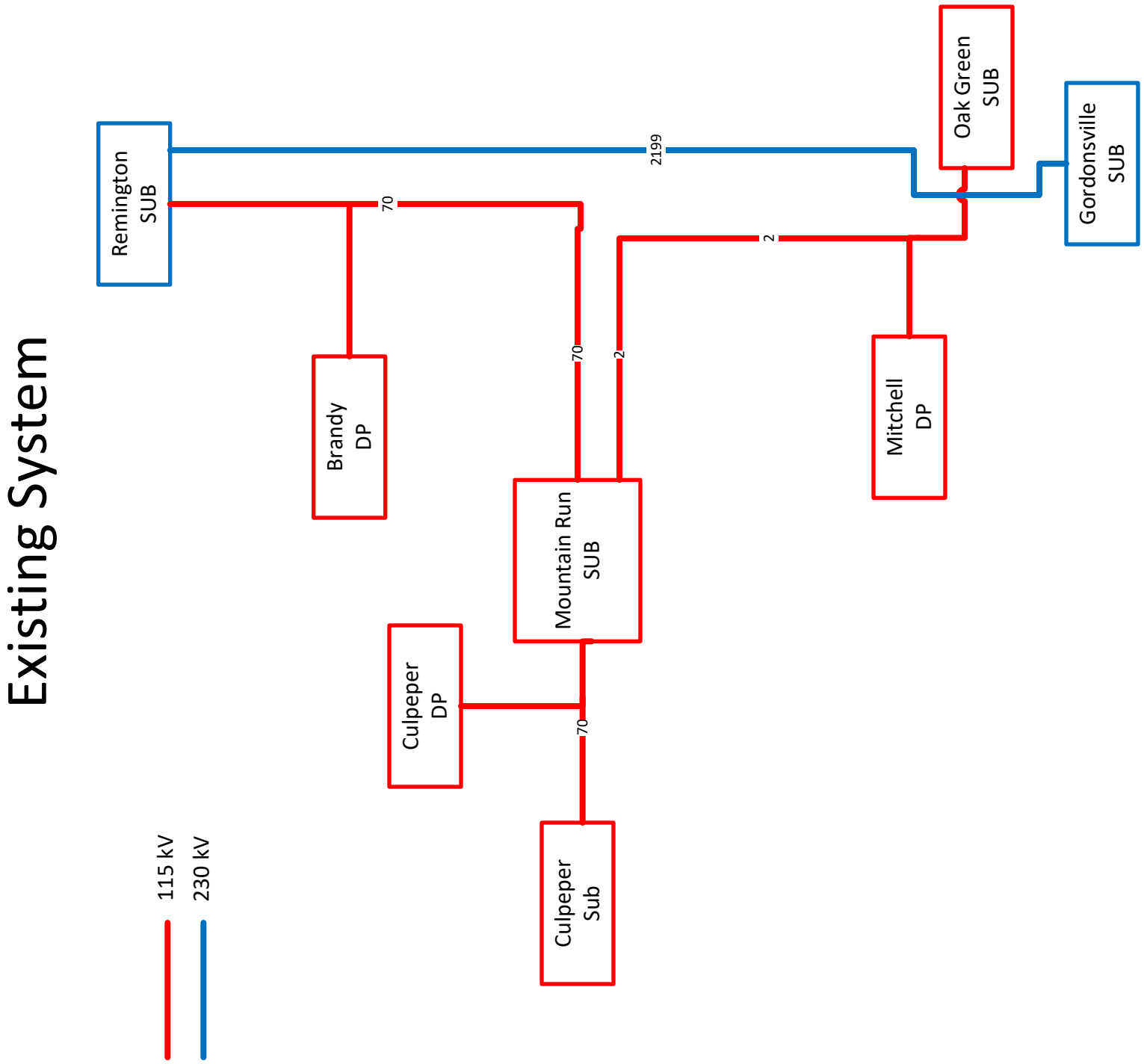
0 310 620
Feet

1:7,200

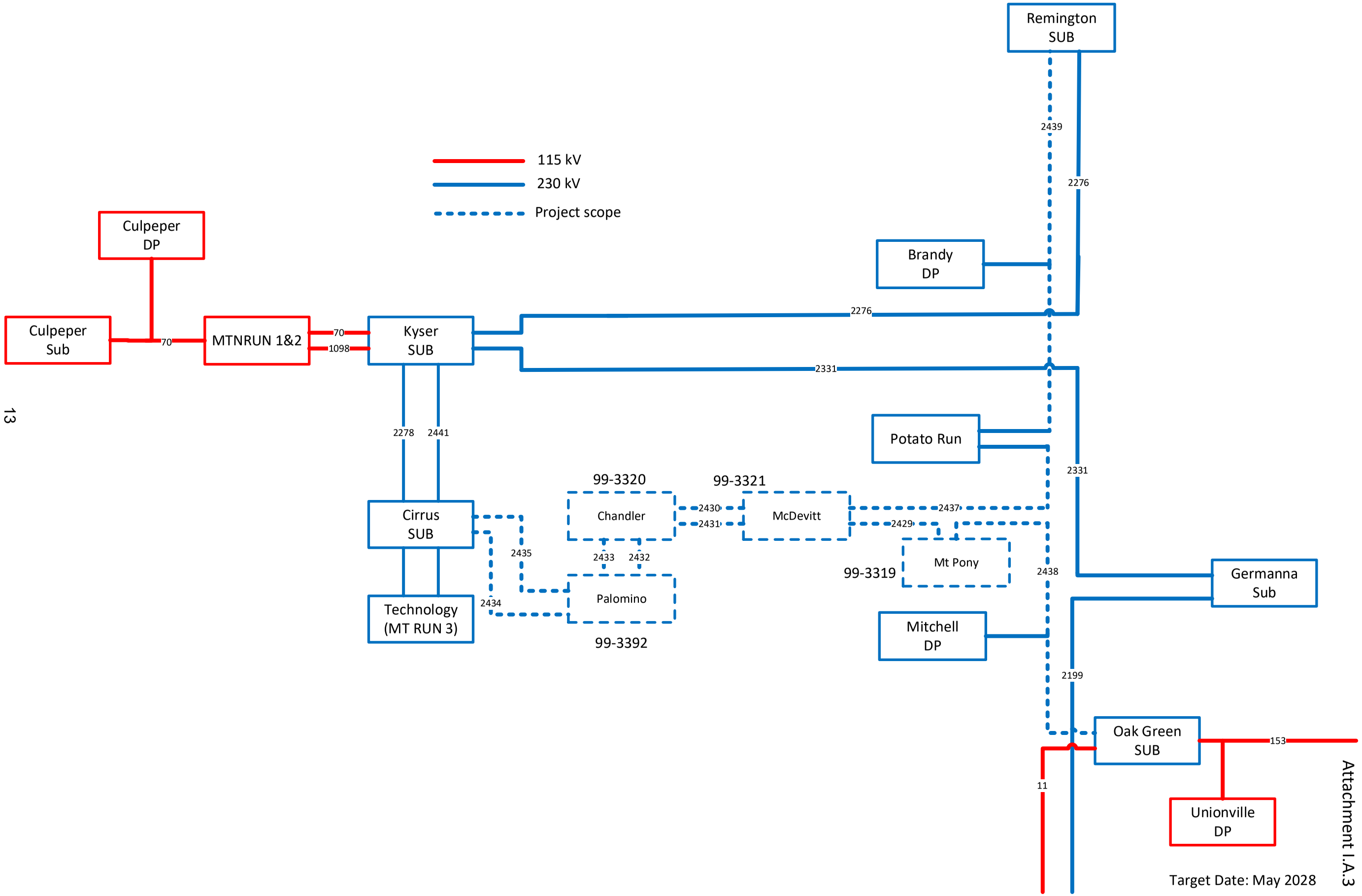
ERM

N
W E
S




Existing System
Remington SUB
Oak Green SUB
Gordonsville SUB
2199
70
Brandy DP
70
2
2
Mitchell DP
Mountain Run SUB
Culpeper DP
70
Culpeper Sub
115 kV
230 kV

# Proposed Project



## I. NECESSITY FOR THE PROPOSED PROJECT

**B. Detail the engineering justifications for the proposed project (for example, provide narrative to support whether the proposed project is necessary to upgrade or replace an existing facility, to significantly increase system reliability, to connect a new generating station to the Applicant's system, etc.). Describe any known future project(s), including but not limited to generation, transmission, delivery point or retail customer projects, that require the proposed project to be constructed. Verify that the planning studies used to justify the need for the proposed project considered all other generation and transmission facilities impacting the affected load area, including generation and transmission facilities that have not yet been placed into service. Provide a list of those facilities that are not yet in service.**

Response:

**(1) Engineering Justification for Project**

*Detail the engineering justifications for the proposed project (for example, provide narrative to support whether the proposed project is necessary to upgrade or replace an existing facility, to significantly increase system reliability, to connect a new generating station to the Applicant's system, etc.).*

See Section I.A of the Appendix.

**(2) Known Future Projects**

*Describe any known future project(s), including but not limited to generation, transmission, delivery point or retail customer projects, that require the proposed project to be constructed.*

The proposed Project is needed to serve emerging data center development in the Project area as described in Section I.A. See Attachment I.A.1 for existing and future distribution facilities in the affected load area, including the proposed Project, which will work together to reliably serve existing and future customers in the vicinity. While future Company projects are located generally within the same load area as the proposed switching stations and substations (as shown on Attachment I.A.1), each has its own unique load growth drivers, and as such, these future projects do not require the proposed Project to be constructed so are not responsive to this prompt.

**(3) Planning Studies**

*Verify that the planning studies used to justify the need for the proposed project considered all other generation and transmission facilities impacting the affected load area, including generation and transmission facilities that have not yet been placed into service.*

For this Project, the Company's Distribution Planning group first analyzed

Customer A and Customer B's contract load information for the data center developments. Based on this total combined contract load, the Distribution Planning group determined that it was not feasible to serve this amount of load from any of the Company's primary sources of distribution power in the Culpeper Load Area. Specifically, the Company determined that connecting the Customers' total combined contract load to the existing transmission system would result in transformer overloads and violations of the NERC 300 MW reliability criteria, as discussed in Section I.C.

See also Section I.C for discussion of the interconnection requirements for transmission facilities, and Section I.A as to load at full build out at the various substations and bridging power offered, as available.

**(4) Facilities List**

*Provide a list of those facilities that are not yet in service.*

See Attachment I.A.3 for transmission infrastructure planned for the affected area of the Town of Culpeper, Culpeper County, Orange County, and Fauquier County, Virginia. See Attachment I.A.1 for existing and future transmission facilities.

## I. NECESSITY FOR THE PROPOSED PROJECT

**C. Describe the present system and detail how the proposed project will effectively satisfy present and projected future electrical load demand requirements. Provide pertinent load growth data (at least five years of historical summer and winter peak demands and ten years of projected summer and winter peak loads where applicable). Provide all assumptions inherent within the projected data and describe why the existing system cannot adequately serve the needs of the Applicant (if that is the case). Indicate the date by which the existing system is projected to be inadequate.**

Response: The three new data center campuses are located in Culpeper, Virginia in the Culpeper Load Area. For purposes of this Application, the Culpeper Load Area is defined generally as the area within Culpeper County and the Town of Culpeper. See Attachment I.A.1 for a map of the general locations of the data center projects that comprise the need for the Project, and Attachment I.G.1 for the portion of the Company's transmission facilities in the area of the proposed Project.

The total load at the Customers' new data center campuses is projected to be approximately 1,100 MW[14] after energization. Adding the load from the Customers' planned data centers to the existing substations would result in overload conditions and NERC transmission system reliability criteria violations, as discussed below. As a result, the proposed Chandler, McDevitt, Mt. Pony, and Palomino Substations are needed to provide the primary sources of distribution power for the Customers' new data center developments. Attachment 1.C.1 shows the five-year historical and 10-year projected loads in the Culpeper Load Area and the projected loads at Chandler, McDevitt, Mt. Pony, and Palomino Substations.

Note that Attachment I.C.1 includes only normal feed circuits; they do not include any alternate feed loads. To be clear, that means there are no alternate feed loads from the two Customers or from other customers that have existing alternate feed contracts in any of the Section I.C attachments. Also note that the load tables in the Section I.C attachment shows actual and projected peak loading in MVA based on the Customers' contracted load, exclusive of emerging load in the Culpeper Load Area.

Each substation transformer has a normal overload ("NOL") rating that cannot be exceeded. These distribution circuits each have a thermal overload rating that is based on the type of equipment and the configuration of the equipment in the field. To prevent overloads that could cause equipment damage or failure, the maximum

[14] Distribution load forecasts for data centers typically involve use of customer-requested load ramps to project load growth based on historical knowledge of the customer requesting service for the new data center. The data center customer typically requests the full maximum capacity that their data center building can support to ensure they are able to fully utilize or lease their building investment. The Company has applied a diversification factor to the Customers' block load request to project load at full build out.

capacity limits of the distribution circuits and the substation transformers cannot be exceeded.

To ensure reliability to its customers, the Company maintains a substation transformer contingency plan. Because of the negative impact to customers due to the outage duration if a substation transformer were to fail, the Company creates a switching plan that allows customer load to be picked up on other equipment for the loss of any substation transformer. There are various switching methods that can be used for these substation transformer contingency plans. If the contingency plan creates overloads in other equipment because of the switching, new substation capacity, such as constructing the five new stations proposed herein, is necessary.

In order to maintain reliable service to the Company's customers and to comply with mandatory NERC Reliability Standards, specifically Facility Connection ("FAC") standard FAC-001, the Company's Facilities Interconnection Requirement ("FIR")[15] document addresses the interconnection requirements of generation, transmission, and electricity end-user facilities. The purpose of the NERC FAC standards is to avoid adverse impacts on reliability by requiring that each TO establish facility connection and performance requirements in accordance with FAC-001, and the TO's and end-users meet and adhere to the established facility connection and performance requirements in accordance with FAC-002.[16]

NERC Reliability Standards TPL-001 requirements R2, R5, and R6 require that PJM, the Planning Coordinator ("PC") and the TO have criteria. PJM's planning criteria outlined in Attachment D of Manual 14B requires the Company, as a TO, to follow NERC and Regional Planning Standards and criteria as well as the TO Standards filed in Dominion Energy Virginia's FERC 715 filings. The Company's FERC 715 filing contains the Dominion Energy Virginia Transmission Planning Criteria in Exhibit A of the FIR document.

The Company's FIR document (Section C.2.8) requires that the total load in any distribution substation not exceed 300 MW to ensure system reliability and to remain in compliance with NERC mandated reliability criteria. If the projected load inside a given substation will exceed 300 MW, the Company must create a project that eliminates the overload, such as constructing new substations as proposed herein.

The four major criteria considered as part of this Project were:

1) Ring bus arrangement is required for load interconnections in excess of 100 MW (Company's FIR, Section 6.2);

[15] *Supra* n. 11.

[16] *See* https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-002-2.pdf.

2) The amount of direct-connected load at any substation is limited to 300 MW (Company's Transmission Planning Criteria Exhibit A, Section C.2.8);

3) N-1-1 contingencies load loss is limited to 300 MW (PJM Manual 14B Section 2.3.8, Attachment D, Attachment D-1, Attachment F); and

4) The minimum load levels within a 10-year planning horizon for the direct interconnection to existing transmission lines is 30 MW for a 230 kV delivery (Company's FAC-001 Section 6, Load Criteria – End User).[17]

[17] *See* the Company's Electric Transmission Planning Criteria, available at: https://www.pjm.com/-/media/planning/planning-criteria/dominion-planning-criteria.ashx.

I.C.1

**Historical and Forecast MW Loads - Culpeper Load Area**

| *Summer* | Historical | | | | | Projected | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Station / Year** | **2020** | **2021** | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** | **2033** | **2034** |
| **Culpeper** | 54 | 54 | 54 | 54 | 54 | 60 | 61 | 61 | 61 | 62 | 62 | 63 | 63 | 63 | 63 |
| **Brandy** | 5 | 7 | 16 | 18 | 18 | 18 | 21 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| **Mitchell** | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| **Germanna** | 0 | 0 | 0 | 0 | 17 | 32 | 50 | 57 | 65 | 67 | 67 | 67 | 67 | 67 | 67 |
| **Mountain Run** | 34 | 36 | 36 | 36 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| **Technology** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 59 | 140 | 157 | 175 | 193 | 210 | 228 |
| **Chandler** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 112 | 205 | 213 | 221 | 229 | 237 |
| **Mt Pony** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 80 | 141 | 155 | 170 | 185 | 200 |
| **McDevitt** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 118 | 216 | 223 | 230 | 238 | 245 |
| **Palomino** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 120 | 228 | 236 | 244 | 253 | 261 |
| **Total Load** | 97 | 101 | 110 | 112 | 137 | 158 | 180 | 208 | 396 | 770 | 1147 | 1203 | 1259 | 1316 | 1372 |

| *Winter* | Historical | | | | | Projected | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Station / Year** | **2020** | **2021** | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** | **2033** | **2034** |
| **Culpeper** | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 50 | 50 | 50 | 50 | 50 | 50 |
| **Brandy** | 6 | 7 | 16 | 16 | 16 | 16 | 19 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| **Mitchell** | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **Germanna** | 0 | 0 | 0 | 0 | 17 | 39 | 56 | 63 | 70 | 71 | 71 | 71 | 71 | 71 | 71 |
| **Mountain Run** | 26 | 26 | 38 | 38 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| **Technology** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 59 | 140 | 157 | 175 | 193 | 210 | 228 |
| **Chandler** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 66 | 160 | 173 | 187 | 201 | 215 |
| **Mt Pony** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 56 | 117 | 134 | 152 | 170 | 188 |
| **McDevitt** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 70 | 168 | 181 | 194 | 208 | 221 |
| **Palomino** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 193 | 205 | 218 | 231 | 244 |
| **Total Load** | 86 | 87 | 109 | 109 | 134 | 156 | 176 | 204 | 279 | 580 | 989 | 1062 | 1138 | 1214 | 1290 |

## I. NECESSITY FOR THE PROPOSED PROJECT

**D. If power flow modeling indicates that the existing system is, or will at some future time be, inadequate under certain contingency situations, provide a list of all these contingencies and the associated violations. Describe the critical contingencies including the affected elements and the year and season when the violation(s) is first noted in the planning studies. Provide the applicable computer screenshots of single-line diagrams from power flow simulations depicting the circuits and substations experiencing thermal overloads and voltage violations during the critical contingencies described above.**

Response: Even after the completion of the Cirrus-Kyser Project, the Culpeper Load Area will be sourced by only two 230 kV transmission lines (Line #2276 and Line #2331). In an N-1-1 contingency situation, with the loss of both Lines #2276 and #2331, the Culpeper Load Area, with a combined projected load of around 770 MW by year 2029, would not have a remaining source of power. This violates the 300 MW load criteria for planning. See Attachment I.C.1 for Project Area load ramp which indicates the need for an additional transmission source to the Culpeper Load Area by the year 2028.

## I. NECESSITY FOR THE PROPOSED PROJECT

**E. Describe the feasible project alternatives, if any, considered for meeting the identified need including any associated studies conducted by the Applicant or analysis provided to the RTO. Explain why each alternative was rejected.**

Response: There are no project alternatives being considered to meet the need for this Project.

**Analysis of Demand-Side Resources:**
Pursuant to the Commission's November 26, 2013, Order entered in Case No. PUE-2012-00029, and its November 1, 2018, Final Order entered in Case No. PUR-2018-00075, the Company is required to provide analysis of demand-side resources ("DSM") incorporated into the Company's planning studies. DSM is the broad term that includes both energy efficiency ("EE") and demand response ("DR").

In this case, the Company has identified a need for the Project in order to provide requested service and comply with mandatory NERC Reliability Standards, thereby enabling the Company to maintain the overall long-term reliability of its transmission system.[18] Mt. Pony Substation is needed to serve Customer A's data center campus, with a projected total load of 259 MW. McDevitt and Chandler Substations are needed to serve Customer B's data center campus, with a projected total load of 545 MW. Palomino Substation is needed to serve Customer C's data center campus, with a projected total load of 295 MW. Notwithstanding, when performing an analysis based on PJM's 50/50 load forecast, there is no adjustment in load for DR programs because PJM only dispatches DR when the system is under stress (i.e., a system emergency). Accordingly, while existing DSM is considered to the extent the load forecast accounts for it, DR that has been bid previously into PJM's capacity market is not a factor in this particular Application because of the identified need for the Project. Based on these considerations, the evaluation of the Project demonstrated that despite accounting for DSM consistent with PJM's methods, the Project is necessary.

Incremental DSM also will not eliminate the need for the Project. As discussed in Section I.C, the need is based on the Company's obligation to interconnect the new Customers' Campuses consistent with the FIR document and mandatory NERC Reliability Standards. As reflected in Sections I.A and I.C, the Customers' projected load fully built out in the Project area is approximately 1,100 MW. By way of comparison, the Company achieved demand savings of 276.5 MW (net) / 350 MW (gross) statewide from its DSM Programs in 2023.

[18] While the PJM load forecast does not directly incorporate DR, its load forecast incorporates variables derived from Itron that reflect EE by modeling the stock of end-use equipment and its usages. Further, because PJM's load forecast considers the historical non-coincident peak ("NCP") for each load serving entity ("LSE") within PJM, it reflects the actual load reductions achieved by DSM programs to the extent an LSE has used DSM to reduce its NCPs.

## I. NECESSITY FOR THE PROPOSED PROJECT

**F. Describe any lines or facilities that will be removed, replaced, or taken out of service upon completion of the proposed project, including the number of circuits and normal and emergency ratings of the facilities.**

Response: Existing Line #2 from existing structure #2/147 to Remington Substation will be rebuilt to accommodate a double circuit 230 kV line, with Line #655 operating at distribution voltage. Existing Line #2 in this segment has a rating of 353 MVA. This segment of Line #2 will be rebuilt to the Company's current 230 kV standards of 1573 MVA, 4000 Amps ("A") at 250 degrees Celsius along this section of the line.

Existing Lines #1065 and #11 from existing structure #2199/164 / 11/550 / 1065/550 to Oak Green Switching Station will be rebuilt to 230 kV with double-circuit weathering steel pole structures. Existing Lines #1065 and #11 in this segment have a rating of 231 MVA. This segment of Lines #1065 and #11 will be rebuilt to the Company's current 230 kV standards of 1573 MVA, 4000 A at 250 degrees Celsius along this section of the line.

Existing Line #153 from existing structure #153/937 to Oak Green Switching Station will be rebuilt to 230 kV with single-circuit weathering steel pole structures. Existing Line #153 in this segment has a rating of 262 MVA. This segment of Line #153 will be rebuilt to the Company's current 230 kV standards of 1573 MVA, 4000 A at 250 degrees Celsius along this section of the line.

## I. NECESSITY FOR THE PROPOSED PROJECT

**G. Provide a system map, in color and of suitable scale, showing the location and voltage of the Applicant's transmission lines, substations, generating facilities, etc., that would affect or be affected by the new transmission line and are relevant to the necessity for the proposed line. Clearly label on this map all points referenced in the necessity statement.**

Response: See Attachment I.G.1.

# CULPEPER TECHNOLOGY 230kV LOOP AND LINES #2 AND #1065 CONVERSION PROJECT

- 34.5 kV Transmission Line
- 115 kV Transmission Line
- 230 kV Transmission Line
- 500 kV Transmission Line
- ▲ Switching Station, Substation, DP

0 0.5 1 2 3 4 Miles

REMINGTON SUB
BRANDY DP
POTATO RUN SUB
GERMANNA SUB
MITCHELL DP
OAK GREEN SWITCHING STATION

inset

CULPEPER SUB
CULPEPER 2 (TOWN OF)
PALOMINO SUB
CHANDLER SUB
MCDEVITT SUB
CIRRUS SUB
MOUNTAIN RUN SUB
KYSER SUB
MT PONY SUB

Attachment I.G.1

## I. NECESSITY FOR THE PROPOSED PROJECT

**H. Provide the desired in-service date of the proposed project and the estimated construction time.**

Response: The desired in-service target date for the completion of the proposed Project is May 1, 2028.

The Company estimates it will take approximately 27 months for detailed engineering, materials procurement, permitting, real estate, and construction after a final order from the Commission. Accordingly, to support this estimated construction timeline and construction plan, the Company respectfully requests a final order by January 31, 2026. Should the Commission issue a final order by January 31, 2026, the Company estimates that construction should begin around October 15, 2026, and be completed by May 1, 2028. Customer in-service dates occur within the total project duration. This schedule is contingent upon obtaining the necessary permits and outages. Dates may need to be adjusted based on permitting delays or design modifications to comply with additional agency requirements identified during the permitting application process, as well as the ability to schedule outages, and unpredictable delays due to labor shortages or materials/supply issues. This schedule is also contingent upon the Company's ability to negotiate for easements with property owners along the approved route and to purchase land for substation use without the need for additional litigation.

In addition, the Company is actively monitoring regulatory changes and requirements associated with the Northern long-eared bat ("NLEB") and how they could potentially impact construction timing associated with time of year restrictions ("TOYRs"). The U.S. Fish and Wildlife Service ("USFWS") previously indicated that it planned to issue final NLEB guidance to replace the interim guidance by April 1, 2024; however, the interim guidance has been extended by USFWS until late summer 2024. The Company is actively tracking updates from the USFWS with respect to the final guidance. Once issued, the Company plans to review and follow the final guidance to the extent it applies to the Company's projects. Until the final guidance is issued, the Company will continue following the interim guidance. For projects that may require additional coordination, the Company will coordinate with the USFWS.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat ("TCB"). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024. The Company is actively tracking this ruling and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

Any adjustments to this Project schedule resulting from these or similar challenges could necessitate a minimum of a six- to twelve-month delay in the targeted in-service date. Accordingly, for purposes of judicial economy, the Company requests that the Commission issue a final order approving both a desired in-service target date (i.e., May 1, 2028) and an authorization sunset date (i.e., May 1, 2029) for energization of the Project.

## I. NECESSITY FOR THE PROPOSED PROJECT

**I. Provide the estimated total cost of the project as well as total transmission-related costs and total substation-related costs. Provide the total estimated cost for each feasible alternative considered. Identify and describe the cost classification (e.g. "conceptual cost," "detailed cost," etc.) for each cost provided.**

Response: The total estimated conceptual cost of the Project utilizing the Proposed Route(s) is approximately $253.7 million, which includes approximately $163.5 million for transmission-related work and approximately $90.1 million for substation-related work (2024 dollars).

**Project-Related Costs for Transmission-Related Work by Component (approximate)**

| Station | Estimated Conceptual Costs |
|---|---|
| Mt. Pony Lines | $59,149,103 |
| Tech Park Lines | $63,363,743 |
| Oak Green Rebuild and Relocation | $28,976,214 |
| Remington Rebuild | $12,058,083 |
| **Total** | **$163,547,143** |

The Project-related costs are broken out by substation in the table below:

**Project-Related Costs by Substation (approximate)**

| Station | Estimated Conceptual Costs |
|---|---|
| Mt. Pony | $11,187,087 |
| McDevitt | $10,286,983 |
| Chandler | $10,868,141 |
| Palomino | $11,408,425 |
| Oak Green | $39,521,028 |
| Remington | $2,472,776 |
| Cirrus | $2,755,494 |
| Potato Run | $1,639,699 |
| **Total** | **$90,139,633** |

See Section II.A. 9 for alternative costs.

## I. NECESSITY FOR THE PROPOSED PROJECT

**J. If the proposed project has been approved by the RTO, provide the line number, regional transmission expansion plan number, cost responsibility assignments, and cost allocation methodology. State whether the proposed project is considered to be a baseline or supplemental project.**

Response: The Project is classified as a supplemental project initiated by the Company as TO in order to reliably interconnect new customer load, as follows:

The Company presented the need slides for Supplemental Project DOM-2024-0082 Chandler 230 kV Delivery – DEV, DOM-2024-0083 McDevitt 230 kV Delivery – DEV, DOM-2024-0084 Mt. Pony 230 kV Delivery – DEV, and DOM-2024-0085 Palomino 230 kV Delivery – DEV at the November 6, 2024 TEAC meeting (see Attachment I.J.1), and presented the solution slides at the February 4, 2025 TEAC Meeting (See Attachment I.J.2). Supplemental Project IDs will be provided once they are assigned by PJM.

**Mt. Pony Lines**

The Company presented the need and solution slides for Supplemental Project DOM-2024-0084-DNH Mt. Pony at the February 4, 2025 TEAC Meeting (see Attachment I.J.2). This is the Do-No-Harm Analysis to address the 300 MW load drop N-1-1 violation caused by the four new substations DOM-2024-0085 Palomino, DOM-2024-0082 Chandler, DOM-2024-0083 McDevitt and DOM-2024-0084 Mt. Pony (see Attachment I.J.1). Supplemental Project IDs will be provided once they are assigned by PJM.

**Tech Park Lines**

The Company presented the need slides for Supplemental Projects DOM-2024-0085 Palomino, DOM-2024-0082 Chandler, DOM-2024-0083 McDevitt and DOM-2024-0084 Mt. Pony at the November 6, 2024 TEAC Meeting (see Attachment I.J.1), and presented the solution slides at the February 4, 2025 TEAC Meeting (see Attachment I.J.2).

**Oak Green Rebuild and Relocation**

Oak Green Rebuild and Relocation is part of the Supplemental solution (DOM-2024-0084-DNH) to meet the Do No Harm ("DNH") 300 MW load drop N-1-1 NERC reliability criteria caused by combined loading of the Project Area. This solution was presented to PJM in the February 4, 2025 TEAC Meeting. This analysis did not require modeling due to the total projected load requests being over the 300 MW limitation while only having two transmission line sources (see Attachment I.C.1). However, as part of the PJM Attachment M-3 Process, transmission operators first present the needs and solutions to delivery point requests that require transmission upgrades. PJM then analyzes these projects and issues Supplemental Project ID numbers and puts the project into the next RTEP

model. From there, PJM analyzes whether there is harm done to the system and, if so, notifies the transmission operator. At that time, a DNH solution is created and presented to PJM.

# Solutions

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2022-0034

**Process Stage:** Need Meeting 06/07/2022

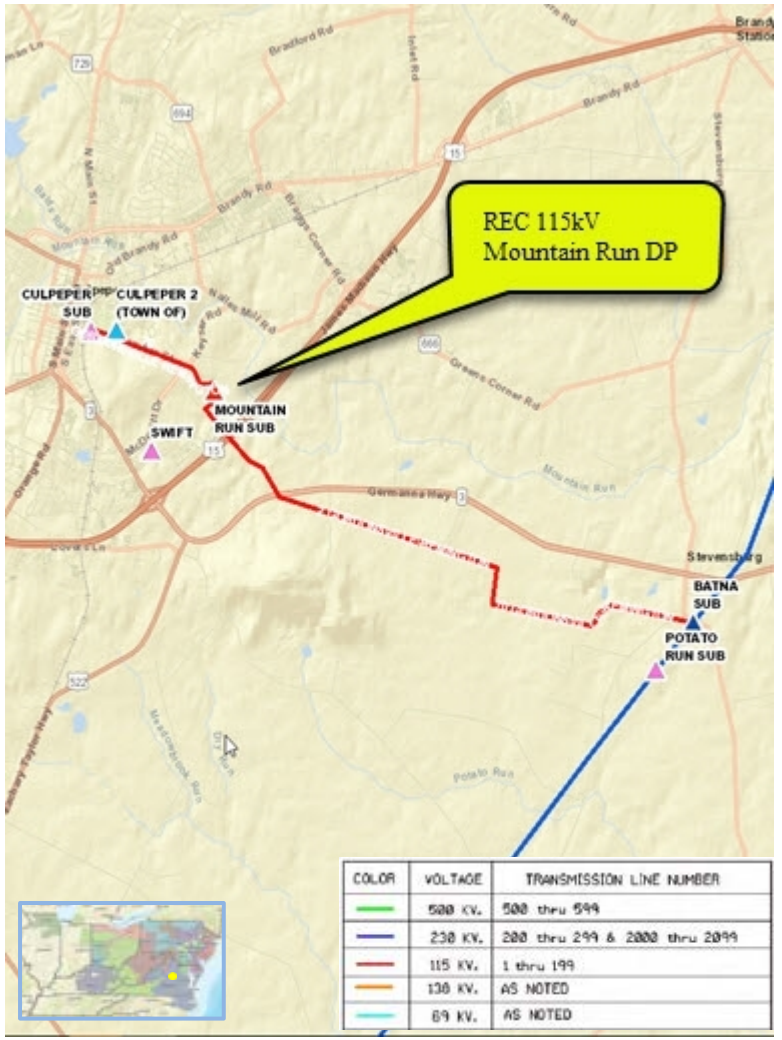
**Project Driver:** Customer Service

**Specific Assumption References:**

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**

Rappahannock Electric Cooperative (REC) has submitted a DP Request to increase capacity at their existing 115kV Mountain Run DP to serve a new data center complex in Culpeper County with a total projected load of 242 MW. The requested in-service date is 06/01/2024.




| Initial In-Service Load | Projected 2027 Load |
|---|---|
| Summer: 39.2 MW | Summer: 111.5 MW |

# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0082

**Process Stage:** Need Meeting 11/6/2024

**Project Driver:** Customer Service

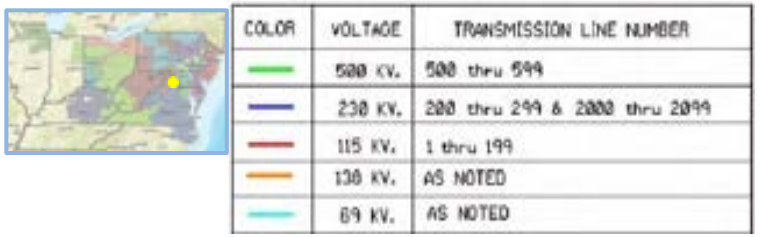
**Specific Assumption References:**

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**

DEV distribution has submitted a DP request for a new 230 kV delivery point (Chandler Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 10/15/2027.

| Initial In-Service Load | Projected 2029 Load |
|---|---|
| Summer: 32 MW<br>Winter: 10 MW | Summer: 112 MW<br>Winter: 66 MW |




# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0083

**Process Stage:** Need Meeting 11/6/2024

**Project Driver:** Customer Service

**Specific Assumption References:**

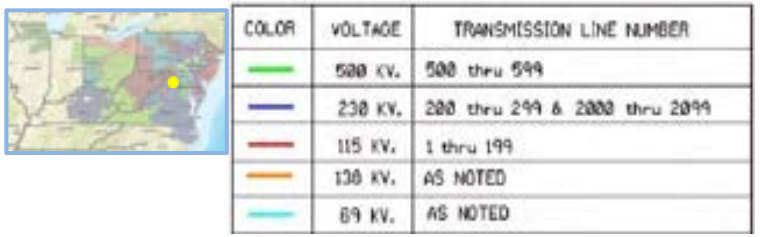
Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

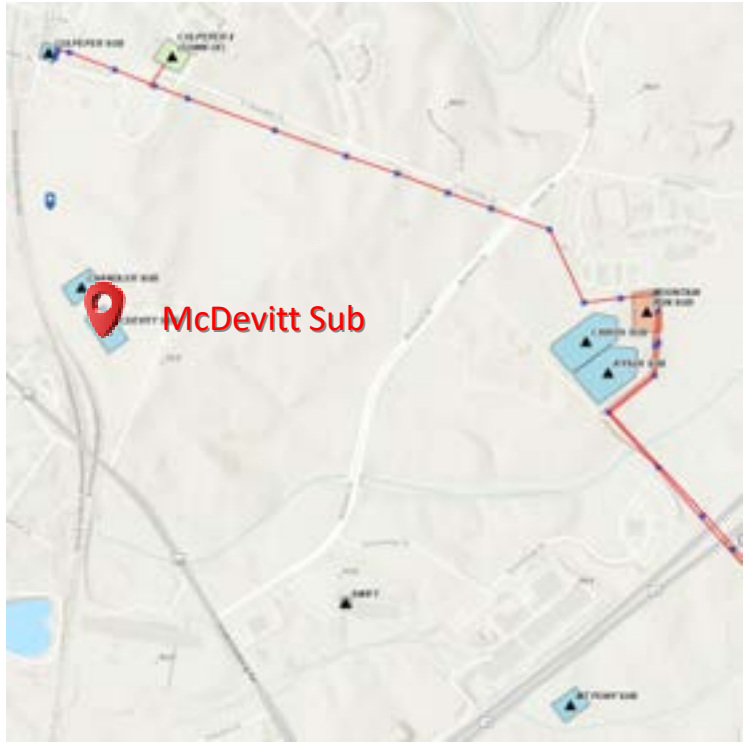
33

**Problem Statement:**

DEV distribution has submitted a DP request for a new 230 kV delivery point (McDevitt Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 10/15/2027.

| Initial In-Service Load | Projected 2029 Load |
|---|---|
| Summer: 34 MW<br>Winter: 10 MW | Summer: 118 MW<br>Winter: 70 MW |



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0084

**Process Stage:** Need Meeting 11/6/2024

**Project Driver:** Customer Service

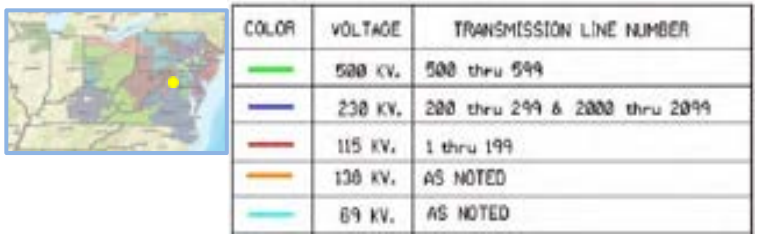
**Specific Assumption References:**

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**

DEV distribution has submitted a DP request for a new 230 kV delivery point (Mt. Pony Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 01/01/2027.

| Initial In-Service Load | Projected 2029 Load |
|---|---|
| Summer: 32 MW<br>Winter: 8 MW | Summer: 160 MW<br>Winter: 140 MW |




# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0085

**Process Stage:** Need Meeting 11/6/2024

**Project Driver:** Customer Service

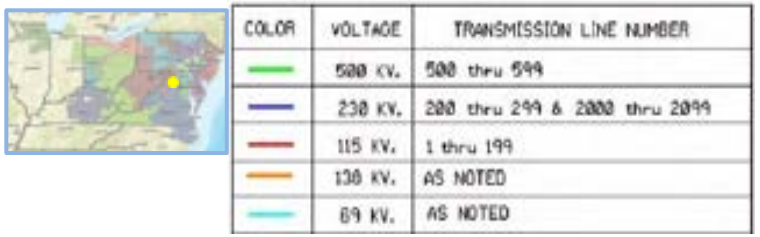
**Specific Assumption References:**

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**

DEV distribution has submitted a DP request for a new 230 kV delivery point (Palomino Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 07/01/2028.

| Initial In-Service Load | Projected 2029 Load |
|---|---|
| Summer: 42 MW<br>Winter: 0 MW | Summer: 120 MW<br>Winter: 54 MW |




# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2022-0034 (Update)

**Process Stage:** Solutions Meeting 02/04/2025

**Previously Presented:** Solution Meeting 09/06/2022

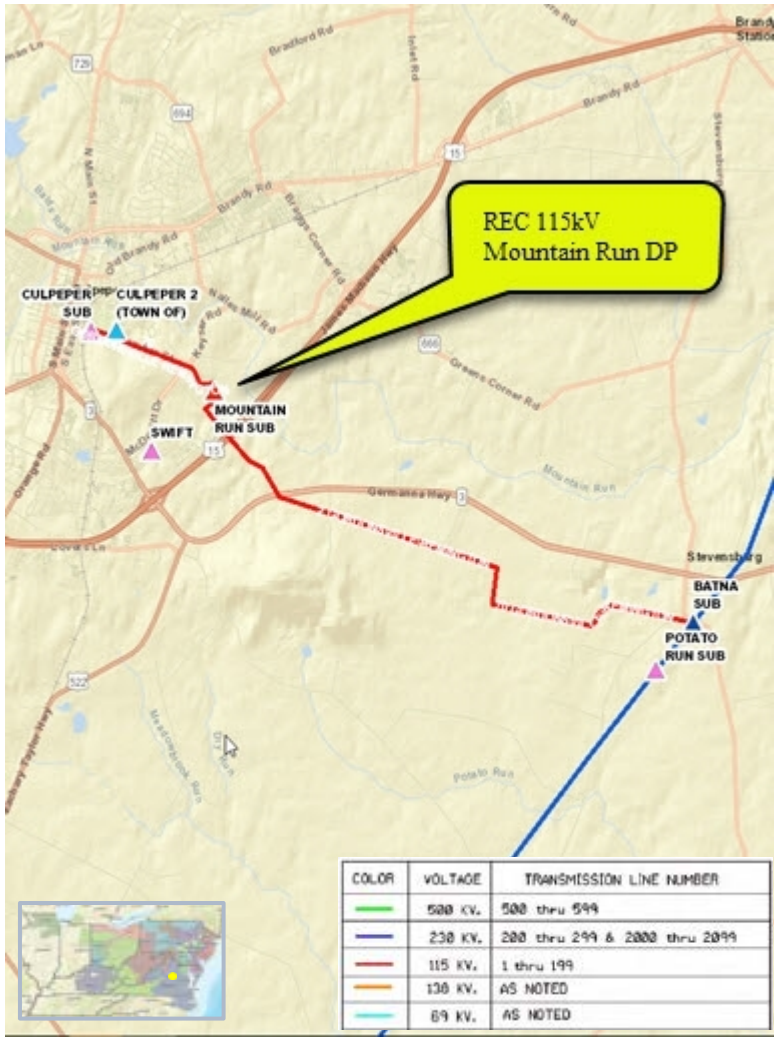
**Project Driver:** Customer Service

**Specific Assumption References:**

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**

Rappahannock Electric Cooperative (REC) has submitted a DP Request to supply a new substation Technology [previously called Mountain Run 3] to serve a new data center with a total projected load of ~~350~~ 298 MW. The requested in-service date is ~~06/01/2024~~ 11/22/2027.




| Initial In-Service Load | Projected 2029 Load |
|---|---|
| Summer: 19 MW | Summer: 140 MW |

Attachment I.J.2

36

# Dominion Transmission Zone: Supplemental Mountain Run 230kV Delivery - REC

**Need Number:** DOM-2022-0034 (Update)

**Process Stage:** Solutions Meeting 02/04/2025

**Proposed Solution:**

1. Build a new switching station Kyser next to the existing Mountain Run substation. Construct Kyser to accommodate a 230-kV breaker and a half configuration with 2 rows initially installed, and 3 rows ultimately.
2. Build new Cirrus switching station with 230kV six-breaker ring arrangement with four breakers installed initially.
3. Wreck and rebuild approximately five miles of existing double-circuit 115kV Line #2 and Line #70 on the same structure (from 2/1201, 70/53 to 2/1253, 70/1), using 230kV construction, from Mountain Run Junction to the new Kyser and Cirrus switching stations.
4. Cut 230kV Line #2199 at Mountain Run Junction and feed the rebuilt double-circuit line to Kyser and Cirrus switching stations.
5. Two 230/115kV – 168 MVA transformer will be installed at Kyser switching station to continue the 115kV service to Culpeper and Mountain Run.

**Estimated Project Cost:** $60 M (Total)

Transmission Line - $22M

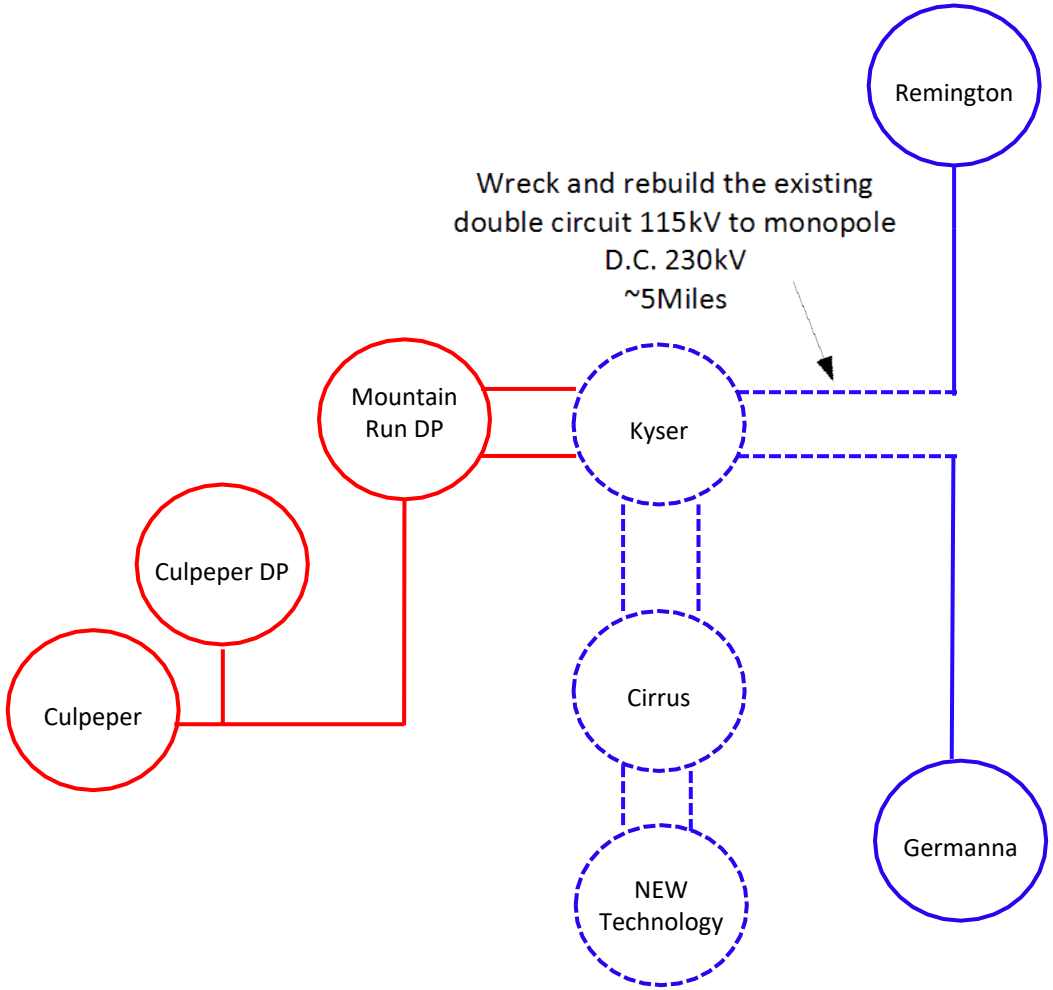
Substation - $38M

**Alternatives Considered:** No feasible alternatives

**Projected In-service Date:** Q4 2027

**Project Status:** Engineering

**Model:** 2029 RTEP

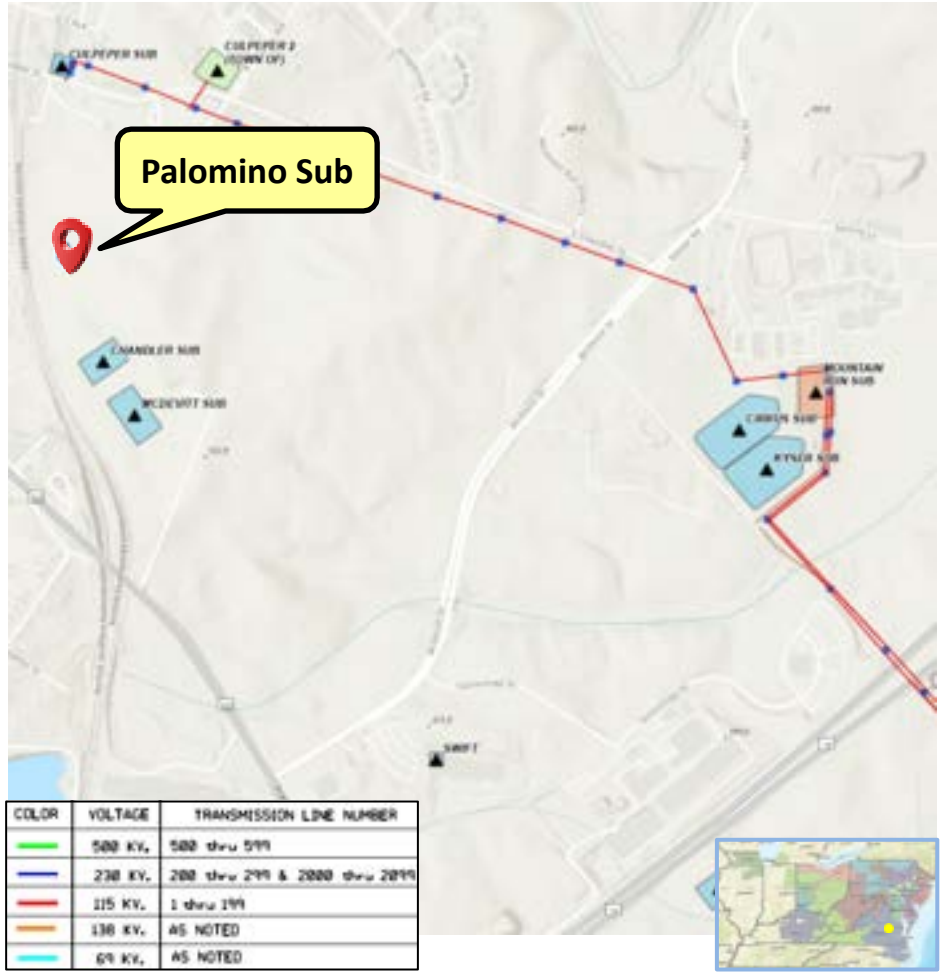


# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0085
**Process Stage:** Solution Meeting 02/04/2025
**Previously Presented:** Need Meeting 11/06/2024
**Project Driver:** Customer Service

**Specific Assumption References:**
Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**
DEV distribution has submitted a DP request for a new 230 kV delivery point (Palomino Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 07/01/2028.




| Initial In-Service Load | Projected 2029 Load |
|---|---|
| Summer: 42 MW<br>Winter: 0 MW | Summer: 120 MW<br>Winter: 54 MW |

# Dominion Transmission Zone: Supplemental Palomino 230kV Delivery - DEV

**Need Number:** DOM-2024-0085

**Process Stage:** Solution Meeting 02/04/2025

**Proposed Solution:**

Connect the new substation Palomino by extending a new double circuit 230kV feed from future Cirrus Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

**Estimated Project Cost:** $38.6M

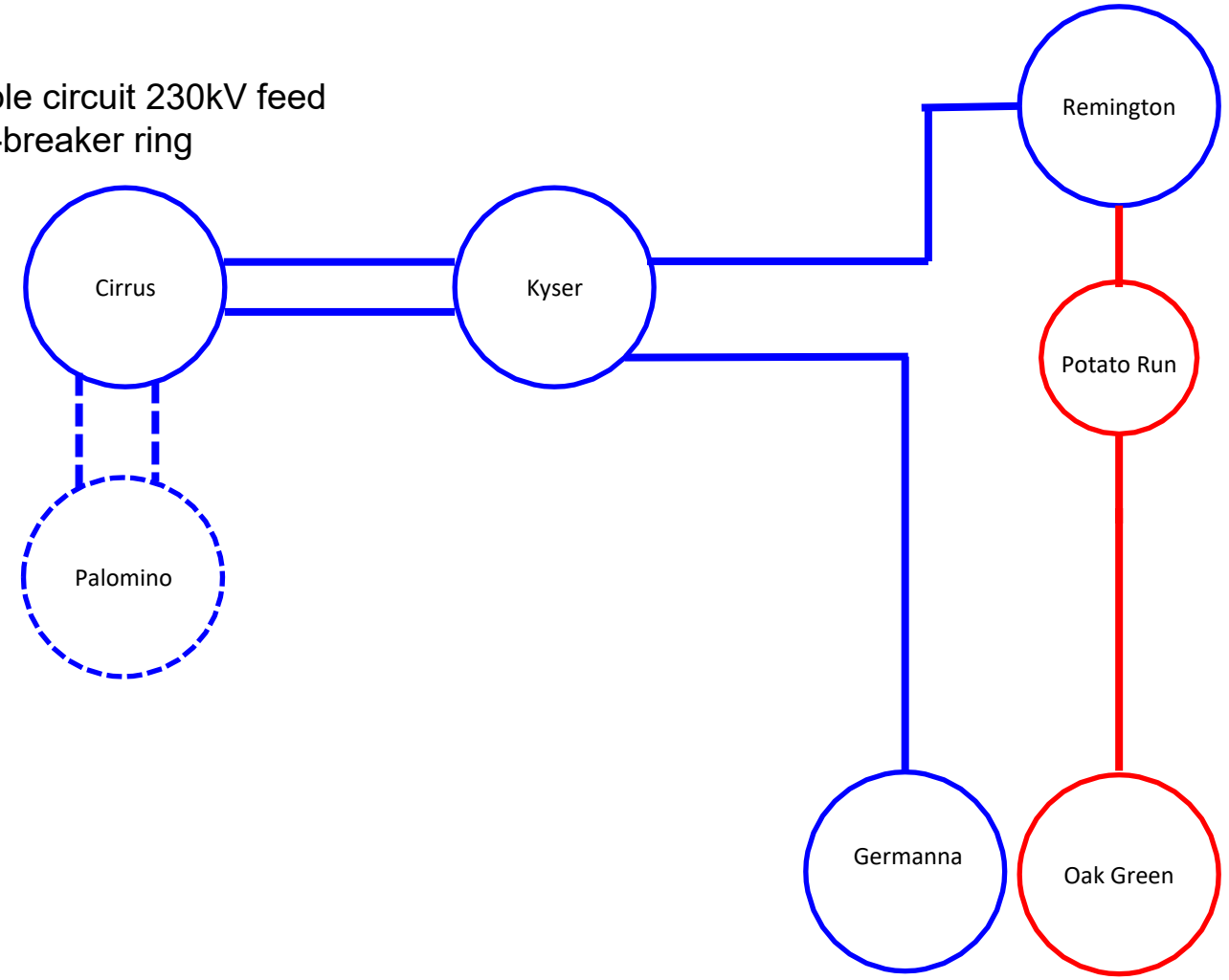
- Substation: $14.3M
- Transmission Lines: $24.2M

**Alternatives Considered:** No feasible alternatives

**Projected In-service Date:** Q2 2028

**Project Status:** Conceptual

**Model:** 2029 RTEP



# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0082

**Process Stage:** Solution Meeting 02/04/2025

**Previously Presented:** Need Meeting 11/06/2024

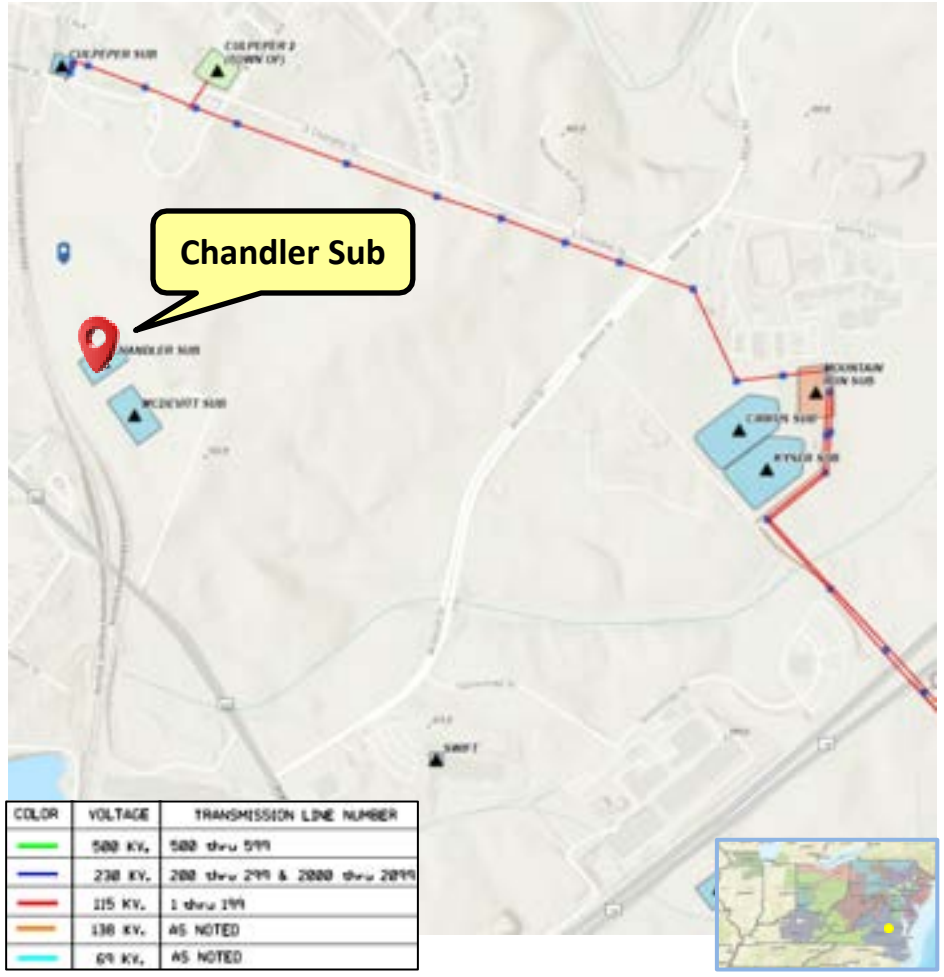
**Project Driver:** Customer Service

**Specific Assumption References:**

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**

DEV distribution has submitted a DP request for a new 230 kV delivery point (Chandler Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 10/15/2027.




| Initial In-Service Load | Projected 2029 Load |
|---|---|
| Summer: 32 MW<br>Winter: 10 MW | Summer: 112 MW<br>Winter: 66 MW |

# Dominion Transmission Zone: Supplemental Chandler 230kV Delivery - DEV

**Need Number:** DOM-2024-0082

**Process Stage:** Solutions Meeting 02/04/2025

**Proposed Solution:**

Connect the new substation by extending a new double circuit 230kV feed from future Palomino Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

**Estimated Project Cost:** $20.8M

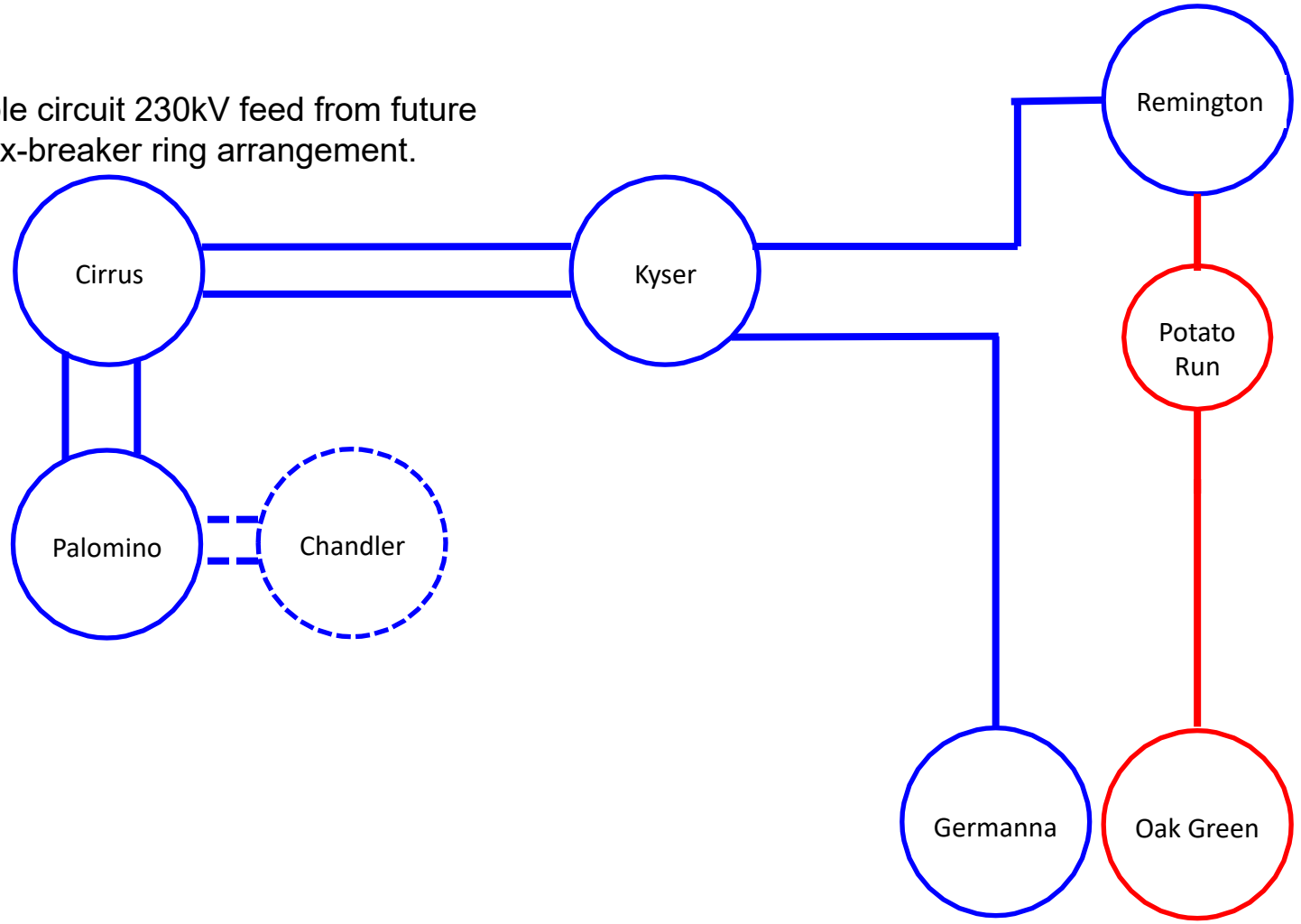
- Substation: $14.3M
- Transmission Lines: $6.5M

**Alternatives Considered:** No feasible alternatives

**Projected In-service Date:** Q2 2028

**Project Status:** Conceptual

**Model:** 2029 RTEP




41

# Dominion Transmission Zone: Supplemental Customer Load Request

**Need Number:** DOM-2024-0083

**Process Stage:** Solution Meeting 02/04/2025

**Previously Presented:** Need Meeting 11/06/2024

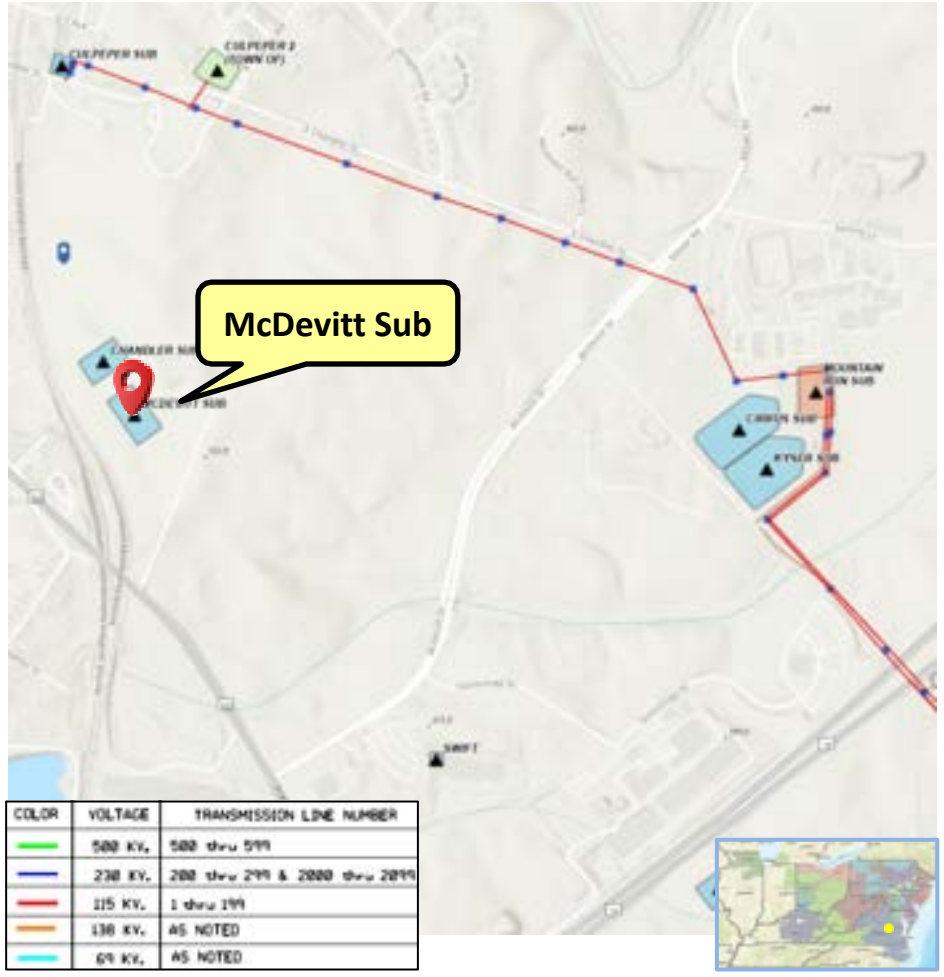
**Project Driver:** Customer Service

**Specific Assumption References:**

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**

DEV distribution has submitted a DP request for a new 230 kV delivery point (McDevitt Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 10/15/2027.




| Initial In-Service Load | Projected 2029 Load |
|---|---|
| Summer: 34 MW<br>Winter: 10 MW | Summer: 118 MW<br>Winter: 70 MW |

# Dominion Transmission Zone: Supplemental McDevitt 230kV Delivery - DEV

**Need Number:** DOM-2024-0083

**Process Stage:** Solution Meeting 02/04/2025

**Proposed Solution:**

Connect the new substation by extending a new double circuit 230kV feed from future Chandler Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

**Estimated Project Cost:** $19.8M

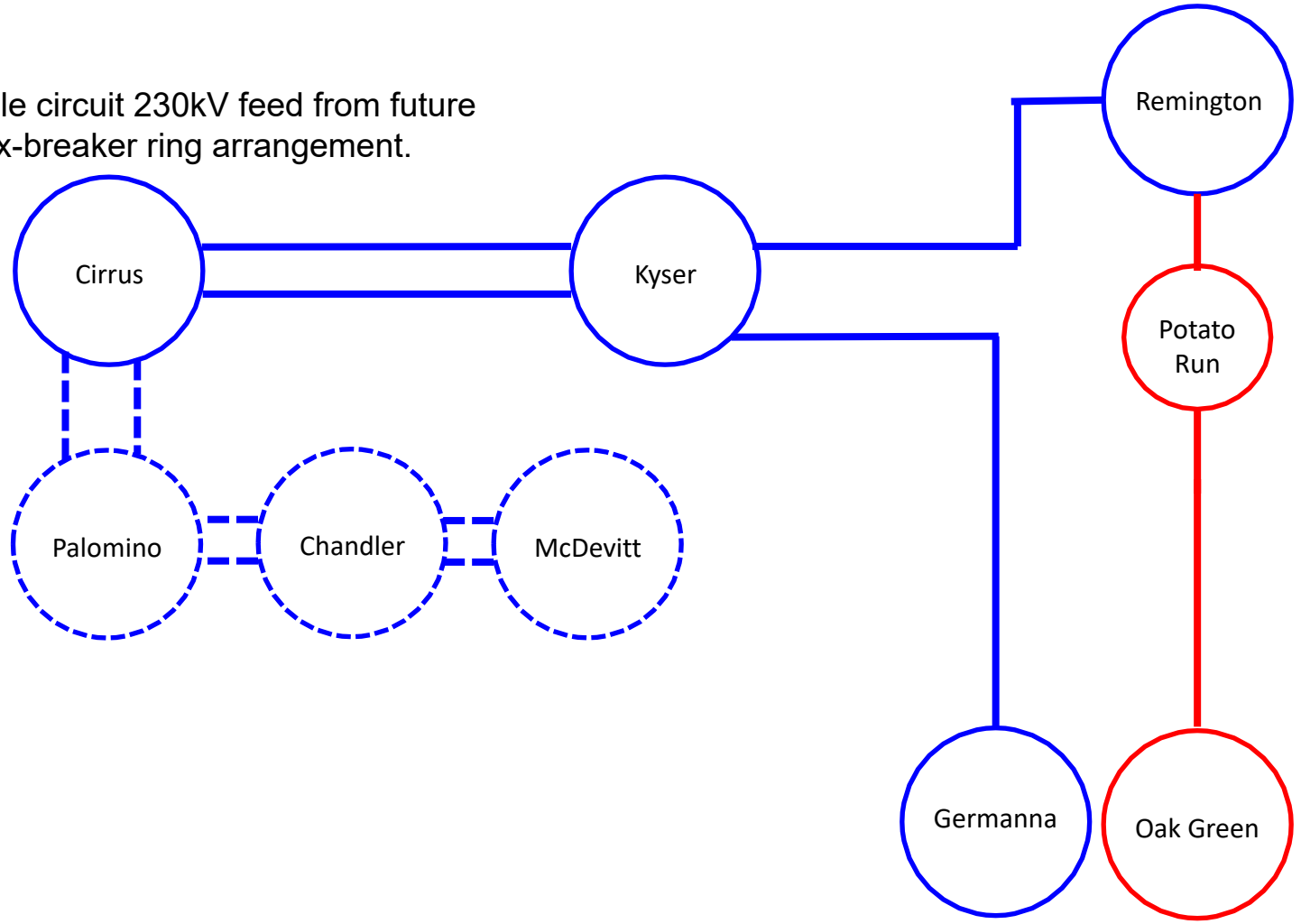
- Substation: $14.3M
- Transmission Lines: $5.5M

**Alternatives Considered:** No feasible alternatives

**Projected In-service Date:** Q2 2028

**Project Status:** Conceptual

**Model:** 2029 RTEP




43

# Dominion Transmission Zone: Supplemental Customer Load Request

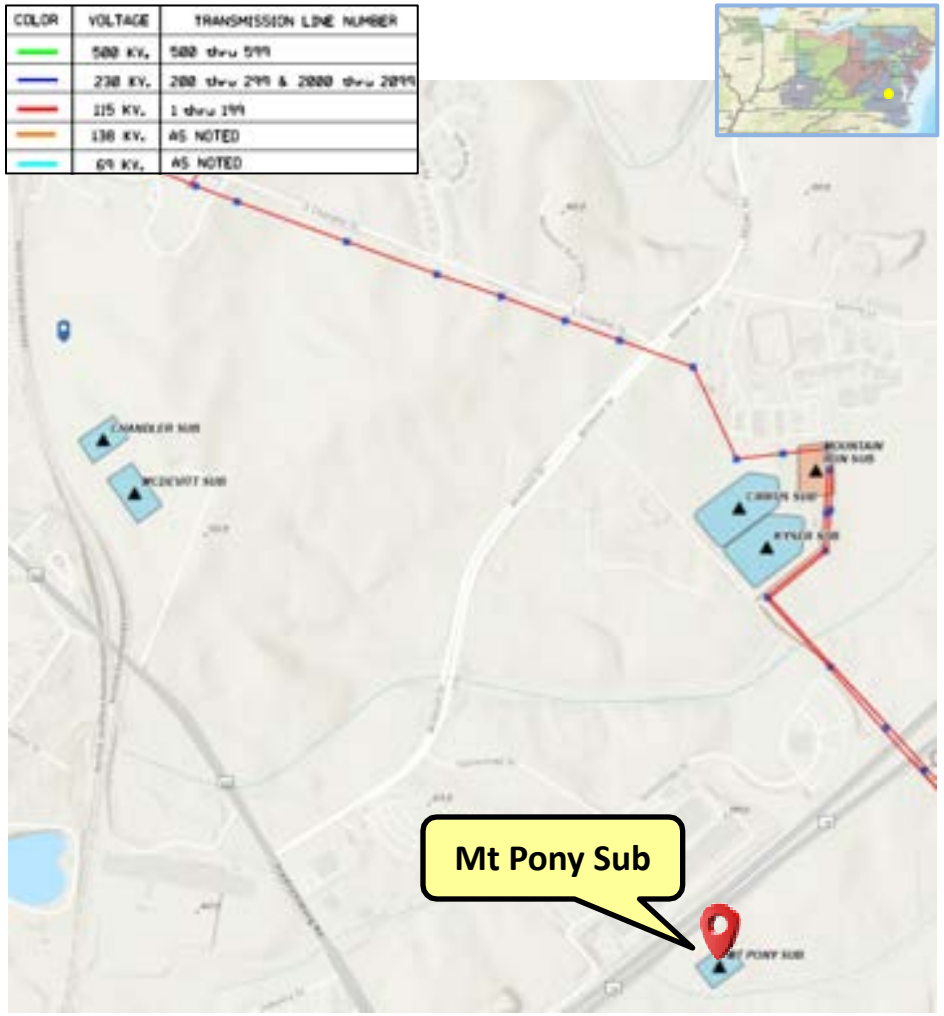
**Need Number:** DOM-2024-0084
**Process Stage:** Solution Meeting 02/04/2025
**Previously Presented:** Need Meeting 11/06/2024
**Project Driver:** Customer Service

**Specific Assumption References:**

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**

DEV distribution has submitted a DP request for a new 230 kV delivery point (Mt. Pony Sub) to serve a data center customer in Culpeper County with a total load in excess of 100 MW. Requested in-service date is 01/01/2027.




| Initial In-Service Load | Projected 2029 Load |
|---|---|
| Summer: 32 MW<br>Winter: 8 MW | Summer: 160 MW<br>Winter: 140 MW |

# Dominion Transmission Zone: Supplemental Mt Pony 230kV Delivery - DEV

**Need Number:** DOM-2024-0084

**Process Stage:** Solution Meeting 02/04/2025

**Proposed Solution:**

Connect the new substation by extending a new double circuit 230kV feed from future McDevitt Substation. Lines to terminate in a 230kV six-breaker ring arrangement.

**Estimated Project Cost:** $39.8M

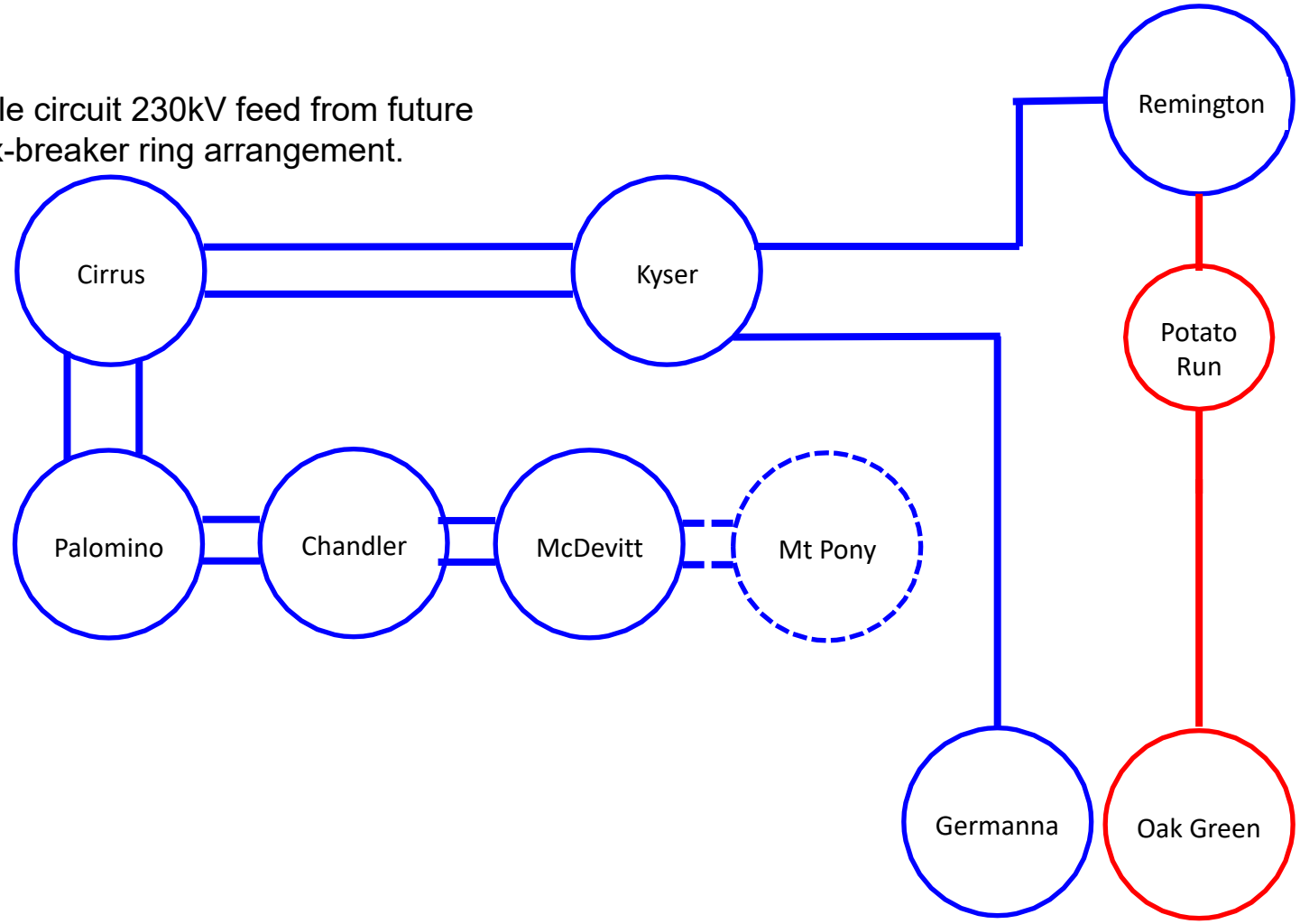
- Substation: $11.6M
- Transmission Lines: $28.2M

**Alternatives Considered:** No feasible alternatives

**Projected In-service Date:** Q2 2028

**Project Status:** Conceptual

**Model:** 2029 RTEP




45

# Dominion Transmission Zone: Supplemental Do No Harm Analysis

**Need Number:** DOM-2024-0084-DNH

**Process Stage:** Solution Meeting 02/04/2025

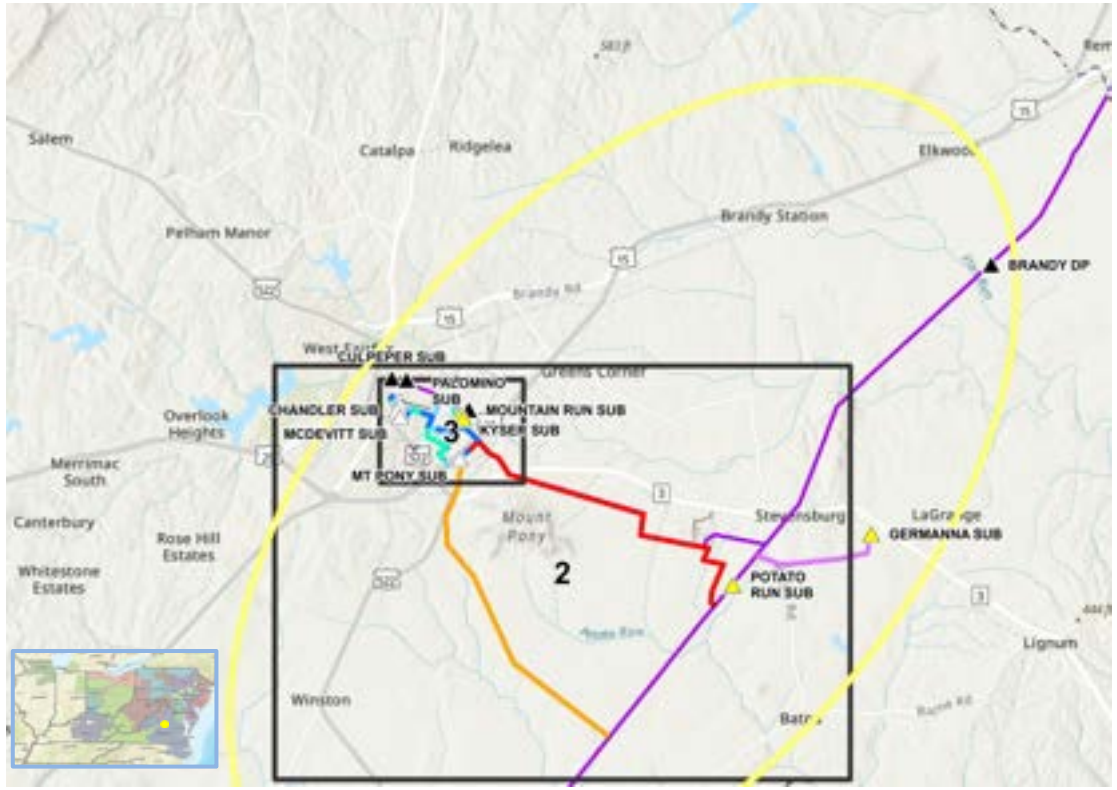
**Project Driver:** Do-No-Harm analysis

**Specific Assumption References:**

Customer load request will be evaluated per Dominion's Facility Interconnection Requirements Document and Dominion's Transmission Planning Criteria.

**Problem Statement:**

There are 5 new data center delivery points requested in the Culpeper Area near Cirrus-Kyser substations. With the current infrastructure, there will be a load drop in excess of 300 MW if the data centers are fed through Line #2276 alone. This is a violation of DE Planning Criteria.



# Dominion Transmission Zone: Supplemental Do No Harm Analysis

**Need Number:** DOM-2024-0084-DNH

**Process Stage:** Solution Meeting 02/04/2025

**Proposed Solution:**

1. Convert lines #2 and #1065 from Remington Sub to Potato Run and Potato Run to Oak Green Sub to 230kV
2. At Oak Green Sub – Expand the station and install a 230kV ring bus with 3 breakers (allow for future 6 breakers), add a 4th breaker to the 3 breaker 115kV ring bus and install 2 – 230/115kV 224 MVA transformers.

47

**Estimated Project Cost:** $140.8M

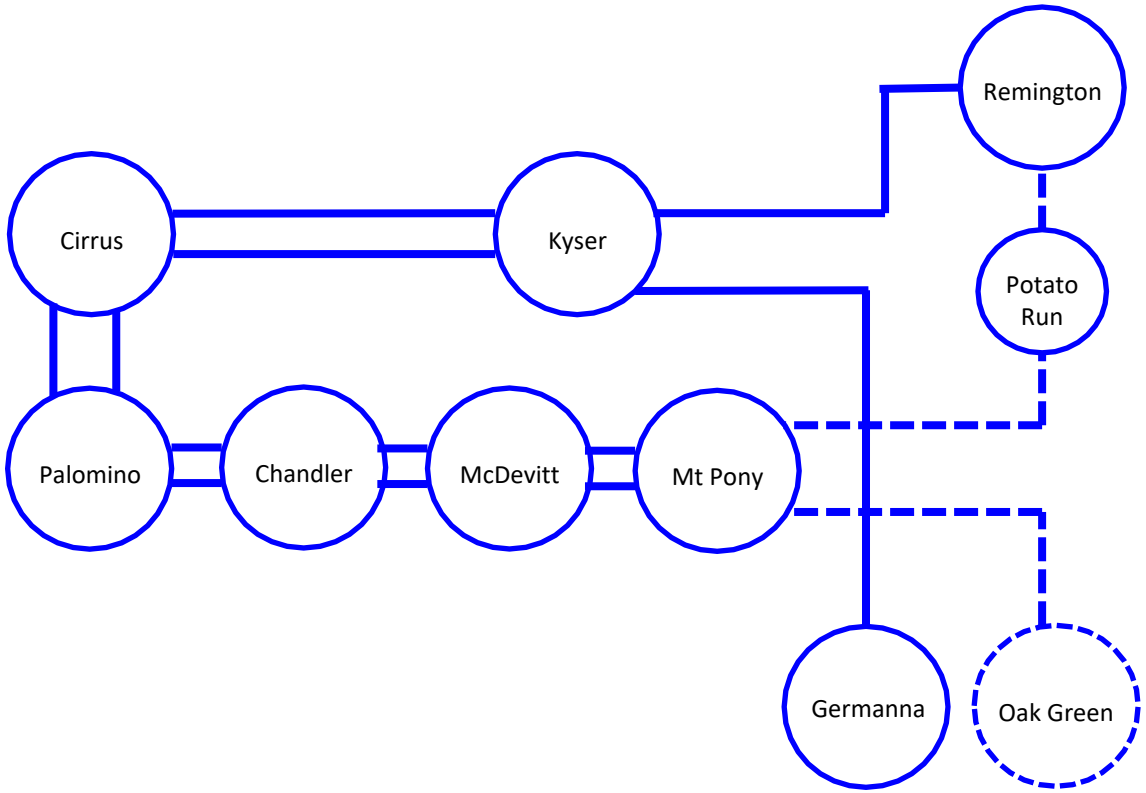
- Substation: $40.8M
- Transmission Lines: $100M

**Alternatives Considered:** No feasible alternatives

**Projected In-service Date:** Q2 2028

**Project Status:** Conceptual

**Model:** 2029 RTEP



## I. NECESSITY FOR THE PROPOSED PROJECT

**K. If the need for the proposed project is due in part to reliability issues and the proposed project is a rebuild of an existing transmission line(s), provide five years of outage history for the line(s), including for each outage the cause, duration and number of customers affected. Include a summary of the average annual number and duration of outages. Provide the average annual number and duration of outages on all Applicant circuits of the same voltage, as well as the total number of such circuits. In addition to outage history, provide five years of maintenance history on the line(s) to be rebuilt including a description of the work performed as well as the cost to complete the maintenance. Describe any system work already undertaken to address this outage history.**

Response: Not applicable. The need for the Project is not driven by outage history, but rather by the need to support load growth in the area. See Sections I.A and I.J.

## I. NECESSITY FOR THE PROPOSED PROJECT

**L. If the need for the proposed project is due in part to deterioration of structures and associated equipment, provide representative photographs and inspection records detailing their condition.**

Response: Not applicable. See Sections I.A and I.C.

## I. NECESSITY FOR THE PROPOSED PROJECT

**M. In addition to the other information required by these guidelines, applications for approval to construct facilities and transmission lines interconnecting a Non-Utility Generator ("NUG") and a utility shall include the following information:**

**1. The full name of the NUG as it appears in its contract with the utility and the dates of initial contract and any amendments;**

**2. A description of the arrangements for financing the facilities, including information on the allocation of costs between the utility and the NUG;**

**3. a. For Qualifying Facilities ("QFs") certificated by Federal Energy Regulatory Commission ("FERC") order, provide the QF or docket number, the dates of all certification or recertification orders, and the citation to FERC Reports, if available;**

**b. For self-certificated QFs, provide a copy of the notice filed with FERC;**

**4. Provide the project number and project name used by FERC in licensing hydroelectric projects; also provide the dates of all orders and citations to FERC Reports, if available; and**

**5. If the name provided in 1 above differs from the name provided in 3 above, give a full explanation.**

Response: Not applicable.

## I. NECESSITY FOR THE PROPOSED PROJECT

**N. Describe the proposed and existing generating sources, distribution circuits or load centers planned to be served by all new substations, switching stations and other ground facilities associated with the proposed project.**

Response: The proposed Project will serve the Project load area, as described in Section I.C. and generally depicted in Attachment I.A.1. The Project may also be used to support future load in the area.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**1. Provide the length of the proposed corridor and viable alternatives.**

Response: The approximate lengths of the proposed route for each component are as follows:

**Mt. Pony Lines**

Proposed Route (Route 1): 5.2 miles

Alternative Route 2: 4.8 miles

**Tech Park Lines**

Proposed Route (Route 1): 3.7 miles[19]

Alternative Route 2: 3.5 miles

Alternative Route 3: 3.5 miles

**Oak Green Rebuild and Relocation**

No alternative routes are proposed for the Oak Green Rebuild and Relocation because alternatives to the Project would require extensive acquisitions of new permanent rights-of-way. The length of the Oak Green Rebuild and Relocation (inclusive of the Line #153 Tap) is approximately 2.9 miles.

**Remington Rebuild**

No alternative routes are proposed for the Remington Rebuild because alternatives to the Project would require extensive acquisitions of new permanent rights-of-way. The length is approximately 0.7 mile.

See Section II.A.9 of the Appendix for an explanation of the Company's route selection process.

[19] *See supra*, n. 4.

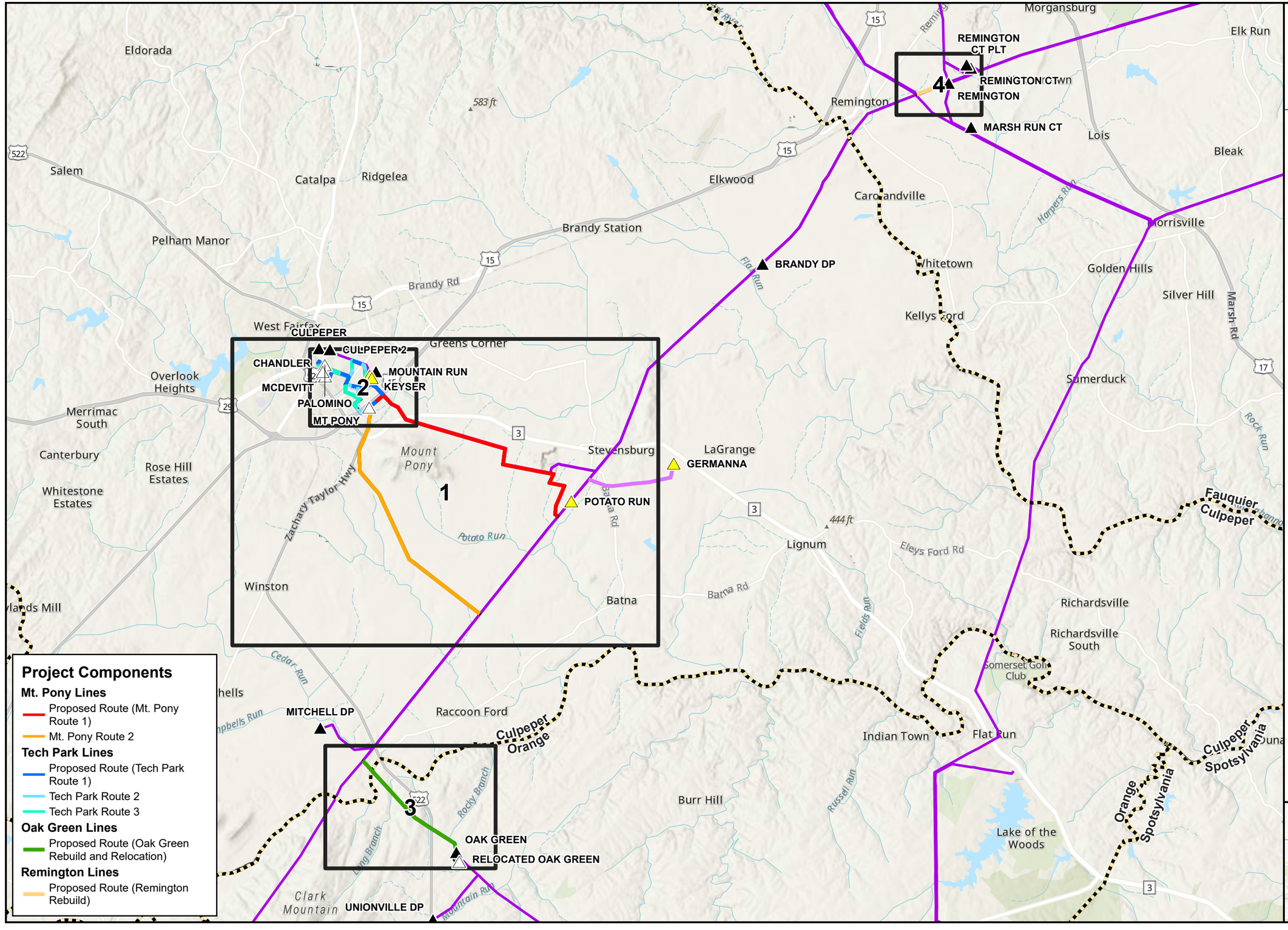
## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**2. Provide color maps of suitable scale (including both general location mapping and more detailed GIS-based constraints mapping) showing the route of the proposed line and its relation to: the facilities of other public utilities that could influence the route selection, highways, streets, parks and recreational areas, scenic and historic areas, open space and conservation easements, schools, convalescent centers, churches, hospitals, burial grounds/cemeteries, airports and other notable structures close to the proposed project. Indicate the existing linear utility facilities that the line is proposed to parallel, such as electric transmission lines, natural gas transmission lines, pipelines, highways, and railroads. Indicate any existing transmission ROW sections that are to be quitclaimed or otherwise relinquished. Additionally, identify the manner in which the Applicant will make available to interested persons, including state and local governmental entities, the digital GIS shape file for the route of the proposed line.**

Response: See Attachment II.A.2. No portion of the right-of-way is proposed to be quitclaimed or relinquished, including the existing Oak Green Switching Station site.

Dominion Energy Virginia will make the digital Geographic Information Systems ("GIS") shape file available to interested persons upon request to the Company's legal counsel as listed in the Project Application.

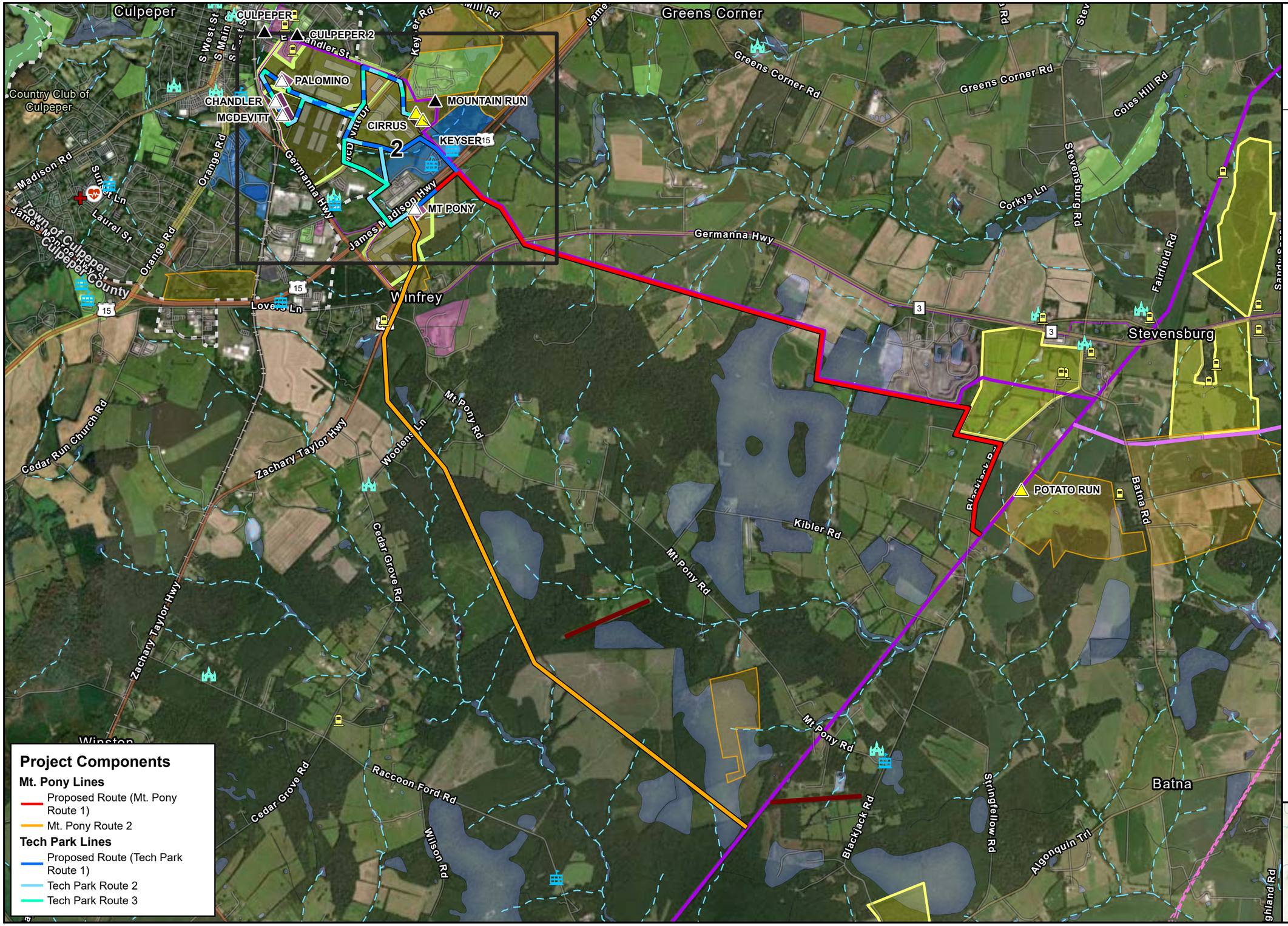



**Attachment II.A.2**
**Project Overview and Constraints Map**

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper, Fauquier, and Orange County, Virginia

Index Page




Dominion Energy®

# Attachment II.A.2
## Project Overview and Constraints Map

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County, Virginia



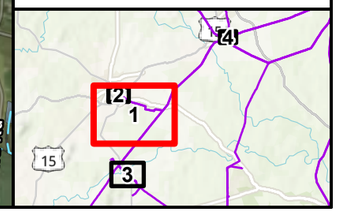
- Existing Substation/Switching Station
- Approved Future Substation/ Switching Station
- Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- Approved Future Lines
- Customer Data Center
- Planned Development
- Cemetery
- Place of Worship
- School
- VDOT Virginia Scenic Byways
- VDOT Road Alignment
- County Boundary
- Airport/Airstrip
- Hospital
- Heliport
- VA Outdoors Foundation Easement
- Federal Lands
- State Lands
- Local Lands
- Other Electric Transmission Lines
- Natural Gas Pipeline
- Proposed Data Center Building
- NHD Stream
- NWI Wetland

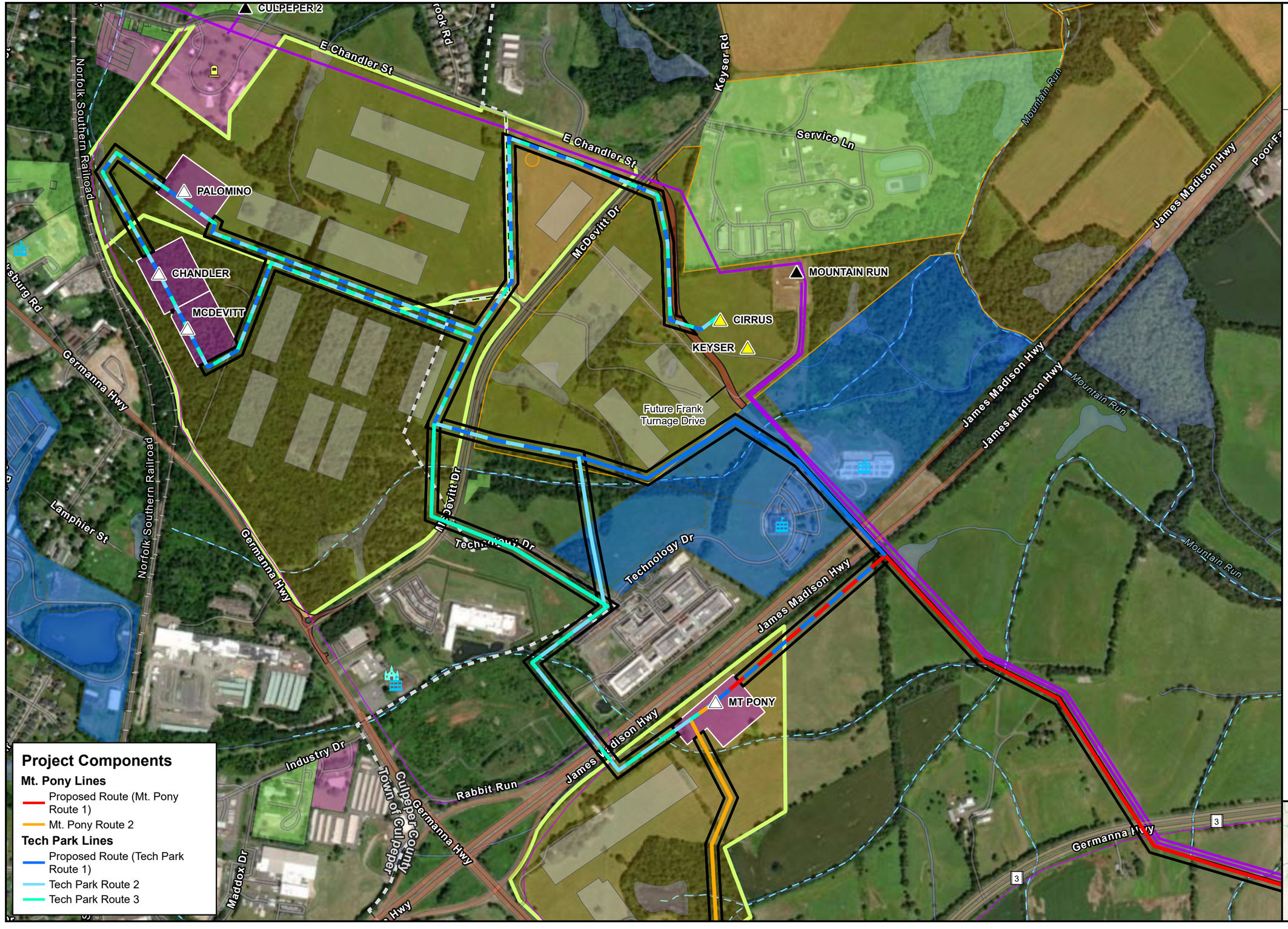
0 2,000 4,000
Feet

1:36,000

ERM

N W E S






Dominion Energy®

# Attachment II.A.2
## Project Overview and Constraints Map

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County, Virginia

Page 2 of 4

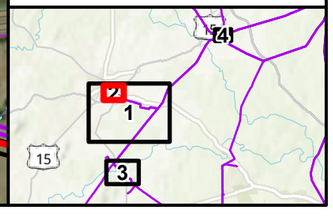
- Existing Substation/Switching Station
- Approved Future Substation/ Switching Station
- Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- Right-of-Way
- Customer Data Center
- Planned Development
- Cemetery
- Place of Worship
- School
- County Boundary
- VDOT Road Alignment
- Federal Lands
- State Lands
- Local Lands
- Other Electric Transmission Lines
- Proposed Data Center Building
- NHD Stream
- NWI Wetland

0 525 1,050
Feet

1:9,000

ERM

N W E S




Dominion Energy®

# Attachment II.A.2
## Project Overview and Constraints Map

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper and Orange County, Virginia

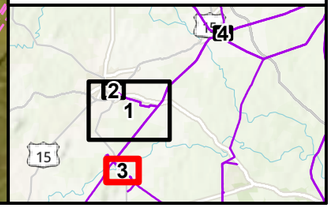
Page 3 of 4

- Existing Substation/Switching Station
- Proposed Substation/Switching Station
- Proposed Substation/Switching Station Footprint
- Existing Dominion Transmission Line
- Right-of-Way (Existing and Proposed)
- Planned Development
- Cemetery
- Place of Worship
- County Boundary
- Natural Resource Conservation Service Easement
- Piedmont Environmental Council Easement
- VA Outdoors Foundation Easement
- Other Electric Transmission Lines
- Natural Gas Pipeline
- NHD Stream
- NWI Wetland

0 840 1,680
Feet

1:14,400

ERM




Dominion Energy

# Attachment II.A.2
## Project Overview and Constraints Map

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Fauquier County, Virginia



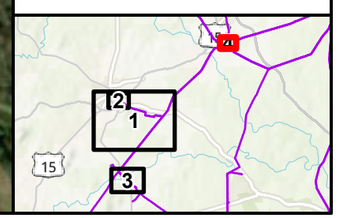
- Existing Substation/Switching Station
- Existing Dominion Transmission Line
- Right-of-Way (Existing)
- Fauquier County BOS Easement
- Other Electric Transmission Lines
- Natural Gas Pipeline
- NHD Stream
- NWI Wetland

0 430 860
Feet

1:7,200

ERM

N W E S



## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**3. Provide a separate color map of a suitable scale showing all the Applicant's transmission line ROWs, either existing or proposed, in the vicinity of the proposed project.**

Response: See Attachment I.G.1 for existing transmission line rights-of-way and Attachment II.B.3 for proposed and future transmission line rights-of-way in the Project area.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**4. To the extent the proposed route is not entirely within existing ROW, explain why existing ROW cannot adequately service the needs of the Applicant.**

Response: **Mt. Pony Lines**

There is no existing Company owned right-of-way adequate to accommodate the Mt. Pony Lines as proposed.

The Company has an existing transmission line corridor containing the approved future double circuit 230 kV Lines #2276/#2331 which extends from the existing Line #2/#2199 corridor to the approved future Cirrus and Keyser Switching Stations. While this existing corridor has similar start and end points to the Mt. Pony Lines, this 100-foot-wide right-of-way is not sufficient to accommodate the additional double circuit 230 kV lines of the Proposed Project. However, the Company is able to utilize a portion of this existing right-of-way in areas where collocation with the Mt. Pony Lines is possible, and in these areas of collocation, the Mt. Pony Proposed Route will only require 60 feet of new width directly adjacent to the existing 100 feet of right-of-way. Entirely new 100-foot-wide right-of-way outside of this collocation and an expansion of the existing line's right-of-way will be required to serve the proposed Mt. Pony Substation from the cut-in location at existing Structure #2331/110 to accommodate the Project as proposed.

**Tech Park Lines**

There is no existing right-of-way that connects the proposed Mt. Pony Substation to the proposed McDevitt, Chandler, or Palomino Substations and from these proposed substations to the future Cirrus Switching Station to accommodate the Project as proposed.

**Oak Green Rebuild and Relocation**

There is no existing 100-foot-wide right-of-way that serves the Oak Green Switching Station from existing Lines #1065/#11/#153 to accommodate the uprate to 230 kV as proposed. However, the Oak Green Rebuild Proposed Route will utilize 2.5 miles of the existing 75-foot-wide right-of-way. This existing right-of-way will be expanded by 25 feet for a total 100 feet wide right-of-way, along the majority of the route (i.e., in all areas where not constrained by existing conservation easements), from the existing Lines #1065/#11 to the existing Oak Green Switching Station for the Oak Green Rebuild Proposed Route.

**Remington Rebuild**

The Remington Rebuild will not require new right-of-way and will be constructed entirely within existing right-of-way and Company property.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**5. Provide drawings of the ROW cross section showing typical transmission line structure placements referenced to the edge of the ROW. These drawings should include:**

**a. ROW width for each cross section drawing;**

**b. Lateral distance between the conductors and edge of ROW;**

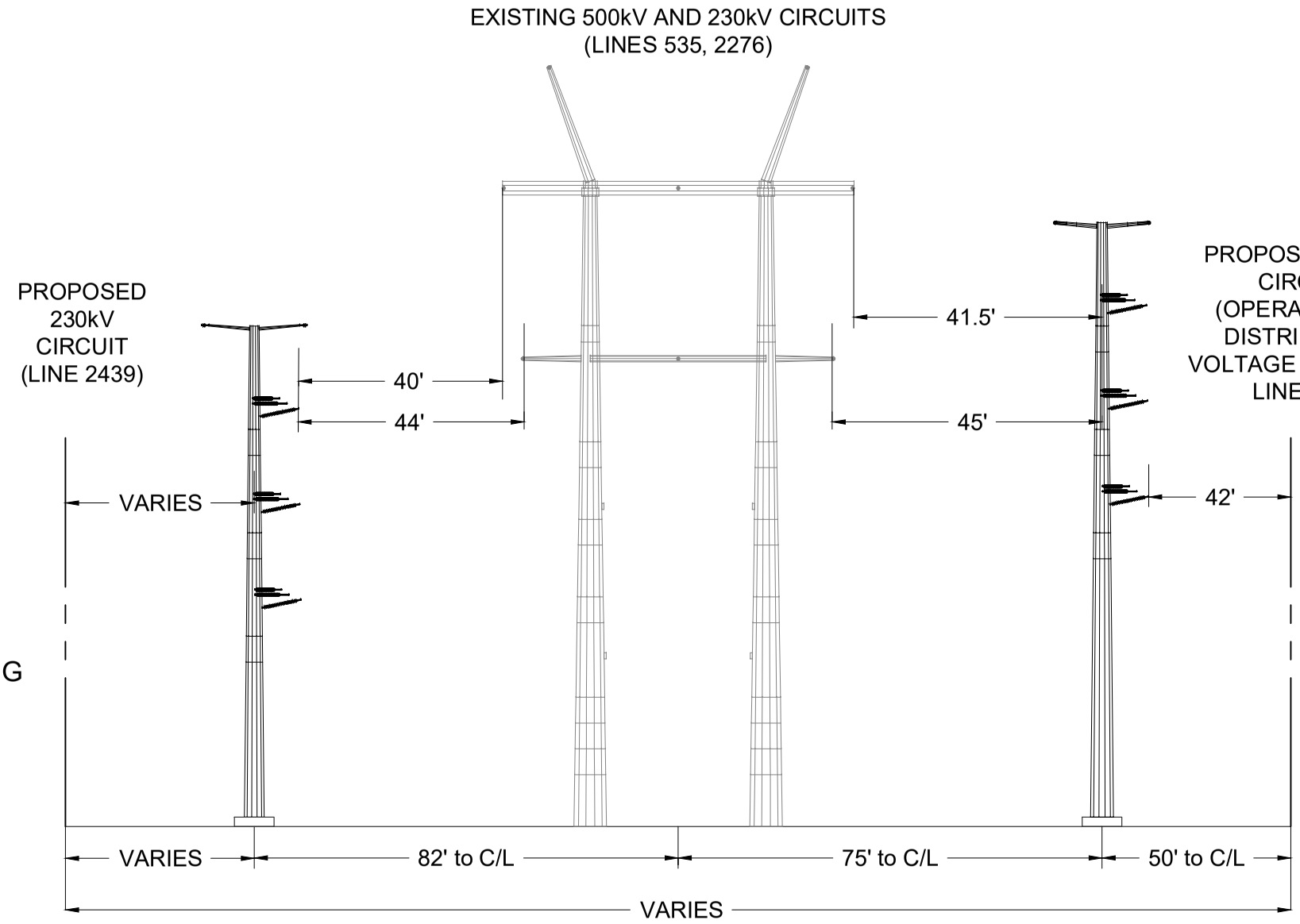
**c. Existing utility facilities on the ROW; and**

**d. For lines being rebuilt in existing ROW, provide all of the above (i) as it currently exists, and (ii) as it will exist at the conclusion of the proposed project.**

Response: See Attachment II.A.5.a through II.A.5.x.

For additional information on the structures, see Section II.B.3.

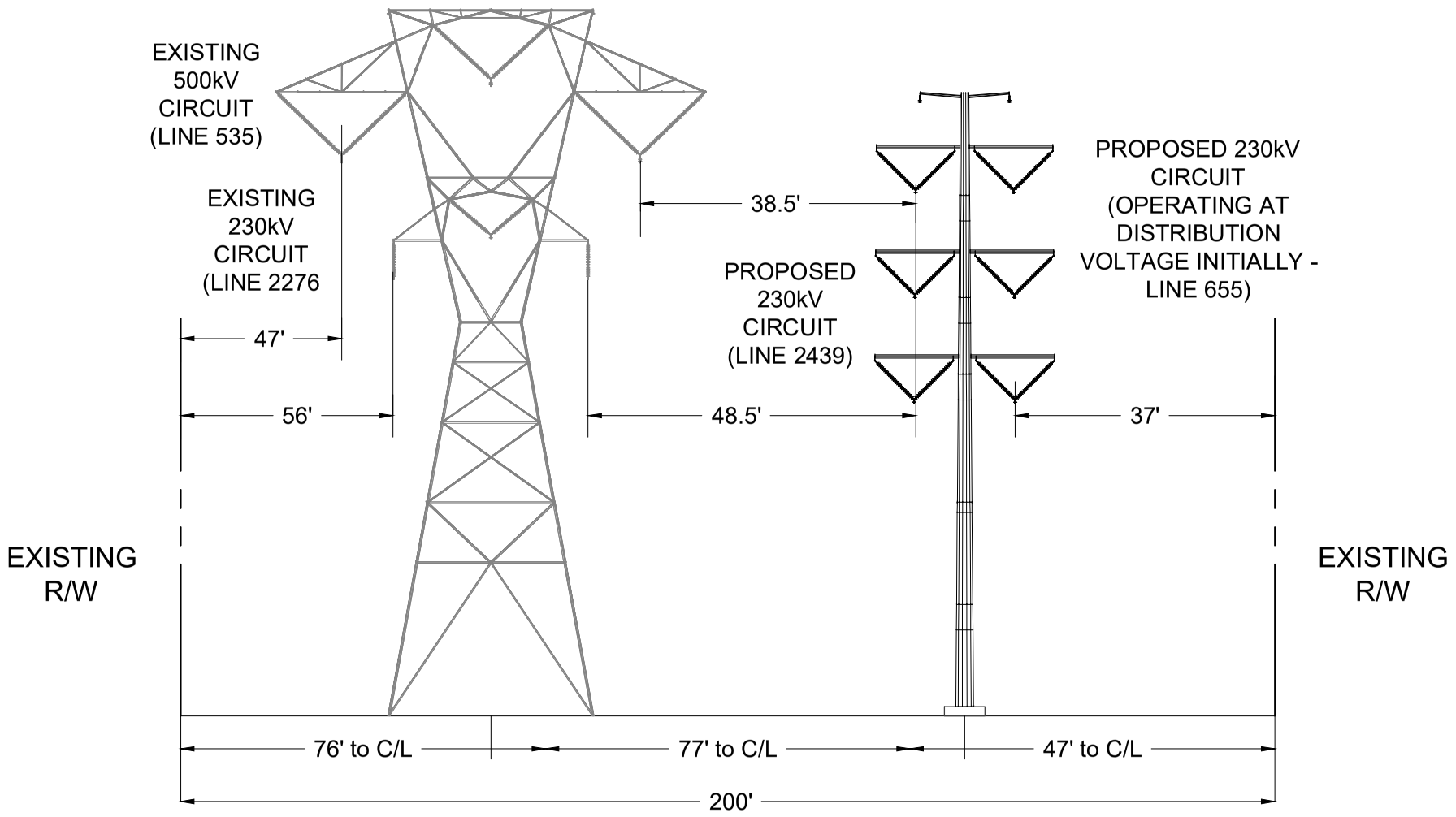
# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

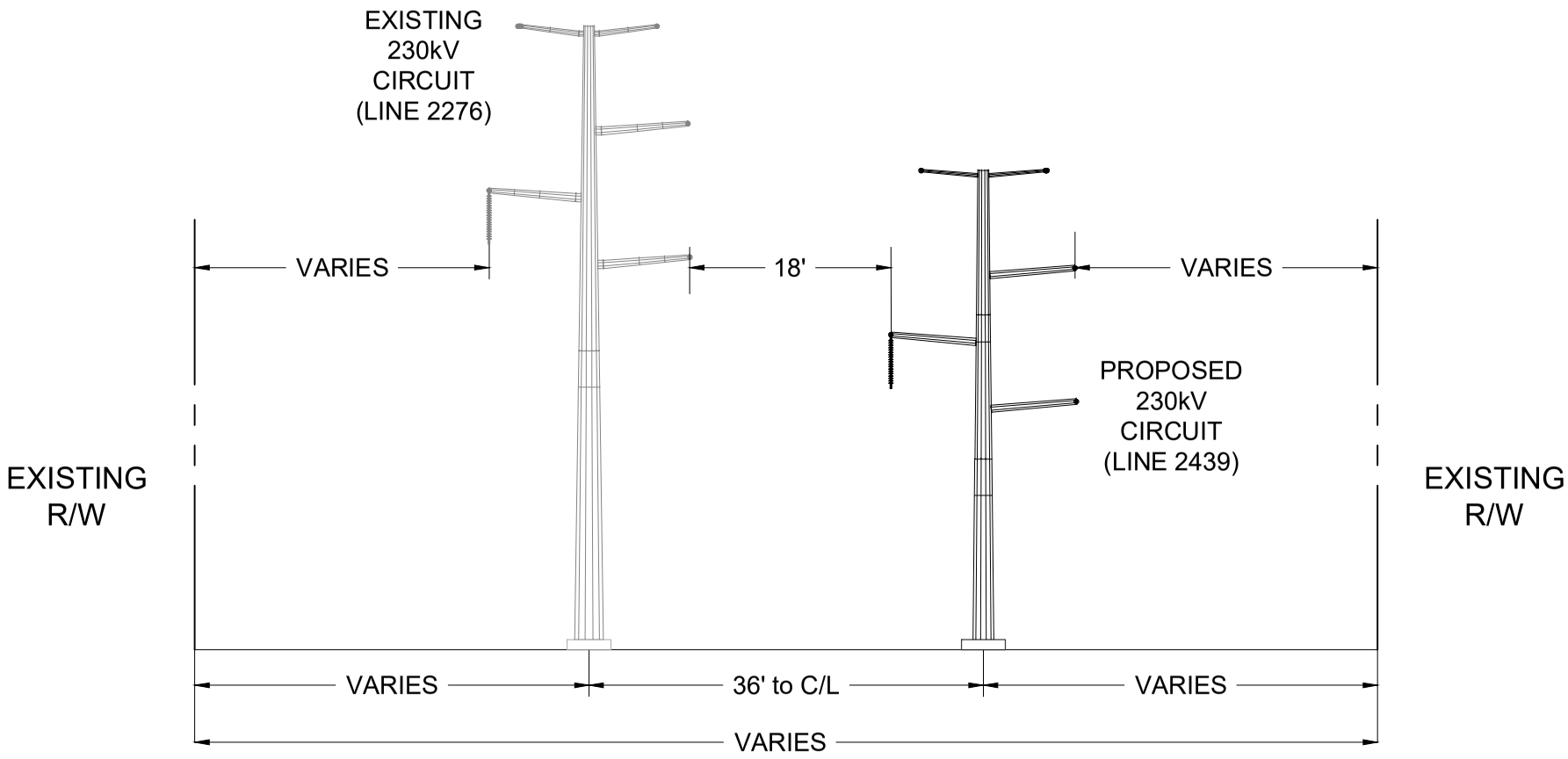
# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)




# TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

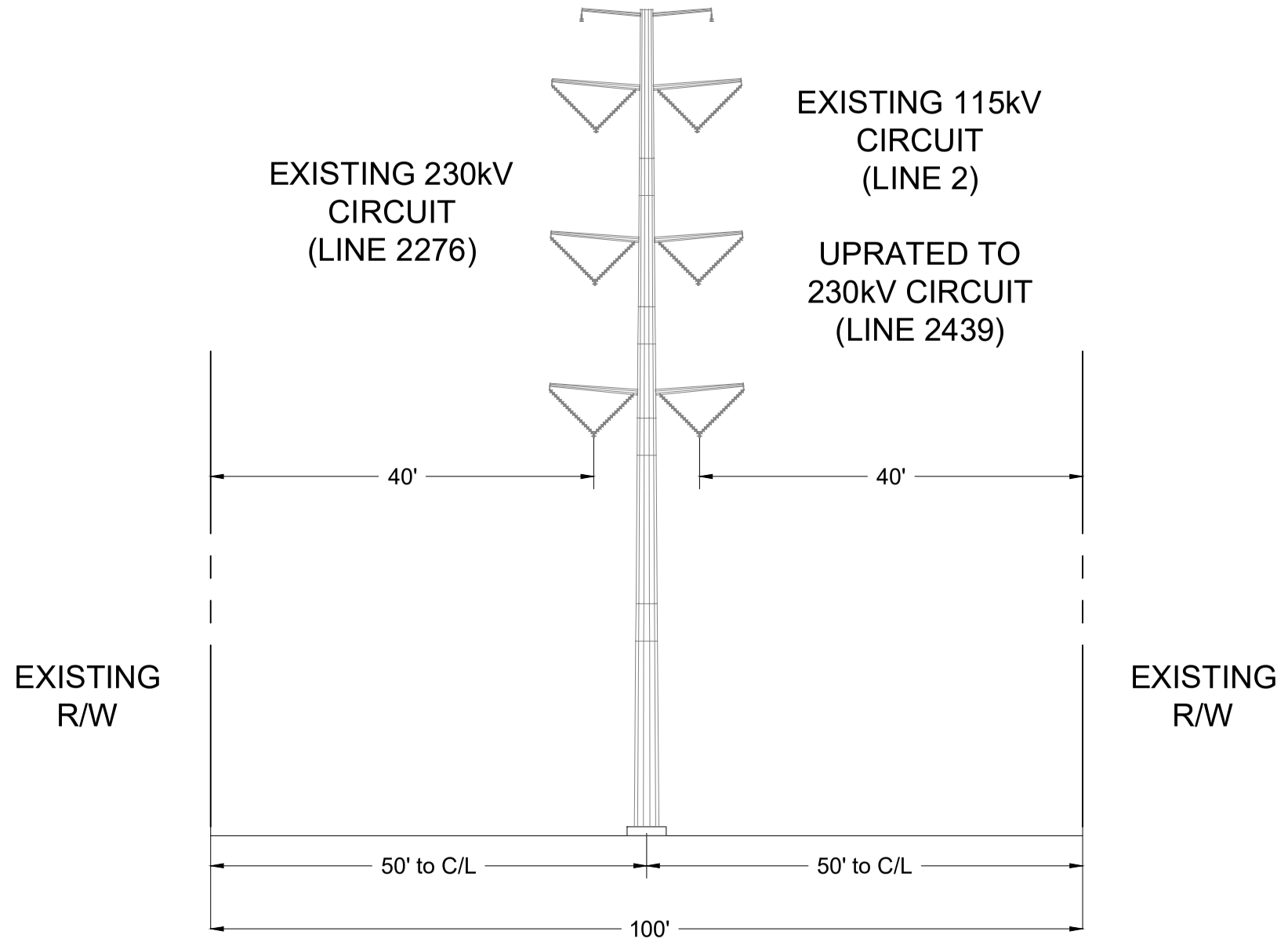
# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

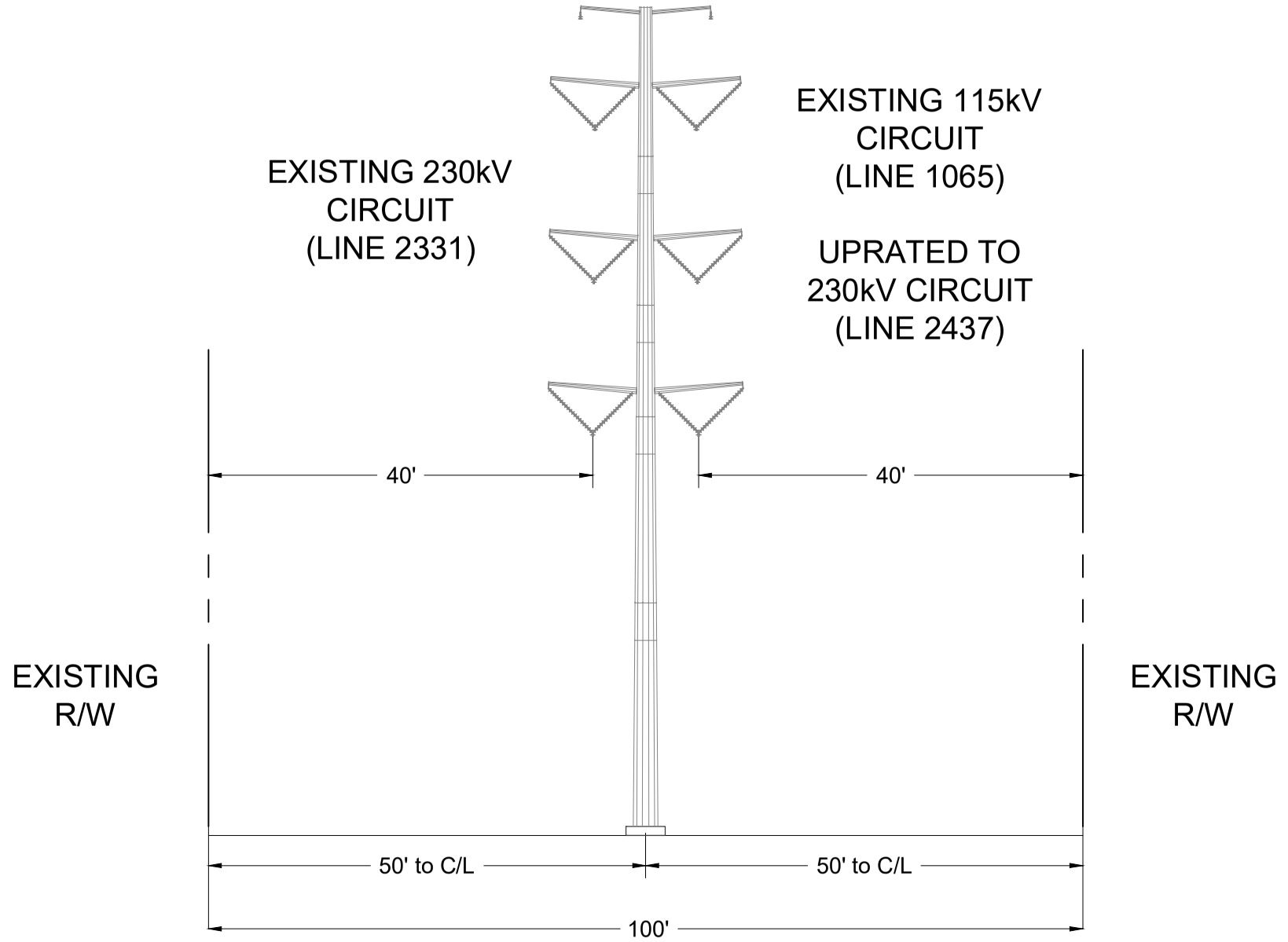
# EXISTING CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

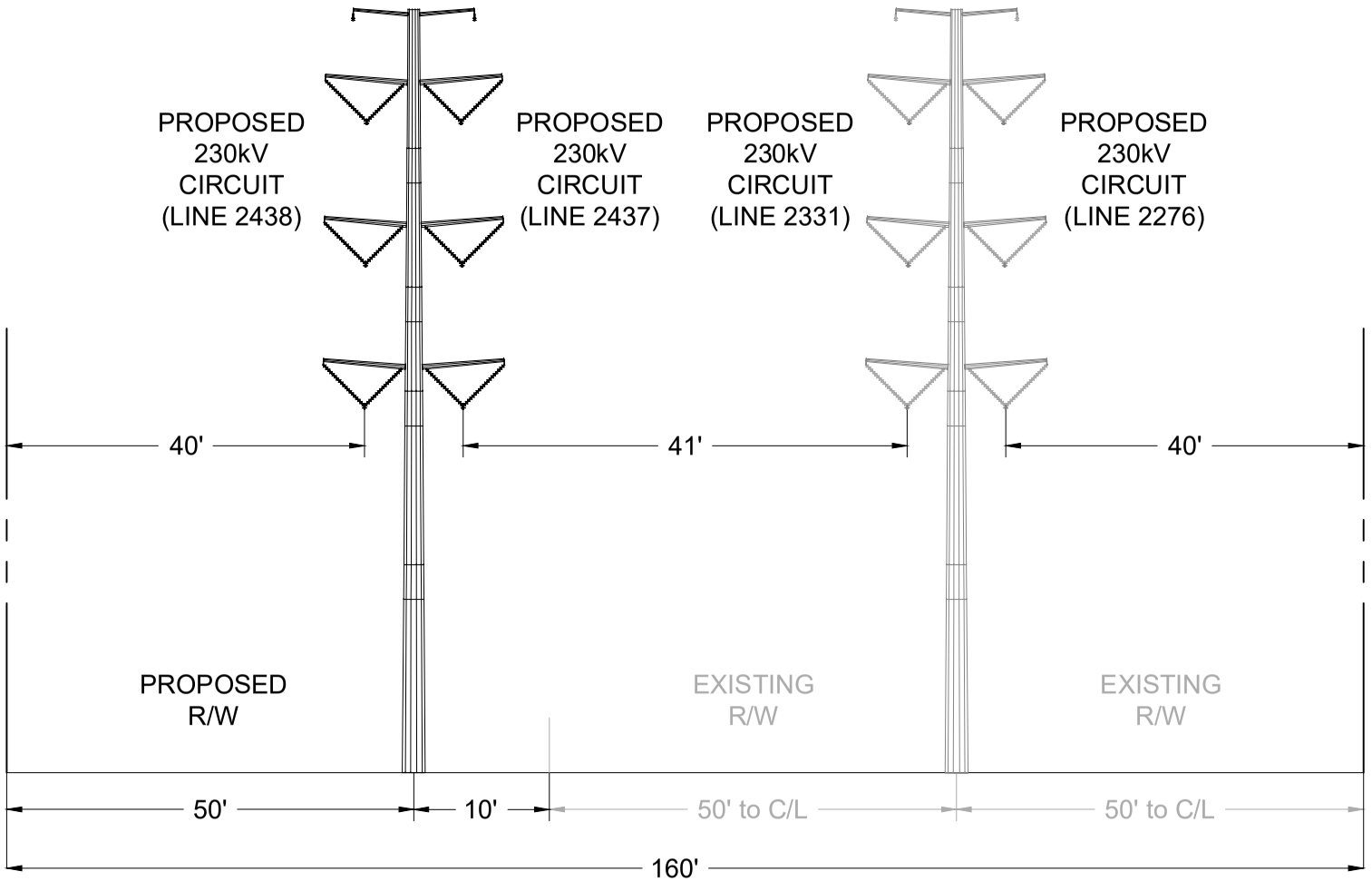
# EXISTING CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)



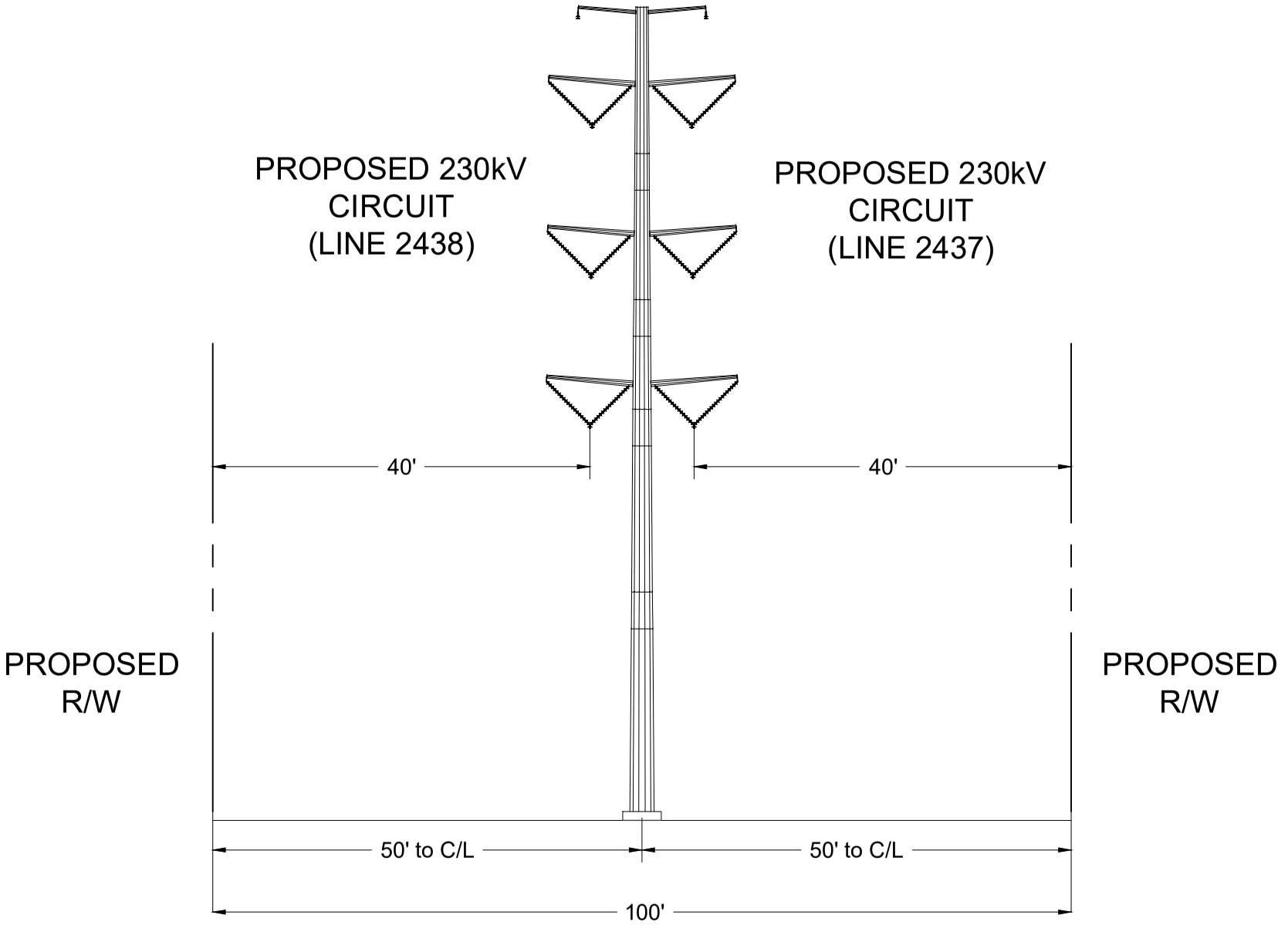

68

Attachment II.A.5.f

# TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM REMINGTON SUBSTATION)

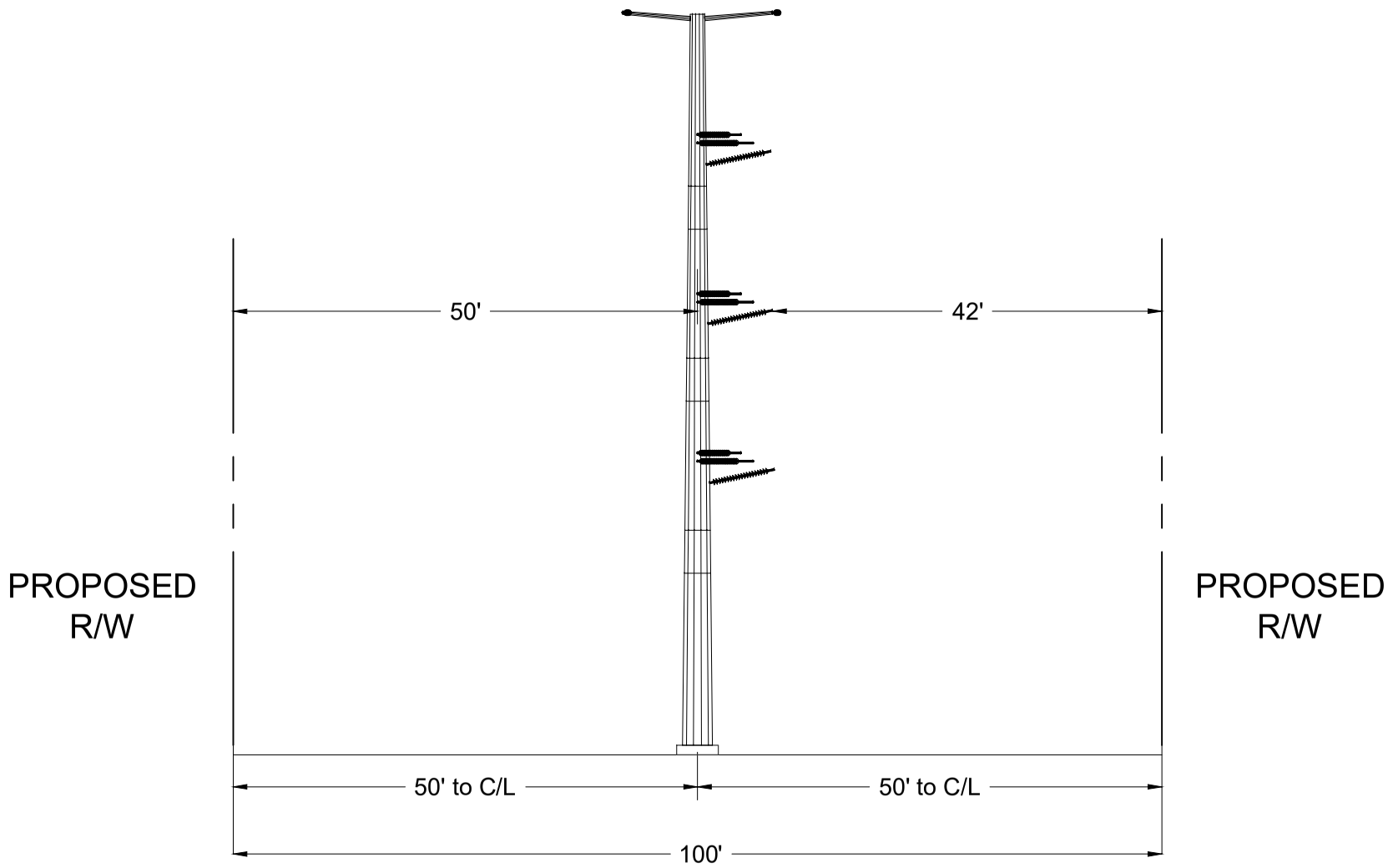



## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)

## PROPOSED 230kV CIRCUIT
## (LINE 2438)

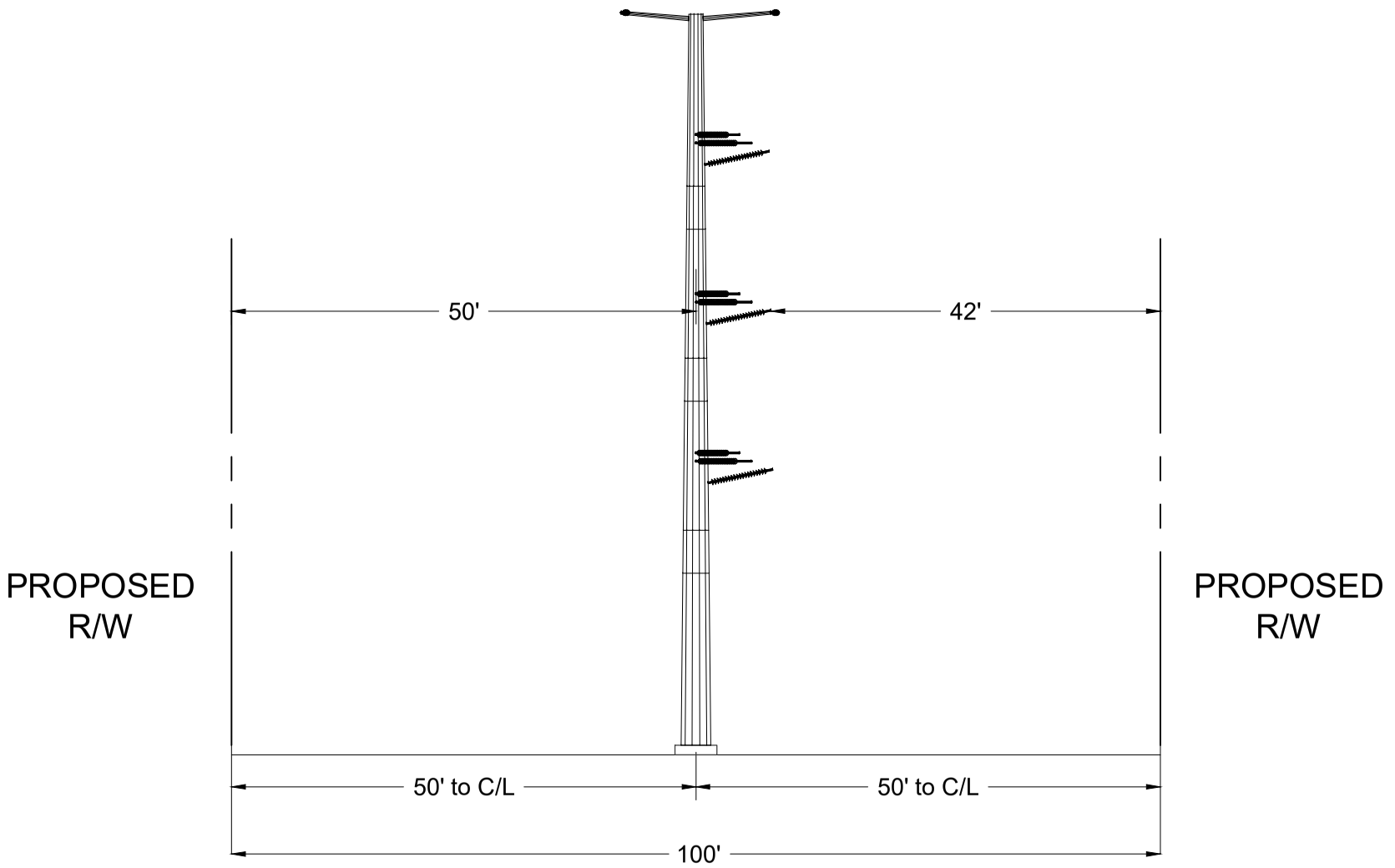



## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)

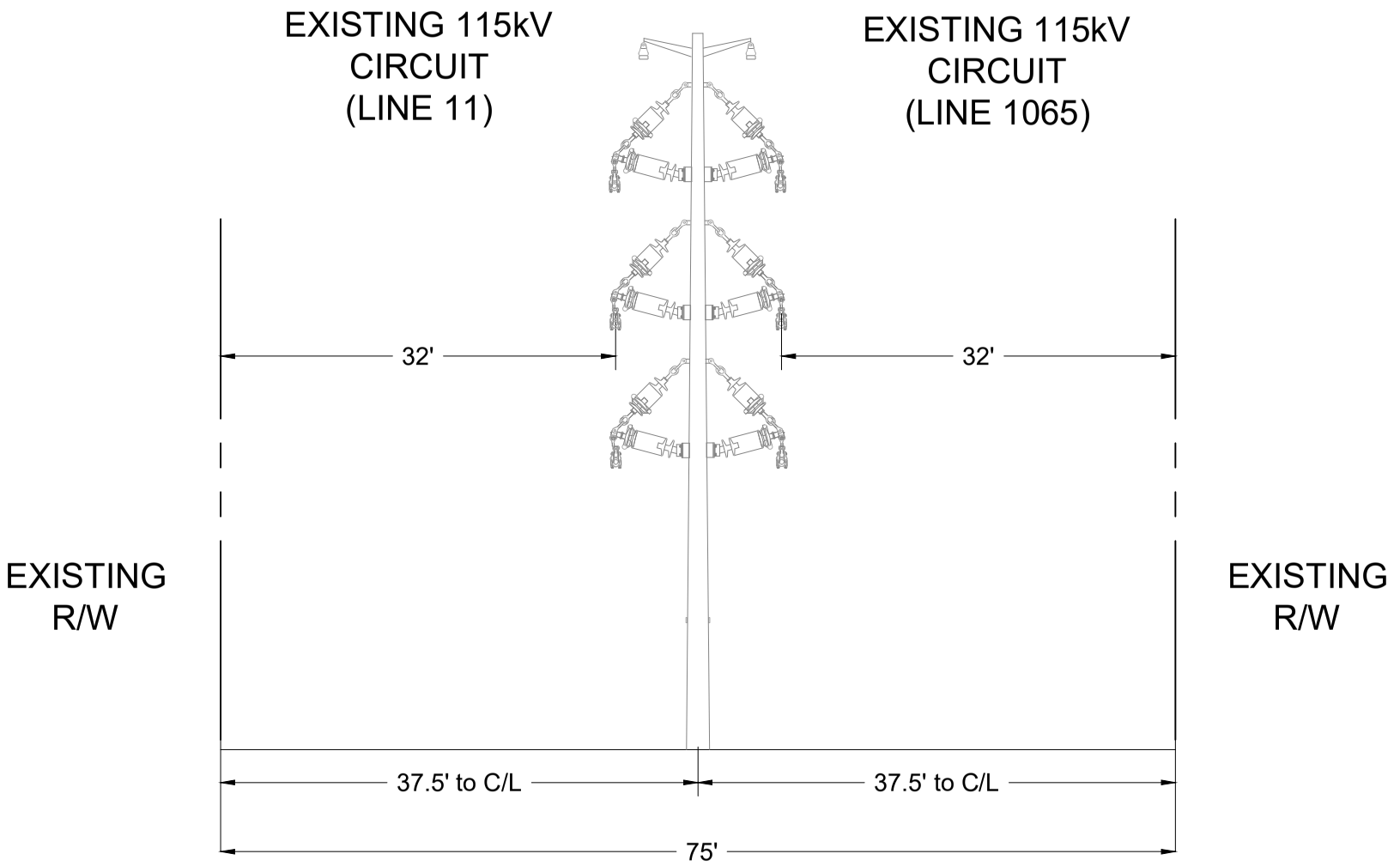
## PROPOSED 230kV CIRCUIT
## (OPERATING AT 115kV - LINE 11)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

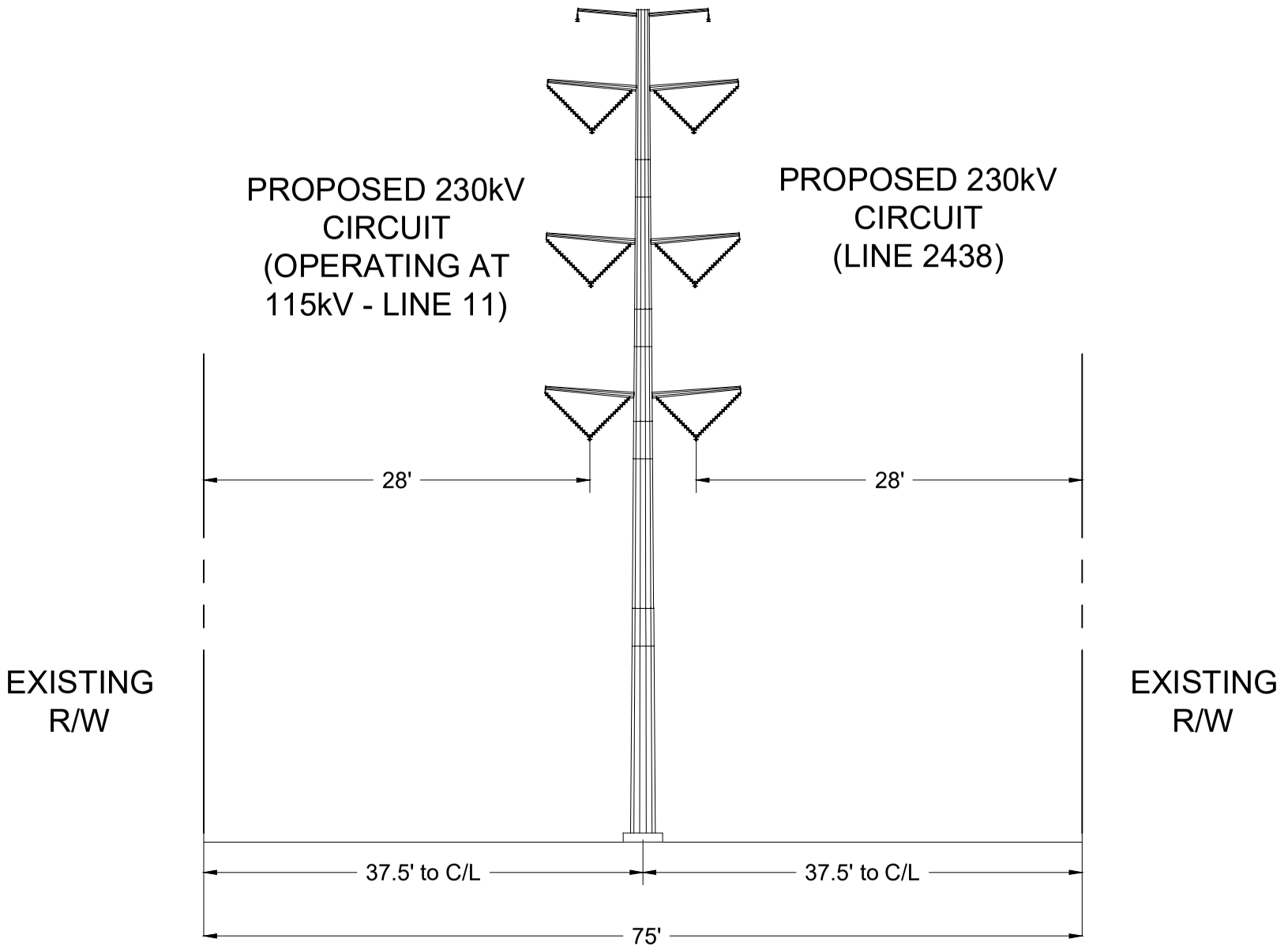
# EXISTING CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

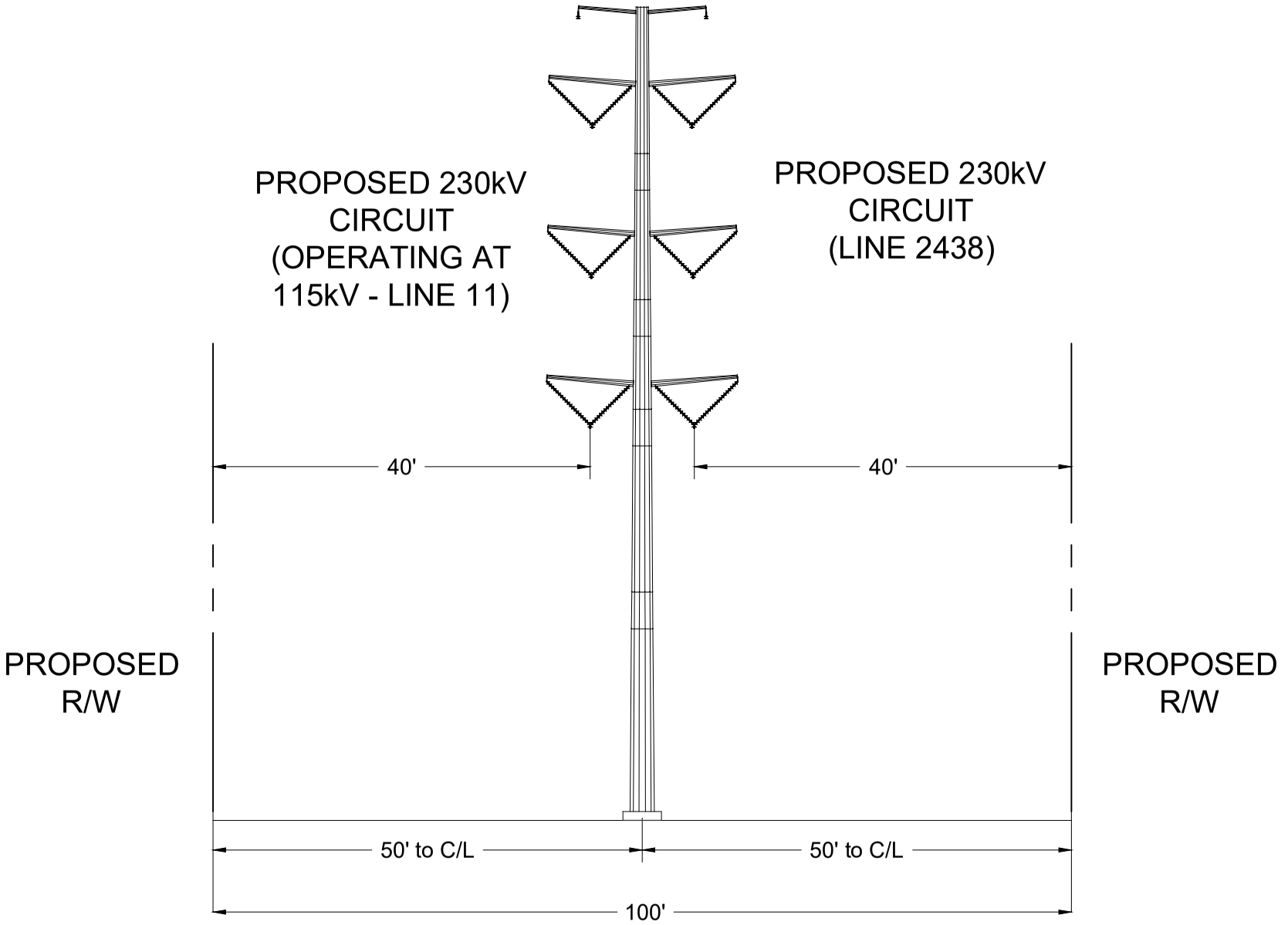
# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

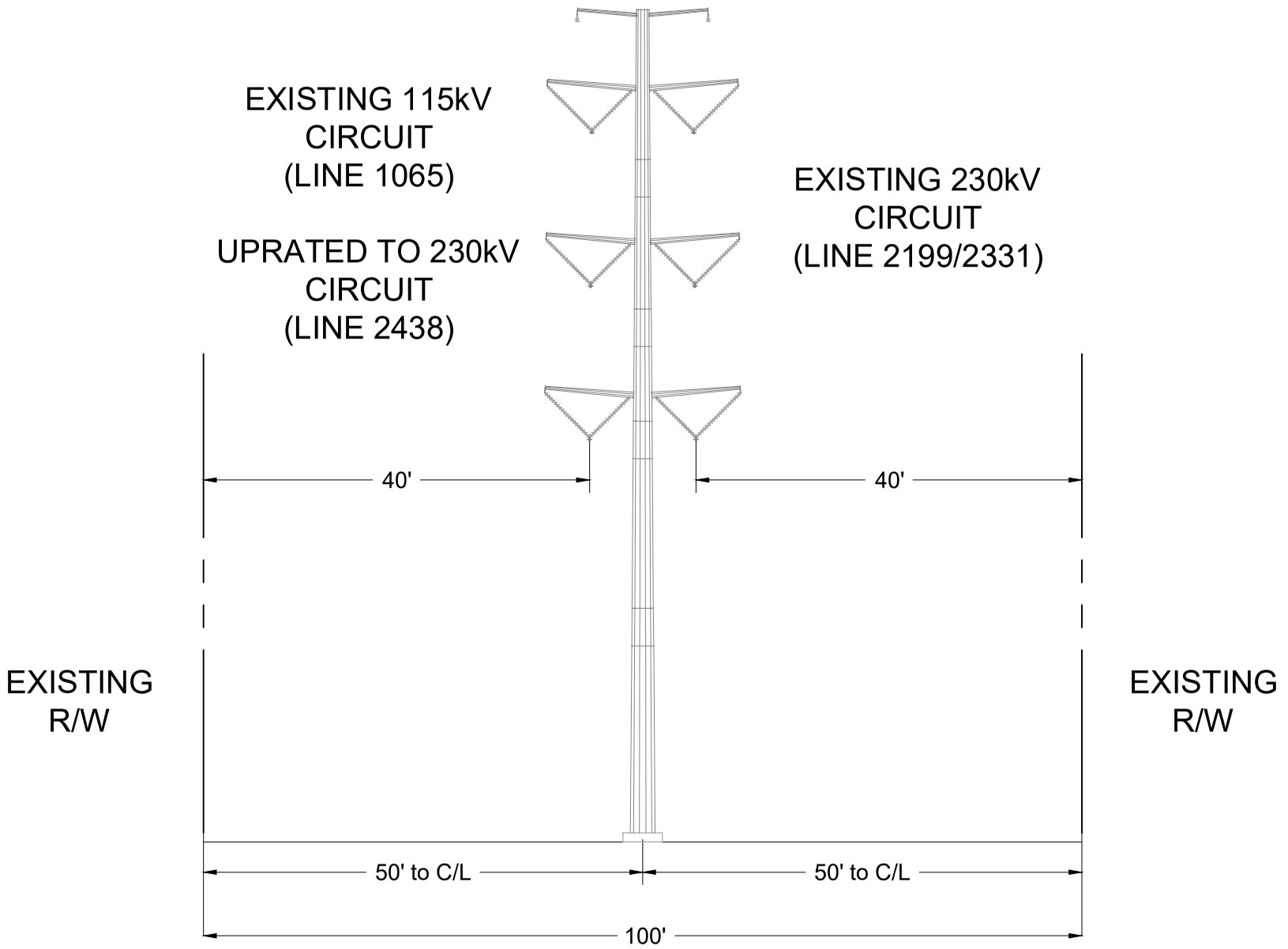
# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

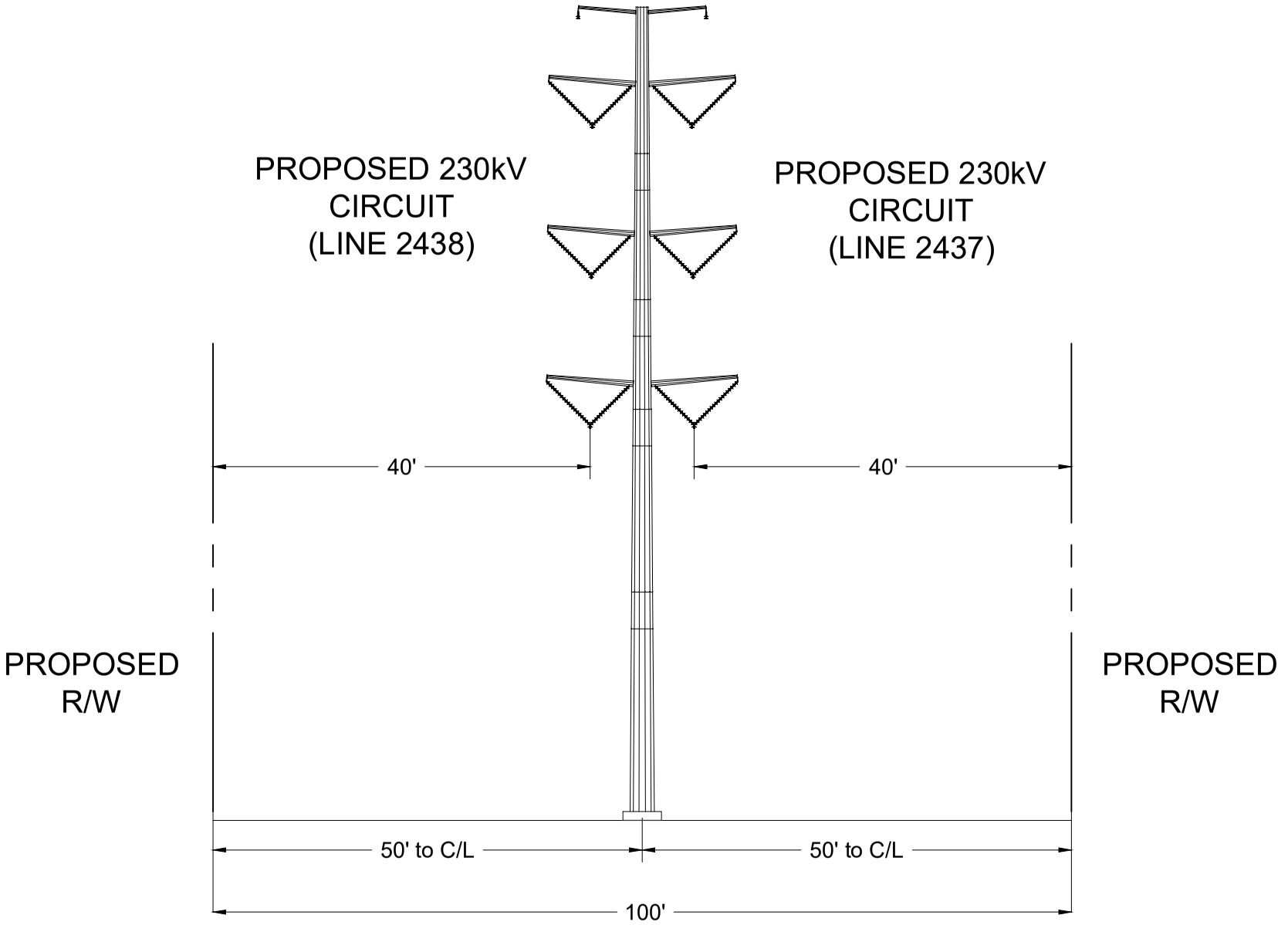
# EXISTING CONFIGURATION
(LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

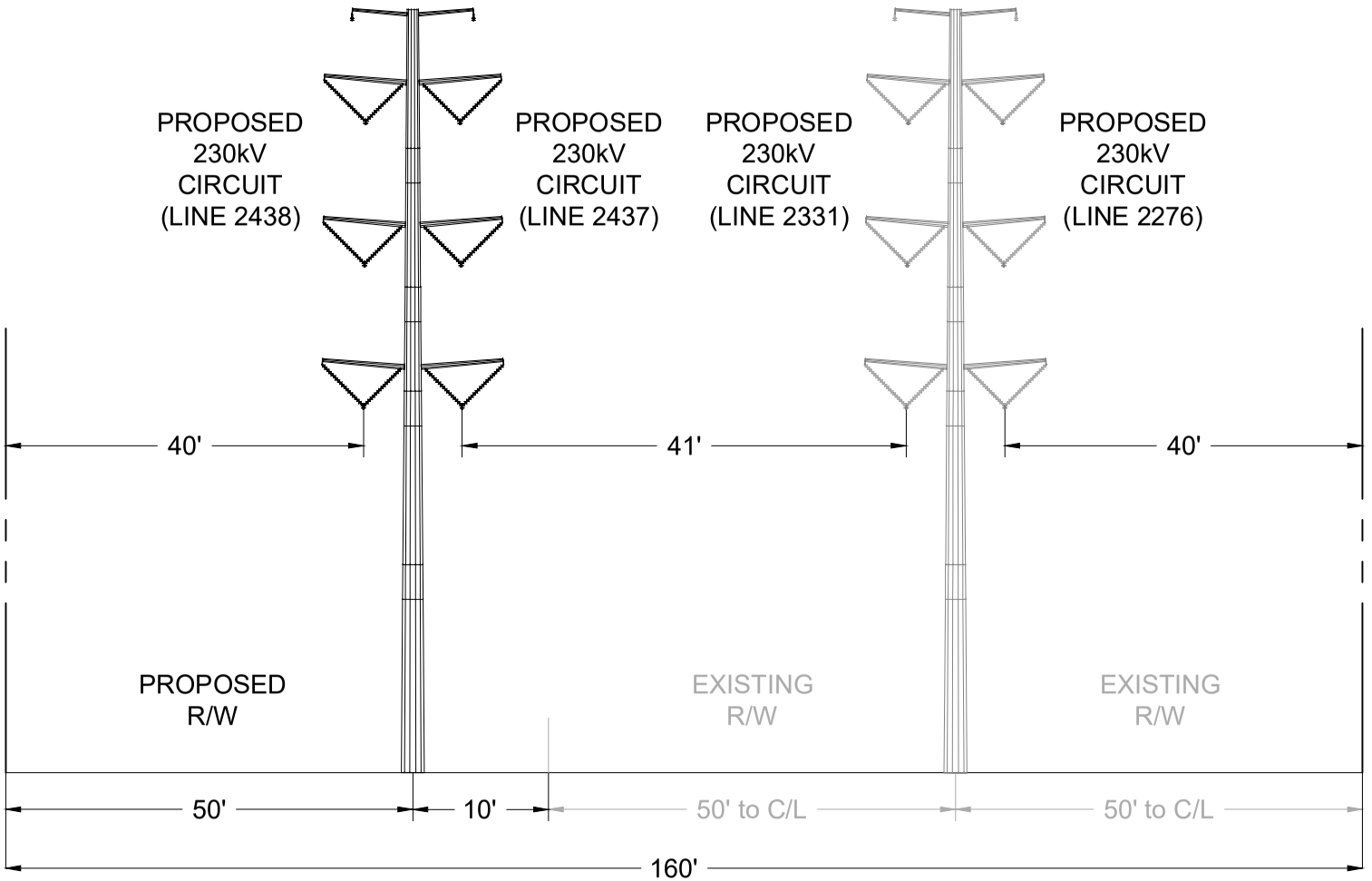
# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD MT. PONY FROM OAK GREEN SUBSTATION)



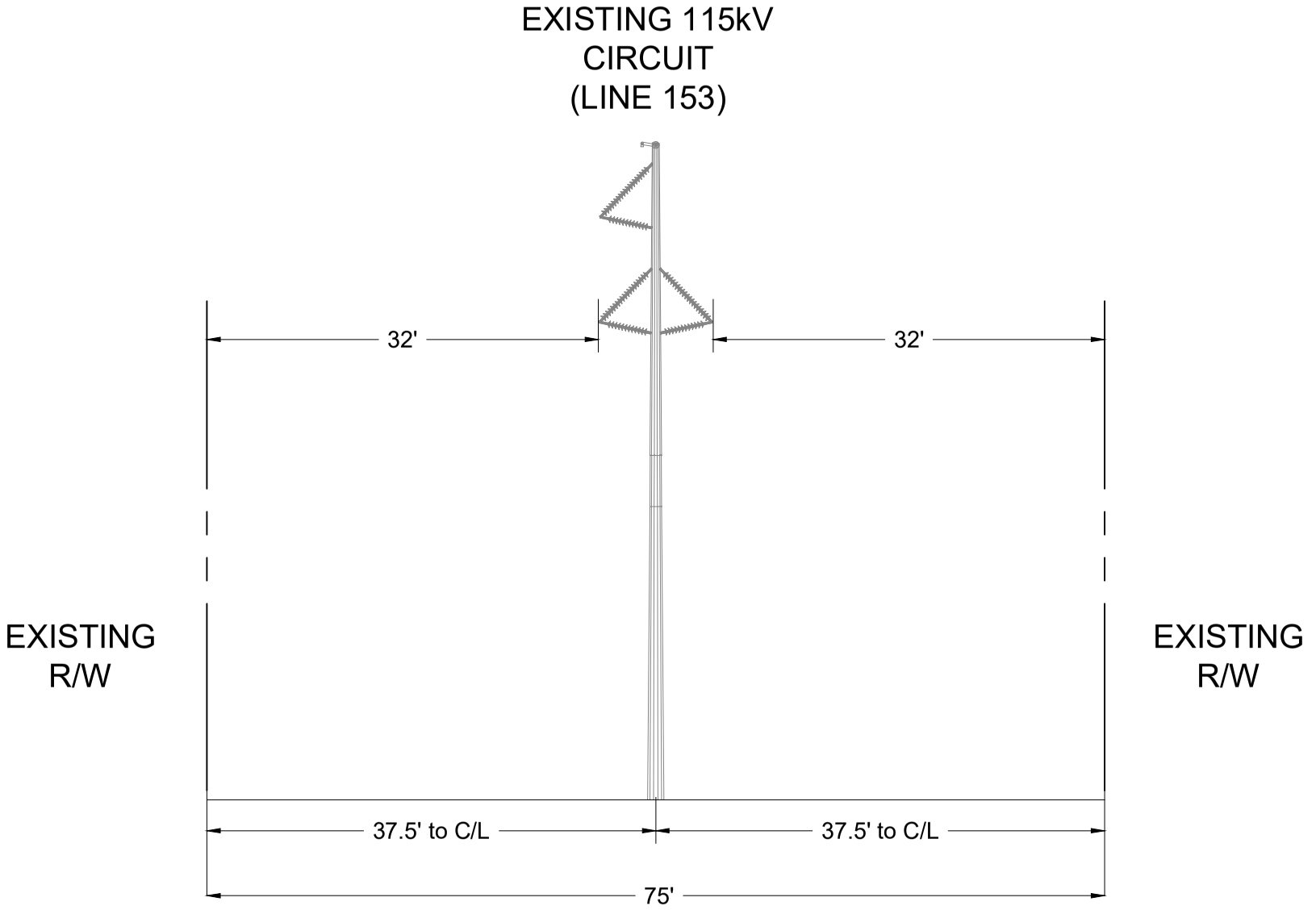

77

Attachment II.A.5.o

# TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# EXISTING CONFIGURATION
## (LOOKING TOWARD PINE GLADE FROM OAK GREEN SUBSTATION)

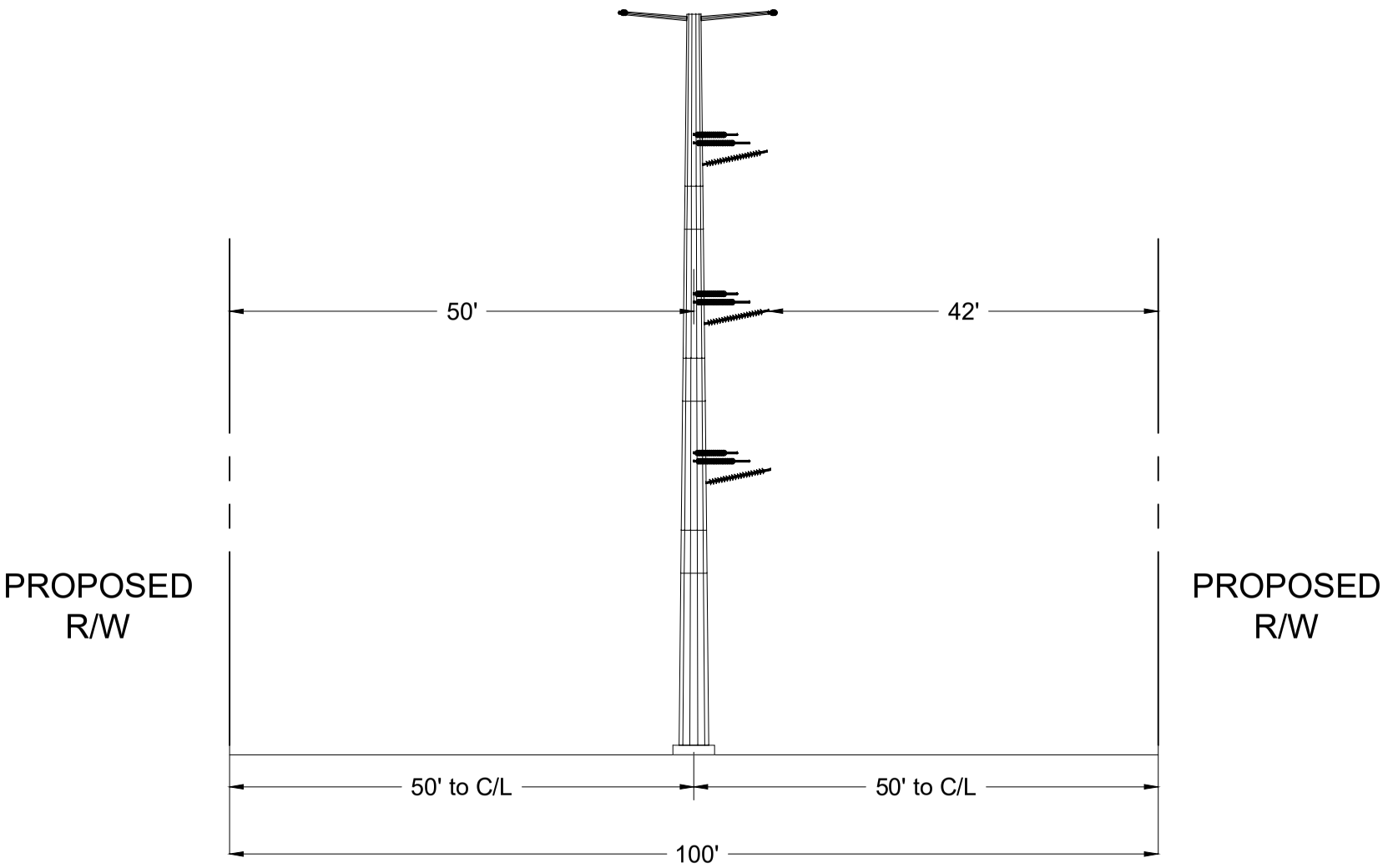



## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD PINE GLADE FROM OAK GREEN SUBSTATION)

## PROPOSED 230kV CIRCUIT
## (OPERATING AT 115kV - LINE 153)

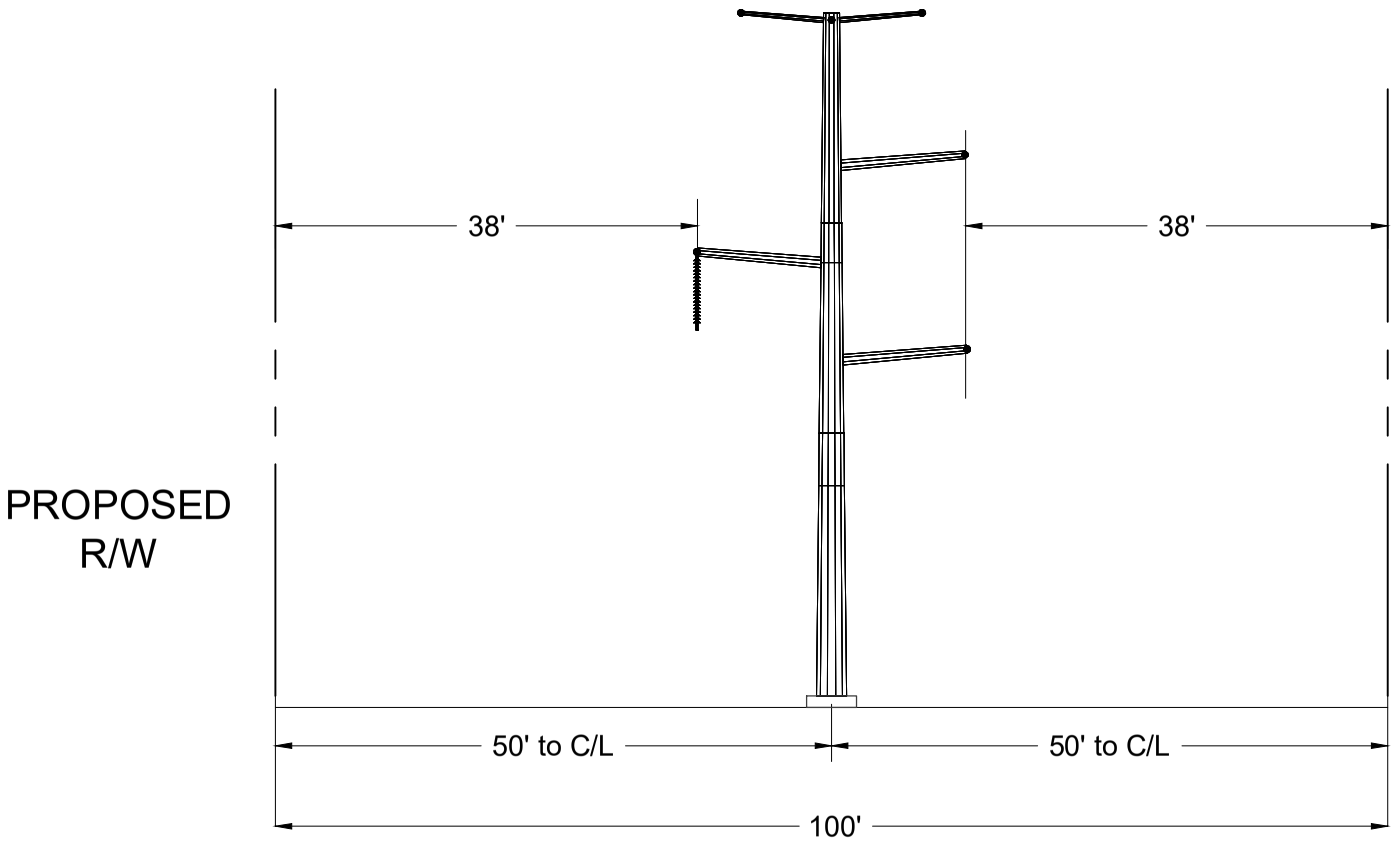



## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD PINE GLADE FROM OAK GREEN SUBSTATION)

PROPOSED 230kV CIRCUIT
(OPERATING AT 115kV - LINE 153)



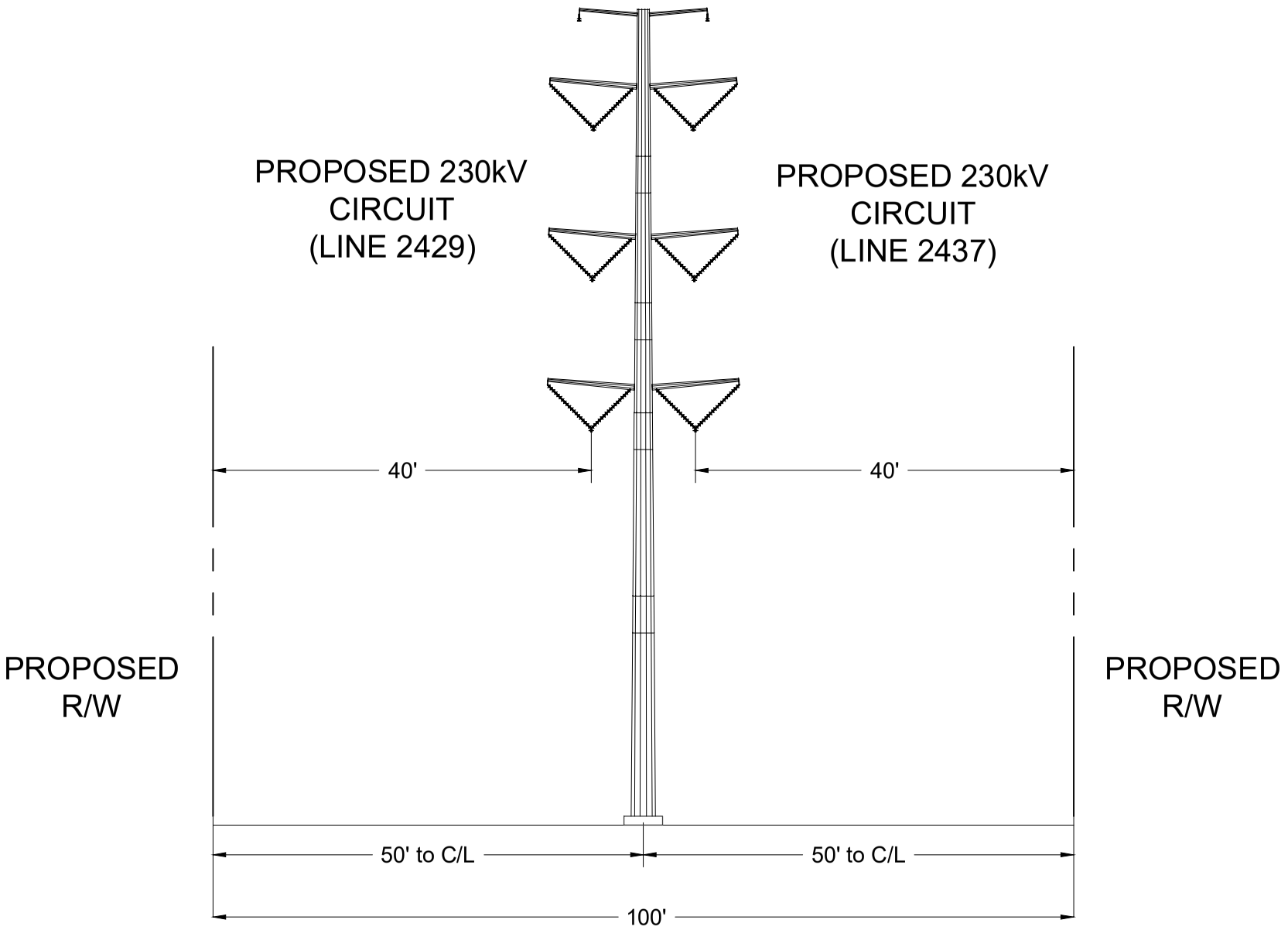

TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

80

Attachment II.A.5.r

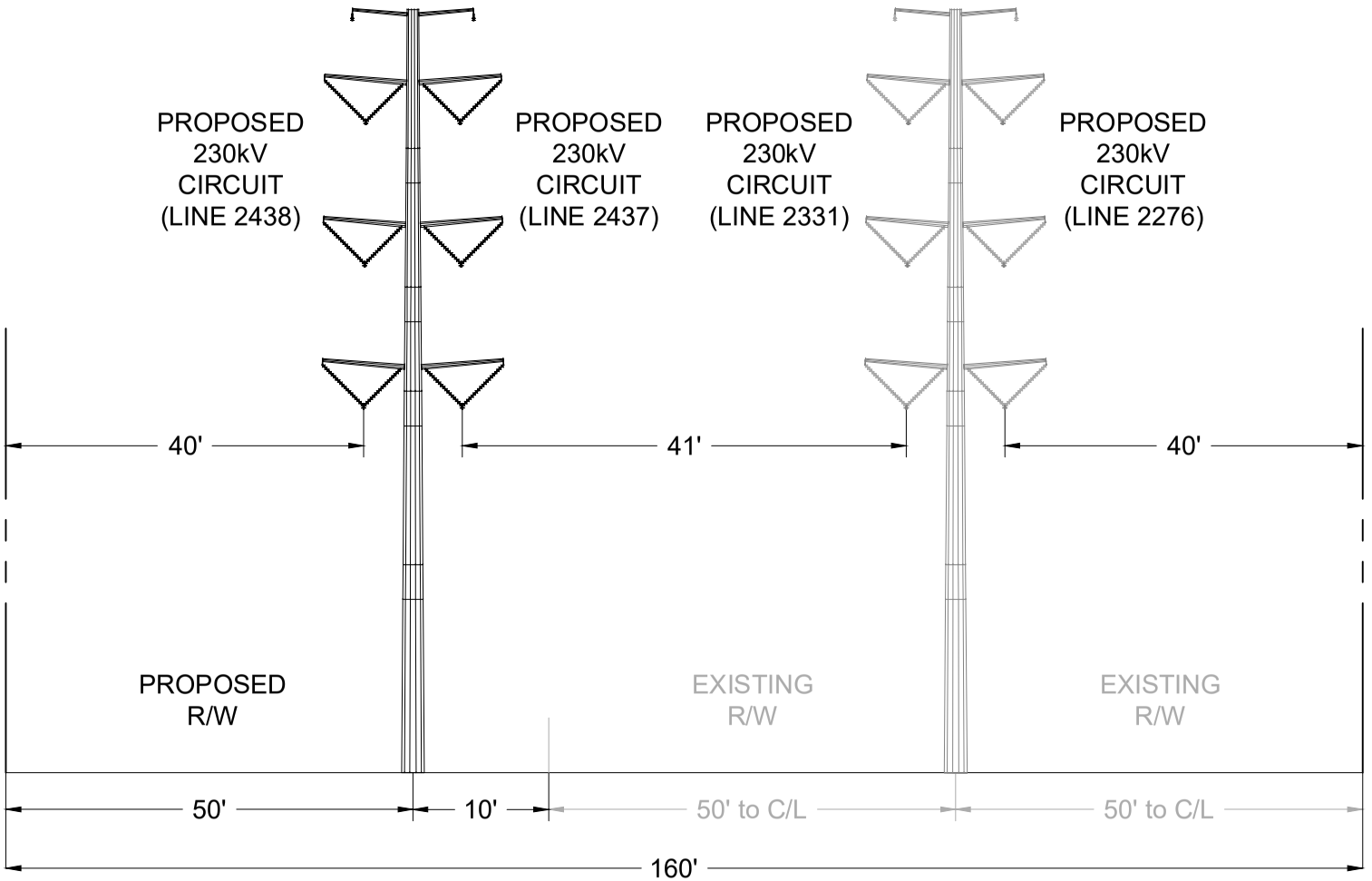
# PROPOSED CONFIGURATION
## (LOOKING TOWARD MCDEVITT FROM MT. PONY SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD MCDEVITT FROM MT PONY SUBSTATION)



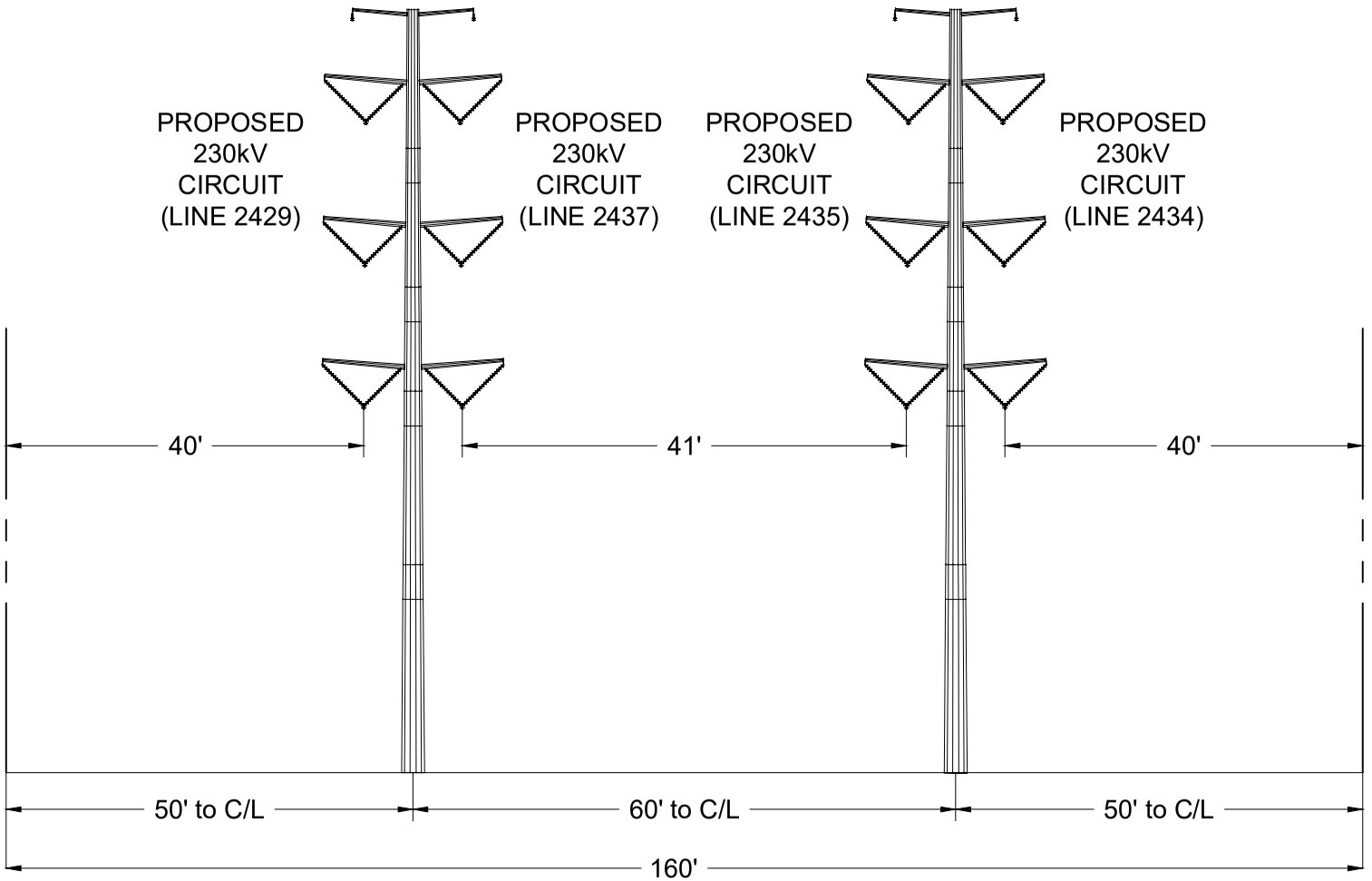

82

Attachment II.A.5.t

## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD MCDEVITT FROM MT. PONY SUBSTATION)



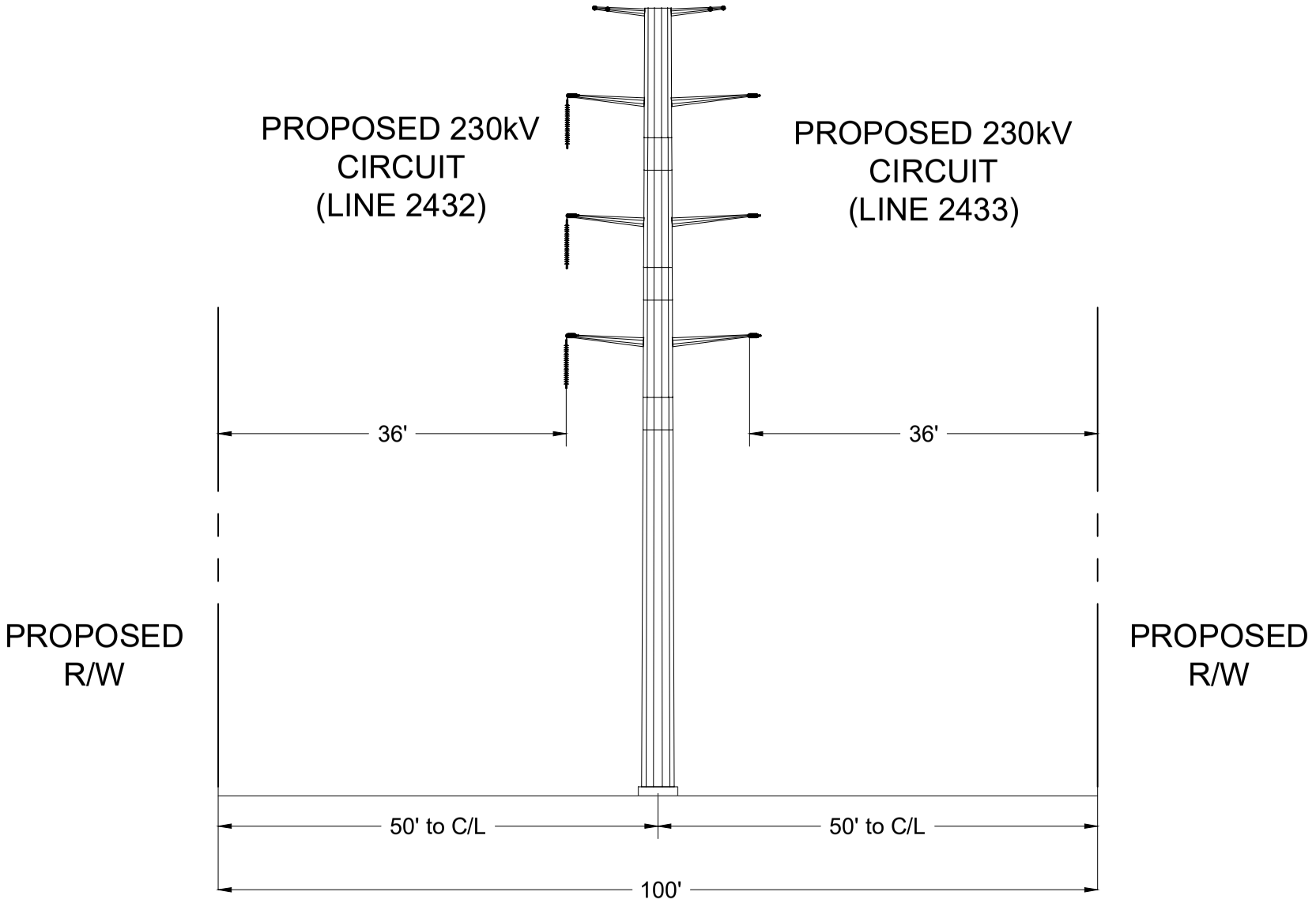

83

Attachment II.A.5.u

## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

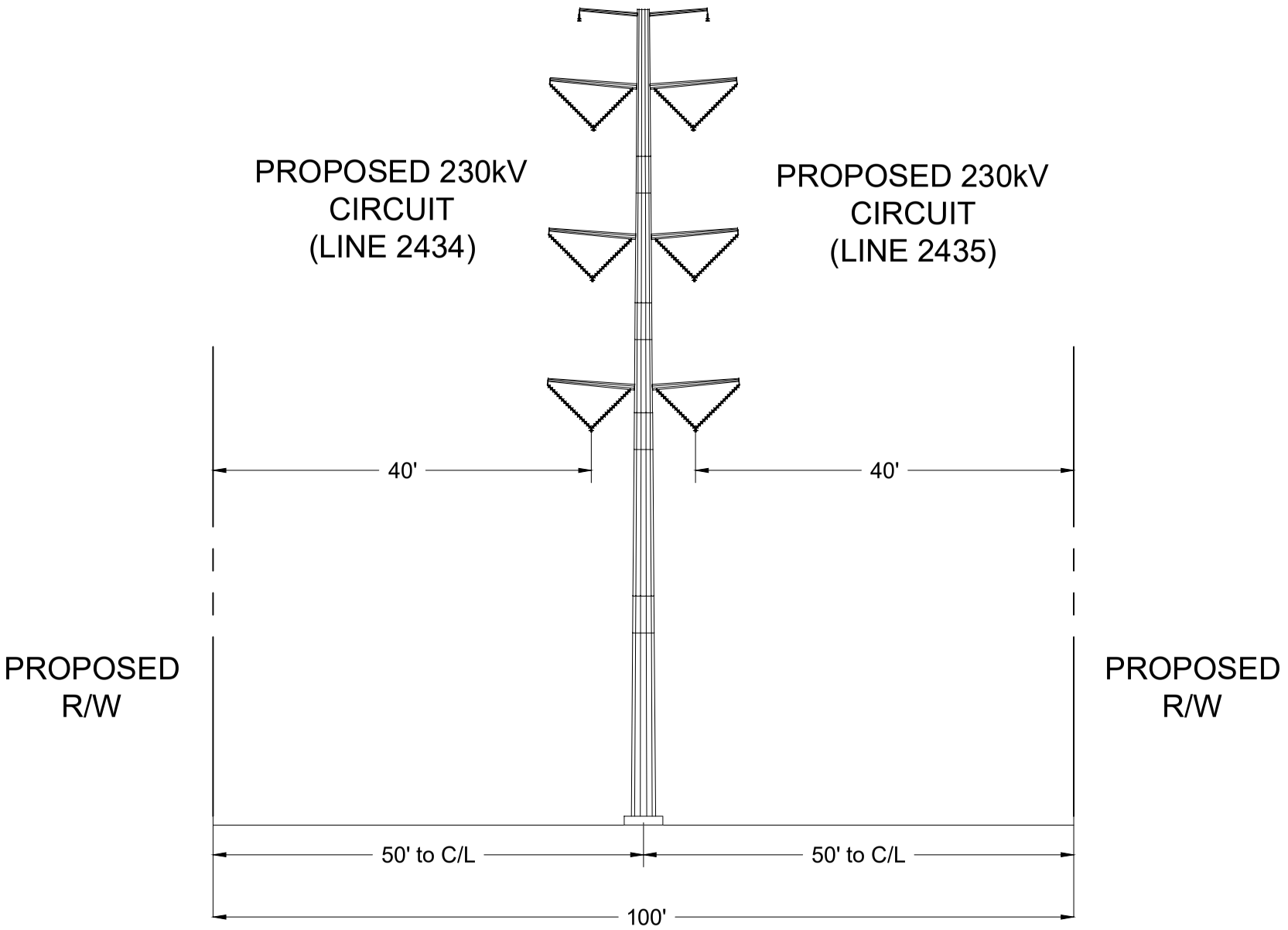
# PROPOSED CONFIGURATION
## (LOOKING TOWARD PALOMINO FROM CHANDLER SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

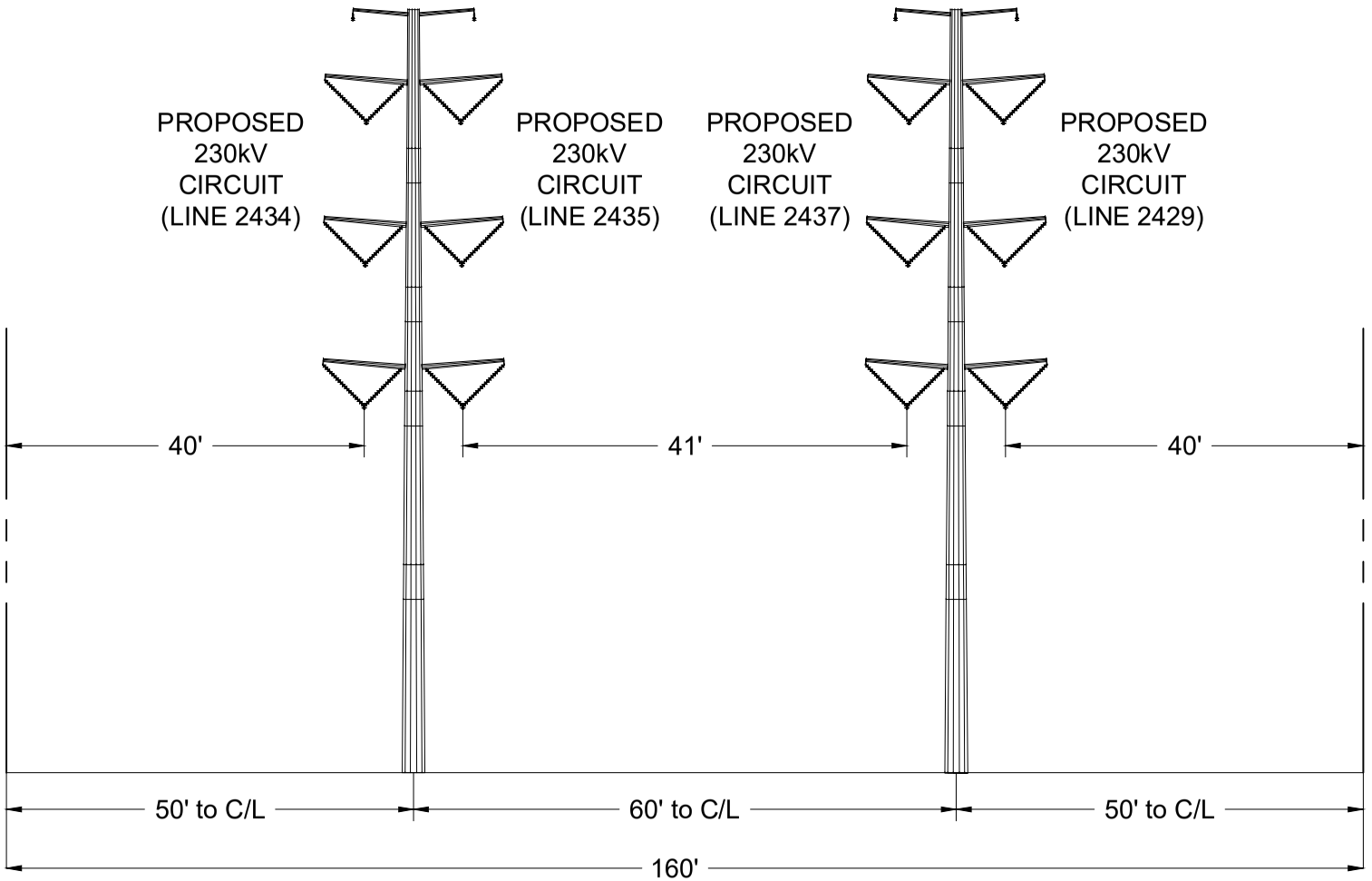
# PROPOSED CONFIGURATION
(LOOKING TOWARD CIRRUS FROM PALOMINO SUBSTATION)




## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

# PROPOSED CONFIGURATION
## (LOOKING TOWARD CIRRUS FROM PALOMINO SUBSTATION)




98

Attachment II.A.5.x

## TYPICAL RIGHT OF WAY

NOTE: INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**6. Detail what portions of the ROW are subject to existing easements and over what portions new easements will be needed.**

Response: As discussed in Section II.A.4, portions of the Project are within existing right-of-way; however new right-of-way width will be required to accommodate the Project as proposed. See Attachment II.A.6.

**Mt. Pony Lines**

For the Mt. Pony Proposed Route, the amount of new right-of-way width for these lines will vary from 60 feet to 100 feet, and the new right-of-way will require new easements. Private property owners will be providing new easements to the Company.

**Tech Park Lines**

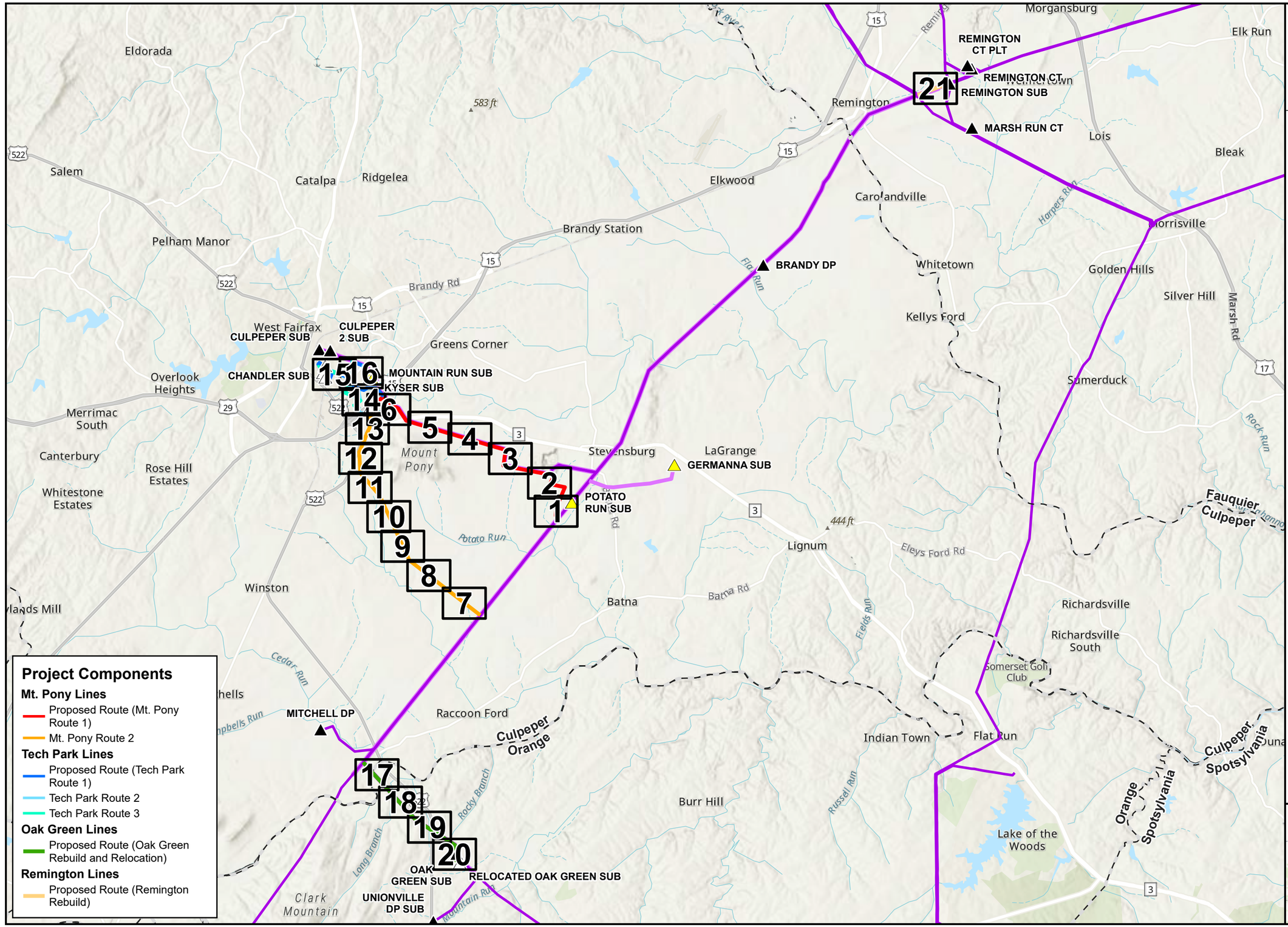
For the Tech Park Proposed Route, the amount of new right-of-way width for these lines will vary from 60 feet to 100 feet, and the new right-of-way will require new easements from the Virginia Community College System, the Germanna Real Estate Foundation, and private property owners.

**Oak Green Rebuild and Relocation**

Portions of the Oak Green Rebuild and Relocation will require new easements due to right-of-way width expansion along the route. Private property owners will be providing new easements to the Company. The rebuild portions of this component of the Project within VOF easements will not require new right-of-way. The Oak Green Switching Station relocation will require new easements from private property owners.

**Remington Rebuild**

No new easements will be required for the Remington Rebuild, as it will be constructed within existing right-of-way and Company property.




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper, Fauquier, and Orange County, Virginia

Index Map

- Page Index
- Existing Substation
- Future Substation
- Proposed Substation
- Existing Dominion Transmission Line
- Approved Future Lines
- County Boundary

0 4,500 9,000
Feet

1:108,000

ERM


Dominion Energy®

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



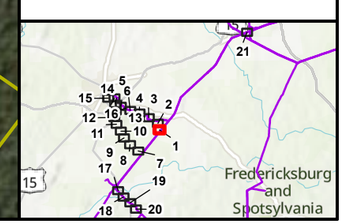
- Approved Future Substation
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary

0 150 300
Feet

1:3,600

ERM

N
W E
S




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



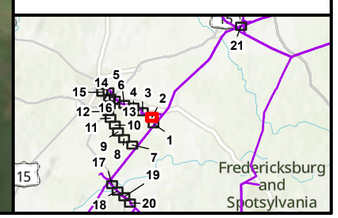
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Parcel Boundary
- VA Outdoors Foundation Easement

0 150 300
Feet

1:3,600

ERM

N W E S




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



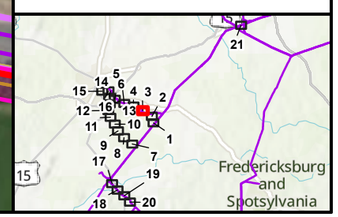
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (60 Feet Expansion)
- Parcel Boundary

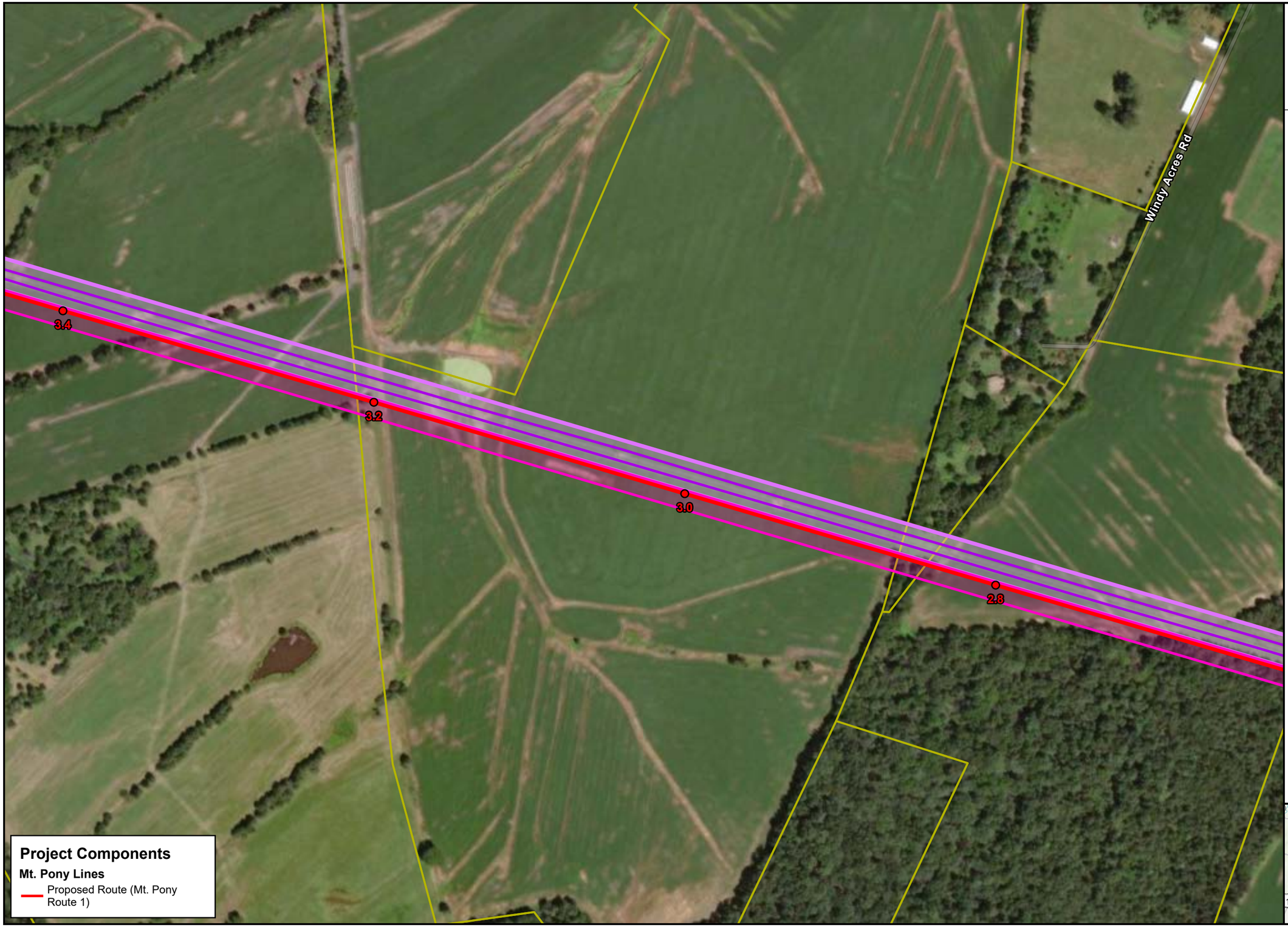
0 150 300
Feet

1:3,600

ERM

N
W E
S






92

**Project Components**

**Mt. Pony Lines**

Proposed Route (Mt. Pony Route 1)

Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



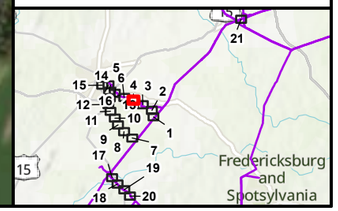
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (60 Feet Expansion)
- Parcel Boundary

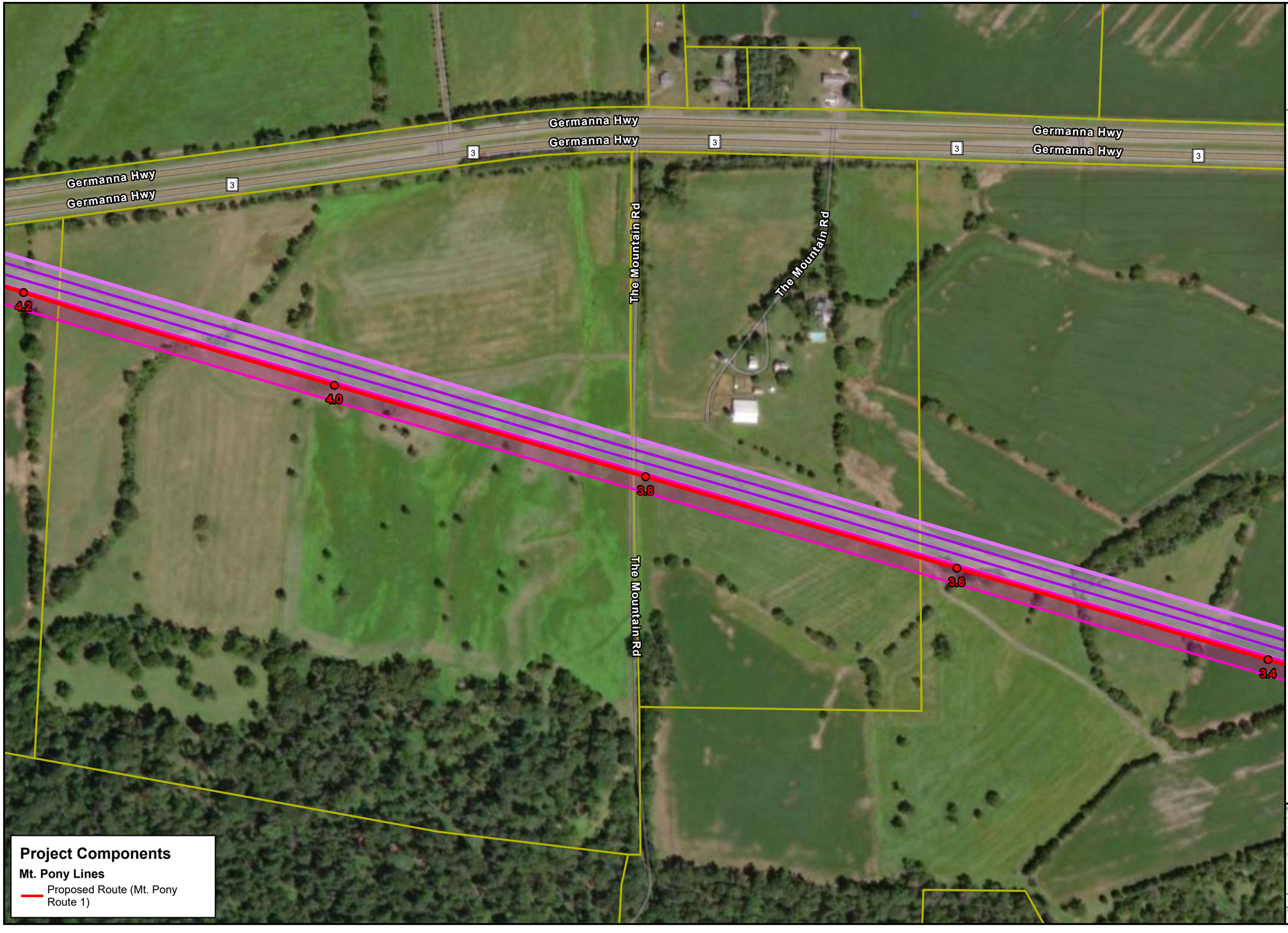
0 150 300
Feet

1:3,600

ERM

N
W E
S






Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



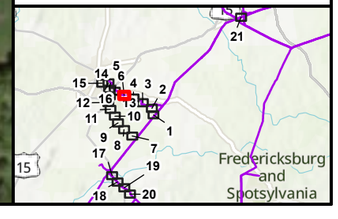
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (60 Feet Expansion)
- Parcel Boundary

0 150 300
Feet

1:3,600

ERM

N
W E
S




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



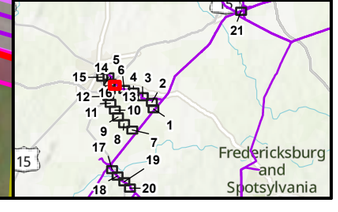
- Proposed Substation
- Proposed Substation Footprint
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Proposed Data Center Building
- Parcel Boundary
- State Lands

0 150 300
Feet

1:3,600

ERM

N W E S




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



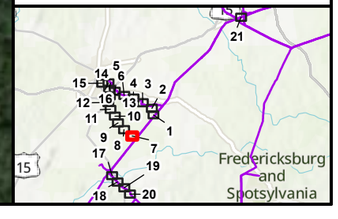
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary

0 150 300
Feet

1:3,600

ERM

N
W E
S




96

Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



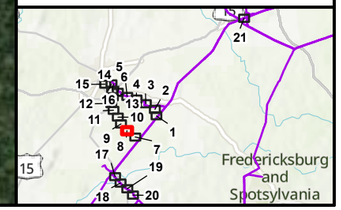
- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary

0 150 300
Feet

1:3,600

ERM

N
W E
S




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



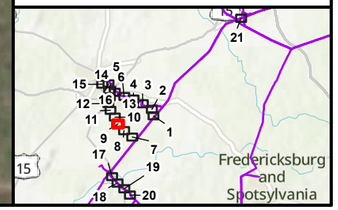
- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary

0 150 300
Feet

1:3,600

ERM

N
W E
S




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



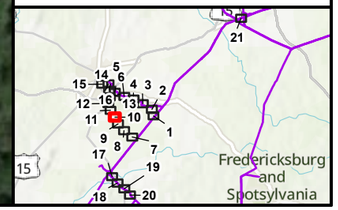
- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary

0 150 300
Feet

1:3,600

ERM

N
W E
S




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



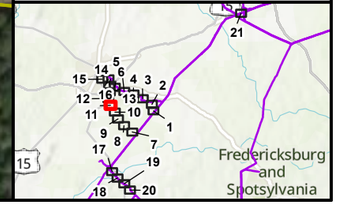
- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary

0 150 300
Feet

1:3,600

ERM

N
W E
S



Dominion Energy®

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



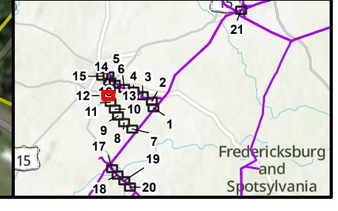

- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Parcel Boundary
- Federal Lands

0 150 300
Feet

1:3,600

ERM

N W E S




101

Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



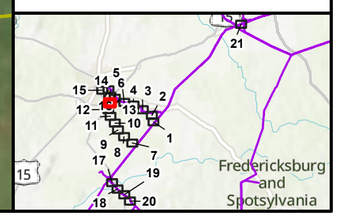
- Milepost
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- Proposed Data Center Building
- Parcel Boundary
- Federal Lands
- Local Lands

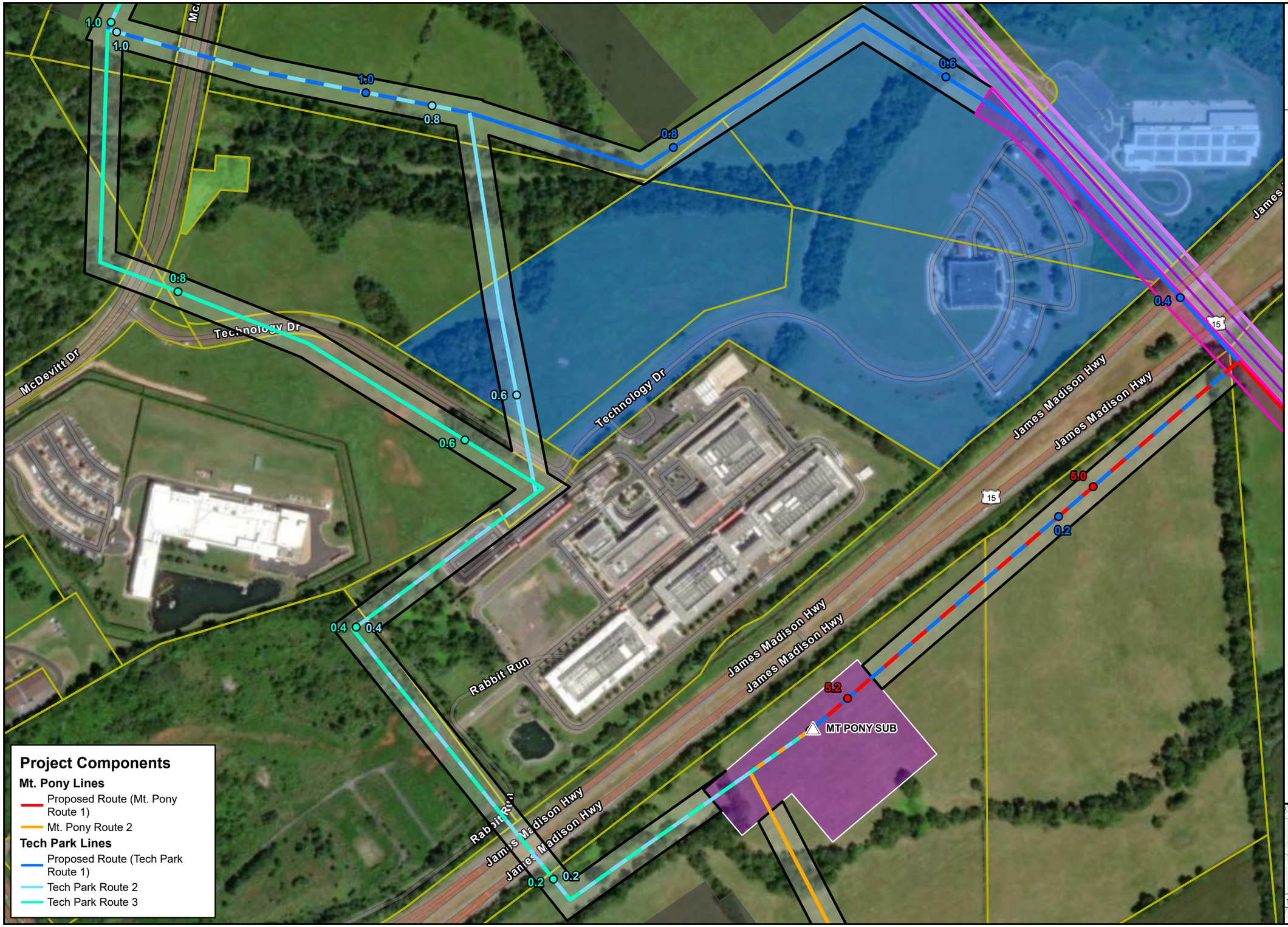
0 150 300
Feet

1:3,600

ERM

N
W E
S






Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



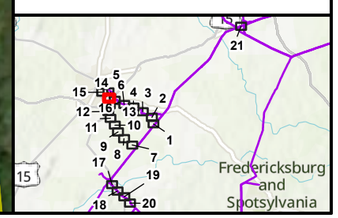
- Proposed Substation
- Proposed Substation Footprint
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Proposed Data Center Building
- Parcel Boundary
- State Lands
- Local Lands

0 150 300
Feet

1:3,600

ERM

N
W E
S




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



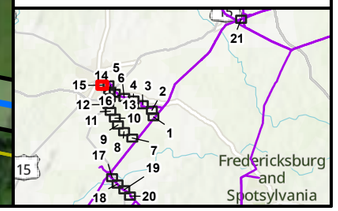
- Proposed Substation
- Proposed Substation Footprint
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Proposed Data Center Building
- Parcel Boundary
- Federal Lands
- State Lands
- Local Lands

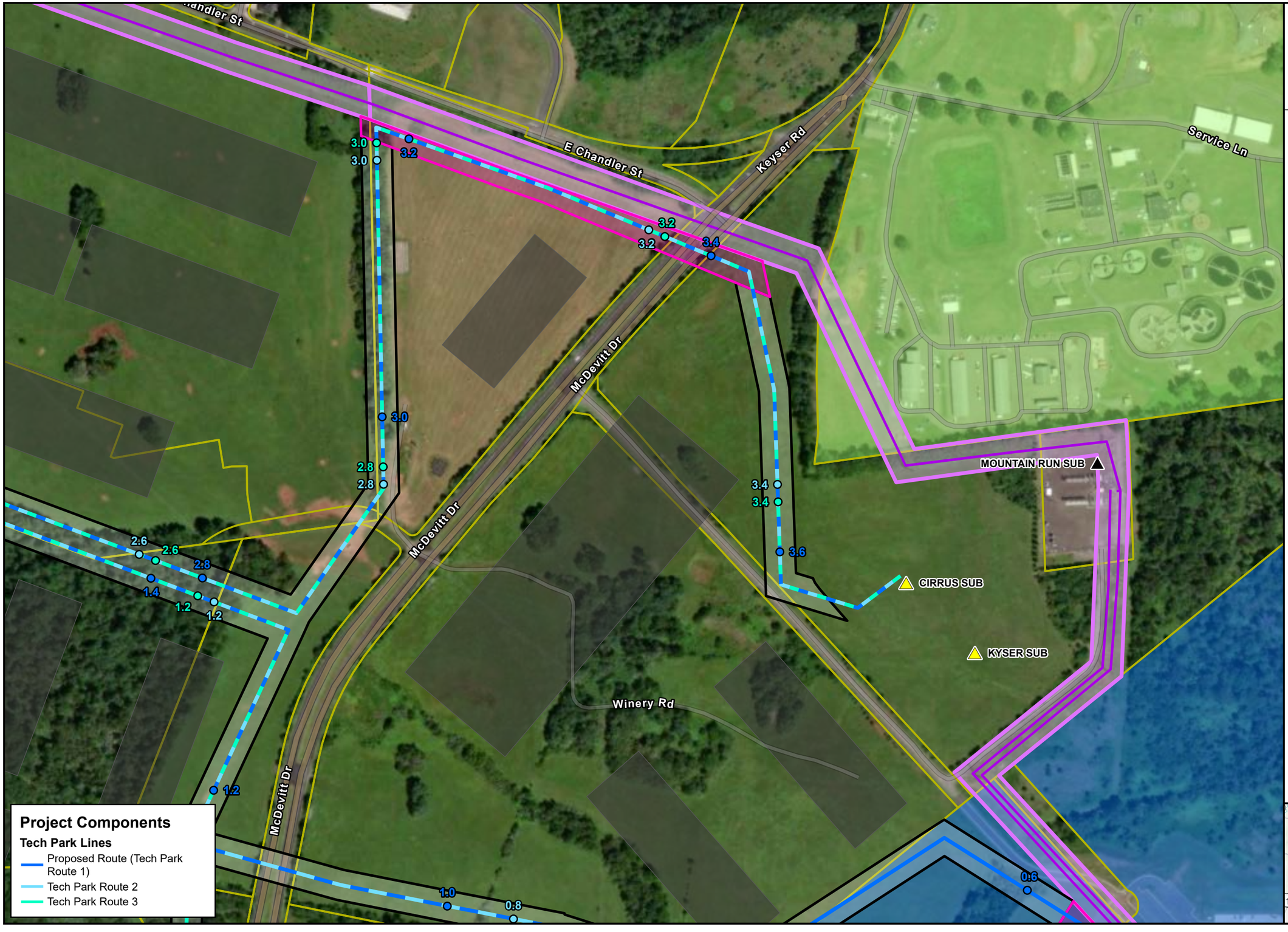
0 150 300
Feet

1:3,600

ERM

N
W E
S






Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper County



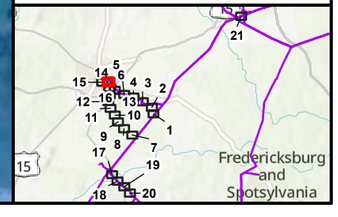
- Existing Substation
- Approved Future Substation
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (100 Feet Wide)
- New Company Easement (60 Feet Expansion)
- Proposed Data Center Building
- Parcel Boundary
- State Lands
- Local Lands

0 150 300
Feet

1:3,600

ERM

N
W E
S




Dominion Energy®

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Culpeper and Orange Counties



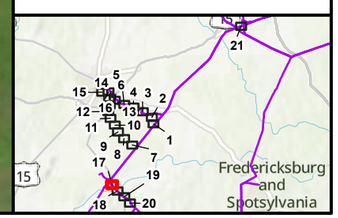
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (Variable Width Expansion)
- Existing Company Easement Crossed (75 Feet Wide)
- County Boundary
- Parcel Boundary
- VA Outdoors Foundation Easement

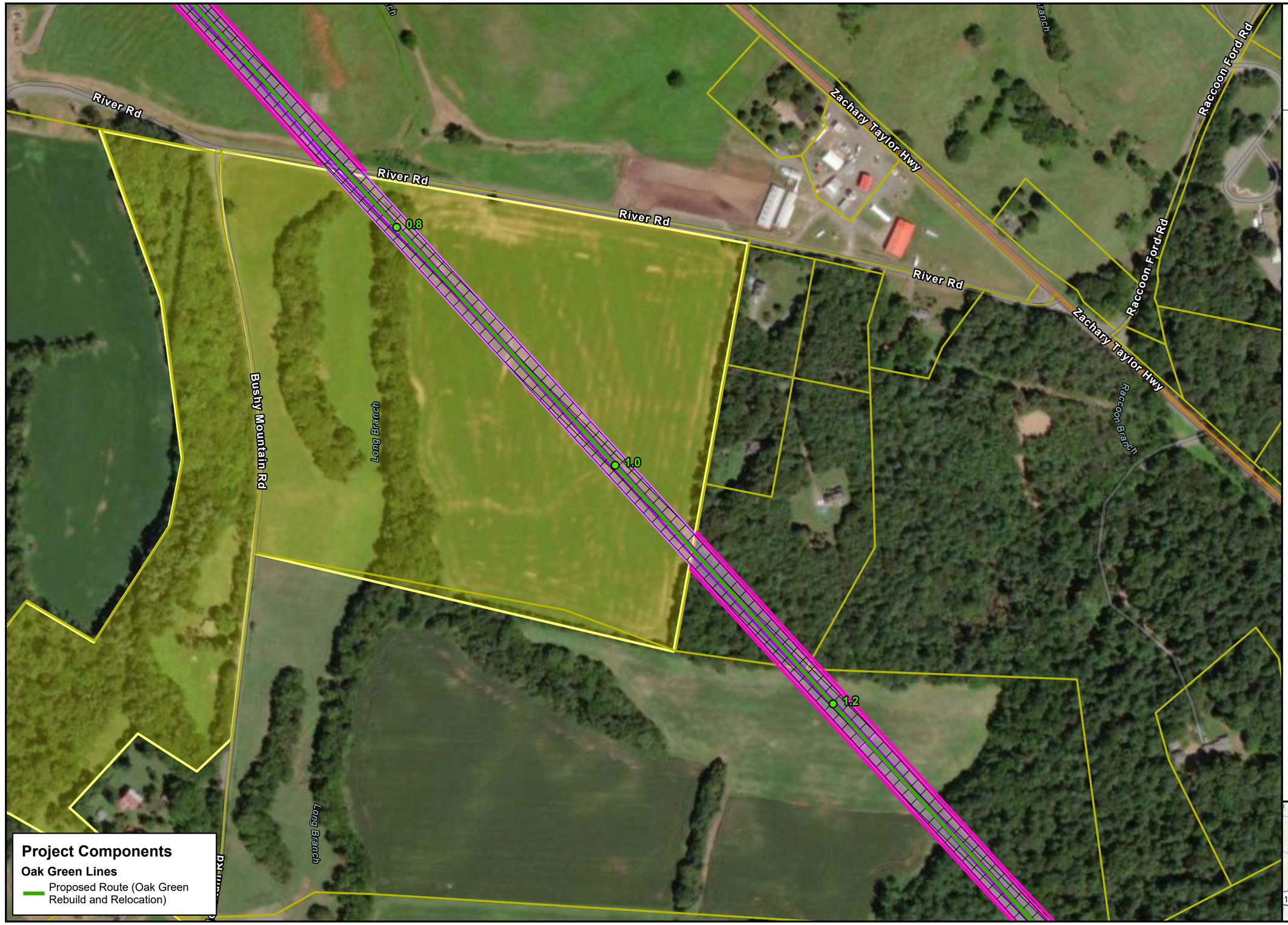
0 150 300
Feet

1:3,600

ERM

N
W E
S

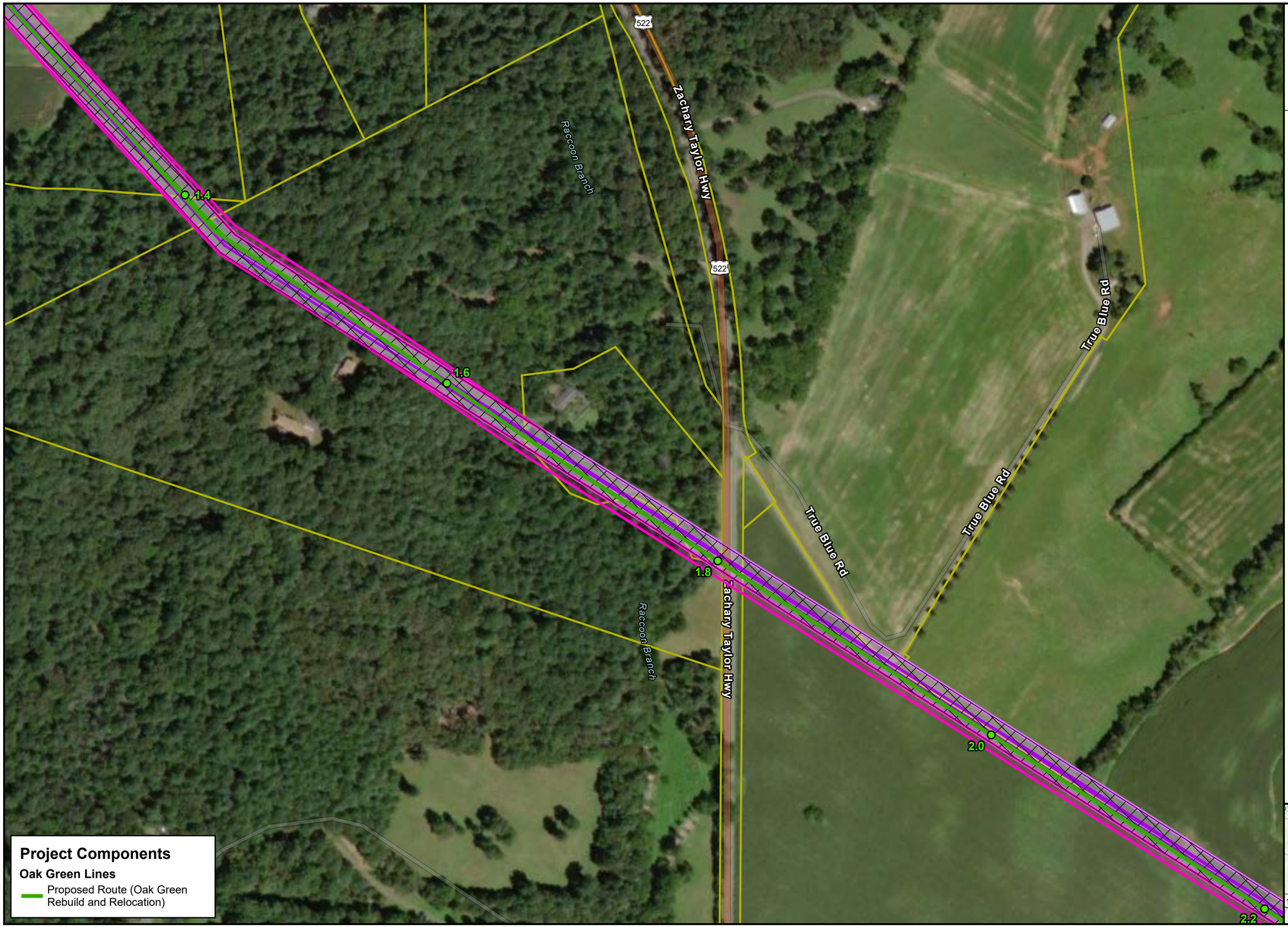





Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Orange County




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Orange County



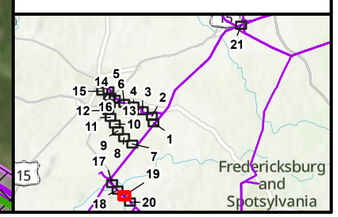
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (Variable Width Expansion)
- Existing Company Easement Crossed (75 Feet Wide)
- Parcel Boundary

0 150 300
Feet

1:3,600

ERM

N
W E
S




Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Orange County



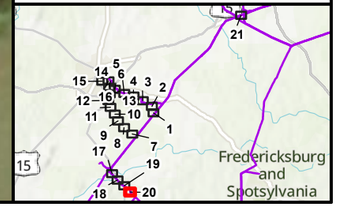
- Existing Substation
- Proposed Substation
- Proposed Substation Footprint
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- New Company Easement (Variable Width)
- New Company Easement (Variable Width Expansion)
- Existing Company Easement Crossed (75 Feet Wide)
- Parcel Boundary

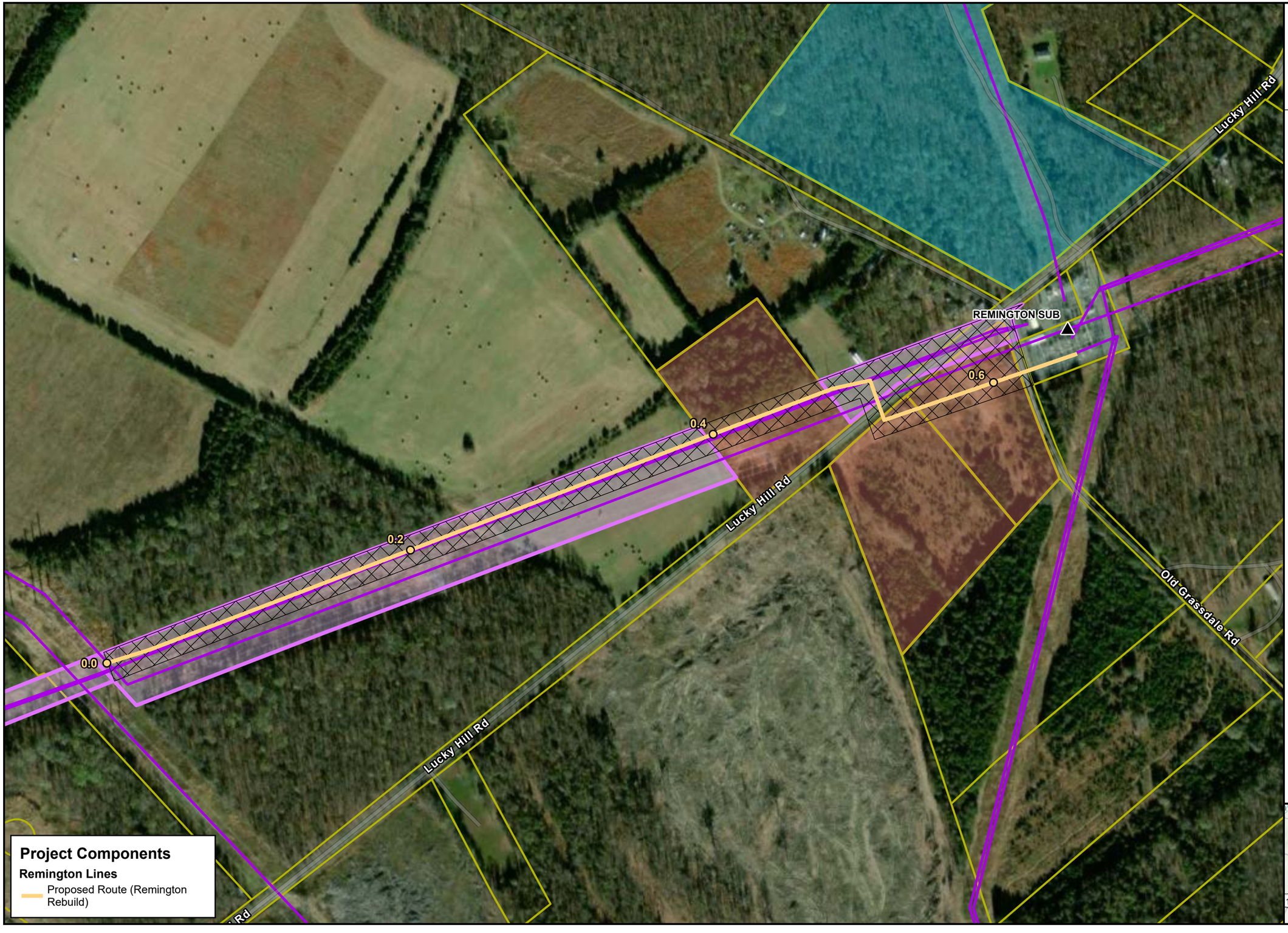
0 150 300
Feet

1:3,600

ERM

N
W E
S






Dominion Energy

# Attachment II.A.6
## Right-of-Way Subject to New and Existing Easements

**Culpeper Technology Zone 230 kV Loop & Line #2 Conversion Project**
Fauquier County



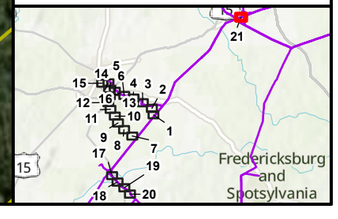
- Existing Substation
- Milepost
- Existing Dominion Transmission Line
- Existing Dominion Right of Way
- Existing Company Easement Crossed (Variable Width)
- Company Owned Parcel
- Parcel Boundary
- Fauquier County BOS Easement

0 150 300
Feet

1:3,600

ERM

N
W E
S



## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**7. Detail the proposed ROW clearing methods to be used and the ROW restoration and maintenance practices planned for the proposed project.**

Response: The rights-of-way for the Mt. Pony Proposed Route and the Tech Park Proposed Route will be 100 feet in width except in areas where the proposed right-of-way will be able to collocate adjacent to the existing Cirrus-Keyser corridor, where the new right-of-way will be 60 feet wide, creating a 160-foot-wide corridor in these collocated areas. Based on existing conditions, the Company anticipates tree clearing will be required along a portion of these Project routes.

Trimming of tree limbs along the edge of the right-of-way also may be conducted to support construction activities for the Project. For any such minimal clearing within the right-of-way where development has already occurred, trees will be cut to no more than three inches above ground level. Trees located outside of the right-of-way that are tall enough to potentially impact the transmission facilities, commonly referred to as "danger trees," may also need to be cut. Danger trees will be cut to be no more than three inches above ground level, limbed, and will remain where felled. Debris that is adjacent to homes will be disposed of by chipping or removal. In other areas, debris may be mulched or chipped as practicable. Danger tree removal will be accomplished by hand in wetland areas and within 100 feet of streams, if applicable. Care will be taken not to leave debris in streams or wetland areas. Matting will be used for heavy equipment in these areas. Erosion control devices will be used where applicable on an ongoing basis during all clearing and construction activities accompanied by weekly Virginia Stormwater Management Program inspections.

Erosion control will be maintained and temporary stabilization for all soil disturbing activities will be used until the right-of-way has been restored. Upon completion of the Project, the Company will restore the right-of-way utilizing site rehabilitation procedures outlined in the Company's *Standards & Specifications for Erosion & Sediment Control and Stormwater Management for Construction and Maintenance of Linear Electric Transmission Facilities* that was approved by the Virginia Department of Environmental Quality ("DEQ"). Time of year and weather conditions may affect when permanent stabilization takes place.

This right-of-way will continue to be maintained on a regular cycle to prevent interruptions to electric service and provide ready access to the right-of-way to patrol and make emergency repairs. Periodic maintenance to control woody growth will consist of hand cutting, machine mowing and/or herbicide application.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**8. Indicate the permitted uses of the proposed ROW by the easement landowner and the Applicant**.

Response: Any non-transmission use will be permitted that:

- Is in accordance with the terms of the easement agreement for the right-of-way;
- Is consistent with the safe maintenance and operation of the transmission lines;
- Will not restrict future line design flexibility; and
- Will not permanently interfere with future construction.

Subject to the terms of the easement, examples of typical permitted uses include but are not limited to:

- Agriculture
- Hiking Trails
- Fences
- Perpendicular Road Crossings
- Perpendicular Utility Crossings
- Residential Driveways
- Wildlife / Pollinator Habitat

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**9. Describe the Applicant's route selection procedures. Detail the feasible alternative routes considered. For each such route, provide the estimated cost and identify and describe the cost classification (e.g. "conceptual cost," "detailed cost," etc.). Describe the Applicant's efforts in considering these feasible alternatives. Detail why the proposed route was selected and other feasible alternatives were rejected. In the event that the proposed route crosses, or one of the feasible routes was rejected in part due to the need to cross, land managed by federal, state, or local agencies or conservation easements or open space easements qualifying under §§ 10.1-1009 – 1016 or §§ 10.1-1700 – 1705 of the Code (or a comparable prior or subsequent provision of the Code), describe the Applicant's efforts to secure the necessary ROW.**

Response: This Project involves both new transmission lines in new right-of-way (i.e., the Mt. Pony Lines and Tech Park Lines), a rebuild and expansion of existing right-of-way (i.e., Oak Green Rebuild and Relocation), and rebuild within existing right-of-way (i.e., Remington Rebuild). The route selection process for each is outlined below, followed by the identified route options.

The Company's route selection for new transmission lines typically begins with identification of the project "origin" and "termination" points provided by the Company's Transmission Planning Department. This is followed by the development of a study area for the project. The study area represents a circumscribed geographic area from which potential routes suitable for a transmission line can be identified.

For this Project, the Company retained the services of Environmental Resources Management ("ERM") to help collect information within the study area, identify potential routes, perform a routing analysis comparing the route alternatives, and document the routing efforts in an Environmental Routing Study. After review of the new build options, the Company identified a preferred electrical option for the Project, which is located in Culpeper County, the Town of Culpeper, Orange County, and Fauquier County, Virginia.

For the Mt. Pony Lines and Tech Park Lines, the study area encompasses an area containing the Project origin and termination points, and is bounded by the following features:

- Railroad operated by Norfolk Southern to the north and west;
- Greens Corner Road and the town of Stevensburg to the northeast;

- The Company's existing #2199 transmission line to the southeast; and
- Sumerduck Run/Racoon Ford Road to the southwest.

The Oak Green Rebuild and Relocation and Remington Rebuild will primarily utilize existing Company rights-of-way; therefore, no alternative routes were identified for these components. As a result, the study area for these components is a 0.25-mile buffer from the affected portions of the rights-of-way for existing Lines #1065/#11 and existing Lines #2/#535 that will be rebuilt.

The Company considered the facilities required to construct and operate the new infrastructure, the length of the new right-of-way that would be required for the Project, the amount of existing development in the area, the potential for environmental impacts and impacts on communities, and cost.

As discussed in more detail below and in the Environmental Routing Study, the Company identified two viable overhead routes for the proposed Mt. Pony Lines between the existing Line #1065/#2199 and the proposed Mt. Pony Substation and three viable overhead routes for the proposed Tech Park Lines between the proposed Mt. Pony Substation, connecting the proposed McDevitt, Chandler, and Palomino Substations, and terminating at the future Cirrus Switching Station (approved in Case No. PUR-2022-00198). The routes identified have been coordinated through direct communication with landowners, developers, all three County representatives, the Town of Culpeper, and within existing Company rights-of-way.

**MT. PONY PROPOSED AND ALTERNATIVE ROUTES**

The Mt. Pony Lines Key Feature Crossing Table below provides quantitative impacts of resources relevant to route selection between the Proposed Route and Alternative Route, followed by a description of the Proposed and Alternative Routes. The numbers in the Mt. Pony Lines Key Feature Crossing Table are inclusive of the Mt. Pony Lines and the Mt. Pony Substation. Sections 5 and 6 of the Environmental Routing Study provides additional details on Project resource impacts and route comparisons.

**Mt. Pony Lines Key Feature Crossing Table**

| Environmental Feature | Unit | Proposed Route (Route 1) | Mt. Pony Alternative Route 2 |
|---|---|---|---|
| Centerline Length | miles | 5.2 | 4.8 |
| Construction Footprint | acres | 49.7 | 62.3 |
| Collocation | miles (percent) | 4.5 (87%) | 0.3 (6%) |
| Parcels Crossed | number | 25 | 26 |
| Land Use/Land Cover | - | - | - |

| Environmental Feature | Unit | Proposed Route (Route 1) | Mt. Pony Alternative Route 2 |
|---|---|---|---|
| Forested | acres | 11.8 | 39.8 |
| Agricultural | acres | 37.2 | 21.1 |
| Developed | acres | 0.5 | 0.4 |
| Open Space | acres | 0.1 | 1.1 |
| Dwellings within 500 Feet of Centerline | number | 4 | 6 |
| Wetlands | acres<br>miles | 6.8<br>0.9 | 8.7<br>0.7 |
| Waterbodies | number | 12 | 10 |
| Ecological Cores | acres | 0.0 | 31.5 |

**Mt. Pony Proposed Route (Route 1)**

Mt. Pony Proposed Route (Route 1) would involve constructing a new overhead 230 kV double circuit transmission line primarily supported by double circuit monopole structures in a new 100-foot-wide right-of-way in areas where not collocated with existing transmission lines. The 3.7-mile portion of Mt. Pony Proposed Route that would be collocated with existing Lines #2276/2331 would require a new 60-foot new right-of-way adjacent to the existing 100-foot right-of-way, creating a 160-foot-wide right-of-way. The route begins at the Company's existing Structure 2331/110 and extends 5.2 miles northwest to the proposed Mt. Pony Substation. The estimated conceptual cost of the Proposed Route is approximately $59.1 million (2024 dollars).

Mt. Pony Proposed Route originates at a cut-in location on the Company's existing Lines #1065/#2331 at Structure #2331/110 / #1065/496. From the cut-in location, the route parallels Blackjack Road north for approximately 0.6 mile, then parallels Alvere Road to the west and north for approximately 0.6 mile where it joins the corridor for the Company's Lines #2276/2331. Mt. Pony Proposed Route then runs west, collocated with the Company's Lines #2276/2331 for approximately 3.1 miles. Mt. Pony Proposed Route then turns northwest, crosses Germanna Highway and runs another 0.6 mile (collocated with existing Lines #2437/2438) before reaching the south side of US 15/29 (James Madison Highway). At this point, Mt. Pony Proposed Route turns southwest, paralleling the south side of James Madison Highway for 0.3 mile before terminating at the proposed Mt. Pony Substation. In total, Mt. Pony Proposed Route measures approximately 5.2 miles long.

While the Mt. Pony Proposed Route is longer than Alternative Route 2, it utilizes a significant amount of collocation with existing overhead transmission lines, requires less overall right-of-way than Alternative Route 2, and reduces the amount of forested land crossings and forested fragmentation. Mt. Pony Route 1 would have slightly greater impacts on cultural resources than the alternative, with some moderate impacts on cultural resources compared to minor impacts associated with

Mt. Pony Route 2, and both alternatives have an overall moderate impact on visual resources. There are fewer dwellings within 500 feet of the Proposed Route centerline than Alternative Route 2, it collocates with an existing transmission line across Germanna Highway to prevent a new utility corridor crossing – as preferred by Virginia Department of Transportation ("VDOT") – and avoids creating a new utility corridor in the area, which is compliant with the Culpeper County Comprehensive Plan and preferred by Culpeper County Board of Supervisors and staff. For all these reasons, Mt. Pony Route 1 was selected as the Proposed Route.

**Mt. Pony Alternative Route 2**

Mt. Pony Alternative Route 2 would involve constructing a new overhead 230 kV double circuit transmission line primarily supported by double circuit monopole structures in a new 100-foot-wide right-of-way. The route begins at the Company's existing Lines #1065/#2331 Lines and extends 4.8 miles northwest to the proposed Mt. Pony Substation. The estimated conceptual cost of Mt. Pony Alternative Route 2 is approximately $58.5 million (2024 dollars).

Mt. Pony Alternative Route 2 originates at a cut-in location on the Company's existing Lines #1065/#2331 Lines at Structure #2331/132 / #1065/518. From the cut-in location, the route heads northwest through forested and open land for approximately 3.5 miles and crosses Woolens Lane. The route then turns northeast, parallels the east side of US 522 (Zachary Taylor Highway) for approximately 0.3 mile, crosses Germanna Highway, and continues north across forested and open lands for approximately 0.5 mile before terminating at the proposed Mt. Pony Substation. In total, Mt. Pony Alternative Route 2 measures approximately 4.8 miles long.

Mt. Pony Alternative Route 2 was not selected as the proposed route because it lacks opportunities for significant collocation and requires the creation of a new utility corridor in the area. The construction footprint of Alternative Route 2 is greater than the Proposed Route's footprint, and Alternative Route 2 would have greater environmental impacts due to the amount of forested land clearing, ecological core crossing, and wetlands impacts. While Mt. Pony Alternative Route 2 would have slightly fewer impacts on cultural resources, it would have a similar impact on visual resources as the Proposed Route, and it would have an overall greater impact on land uses and natural resources than the Proposed Route. For these reasons, Mt Pony Alternative Route 2 was not selected as the Proposed Route.

**TECH PARK PROPOSED AND ALTERNATIVE ROUTES**

The Tech Park Lines Key Feature Crossing Table provides quantitative impacts of resources relevant to route selection between the Proposed Route and Alternative Routes, followed by a description of the Proposed and Alternative Routes. The numbers in the Tech Park Lines Key Feature Crossing Table are inclusive of the Tech Park Lines, McDevitt Substation, Chandler Substation, and Palomino

Substation. Sections 5 and 6 of the Environmental Routing Study provides additional details on Project resource impacts and route comparisons.

**Tech Park Lines Key Feature Crossing Table**

| Environmental Feature | Unit | Proposed Route (Route 1) | Tech Park Alternative Route 2 | Tech Park Alternative Route 3 |
|---|---|---|---|---|
| Centerline Length | miles | 3.7 | 3.5 | 3.5 |
| Construction Footprint | acres | 49.9 | 48.7 | 48.6 |
| Collocation | miles (percent) | 0.7 (19%) | 0.4 (11%) | 0.6 (17%) |
| Parcels Crossed | number | 23 | 19 | 18 |
| Public Parcels Crossed | number | 4 | 1 | 0 |
| Land Use/Land Cover | - | - | - | - |
| Forested | acres | 24.1 | 24.6 | 24.4 |
| Agricultural | acres | 24.2 | 18.3 | 15.9 |
| Developed | acres | 0.7 | 1.8 | 1.7 |
| Open Space | acres | 0.9 | 4.0 | 6.6 |
| Wetlands | acres<br>miles | 1.4<br>0.2 | 1.1<br>0.1 | 1.2<br>0.1 |
| Waterbodies | number | 4 | 4 | 4 |

**Tech Park Proposed Route (Route 1)**

Tech Park Proposed Route (Route 1) would involve constructing a new overhead 230 kV double circuit transmission line primarily supported by double circuit monopole structures in a new 100-foot right-of-way in areas where not collocated with existing transmission line corridors. Along two 0.2-mile segments where this route is collocated with the existing Lines #2/#70 (future Lines #2276/#2331) right-of-way, a 60-foot new right-of-way adjacent to the existing 100-foot right-of-way would be required, creating a 160-foot-wide right-of-way. At approximately 3.7 miles long, the route begins at the proposed Mt. Pony Substation and extends northwest to the proposed McDevitt, Chandler, and Palomino Substations and then southeast to terminate at the approved future Cirrus Switching Station. The estimated conceptual cost of the Tech Park Proposed Route is approximately $63.4 million (2024 dollars).

The Tech Park Proposed Route originates at the proposed Mt. Pony Substation. From the proposed Mt. Pony Substation, Tech Park Proposed Route heads northeast for approximately 0.3 mile on the south side of US 15/29 (James Madison Highway), then turns northwest for approximately 0.2 mile. This segment crosses US 15/29 and would be collocated with the Company's existing Lines #2/#70. The route then runs southwest and west along the southern and western edges of a non-customer planned data center campus for 0.6 mile (including a crossing of McDevitt Drive), then crosses Customer B and Customer C data center campuses as part of a

2.0-mile loop that connects the proposed McDevitt, Chandler, and Palomino Substations. Tech Park Proposed Route then follows the existing 115 kV Line #70 corridor to the southeast and south for approximately 0.5 mile and terminates at the future Cirrus Switching Station. In total, the Tech Park Proposed Route measures approximately 3.7 miles long.

While the Tech Park Proposed Route is slightly longer and has a larger construction footprint than the Alternative Routes (although if selected with Mt. Pony Proposed Route it would be slightly shorter and require less new right-of-way, see footnote 4), the Proposed Route maximizes collocation with existing infrastructure and is the only Tech Park route that avoids creating a new crossing of US 15/29, it crosses the highest percent of planned data center lands, and is the preferred location of VDOT, Culpeper County, and the Town of Culpeper. The Tech Park Proposed Route and Alternative Routes would all have a similar impact on cultural and visual resources. The Tech Park Proposed Route also has support of the landowners crossed within the Culpeper Tech Zone, including the Customers and non-customer data center developers. While the Tech Park Proposed Route does cross public lands owned by Virginia Community College System ("VCCS") and Germanna Real Estate Foundation, both entities are have indicated they will work with the Company to obtain the necessary land rights for the Tech Park Proposed Route. Letters of support for the Tech Park Proposed Route are included in Attachment III.B.1. For all these reasons, Tech Park Route 1 was selected as the Proposed Route.

**Tech Park Alternative (Route 2)**

Tech Park Alternative Route 2 would involve constructing a new overhead 230 kV double circuit transmission line primarily supported by double circuit monopole structures in a new 100-foot-wide right-of-way. Along one 0.2-mile segment where this route is collocated with the existing Line #70 right-of-way, a 60-foot new right-of-way adjacent to the existing 100-foot right-of-way would be required, creating a 160-foot-wide right-of-way. At approximately 3.5 miles long, the route begins at the proposed Mt. Pony Substation and extends northwest to the proposed McDevitt, Chandler, and Palomino Substations and then southeast to terminate at the future Cirrus Switching Station. The estimated conceptual cost of Tech Park Alternative Route 2 is approximately $59.9 million (2024 dollars).

Tech Park Alternative Route 2 originates at the proposed Mt. Pony Substation. From the proposed Mt. Pony Substation, Tech Park Alternative Route 2 heads southwest for approximately 0.2 mile along the south side of US 15/29. The route then turns northwest, crosses US 15/29, and continues northwest and north for approximately 0.6 mile, crossing Technology Drive. Tech Park Alternative Route 2 turns west and follows the southern and western edges of a non-customer planned data center for 0.4 mile (including a crossing of McDevitt Drive), then crosses the Customer B and Customer C data center campuses as part of a 2.0-mile loop that connects the proposed McDevitt, Chandler, and Palomino Substations. Tech Park Alternative Route 2 then follows the existing 115 kV Line #70 corridor to the southeast and south for approximately 0.5 mile and terminates at the future Cirrus

Switching Station (approved as part of a separate filing). In total, Tech Park Alternative Route 2 measures approximately 3.5 miles long.

Tech Park Alternative Route 2 was not selected as the Proposed Route because it has the least amount of collocation with existing corridors and it creates a new corridor crossing of US 15/29. The route crosses one parcel of public land owned by the Germanna Real Estate Foundation, but unlike the Proposed Route, it does not collocate with an existing corridor or follow the parcel boundary as it crosses the parcel so would have a greater impact. Tech Park Alternative Route 2 would also have the same impacts on cultural and visual resources as the Proposed Route. In contrast to the Proposed Route, the Tech Park Alternative Route 2 also crosses three landowners within the Culpeper Tech Zone that oppose the location of the route, and it does not have the support of the Culpeper County Board of Supervisor and staff. For these reasons, Tech Park Alternative Route 2 was not selected as the Proposed Route.

**Tech Park Alternative (Route 3)**

Tech Park Alternative Route 3 would involve constructing a new overhead 230 kV double circuit transmission line primarily supported by double circuit monopole structures in a new 100-foot-wide right-of-way. Along one 0.2-mile segment where this route is collocated with the existing Line #70 right-of-way, a 60-foot new right-of-way adjacent to the existing 100-foot right-of-way would be required, creating a 160-foot-wide right-of-way. At approximately 3.5 miles long, the route begins at the proposed Mt. Pony Substation and extends northwest to the proposed McDevitt, Chandler, and Palomino Substations and then southeast to terminate at the future Cirrus Switching Station. The estimated conceptual cost of Tech Park Alternative Route 3 is approximately $60.3 million (2024 dollars).

Tech Park Alternative Route 3 originates at the proposed Mt. Pony Substation. From the proposed Mt. Pony Substation, Tech Park Alternative Route 3 heads southwest for approximately 0.2 mile along the south side of US 15/29. The route turns northwest, crossing US 15/29, and continues northwest for approximately 0.8 mile generally parallel to Technology Drive and crossing McDevitt Drive. Tech Park Alternative Route 3 then crosses Customer B and Customer C data center campuses as part of a 2.0-mile loop that connects the proposed McDevitt, Chandler, and Palomino Substations. Tech Park Alternative Route 3 then follows the existing 115 kV Line #70 corridor to the southeast and south for approximately 0.5 mile and terminates at the future Cirrus Switching Station (approved as part of a separate filing).[20] In total, Tech Park Alternative Route 3 measures approximately 3.5 miles long.

Tech Park Alternative Route 3 was not selected as the Proposed Route because it has less collocation with existing corridors than the Proposed Route and it would create a new utility corridor crossing of US 15/29. Additionally, Alternative Route 3 does not cross public land but the three private landowners crossed are all opposed

[20] *See supra* n. 5.

to Alternative Route 3, including additional impacts to a private parcel that could potentially impact development on the parcel. Tech Park Alternative Route 3 would also have the same impacts on cultural and visual resources as the Proposed Route. In contrast to the Proposed Route, Alternative Route 3 does not have the support of Culpeper County Board of Supervisors and staff, the Town of Culpeper, or all landowners within the Culpeper Tech Zone. For these reasons, Tech Park Alternative Route 3 was not selected as the Proposed Route.

**OAK GREEN REBUILD AND RELOCATION**

The Oak Green Rebuild and Relocation would involve rebuilding and uprating an approximately 2.5-mile segment of the existing 115 kV Lines #1065/#11 to 230 kV in a new variable-width right-of-way from a cut-in location on the Company's Line #2199 to the existing Oak Green Switching Station, 0.2 mile of 230 kV lines in new variable-width right-of-way from the existing Oak Green Switching Station to the relocated proposed Oak Green Switching Station, and 0.2 mile of new 115 kV line to connect the relocated Oak Green Switching Station to the existing Line #153 . The existing right-of-way is 75 feet but will be expanded to 100 feet for the majority of the length. The estimated conceptual cost of the Oak Green Rebuild and Expansion is approximately $68.5 million (2024 dollars).

Oak Green Rebuild and Relocation begins at a cut-in location on the Company's existing Lines #1065/#2199 at Structure #2199/164 / #1065/550 / #11/550 in Culpeper County. From the cut-in, the Oak Green Rebuild would follow the Company's existing Lines #1065/#11 southeast for approximately 2.5 miles to the existing Oak Green Switching Station. This segment crosses the Rapidan River, enters Orange County, and crosses US 522. The Oak Green Rebuild passes through the existing Oak Green Switching Station (which would be partially removed, although the transmission structures within the existing substation site would be retained) and continues approximately 0.2 mile south to the relocated proposed Oak Green Switching Station site. In total, the Oak Green Rebuild and Relocation, inclusive of Oak Green – Pine Glade Line #153, measures approximately 2.9 miles long. The Oak Green Rebuild and Relocation also includes an approximately 0.2-mile segment of new 100-foot right-of-way south of the relocated proposed Oak Green Switching Station to interconnect the existing 115 kV Line #153 to the proposed relocated Oak Green Switching Station.

The Oak Green Rebuild and Relocation would be primarily within a 100-foot-wide right-of-way, which is comprised of the existing 75-foot right-of-way for existing Lines #1065/#11, plus a 25-foot expansion. The exceptions to this right-of-way expansion include a 0.2-mile segment west of the Rapidan River in Culpeper County and 0.3-mile segment south of River Road in Orange County that cross existing conservation easements and will be maintained within the existing 75-foot-wide rights-of-way. In addition, an approximately 0.2-mile-long segment south of the existing Oak Green Switching Station of new variable width right-of-way will be used to connect the existing Oak Green Switching Station to the relocated proposed Oak Green Switching Station.

The Oak Green Rebuild and Relocation crosses 14 total parcels. The existing right-of-way within the Oak Green Rebuild crosses 13 parcels, and 1 parcel that does not have existing right-of-way will have the 0.2-mile variable width right-of-way connection from the existing to relocated Oak Green Switching Station, and the relocated Oak Green Switching Station. The Oak Green Rebuild and Relocation will affect 37.4 acres of land, which includes approximately 4.7 acres of proposed relocated Oak Green Switching Station footprint and 1.0-acre Line #153 Tap footprint. No cemeteries, schools, or places of worship were identified within 500 feet of the Oak Green Rebuild and Relocation. Land along the right-of-way consists of 4.5 acres of forested land, 24.1 acres of agricultural land, 1.2 acres of developed land, 7.0 acre of open space, and 0.5 acre of open water. Of the 4.5 acres of forested land, 0.5 acre is classified as having a Forest Conservation value of Very High, 2.1 acres of land are classified as High, and approximately 7.7 acres of land are classified as either Moderate or Average. Additionally, no Virginia Department of Conservation and Recreation ("DCR") Ecological Cores are crossed by the Oak Green Rebuild and Relocation. Approximately 15.0 acres of soil are classified as prime farmland within the right-of-way.

Based on ERM's desktop wetland and waterbody analysis, 1.1 acres of wetlands, including less than 0.1 acre of forested wetlands, and six waterbodies are within the Oak Green Rebuild and Relocation right-of-way.

The existing zoning along the Oak Green Rebuild and Relocation right-of-way is entirely zoned as agricultural in Culpeper and Orange Counties. No residential dwellings were identified within the right-of-way, but three dwellings were identified within 250 feet of the centerline, and seven dwellings were identified within 500 feet of the centerline of the Oak Green Rebuild and Relocation. All seven dwellings within 500 feet of the Oak Green Rebuild were located within 500 feet of the existing right-of-way. No commercial buildings are within the Oak Green Rebuild and Relocation right-of-way. The rebuild within existing right-of-way crosses two VOF easements; however, the expanded right-of-way of the Oak Green Rebuild and Relocation does not cross any other conservation easements. Because of the use of existing right-of-way, no alternative routes were considered for the Oak Green Rebuild and Relocation.

**REMINGTON REBUILD**

The 0.7-mile segment of existing Line #2 would be rebuilt within the existing right-of-way from the existing Structure #2/147 into the Remington Substation. The rebuild will not require any new right-of-way acquisition. No alternatives are being considered for this rebuild due to use of existing right-of-way. The estimated conceptual cost of the Remington Rebuild is approximately $12.1 million (2024 dollars).

The existing right-of-way within the Remington Rebuild crosses five parcels. The Remington Rebuild and Relocation will affect 9.1 acres of land. No cemeteries, schools, or places of worship were identified within 500 feet of the Oak Green

Rebuild and Relocation. Land along the right-of-way consists entirely of maintained rights-of-way, including agricultural and open land. No Virginia DCR Ecological Cores are crossed by the Remington. Less than 0.1 acre of soil is classified as prime farmland within the right-of-way.

Based on ERM's desktop wetland and waterbody analysis, 3.1 acres of wetlands, none of which are forested wetlands, and two waterbodies are within the Remington Rebuild right-of-way.

The existing zoning along the Remington Rebuild right-of-way includes 4.8 acres zoned as Business Park and 4.4 acres zoned as Residential. No residential dwellings were identified within the right-of-way, but one dwelling was identified within 250 feet of the centerline, and two dwellings were identified within 500 feet of the centerline of the Remington Rebuild, all of which are located these distances from existing transmission lines. No commercial buildings are within the Remington Rebuild right-of-way. The rebuild does not cross any conservation easements. Because of the use of existing right-of-way, no alternative routes were considered for the Remington Rebuild.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**10. Describe the Applicant's construction plans for the project, including how the Applicant will minimize service disruption to the affected load area. Include requested and approved line outage schedules for affected lines as appropriate.**

Response: The Company plans to construct the Project in a manner that minimizes outage times. Assuming a final order by January 31, 2026, the Company anticipates that all Project construction will be complete, and the Project will be energized by May 2028.

The Company intends to complete this work during requested outage windows, as described below. However, as with all outage scheduling, these outages may change depending on whether PJM approves the outages and other relevant considerations allow for it. It is customary for PJM to hold requests for outages and approve only shortly before the outages are expected to occur and, therefore, the requested outages are subject to change. Therefore, the Company will not have clarity on whether this work will be done as requested until very close in time to the requested outages. If PJM approves different outage dates, the Company will continue to diligently pursue timely completion of this work. –

Line #2 (Potato Run – Remington) Partial Wreck and Rebuild

An outage on Line #2 will be required to wreck and rebuild this portion of the line. It is expected that the outage on Line #2 will have a maximum duration of two months. Any required outages to Line #2 would be anticipated to occur in 2027-2028.

Line #1065 (Oak Green – Potato Run) / Line #11 (Gordonsville – Oak Green) Partial Wreck and Rebuild

An outage on Line #1065 and Line #11 will be required to wreck and rebuild this portion of the Line. It is expected that the outages will have a maximum duration of six months. Any required outages will be anticipated to occur in 2027-2028.

New 230 kV Lines #2437 (McDevitt – Potato Run) and #2438 (Mt Pony – Oak Green)

The line construction for Lines #2437 and #2438 will occur under the line outage for the Line #1065. An outage on Line #1065 will be required to cut in the new 230 kV lines. It is expected that the outage will have a maximum duration of 45 days. Any required outages are expected to occur in 2028.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**11. Indicate how the construction of this transmission line follows the provisions discussed in Attachment 1 of these Guidelines.**

Response: Attachment 1 to these Guidelines provide a tool routinely used by the Company in routing its transmission line projects.

The Company utilized Guideline #1 by minimizing conflict between existing rights-of-way and present and prospective uses of the land on which the proposed Project is to be located (to the extent permitted by the property interest involved, rights-of-way should be selected with the purpose of minimizing conflict between the rights-of-way and present and prospective uses of the land on which they are to be located. To this end, existing rights of way should be given priority as the locations for additions to existing transmission facilities, and the joint use of existing rights-of-way by different kinds of utility services should be considered.). The Mt. Pony, Tech Park, Oak Green Rebuild, and Remington Rebuild Proposed Routes collocate with existing transmission lines to the extent practicable. The Proposed Routes also comply with the intent of the land use comprehensive plans of the jurisdictions crossed and will not conflict with planned land uses (see Sections 5.1.3 and 5.1.6 of the Environmental Routing Study).

The Mt. Pony Proposed Route and the Tech Park Proposed Route will avoid or minimize impacts to the maximum extent practicable on national historic places listed in the National Register of Historic Places ("NRHP"). Where the Mt. Pony and Tech Park Proposed Routes cross NRHP-listed properties they are collocated with existing transmission lines to minimize impacts. Thus, it is consistent with Guideline #2 (where practical, rights of-way should avoid sites listed on the NRHP). A Stage I Pre-Application Analysis prepared by ERM on behalf of the Company, is included with the Environmental Routing Study as Appendix H, which was submitted to the Virginia Department of Historic Resources ("VDHR") on February 19, 2025.

The Company utilized Guideline #3 (rights-of-ways should avoid prime or scenic timbered areas, steep slopes and proximity to main highways where practical) by siting the Proposed Routes along existing transmission line corridors and away from main highways, with the exception of a crossings of State Route 3 (Germanna Highway) and US 15/29 (James Madison Highway), and along US 15/29 for 0.3 mile. Crossings of these highways was unavoidable; however, both crossings are collocated within existing transmission lines to reduce visual impacts.

The Company communicated with local, state, and federal agencies and relevant private organizations prior to filing this Application consistent with Guideline #4 (where government land is involved the applicant should contact the agencies early in the planning process). In particular, the Company consulted with Culpeper

County, Town of Culpeper, and Orange County (localities where new or expanded rights-of-way will be required). See Sections III.B, III.J, and V.D of this Appendix.

The Company follows recommended construction methods in the Guidelines on a site-specific basis for typical construction projects (Guidelines #8, #10, #11, #15, #16, #18, and #22).

The Company also utilizes recommended guidelines in clearing right-of-way, constructing facilities, and maintaining rights-of-way after construction. Moreover, secondary uses of right-of-way that are consistent with the safe maintenance and operation of facilities are permitted.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way ("ROW")

**12. a. Detail counties and localities through which the line will pass. If any portion of the line will be located outside of the Applicant's certificated service area: (1) identify each electric utility affected; (2) state whether any affected electric utility objects to such construction; and (3) identify the length of line(s) proposed to be located in the service area of an electric utility other than the Applicant; and**

**b. Provide three (3) color copies of the Virginia Department of Transportation "General Highway Map" for each county and city through which the line will pass. On the maps show the proposed line and all previously approved and certificated facilities of the Applicant. Also, where the line will be located outside of the Applicant's certificated service area, show the boundaries between the Applicant and each affected electric utility. On each map where the proposed line would be outside of the Applicant's certificated service area, the map must include a signature of an appropriate representative of the affected electric utility indicating that the affected utility is not opposed to the proposed construction within its service area.**

Response:

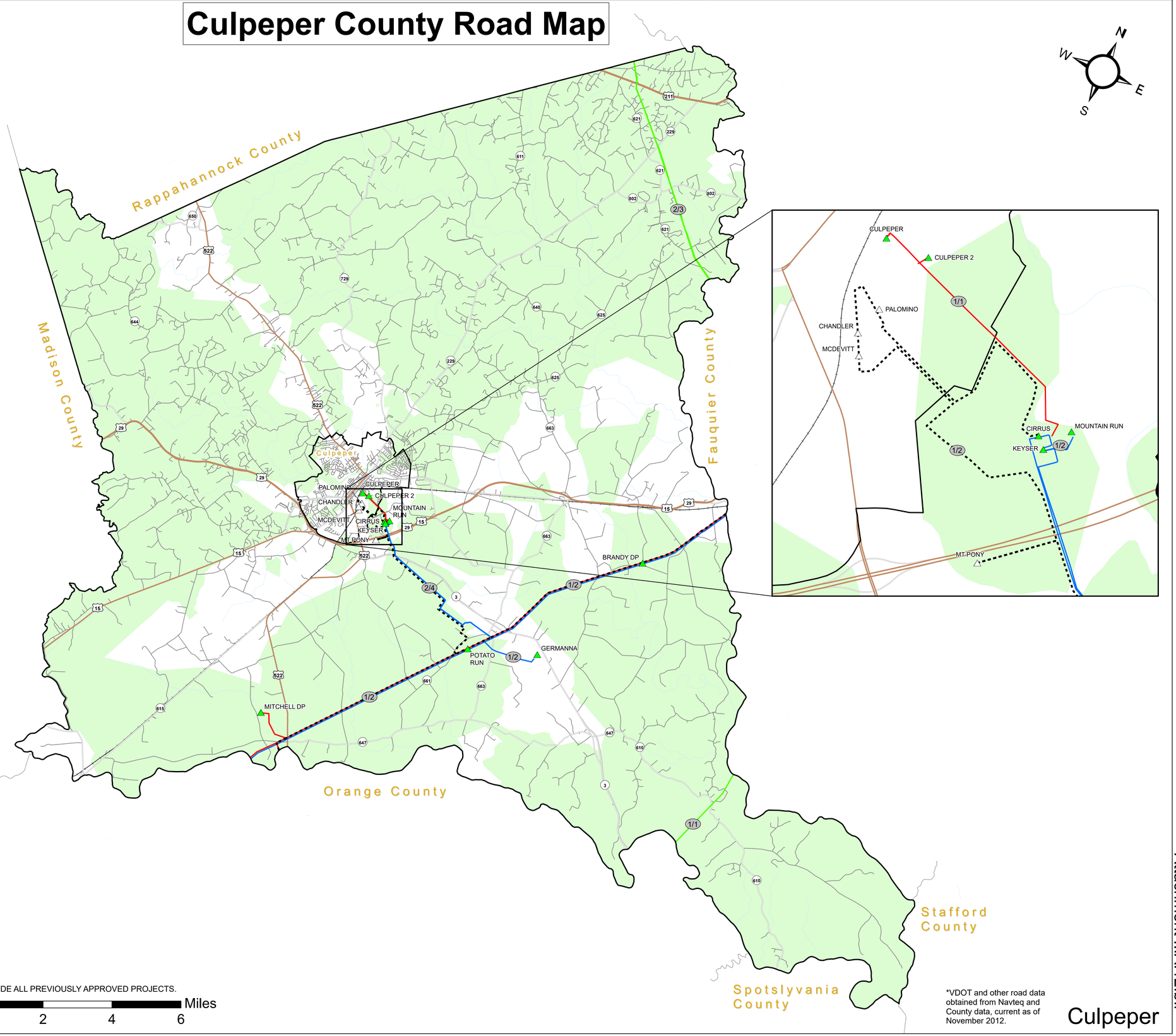
a. The proposed Project is located within Culpeper County (7.6 miles), the Town of Culpeper (1.5 miles), Orange County (2.6 miles), and Fauquier County (0.7 mile) for a total of approximately 12.4 miles and is located within Dominion Energy Virginia's and Rappahannock Electric Cooperative ("REC") service territory. The length of transmission line within the Company's and RECs service territories is listed in the table below.

| Project Component (miles) | Dominion Energy Virginia | Rappahannock Electric Cooperative |
|---|---|---|
| Culpeper County | | |
| Mt. Pony Proposed Route | 0.1 | 5.1 |
| Tech Park Proposed Route | 0.0 | 2.2 |
| Oak Green Rebuild Proposed Route | 0.0 | 0.2 |
| Town of Culpeper | | |
| Tech Park Proposed Route | 1.1 | 0.4 |
| Orange County | | |
| Oak Green Rebuild Proposed Route | 0.0 | 2.7 |
| Fauquier County | | |
| Remington Rebuild Proposed Route | 0.7 | 0.0 |

b. An electronic copy of the VDOT "General Highway Map" for Culpeper County, Orange County, and Fauquier County has been marked as required and submitted with the Application. A reduced copy of the map is provided as Attachment II.A.12.b.i-iii.

# Culpeper County Road Map

This digital map depicts the Virginia Electric and Power Company ("Company") transmission facilities in this county as approved by the Virginia State Corporation Commission ("SCC"), and any proposed transmission facilities in this county, as of November 8, 2023. Other Company facilities previously authorized by the SCC may be depicted on prior SCC approved county maps.










127

VIRGINIA ELECTRIC AND POWER COMPANY PLANS TO BUILD OR UPRATE TRANSMISSION LINES AND SUBSTATIONS AS SHOWN IN BLACK DASHES ON THIS MAP.

RAPPAHANNOCK ELECTRIC COOPERATIVE IS NOT OPPOSED TO THE ROUTING OF THE PROPOSED PROJECT IN ITS SERVICE TERRITORY WITHOUT COST OR EXPENSE TO RAPPAHANNOCK ELECTRIC COOPERATIVE. THIS DOES NOT INCLUDE CONSENT FOR USE OF RAPPAHANNOCK ELECTRIC COOPERATIVE'S EXISTING RIGHTS-OF-WAY NOR DOES IT CONSTITUTE A WAIVER OF RAPPAHANNOCK ELECTRIC COOPERATIVE'S ABILITY TO ADVOCATE FOR ALTERNATIVE PROJECTS.

SIGNATURE: Christopher J. Stoia

DATE: 1/31/2025 TITLE: VP ENGINEERING & POWER SUPPLY

## Legend

- Proposed 230 kV Transmission Lines
- 1/1 Number of Lines of Structures/Number of Circuits
- △ Proposed Substation/Switching Station
- ▲ Existing Substation/Switching Station
- 115 kV *
- 230 kV *
- 500 kV *

**Provider Service Territory**

- Rappahannock Electric Cooperative
- VEPCO

* EXISTING LINES INCLUDE ALL PREVIOUSLY APPROVED PROJECTS.

2 1 0 2 4 6 Miles

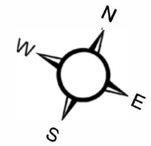
*VDOT and other road data obtained from Navteq and County data, current as of November 2012.

Culpeper

Attachment II.A.12.b.i

# Orange County Road Map

This digital map depicts the Virginia Electric and Power Company ("Company") transmission facilities in this county as approved by the Virginia State Corporation Commission ("SCC"), and any proposed transmission facilities in this county, as of_____. Other Company facilities previously authorized by the SCC may be depicted on prior SCC approved county maps.




Greene County

Madison County

Culpeper County

Albemarle County

Louisa County

Spotsylvania County

Orange

ORANGE

RELOCATED OAK GREEN

OAK GREEN

UNIONVILLE DP

DOUBLE DAY DP

SOMERSET

LOCUST GROVE DP

WILDERNESS DP

LAKE OF THE WOODS DP

LAKE OF THE WOODS

PAYTES

1/2

1/1

2/2

VIRGINIA ELECTRIC AND POWER COMPANY PLANS TO BUILD OR UPRATE TRANSMISSION LINES AND SUBSTATIONS AS SHOWN IN BLACK DASHES ON THIS MAP.

RAPPAHANNOCK ELECTRIC COOPERATIVE IS NOT OPPOSED TO THE ROUTING OF THE PROPOSED PROJECT IN ITS SERVICE TERRITORY WITHOUT COST OR EXPENSE TO RAPPAHANNOCK ELECTRIC COOPERATIVE. THIS DOES NOT INCLUDE CONSENT FOR USE OF RAPPAHANNOCK ELECTRIC COOPERATIVE'S EXISTING RIGHTS-OF-WAY NOR DOES IT CONSTITUTE A WAIVER OF RAPPAHANNOCK ELECTRIC COOPERATIVE'S ABILITY TO ADVOCATE FOR ALTERNATIVE PROJECTS.

SIGNATURE: Christopher J. Stoia

DATE: 1/31/2025 TITLE: VP - ENGINEERING & POWER SUPPLY

## Legend

- Proposed 230 kV Transmission Line Rebuild
- 1/1 Number of Lines of Structures/Number of Circuits
- △ Proposed Substation/Switching Station
- ▲ Existing Substation/Switching Station
- 115 kV
- 230 kV
- 500 kV

**Provider Service Territory**

- CVEC
- Rappahannock Electric Cooperative
- VEPCO

2 1 0 2 4 6 Miles

*VDOT and other road data obtained from Navteq and County data, current as of October 2012.

Orange

128

Attachment II.A.12.b.ii

# Fauquier County Road Map

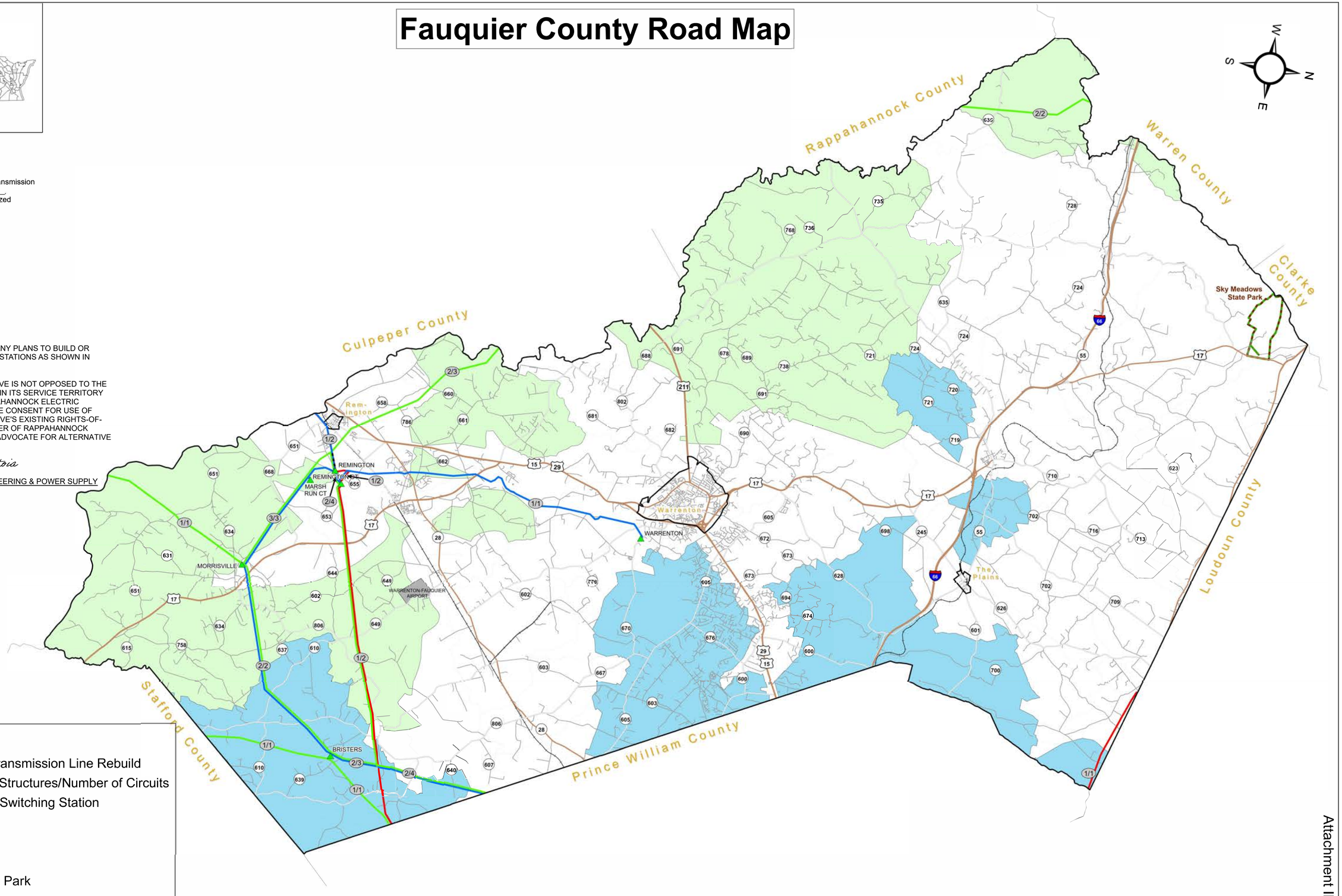
This digital map depicts the Virginia Electric and Power Company ("Company") transmission facilities in this county as approved by the Virginia State Corporation Commission ("SCC"), and any proposed transmission facilities in this county, as of _____. Other Company facilities previously authorized by the SCC may be depicted on prior SCC approved county maps.

VIRGINIA ELECTRIC AND POWER COMPANY PLANS TO BUILD OR UPRATE TRANSMISSION LINES AND SUBSTATIONS AS SHOWN IN BLACK DASHES ON THIS MAP.

RAPPAHANNOCK ELECTRIC COOPERATIVE IS NOT OPPOSED TO THE ROUTING OF THE PROPOSED PROJECT IN ITS SERVICE TERRITORY WITHOUT COST OR EXPENSE TO RAPPAHANNOCK ELECTRIC COOPERATIVE. THIS DOES NOT INCLUDE CONSENT FOR USE OF RAPPAHANNOCK ELECTRIC COOPERATIVE'S EXISTING RIGHTS-OF-WAY NOR DOES IT CONSTITUTE A WAIVER OF RAPPAHANNOCK ELECTRIC COOPERATIVE'S ABILITY TO ADVOCATE FOR ALTERNATIVE PROJECTS.

SIGNATURE: Christopher J. Stoia

DATE: 1/31/2025 TITLE: VP - ENGINEERING & POWER SUPPLY




## Legend

- Proposed 230 kV Transmission Line Rebuild
- Number of Lines of Structures/Number of Circuits
- Existing Substation/Switching Station
- 115 kV
- 230 kV
- 500 kV
- Sky Meadows State Park

Provider Service Territory

- NOVEC
- Rappahannock Electric Cooperative
- VEPCO

2 1 0 2 4 6 Miles

*VDOT and other road data obtained from Navteq and County data, current as of September 2011.

Fauquier

## II. DESCRIPTION OF THE PROPOSED PROJECT

### B. Line Design and Operational Features

**1. Detail the number of circuits and their design voltage, initial operational voltage, any anticipated voltage upgrade, and transfer capabilities.**

Response: **Mt Pony Lines**

The proposed line segments cutting into existing Line #1065 at existing structure #2331/110 (Lines #2437 and #22438) will be designed and operated at 230 kV with no anticipated voltage upgrade and have a transfer capability of 1,573 MVA.

**Tech Park Lines**

The proposed lines from Mt Pony Substation to McDevitt to Chandler to Palomino to Cirrus Switching Station (Lines #22437, #2429, #2430, #2431, #2432, #2433, #2434, and #2435) will be designed and operated at 230 kV with no anticipated voltage upgrade and have a transfer capability of 1,573 MVA.

**Oak Green Rebuild and Relocation**

The existing lines #1065 and #11 from existing Structure #2199/164 / #11/550 / #1065/550 to Oak Green Switching Station (Line #11 and #2438)[21] will be designed at 230 kV but only Line #2438 will be operated at 230 kV with no anticipated voltage upgrade and have a transfer capability of 1,573 MVA. The proposed Line #153 segment being re-terminated into the new Oak Green Switching Station will be designed at 230 kV to facilitate a future voltage upgrade for this segment to already have a transfer capability of 1,573 MVA.

**Remington Rebuild**

The existing line #2 from existing structure #2/147 to Remington Substation (Line #2439) will be designed and operated at 230 kV with no anticipated voltage upgrade and have a transfer capability of 1,573 MVA. The existing distribution line #655 will also be rebuilt and designed at 230 kV, for this segment to already have a transfer capability of 1,573 MVA.

[21] When Lines #211 and #228 split, they will become Line #2373 and Line #2374, respectively.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### B. Line Design and Operational Features

**2. Detail the number, size(s), type(s), coating and typical configurations of conductors. Provide the rationale for the type(s) of conductor(s) to be used.**

Response: The proposed double-circuit 230 kV lines will include two circuits of three-phase twin bundled 768.2 ACSS/TW/HS (20/7) conductors arranged as shown in Attachment II.B.3.a through Attachment II.B.3.x. Twin-bundled 768.2 ACSS/TW/HS (20/7) conductors are the Company's standard for new 230 kV construction.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### B. Line Design and Operational Features

**3. With regard to the proposed supporting structures over each portion of the ROW for the preferred route, provide diagrams (including foundation reveal) and descriptions of all the structure types, to include:**

**a. mapping that identifies each portion of the preferred route;**

**b. the rationale for the selection of the structure type;**

**c. the number of each type of structure and the length of each portion of the ROW;**

**d. the structure material and rationale for the selection of such material;**

**e. the foundation material;**

**f. the average width at cross arms;**

**g. the average width at the base;**

**h. the maximum, minimum and average structure heights;**

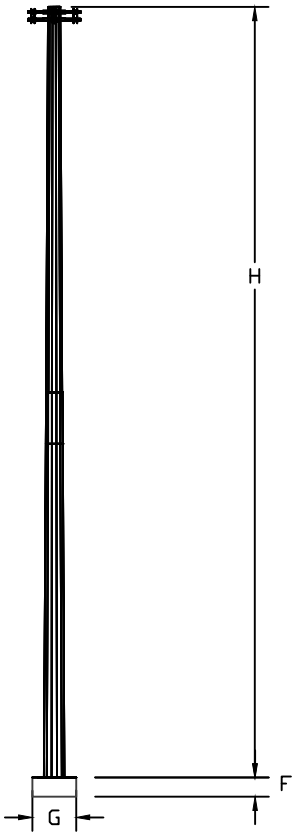
**i. the average span length; and**

**j. the minimum conductor-to-ground clearances under maximum operating conditions.**

Response: See Attachments II.B.3.a - x.

For subpart (a), see Attachment II.B.3 for approximate mapping of the proposed structures along the Proposed Routes, which is subject to change during final engineering.

MT. PONY LINES

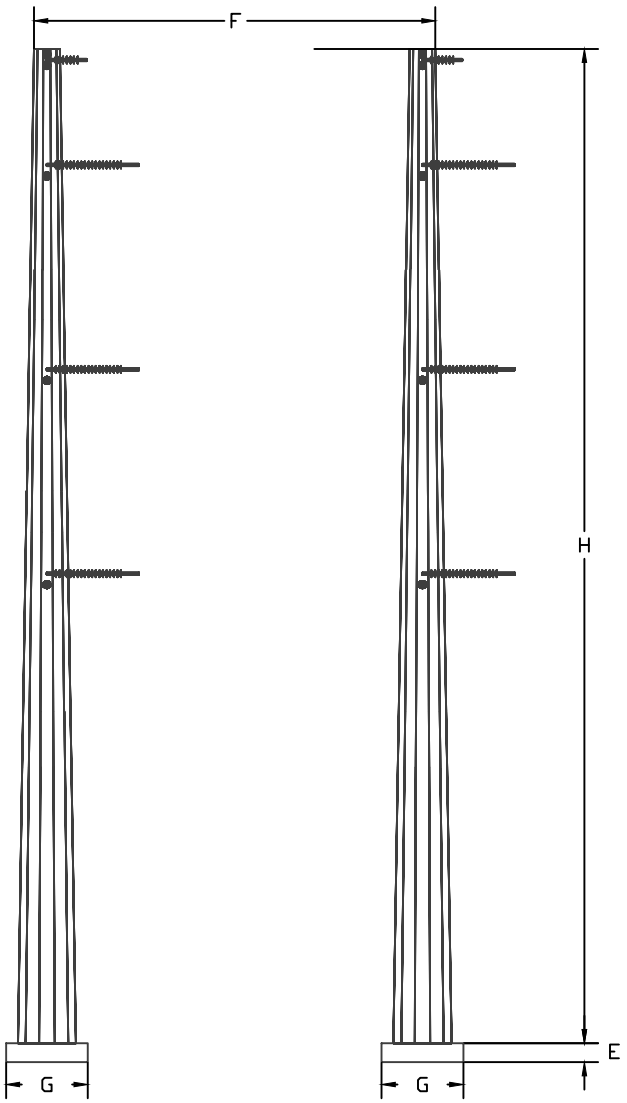



## ENGINEERED STATIC POLE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR ENGINEERED STATIC POLE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | N/A MILES (2 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| E. | RATIONALE FOR MATERIAL: | GALVANIZED STEEL IS UTILIZED FOR ALL ENGINEERED STATIC POLE STRUCTURES |
| F. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 76.5' |
| | MAXIMUM STRUCTURE HEIGHT: | 76.5' |
| | AVERAGE STRUCTURE HEIGHT: | 76.5' |

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.

MT. PONY LINES



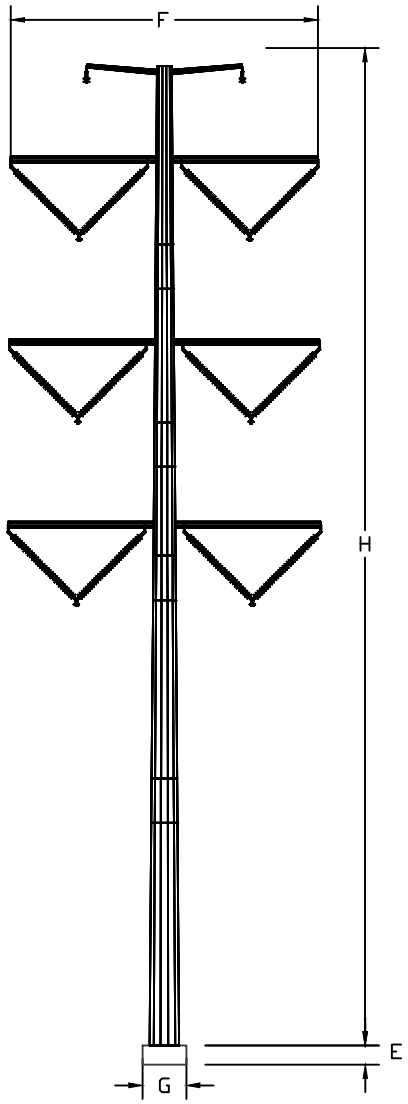

## 230 kV DC ENGINEERED 2-POLE DEADEND STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT 2-POLE DEADEND STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 5.2 MILES (7 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | WEATHERING STEEL (SEE NOTE 5) |
| | RATIONALE FOR MATERIAL: | WEATHERING STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA AND IS COMPANY'S STANDARD. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT TOP: | 36' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 102' |
| | MAXIMUM STRUCTURE HEIGHT: | 117' |
| | AVERAGE STRUCTURE HEIGHT: | 111' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 585' (360'-960') (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.
5. STRUCTURES INSIDE SUBSTATIONS AND IN THE CTZ MAY BE GALVANIZED WITH A DULLED FINISH.

MT. PONY LINES



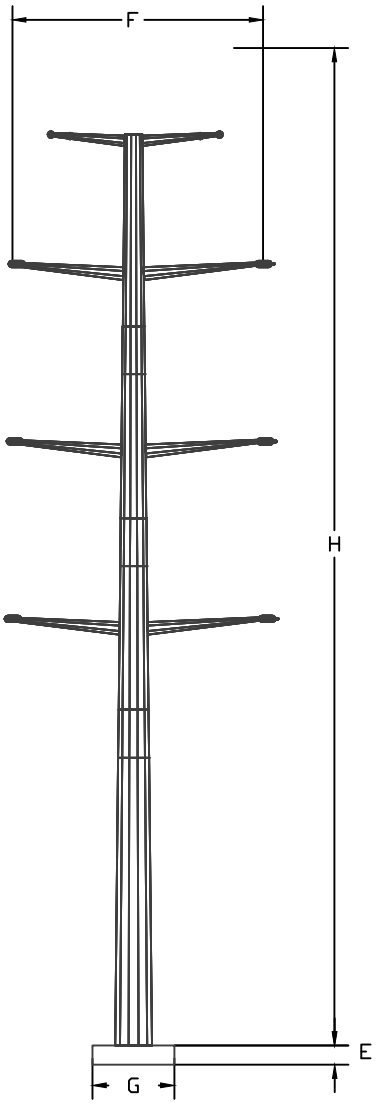

## 230 kV DC ENGINEERED MONOPOLE V-STRING SUSPENSION STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT MONOPOLE SUSPENSION STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 5.2 MILES (37 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | WEATHERING STEEL (SEE NOTE 5) |
| | RATIONALE FOR MATERIAL: | WEATHERING STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA AND IS COMPANY'S STANDARD. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 35' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 77' |
| | MAXIMUM STRUCTURE HEIGHT: | 127' |
| | AVERAGE STRUCTURE HEIGHT: | 116' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 530' (300'-755') (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.
5. STRUCTURES INSIDE SUBSTATIONS AND IN THE CTZ MAY BE GALVANIZED WITH A DULLED FINISH.

MT. PONY LINES



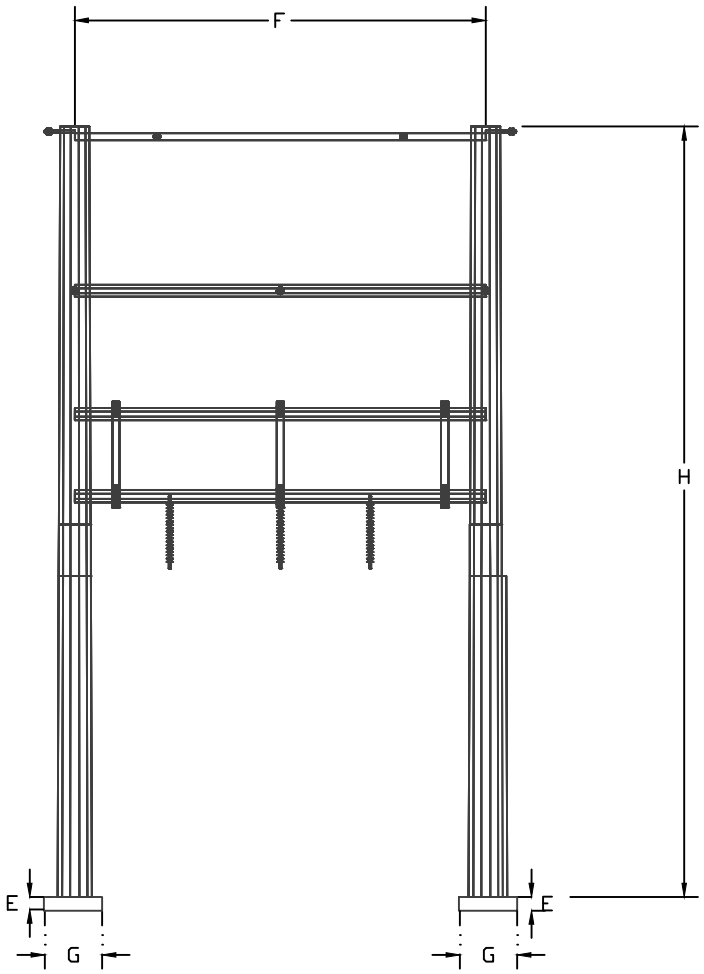

## 230 kV DC ENGINEERED MONOPOLE DEADEND STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT MONOPOLE DEADEND STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 5.2 MILES (11 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | WEATHERING STEEL (SEE NOTE 5) |
| | RATIONALE FOR MATERIAL: | WEATHERING STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA AND IS COMPANY'S STANDARD. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 26' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 97' |
| | MAXIMUM STRUCTURE HEIGHT: | 112' |
| | AVERAGE STRUCTURE HEIGHT: | 111' |
| | AVERAGE SPAN LENGTH (RANGE): | 580' (370'-750') (SEE NOTE 4) |
| I. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.
5. STRUCTURES INSIDE SUBSTATIONS AND IN THE CTZ MAY BE GALVANIZED WITH A DULLED FINISH.

MT. PONY LINES



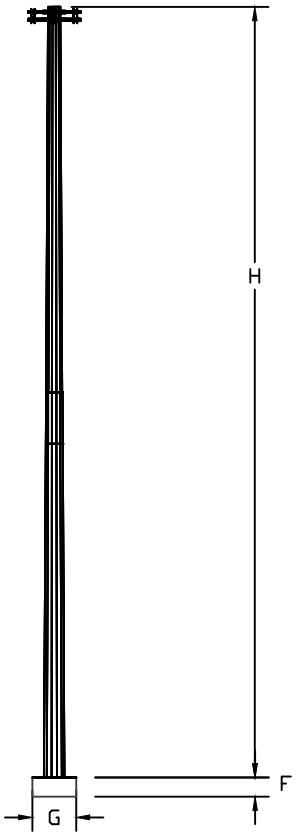

## 230 kV SC ENGINEERED BACKBONE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT BACKBONE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | N/A MILES (2 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| | RATIONALE FOR MATERIAL: | GALVANIZED STEEL IS UTILIZED FOR ALL BACKBONE STRUCTURES |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 40' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 77' |
| | MAXIMUM STRUCTURE HEIGHT: | 77' |
| | AVERAGE STRUCTURE HEIGHT: | 77' |
| I. | AVERAGE SPAN LENGTH (RANGE): | N/A |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.

TECH PARK LINES

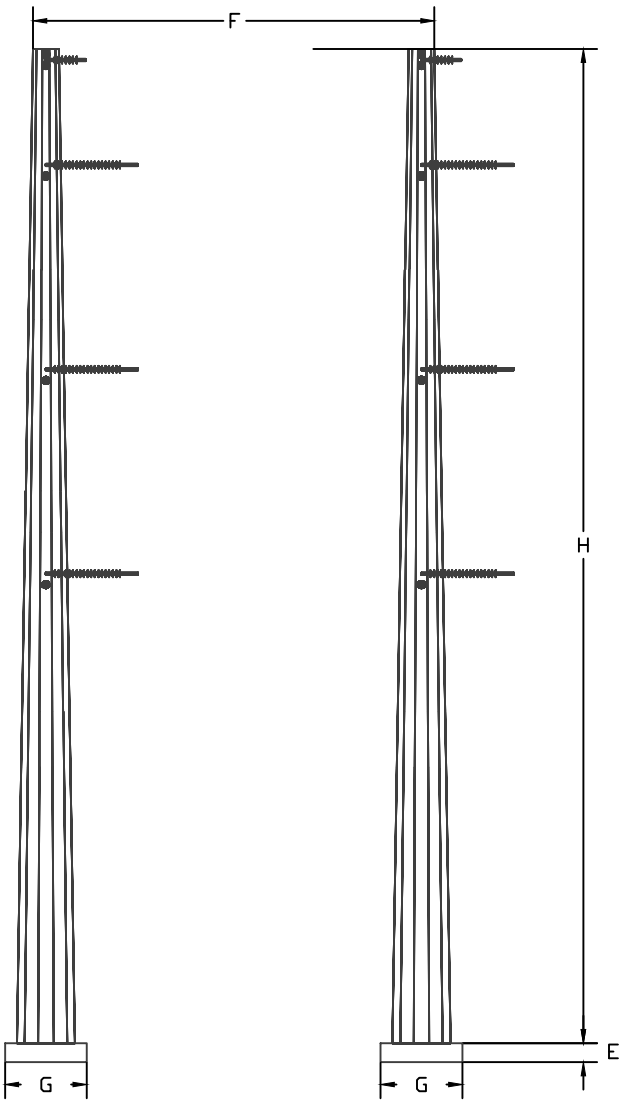



## ENGINEERED STATIC POLE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR ENGINEERED STATIC POLE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | N/A MILES (12 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| E. | RATIONALE FOR MATERIAL: | GALVANZIED STEEL IS UTILIZED FOR ALL ENGINEERED STATIC POLE STRUCTURES |
| F. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 77' |
| | MAXIMUM STRUCTURE HEIGHT: | 77' |
| | AVERAGE STRUCTURE HEIGHT: | 77' |

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.

TECH PARK LINES



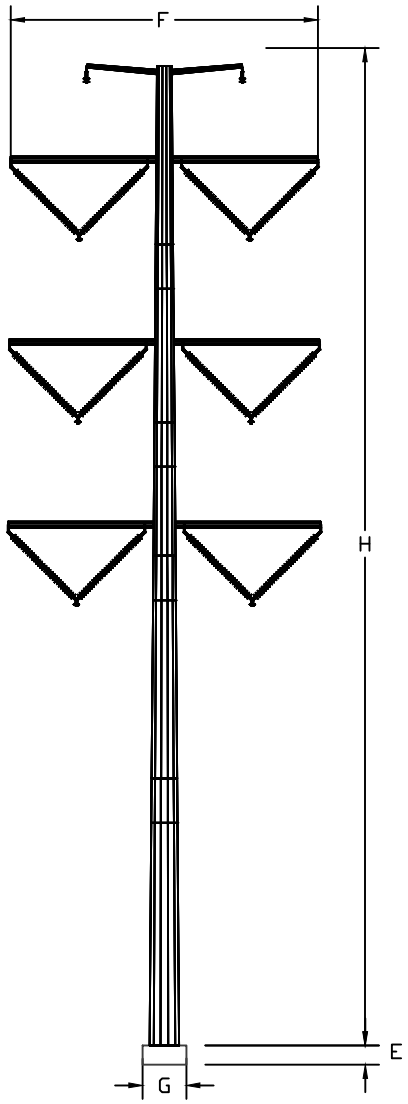

## 230 kV DC ENGINEERED 2-POLE DEADEND STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT 2-POLE DEADEND STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 3.7 MILES (10 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | WEATHERING AND DULLED GALVANIZED STEEL (SEE NOTE 5) |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT TOP: | 36' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 102' |
| | MAXIMUM STRUCTURE HEIGHT: | 117' |
| | AVERAGE STRUCTURE HEIGHT: | 111' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 380' (190'-595') (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.
5. STRUCTURES INSIDE SUBSTATIONS AND IN THE CTZ WILL BE GALVANIZED WITH A DULLED FINISH UNLESS NEAR OTHER EXISTING WEATHERING STEEL STRUCTURES.

TECH PARK LINES



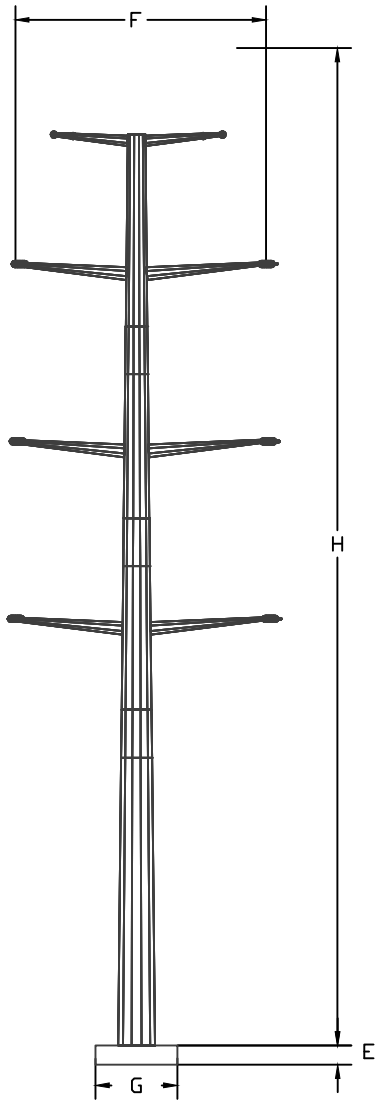

## 230 kV DC ENGINEERED MONOPOLE V-STRING SUSPENSION STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT MONOPOLE SUSPENSION STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 3.7 MILES (10 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | WEATHERING AND DULLED GALVANIZED STEEL (SEE NOTE 5) |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 35' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 112' |
| | MAXIMUM STRUCTURE HEIGHT: | 127' |
| | AVERAGE STRUCTURE HEIGHT: | 121' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 525' (350'-715') (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.
5. STRUCTURES INSIDE SUBSTATIONS AND IN THE CTZ WILL BE GALVANIZED WITH A DULLED FINISH UNLESS NEAR OTHER EXISTING WEATHERING STEEL STRUCTURES.

TECH PARK LINES



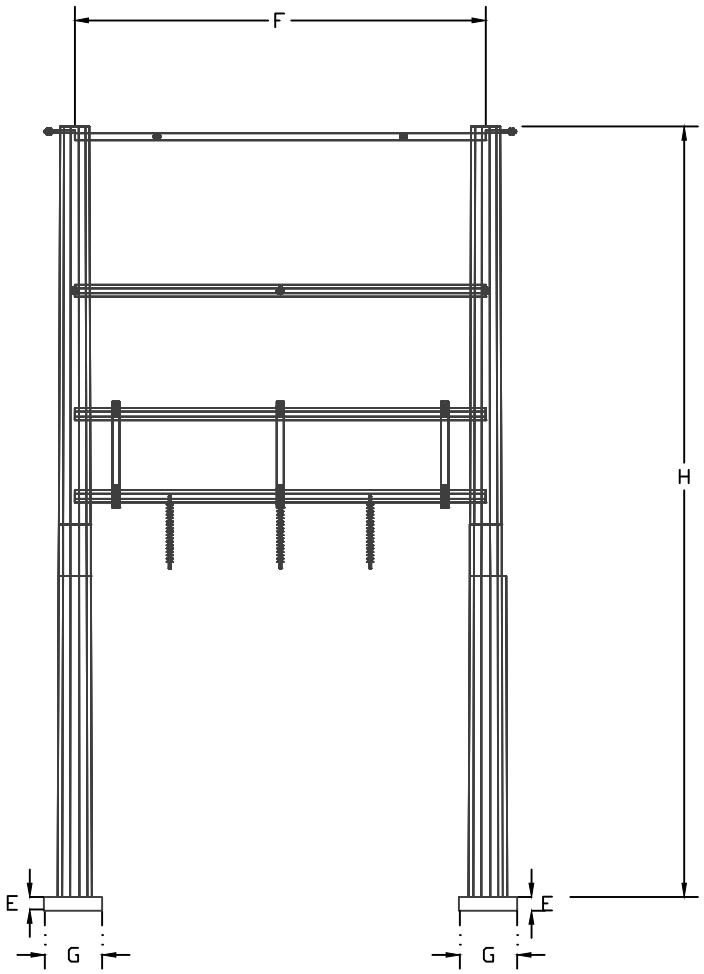

## 230 kV DC ENGINEERED MONOPOLE DEADEND STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT MONOPOLE DEADEND STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 3.7 MILES (17 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | WEATHERING AND DULLED GALVANIZED STEEL (SEE NOTE 5) |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 26' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 92' |
| | MAXIMUM STRUCTURE HEIGHT: | 127' |
| | AVERAGE STRUCTURE HEIGHT: | 116' |
| | AVERAGE SPAN LENGTH (RANGE): | 440' (75'-640') (SEE NOTE 4) |
| I. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.
5. STRUCTURES INSIDE SUBSTATIONS AND IN THE CTZ WILL BE GALVANIZED WITH A DULLED FINISH UNLESS NEAR OTHER EXISTING WEATHERING STEEL STRUCTURES.

TECH PARK LINES



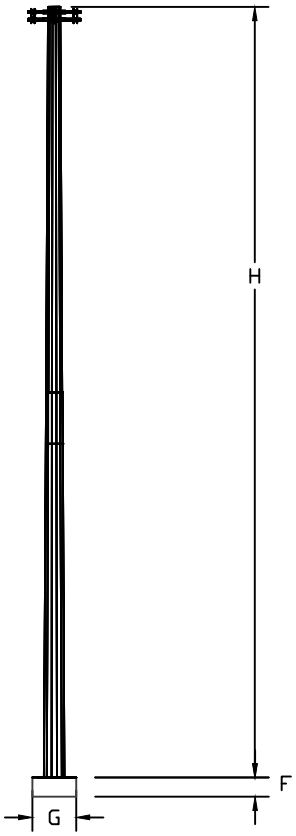

## 230 kV SC ENGINEERED BACKBONE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT BACKBONE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | N/A MILES (8 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| | RATIONALE FOR MATERIAL: | GALVANIZED STEEL IS UTILIZED FOR ALL BACKBONE STRUCTURES |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 40' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 77' |
| | MAXIMUM STRUCTURE HEIGHT: | 77' |
| | AVERAGE STRUCTURE HEIGHT: | 77' |
| I. | AVERAGE SPAN LENGTH (RANGE): | N/A |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.

OAK GREEN REBUILD
AND RELOCATION

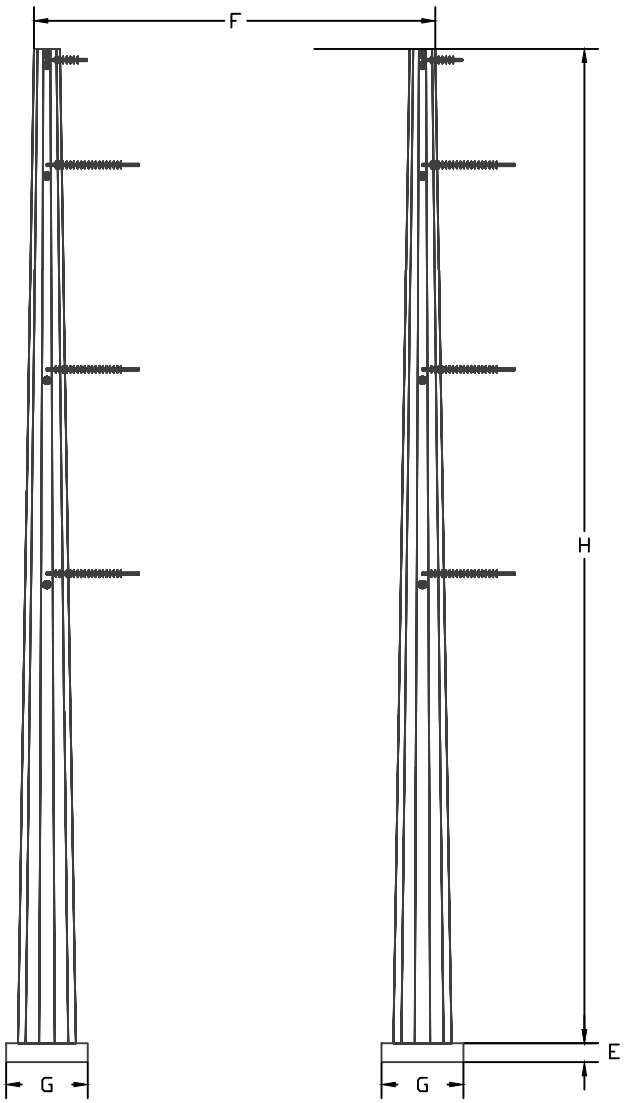



## ENGINEERED STATIC POLE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR ENGINEERED STATIC POLE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | N/A MILES (5 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| E. | RATIONALE FOR MATERIAL: | GALVANIZED STEEL IS UTILIZED FOR ALL ENGINEERED STATIC POLE STRUCTURES |
| F. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 77' |
| | MAXIMUM STRUCTURE HEIGHT: | 77' |
| | AVERAGE STRUCTURE HEIGHT: | 77' |

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.

OAK GREEN REBUILD
AND RELOCATION



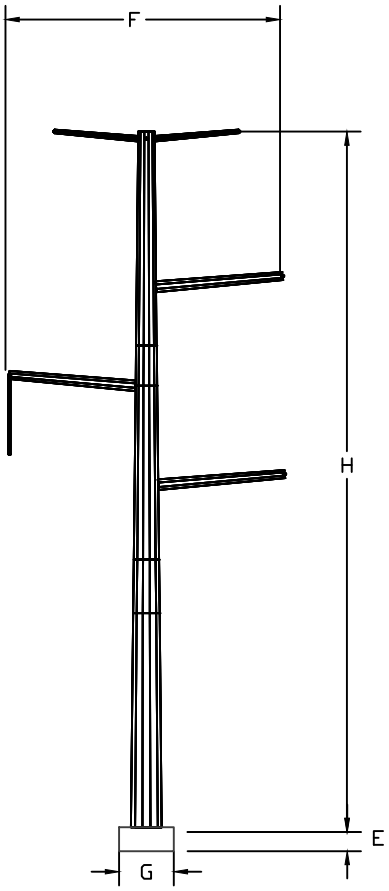

## 230 kV DC ENGINEERED 2-POLE DEADEND STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT 2-POLE DEADEND STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 2.9 MILES (1 STRUCTURE) |
| D. | STRUCTURE MATERIAL: | WEATHERING STEEL |
| | RATIONALE FOR MATERIAL: | WEATHERING STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA AND IS COMPANY'S STANDARD. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT TOP: | 120' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 122' |
| | MAXIMUM STRUCTURE HEIGHT: | 122' |
| | AVERAGE STRUCTURE HEIGHT: | 122' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 295' (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

OAK GREEN REBUILD
AND RELOCATION



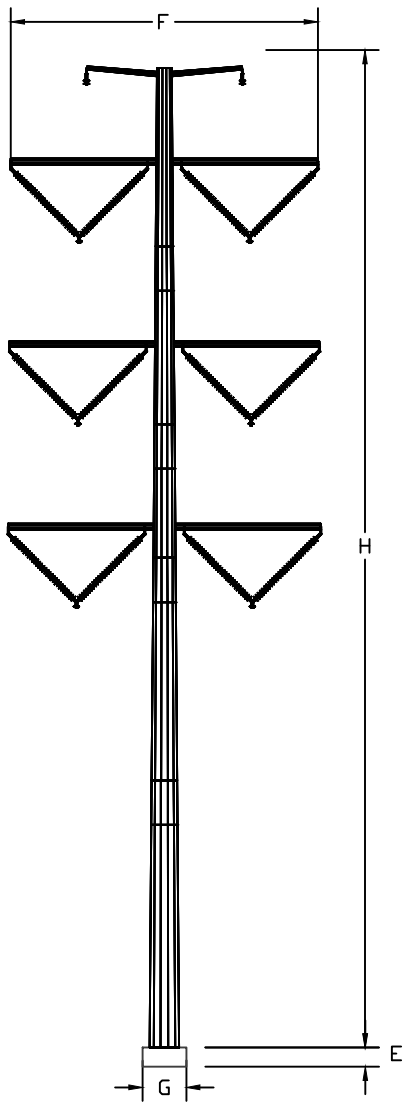

## 230 kV SC ENGINEERED MONOPOLE DDE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT MONOPOLE DDE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 2.9 MILES (1 STRUCTURE) |
| D. | STRUCTURE MATERIAL: | WEATHERING STEEL |
| | RATIONALE FOR MATERIAL: | WEATHERING STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA AND IS COMPANY'S STANDARD. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 25.5' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 67' |
| | MAXIMUM STRUCTURE HEIGHT: | 67' |
| | AVERAGE STRUCTURE HEIGHT: | 67' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 360' (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

OAK GREEN REBUILD
AND RELOCATION



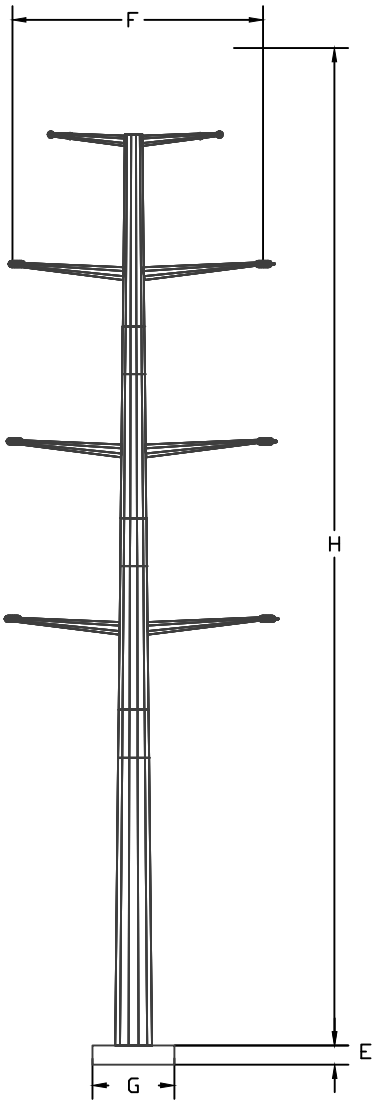

## 230 kV DC ENGINEERED MONOPOLE V-STRING SUSPENSION STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT MONOPOLE SUSPENSION STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 2.9 MILES (16 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | WEATHERING STEEL |
| | RATIONALE FOR MATERIAL: | WEATHERING STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA AND IS COMPANY'S STANDARD. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 35' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 107' |
| | MAXIMUM STRUCTURE HEIGHT: | 132' |
| | AVERAGE STRUCTURE HEIGHT: | 123' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 680' (310'-1075') (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

OAK GREEN REBUILD
AND RELOCATION



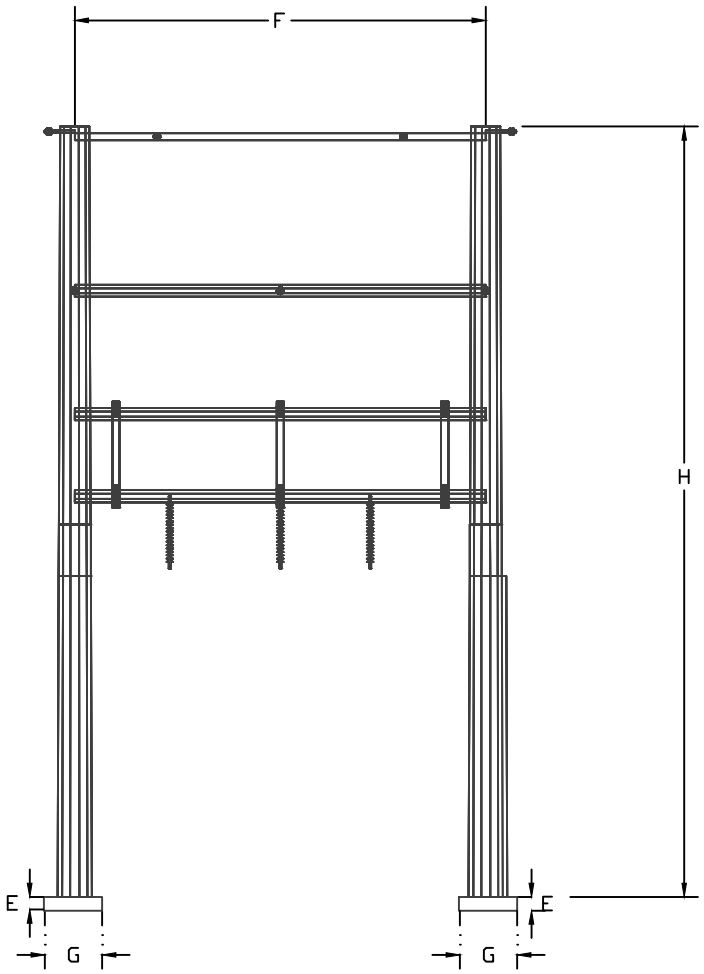

## 230 kV DC ENGINEERED MONOPOLE DEADEND STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT MONOPOLE DEADEND STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 2.9 MILES (5 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | WEATHERING STEEL |
| | RATIONALE FOR MATERIAL: | WEATHERING STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA AND IS COMPANY'S STANDARD. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 26' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 102' |
| | MAXIMUM STRUCTURE HEIGHT: | 117' |
| | AVERAGE STRUCTURE HEIGHT: | 109' |
| | AVERAGE SPAN LENGTH (RANGE): | 470' (160'-810') (SEE NOTE 4) |
| I. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

OAK GREEN REBUILD
AND RELOCATION



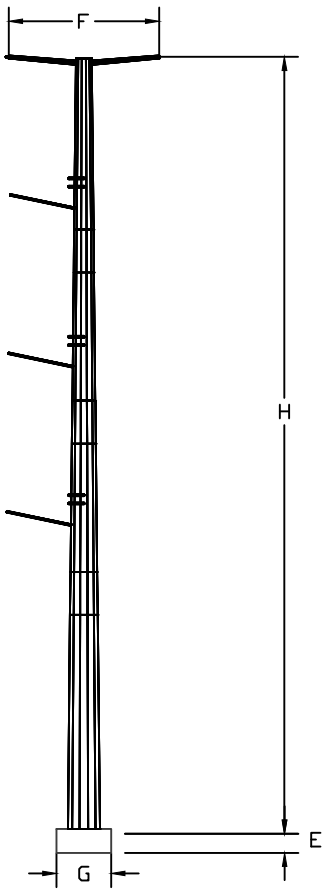

## 230 kV SC ENGINEERED BACKBONE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT BACKBONE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | N/A MILES (4 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| | RATIONALE FOR MATERIAL: | GALVANIZED STEEL IS UTILIZED FOR ALL BACKBONE STRUCTURES |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 40' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 77' |
| | MAXIMUM STRUCTURE HEIGHT: | 77' |
| | AVERAGE STRUCTURE HEIGHT: | 77' |
| I. | AVERAGE SPAN LENGTH (RANGE): | N/A |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.

OAK GREEN REBUILD
AND RELOCATION



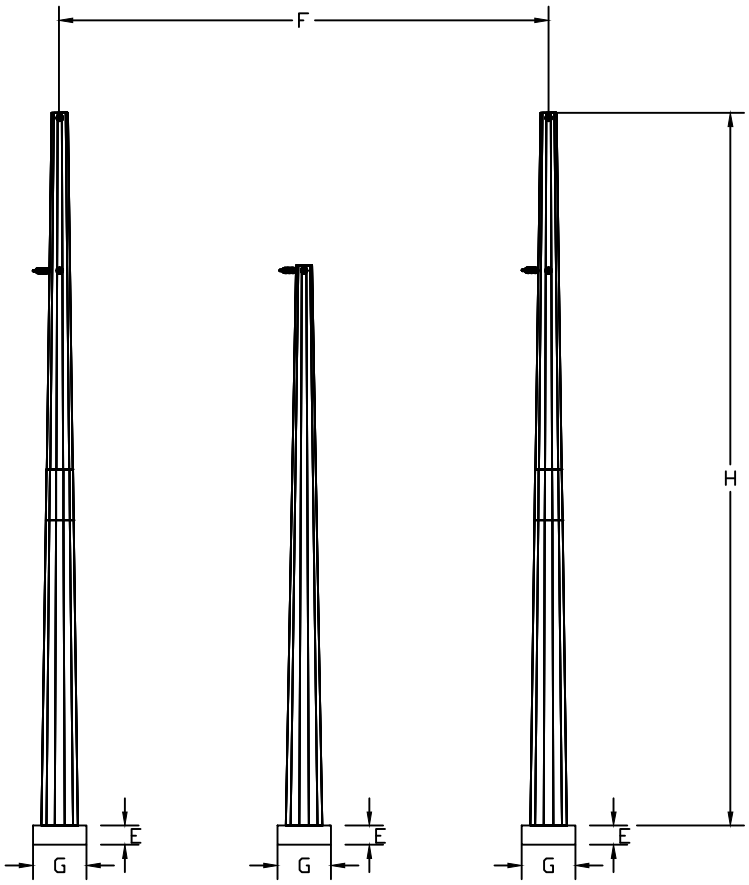

## 230 kV SC ENGINEERED MONOPOLE DDE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT MONOPOLE DDE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 2.9 MILES (7 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | WEATHERING STEEL |
| | RATIONALE FOR MATERIAL: | WEATHERING STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA AND IS COMPANY'S STANDARD. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 18' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 92' |
| | MAXIMUM STRUCTURE HEIGHT: | 102' |
| | AVERAGE STRUCTURE HEIGHT: | 98' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 240' (185'-405') (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

REMINGTON REBUILD



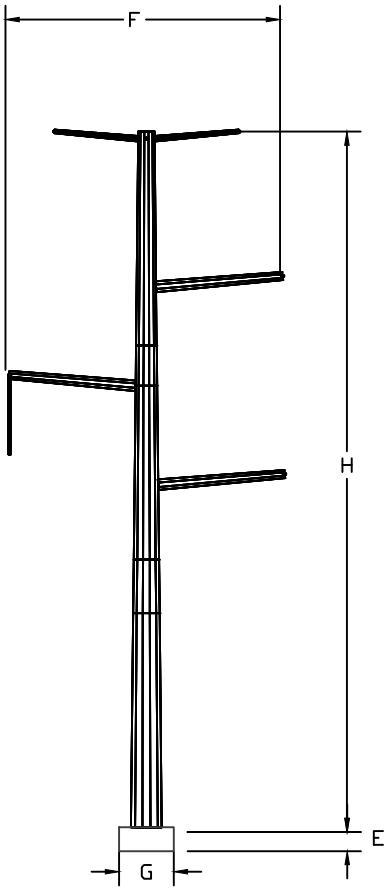

## 230 kV SC ENGINEERED 3-POLE DDE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT 3-POLE DDE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 0.7 MILES (2 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| E. | RATIONALE FOR MATERIAL: | GALVANIZED STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA. |
| F. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| G. | AVERAGE WIDTH AT CROSS ARM: | 48' |
| H. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| I. | MINIMUM STRUCTURE HEIGHT: | 47' |
| | MAXIMUM STRUCTURE HEIGHT: | 47' |
| | AVERAGE STRUCTURE HEIGHT: | 47' |
| J. | AVERAGE SPAN LENGTH (RANGE): | 135' (125'-140') (SEE NOTE 4) |
| K. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

REMINGTON REBUILD



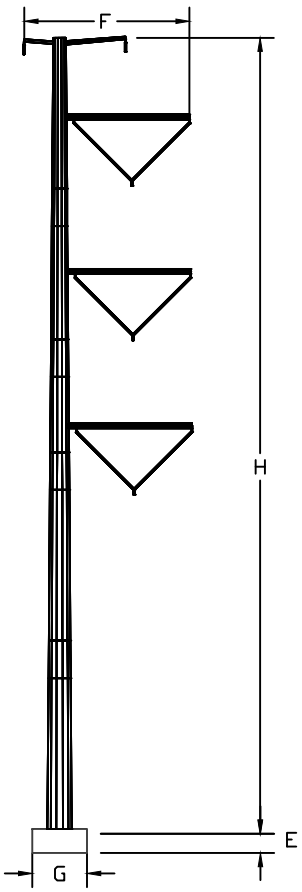

## 230 kV SC ENGINEERED MONOPOLE DDE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT MONOPOLE DDE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 0.7 MILES (1 STRUCTURE) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| E. | RATIONALE FOR MATERIAL: | GALVANIZED STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA. |
| F. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| G. | AVERAGE WIDTH AT CROSS ARM: | 25.5' |
| H. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| I. | MINIMUM STRUCTURE HEIGHT: | 67' |
| | MAXIMUM STRUCTURE HEIGHT: | 67' |
| | AVERAGE STRUCTURE HEIGHT: | 67' |
| J. | AVERAGE SPAN LENGTH (RANGE): | 180' (SEE NOTE 4) |
| K. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

REMINGTON REBUILD



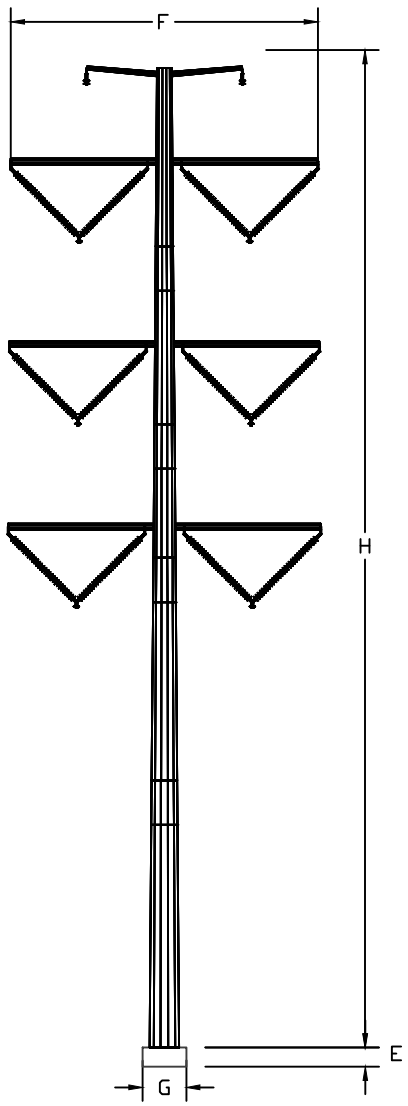

## 230 kV SC ENGINEERED MONOPOLE V-STRING SUSPENSION STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT MONOPOLE SUSPENSION STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 0.7 MILES (2 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| | RATIONALE FOR MATERIAL: | GALVANIZED STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 22' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 107' |
| | MAXIMUM STRUCTURE HEIGHT: | 127' |
| | AVERAGE STRUCTURE HEIGHT: | 118' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 215' (140'-285') (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

REMINGTON REBUILD



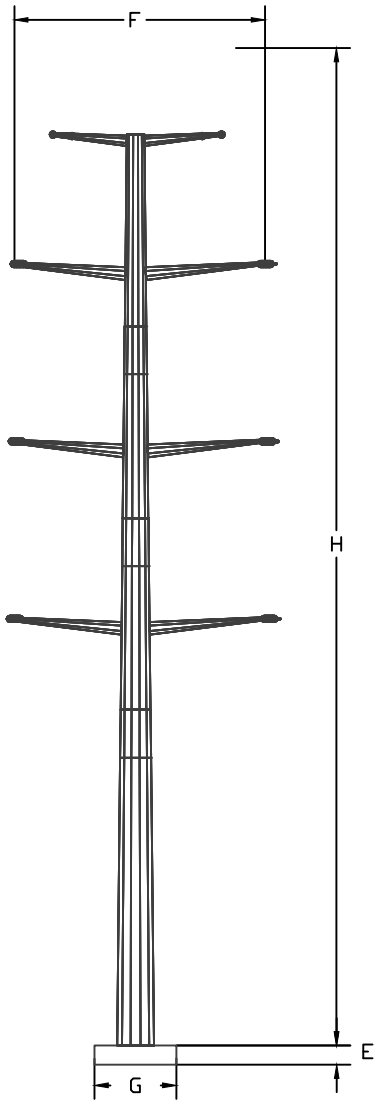

## 230 kV DC ENGINEERED MONOPOLE V-STRING SUSPENSION STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT MONOPOLE SUSPENSION STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 0.7 MILES (8 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| E. | RATIONALE FOR MATERIAL: | GALVANIZED STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA. |
| F. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| G. | AVERAGE WIDTH AT CROSS ARM: | 35' |
| H. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| I. | MINIMUM STRUCTURE HEIGHT: | 122' |
| | MAXIMUM STRUCTURE HEIGHT: | 122' |
| | AVERAGE STRUCTURE HEIGHT: | 122' |
| J. | AVERAGE SPAN LENGTH (RANGE): | 270' (260'-280') (SEE NOTE 4) |
| K. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

REMINGTON REBUILD



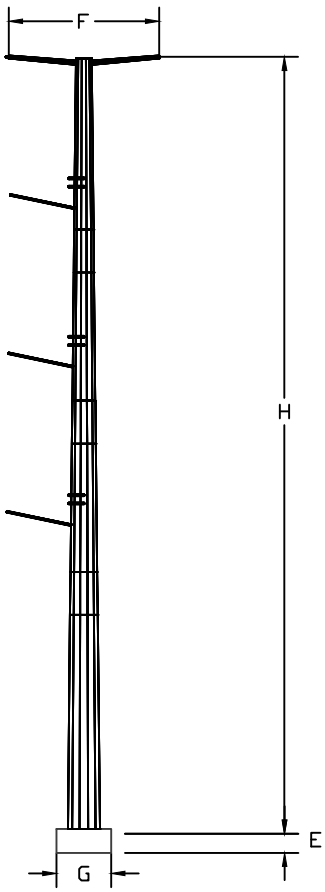

## 230 kV DC ENGINEERED MONOPOLE DEADEND STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR DOUBLE CIRCUIT MONOPOLE DEADEND STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 0.7 MILES (2 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| E. | RATIONALE FOR MATERIAL: | GALVANIZED STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA. |
| F. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| G. | AVERAGE WIDTH AT CROSS ARM: | 26' |
| H. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| I. | MINIMUM STRUCTURE HEIGHT: | 97' |
| | MAXIMUM STRUCTURE HEIGHT: | 112' |
| | AVERAGE STRUCTURE HEIGHT: | 106' |
| | AVERAGE SPAN LENGTH (RANGE): | 215' (195'-245') (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

REMINGTON REBUILD



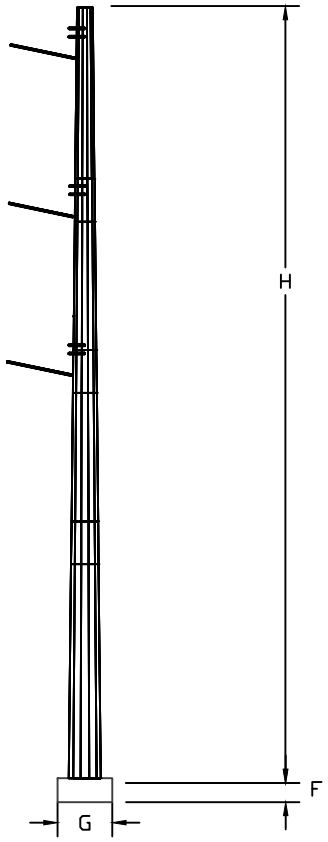

## 230 kV SC ENGINEERED MONOPOLE DDE STRUCTURE

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT MONOPOLE DDE STRUCTURES. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 0.7 MILES (2 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL (SEE NOTE 5) |
| | RATIONALE FOR MATERIAL: | GALVANIZED STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT CROSS ARM: | 18' |
| G. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| H. | MINIMUM STRUCTURE HEIGHT: | 97' |
| | MAXIMUM STRUCTURE HEIGHT: | 117' |
| | AVERAGE STRUCTURE HEIGHT: | 108' |
| I. | AVERAGE SPAN LENGTH (RANGE): | 280' (270'-290') (SEE NOTE 4) |
| J. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

REMINGTON REBUILD

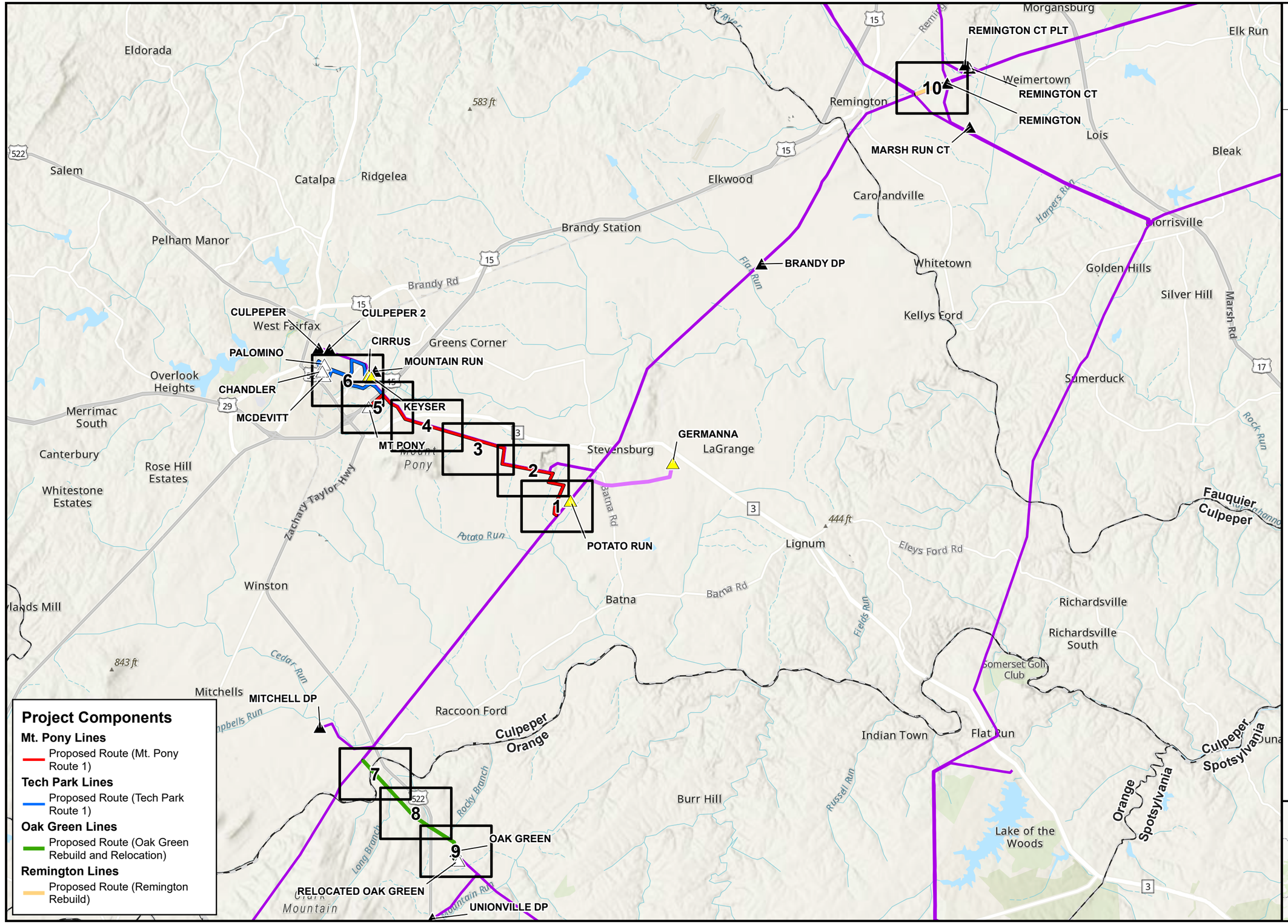



## 230 kV SC ENGINEERED MONOPOLE DDE STRUCTURE NO STATIC

| | | |
|---|---|---|
| A. | MAPPING OF THE ROUTE: | SEE ATTACHMENT II.B.3 |
| B. | RATIONALE FOR STRUCTURE TYPE: | TYPICAL CONFIGURATION FOR SINGLE CIRCUIT MONOPOLE DDE STRUCTURES WITH NO STATIC. |
| C. | LENGTH OF R/W (STRUCTURE QTY): | 0.7 MILES (2 STRUCTURES) |
| D. | STRUCTURE MATERIAL: | GALVANIZED STEEL |
| | RATIONALE FOR MATERIAL: | GALVANIZED STEEL WAS SELECTED TO MATCH OTHER LINES IN THE AREA. |
| E. | FOUNDATION MATERIAL: | CONCRETE |
| | AVERAGE FOUNDATION REVEAL: | SEE NOTE 2 |
| F. | AVERAGE WIDTH AT BASE: | SEE NOTE 2 |
| G. | MINIMUM STRUCTURE HEIGHT: | 72' |
| | MAXIMUM STRUCTURE HEIGHT: | 77' |
| | AVERAGE STRUCTURE HEIGHT: | 75' |
| H. | AVERAGE SPAN LENGTH (RANGE): | 300' (270'-320') (SEE NOTE 4) |
| I. | MINIMUM CONDUCTOR-TO-GROUND: | 22.5' (AT MAXIMUM OPERATING TEMPERATURE) |

NOTES:

1. INFORMATION CONTAINED ON DRAWING IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. A MINIMUM FOUNDATION REVEAL SHALL BE 1.5 FEET. FOUNDATION DIAMETER SHALL BE BASED ON FINAL ENGINEERING.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND DO NOT INCLUDE FOUNDATION REVEAL.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.




Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper, Fauquier and Orange Counties

Index Page

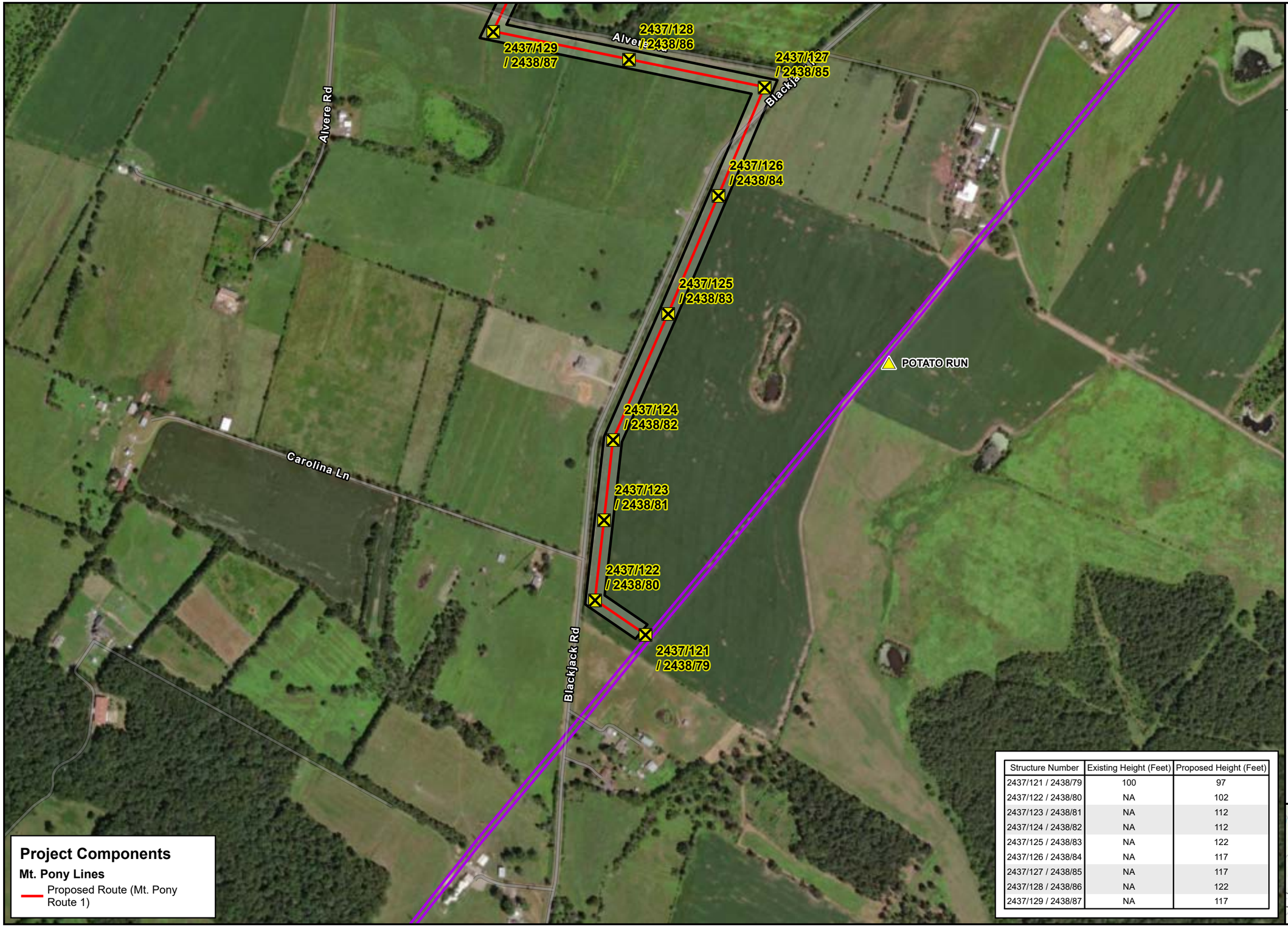
- ▲ Existing Substation/ Switching Station
- △ Approved Future Substation/ Switching Station
- △ Proposed Substation/ Switching Station
- Existing Dominion Transmission Line
- Approved Future Lines
- County Boundary

* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

0 4,000 8,000
Feet

1:108,000

ERM




| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2437/121 / 2438/79 | 100 | 97 |
| 2437/122 / 2438/80 | NA | 102 |
| 2437/123 / 2438/81 | NA | 112 |
| 2437/124 / 2438/82 | NA | 112 |
| 2437/125 / 2438/83 | NA | 122 |
| 2437/126 / 2438/84 | NA | 117 |
| 2437/127 / 2438/85 | NA | 117 |
| 2437/128 / 2438/86 | NA | 122 |
| 2437/129 / 2438/87 | NA | 117 |

Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County

1 of 10

- Approved Future Substation/ Switching Station
- Existing Dominion Transmission Line
- Proposed Structure Location*
- Right-of-Way

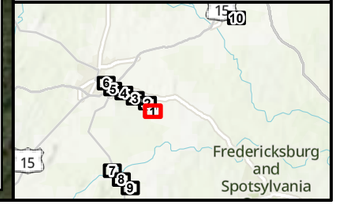
* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

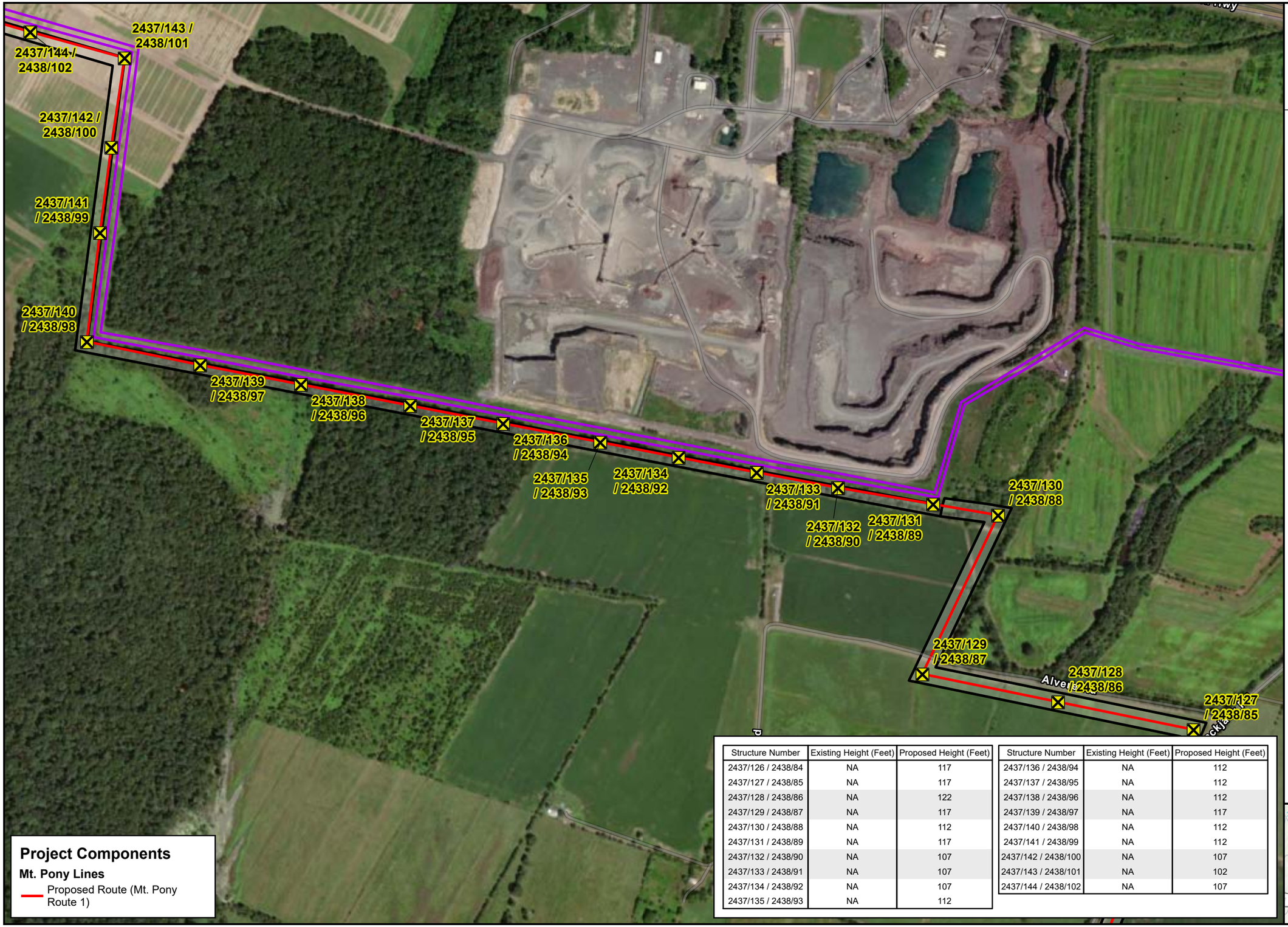
0 260 520
Feet

1:6,000

ERM

N
W E
S






**Project Components**

**Mt. Pony Lines**

Proposed Route (Mt. Pony Route 1)

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2437/126 / 2438/84 | NA | 117 |
| 2437/127 / 2438/85 | NA | 117 |
| 2437/128 / 2438/86 | NA | 122 |
| 2437/129 / 2438/87 | NA | 117 |
| 2437/130 / 2438/88 | NA | 112 |
| 2437/131 / 2438/89 | NA | 117 |
| 2437/132 / 2438/90 | NA | 107 |
| 2437/133 / 2438/91 | NA | 107 |
| 2437/134 / 2438/92 | NA | 107 |
| 2437/135 / 2438/93 | NA | 112 |

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2437/136 / 2438/94 | NA | 112 |
| 2437/137 / 2438/95 | NA | 112 |
| 2437/138 / 2438/96 | NA | 112 |
| 2437/139 / 2438/97 | NA | 117 |
| 2437/140 / 2438/98 | NA | 112 |
| 2437/141 / 2438/99 | NA | 112 |
| 2437/142 / 2438/100 | NA | 107 |
| 2437/143 / 2438/101 | NA | 102 |
| 2437/144 / 2438/102 | NA | 107 |

Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County

2 of 10

Existing Dominion Transmission Line

Proposed Structure Location*

Right-of-Way

* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

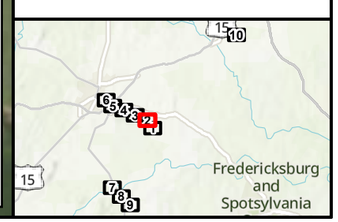
0 260 520

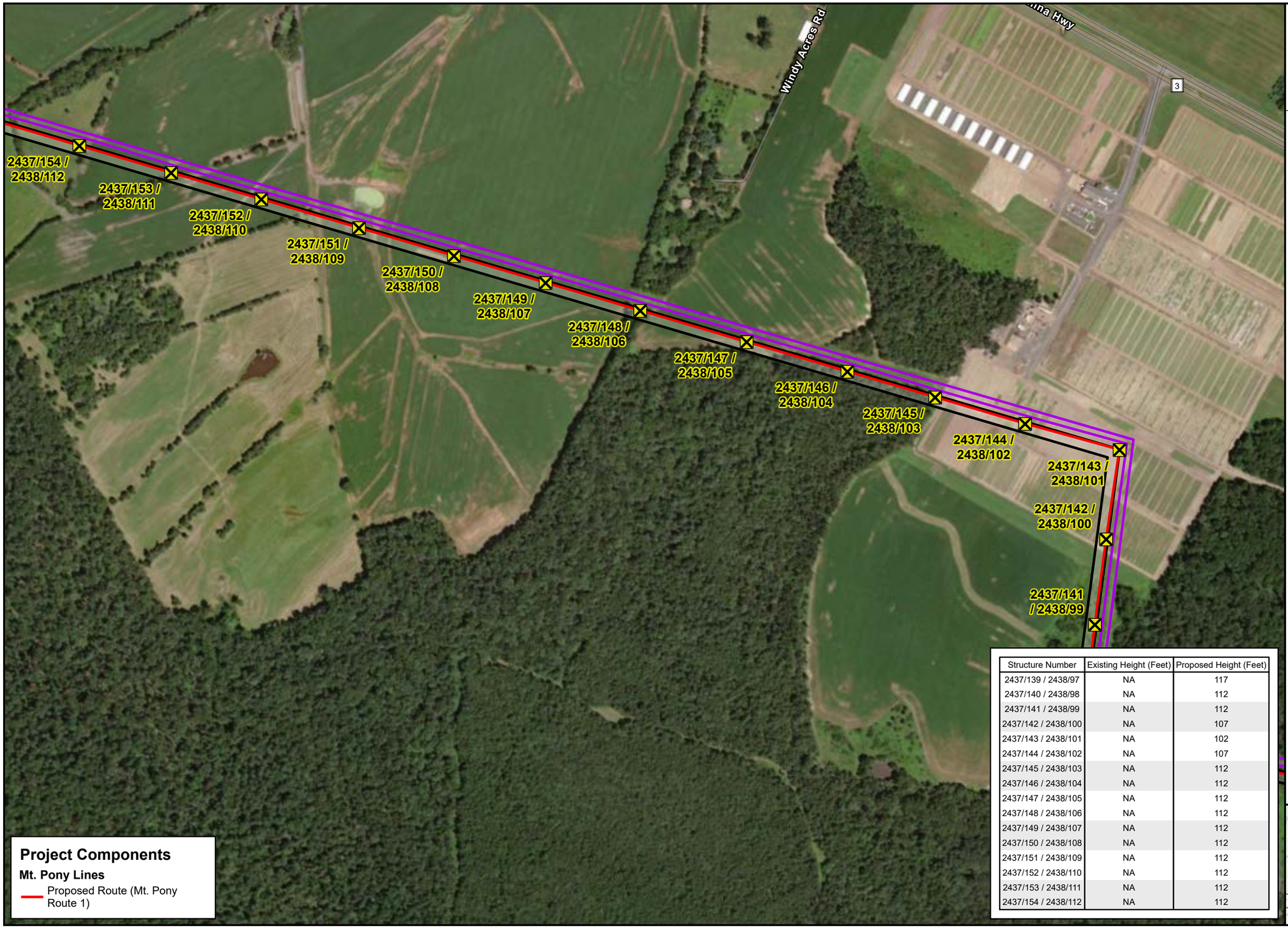
Feet

1:6,000

ERM

N W E S






**Project Components**

**Mt. Pony Lines**

Proposed Route (Mt. Pony Route 1)

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2437/139 / 2438/97 | NA | 117 |
| 2437/140 / 2438/98 | NA | 112 |
| 2437/141 / 2438/99 | NA | 112 |
| 2437/142 / 2438/100 | NA | 107 |
| 2437/143 / 2438/101 | NA | 102 |
| 2437/144 / 2438/102 | NA | 107 |
| 2437/145 / 2438/103 | NA | 112 |
| 2437/146 / 2438/104 | NA | 112 |
| 2437/147 / 2438/105 | NA | 112 |
| 2437/148 / 2438/106 | NA | 112 |
| 2437/149 / 2438/107 | NA | 112 |
| 2437/150 / 2438/108 | NA | 112 |
| 2437/151 / 2438/109 | NA | 112 |
| 2437/152 / 2438/110 | NA | 112 |
| 2437/153 / 2438/111 | NA | 112 |
| 2437/154 / 2438/112 | NA | 112 |

Dominion Energy

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County

3 of 10

Existing Dominion Transmission Line

Proposed Structure Location*

Right-of-Way

* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

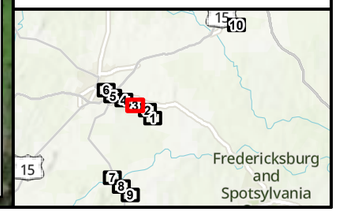
0 260 520

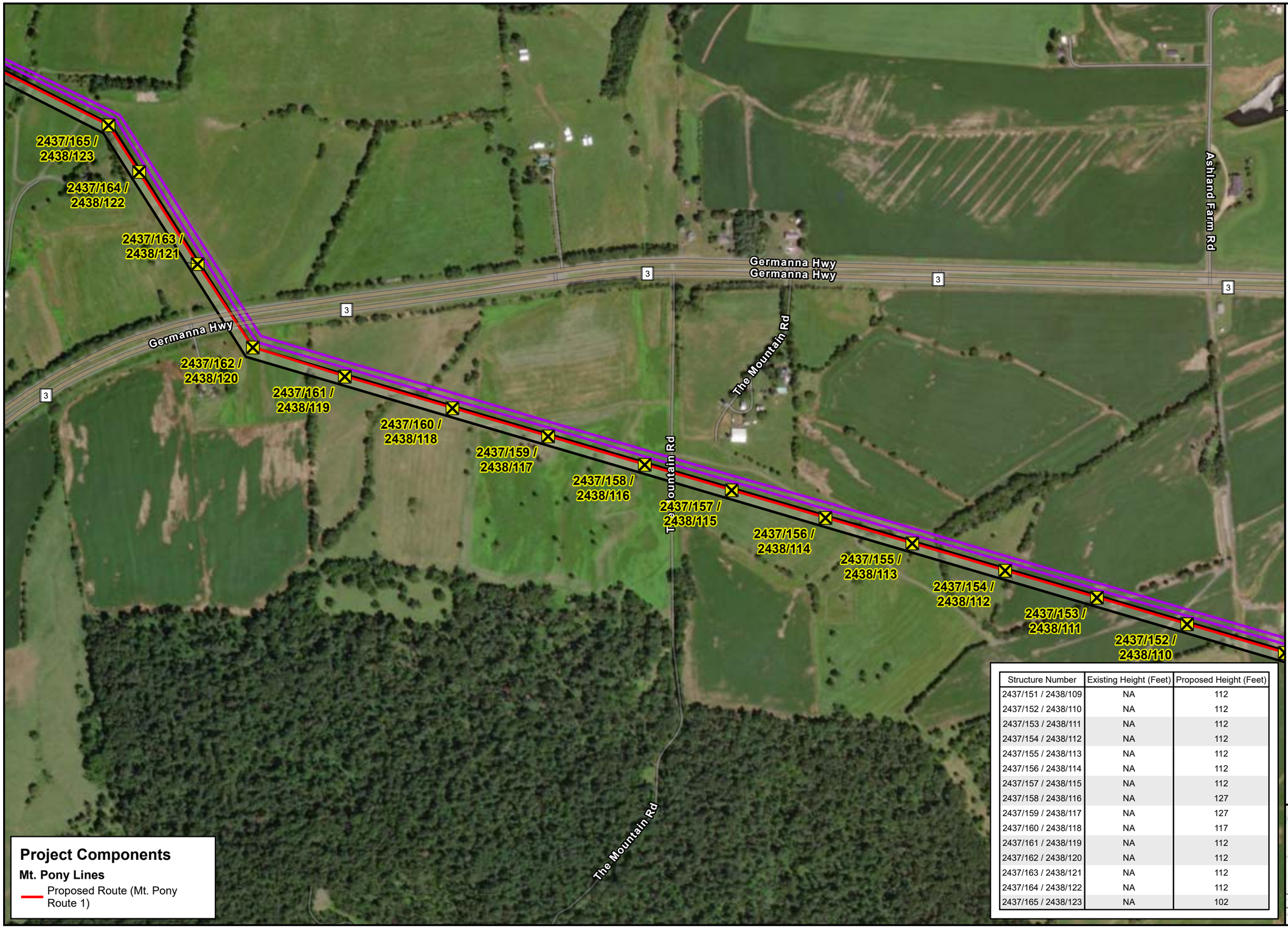
Feet

1:6,000

ERM

N W E S






| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2437/151 / 2438/109 | NA | 112 |
| 2437/152 / 2438/110 | NA | 112 |
| 2437/153 / 2438/111 | NA | 112 |
| 2437/154 / 2438/112 | NA | 112 |
| 2437/155 / 2438/113 | NA | 112 |
| 2437/156 / 2438/114 | NA | 112 |
| 2437/157 / 2438/115 | NA | 112 |
| 2437/158 / 2438/116 | NA | 127 |
| 2437/159 / 2438/117 | NA | 127 |
| 2437/160 / 2438/118 | NA | 117 |
| 2437/161 / 2438/119 | NA | 112 |
| 2437/162 / 2438/120 | NA | 112 |
| 2437/163 / 2438/121 | NA | 112 |
| 2437/164 / 2438/122 | NA | 112 |
| 2437/165 / 2438/123 | NA | 102 |

Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County

4 of 10

Existing Dominion Transmission Line

Proposed Structure Location*

Right-of-Way

* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

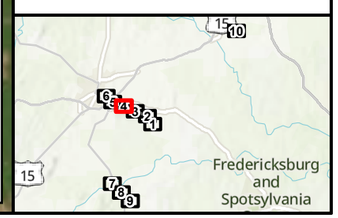
0 260 520

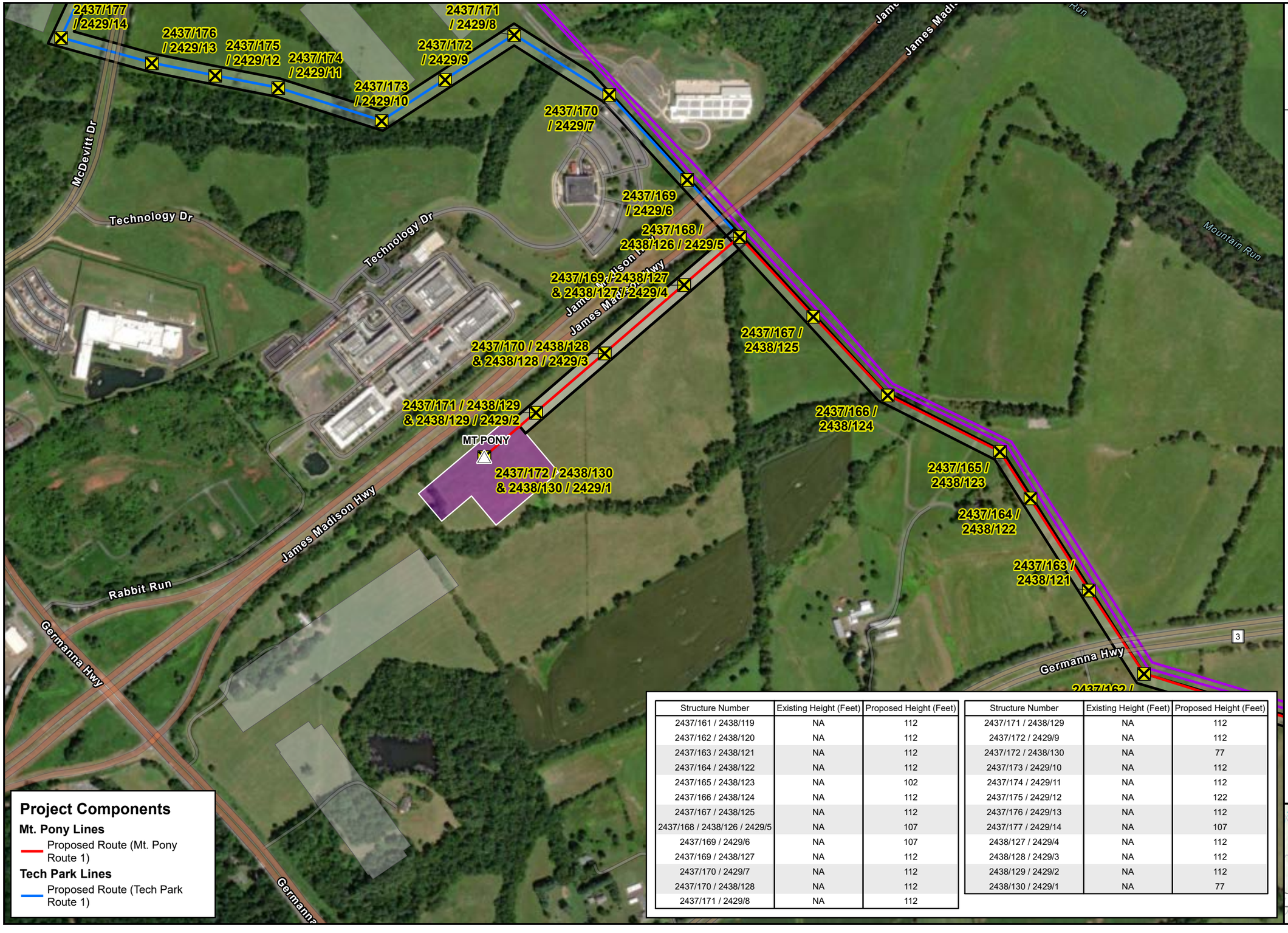
Feet

1:6,000

ERM

N W E S






## Project Components

**Mt. Pony Lines**

Proposed Route (Mt. Pony Route 1)

**Tech Park Lines**

Proposed Route (Tech Park Route 1)

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2437/161 / 2438/119 | NA | 112 |
| 2437/162 / 2438/120 | NA | 112 |
| 2437/163 / 2438/121 | NA | 112 |
| 2437/164 / 2438/122 | NA | 112 |
| 2437/165 / 2438/123 | NA | 102 |
| 2437/166 / 2438/124 | NA | 112 |
| 2437/167 / 2438/125 | NA | 112 |
| 2437/168 / 2438/126 / 2429/5 | NA | 107 |
| 2437/169 / 2429/6 | NA | 107 |
| 2437/169 / 2438/127 | NA | 112 |
| 2437/170 / 2429/7 | NA | 112 |
| 2437/170 / 2438/128 | NA | 112 |
| 2437/171 / 2429/8 | NA | 112 |

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2437/171 / 2438/129 | NA | 112 |
| 2437/172 / 2429/9 | NA | 112 |
| 2437/172 / 2438/130 | NA | 77 |
| 2437/173 / 2429/10 | NA | 112 |
| 2437/174 / 2429/11 | NA | 112 |
| 2437/175 / 2429/12 | NA | 122 |
| 2437/176 / 2429/13 | NA | 112 |
| 2437/177 / 2429/14 | NA | 107 |
| 2438/127 / 2429/4 | NA | 112 |
| 2438/128 / 2429/3 | NA | 112 |
| 2438/129 / 2429/2 | NA | 112 |
| 2438/130 / 2429/1 | NA | 77 |

Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County

5 of 10

- Proposed Substation/ Switching Station
- Existing Dominion Transmission Line
- Proposed Structure Location*
- Right-of-Way
- Proposed Substation/ Switching Station Footprint
- Proposed Data Center Building

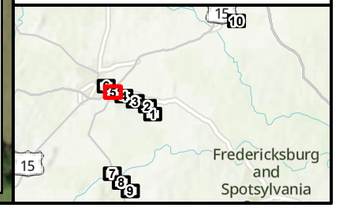
* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

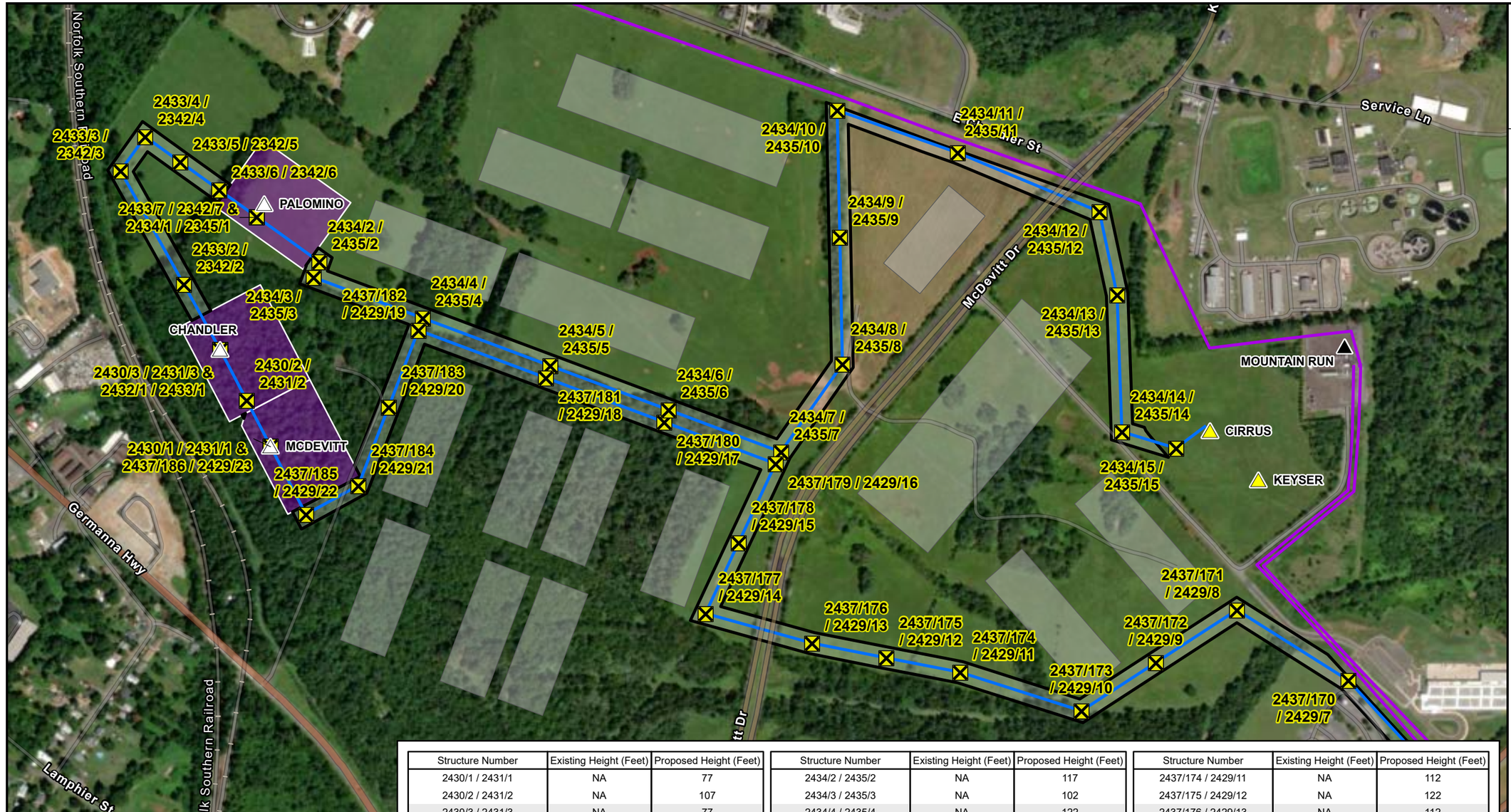
0 260 520
Feet

1:6,000

ERM

N W E S






## Project Components

**Mt. Pony Lines**

- Proposed Route (Mt. Pony Route 1)

**Tech Park Lines**

- Proposed Route (Tech Park Route 1)

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2430/1 / 2431/1 | NA | 77 |
| 2430/2 / 2431/2 | NA | 107 |
| 2430/3 / 2431/3 | NA | 77 |
| 2432/1 / 2433/1 | NA | 77 |
| 2433/2 / 2342/2 | NA | 122 |
| 2433/3 / 2342/3 | NA | 107 |
| 2433/4 / 2342/4 | NA | 102 |
| 2433/5 / 2342/5 | NA | 77 |
| 2433/6 / 2342/6 | NA | 107 |
| 2433/7 / 2342/7 | NA | 77 |
| 2434/1 / 2345/1 | NA | 77 |
| 2434/10 / 2435/10 | NA | 107 |
| 2434/11 / 2435/11 | NA | 127 |
| 2434/12 / 2435/12 | NA | 127 |
| 2434/13 / 2435/13 | NA | 112 |
| 2434/14 / 2435/14 | NA | 112 |
| 2434/15 / 2435/15 | NA | 107 |

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2434/2 / 2435/2 | NA | 117 |
| 2434/3 / 2435/3 | NA | 102 |
| 2434/4 / 2435/4 | NA | 122 |
| 2434/5 / 2435/5 | NA | 122 |
| 2434/6 / 2435/6 | NA | 122 |
| 2434/7 / 2435/7 | NA | 112 |
| 2434/8 / 2435/8 | NA | 112 |
| 2434/9 / 2435/9 | NA | 112 |
| 2437/168 / 2438/126 / 2429/5 | NA | 107 |
| 2437/169 / 2429/6 | NA | 107 |
| 2437/169 / 2438/127 | NA | 112 |
| 2437/170 / 2429/7 | NA | 112 |
| 2437/170 / 2438/128 | NA | 112 |
| 2437/171 / 2429/8 | NA | 112 |
| 2437/171 / 2438/129 | NA | 112 |
| 2437/172 / 2429/9 | NA | 112 |
| 2437/173 / 2429/10 | NA | 112 |

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2437/174 / 2429/11 | NA | 112 |
| 2437/175 / 2429/12 | NA | 122 |
| 2437/176 / 2429/13 | NA | 112 |
| 2437/177 / 2429/14 | NA | 107 |
| 2437/178 / 2429/15 | NA | 122 |
| 2437/179 / 2429/16 | NA | 117 |
| 2437/180 / 2429/17 | NA | 117 |
| 2437/181 / 2429/18 | NA | 117 |
| 2437/182 / 2429/19 | NA | 117 |
| 2437/183 / 2429/20 | NA | 117 |
| 2437/184 / 2429/21 | NA | 92 |
| 2437/185 / 2429/22 | NA | 107 |
| 2437/186 / 2429/23 | NA | 77 |
| 2438/127 / 2429/4 | NA | 112 |
| 2438/128 / 2429/3 | NA | 112 |
| 2438/129 / 2429/2 | NA | 112 |

Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper County

6 of 10

- Existing Substation/ Switching Station
- Approved Future Substation/ Switching Station
- Proposed Substation/ Switching Station
- Existing Dominion Transmission Line
- Proposed Structure Location*
- Right-of-Way
- Proposed Substation/ Switching Station Footprint
- Proposed Data Center Building

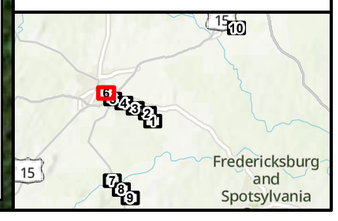
* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

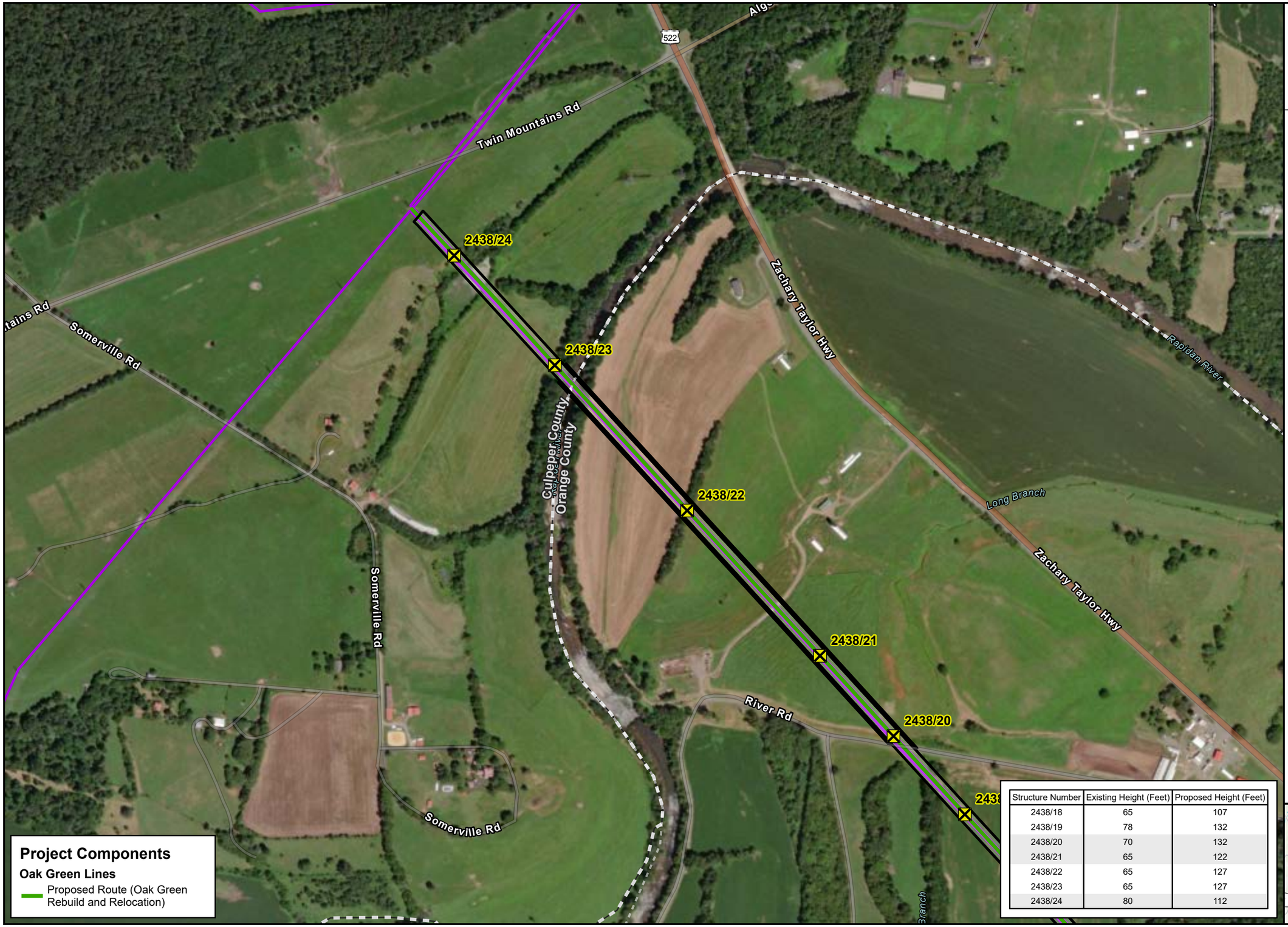
0 260 520
Feet

1:6,000

ERM

N W E S






| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2438/18 | 65 | 107 |
| 2438/19 | 78 | 132 |
| 2438/20 | 70 | 132 |
| 2438/21 | 65 | 122 |
| 2438/22 | 65 | 127 |
| 2438/23 | 65 | 127 |
| 2438/24 | 80 | 112 |

Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper and Orange Counties

7 of 10

- Existing Dominion Transmission Line
- Proposed Structure Location*
- County Boundary
- Right-of-Way (Existing and Proposed)

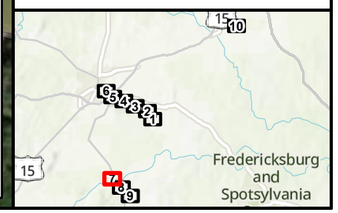
* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

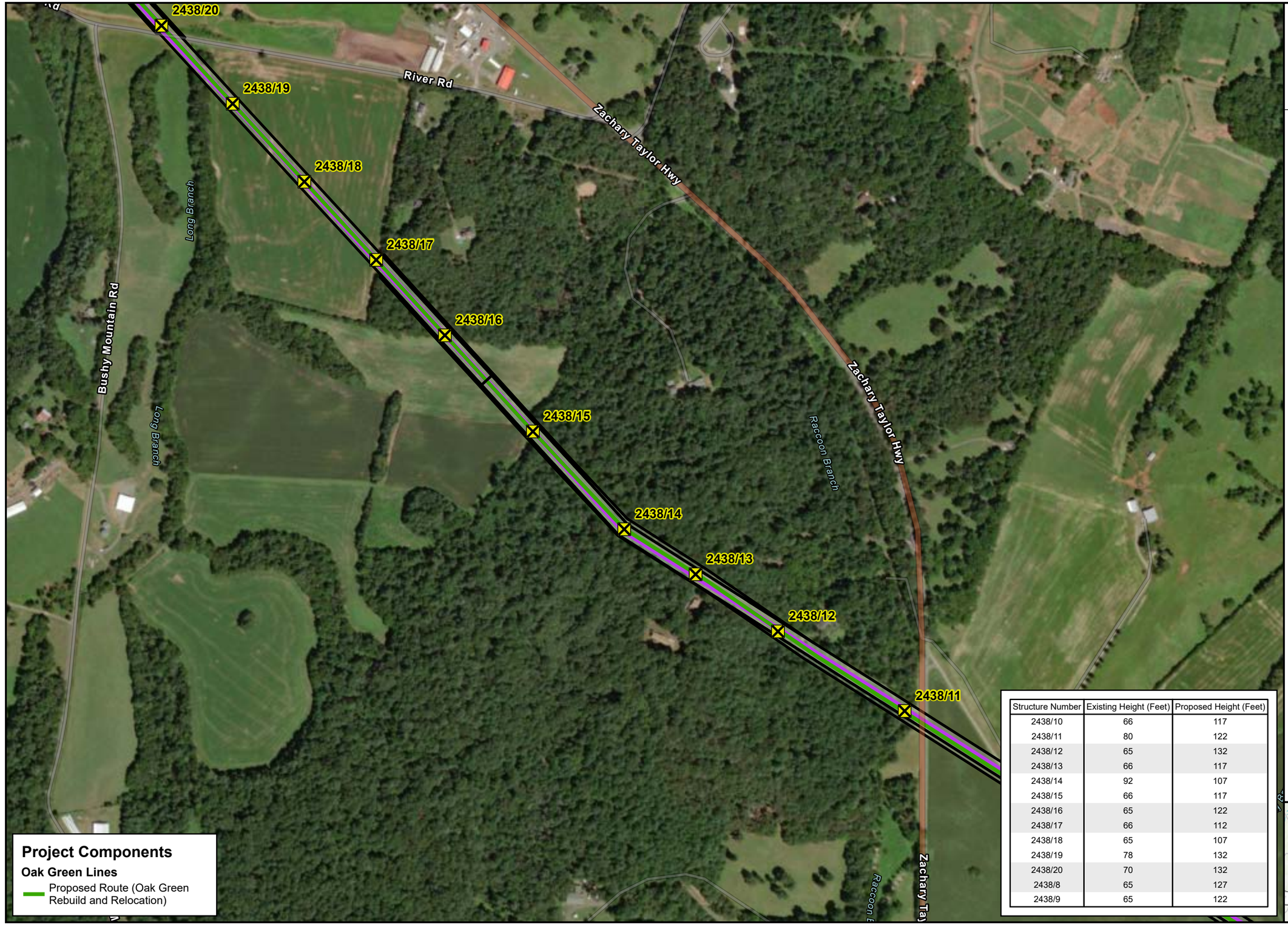
0 260 520
Feet

1:6,000

ERM

N W E S






| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2438/10 | 66 | 117 |
| 2438/11 | 80 | 122 |
| 2438/12 | 65 | 132 |
| 2438/13 | 66 | 117 |
| 2438/14 | 92 | 107 |
| 2438/15 | 66 | 117 |
| 2438/16 | 65 | 122 |
| 2438/17 | 66 | 112 |
| 2438/18 | 65 | 107 |
| 2438/19 | 78 | 132 |
| 2438/20 | 70 | 132 |
| 2438/8 | 65 | 127 |
| 2438/9 | 65 | 122 |

Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Orange County

8 of 10

- Existing Dominion Transmission Line
- Proposed Structure Location*
- Right-of-Way (Existing and Proposed)

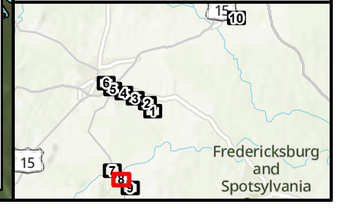
* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

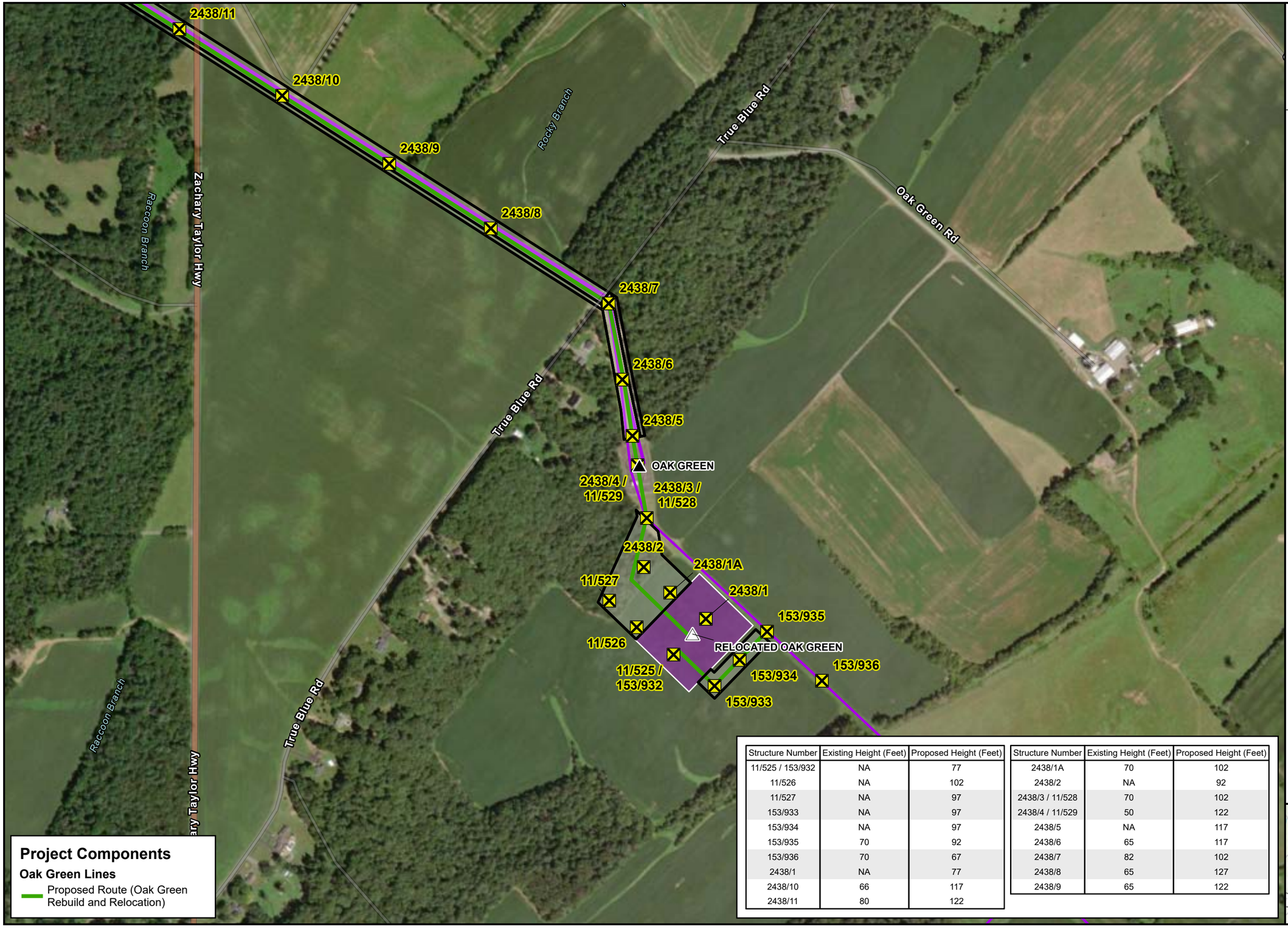
0 260 520
Feet

1:6,000

ERM

N
W E
S






**Project Components**

**Oak Green Lines**

- Proposed Route (Oak Green Rebuild and Relocation)

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 11/525 / 153/932 | NA | 77 |
| 11/526 | NA | 102 |
| 11/527 | NA | 97 |
| 153/933 | NA | 97 |
| 153/934 | NA | 97 |
| 153/935 | 70 | 92 |
| 153/936 | 70 | 67 |
| 2438/1 | NA | 77 |
| 2438/10 | 66 | 117 |
| 2438/11 | 80 | 122 |

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2438/1A | 70 | 102 |
| 2438/2 | NA | 92 |
| 2438/3 / 11/528 | 70 | 102 |
| 2438/4 / 11/529 | 50 | 122 |
| 2438/5 | NA | 117 |
| 2438/6 | 65 | 117 |
| 2438/7 | 82 | 102 |
| 2438/8 | 65 | 127 |
| 2438/9 | 65 | 122 |

Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Orange County

9 of 10

- ▲ Existing Substation/ Switching Station
- △ Proposed Substation/ Switching Station
- Existing Dominion Transmission Line
- Proposed Structure Location*
- Right-of-Way (Existing and Proposed)
- Proposed Substation/ Switching Station Footprint

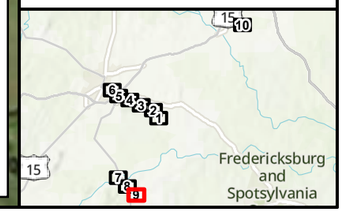
* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

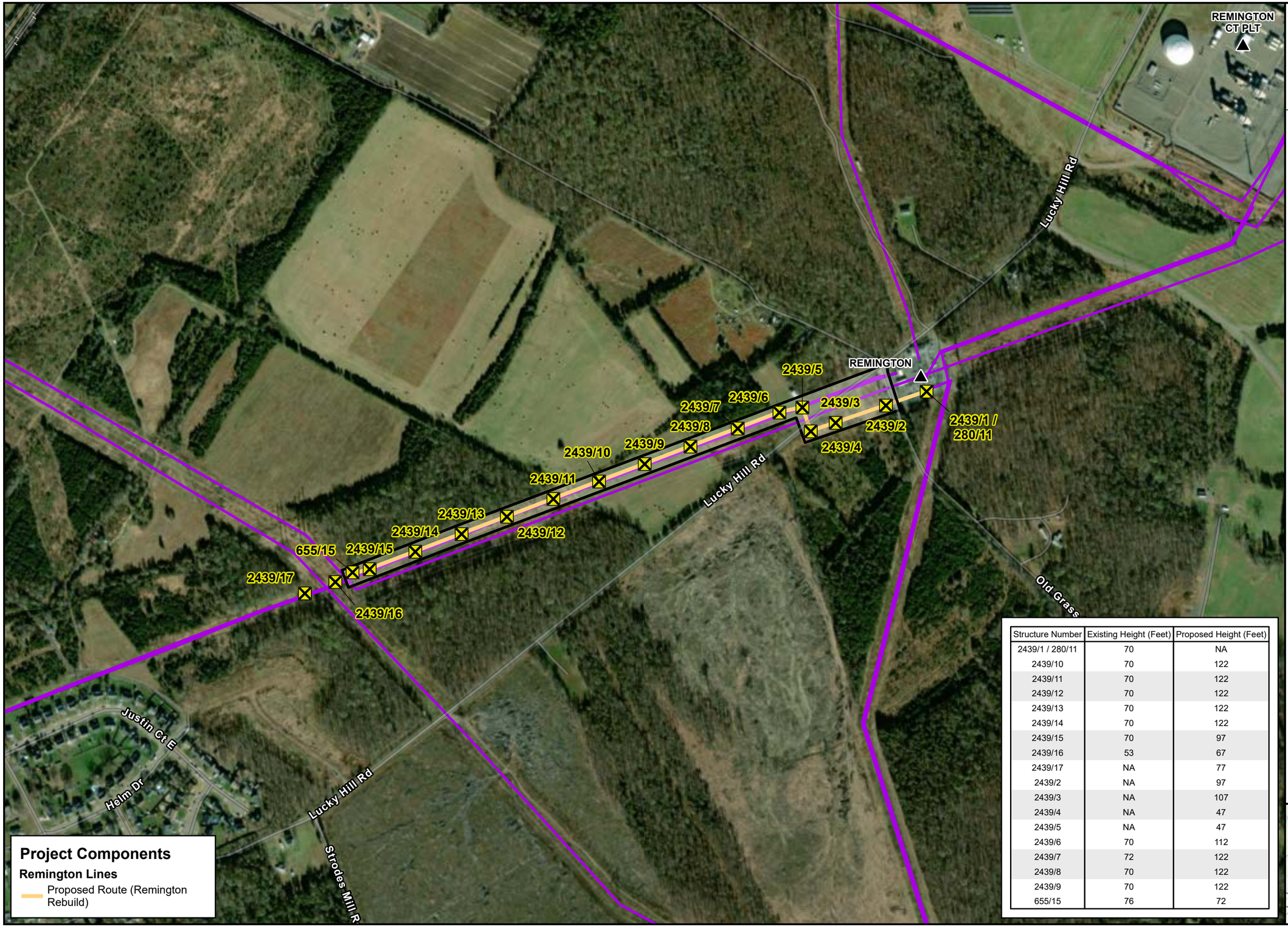
0 260 520
Feet

1:6,000

ERM

N W E S






**Project Components**

**Remington Lines**

Proposed Route (Remington Rebuild)

| Structure Number | Existing Height (Feet) | Proposed Height (Feet) |
|---|---|---|
| 2439/1 / 280/11 | 70 | NA |
| 2439/10 | 70 | 122 |
| 2439/11 | 70 | 122 |
| 2439/12 | 70 | 122 |
| 2439/13 | 70 | 122 |
| 2439/14 | 70 | 122 |
| 2439/15 | 70 | 97 |
| 2439/16 | 53 | 67 |
| 2439/17 | NA | 77 |
| 2439/2 | NA | 97 |
| 2439/3 | NA | 107 |
| 2439/4 | NA | 47 |
| 2439/5 | NA | 47 |
| 2439/6 | 70 | 112 |
| 2439/7 | 72 | 122 |
| 2439/8 | 70 | 122 |
| 2439/9 | 70 | 122 |
| 655/15 | 76 | 72 |

Dominion Energy®

# Attachment II.B.3
## Structure Locations Along the Proposed Routes

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Fauquier County

10 of 10

- Existing Substation/ Switching Station
- Existing Dominion Transmission Line
- Proposed Structure Location*
- Right-of-Way (Existing)

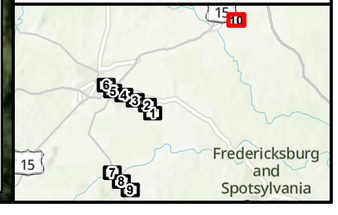
* The proposed approximate structure heights and locations are from the conceptual design created to estimate the cost of the proposed Project along this section and are subject to change based on final engineering design.

0 260 520
Feet

1:6,000

ERM

N
W E
S



## II. DESCRIPTION OF THE PROPOSED PROJECT

### B. Line Design and Operational Features

**4. With regard to the proposed supporting structures for all feasible alternate routes, provide the maximum, minimum and average structure heights with respect to the whole route.**

Response:

**Mt. Pony Lines**

The approximate structure heights along the Mt. Pony Proposed Route and the Mt. Pony Alternative Route 2 are provided in the table below, based on preliminary conceptual design, not including foundation reveal and subject to change based on final engineering design.

| Route | Minimum (ft.) | Maximum (ft.) | Average (ft.) |
|---|---|---|---|
| Mt. Pony Proposed Route (Route 1) | 75 | 125 | 113 |
| Mt. Pony Alternative Route 2 | 75 | 130 | 117 |

**Tech Park Lines**

The approximate structure heights along the Tech Park Proposed Route and Tech Park Alternative Route 2 are provided in the table below, based on preliminary conceptual design, not including foundation reveal and subject to change based on final engineering design.

| Route | Minimum (ft.) | Maximum (ft.) | Average (ft.) |
|---|---|---|---|
| Tech Park Proposed Route (Route 1) | 75 | 125 | 111 |
| Tech Park Alternative Route 2 | 75 | 130 | 113 |
| Tech Park Alternative Route 3 | 75 | 130 | 114 |

**Oak Green Rebuild and Relocation**

The approximate structure heights along the Oak Green Rebuild and Relocation are provided in the table below, based on preliminary conceptual design, not including foundation reveal and subject to change based on final engineering design.

| Route | Minimum (ft.) | Maximum (ft.) | Average (ft.) |
|---|---|---|---|
| Oak Green Rebuild and Relocation | 75 | 130 | 118 |

**Remington Rebuild**

The approximate structure heights along the Remington Rebuild are provided in the table below, based on preliminary conceptual design, not including foundation reveal and subject to change based on final engineering design.

| Route | Minimum (ft.) | Maximum (ft.) | Average (ft.) |
|---|---|---|---|
| Remington Rebuild | 45 | 125 | 105 |

## II. DESCRIPTION OF THE PROPOSED PROJECT

### B. Line Design and Operational Features

**5. For lines being rebuilt, provide mapping showing existing and proposed structure heights for each individual structure within the ROW, as proposed in the application.**

Response: See Attachment II.B.3 for structure mapping and the existing and proposed structure heights for the structures being removed and replaced as a part of the rebuild components for Oak Green Rebuild and Remington Rebuild.

| OAK GREEN REBUILD AND RELOCATION | | |
|---|---|---|
| Structure Number | Existing Pole Height | Proposed Pole Height |
| 11/525 (153/932) | N/A | 76.5 |
| 153/933 | N/A | 96.5 |
| 153/934 | N/A | 96.5 |
| 153/935 | 70 | 91.5 |
| 153/936 | 70 | 66.5 |
| 2438/24 | 80 | 111.5 |
| 2438/23 | 65 | 126.5 |
| 2438/22 | 65 | 126.5 |
| 2438/21 | 65 | 121.5 |
| 2438/20 | 70 | 131.5 |
| 2438/19 | 78 | 131.5 |
| 2438/18 | 65 | 106.5 |
| 2438/17 | 66 | 111.5 |
| 2438/16 | 65 | 121.5 |
| 2438/15 | 66 | 116.5 |
| 2438/14 | 92 | 106.5 |
| 2438/13 | 66 | 116.5 |
| 2438/12 | 65 | 131.5 |
| 2438/11 | 80 | 121.5 |
| 2438/10 | 66 | 116.5 |
| 2438/9 | 65 | 121.5 |
| 2438/8 | 65 | 126.5 |
| 2438/7 | 82 | 101.5 |
| 2438/6 | 65 | 116.5 |
| 2438/5 | N/A | 116.5 |
| 2438/4 (11/529) | 50 | 121.5 |

| OAK GREEN REBUILD AND RELOCATION | | |
|---|---|---|
| Structure Number | Existing Pole Height | Proposed Pole Height |
| 2438/3 (11/528) | 70 | 101.5 |
| 2438/2 | N/A | 91.5 |
| 2438/1A | 70 | 101.5 |
| 2438/1 | N/A | 76.5 |
| 11/527 | N/A | 96.5 |
| 11/526 | N/A | 101.5 |

| REMINGTON REBUILD | | |
|---|---|---|
| Structure Number | Existing Pole Height | Proposed Pole Height |
| 2439/2 | N/A | 96.5 |
| 2439/3 | N/A | 106.5 |
| 2439/4 | N/A | 46.5 |
| 2439/5 | N/A | 46.5 |
| 2439/6 | 70 | 111.5 |
| 2439/7 | 72 | 121.5 |
| 2439/8 | 70 | 121.5 |
| 2439/9 | 70 | 121.5 |
| 2439/10 | 70 | 121.5 |
| 2439/11 | 70 | 121.5 |
| 2439/12 | 70 | 121.5 |
| 2439/13 | 70 | 121.5 |
| 2439/14 | 70 | 121.5 |
| 2439/15 | 70 | 96.5 |
| 2439/16 | 53 | 66.5 |
| 2439/17 | N/A | 76.5 |
| 655/2 | 70 | 116.5 |
| 655/3 | 70 | 126.5 |
| 655/15 | 76 | 71.5 |

## II. DESCRIPTION OF THE PROPOSED PROJECT

### B. Line Design and Operational Features

**6. Provide photographs for [a] typical existing facilities to be removed, [b] comparable photographs or representations for proposed structures, and [c] visual simulations showing the appearance of all planned transmission structures at identified historic locations within one mile of the proposed centerline and in key locations identified by the Applicant.**

Response:

[a] typical existing facilities to be removed

See Attachments II.B.6.a.i - viii

[b] comparable photographs or representations for proposed structures

See Attachments II.B.6.b.i - v for representative photographs of the proposed structures. Note that the Company has proposed both dulled-finish galvanized and weathering steel as the structure materials for Project. See Attachments II.B.3.a - x.

[c] visual simulations showing the appearance of all planned transmission structures at identified historic locations within one mile of the proposed centerline and in key locations identified by the Applicant.

Visual simulations showing the appearance of the proposed transmission structures at identified historic locations within 1.0 mile of the proposed centerline of the Proposed Routes are provided. See Attachment II.B.6.c.i for a map of the historic simulation locations,[22] the existing views at the historic locations, and simulated proposed views and Attachment II.B.6.c.ii for a map and simulations from other key locations identified. These simulations were created using Geographic Information Systems modeling to depict whether the proposed structures will be visible from the identified historic location. The historic locations evaluated are described below. See also the Stage I Pre-Application Analysis Report contained in Appendix H and a Visual Impact Assessment in Appendix G of the Routing Study.

[22] From historic locations where no Project infrastructure will be visible and where the three Tech Park Route alignments are in a shared location, only the Tech Park Route 1 simulation is included to reduce the number of duplicate simulations provided. This includes simulations from Key Observation Points 103, 112, 116-126, and 128. These duplicate simulations showing each Tech Park Route are included in Appendix G of the Routing Study, as required.

Mt. Pony Lines

| Historic Property | Viewpoint(s) | Comments |
|---|---|---|
| Rose Hill<br>(VDHR ID# 023-0018) | 101 | The Mt. Pony Proposed Route would have no more than a moderate impact on 023-0018 |
| Mount Pony Rural Historic District<br>(VDHR ID# 023-0084) | 102<br>104<br>105 | The Mt. Pony Proposed Route and Mt. Pony Alternative Route 2 would have no more than a moderate impact on 023-0084 |
| Mount Castle<br>(VDHR ID# 023-5023) | 104 | The Mt. Pony Proposed Route would have no more than a moderate impact on 023-5023 |
| Croftburn Farm<br>(VDHR ID# 023-5040) | 102 | The Mt. Pony Proposed Route and Mt. Pony Alternative Route 2 would have no more than a moderate impact on 023-5040 |
| Eckington School<br>(VDHR ID# 023-5041) | 113 | Mt. Pony Alternative Route 2 would have no impact on 023-5041. |
| Brandy Station Battlefields<br>(VDHR ID # 023-5055) | 105<br>106 | The Mt. Pony Proposed Route would have no more than a minimal impact on 023-5055. |
| St. Steven's Baptist Church<br>(VDHR ID# 023-5161) | 107 | The Mt. Pony Proposed Route would have no impact on 023-5161 |
| Zimmerman's Tavern<br>(VDHR ID# 023-5162) | 107 | The Mt. Pony Proposed Route would have no impact on 023-5162. |
| House<br>(VDHR ID# 023-5494) | 108<br>163 | The Mt. Pony Proposed Route would have no more than a moderate impact on 023-5494. |
| Battle of Morton's Ford<br>(VDHR ID# 068-5007) | 108<br>109<br>110<br>166C<br>166D<br>101 | The Mt. Pony Proposed Route would have no more than a moderate impact and Mt. Pony Alternative Route 2 would have no more than a minimal impact on 068-5007. |
| Rapidan River and Clark Mountain Rural Historic District<br>(VDHR ID# 068-5033) | 110 | Mt. Pony Alternative Route 2 would have no impact on 068-5033. |
| Greenwood<br>(VDHR ID# 204-0070) | 113 | The Mt. Pony Proposed Route and Mt. Pony Alternative Route 2 would have no impact on 204-0070. |

Tech Park Lines

| Historic Property | Viewpoint(s) | Comments |
|---|---|---|
| Mount Pony Rural Historic District (VDHR ID# 023-0084) | 102 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no more than a minimal impact on 023-0084. |
| Mount Castle (VDHR ID# 023-5023) | 104 | The Tech Park Proposed Route would have no impact on 023-5023. |
| Croftburn Farm (VDHR ID# 023-5040) | 102 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no more than a minimal impact on 023-5040. |
| Hill Mansion (VDHR ID #204-0002) | 116 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-0002 |
| Saint Stephen's Episcopal Church (VDHR ID #204-0003) | 117 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-0003. |
| Burgandine House (VDHR ID #204-0005) | 118 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-0005.. |
| A.P. Hill Boyhood Home (VDHR ID #204-0006) | 119 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-0006. |
| Culpeper Historic District (VDHR ID #204-0020) | 120 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park |

| Historic Property | Viewpoint(s) | Comments |
|---|---|---|
| | | Alternative Route 3 would have no impact on 204-0020. |
| Antioch Baptist Church (VDHR ID #204-0020-0140) | 121 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-0020-0140. |
| Corrie Hill House (VDHR ID #204-0021) | 122 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-0021. |
| South East Street Historic District (VDHR ID# 204-0064) | 123<br>124<br>125 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no more than a minimal impact on 204-0064. |
| Culpeper National Cemetery (VDHR ID# 204-0069) | 124 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-0069. |
| Greenwood (VDHR ID# 204-0070) | 111 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-0070. |
| Pitts Theater (VDHR ID# 204-5053) | 126 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-5053. |
| Lord Culpeper Hotel (VDHR ID# 204-5067) | 126 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-5067. |
| Culpeper Light & Power (VDHR ID# 204-5097) | 118 | The Tech Park Proposed Route, Tech Park Alternative Route 2, and Tech Park Alternative Route 3 would have no impact on 204-5097. |

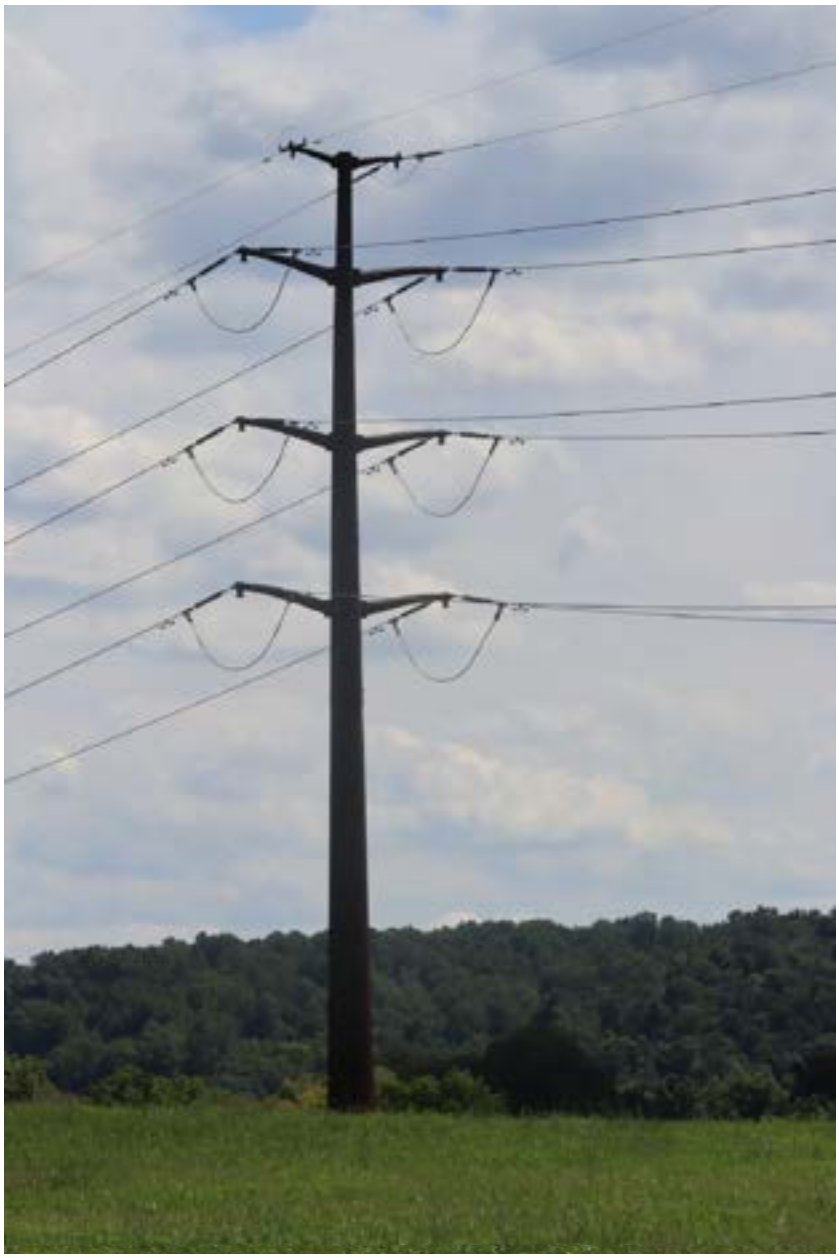
Oak Green Proposed Route

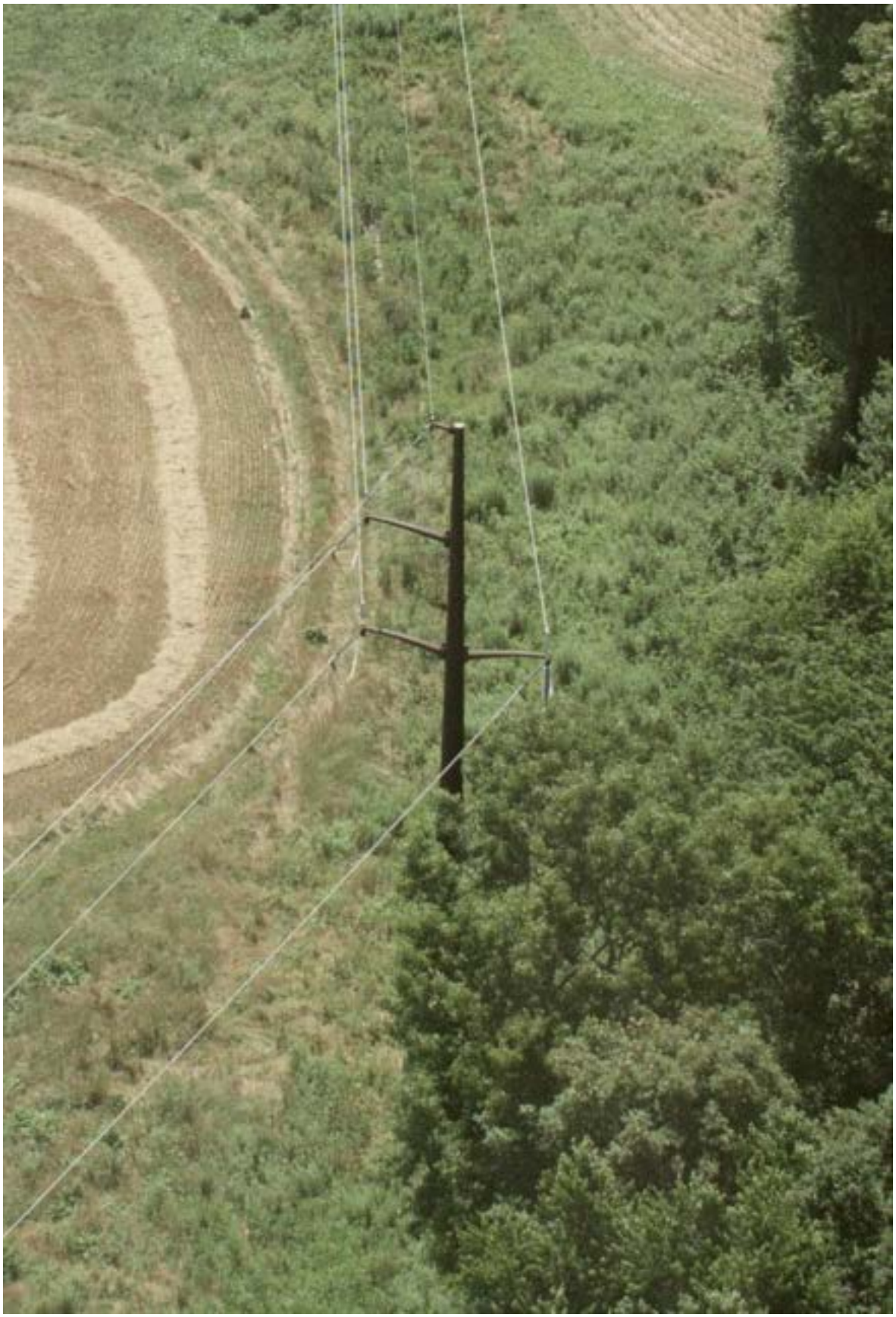
| Historic Property | Viewpoint(s) | Comments |
|---|---|---|
| Morton Hall<br>(VDHR ID# 068-0031) | 132A<br>132B | The Oak Green Proposed Route would have no more than a minimal impact on 068-0031. |
| Lessland<br>(VDHR ID# 068-0131) | 133 | The Oak Green Proposed Route would have no more than a minimal impact on 068-0131. |
| Mt. Holy Baptist Church<br>(VDHR ID# 068-0473) | 134 | The Oak Green Proposed Route would have no impact on 068-0473. |
| Rapidan River and Clark Mountain Rural Historic District<br>(VDHR ID# 068-5033) | 132A<br>132B<br>133<br>135<br>150<br>151 | The Oak Green Proposed Route would have no more than a minimal impact on 068-5033. |

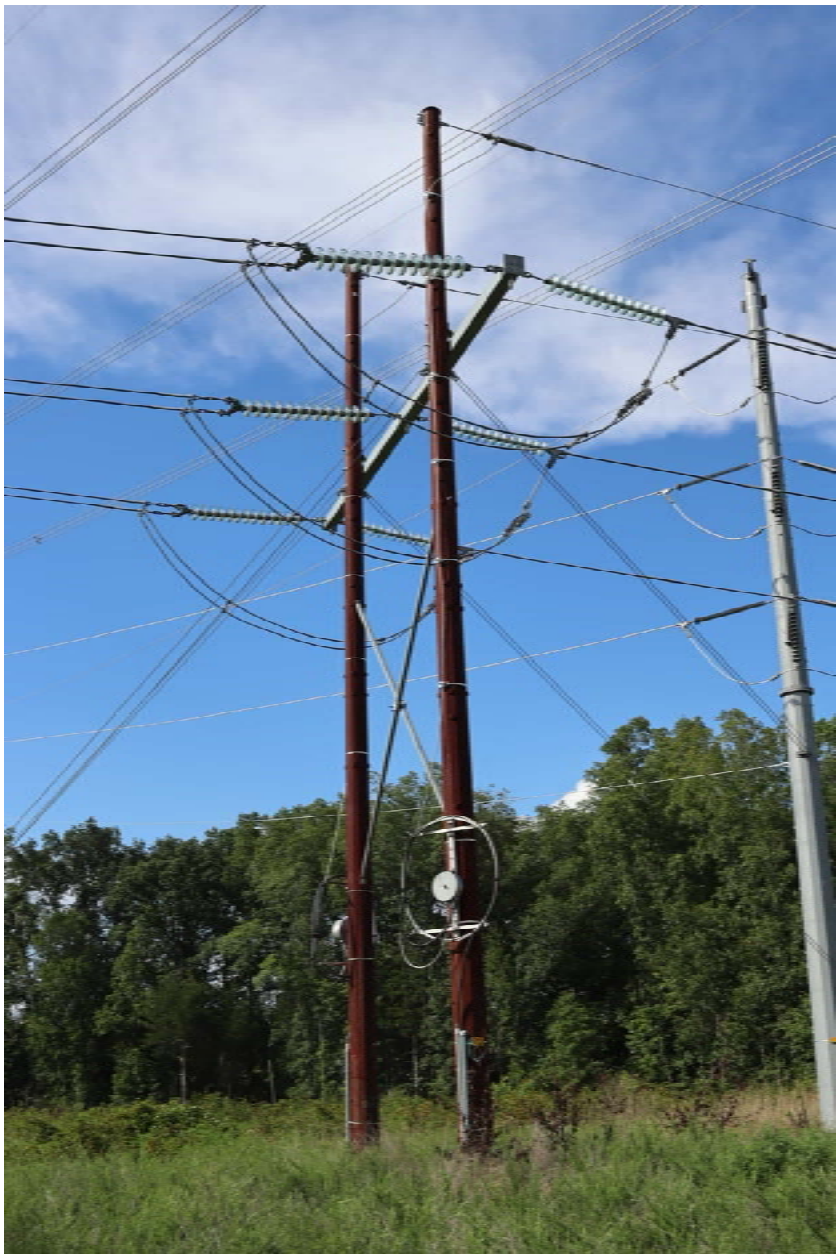
Remington Proposed Route

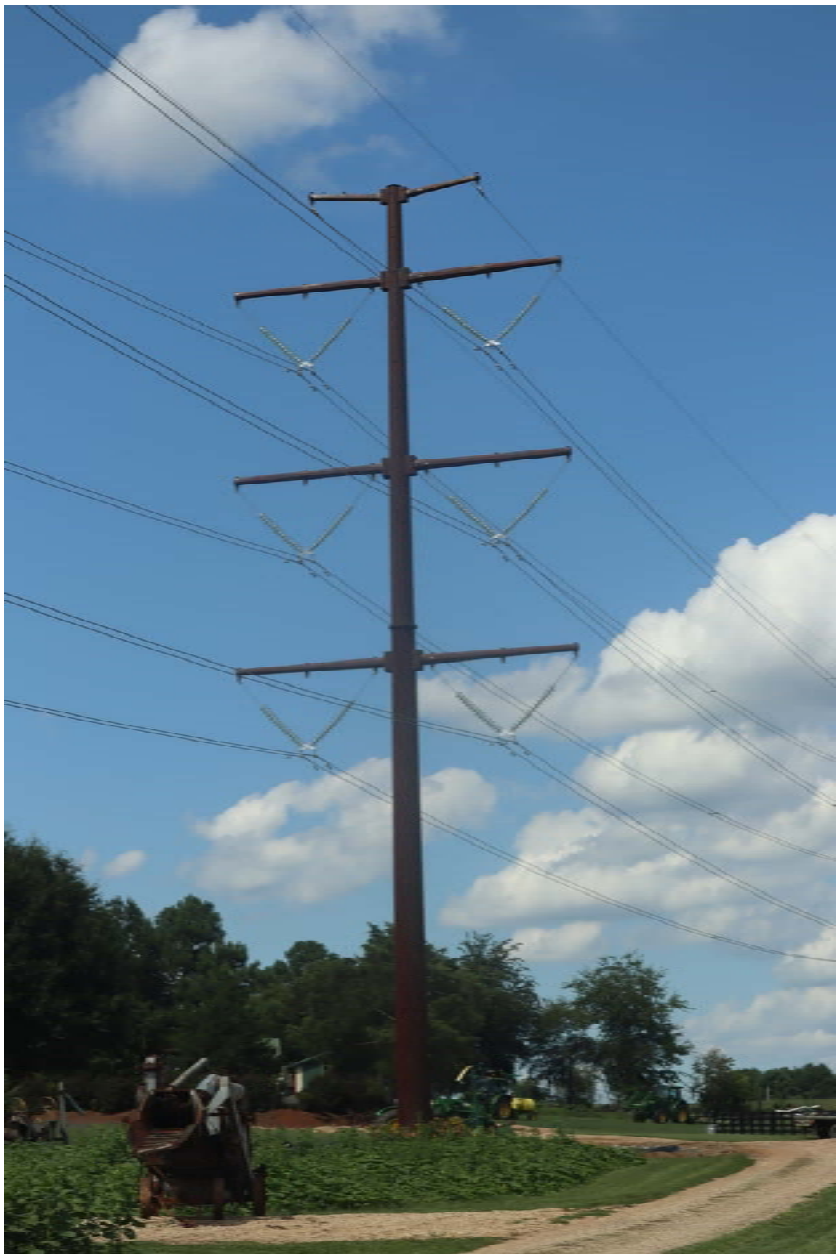
| Historic Property | Viewpoint(s) | Comments |
|---|---|---|
| Freeman's Ford Battlefield<br>(VDHR ID# 023-5049) | 137<br>138 | The Remington Proposed Route would have no impact on 023-5049. |
| Rappahannock Station Battlefield II<br>(VDHR ID# 023-5050) | 130<br>164 | The Remington Proposed Route would have no more than a minimal impact on 023-5050. |
| Mt. Holly Ridge Marsh Run Rural Historic District<br>(VDHR ID# 030-5587) | 130<br>131 | The Remington Proposed Route would have no more than a minimal impact on 030-5587. |
| Rappahannock River 1862 Northern Virginia Campaign Rural Historic District<br>(VDHR ID# 030-5593) | 136 | The Remington Proposed Route would have no impact on 030-5593. |
| Hedgeman-Rappahannock Rural Historic District<br>(VDHR ID# 030-5607) | 137 | The Remington Proposed Route would have no impact on 030-5607. |
| Piney Ridge School<br>(VDHR ID# 030-5852) | 131 | The Remington Proposed Route would have no impact on 030-5852. |

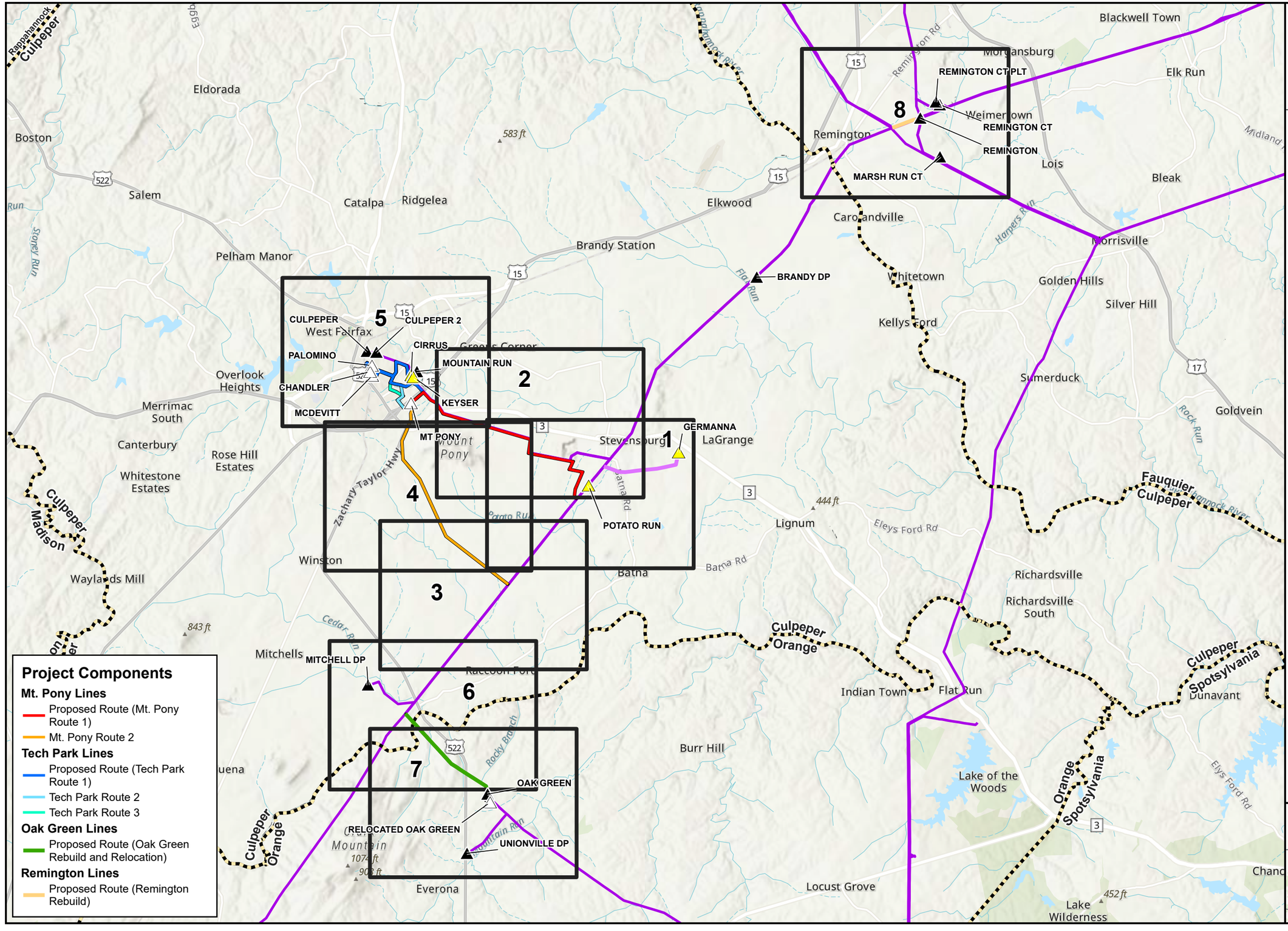
| Historic Property | Viewpoint(s) | Comments |
|---|---|---|
| Remington Historic District (VDHR ID# 288-5001) | 136<br>139 | The Remington Proposed Route would have no impact on 288-5001. |












Dominion Energy®

# Attachment II.B.6.c.i

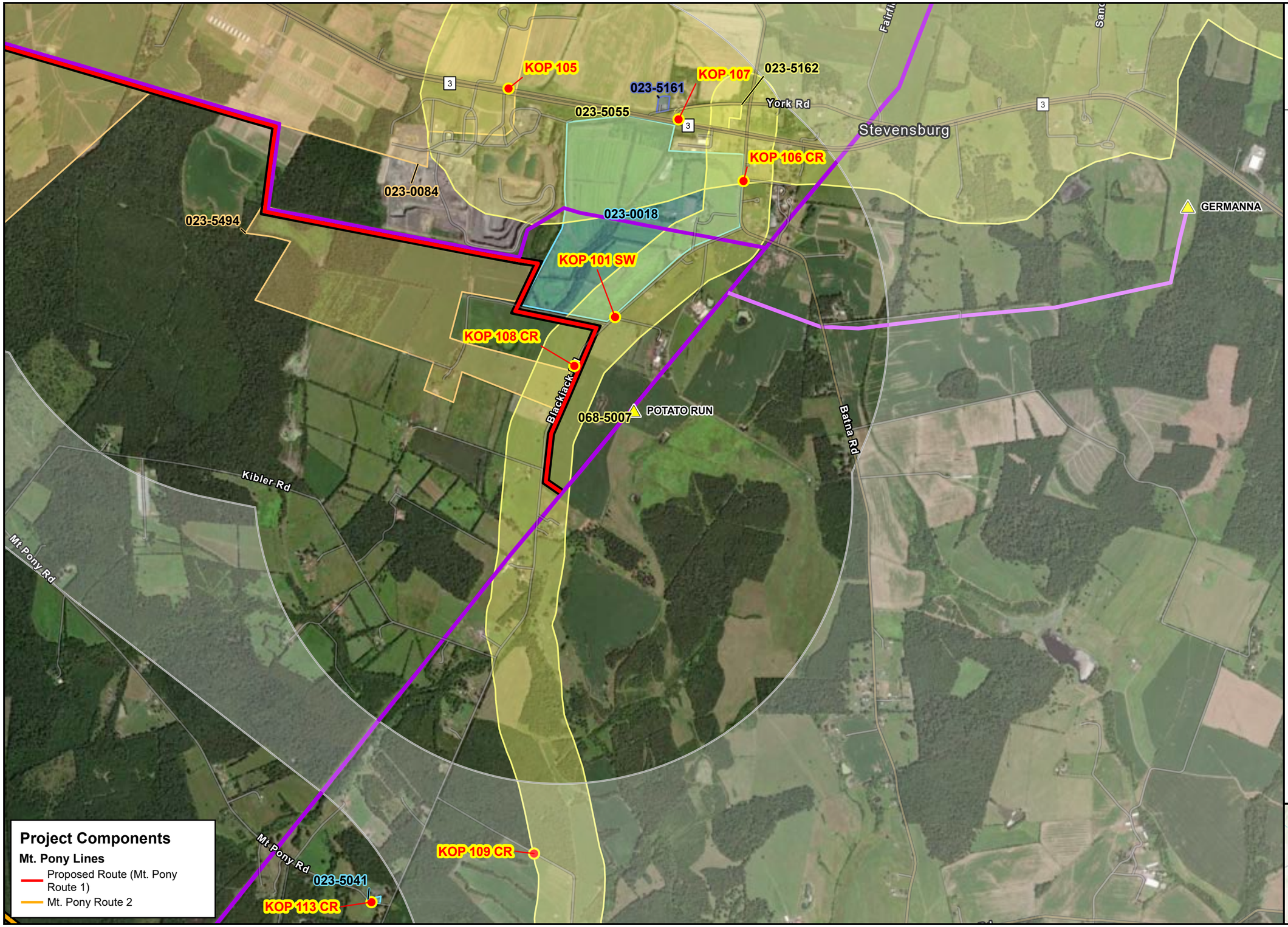
## Locations of Considered and Historic Resources along and near Route Alternatives

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Culpeper, Fauquier and Orange County, Virginia

Index Map

Attachment II.B.6.c.i




Dominion Energy®

# Attachment II.B.6.c.i
## Locations of Considered and Historic Resources along and near Route Alternatives

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**
Culpeper County, Virginia



- Approved Future Substation/Switching Station
- Existing Dominion Transmission Line
- Approved Future Transmission Line
- Right of Way
- Key Observation Point (KOP)
- 1 Mile Buffer

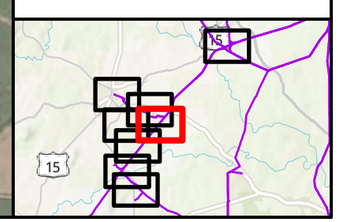
**Architectural Resource**
- NRHP Listed
- Eligible
- Potentially Eligible
- Not Eligible - Locally Significant

0 825 1,650
Feet

1:20,000

ERM

N W E S

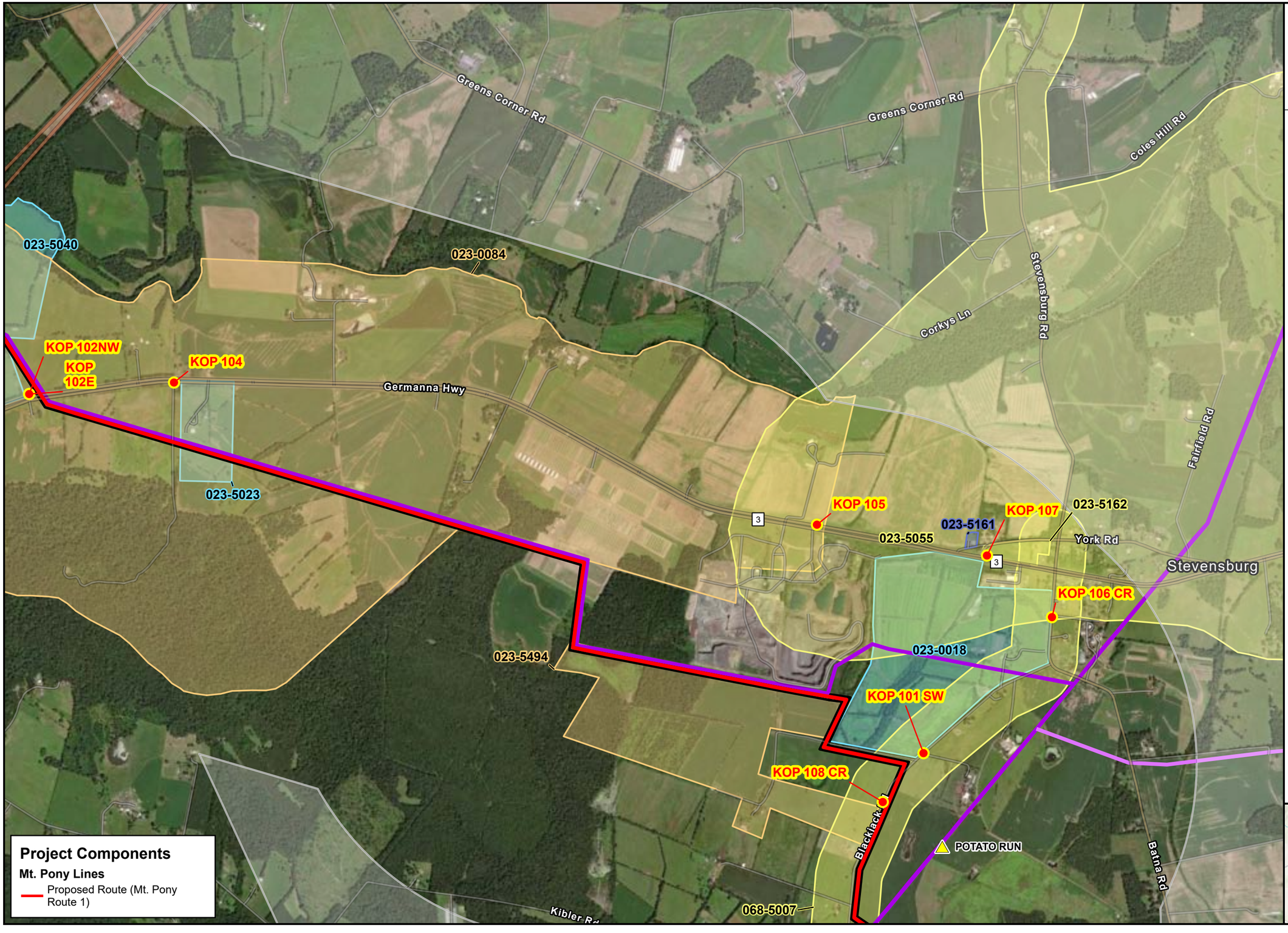


Dominion Energy®

# Attachment II.B.6.c.i
## Locations of Considered and Historic Resources along and near Route Alternatives

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**
Culpeper County, Virginia






Dominion Energy®

# Attachment II.B.6.c.i
## Locations of Considered and Historic Resources along and near Route Alternatives

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**
Culpeper and Orange County, Virginia



- Existing Dominion Transmission Line
- County Boundary
- Right of Way
- Key Observation Point (KOP)
- 1 Mile Buffer

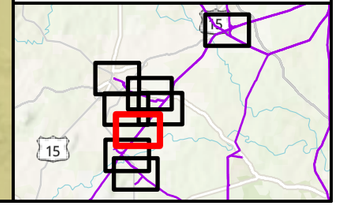
**Architectural Resource**
- NRHP Listed
- Eligible
- Potentially Eligible

0 825 1,650
Feet

1:20,000

ERM

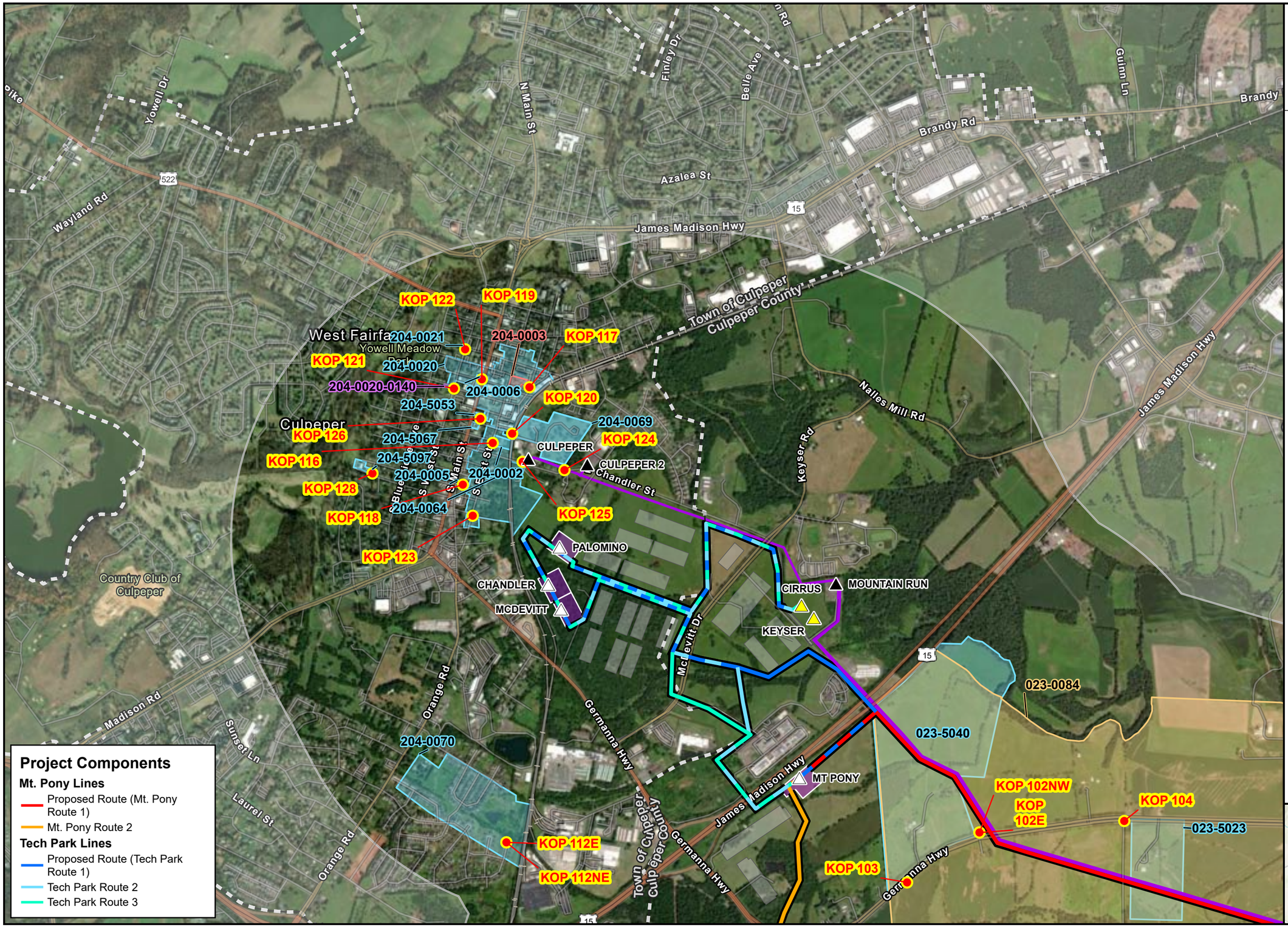
N
W E
S




Dominion Energy®

# Attachment II.B.6.c.i
## Locations of Considered and Historic Resources along and near Route Alternatives

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**
Culpeper County, Virginia




## Project Components

**Mt. Pony Lines**
- Proposed Route (Mt. Pony Route 1)
- Mt. Pony Route 2

**Tech Park Lines**
- Proposed Route (Tech Park Route 1)
- Tech Park Route 2
- Tech Park Route 3

Dominion Energy®

# Attachment II.B.6.c.i
## Locations of Considered and Historic Resources along and near Route Alternatives

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**
Culpeper County, Virginia



- Existing Substation/Switching Station
- Approved Future Substation/Switching Station
- Proposed Substation/Switching Station
- Existing Dominion Transmission Line
- County Boundary
- Proposed Data Center Building
- Proposed Substation/Switching Station Footprint
- Right of Way
- Key Observation Point (KOP)
- 1 Mile Buffer

**Architectural Resource**
- NRHP Listed
- VLR Listed
- Eligible
- Unevaluated - Locally Significant

0 825 1,650
Feet

1:20,000

ERM

N W E S


Dominion Energy

# Attachment II.B.6.c.i
## Locations of Considered and Historic Resources along and near Route Alternatives

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**
Culpeper and Orange County, Virginia



- Existing Substation/Switching Station
- Existing Dominion Transmission Line
- County Boundary
- Right of Way (Existing and Proposed)
- Key Observation Point (KOP)
- 1 Mile Buffer

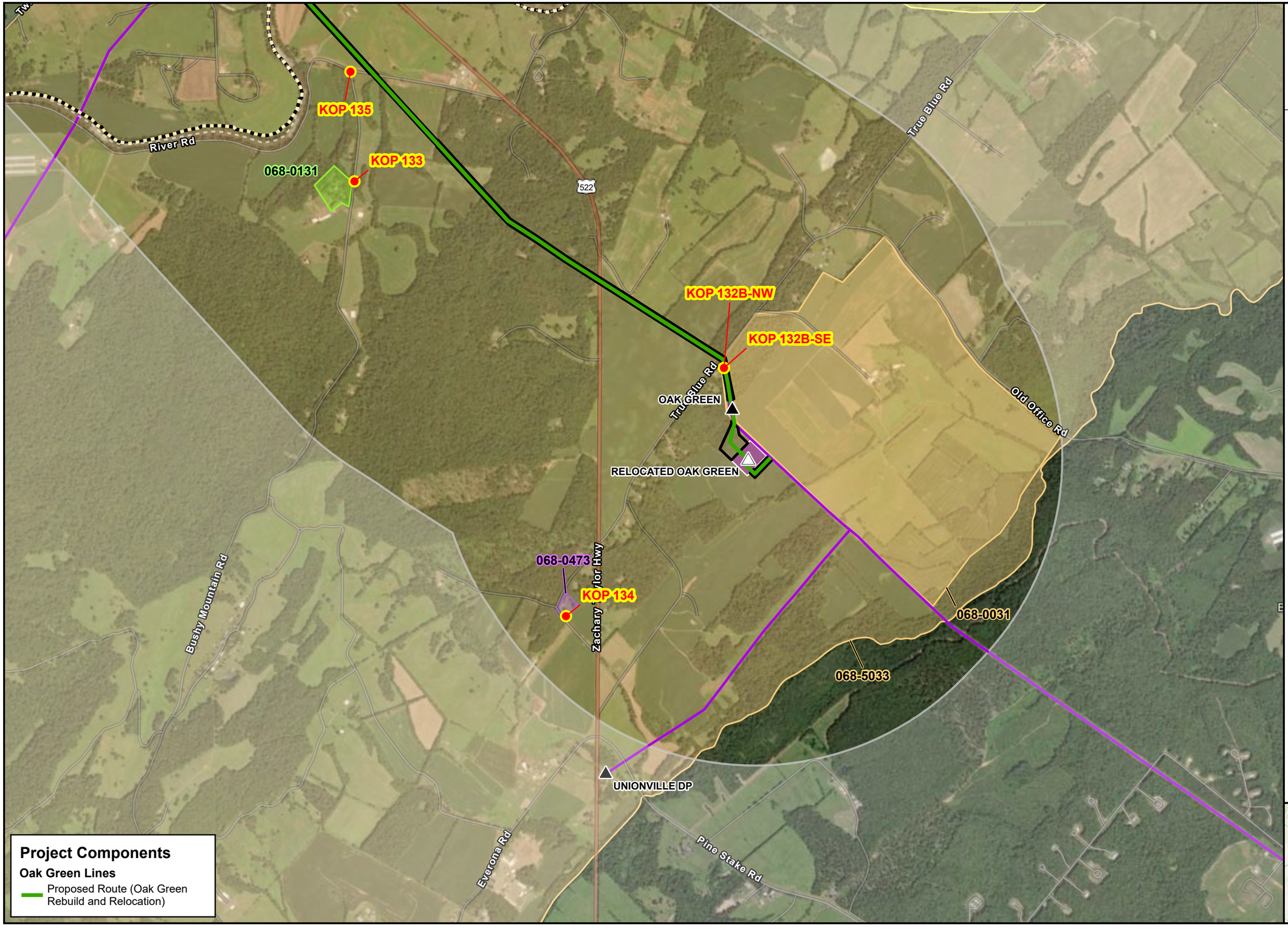
**Architectural Resource**
- NRHP, VLR Listed
- Eligible
- Potentially Eligible

0 825 1,650
Feet

1:20,000

ERM

N W E S




Dominion Energy

# Attachment II.B.6.c.i
## Locations of Considered and Historic Resources along and near Route Alternatives

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**
Culpeper and Orange County, Virginia



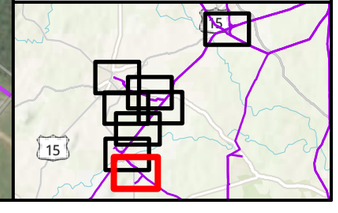
- Existing Substation/Switching Station
- Proposed Substation/Switching Station
- Existing Dominion Transmission Line
- County Boundary
- Proposed Substation/Switching Station Footprint
- Right of Way (Existing and Proposed)
- Key Observation Point (KOP)
- 1 Mile Buffer

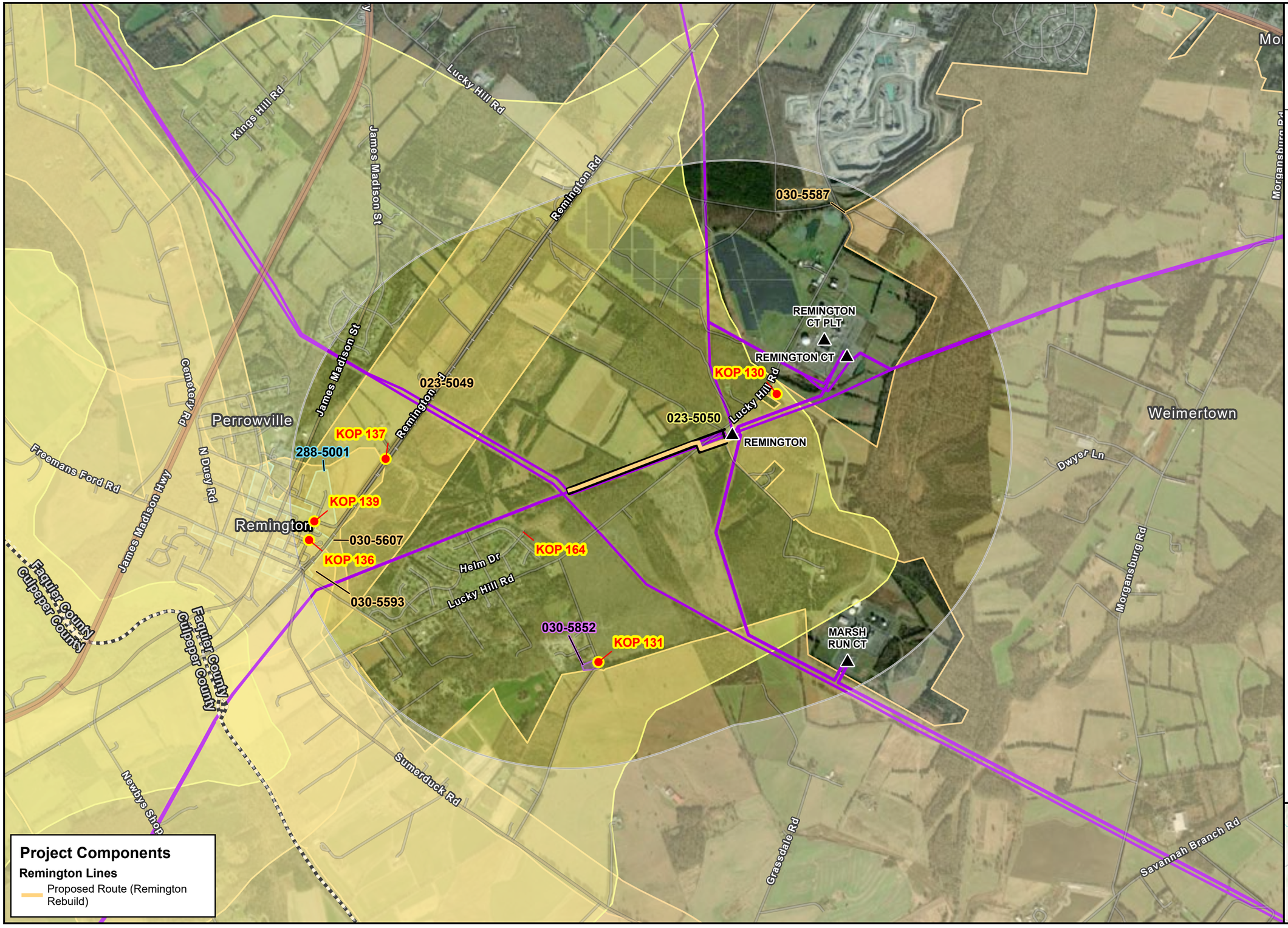
**Architectural Resource**
- NRHP, VLR Listed
- Eligible
- Potentially Eligible
- Unevaluated - Locally Significant

0 825 1,650
Feet

1:20,000

ERM






**Project Components**

**Remington Lines**

Proposed Route (Remington Rebuild)

Dominion Energy®

# Attachment II.B.6.c.i

## Locations of Considered and Historic Resources along and near Route Alternatives

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**

Fauquier and Culpeper County, Virginia



- Existing Substation/Switching Station
- Existing Dominion Transmission Line
- County Boundary
- Right of Way (Existing)
- Key Observation Point (KOP)
- 1 Mile Buffer

**Architectural Resource**

- NRHP Listed
- Eligible
- Potentially Eligible
- Unevaluated - Locally Significant

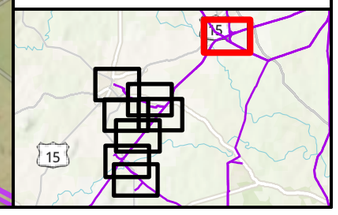
0 870 1,740

Feet

1:21,000

ERM

N W E S



# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

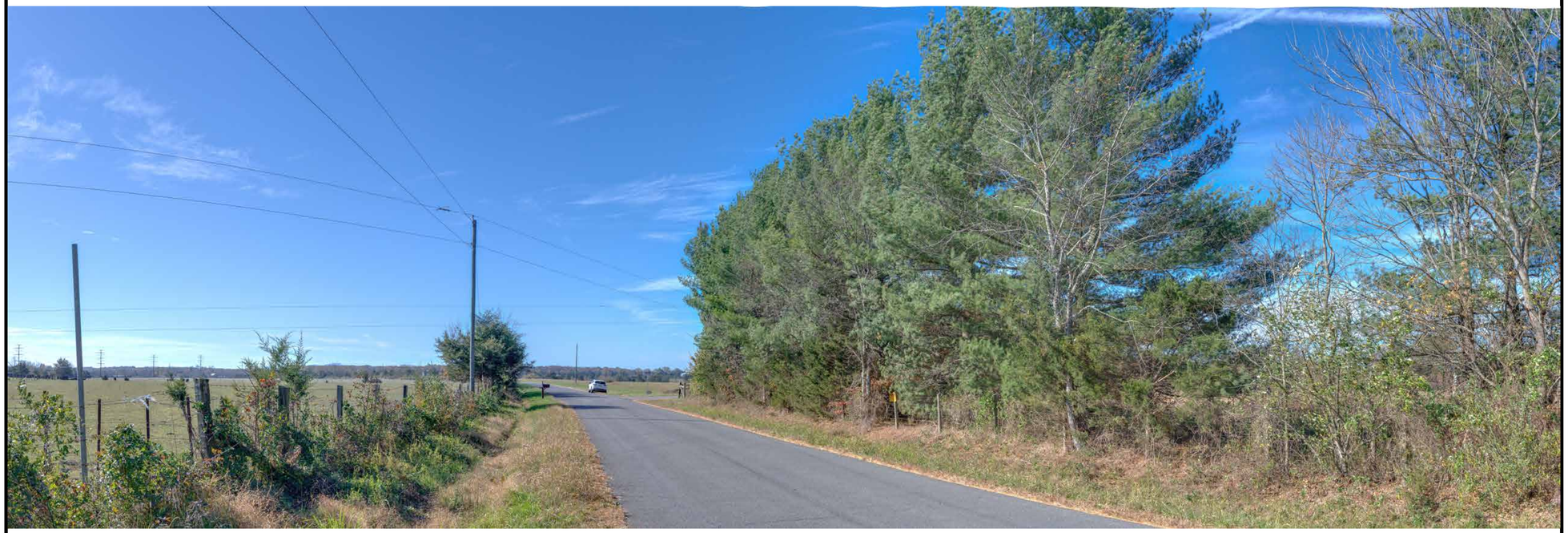
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 101

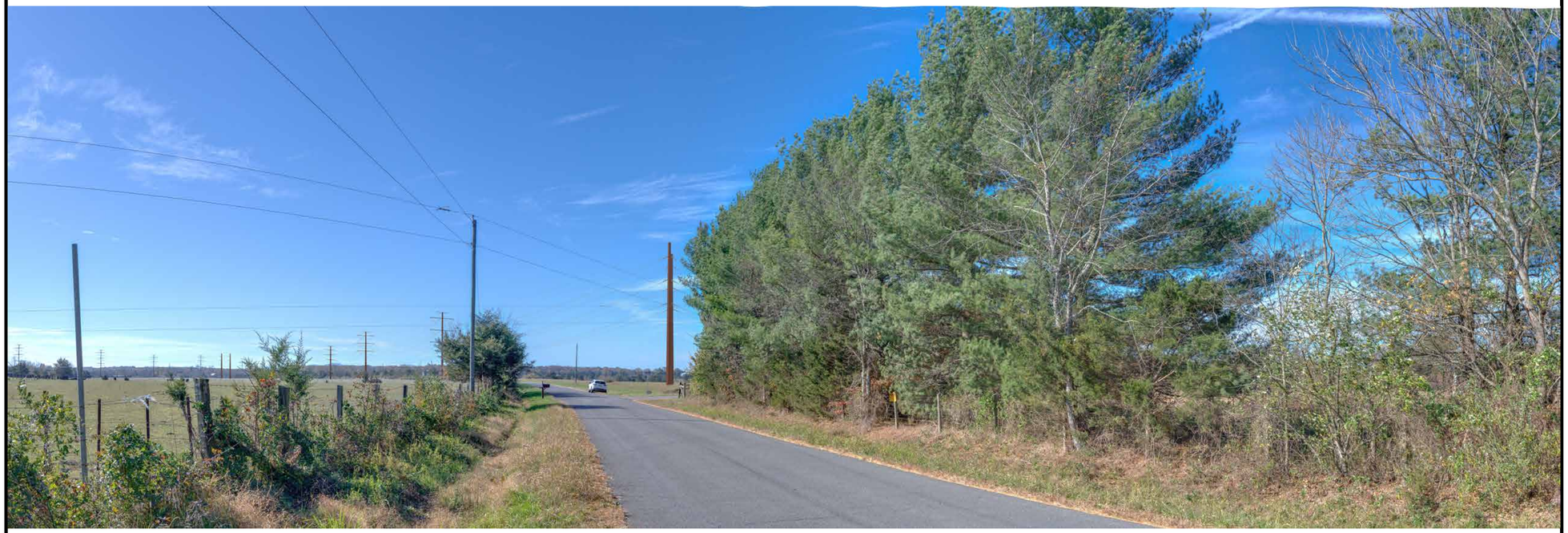
Blackjack Rd

**Figure 2**
**Route: Mt. Pony Route 1**
**Date:11/06/2024**
**Time: 10:46 am**
**Viewing Direction: Southwest**
**Distance to closest feature: 0.07 miles**

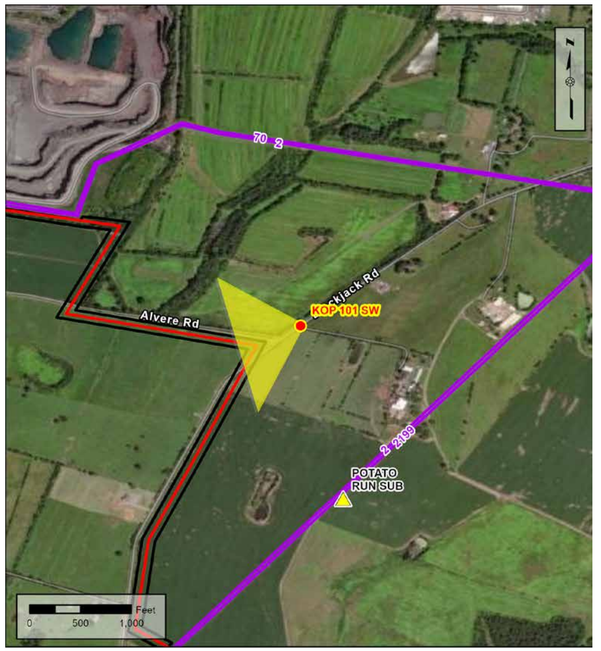


**EXISTING CONDITIONS**

200



**PROPOSED CONDITIONS**




**Legend**

- KOP View Direction
- Approved Future Substation
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

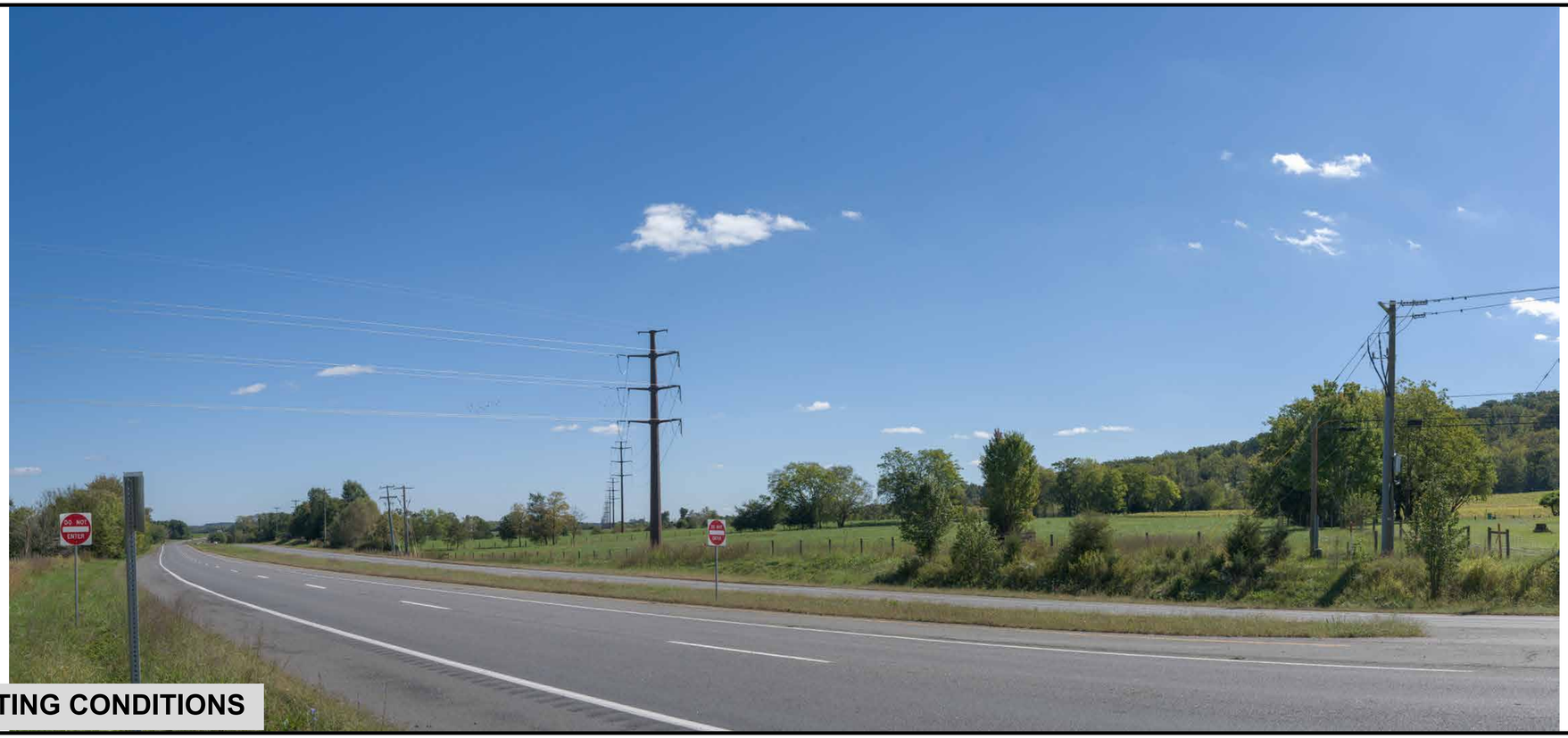
Culpeper, Fauquier, & Orange Counties, Virginia

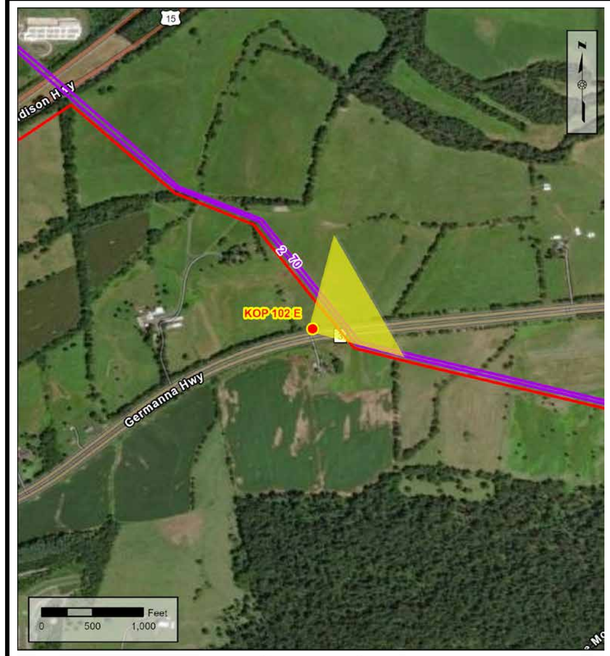
Dominion Energy℠

## KOP 102

Germanna Hwy

**Figure 4**
**Route: Mt. Pony Route 1**
**Date:10/08/2024**
**Time: 12:43 pm**
**Viewing Direction: East**
**Distance to closest feature: 0.03 miles**





## Legend

- KOP View Direction
- Mt Pony Route 1
- Existing Dominion Energy Electric Transmission Line

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

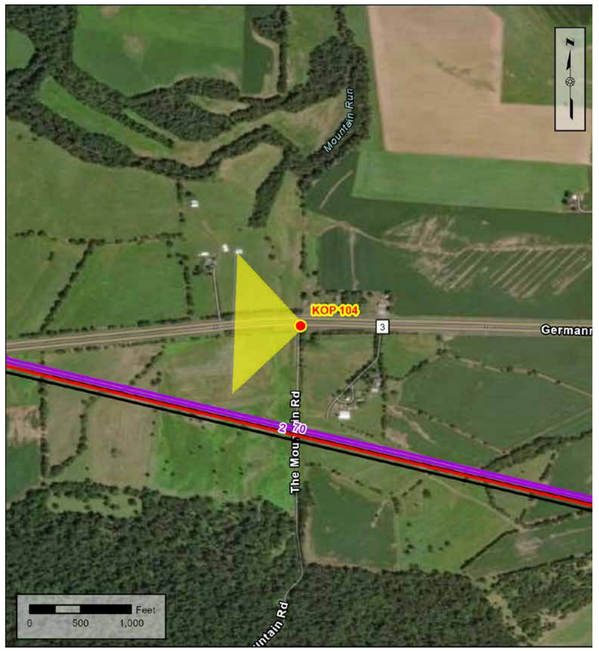
## KOP 104

Germanna Hwy

**Figure 5**
**Route: Mt. Pony Route 1**
**Date:10/08/2024**
**Time: 12:58 pm**
**Viewing Direction: West**
**Distance to closest feature: 0.07 miles**

EXISTING CONDITIONS


YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE




**Legend**

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 102

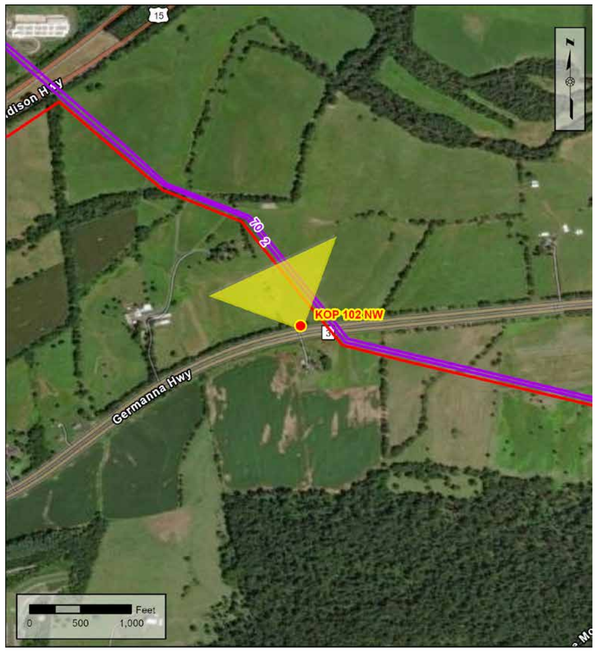
Germanna Hwy

**Figure 9**
**Route: Mt. Pony Route 1**
**Date:10/08/2024**
**Time: 12:43 pm**
**Viewing Direction: Northwest**
**Distance to closest feature: 0.03 miles**

EXISTING CONDITIONS

203


PROPOSED CONDITIONS




**Legend**

- KOP View Direction
- Mt Pony Route 1
- Existing Dominion Energy Electric Transmission Line

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

204

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

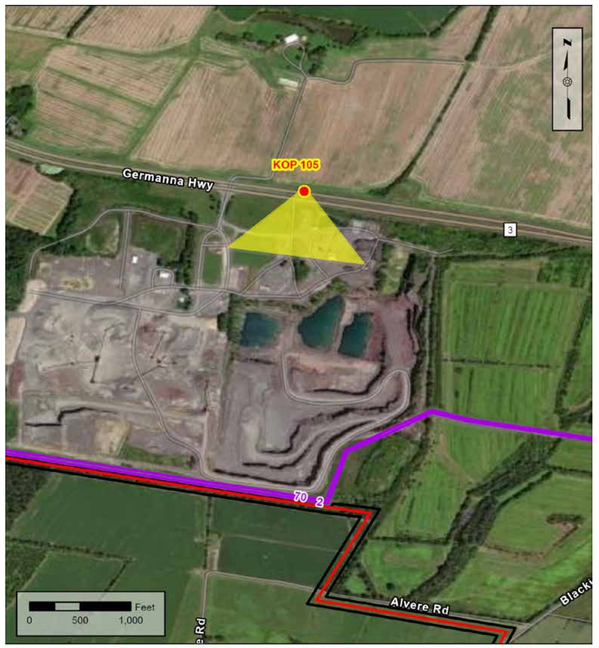
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 105

Germanna Hwy

**Figure 11**
**Route: Mt. Pony Route 1**
**Date:11/06/2024**
**Time: 11:34 am**
**Viewing Direction: South**
**Distance to closest feature: 0.57 miles**




**Legend**

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

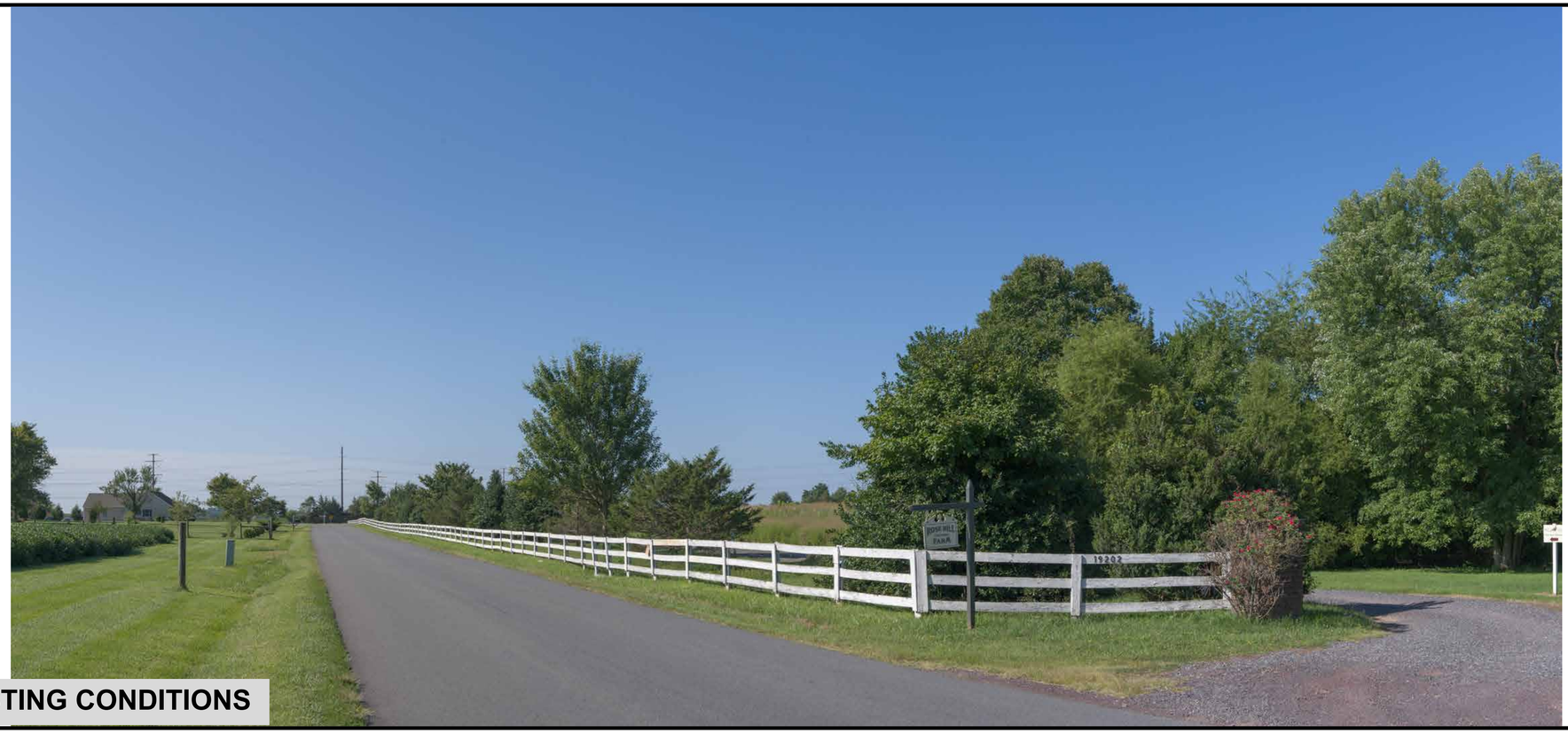
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 106

Batna Rd

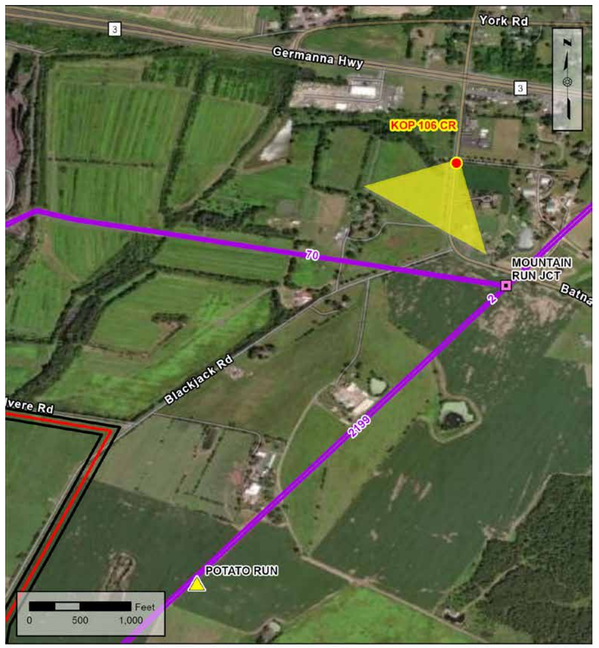
**Figure 12**
**Route: Mt. Pony Route 1**
**Date:08/23/2024**
**Time: 9:45 am**
**Viewing Direction: Southwest**
**Distance to closest feature: 0.71 miles**



**EXISTING CONDITIONS**

205

**YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE**




**Legend**

- KOP View Direction
- Approved Future Substation
- Junction
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

206

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

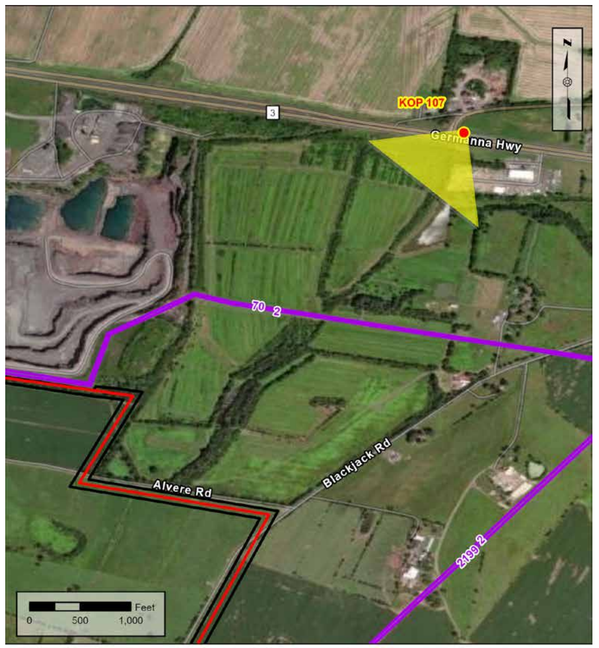
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 107

Germanna Hwy

**Figure 14**
**Route: Mt. Pony Route 1**
**Date:11/06/2024**
**Time: 11:11 am**
**Viewing Direction: Southwest**
**Distance to closest feature: 0.69 miles**




**Legend**

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 108

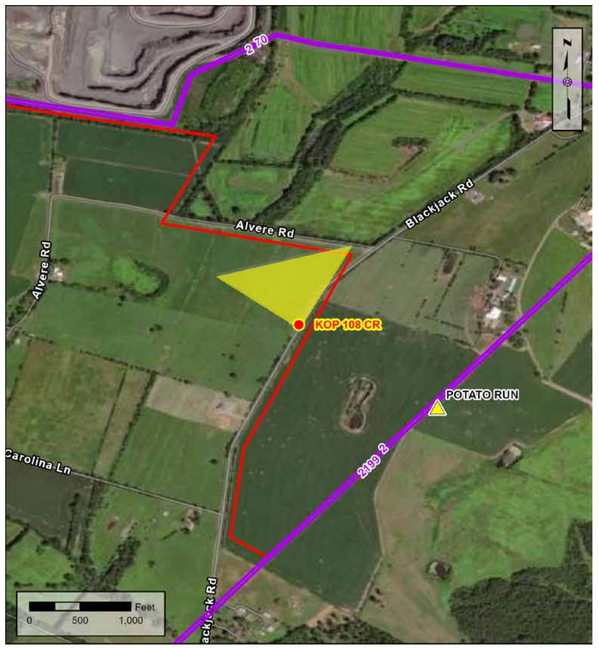
Blackjack Rd

**Figure 18**
**Route: Mt. Pony Route 1**
**Date:08/23/2024**
**Time: 9:26 am**
**Viewing Direction: Northwest**
**Distance to closest feature: 0.02 miles**

**EXISTING CONDITIONS**

207


**PROPOSED CONDITIONS**




## Legend

- KOP View Direction
- Approved Future Substation
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 1

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 112

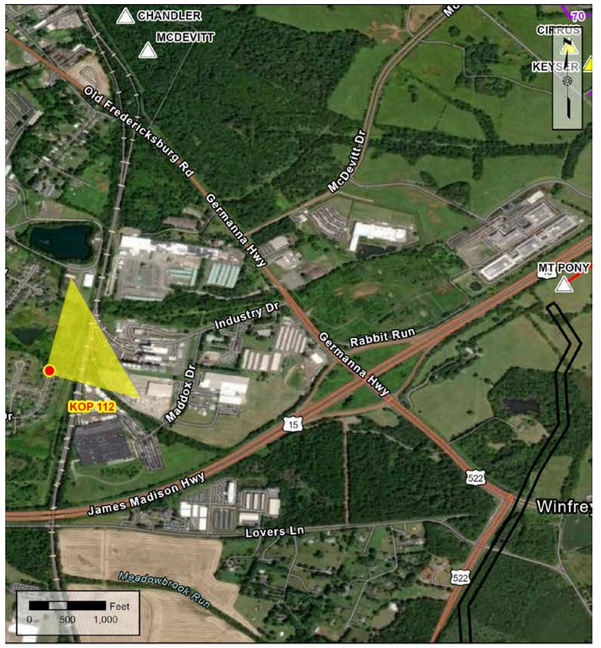
Post Oak Dr

**Figure 22**
**Route: Mt. Pony Route 1**
**Date:10/09/2024**
**Time: 11:39 am**
**Viewing Direction: East**
**Distance to closest feature: 1.03 miles**

EXISTING CONDITIONS

208

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE




**Legend**

- KOP View Direction
- Approved Future Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

209

PROPOSED CONDITIONS

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

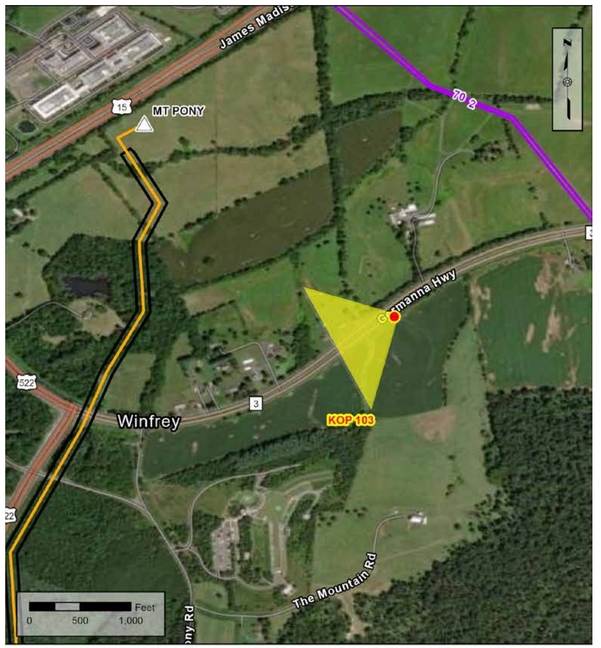
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 103

Germanna Hwy

**Figure 24**
**Route: Mt. Pony Route 2**
**Date:12/17/2024**
**Time: 12:04 pm**
**Viewing Direction: Southwest**
**Distance to closest feature: 0.34 miles**




**Legend**

- KOP View Direction
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 2
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

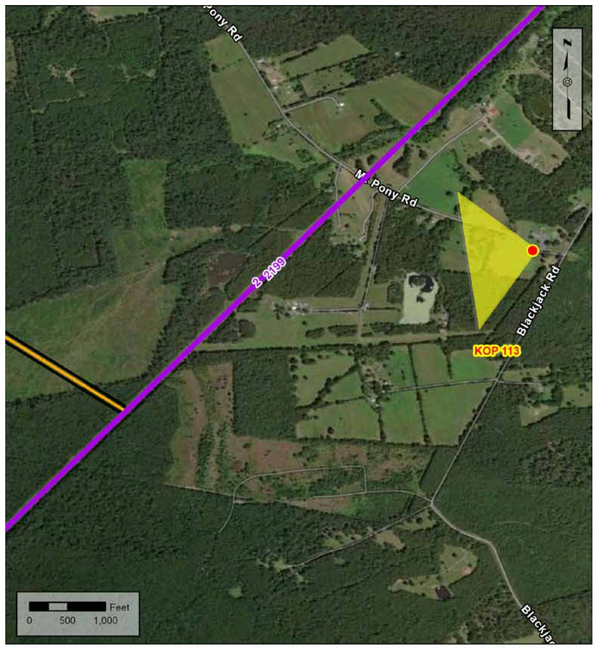
Dominion Energy℠

## KOP 113

Mt Pony Rd

**Figure 28**
**Route: Mt. Pony Route 2**
**Date:08/23/2024**
**Time: 10:17 am**
**Viewing Direction: West**
**Distance to closest feature: 0.89 miles**

**EXISTING CONDITIONS**




**Legend**

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 2
- Right of Way

210

**YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE**

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

211

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

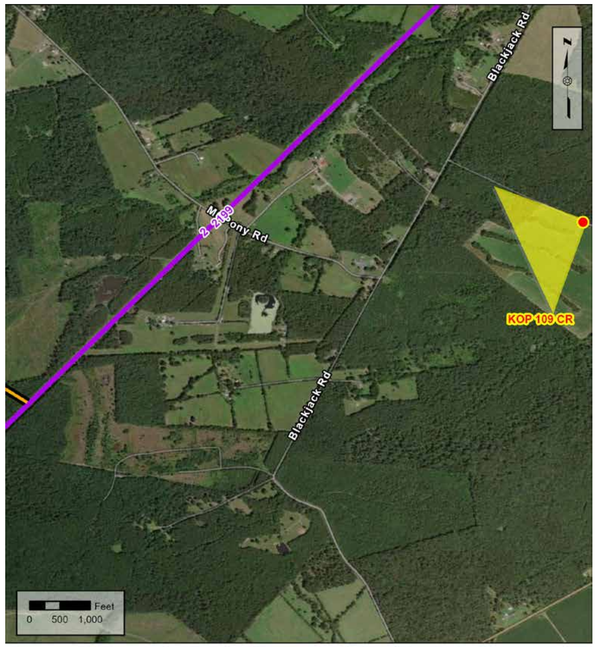
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 109

Stringfellow Rd

**Figure 30**
**Route: Mt. Pony Route 2**
**Date:08/23/2024**
**Time: 10:00 am**
**Viewing Direction: Southwest**
**Distance to closest feature: 1.47 miles**




**Legend**

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 2
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 110

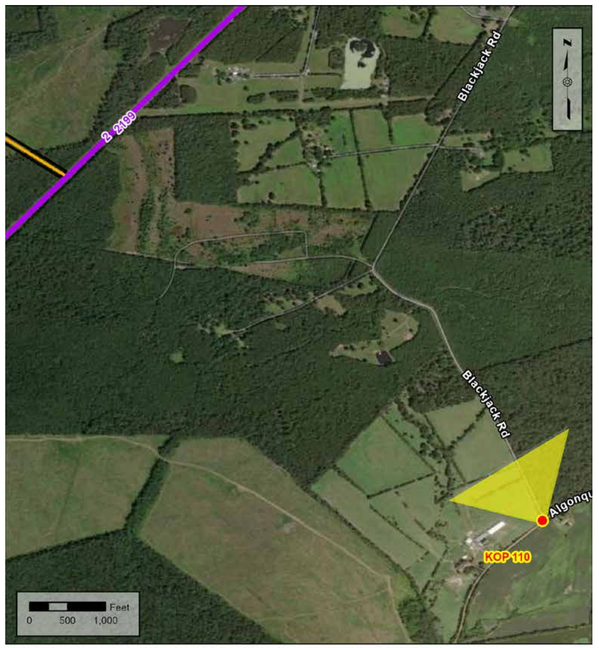
Algonquin Trl

**Figure 31**
**Route: Mt. Pony Route 2**
**Date:10/07/2024**
**Time: 12:24 pm**
**Viewing Direction: Southwest**
**Distance to closest feature: 1.27 miles**

**EXISTING CONDITIONS**

212

**YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE**




**Legend**

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 2
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 112

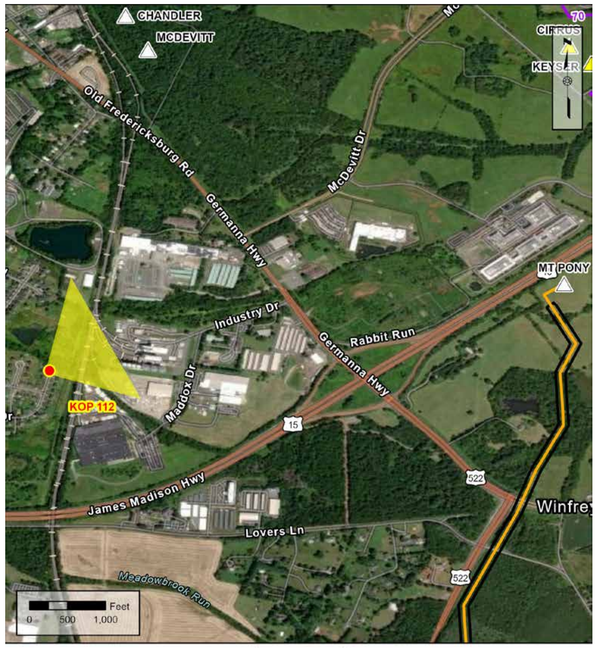
Post Oak Dr

**Figure 35**
**Route: Mt. Pony Route 2**
**Date:10/09/2024**
**Time: 11:39 am**
**Viewing Direction: East**
**Distance to closest feature: 0.99 miles**

EXISTING CONDITIONS

213

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE




## Legend

- KOP View Direction
- Approved Future Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Mt Pony Route 2
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

214

PROPOSED CONDITIONS

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

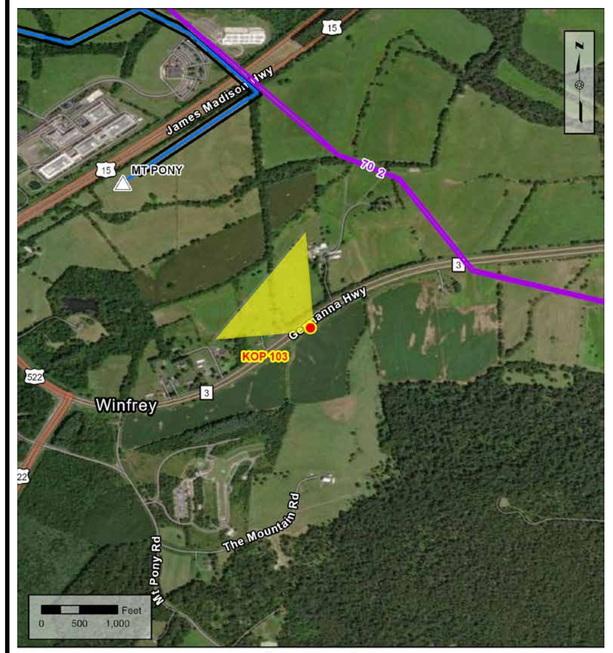
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 103

Germanna Hwy

**Figure 37**
**Route: Tech Park Route 1**
**Date:12/17/2024**
**Time: 12:04 pm**
**Viewing Direction: Northwest**
**Distance to closest feature: 0.51 miles**




**Legend**

- KOP View Direction
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

215

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

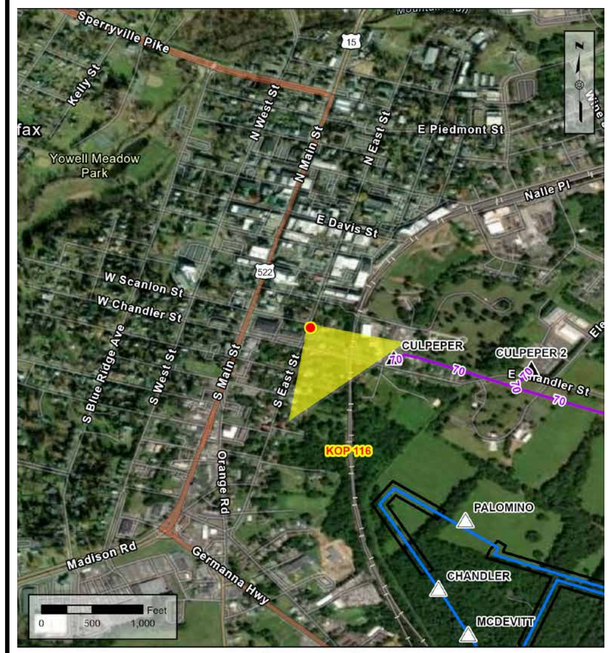
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 116

S East St

**Figure 43**
**Route: Tech Park Route 1**
**Date:10/07/2024**
**Time: 2:07 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.32 miles**




## Legend

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

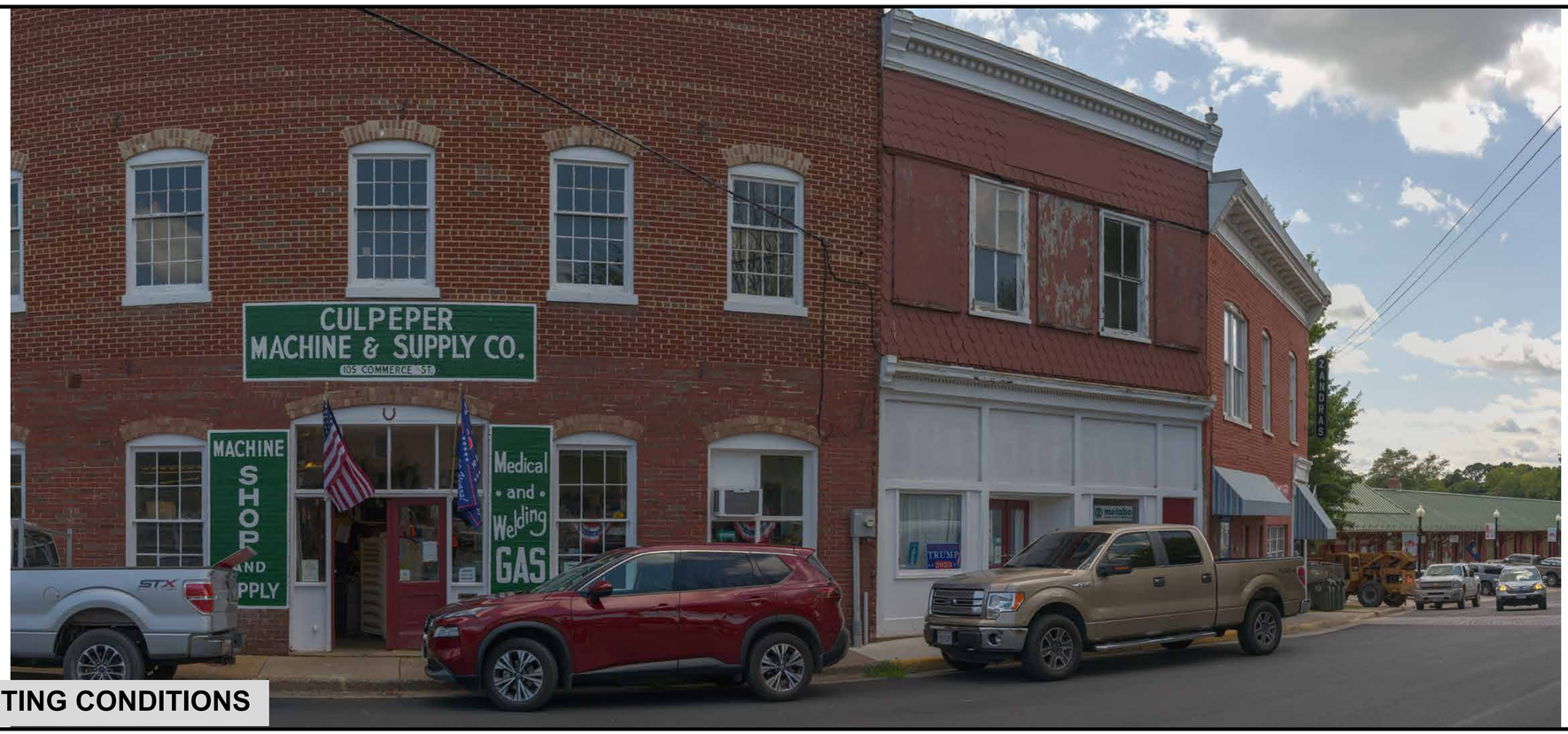
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 117

N Commerce St

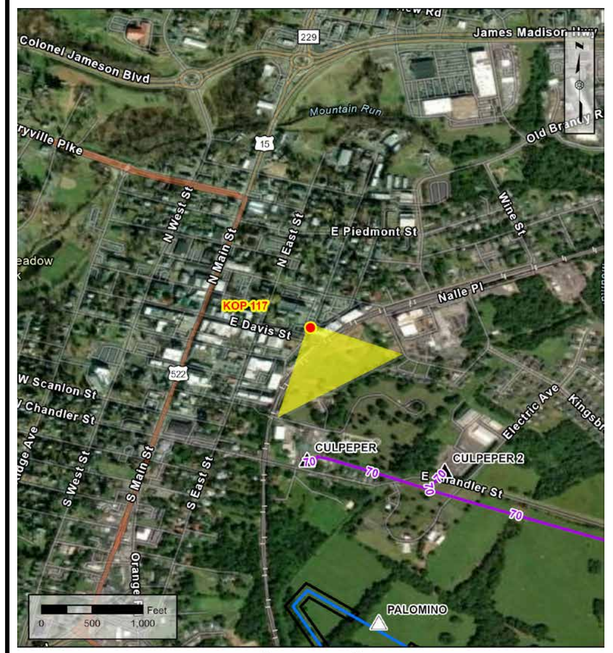
**Figure 45**
**Route: Tech Park Route 1**
**Date:08/22/2024**
**Time: 12:41 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.49 miles**




EXISTING CONDITIONS




YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE




## Legend

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS



YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

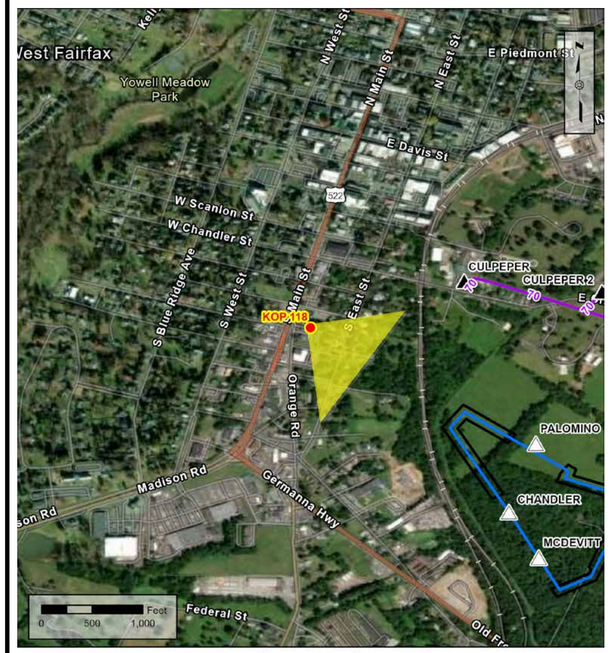
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 118

Sara Leigh Ct

**Figure 47**
**Route: Tech Park Route 1**
**Date:10/08/2024**
**Time: 3:06 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.28 miles**




## Legend

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 119

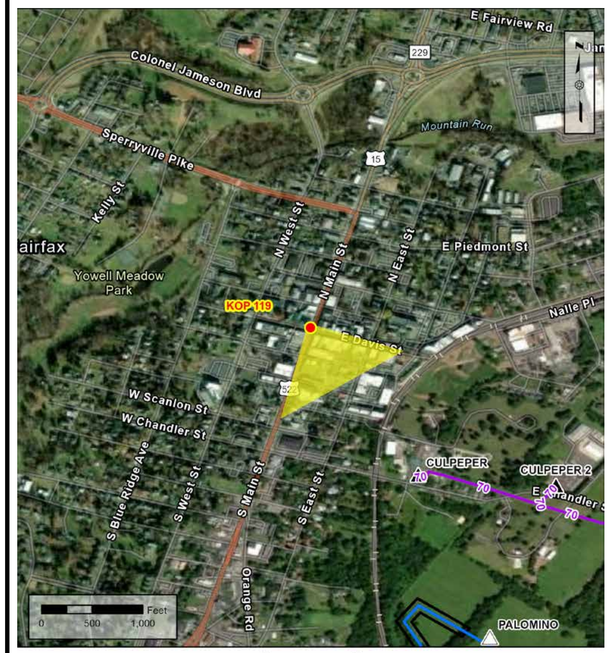
S Main St

**Figure 49**
**Route: Tech Park Route 1**
**Date:08/22/2024**
**Time: 1:03 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.82 miles**


**EXISTING CONDITIONS**

218


**YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE**




**Legend**

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS



YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

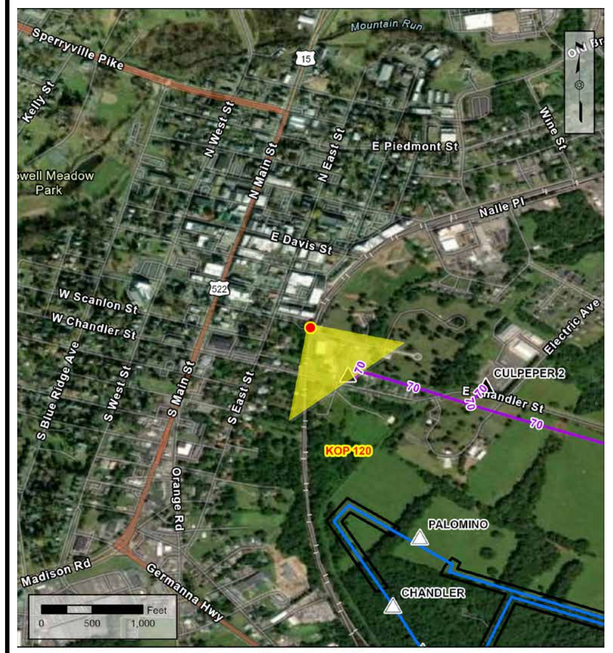
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 120

U S Ave

**Figure 51**
**Route: Tech Park Route 1**
**Date:10/07/2024**
**Time: 1:53 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.34 miles**




Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

220

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

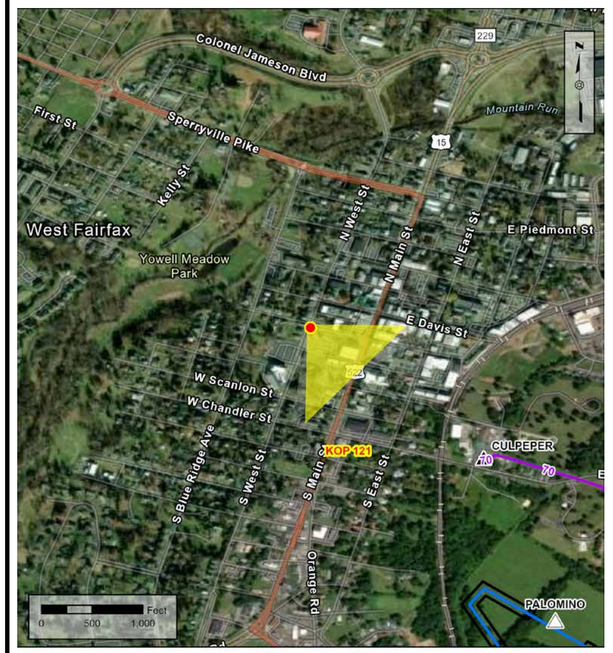
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 121

S West St

**Figure 53**
**Route: Tech Park Route 1**
**Date:10/07/2024**
**Time: 3:32 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.55 miles**




## Legend

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.


EXISTING CONDITIONS


YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

221

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

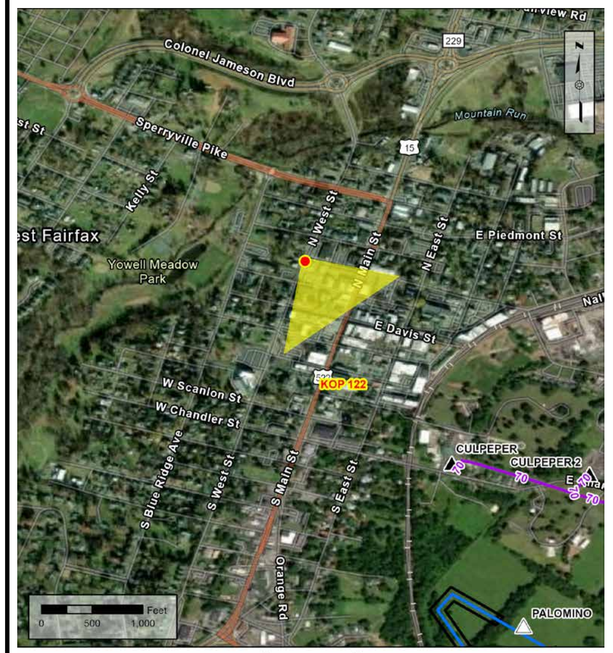
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 122

N West St

**Figure 55**
**Route: Tech Park Route 1**
**Date:10/07/2024**
**Time: 3:20 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.66 miles**




**Legend**

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.


EXISTING CONDITIONS


YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

222

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

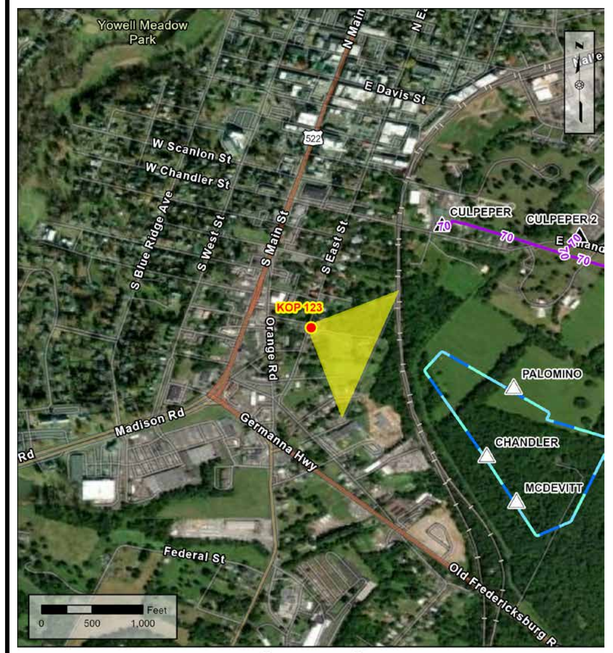
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 123

Rosson Ln

**Figure 59**
**Route: Tech Park Route 1**
**Date:10/08/2024**
**Time: 2:46 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.19 miles**




**Legend**

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park All Routes

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.


EXISTING CONDITIONS




YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

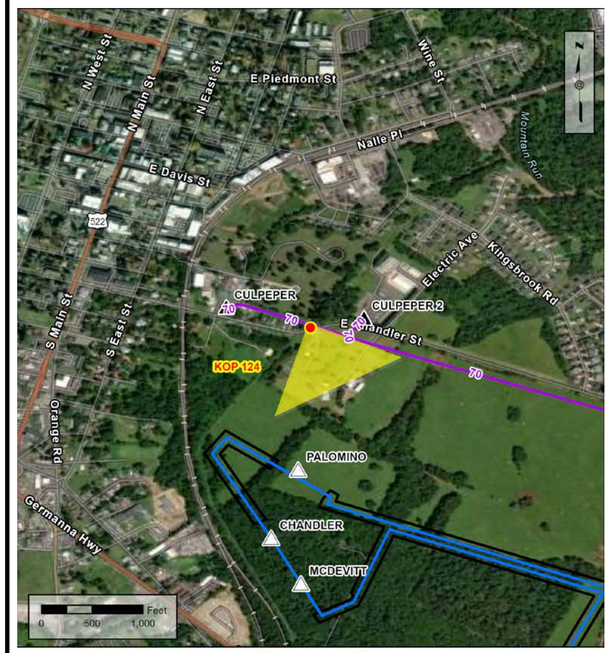
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 124

E Chandler St

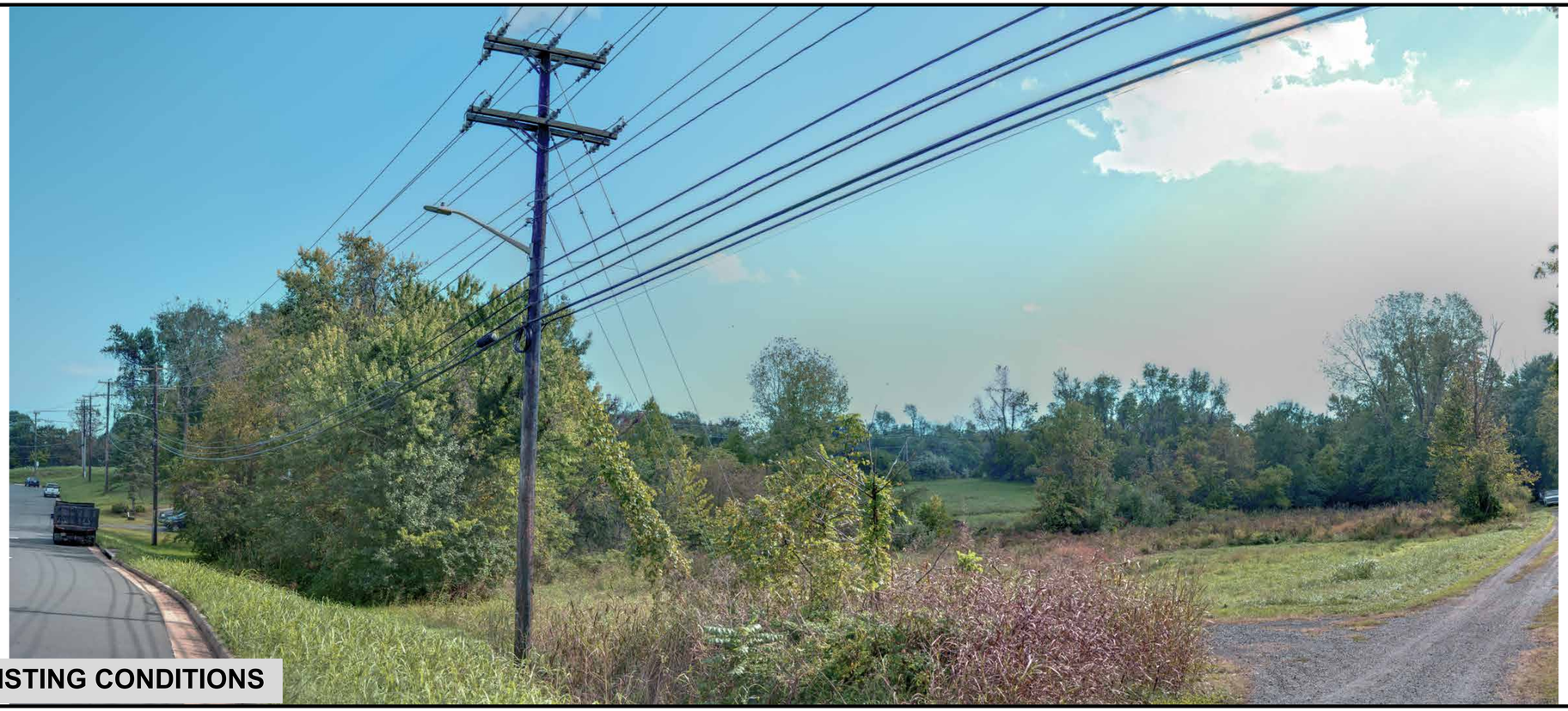
**Figure 58**
**Route: Tech Park Route 1**
**Date:10/07/2024**
**Time: 2:41 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.24 miles**




## Legend

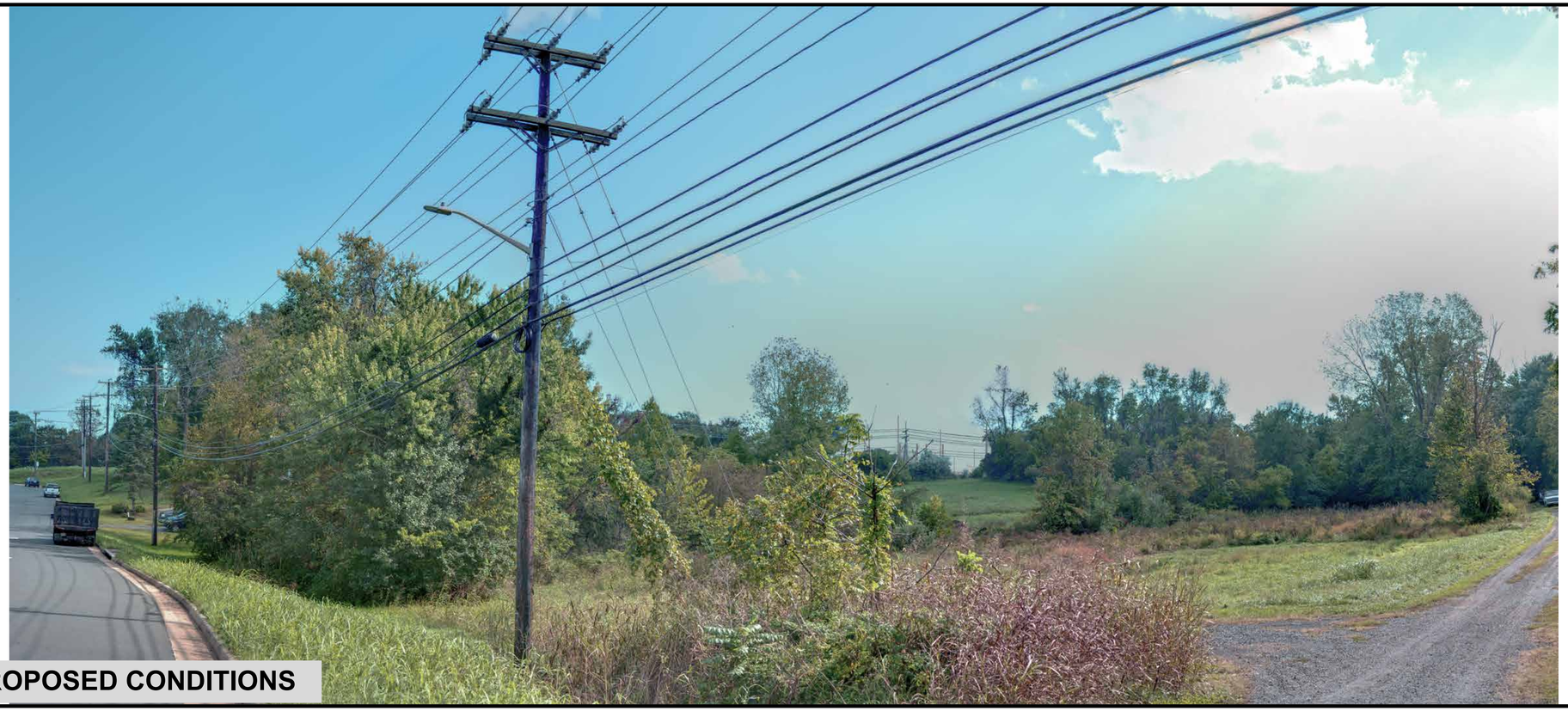
- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.



EXISTING CONDITIONS





PROPOSED CONDITIONS

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

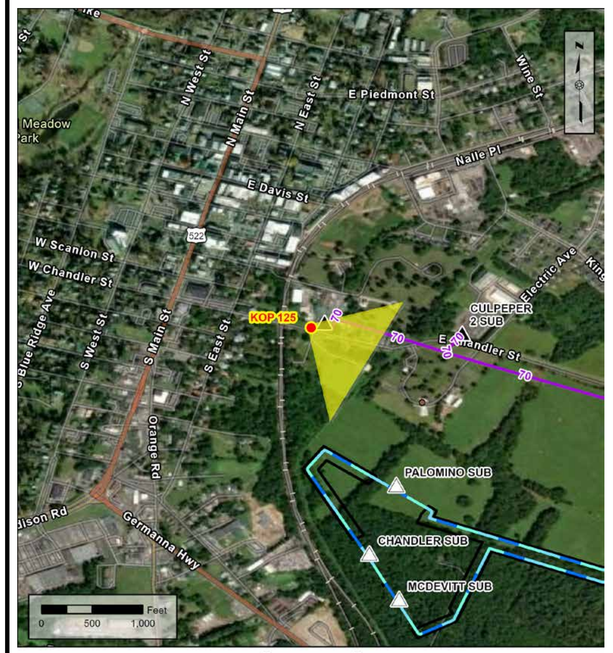
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 125

E Chandler St

**Figure 57**
**Route: Tech Park Route 1**
**Date:10/07/2024**
**Time: 2:30 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.24 miles**




## Legend

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park All Routes
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

225

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

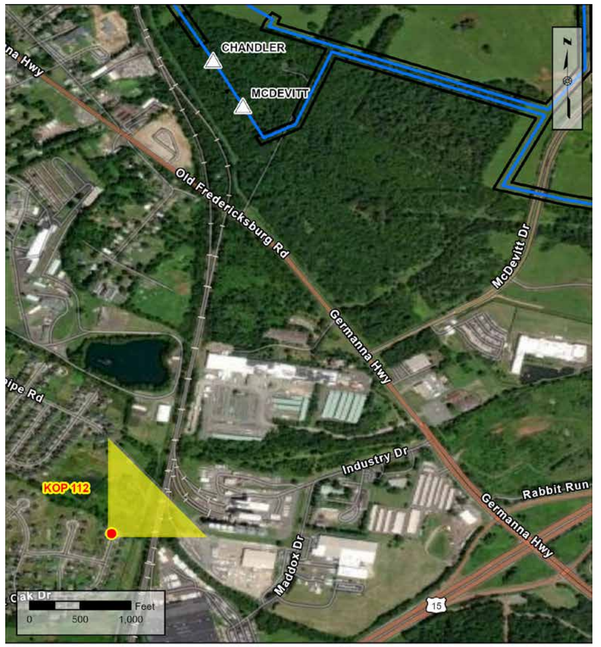
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 112

Post Oak Dr

**Figure 63**
**Route: Tech Park Route 1**
**Date:10/09/2024**
**Time: 11:39 am**
**Viewing Direction: Northeast**
**Distance to closest feature: 0.96 miles**




**Legend**

- KOP View Direction
- Proposed Substation
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

226

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

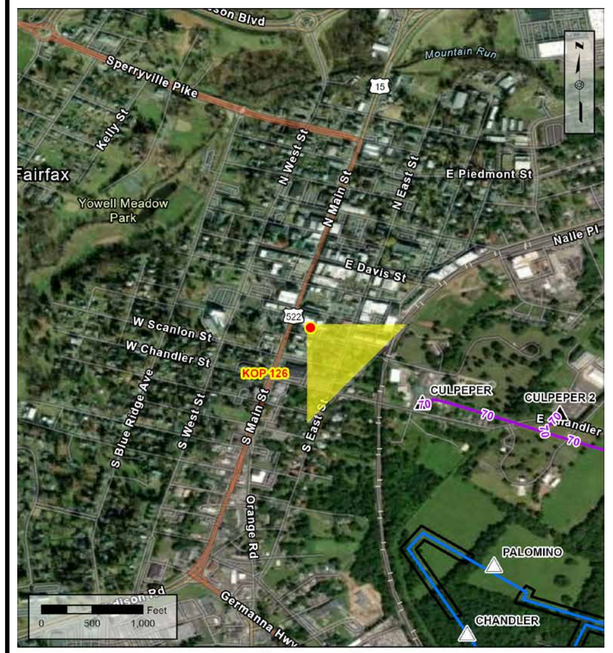
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 126

E Stevens St

**Figure 65**
**Route: Tech Park Route 1**
**Date:10/07/2024**
**Time: 3:53 pm**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.42 miles**




**Legend**

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS



YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

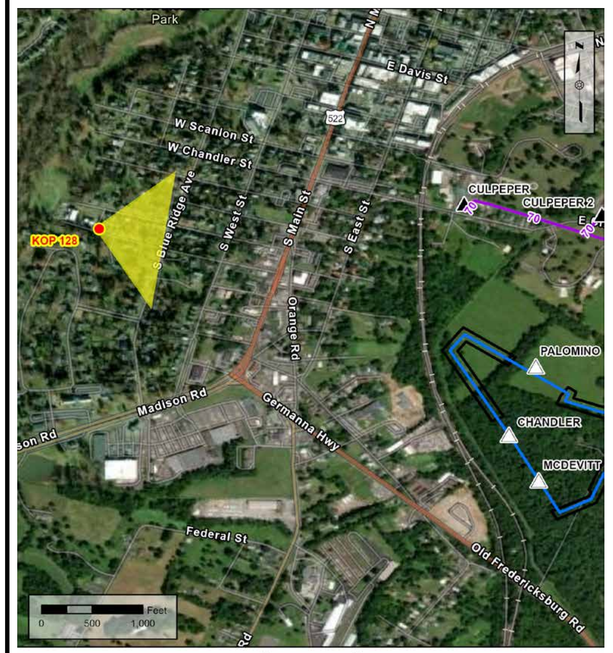
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 128

Spring St

**Figure 69**
**Route: Tech Park Route 1**
**Date:10/08/2024**
**Time: 3:22 pm**
**Viewing Direction: East**
**Distance to closest feature: 0.56 miles**




## Legend

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 1
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

228

PROPOSED CONDITIONS

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

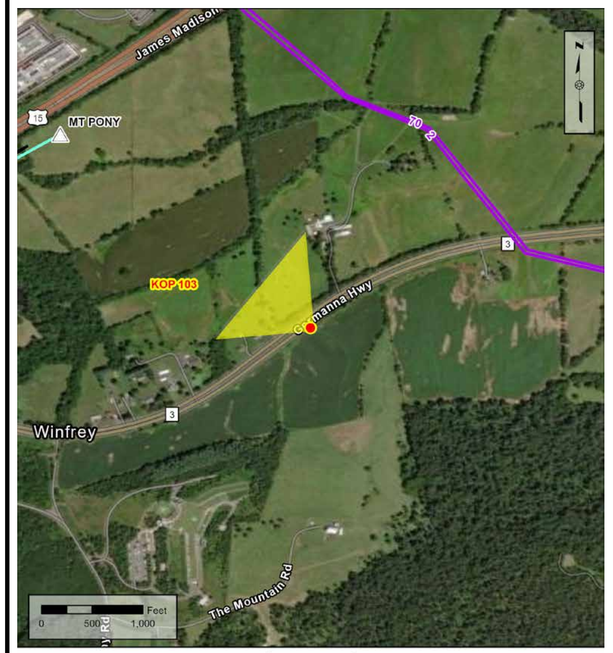
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 103

Germanna Hwy

**Figure 103**
**Route: Tech Park Route 3**
**Date:12/17/2024**
**Time: 12:04 pm**
**Viewing Direction: Northwest**
**Distance to closest feature: 0.51 miles**




**Legend**

- KOP View Direction
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Tech Park Route 3
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

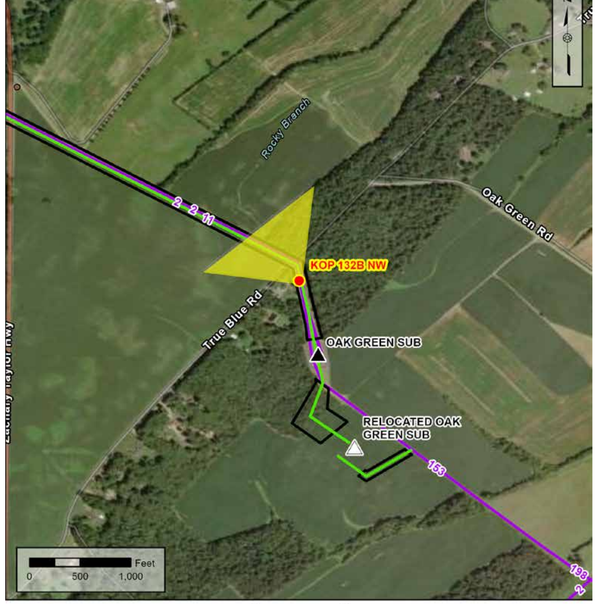
## KOP 132

True Blue Rd

**Figure 135**
**Route: Oak Green Rebuild and Relocation**
**Date:08/22/2024**
**Time: 10:51 am**
**Viewing Direction: Northwest**
**Distance to closest feature: 0.00 miles**

EXISTING CONDITIONS

PROPOSED CONDITIONS




## Legend

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Oak Green Rebuild and Relocation
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

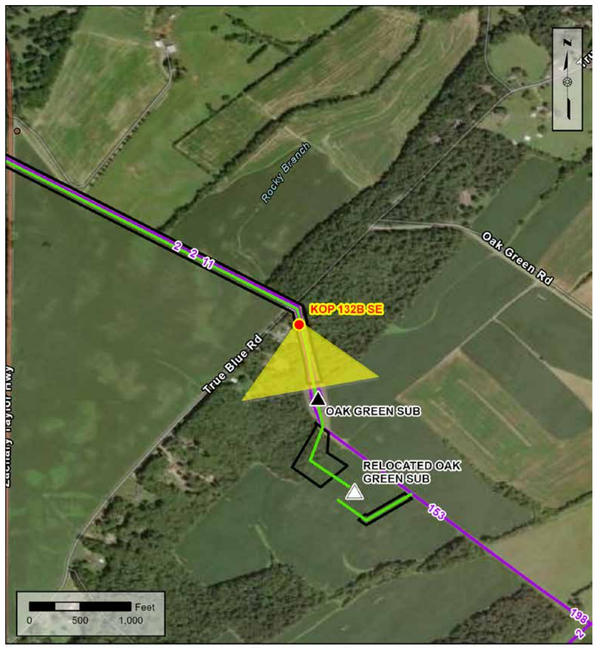
## KOP 132

True Blue Rd

**Figure 136**
**Route: Oak Green Rebuild and Relocation**
**Date:08/22/2024**
**Time: 10:51 am**
**Viewing Direction: Southeast**
**Distance to closest feature: 0.00 miles**

**EXISTING CONDITIONS**


**PROPOSED CONDITIONS**




## Legend

- KOP View Direction
- Existing Substation
- Proposed Substation
- Existing Dominion Energy Electric Transmission Line
- Oak Green Rebuild and Relocation
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

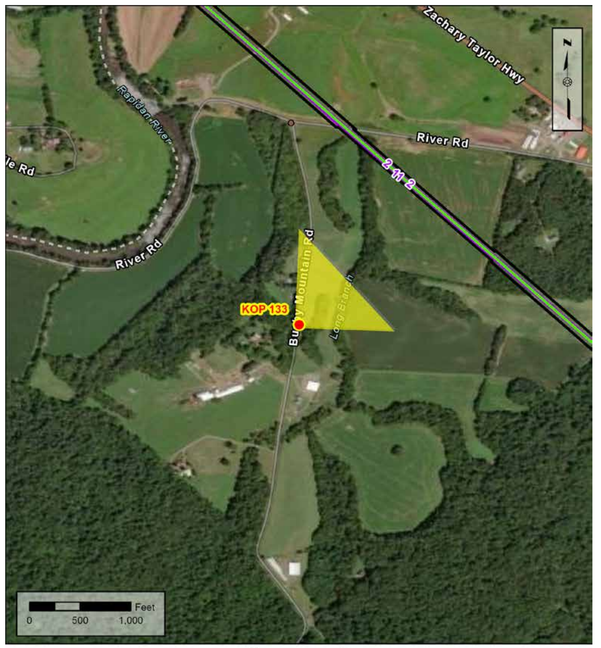
Dominion Energy℠

## KOP 133

Bushy Mountain Rd

**Figure 138**
**Route: Oak Green Rebuild and Relocation**
**Date:10/07/2024**
**Time: 11:37 am**
**Viewing Direction: Northeast**
**Distance to closest feature: 0.30 miles**






## Legend

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Oak Green Rebuild and Relocation
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

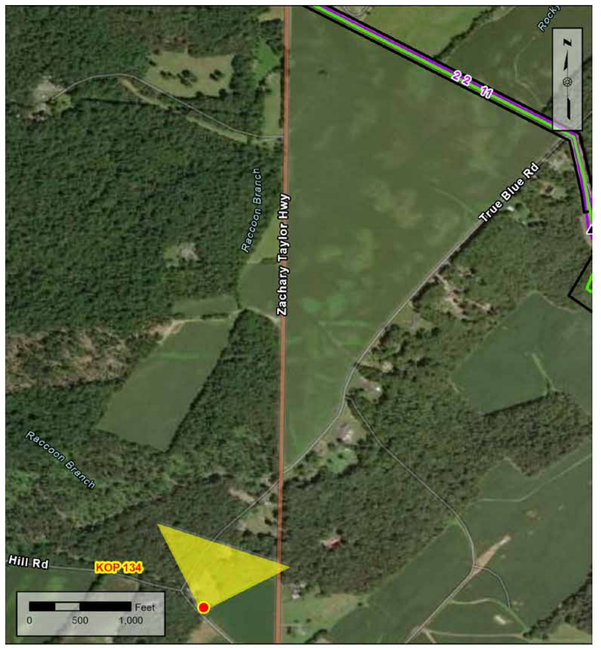
Dominion Energy℠

## KOP 134

State Hwy 621

**Figure 140**
**Route: Oak Green Rebuild and Relocation**
**Date:10/07/2024**
**Time: 11:54 am**
**Viewing Direction: Northeast**
**Distance to closest feature: 0.82 miles**






**Legend**

- KOP View Direction
- Existing Substation
- Existing Dominion Energy Electric Transmission Line
- Oak Green Rebuild and Relocation
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

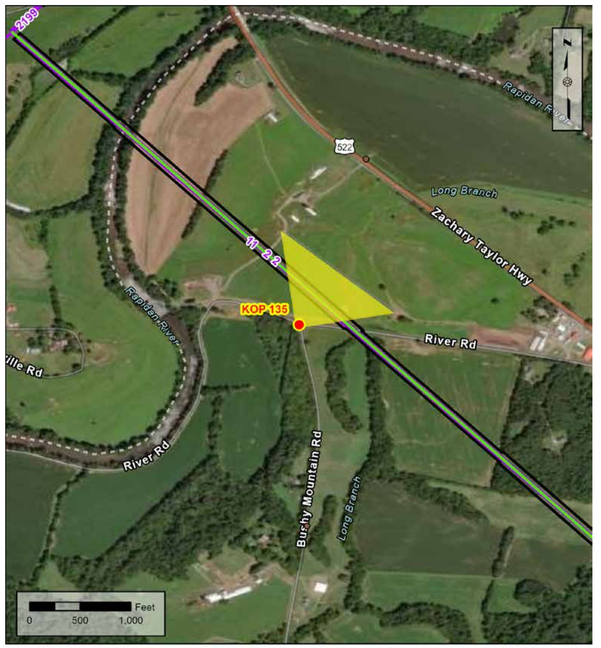
## KOP 135

River Rd

**Figure 143**
**Route: Oak Green Rebuild and Relocation**
**Date:10/07/2024**
**Time: 11:21 am**
**Viewing Direction: Northeast**
**Distance to closest feature: 1.18 miles**


## EXISTING CONDITIONS


## PROPOSED CONDITIONS




**Legend**

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Oak Green Rebuild and Relocation
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

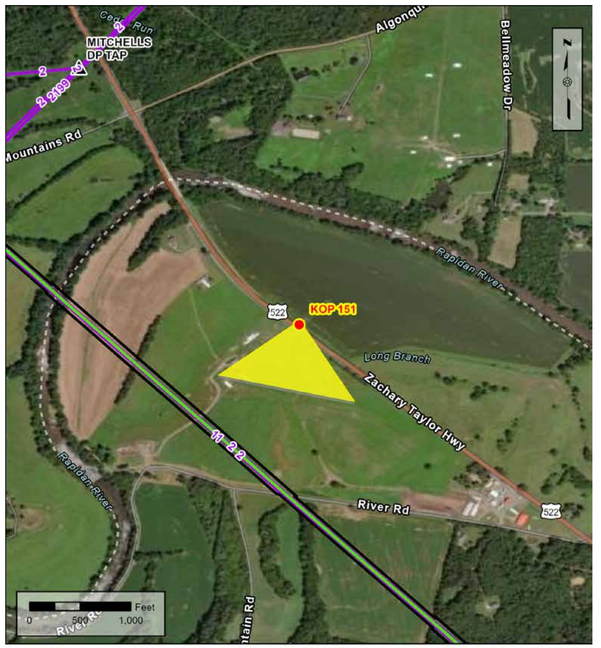
Dominion Energy℠



## KOP 151

Zachary Taylor Hwy

**Figure 144**
**Route: Oak Green Rebuild and Relocation**
**Date:10/07/2024**
**Time: 11:04 am**
**Viewing Direction: Southwest**
**Distance to closest feature: 0.23 miles**




Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.



# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

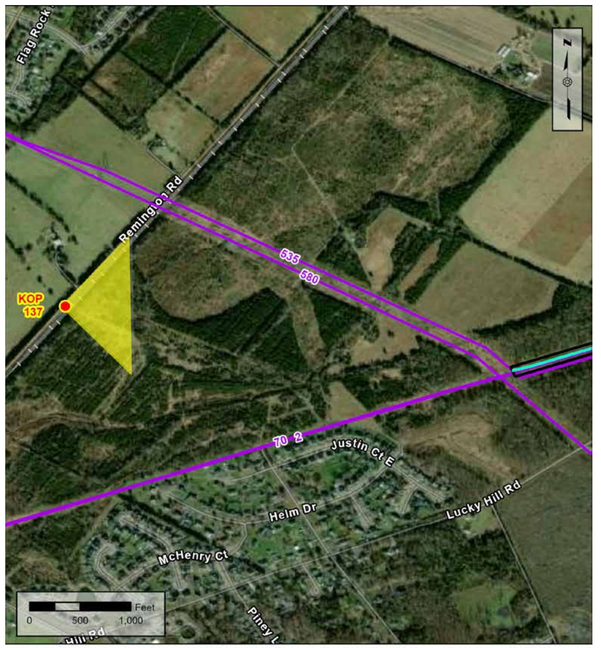
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 137

Remington Rd

**Figure 146**
**Route: Remington Rebuild**
**Date:10/08/2024**
**Time: 11:29 am**
**Viewing Direction: East**
**Distance to closest feature: 0.67 miles**




**Legend**

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Remington Rebuild
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 130

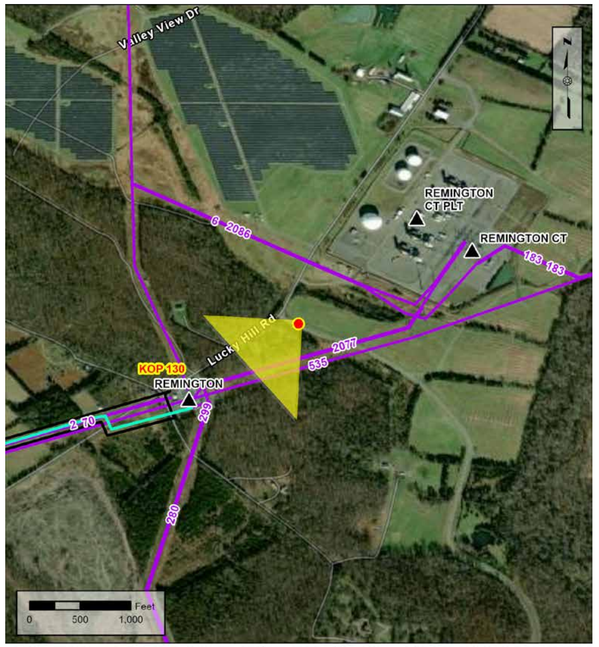
Lucky Hill Rd

**Figure 148**
**Route: Remington Rebuild**
**Date:08/21/2024**
**Time: 3:48 pm**
**Viewing Direction: Southwest**
**Distance to closest feature: 0.22 miles**

EXISTING CONDITIONS

236

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE




**Legend**

- KOP View Direction
- Existing Substation
- Existing Dominion Energy Electric Transmission Line
- Remington Rebuild
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 164

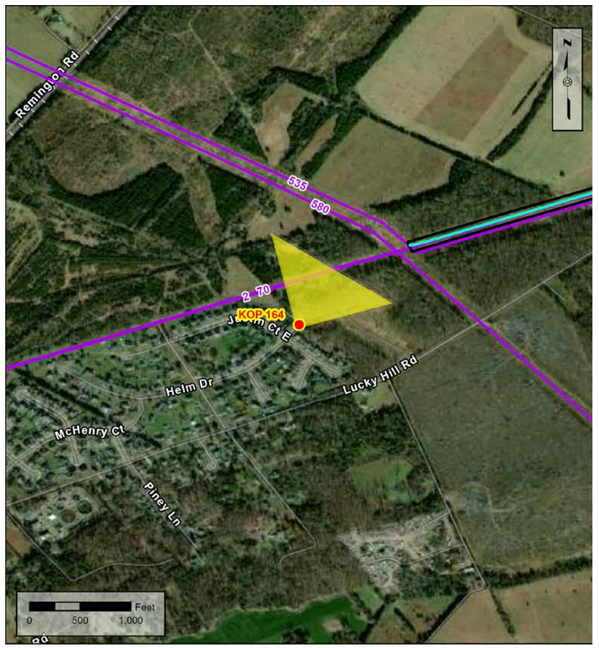
Helm Dr

**Figure 149**
**Route: Remington Rebuild**
**Date:08/21/2024**
**Time: 3:31 pm**
**Viewing Direction: Northeast**
**Distance to closest feature: 0.44 miles**

EXISTING CONDITIONS

237

NO CHANGES




## Legend

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Remington Rebuild
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

238

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

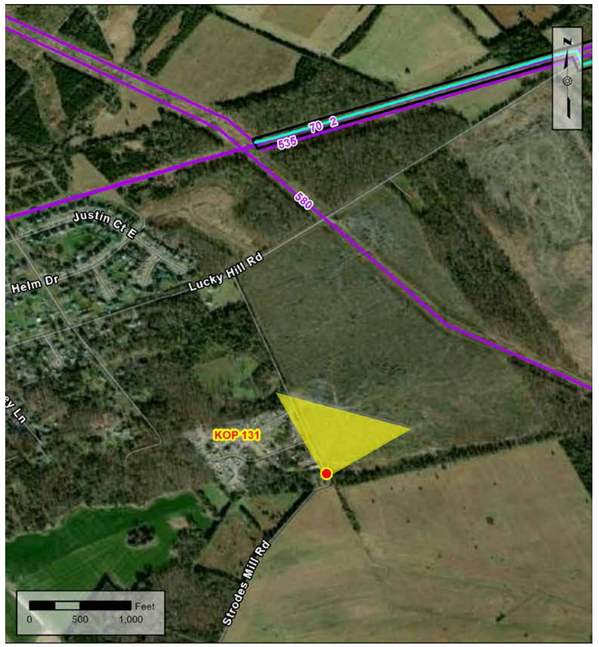
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 131

Strodes Mill Rd

**Figure 152**
**Route: Remington Rebuild**
**Date:08/21/2024**
**Time: 2:51 pm**
**Viewing Direction: Northeast**
**Distance to closest feature: 0.63 miles**




**Legend**

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Remington Rebuild
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

EXISTING CONDITIONS

239

YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

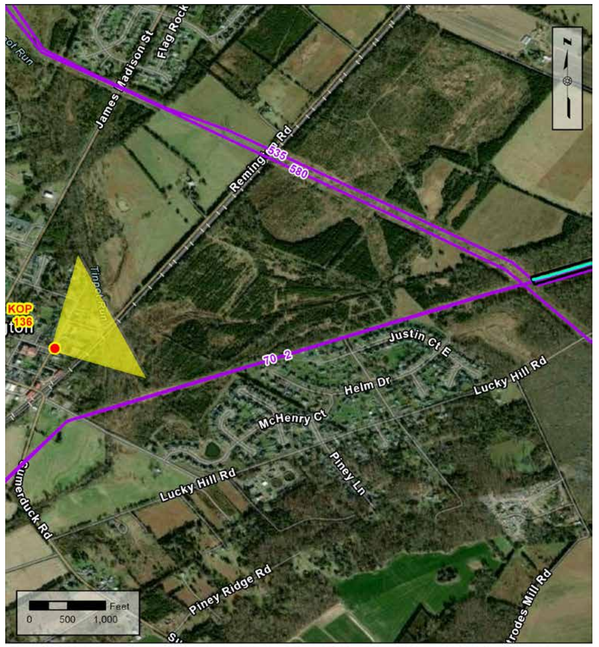
Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 136

N Franklin St

**Figure 154**
**Route: Remington Rebuild**
**Date:10/08/2024**
**Time: 11:12 am**
**Viewing Direction: Northeast**
**Distance to closest feature: 0.95 miles**




## Legend

- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Remington Rebuild
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project

Culpeper, Fauquier, & Orange Counties, Virginia

Dominion Energy℠

## KOP 139

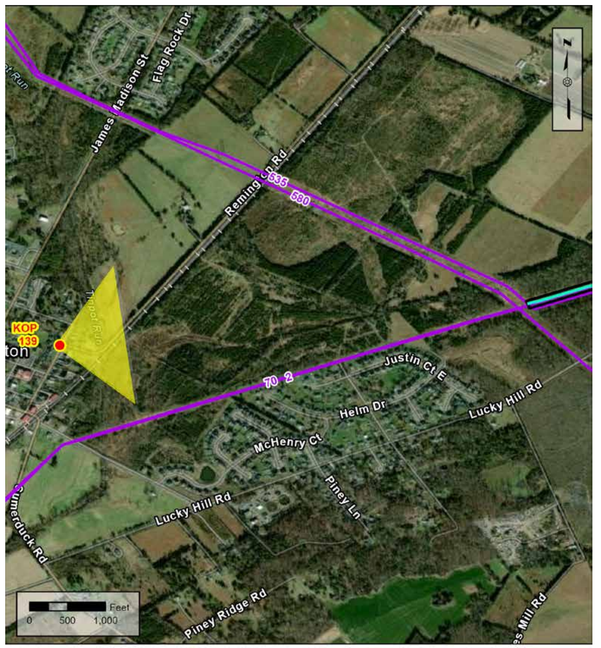
N Franklin St

**Figure 161**
**Route: Remington Rebuild**
**Date:08/22/2024**
**Time: 2:18 pm**
**Viewing Direction: East**
**Distance to closest feature: 0.92 miles**


**EXISTING CONDITIONS**

240


**YELLOW: PARTIALLY OR FULLY HIDDEN PROJECT INFRASTRUCTURE**




## Legend

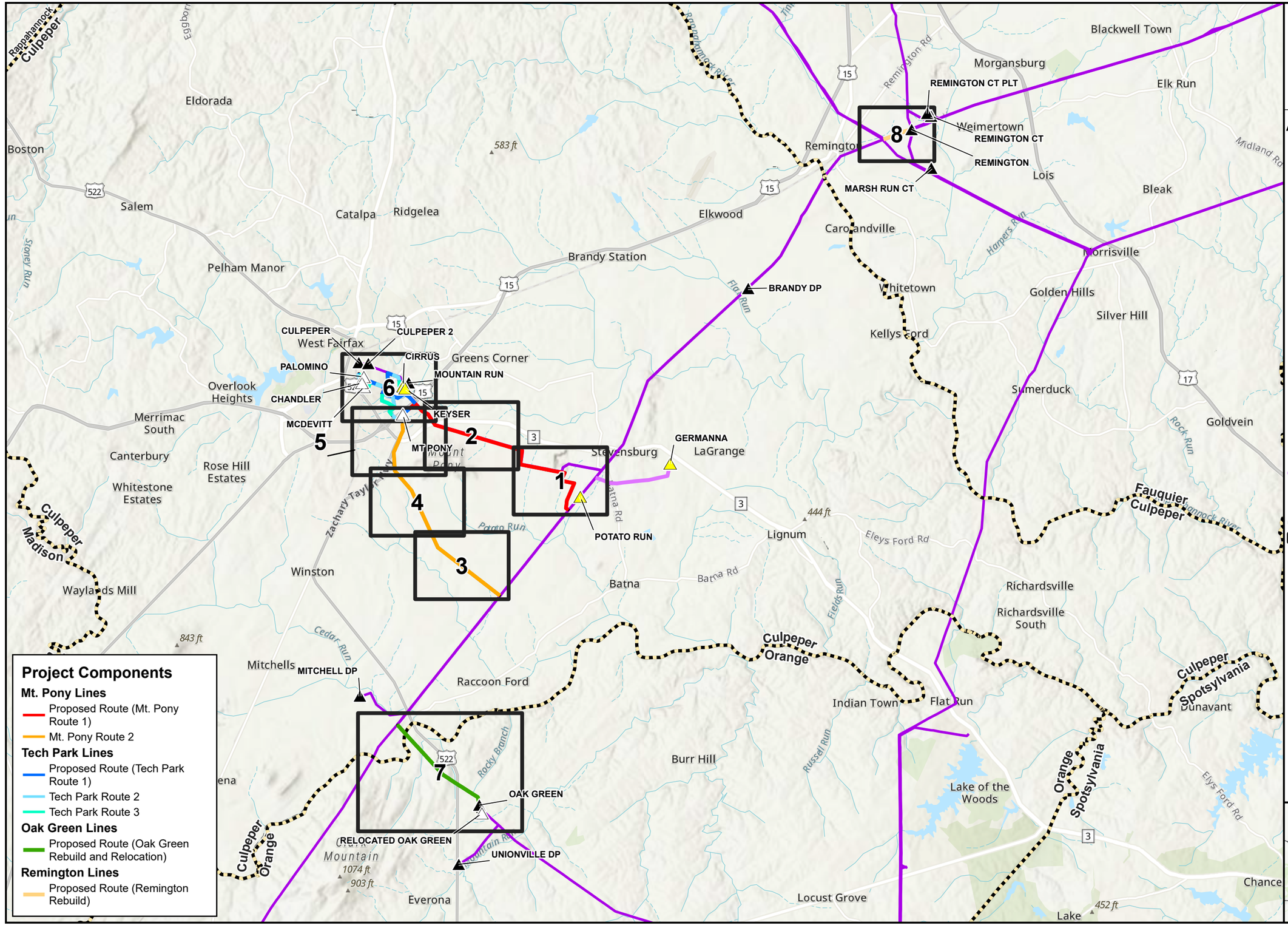
- KOP View Direction
- Existing Dominion Energy Electric Transmission Line
- Remington Rebuild
- Right of Way

Note: Project components illustrated are based on proposed preliminary designs
The images contained on this page show the proposed project within a wider landscape context and are not representative of scale and distance when viewed from the actual view point.

# Attachment II.B.6.c.ii
## Simulations of Key Locations

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**
Culpeper, Fauquier and Orange County, Virginia

Index Map

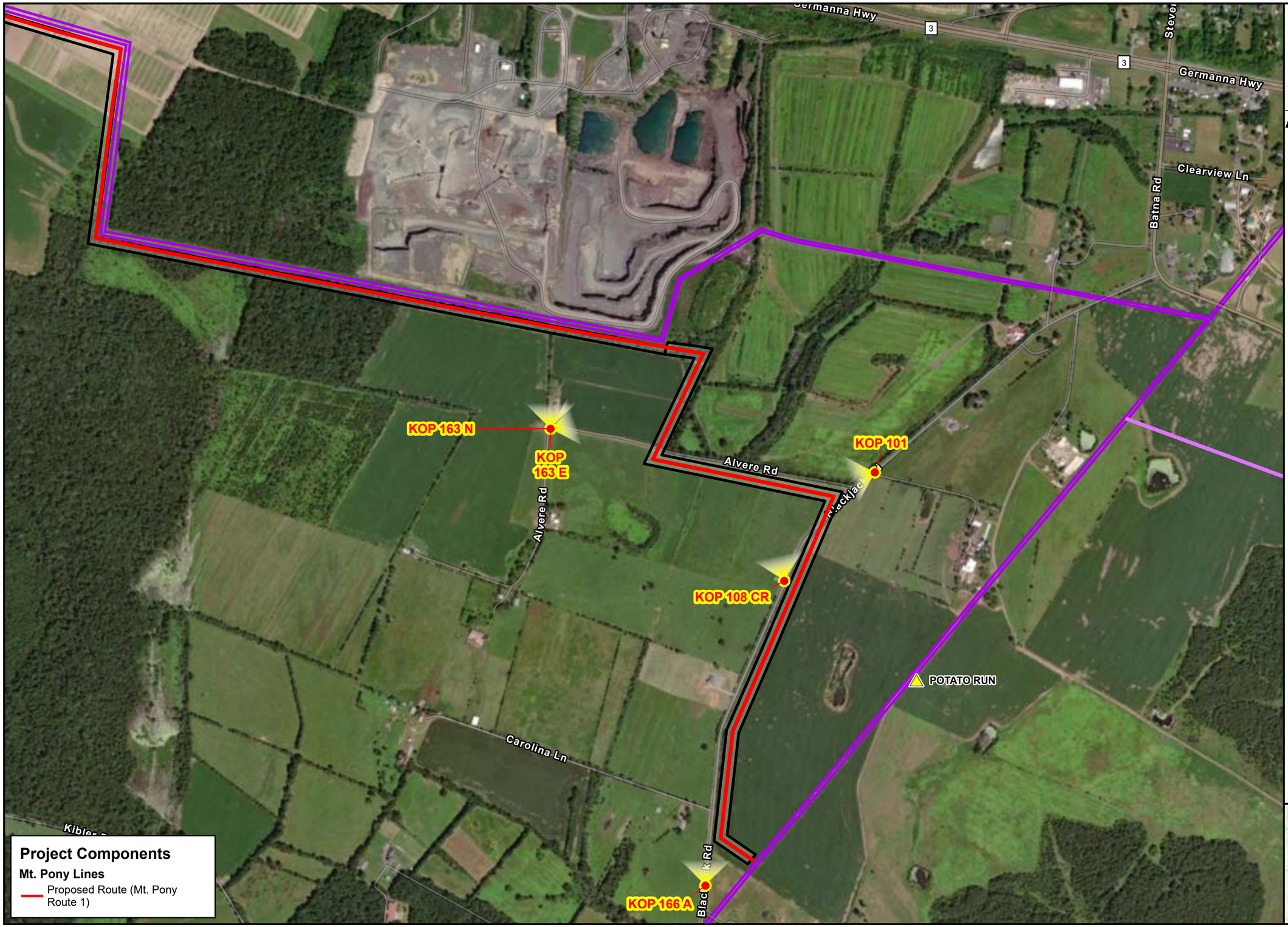



- ▲ Existing Substation/Switching Station
- △ Approved Future Substation/ Switching Station
- △ Proposed Substation/Switching Station
- Existing Dominion Transmission Line
- Approved Future Transmission Line
- County Boundary
- Index Page

0 5,000 10,000
Feet

1:123,000

ERM




Dominion Energy®

# Attachment II.B.6.c.ii
## Simulations of Key Locations

**Culpeper Technology Zone 230 kV Loop and Lines #2 and #1065 Conversion Project**
Culpeper County, Virginia



- Approved Future Substation/ Switching Station
- Existing Dominion Transmission Line
- Approved Future Transmission Line
- Right of Way
- Key Observation Point
- KOP View Direction

0 390 780
Feet

1:9,000

ERM

N
W E
S