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October 21, 2022

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: Butler Farm to Clover 230 kV Line, Butler Farm to Finneywood 230 kV Line and Related Projects
Case No. PUR-2022-00175

Dear Mr. Logan:

Please find enclosed for electronic filing in the above-captioned proceeding the application for approval of electric facilities on behalf of Virginia Electric and Power Company (the "Company"). This filing contains the Application, Appendix, Direct Testimony, DEQ Supplement, and 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 Halifax County, Charlotte County, and Mecklenburg 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 Energy Regulation on October 18, 2022.

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

Very truly yours,

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)
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Dominion Energy®

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

Before the State Corporation Commission of Virginia

Butler Farm to Clover 230 kV Line, Butler to Finneywood 230 kV Line and Related Projects

Application No. 317

Case No. PUR-2022-00175

Filed: October 21, 2022

Volume 1 of 3

COMMONWEALTH OF VIRGINIA
BEFORE THE
STATE CORPORATION COMMISSION

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

FOR APPROVAL AND CERTIFICATION
OF ELECTRIC TRANSMISSION FACILITIES

Butler Farm to Clover 230 kV Line, Butler Farm to Finneywood 230 kV Line and Related Projects

Application No. 317

Case No. PUR-2022-00175

Filed: October 21, 2022

COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

APPLICATION OF	)	
	)	
VIRGINIA ELECTRIC AND POWER COMPANY	)	Case No. PUR-2022-00175
	)	
For approval and certification of electric transmission facilities: Butler Farm to Clover 230 kV Line, Butler Farm to Finneywood 230 kV Line and Related Projects	)	

APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY FOR APPROVAL AND CERTIFICATION OF ELECTRIC TRANSMISSION FACILITIES: BUTLER FARM TO CLOVER 230 KV LINE, BUTLER FARM TO FINNEYWOOD 230 KV LINE AND RELATED PROJECTS

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 a retail electric service customer (the "Customer"), to maintain reliable service for the overall growth in the area, and to comply with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, Dominion Energy Virginia proposes in Charlotte County, Halifax County, and Mecklenburg County, , Virginia, to:

- Construct a new approximately 19.1-mile 230 kV single circuit transmission line (the "Butler Farm—Clover Line" or "Line #2281") primarily on new right-of-way. The proposed Butler Farm—Clover Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's existing 500/230 kV Clover Switching Station. The proposed Butler Farm—Clover Line will be constructed primarily with single circuit H-frame weathering steel structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA.[1] The remainder of the line will be constructed with single circuit weathering steel monopole structures. The Butler Farm—Clover Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 47 feet to 120 feet.[2]

- Construct a new approximately 7.0-mile 230 kV single circuit transmission line (the "Butler Farm—Finneywood Line" or "Line #2256") primarily on new right-of-way. The Butler Farm—Finneywood Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's proposed new 500/230 kV Finneywood Switching Station. The proposed Butler Farm—Finneywood Line will be constructed primarily with single circuit weathering steel monopole structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Butler Farm—Finneywood Line will utilize a total of

[1] Apparent power, measured in megavolt amperes ("MVA"), is made up of real power (megawatt or "MW") and reactive power megavolt ampere reactive ("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.

[2] In areas where the Butler Farm—Clover Line and the Butler Farm—Finneywood Line collocate, approximately one-third of the total required right-of-way is associated with the Butler Farm—Clover Line and two-thirds of the total required right-of-way is associated with the Butler Farm—Finneywood Line.

120 feet of right-of-way, which includes new, existing, and collocated right-of-way.[3] The amount of new right-of-way for this line will vary from 50 to 107 feet.

- Construct a new 230 kV substation in Mecklenburg County, Virginia (the "Butler Farm Substation").

- Construct a new 500/230 kV switching station in Mecklenburg County, Virginia (the "Finneywood Station").

- Perform minor substation-related work at the Clover Switching Station (the "Clover Station").

The Butler Farm—Clover Line, the Butler Farm—Finneywood Line, the Butler Farm Substation, the Finneywood Station, and related substation work are collectively referred to as the "Project."

4. The Project is necessary to assure that Dominion Energy Virginia can maintain and improve reliable electric service to customers in the load area surrounding the Company's existing Chase City Substation in Mecklenburg County, Virginia, in compliance with mandatory NERC Reliability Standards.

5. The Customer has requested retail electric service from Dominion Energy Virginia to support a new data center campus. This load area where this data center is being developed is currently served by the Chase City Substation. If the summation of this data center projects' unserved load (240 MVA) was connected to the existing Chase City Substation, the existing distribution substation equipment would overload. Connecting this Customer's requested load to

[3] For the entirety of the Butler Farm – Clover Line and for the segment of the corridor where the Butler Farm – Clover Line and the Butler Farm – Finneywood Line collocate, the Company is seeking to acquire an additional 40 feet of right-of-way as part of this Application to accommodate installation of a third circuit in the same corridor in the future. This additional 40 feet of right-of-way will not be cleared and utilized for this Project. Dominion Energy Virginia asks that the Commission not prohibit the Company from voluntarily obtaining this additional right-of-way, with the understanding that the Company could not condemn for more than what is needed for the proposed Butler Farm – Clover Line and Butler Farm—Finneywood Line. This approach is consistent with the approach approved by the Commission in the Company's BECO-DTC and Evergreen Mills proceedings. *See Application of Virginia Electric and Power Company for approval and certification of electric transmission facilities: DTC 230 kV Line Loop and DTC Substation*, Case No. PUR-2021-00280, Final Order at 13 (July 7, 2022); *Application of Virginia Electric and Power Company for approval and certification of electric facilities: Evergreen Mills 230 kV Line Loops and Evergreen Mills Switching Station*, Case No. PUR-2019-00191, Final Order at 9 (May 22, 2020). The Company will seek Commission approval to install a 230 kV line in the proposed Project corridor when needed in the future.

the Chase City Substation alone would result in (i) substation transformer thermal overloads, and (ii) violation of the Company's transmission system reliability criteria set forth in the Facilities Interconnection Requirement ("FIR") document.[4]

6. Accordingly, the proposed Project is needed to meet the load requirements of the Customer's planned new development along with the remaining capacity available to support future residential and commercial needs in the community. With the proposed Project, the transformers would not overload, and reliability criteria are met.

7. The Company identified an approximately 19.1-mile route for the Butler Farm – Clover Line (the "BF – Clover Route" or the "BF – Clover Proposed Route"), as well as two approximately 20.0-mile alternative routes (the "BF – Clover Alternative Route 1" and "BF – Clover Alternative Route 2"). The Company also identified a 1.7-mile (incremental 0.1 mile less, for a total length of 19.0 miles) route variation for the BF – Clover Proposed Route (the "BF – Clover Route Variation"). The Company is proposing all three of these routes and the route variation for notice. The Company identified an approximately 7.0-mile route for the Butler Farm – Finneywood Line (the "BF – Finneywood Route" or "BF – Finneywood Proposed Route"), as well as one approximately 8.0-mile alternative route (the "BF – Finneywood Alternative Route"). The Company also identified a 1.7-mile (incremental 0.1 mile less, for a total length of 6.9 miles) route variation for the BF – Finneywood Proposed Route (the "BF – Finneywood Route Variation"). The Company is proposing both of these routes and the route variation for notice. Discussion of the Proposed Routes, Alternative Routes, and Route Variations for the Butler Farm

[4] The Company's FIR document (effective Apr. 1, 2021) is available at: https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/virginia/parallel-generation/facility-connection-requirements.pdf?la=en&rev=f280781e90cf47f69ea526c944c9c347&hash=82DD2567D0B033C47536134B8C4D5C5E.

– Clover Line and the Butler Farm – Finneywood Line, as well as other overhead routes that the Company studied but ultimately rejected, is provided in Section II of the Appendix and in the Environmental Routing Study included with the Application.

8. The proposed Butler Farm Substation initially will be constructed with four 230 kV transformers, one 84 MVA 230/36.5 kV transformer, six rows of breaker and half scheme with 13 breakers. In total, the proposed Butler Farm Substation will be designed to accommodate future growth in the area with a build-out of six rows of break and half scheme 230-kV bus with an ultimate configuration of 15 breakers, and up to four 230 kV transmission lines. The Butler Farm Substation will be built to 4000 Amp Standards. The proposed Finneywood Station initially will be constructed with two 840 MVA 500/230 kV transformers, a 230 kV breaker and half bus with ten breakers and a 500 kV ring bus with four breakers. The new Finneywood Station should be able to accommodate two 500 kV transmission lines, two 840 MVA 500/230 kV transformers and up to eight 230 kV transmission lines. The proposed Finneywood Station will be built to 4000 Amp Standards. A more detailed description of the proposed Project, including the Butler Farm Substation and the Finneywood Station, is provided in Sections I and II of the Appendix attached to this Application.

9. The desired in-service target date for the proposed Project is July 1, 2025. The Company estimates it will take approximately 25 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 June 1, 2023. Should the Commission issue a final order by June 1, 2023, the Company estimates that construction should begin around January 2024, and be completed by July 1, 2025. This schedule is contingent upon obtaining the necessary permits.

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 ability to schedule outages, or unpredictable delays due to labor shortages or materials/supply issues.

10. The estimated conceptual cost of the Project utilizing the BF – Clover Proposed Route and the BF – Finneywood Proposed Route is approximately $214 million, which includes approximately $92 million for transmission-related work and approximately $122 million for substation-related work (2022 dollars).

11. The proposed Project will afford the best means of meeting the continuing need for reliable service while reasonably minimizing adverse impacts on the scenic, environmental, and historic features of the area. The BF – Clover Route is the shortest of the routes from the Butler Farm Substation to the Clover Station and would require correspondingly less right-of-way acreage. In addition, the route has the greatest length and percentage of collocation of any of the routes. The BF – Clover Route also would require less clearing of forested lands than the other two routes. The route also has the fewest number of residential structures within 500 feet of the route with 17. In addition, the route would have the fewest number of stream crossings and wetland impacts. The BF – Clover Route is tied with BF – Clover Alternative Route 1 with the least number of road crossings at 20, thereby limiting the visual impacts to commuters through travelers in the Project area. Finally, the route would construct a new crossing of the Staunton River Crossing; however, all three routes would utilize the same crossing location. For these reasons, the Company selected the BF – Clover Route as the Proposed Route for the Butler Farm – Clover Line.

12. Similarly, the BF – Finneywood Route is shorter than the BF – Finneywood

Alternative Route by 0.8 mile and would require correspondingly less right-of-way acreage. The route has the greatest length and percentage of collocation of either of the routes. The BF – Finneywood Route also would require the least amount of clearing of forested lands of the two routes. In addition, the route would have the least amount of impact to forested areas and ecological cores. The BF – Finneywood Route would have more road crossings (7 compared with 5); however, half of the crossings are at locations where the route is collocated with an existing transmission line and thus reduces the visual impacts to commuters/through travelers in the area. The route would have one more stream crossing (12 compared with 11) and more wetland acreage impacts. For these reasons, the Company selected the BF – Finneywood Route as the Proposed Route for the Butler Farm – Finneywood Line.

13. 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.

14. 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.

15. Section V of the Appendix provides proposed route descriptions 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.

16. 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 Kunal S. Amare, Emmanuel J. Dobson, Chloe A. Genova, Mohammad M. Othman, Chuck H. Weil, and Jon M. Berkin filed with this Application.

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

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Counsel for Applicant Virginia Electric and Power Company

October 21, 2022

COMMONWEALTH OF VIRGINIA

BEFORE THE
STATE CORPORATION COMMISSION

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

FOR APPROVAL AND CERTIFICATION
OF ELECTRIC TRANSMISSION FACILITIES

Butler Farm to Clover 230 kV Line,
Butler Farm to Finneywood 230 kV Line
and
Related Projects

Application No. 317

Appendix

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

Case No. PUR-2022-00175

Filed: October 21, 2022

TABLE OF CONTENTS

EXECUTIVE SUMMARY

In order to provide service requested by a data center customer (the "Customer") in Mecklenburg County, Virginia, to maintain reliable service for the overall growth in the Project 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 Charlotte County, Halifax County, and Mecklenburg County, Virginia to:

- Construct a new approximately 19.1-mile 230 kV single circuit transmission line (the "Butler Farm – Clover Line" or "Line #2281") primarily on new right-of-way. The proposed Butler Farm—Clover Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's existing 500/230 kV Clover Switching Station. The proposed Butler Farm – Clover Line will be constructed primarily with single circuit H-frame weathering steel structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA.[1] The remainder of the line will be constructed with single circuit weathering steel monopole structures. The Butler Farm – Clover Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 47 feet to 120 feet.[2]

- Construct a new approximately 7.0-mile 230 kV single circuit transmission line (the "Butler Farm – Finneywood Line" or "Line #2256") primarily on new right-of-way. The Butler Farm – Finneywood Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's proposed new 500/230 kV Finneywood Switching Station. The proposed Butler Farm – Finneywood Line will be constructed primarily with single circuit weathering steel monopole structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Butler Farm – Finneywood Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way.[3] The amount of new right-of-way for this line will vary from 50 to 107 feet.

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[1] Apparent power, measured in megavolt amperes ("MVA"), is made up of real power (megawatt or "MW") and reactive power megavolt ampere reactive ("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.

[2] In areas where the Butler Farm—Clover Line and the Butler Farm—Finneywood Line collocate, approximately one-third of the total required right-of-way is associated with the Butler Farm—Clover Line and two-thirds of the total required right-of-way is associated with the Butler Farm—Finneywood Line.

[3] For the entirety of the Butler Farm – Clover Line and for the segment of the corridor where the Butler Farm – Clover Line and the Butler Farm – Finneywood Line collocate, the Company is seeking to acquire an additional 40 feet of right-of-way as part of this Application to accommodate installation of a third circuit in the same corridor in the future. This additional 40 feet of right-of-way will not be cleared and utilized for this Project. Dominion Energy Virginia asks that the State Corporation Commission ("Commission") not prohibit the Company from voluntarily obtaining this additional right-of-way, with the understanding that the Company could not condemn for more than what is needed for the proposed Butler Farm – Clover Line and Butler Farm—Finneywood Line. This approach is consistent with the approach approved by the Commission in the Company's BECO-DTC and Evergreen Mills proceedings. *See Application of Virginia Electric and Power Company for approval and certification of electric transmission facilities: DTC 230 kV Line Loop and DTC Substation*, Case No. PUR-2021-00280, Final Order at 13

- Construct a new 230 kV substation in Mecklenburg County, Virginia (the "Butler Farm Substation").

- Construct a new 500/230 kV switching station in Mecklenburg County, Virginia (the "Finneywood Station").

- Perform minor substation-related work at the Clover Switching Station (the "Clover Station").

The Butler Farm – Clover Line, the Butler Farm – Finneywood Line, the Butler Farm Substation, the Finneywood Station, and related substation work are collectively referred to as the "Project."

The electric transmission facilities proposed in this Application are necessary to assure that Dominion Energy Virginia can provide service requested by the Customer in Mecklenburg County, Virginia, maintain reliable service for the overall growth in the Project area, and comply with mandatory NERC Reliability Standards. The Customer has requested retail electric service from Dominion Energy Virginia to support a new data center campus. The load area where this data center is being developed is currently served by the Chase City Substation. If the summation of this data center projects' unserved load (240 MVA) was connected to the existing Chase City Substation, the existing distribution substation equipment would overload. Connecting this Customer's requested load to the Chase City Substation alone would result in (i) substation transformer thermal overloads, and (ii) violation of the Company's transmission system reliability criteria set forth in the Facilities Interconnection Requirement ("FIR") document.[4] With the proposed Project, the transformers would not overload, and reliability criteria are met.

The proposed Butler Farm Substation initially will be constructed with four 60 MVA kV transformers, one 84 MVA 230/36.5 kV transformer, six rows of breaker and half scheme with 13 breakers. In total, the proposed Butler Farm Substation will be designed to accommodate future growth in the area with a build-out of six rows of breaker and half scheme 230-kV bus with an ultimate configuration of 15 breakers, and up to four 230 kV transmission lines. The Butler Farm Substation will be built to 4000 Amp Standards.

The proposed Finneywood Station initially will be constructed with two 840 MVA 500/230 kV transformers, a 230 kV breaker and half bus with ten breakers and a 500 kV ring bus with four breakers. In total, the proposed Finneywood Station will be designed to accommodate future growth in the area with a build-out of two 500 kV transmission lines, two 840 MVA 500/230 kV transformers and up to eight 230 kV transmission lines. The Finneywood Station will be built to 4000 Amp Standards. The Company will cut and terminate Lines #556 and #235 into the Finneywood Station.

(July 7, 2022); *Application of Virginia Electric and Power Company for approval and certification of electric facilities: Evergreen Mills 230 kV Line Loops and Evergreen Mills Switching Station*, Case No. PUR-2019-00191, Final Order at 9 (May 22, 2020). The Company will seek Commission approval to install a 230 kV line in the proposed Project corridor when needed in the future.

[4] The Company's FIR document (effective Apr. 1, 2021) is available at: https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/virginia/parallel-generation/facility-connection-requirements.pdf?la=en&rev=f280781e90cf47f69ea526c944c9c347&hash=82DD2567D0B033C47536134B8C4D5C5E.

The Company identified an approximately 19.1-mile route for the Butler Farm – Clover Line (the "BF – Clover Route" or the "BF – Clover Proposed Route"), as well as two approximately 20.0-mile alternative routes ("BF – Clover Alternative Route 1" and "BF – Clover Alternative Route 2"). The Company also identified a 1.7-mile (incremental 0.1 mile less, for a total length of 19.0 miles) route variation for the BF – Clover Proposed Route (the "BF – Clover Route Variation"). The Company is proposing all three of these routes and the route variation for notice.

The Company identified an approximately 7.0-mile route for the Butler Farm – Finneywood Line (the "BF – Finneywood Route" or "BF – Finneywood Proposed Route"), as well as one approximately 8.0-mile alternative route (the "BF – Finneywood Alternative Route"). The Company also identified a 1.7-mile (incremental 0.1 mile less, for a total length of 6.9 miles) route variation for the BF – Finneywood Proposed Route (the "BF – Finneywood Route Variation"). The Company is proposing both of these routes and the route variation for notice. Discussion of the Proposed Routes, Alternative Routes, and Route Variations for the Butler Farm – Clover Line and the Butler Farm – Finneywood Line, as well as other overhead routes that the Company studied but ultimately rejected, is provided in Section II of the Appendix and in the Environmental Routing Study included with the Application.

The estimated conceptual cost of the Project utilizing the BF – Clover Proposed Route and BF – Finneywood Proposed Route is approximately $214 million, which includes approximately $92 million for transmission-related work and approximately $122 million for substation-related work (2022 dollars).

The desired in-service target date for the proposed Project is July 1, 2025. The Company estimates it will take approximately 25 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 June 1, 2023. Should the Commission issue a final order by June 1, 2023, the Company estimates that construction should begin around January 2024, and be completed by July 1, 2025. This schedule is contingent upon obtaining the necessary permits. 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 ability to schedule outages or unpredictable delays due to labor shortages or materials/supply issues.

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 a data center customer in Mecklenburg County, Virginia, to maintain reliable service for the overall growth in the Project area, and to comply with mandatory NERC Reliability Standards.

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 ("NOVEC"), 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 "Dominion Energy Zone" or "DOM Zone"). The Company needs to be able to maintain the overall, long-term reliability of its transmission system as its customers require more power 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 166,929 megawatts ("MW") for summer peak demand, of which Dominion Energy Virginia's load portion was approximately 19,256 MW. On August 9, 2022, the Company set a record high of 21,156 MW for summer peak demand. On February 20, 2015, the Company set a winter and all-time record demand of 21,651 MW. Based on the 2022 PJM Load Forecast, the Dominion Energy Zone is expected to grow with average growth rates of 2.2% summer and 2.6% winter over the next 10 years compared to the PJM average of 0.4% and 0.7% over the same period for the summer and winter, respectively

Dominion Energy Virginia is also part of the Eastern Interconnection transmission 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.[5]

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.[6] 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.[7] 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 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 interconnect new customer load. While supplemental projects are included in the RTEP, the PJM Board does not actually approve such

[5] *See* FAC-001-3 (R1, R3) (effective April 1, 2021), which can be found at https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/virginia/parallel-generation/facility-interconnection-requirements-signed.pdf?la=en&rev=38f51ffb04b1489f921b32a41d9887c8.

[6] PJM Manual 14B (effective July 1, 2021) focuses on the RTEP process and can be found at https://www.pjm.com/-/media/documents/manuals/m14b.ashx.

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

projects. See Section I.J for a discussion of the PJM process as it relates to this Project.

Mecklenburg County, Virginia has experienced a great deal of data center development over the last decade. There is a campus that is currently served by three Company-owned Substations (Ridge Road Substation, Boydton Plank Substation, and Herbert Substation). The Company is also constructing two new switching stations, Cloud 230 kV and Easters 230 kV, in Mecklenburg Electric Cooperative's territory. The Commission approved Line #235 extension to Cloud 230kV and related projects ("Cloud 230 kV Projects") on February 22, 2022, in Case No. PUR-2021-00137. The new campus for this Project (the Bailey Site) is a phase of the ultimate plan for the Customer's vision of data center growth and development in the area. This campus is in a rural area where additional load cannot be added without constructing additional transmission and distribution infrastructure.

Load Driver for the Project

A data center customer on this campus development is the load driver for this Project. For purposes of this Application, there is a single Customer and its data center project is identified as follows:

- Customer will take occupancy in 4 new buildings, residing on a new data center development. The data center campus development will be located in Mecklenburg County, Virginia; the buildings are owned by and will be constructed by the Customer.

This campus will be sourced from the proposed Butler Farm Substation. The Butler Farm Substation will be an on-campus substation and will be responsible for serving the Customer's LYH03, LYH04, LHY05, and LYH06 data center buildings on the campus. The total contract capacity to serve these buildings will be 240 MW. For specific information relative to campus buildout, please see chart below.

Customer Building	Substation Source	Contract Capacity
LYH03	Butler Farm Substation	60 MW
LYH04	Butler Farm Substation	60 MW
LYH05	Butler Farm Substation	60 MW
LYH06	Butler Farm Substation	60 MW

LYH03, LYH04, LYH05, and LYH06 data center buildings will be constructed initially and will consume a load totaling 240 MW of power. There is no available bridging capacity in this area. The distribution power plan is to split up the total 240 MW of load into 4 separate transformers and feeders. The 240 MW of total load will be split evenly between LYH03, LYH04, LYH05, and LYH06 data center buildings.

Accordingly, the proposed Project is needed to meet the load requirements of the

Customer's planned new development along with the remaining capacity available to support future residential and commercial needs in the community.

In order to maintain reliable service to customers of the Company and to comply with mandatory NERC Reliability Standards, specifically Facility Connection ("FAC") standard FAC-001,[8] the Company's FIR[9] 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 each TO to establish facility connection and performance requirements in accordance with FAC-001, and requiring the TO and end-users to meet and adhere to the established facility connection and performance requirements in accordance with FAC-002.

NERC Reliability Standards TPL-001 requirements R2, R5, and R6 require PJM, the Planning Coordinator ("PC") and the TO, 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 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);

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).

The Project is being constructed as two single 230 kV circuits instead of one single circuit to comply with Section 6.2 of the Company's FIR, which requires a ring bus arrangement for load interconnections in excess of 100 MW.

Proposed Butler Farm Substation and Butler Farm – Clover Line

As part of the Project, the Company proposes to construct the Butler Farm Substation, a new 230 kV substation in Mecklenburg County, Virginia. The

[8] *See supra* n. 5.
[9] *See supra* n. 4.

proposed Butler Farm Substation initially will be constructed with four 60 MVA kV transformers, one 84 MVA 230/36.5 kV transformer, six rows of breaker and half scheme with thirteen breakers. In total, the proposed Butler Farm Substation will be designed to accommodate future growth in the area with a build-out of six rows of breaker and half scheme 230-kV bus with an ultimate configuration of fifteen breakers, and up to four 230 kV transmission lines. The Butler Farm Substation will be built to 4000 Amp Standards.

For the Butler Farm – Clover Line, the Company identified an approximately 19.1-mile route for the BF – Clover Proposed Route, as well as two approximately 20.0-mile alternative routes. The Company also identified a 1.7-mile (incremental 0.1 mile less, for a total length of 19.0 miles) route variation for the BF – Clover Proposed Route. The Company is proposing all three of these routes and the route variation for notice. The Butler Farm – Clover Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 47 feet to 120 feet.

The Butler Farm – Clover Line will be supported by one hundred thirty-eight single circuit H-Frame weathering steel structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. Nineteen single circuit weathering steel monopole structures will also be installed. These structure quantities are subject to final engineering.

Proposed Finneywood Station and Butler Farm – Finneywood Line

As part of the Project, the Company also proposes to obtain land and build the Finneywood Station, a new 500/230 kV switching station in Mecklenburg County, Virginia, at the intersection of Line #556 and Line #235. Specifically, the Company proposes to:

(i) Cut and terminate Line #556 into Finneywood Station;

(ii) Cut and terminate Line #235 into Finneywood Station; and

(iii) Install two 840 MVA 500/230 kV transformers, a 230 kV breaker and half bus with ten breakers and a 500 kV ring bus with four breakers in the new Finneywood Station. The proposed Finneywood Station will be designed to accommodate future growth in the area with a build-out of two 500 kV transmission lines, two 840 MVA 500/230 kV transformers and up to eight 230 kV transmission lines. The proposed Finneywood Station will be built to 4000 Amp Standards.

For the Butler Farm – Finneywood Line, the Company identified an approximately 7.0-mile route for the BF – Finneywood Proposed Route, as well as one approximately 8.0-mile alternative route. The Company also identified a 1.7-mile (incremental 0.1 mile less, for a total length of 6.9 miles) route variation for the BF – Finneywood Proposed Route. The Company is proposing both of these routes

and the route variation for notice. The Butler Farm – Finneywood Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 50 to 107 feet.[10]

The Butler Farm – Finneywood Line will be supported by forty-nine single circuit weathering steel monopole structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. Five double circuit H-frame weathering steel structures will also be installed. These structure quantities are subject to final engineering. The conductor and substation equipment used to interconnect the proposed Finneywood Station with the transmission system will have a minimum summer rating of 1,573 MVA using 4000 Amp substation equipment.

The Customer has requested a maintenance transformer, which will be installed in the Butler Farm Substation. The Customer will reserve 60 MVA off the single 84 MVA transformer, to serve their campus maintenance plan and will be charged excess facilities for this 60 MVA of reservation on the maintenance transformer. At any customer's request, the Company will endeavor to design a distribution or transmission system that provides a back-up source of power should their normal feed have an outage. The cost of installing a maintenance transformer is compared to the normal arrangement of service, and the difference in cost (including all transmission and distribution costs for installing the transformer) is collected through an excess facilities charge. Accordingly, the Customer will pay excess facility charges[11] for the installation of the maintenance transformer.[12]

Line Numbers in the Project Area

After completion of the Project, the lines in the Project area will be renumbered as follows:

Line #556: Clover – Finneywood

Line #593: Rawlings – Finneywood

Line #235: Farmville – Finneywood

Line #2258: Cloud – Finneywood

Line #2256: Butler Farm – Finneywood

[10] In areas where the Butler Farm – Clover Line and the Butler Farm – Finneywood Line collocate, two-thirds of the total required right-of-way has been associated with the Butler Farm – Finneywood Line.
[11] These excess facilities costs are reflected in Section I.I of the total Project conceptual costs.
[12] The Customer's reliability criteria requires that the circuits be placed on separate structures. The associated additional excess facilities costs will also be borne by the Customer for the additional pole, right-of-way, and forestry access costs associated with the right-of-way. This cost is shared between the Butler Farm—Finneywood Line and the Butler Farm – Clover Line.

Line #2281: Butler Farm – Clover

See Attachment I.A.1 for a map of the existing transmission facilities in the affected Mecklenburg County, Virginia Load Area. Attachment I.A.2 provides the existing one-line diagram of the area transmission system. Attachment I.A.3 provides the one-line diagram of the area transmission system after completion of the Cloud 230 kV Projects as of June 2024. Attachment I.A.4 provides the one-line diagram of the area transmission system after completion of the proposed Project as of July 2025. See Attachment II.A.2 for a routing map depicting the proposed Project.

Future Development in the Project Area

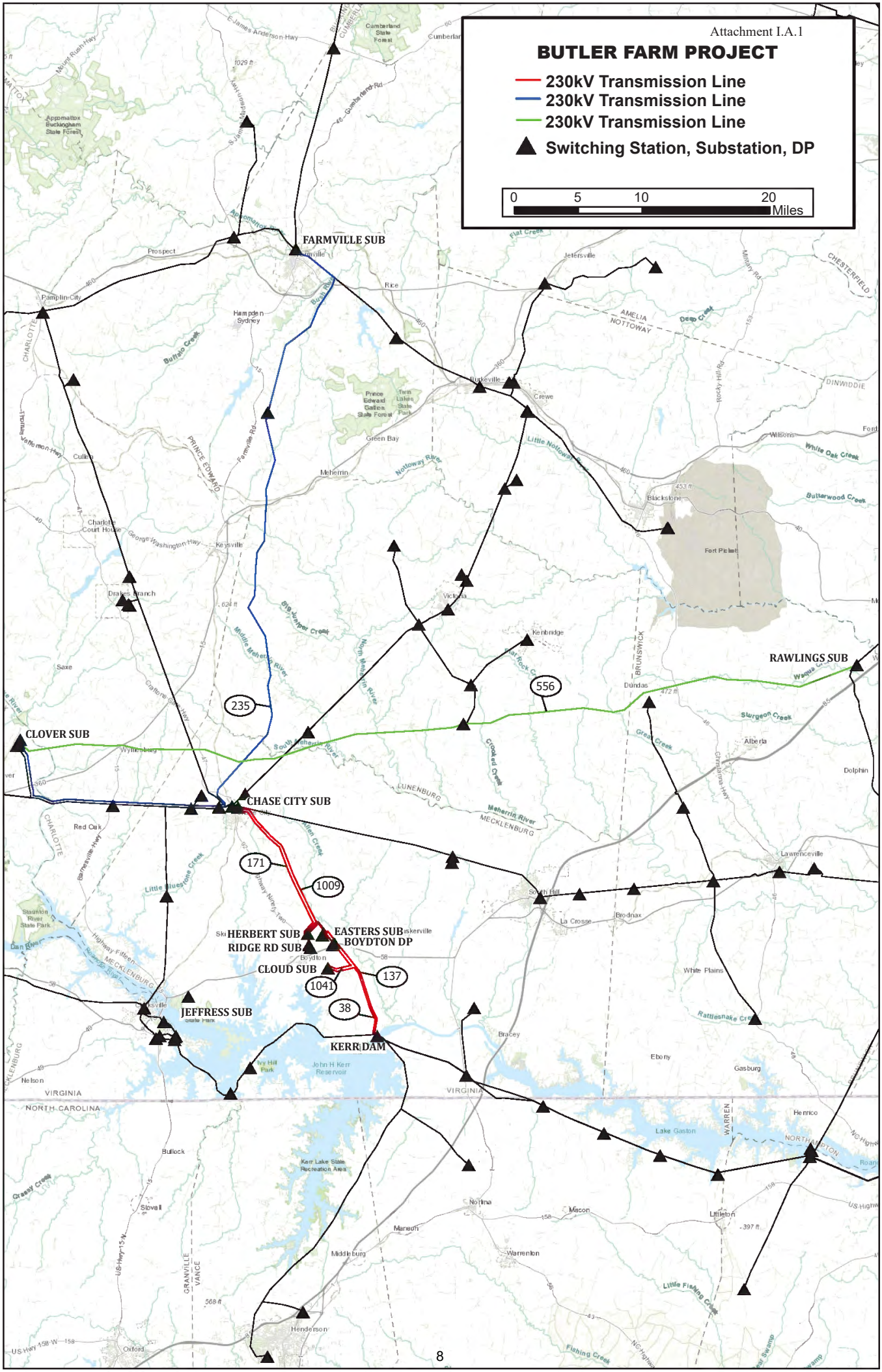
In addition to the Customer's data centers campus, three other future data center projects have been announced in the area (*e.g.*, Hillcrest Campus Mecklenburg County PARID: 553601107 (140 acres), Roanoke River Campus Mecklenburg County PARID: 553595383 (275 acres), and Lakeside DP Mecklenburg County PARID: 553585537 (246 acres)). These additional data center projects are in various stages of development and are independently progressing through Mecklenburg County zoning and permitting approvals. The Company is tracking these as future load growth in the area, and the proposed Butler Farm Substation along with future substations will be used to serve them. Constructing the proposed Project within this high potential growth area will allow the Company to continue to serve economic growth in the area in a timely manner.

The Customer also has a plan for additional data center building development on the same campus as the proposed Project, which would include LYH07 and LYH08. These buildings are not included as the driver of the need for this Project. The Company plans to serve these buildings by constructing a future Bluestone Creek Substation. When the total load of the Butler Farm Substation and the Bluestone Creek Substation exceeds 300 MW, the Company plans to add another 230 kV line from the Finneywood Station to the Bluestone Creek Substation. The Company proposes to acquire the right-of-way for the future 230 kV line (Bluestone Creek – Finneywood 230 kV Line) as part of this Application.[13]

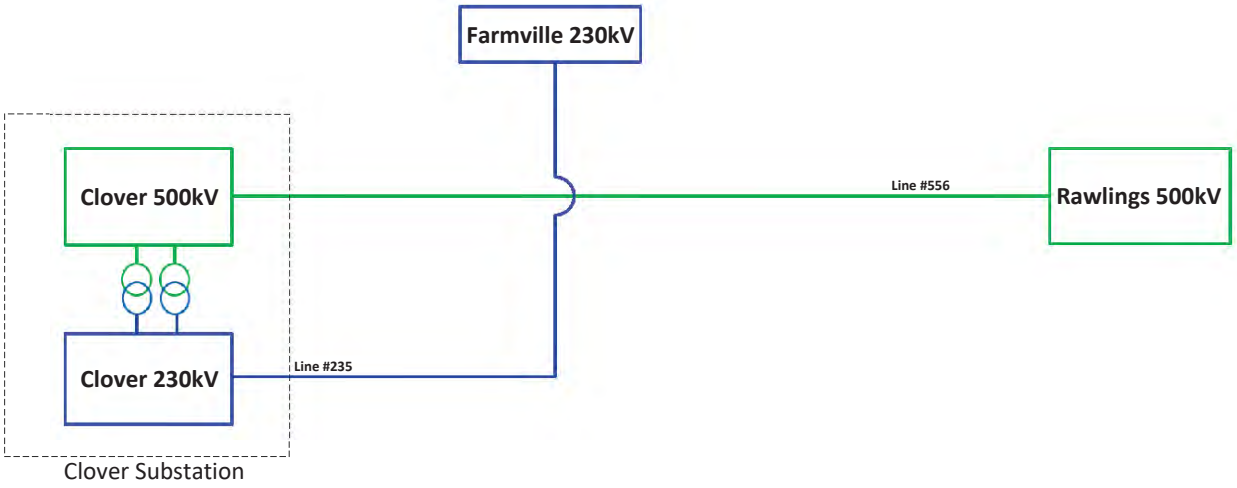
***

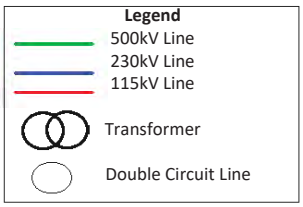
In summary, the proposed Project will provide service requested by the Customer in Mecklenburg County, Virginia, maintain reliable service for the overall growth in the Project area, and comply with mandatory NERC Reliability Standards.

[13] *See supra* n. 3.


BUTLER FARM PROJECT
230kV Transmission Line
230kV Transmission Line
230kV Transmission Line
Switching Station, Substation, DP
0 5 10 20
Miles
FARMVILLE SUB
RAWLINGS SUB
CLOVER SUB
CHASE CITY SUB
HERBERT SUB
RIDGE RD SUB
EASTERS SUB
BOYDTON DP
CLOUD SUB
JEFFRESS SUB
KERR DAM
235
556
171
1009
137
1041
38
VIRGINIA
NORTH CAROLINA

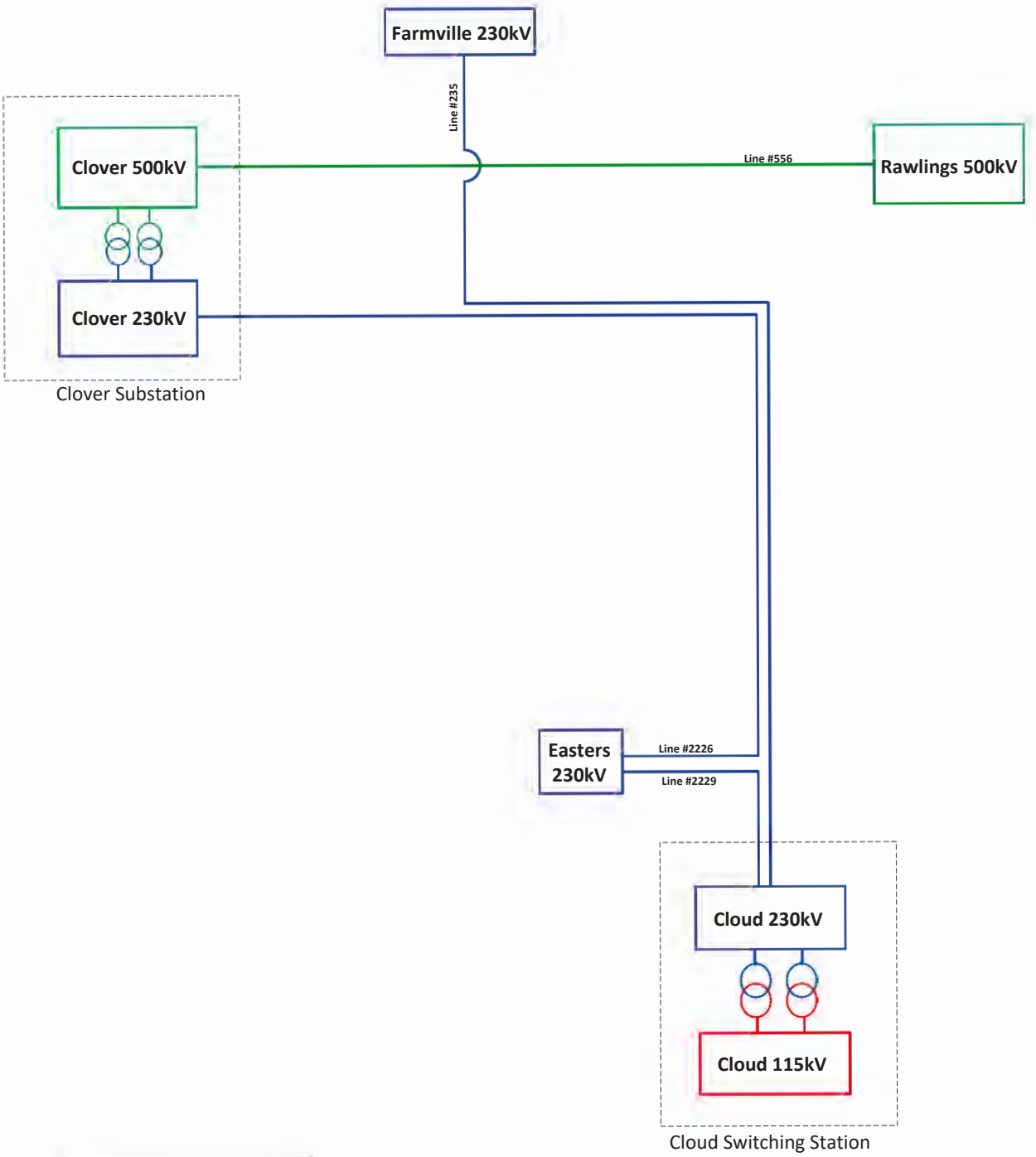
Existing System (System as of April 2022)



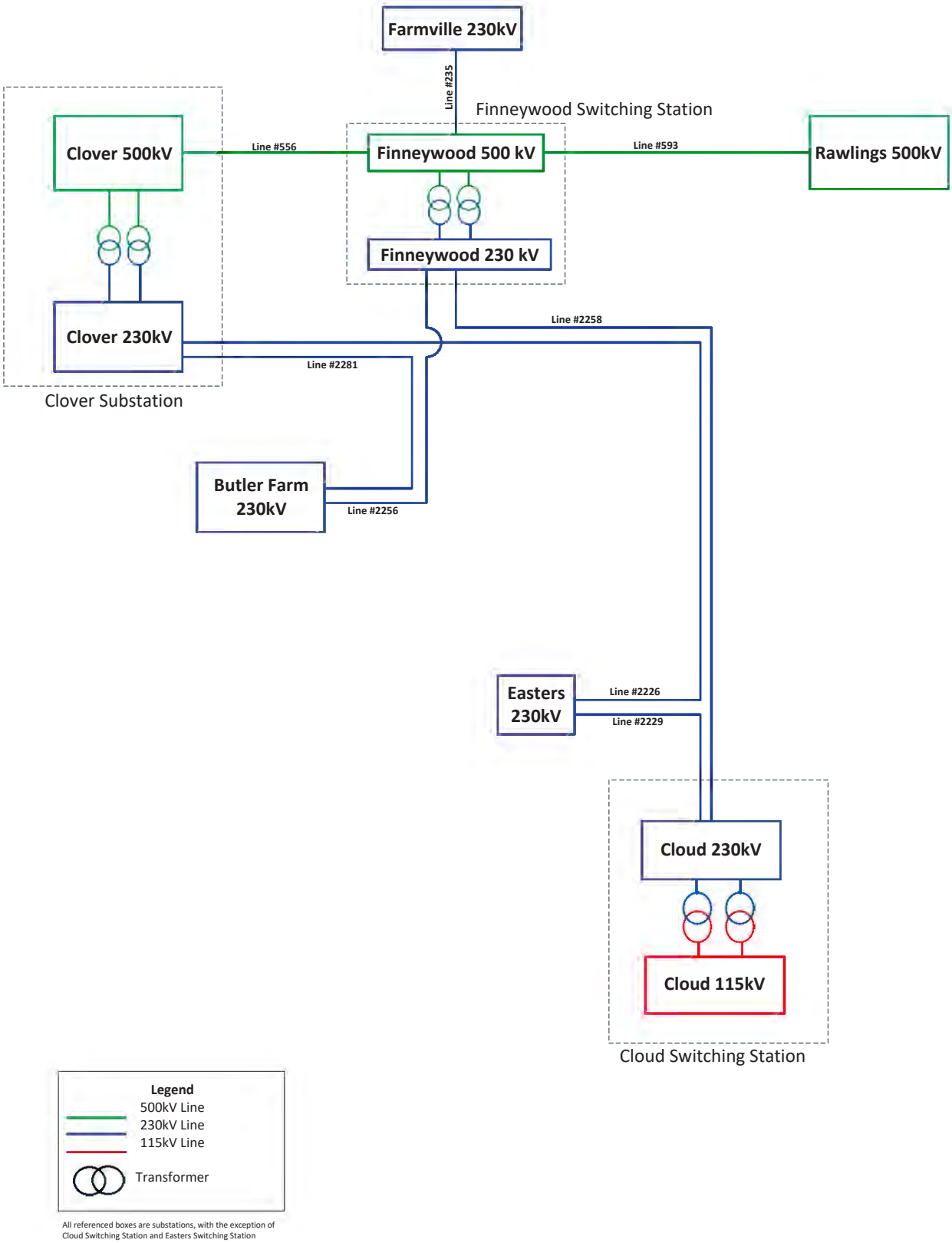


All referenced boxes are substations, with the exception of Cloud Switching Station and Easters Switching Station

System After Completion of Cloud 230kV Projects (System as of June 2024) Attachment I.A.3



Proposed System After Completion of the Projects (System as of July 2025) Attachment I.A.4



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**

See Section I.A of the Appendix.

(2) Known Future Projects

On this existing data center campus, the ultimate development will include two future data center buildings. These additional buildings are projected to operate at about 120 MW of contract load. The Customer has already allocated an easement on its site for a future substation that will serve these buildings. These buildings ramp will initiate in 2029. See table below for general information:

Customer Building	Substation Source	Contract Capacity
LYHO7	Future Substation	60 MW
LYH08	Future Substation	60 MW

The Company plans to serve these new data center buildings from the proposed Finneywood Station. When the total load of the Butler Farm Substation and the Bluestone Creek Substation exceeds 300 MW, the Company plans to add the future Bluestone Creek – Finneywood 230 kV Line.

[3] Planning Studies

Dominion Energy Virginia's Electric Transmission Planning group performs planning studies to ensure delivery of bulk power to a continuously changing customer demand under a wide variety of operating conditions. Studies are performed in coordination with the Company's RTO (*i.e.*, PJM) and in accordance with NERC Reliability Standards. In completing these studies, the Company considered all other known generation and transmission facilities impacting the affected load area.

[4] Facilities List

See Attachment I.A.1 for existing transmission facilities, which includes

transmission lines and substations, in the affected Mecklenburg County, Virginia Load Area. See Attachment I.G.1 for existing transmission lines and for existing and proposed substations. See Attachment II.A.2 for the proposed transmission lines.

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 new data center is in Mecklenburg County, Virginia. The parcel (Mecklenburg County, Virginia Parcel Identification Number 001) consists of approximately 585.02 acres. See Attachment I.A.1 for a map of the load area in which the data center projects will be located that comprise the need for the Project. See Attachment I.G.1 for the Company's existing and proposed transmission facilities in the area. The proposed Butler Farm Substation, which will be an on-campus substation, will be the primary source of distribution power for the Customer's LYH03, LYH04, LYH05, and LYH06 buildings. The projected load at the Customer's campus for LYH03, LYH04, LYH05, and LYH06 combined is projected to be approximately 240 MW of contract load in 8-10 years. The existing Chase City Substation is not able to serve the campus due to voltage differences, substation transformer thermal overloads, violation of the Company's transmission system reliability criteria set forth in the FIR document, and station capacity physical restraints described further in Section I.E.

Attachment I.C.1 shows loading (MVA), as follows:

- Attachment I.C.1.a shows loading at the Chase City Substation without Customer load (LYH03, LYH04, LYH05, and LYH06)
- Attachment I.C.1.b shows loading at the Chase City Substation with Customer load (LYH03, LYH04, LYH05, and LYH06)
- Attachment I.C.1.c shows loading at the proposed Butler Farm Substation:
    - Loading with Customer – LYH03, LYH04, LYH05, and LYH06 buildings connected.

Note that Attachments I.C.1.a, I.C.1.b and I.C.1.c include only the normal feed circuits to the Customer's data center projects; they do not include any alternate feed loads.

The proposed Butler Farm Substation is designed ultimately to have five transformers: four 60 MVA, 230/34.5KV units with a normal overload rating ("NOL") of 64 MVA and one 84 MVA, 230-34.5 kV transformers, with a NOL rating of 90 MVA. Each of the 60 MVA transformers is responsible for sourcing

one of the four buildings. Off each transformer will be a single feeder that will source each individual data center building. The 84 MVA transformer will be used as a maintenance transformer.

Maintenance Transformer

To account for outages and contingencies to maintain the operation of the data center buildings, the Customer has requested a maintenance transformer, which will be installed in the Butler Farm Substation. This transformer will ultimately carry the load in the event TX #1, TX #2, TX #3 or TX #4 is out of service. The Customer will reserve 60 MVA off the single 84 MVA transformer, to serve their campus maintenance plan and will be charged excess facilities for this 60 MVA of reservation on the maintenance transformer.

Maintaining System Reliability

To ensure reliability to its customers, the Company maintains a substation transformer contingency plan. Because of the negative impact to customers due to 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 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 on other equipment because of the switching, new substation capacity will be needed. For additional capacity, new transformation may be needed at the existing substation or construction of a new substation, like the proposed Butler Farm Substation, could be necessary.

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.

NERC criteria restricts total substation loading to no more than 300 MW. 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 a new substation like the proposed Butler Farm Substation.

The existing transmission system has two 115 kV and one 230 kV transmission lines near the proposed Butler Farm Substation. Adding the Butler Farm Substation load on the existing system violates the following NERC criteria:

1. N-1-1 contingencies load loss is greater than 300 MW

2. Low Voltage (Voltage less than 0.9 pu)

3. Thermal Loading (Lines loaded greater than 100%)

Based on all these stated projected overloads and criteria violations above, the Company needs to construct the Butler Farm Substation *and* the Finneywood

Station by summer 2025 to avoid these issues. The detailed analysis is presented in Section I.D of the Appendix.

Table I.C.1.a																	
Chase City Sub Load Area			(Load and Ratings in MVA)														
Chase City Substation (Loads contain Area Load only)																	
			2016 Actual Summer Peak Loading (MVA)	2017 Actual Summer Peak Loading (MVA)	2018 Actual Summer Peak Loading (MVA)	2019 Actual Summer Peak Loading (MVA)	2020 Actual Summer Peak Loading (MVA)	2021 Actual Summer Peak Loading (MVA)	2022 Projected Summer Peak Loading (MVA)	2023 Projected Summer Peak Loading (MVA)	2024 Projected Summer Peak Loading (MVA)	2025 Projected Summer Peak Loading (MVA)	2026 Projected Summer Peak Loading (MVA)	2027 Projected Summer Peak Loading (MVA)	2028 Projected Summer Peak Loading (MVA)	2029 Projected Summer Peak Loading (MVA)	2030 Projected Summer Peak Loading (MVA)
Substation Total			12.6	12.6	12.6	12.6	12.6	12.6	12.7	12.9	13.0	13.1	13.2	13.4	13.5	13.6	13.8
Substation Total Calculation for 100 MW NERC Limit			12	12	12	12	12	12.0	12.1	12.2	12.3	12.5	12.6	12.7	12.8	13.0	13.1
Transformer	Nameplate	NOL															
TX #1	22.4	24.9	5.7	5.7	5.7	5.7	5.7	5.7	5.8	5.8	5.9	5.9	6.0	6.1	6.1	6.2	6.2
TX #2	22.4	24.9	6.9	6.9	6.9	6.9	6.9	6.9	7.0	7.0	7.1	7.2	7.3	7.3	7.4	7.5	7.5

Table I.C.1.b																			
Chase City Sub Load Area(With Data Center Load LYH03, LYH04, LYH05, and LYH06)						(Load and Ratings in MVA)													
Chase City Substation (Loads contain Area Load only)																			
			2016 Actual Peak Loading (MVA)	2017 Actual Peak Loading (MVA)	2018 Actual Peak Loading (MVA)	2019 Actual Peak Loading (MVA)	2020 Actual Peak Loading (MVA)	2021 Actual Peak Loading (MVA)	2022 Projected Peak Loading (MVA)	2023 Projected Peak Loading (MVA)	2024 Projected Peak Loading (MVA)	2025 Projected Peak Loading (MVA)	2026 Projected Peak Loading (MVA)	2027 Projected Peak Loading (MVA)	2028 Projected Peak Loading (MVA)	2029 Projected Peak Loading (MVA)	2030 Projected Peak Loading (MVA)	2031 Projected Peak Loading (MVA)	2032 Projected Peak Loading (MVA)
Substation Total			12.6	12.6	12.6	12.6	12.6	12.6	12.7	12.9	13.0	14.0	48.6	68.6	116.6	163.6	194.8	205.0	205.0
Substation Total Calculation for 100 MW NERC Limit			12	12	12	12	12	12.0	12.1	12.2	12.3	13.3	46.2	65.2	110.8	155.4	185.0	194.7	194.7
Transformer	Nameplate	NOL																	
TX #1	22.4	24.9	5.7	5.7	5.7	5.7	5.7	5.7	5.8	5.8	5.9	6.4	23.7	33.7	57.7	81.2	96.8	101.9	101.9
TX #2	22.4	24.9	6.9	6.9	6.9	6.9	6.9	6.9	7.0	7.0	7.1	7.6	24.9	34.9	58.9	82.4	98.0	103.1	103.1
The red references transformer overloads and exceeding the station capacity limit																			

Table I.C.1.c												
Butler Farm Sub (With Data Center Load LYH03, LYH04, LYH05, and LYH06)												
			2025 Summer Projected Peak Loading (MVA)	2026 Summer Projected Peak Loading (MVA)	2027 Summer Projected Peak Loading (MVA)	2028 Summer Projected Peak Loading (MVA)	2029 Summer Projected Peak Loading (MVA)	2030 Summer Projected Peak Loading (MVA)	2031 Summer Projected Peak Loading (MVA)	2032 Summer Projected Peak Loading (MVA)	2033 Summer Projected Peak Loading (MVA)	2034 Summer Projected Peak Loading (MVA)
Substation Total			1	17.8	55.6	103.6	150.6	181.8	192	192	192	192
Substation Total Calculation for 300MW NERC Limit			1	17.3	53.9	100.5	146.1	176.3	186.2	186.2	186.2	186.2
Transformer	Nameplate	NOL										
TX #1	60	64	1	16.8	37.8	48	48	48	48	48	48	48
TX #2	60	64	0	1	16.8	37.8	48	48	48	48	48	48
TX #3	60	64	0	0	1	16.8	37.8	48	48	48	48	48
TX #4	60	64	0	0	0	1	16.8	37.8	48	48	48	48

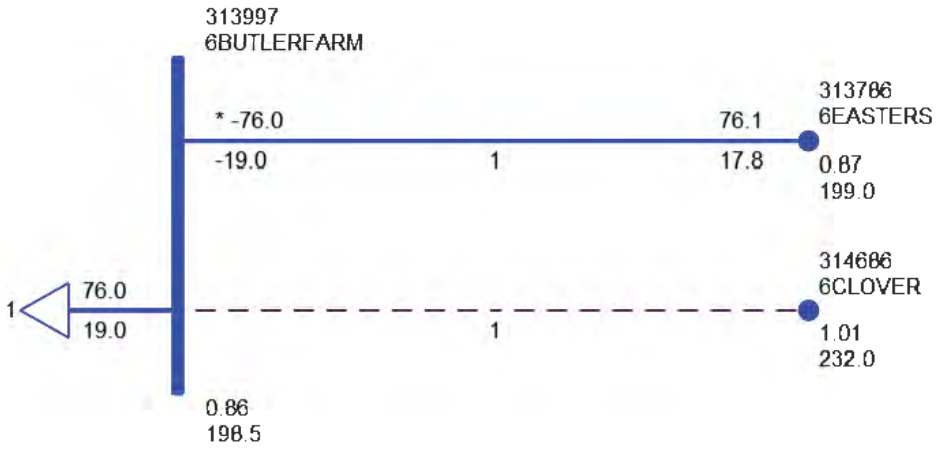
I. NECESSITY FOR THE PROPOSED PROJECT

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: The following TPL critical contingencies result in NERC criteria violations for existing system:

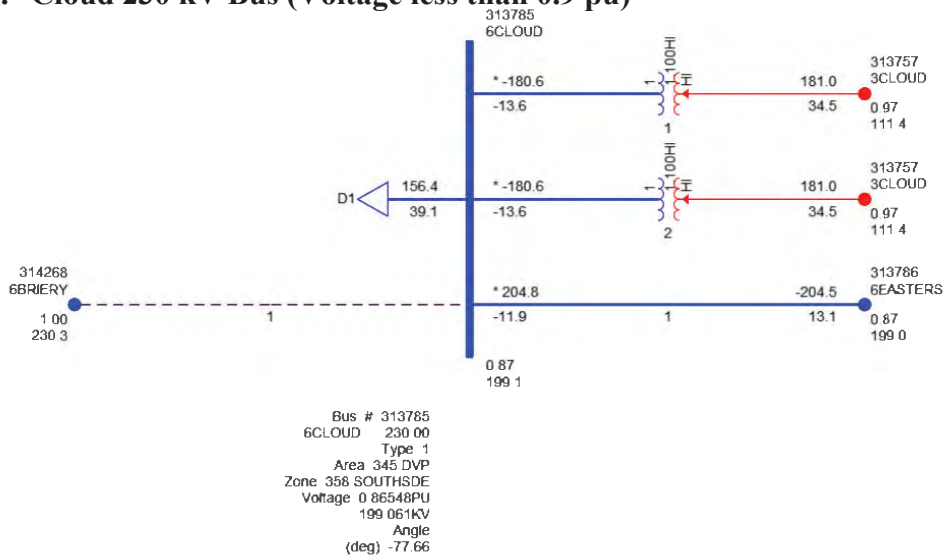
1. **Contingency Name:** Loss of Line #2226 and Line #235
   Contingency Type: N-1-1
   Violation Season and Year: Summer 2025
   NERC Criteria Violation: Low voltages at Butler Farm 230 kV, Cloud 230 kV and Easters 230 kV buses (Less than 0.90 pu).
   Screenshots of powerflow simulations:

a. Butler Farm 230 kV Bus (Voltage less than 0.9 pu)



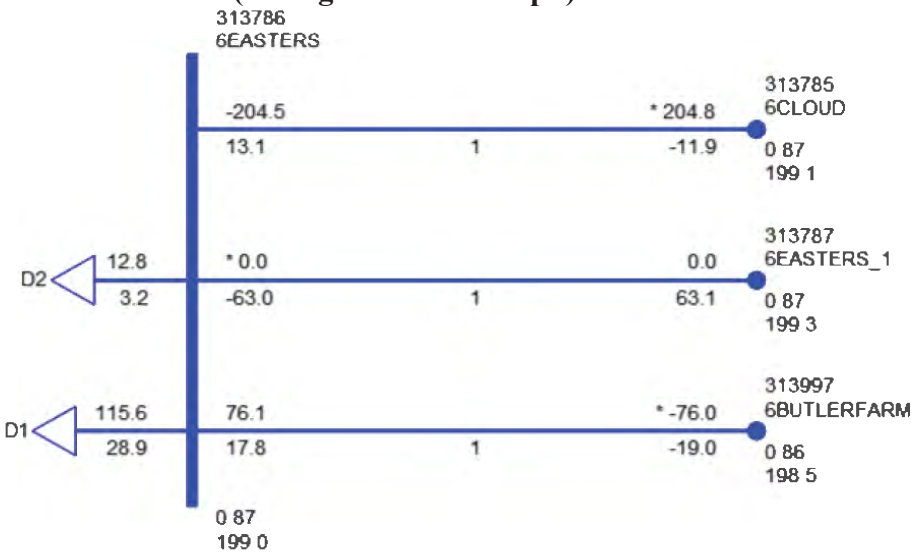
Bus # 313997
6BUTLERFARM 230.00
Type 1
Area 345 DVP
Zone 358 SOUTHSDE
Voltage 0.86301PU
198.492KV
Angle
(deg) -78.70

b. Cloud 230 kV Bus (Voltage less than 0.9 pu)



Bus # 313785
6CLOUD 230 00
Type 1
Area 345 DVP
Zone 358 SOUTHSDE
Voltage 0 86548PU
199 061KV
Angle
(deg) -77 66

c. Easters 230 kV Bus (Voltage less than 0.9 pu)

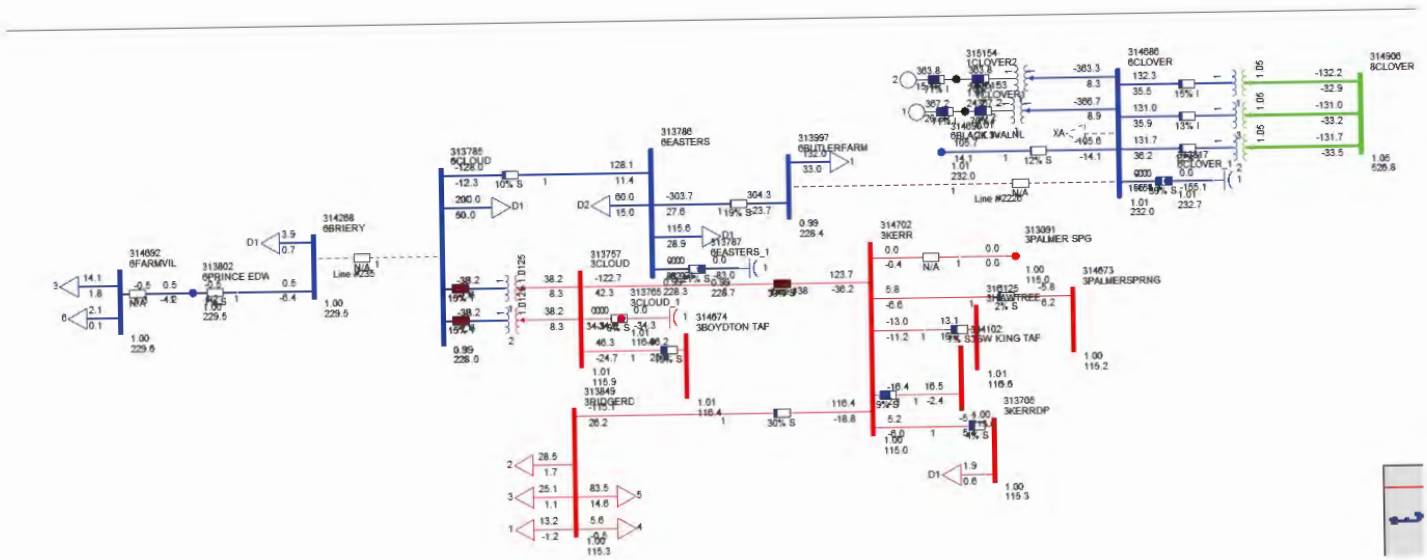


Bus # 313786
6EASTERS 230 00
Type 1
Area 345 DVP
Zone 358 SOUTHSDE
Voltage 0 86500PU
198 951KV
Angle
(deg) -78 33

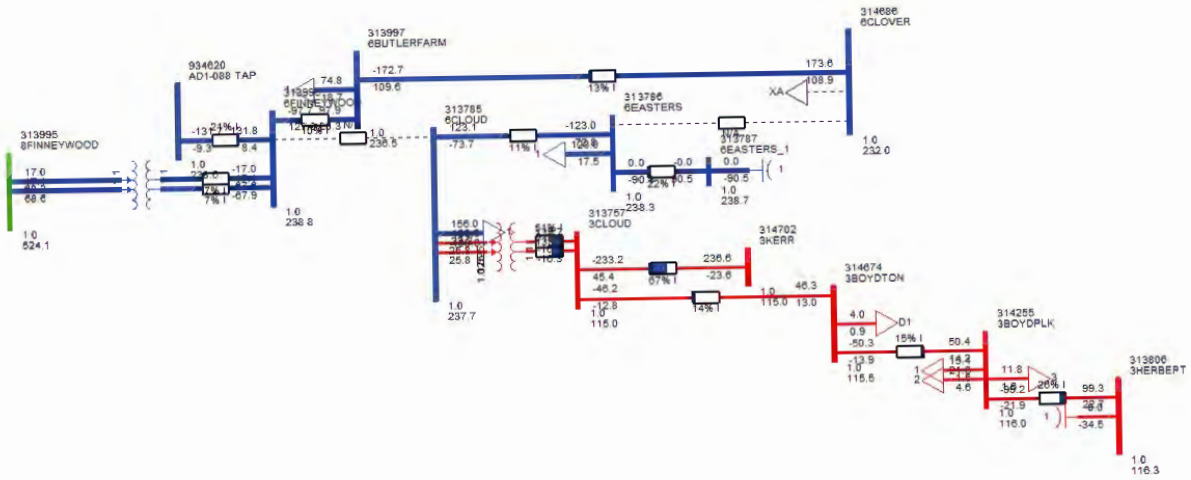
2. **Contingency Name:** Loss of Line #2226 and Line #235
   Contingency Type: N-1-1
   Violation Season and Year: Summer 2027

NERC Criteria Violation: Load drop at the Butler Farm 230 kV Substation, the Cloud 230 kV Substation and the Easters 230 kV Substation (Greater than 300 MW)

3. **Contingency Name:** Loss of Line #2226 and Line #235
   Contingency Type: N-1-1
   Violation Season and Year: Summer 2028
   NERC Criteria Violation: Thermal Overloads on Cloud TX #1, TX #2, and Line #38 (Greater than 100%).



All the above violations are mitigated when both the Butler Farm Substation and the Finneywood Station are constructed by Summer 2025. The powerflow simulation below shows the resolved violations after adding the proposed projects.



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: The Company considered electrical alternatives to the proposed Project, including the use of distribution facilities as well as existing and planned substations to serve the need for the Project.

Distribution Alternatives:

Area Substation – Chase City Substation

There are no other feasible distribution alternatives to serve the Customer's new data center campus development outside of constructing the Butler Farm Substation. The reasons are as follows:

- The load area where these data centers are being developed is currently served by the Chase City Substation. If the summation of this data center campus unserved load (240 MW) were connected to this substation, the existing distribution substation equipment would overload. Connecting the Customer's requested load to Chase City Substation alone would result in (i) substation transformer thermal overloads, and (ii) violation of the Company's transmission system reliability criteria set forth in the FIR document. Section I.C. of this Appendix describes these violations in further detail.

- The Chase City Substation distribution voltage output is 12.5 kV delivery, where the Customer's campus is requiring a 34.5 kV delivery. This system characteristic creates a nonstandard and impractical approach for the Company to be able to accommodate the Customer's ultimate capacity demand.

- The physical limitations within the substations prevent any installation of the required transformers and distribution equipment that could accommodate the Customer's ultimate demand. To accommodate the normal delivery, the Company would need to install 4-84 MVA transformers. This includes the capacity to serve the customer along with transformer contingency support. For distributing the load, the Company would need to install eight feeders to unload the requested normal delivery. The existing space within the substation fences along with the inability to expand the stations to the size needed to accommodate this amount of load, confirms that Chase City Substation is not a viable candidate for serving this data center development.

Transmission Alternatives:

There are no feasible transmission alternatives to construction of the Butler Farm Substation and the Finneywood Station in response to Customer's DP request. See also Section I.J and Attachments I.J.1 and I.J.2 of the Appendix.

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 ("2018 Final Order"), 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, PJM and the Company have identified a need for the proposed Project in order to comply with mandatory NERC Reliability Standards, while maintaining the overall long-term reliability of its transmission system.[14] Notwithstanding, when performing an analysis based on PJM's 50/50 load forecast, there is no adjustment in load for DR programs that are considered in PJM's fixed resource requirement ("FRR") plan 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 reliability pricing model 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 absolve the need for the Project. As reflected in Attachment I.C.1.b, the projected load at Chase City Substation without the Project and with all the Customer's new data center development fully built out is 240 MW of contract capacity. By way of comparison, statewide, the Company achieved demand savings of 308.4 MW (net) / 396.8 MW (gross) from its DSM Programs in 2021.

[14] 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 P JM'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

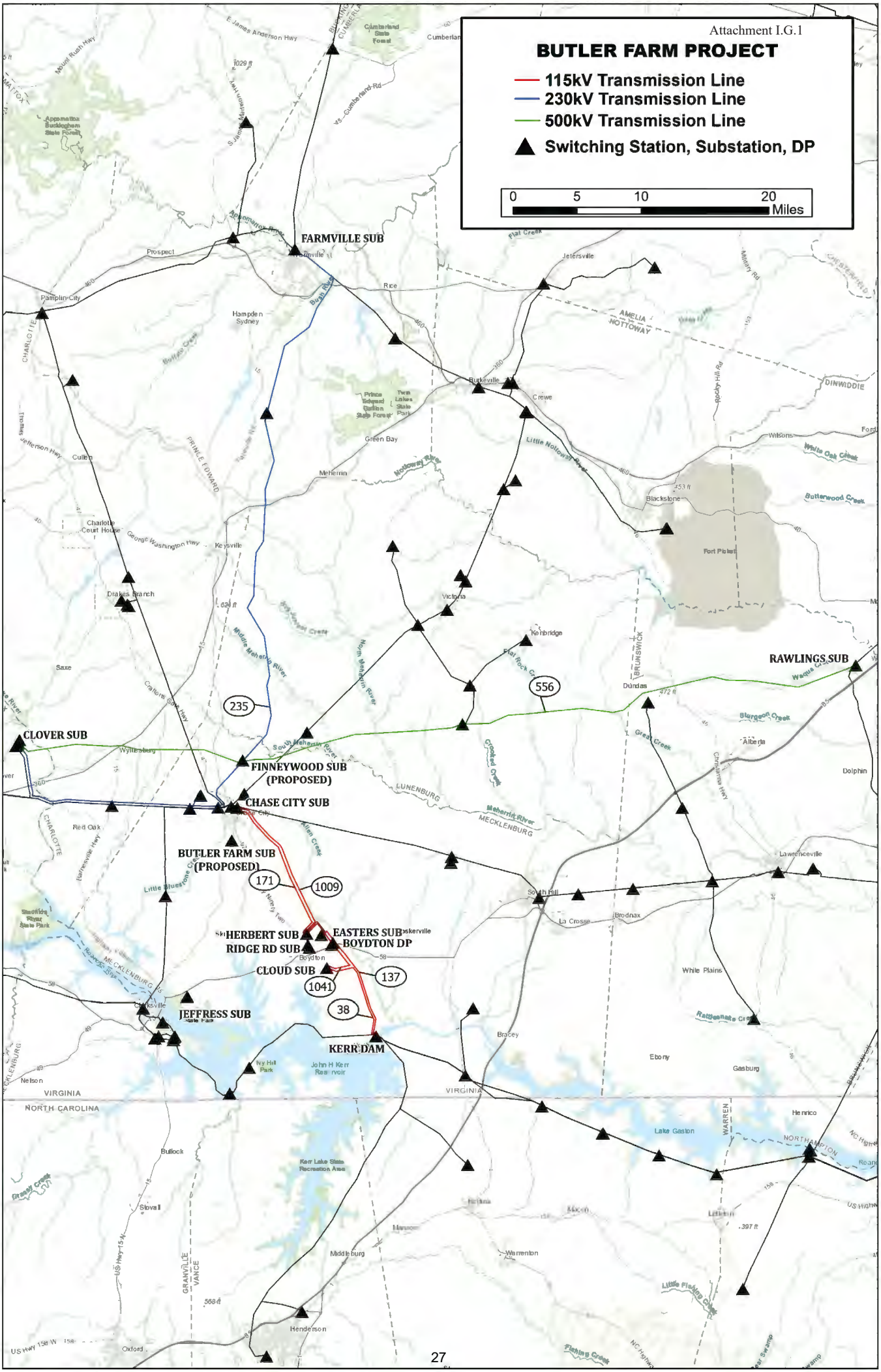
F. Describe any lines or facilities that will be removed, replaced, or taken out of service upon completion of the proposed project, including the number of circuits and normal and emergency ratings of the facilities.

Response: Not applicable. No lines or facilities will be removed or replaced.

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.


BUTLER FARM PROJECT
115kV Transmission Line
230kV Transmission Line
500kV Transmission Line
Switching Station, Substation, DP
0 5 10 20 Miles
FARMVILLE SUB
CLOVER SUB
FINNEYWOOD SUB (PROPOSED)
CHASE CITY SUB
BUTLER FARM SUB (PROPOSED)
HERBERT SUB
RIDGE RD SUB
EASTERS SUB
BOYDTON DP
CLOUD SUB
JEFFRESS SUB
KERR DAM
RAWLINGS SUB
235
556
171
1009
1041
137
38
VIRGINIA
NORTH CAROLINA

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 proposed Project is July 1, 2025.

The Company estimates it will take approximately 25 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 June 1, 2023.

Should the Commission issue a final order by June 1, 2023, the Company estimates that construction should begin around January 2024, and be completed by July 1, 2025. 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 ability to schedule outages, or unpredictable delays due to labor shortages, or materials/supply issues.

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 estimated conceptual cost of the Project is approximately $214 million, which includes approximately $92 million[15] for transmission-related work and approximately $122 million for substation-related work (2022 dollars).

A breakdown of the transmission-related conceptual costs is provided in the table below.

Line	Route	Total Cost
Butler Farm – Clover Line (Line #2281)	**Proposed Route**	**$54,437,809***
	Proposed Route with Variation	**$54,468,394***
	Alternative Route 1	**$67,381,793***
	Alternative Route 2	**$70,595,336***
Butler Farm – Finneywood Line (Line # 2256)	**Proposed Route**	**$38,024,452***
	Proposed Route with Variation	**$38,024,452***
	Alternative Route	**$58,447,828***

***Note that these costs were determined assuming the Company's Proposed Routes would be chosen for both the Butler Farm – Clover Line and the Butler Farm – Finneywood Line. For example, the cost for Line #2281's Proposed Route assumes Line #2256's Proposed Route will be built, and vice versa. All of these costs are preliminary and subject to final engineering.

[15] The cost estimate for transmission-related work is based on the proposed routes for the Butler Farm – Clover Line and the Butler Farm – Finneywood Line.

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 (Supplemental Project DOM-2022-0026) initiated by the TO in order to interconnect new customer load. The Project was submitted to PJM on May 10, 2022 and the solution slide was submitted to PJM on June 7, 2022. See Attachments I.J.1 and I.J.2, respectively. PJM has assigned supplemental number s2738 to the Project. The Company has conducted its do-no-harm analysis and accepted the project in the Local Plan.

The Project is presently 100% cost allocated to DOM Zone.

Dominion Supplemental Projects

Transmission Expansion Advisory Committee
May 10, 2022

Needs

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-2022-0026

Process Stage: Need Meeting 05/10/2022

Project Driver: Customer Service

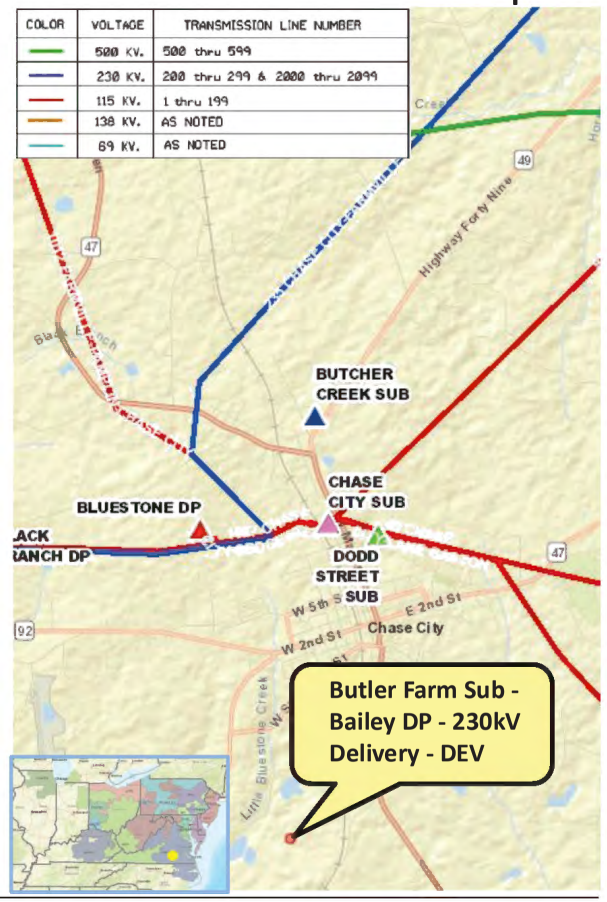
Specific Assumption References:

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

Problem Statement:

DEV Distribution has submitted a delivery point request (Bailey DP) for a new delivery point to serve a data center customer in Chase City, VA. The total load is in excess of 100 MW. The customer requests service by April 2025.

Initial In-Service Load	Projected 2027 Load
Summer: 1.0 MW	Summer: 74.8 MW



Dominion Supplemental Projects

Transmission Expansion Advisory Committee
June 7, 2022

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

35

Dominion Transmission Zone: Supplemental Customer Load Request

Need Number: DOM-2022-0026

Process Stage: Solutions Meeting 06/07/2022

Previously Presented: Need Meeting 05/10/2022

Project Driver: Customer Service

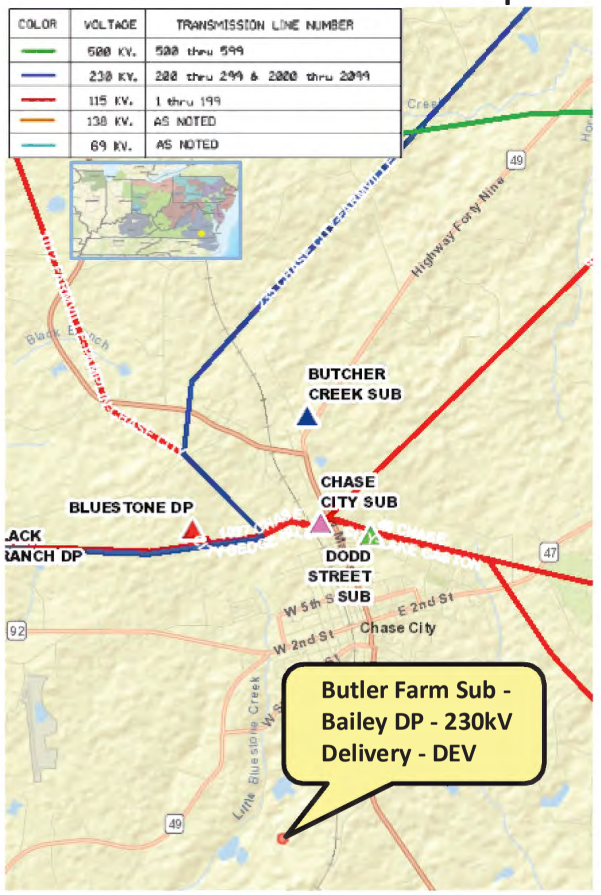
Specific Assumption References:

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

Problem Statement:

DEV Distribution has submitted a delivery point request (Bailey DP) for a new delivery point to serve a data center customer in Chase City, VA. The total load is in excess of 100 MW. The customer requests service by July 1, 2025.

Initial In-Service Load	Projected 2027 Load
Summer: 1.0 MW	Summer: 74.8 MW



Dominion Transmission Zone: Supplemental Butler Farm 230kV Delivery - DEV

Need Number: DOM-2022-0026

Process Stage: Solutions Meeting 06/07/2022

Proposed Solution:

- Obtain land and build a new 500/230kV Finneywood switching station at the intersection of Line #556 (Clover-Rawlings) and Line #235 (Cloud – Farmville).
- Cut and terminate Line #556 into Finneywood 500/230kV switching station. Cut and terminate Line #235 into Finneywood 500/230kV switching station. In the new Finneywood switching station, install two 840 MVA 500/230kV transformers, a 230kV breaker and half bus with 12 breakers and a 500kV ring bus with 6 breakers.
- Construct Butler Farm 230kV substation with four 230kV breaker ring bus to terminate two 230kV lines. Construct one new 230kV transmission line for approximately 20 miles from Clover Sub to Butler Farm Substation. Construct one new 230kV transmission line for approximately 10 miles from Finneywood Sub to Butler Farm Substation.
- New right-of-way will be needed for both transmission lines. New conductor to have a minimum summer normal rating of 1573 MVA.

Estimated Project Cost: $180.0 M (Total)

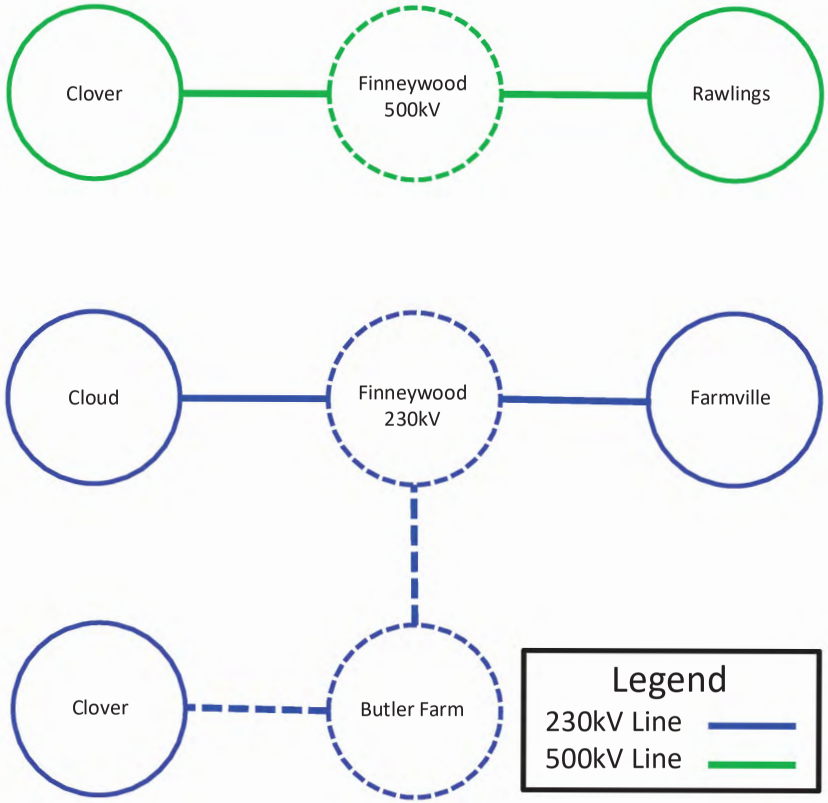
Transmission Line	$60M
500kV Substation	$100M
230kV Substation	$20M

Alternatives Considered:

No feasible alternatives

Projected In-service Date: 07/01/2025

Project Status: Engineering



37

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 proposed Project is not due to reliability issues. See Section I.A.

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. The need for the proposed Project is not due to deterioration of structures and associated equipment. 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: See Section I.A. See also Attachment I.G.1.

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 and Alternative Routes for the Butler Farm – Clover Line are as follows:

BF – Clover Route (Proposed Route): 19.1 miles

BF – Clover Alternative Route 1: 21.1 miles

BF – Clover Alternative Route 2: 20.2 miles

BF – Clover Route Variation: 1.7 miles (incremental 0.1 mile less, for a total length of 19.0 miles)

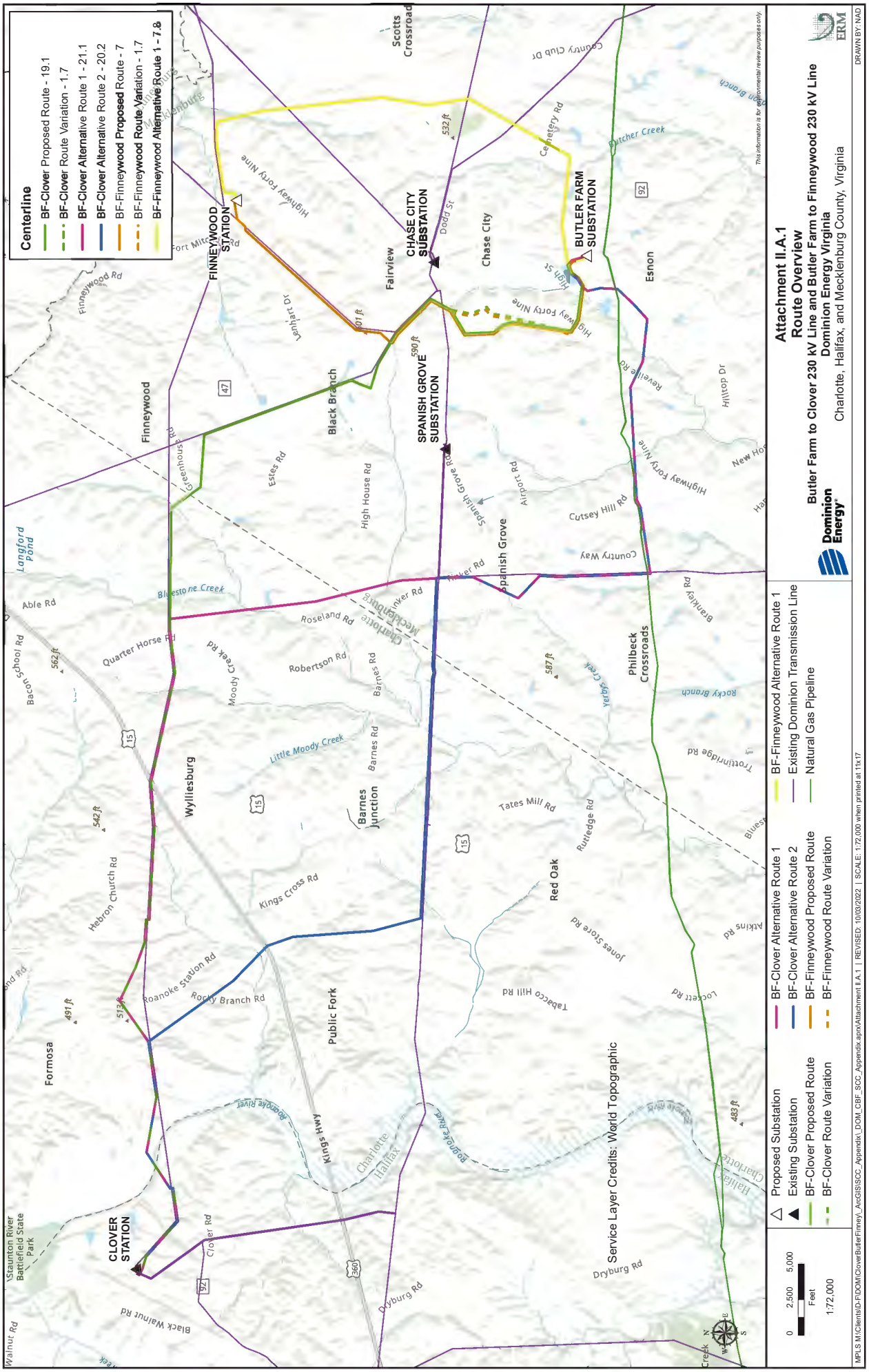
The approximate lengths of the Proposed and Alternative Routes for the Butler Farm – Finneywood Line are as follows:

BF – Finneywood Route (Proposed Route): 7.0 miles

BF – Finneywood Alternative Route: 7.8 miles

BF – Finneywood Route Variation: 1.7 miles (incremental 0.1 mile less, for a total length of 6.9 miles)

See Section II.A.9 for an explanation of the Company's route selection process, as well as the Environmental Routing Study referenced therein. See Attachment II.A.1 for a Route Overview map.


Centerline
BF-Clover Proposed Route - 19.1
BF-Clover Route Variation - 1.7
BF-Clover Alternative Route 1 - 21.1
BF-Clover Alternative Route 2 - 20.2
BF-Finneywood Proposed Route - 7
BF-Finneywood Route Variation - 1.7
BF-Finneywood Alternative Route 1 - 7.8
FINNEYWOOD STATION
CHASE CITY SUBSTATION
BUTLER FARM SUBSTATION
SPANISH GROVE SUBSTATION
CLOVER STATION
Finneywood
Fairview
Chase City
Esnon
Black Branch
Spanish Grove
Philbeck Crossroads
Wylliesburg
Barnes Junction
Red Oak
Public Fork
Formosa
Scotts Crossroad
Highway Forty Nine
Cutsey Hill Rd
Roanoke Station Rd
Rocky Branch Rd
Kings Cross Rd
Hebron Church Rd
Tates Mill Rd
Dryburg Rd
Roanoke River
Staunton River Battlefield State Park
Service Layer Credits: World Topographic
Proposed Substation
Existing Substation
BF-Clover Proposed Route
BF-Clover Route Variation
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2
BF-Finneywood Proposed Route
BF-Finneywood Route Variation
BF-Finneywood Alternative Route 1
Existing Dominion Transmission Line
Natural Gas Pipeline
0 2,500 5,000
Feet
1:72,000
Attachment II.A.1
Route Overview
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia
Dominion Energy
ERM
This information is for environmental review purposes only.
MPLS M:\Clients\D-F\DOM\CloverButlerFinney_ArcGIS\SCC_Appendix_DOM_CBF_SCC_Appendix.aprx\Attachment II.A.1 | REVISED: 10/03/2022 | SCALE: 1:72,000 when printed at 11x17
DRAWN BY: NAD

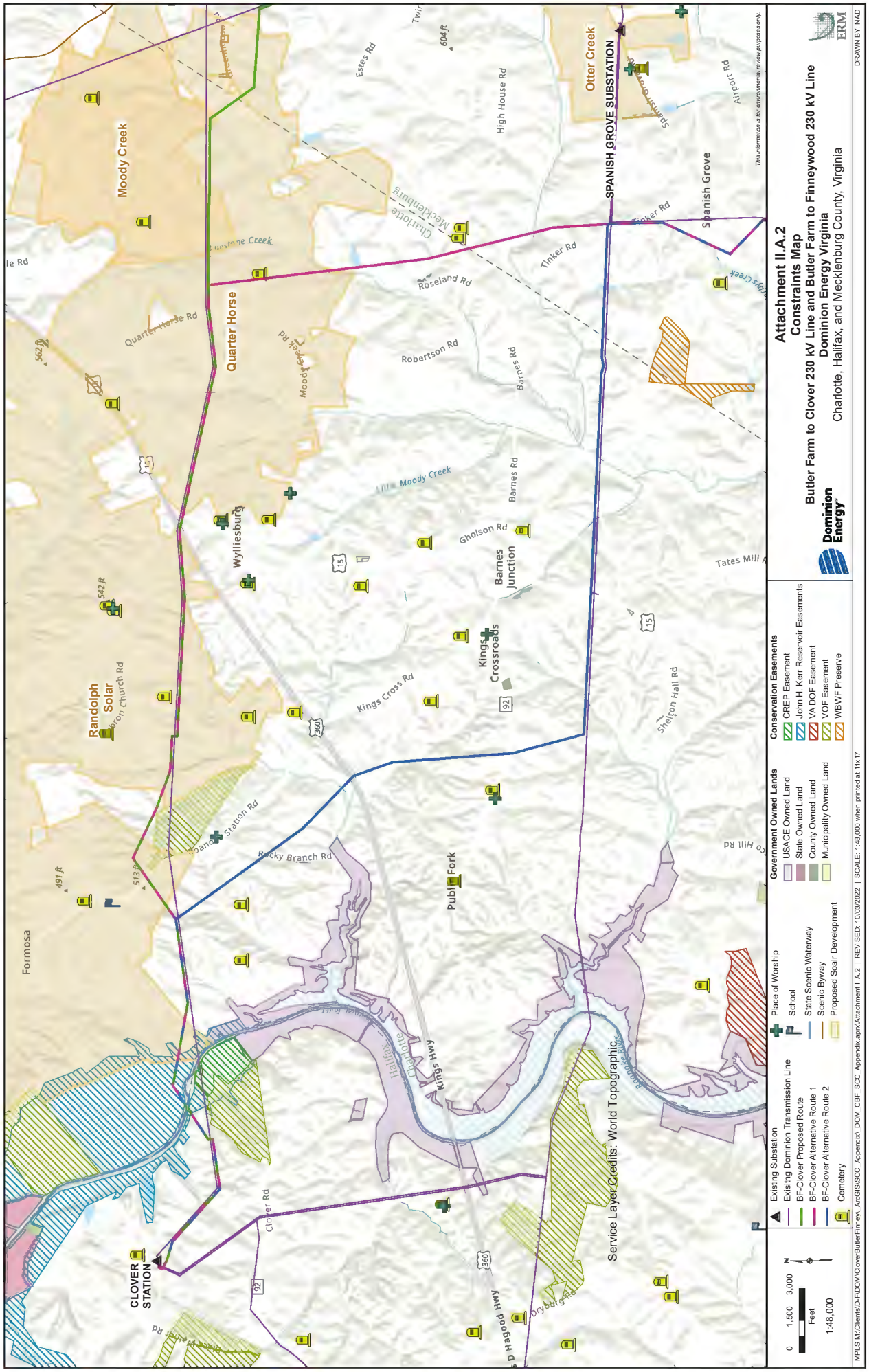
II. DESCRIPTION OF THE PROPOSED PROJECT

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.

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
Constraints Map
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia
Dominion Energy
ERM
This information is for environmental review purposes only.
CLOVER STATION
SPANISH GROVE SUBSTATION
Randolph Solar
Moody Creek
Quarter Horse
Wyllieswood
Barnes Junction
Kings Crossroads
Otter Creek
Spanish Grove
Formosa
Public Fork
Halifax
Charlotte
Service Layer Credits: World Topographic
Existing Substation
Existing Dominion Transmission Line
BF-Clover Proposed Route
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2
Cemetery
Place of Worship
School
State Scenic Waterway
Scenic Byway
Proposed Soalr Development
Government Owned Lands
USACE Owned Land
State Owned Land
County Owned Land
Municipality Owned Land
Conservation Easements
CREP Easement
John H. Kerr Reservoir Easements
VA DOF Easement
VOF Easement
WBWF Preserve
0 1,500 3,000
Feet
1:48,000
MPLS M:\Clients\D-F\DOM\CloverButlerFinney_ArcGIS\SCC_Appendix_DOM_CBF_SCC_Appendix.aprx\Attachment II.A.2 | REVISED: 10/03/2022 | SCALE: 1:48,000 when printed at 11x17
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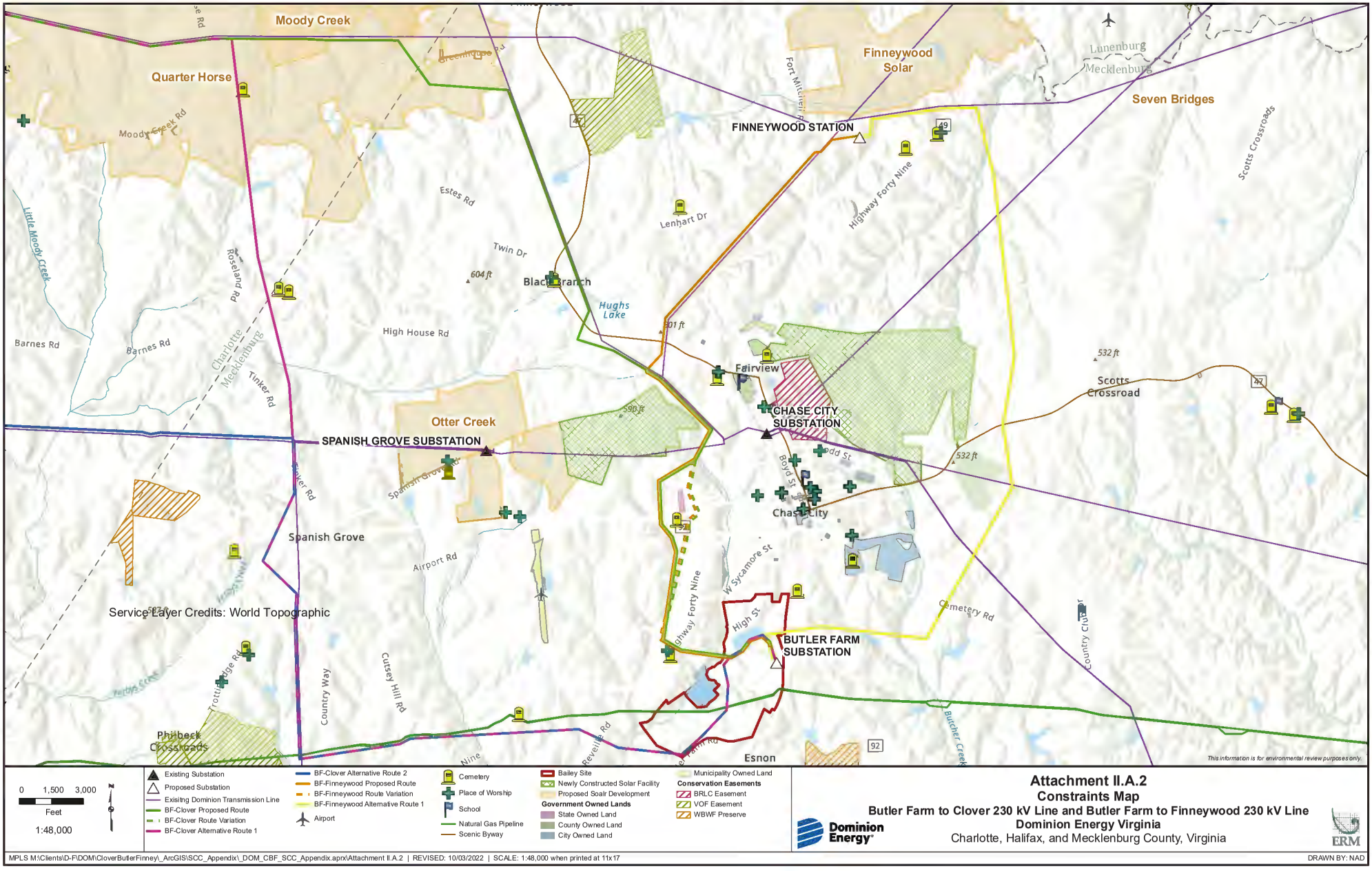

Moody Creek
Quarter Horse
Finneywood Solar
Seven Bridges
FINNEYWOOD STATION
Lunenburg
Mecklenburg
Scotts Crossroads
Moody Creek Rd
Estes Rd
Lenhart Dr
Twin Dr
Highway Forty Nine
Little Moody Creek
Roseland Rd
604 ft
Black Branch
Hughs Lake
601 ft
High House Rd
Barnes Rd
Barnes Rd
Charlotte
Mecklenburg
Tinker Rd
Fairview
532 ft
Scotts Crossroad
CHASE CITY SUBSTATION
590 ft
Otter Creek
SPANISH GROVE SUBSTATION
Tinker Rd
Spanish Grove Rd
Boyd St
Todd St
532 ft
Chase City
Spanish Grove
Airport Rd
W Sycamore St
Highway Forty Nine
High St
Cemetery Rd
Country Club
BUTLER FARM SUBSTATION
Service Layer Credits: World Topographic
Trottingridge Rd
Country Way
Cutsey Hill Rd
Phillbeck Crossroads
Nine
Reveille Rd
Esnon
92
Butcher Creek
This information is for environmental review purposes only.
0 1,500 3,000
Feet
1:48,000
Existing Substation
Proposed Substation
Existing Dominion Transmission Line
BF-Clover Proposed Route
BF-Clover Route Variation
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2
BF-Finneywood Proposed Route
BF-Finneywood Route Variation
BF-Finneywood Alternative Route 1
Airport
Cemetery
Place of Worship
School
Natural Gas Pipeline
Scenic Byway
Bailey Site
Newly Constructed Solar Facility
Proposed Soalr Development
Government Owned Lands
State Owned Land
County Owned Land
City Owned Land
Municipality Owned Land
Conservation Easements
BRLC Easement
VOF Easement
WBWF Preserve
Dominion Energy
ERM
Attachment II.A.2
Constraints Map
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia
MPLS M:\Clients\D-F\DOM\CloverButlerFinney_ArcGIS\SCC_Appendix_DOM_CBF_SCC_Appendix.aprx\Attachment II.A.2 | REVISED: 10/03/2022 | SCALE: 1:48,000 when printed at 11x17
DRAWN BY: NAD

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.

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: There is no continuous, existing Company-owned right-of-way between the Clover Station and the proposed Butler Farm Substation. Similarly, there is no continuous, existing Company-owned right-of-way between the proposed Finneywood Station and the proposed Butler Farm Substation. However, the Proposed and Alternative Routes will make use of portions of existing Company-owned rights-of-way associated with Line #556, Line #1012, Line #235, and Line #36.

The existing right-of-way for Line #556 is 150 feet wide. An additional 100 feet of new right-of-way will be required mainly on the south side, but at times on the north side, of the existing corridor for the BF – Clover Route and the BF – Clover Alternative Routes 1 and 2. An additional 100 feet of new right-of-way will be required on the south side of the BF – Finneywood Alternative Route to accommodate the Project. The combined total right-of-way width between existing and proposed rights-of-way will be 250 feet. In this area, the construction right-of-way for the Project will measure 120 feet wide, including 20 feet of overlap with the existing Line #556 right-of-way.

The existing right-of-way for Line #1012 is 120 feet wide. To accommodate the Project, an additional 100 feet of new right-of-way will be required on the west side of the existing corridor for the BF – Clover Route and the BF – Finneywood Route. The combined total right-of-way width between existing and proposed rights-of-way will be 220 feet. In this area, the construction right-of-way for the Project will measure 120 feet wide, including 20 feet of overlap with the existing Line #1012 right-of-way.

The existing right-of-way for the portion of Line #1012 / #235 where they are located on the same structures is 120 feet wide. To accommodate the Project, an additional 100 feet of new right-of-way will be required on the west side of the existing corridor for the BF – Clover Route and the BF – Finneywood Route. The combined total right-of-way width between existing and proposed rights-of-way will be 220 feet. If both the BF – Clover Route and the BF – Finneywood Route are selected by the Commission, a total of 140 feet of new right-of-way would be required to accommodate both routes in this area for a combined total right-of-way width of 260 feet. In this area, the construction right-of-way for the Project will measure 160 feet wide, including 20 feet of overlap with the existing Line #1012 / #235 right-of-way.

The existing right-of-way for Line #235 varies between 120-220 feet wide. To accommodate the Project, an additional 50 feet of new right-of-way will be required

on the east side of the existing corridor where the BF – Clover Route is located on the east side of Line #235. An additional 100 feet of new right-of-way will be required on the west side of the existing corridor where the BF – Finneywood Route is located on the west side of Line #235. The combined total right-of-way between existing and proposed rights-of-way will range between 220-270 feet. In this area, the construction right-of-way for the Project will measure 120 feet wide, including 20 feet of overlap with the existing Line #235 right-of-way.

The existing right-of-way for Line #36 is 70 feet wide. To accommodate the Project, an additional 100 feet of new right-of-way will be required on the west side of the existing corridor, for both the BF – Clover Alternative Routes 1 and 2. The combined total right-of-way between existing and proposed right-of-way will be 170 feet. In this area, the construction right-of-way for the Project will measure 120 feet wide, including 20 feet of overlap with the existing Line #36 right-of-way.

There are no collocation opportunities with existing transmission lines along the BF – Clover Route Variation and the BF – Finneywood Route Variation.

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.

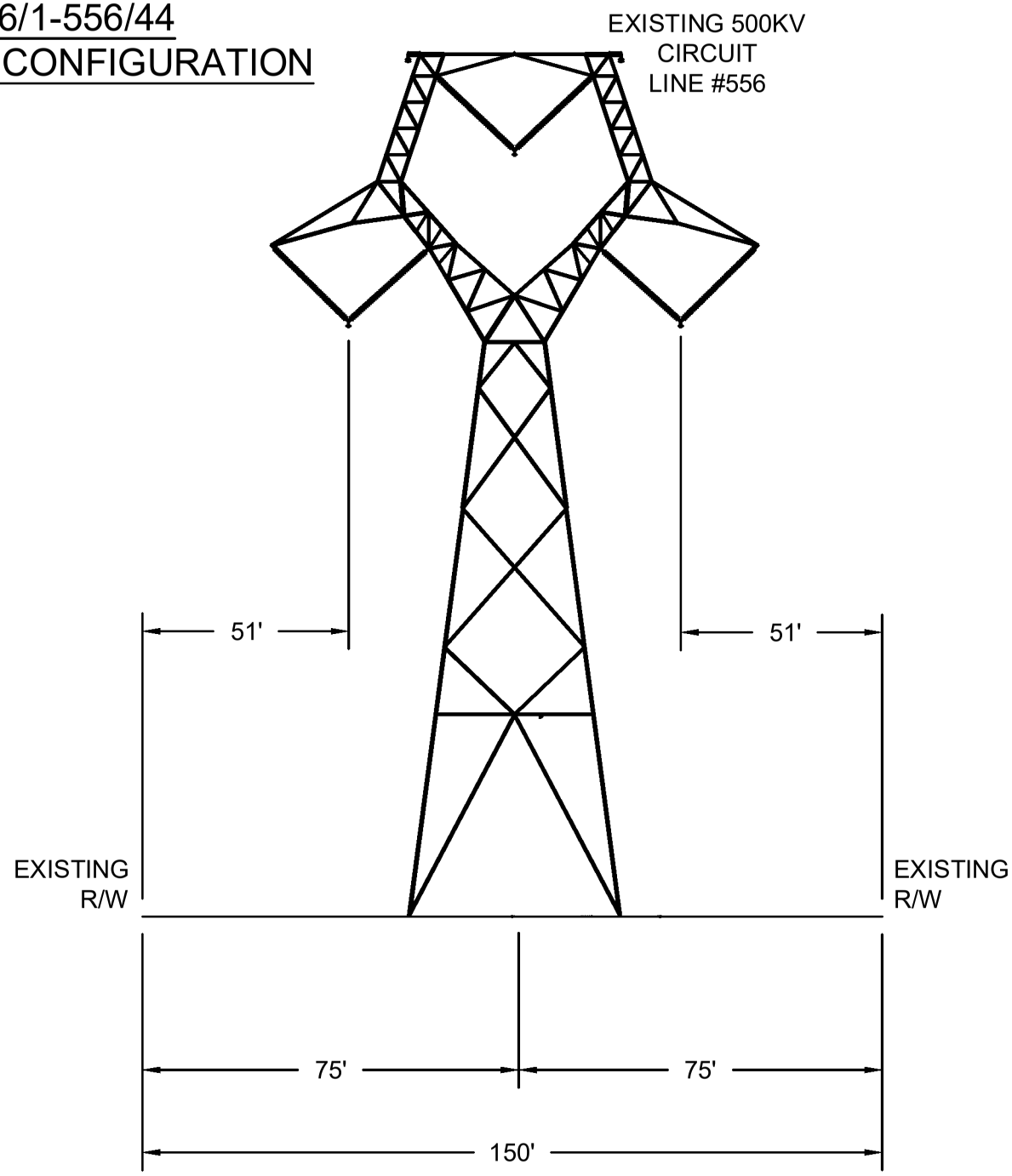
Response: See Attachments II.A.5.i through II.A.5.xvi.

As depicted on the attached drawings, for the entirety of the Butler Farm – Clover Line and for the segment of the corridor where the Butler Farm – Clover Line and the Butler Farm – Finneywood Line collocate, the Company is seeking to acquire an additional 40 feet of right-of-way to accommodate installation of a third circuit in the same corridor in the future. This additional 40 feet of right-of-way will not be cleared and utilized for this Project. Dominion Energy Virginia asks that the Commission not prohibit the Company from voluntarily obtaining this additional right-of-way, with the understanding that the Company could not condemn for more acquisition rights than what is needed for the proposed Butler Farm – Clover Line and Butler Farm – Finneywood Line. This approach is consistent with the approach approved by the Commission in the Company's BECO-DTC and Evergreen Mills proceedings.[16]

The Butler Farm – Clover Line will be centered within the new right-of-way. The Butler Farm – Finneywood Line will not be centered within the right-of-way because of the future Bluestone Creek – Finneywood 230 kV Line.

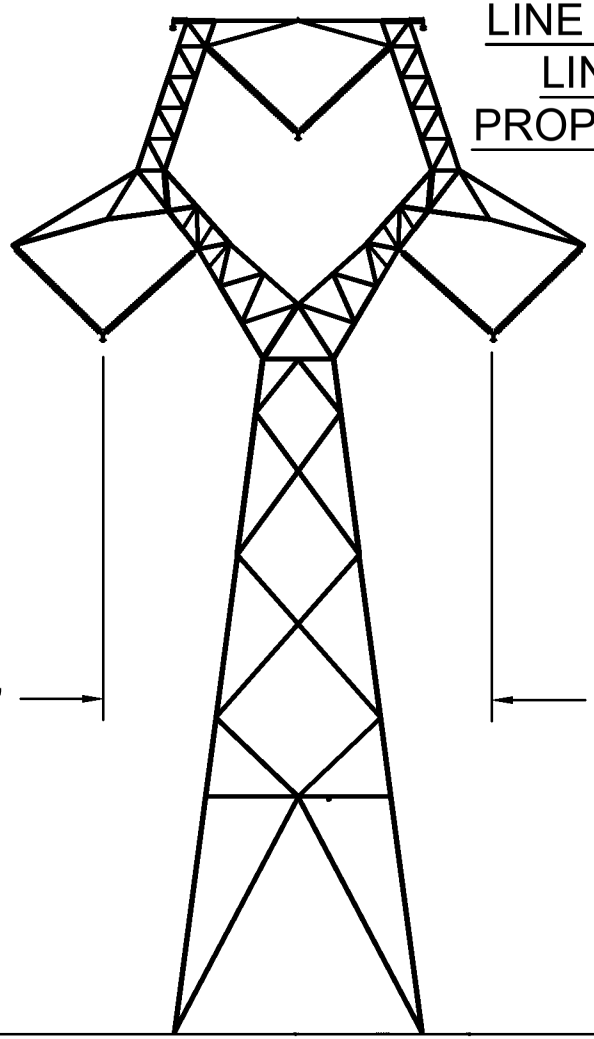
[16] *See Application of Virginia Electric and Power Company for approval and certification of electric transmission facilities: DTC 230 kV Line Loop and DTC Substation*, Case No. PUR-2021-00280, Final Order at 13 (July 7, 2022); *Application of Virginia Electric and Power Company for approval and certification of electric facilities: Evergreen Mills 230 kV Line Loops and Evergreen Mills Switching Station*, Case No. PUR-2019-00191, Final Order at 9 (May 22, 2020).

LINE #556
556/1-556/44
EXISTING CONFIGURATION

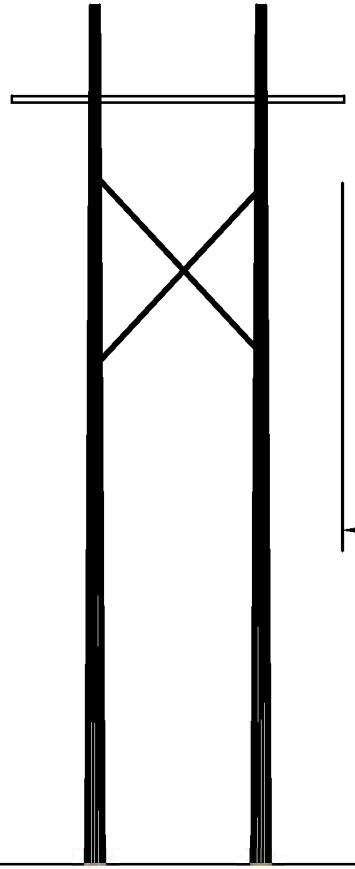


TYPICAL RIGHT OF WAY
LOOKING TOWARD
RAWLINGS

LINE #2281, 2281/1-2281/15
LINE #2281, 2281/26-2281/34
LINE #2281, 2281/50-2281104
LINE #556, 556/1-556/44
PROPOSED CONFIGURATION



EXISTING 500KV CIRCUIT LINE #556



PROPOSED 230KV CIRCUIT LINE #2281

51'

51'

38'

EXISTING R/W

EXISTING R/W

PROPOSED R/W

75'

115'

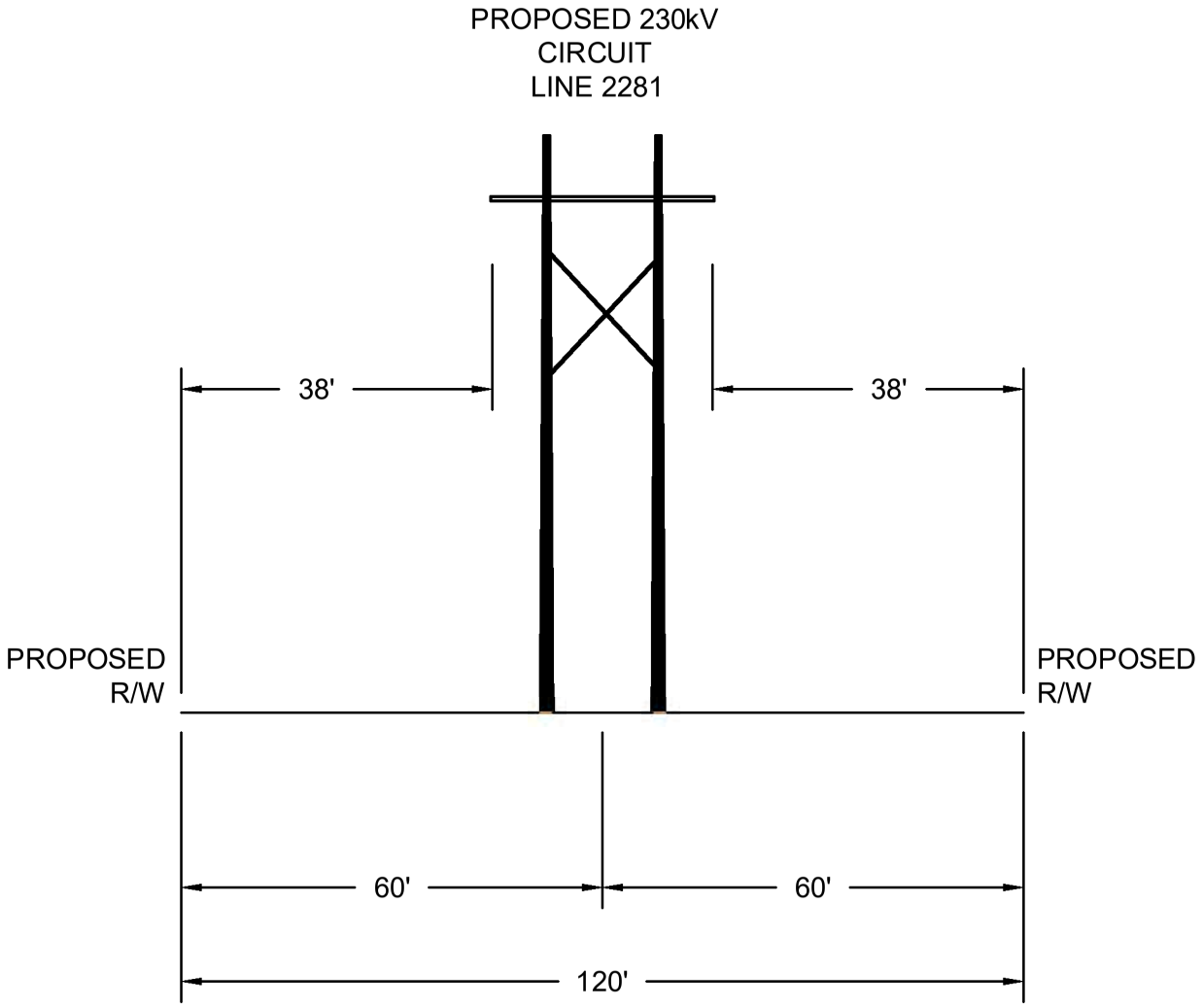
60'

250'

TYPICAL RIGHT OF WAY
LOOKING TOWARD
RAWLINGS

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

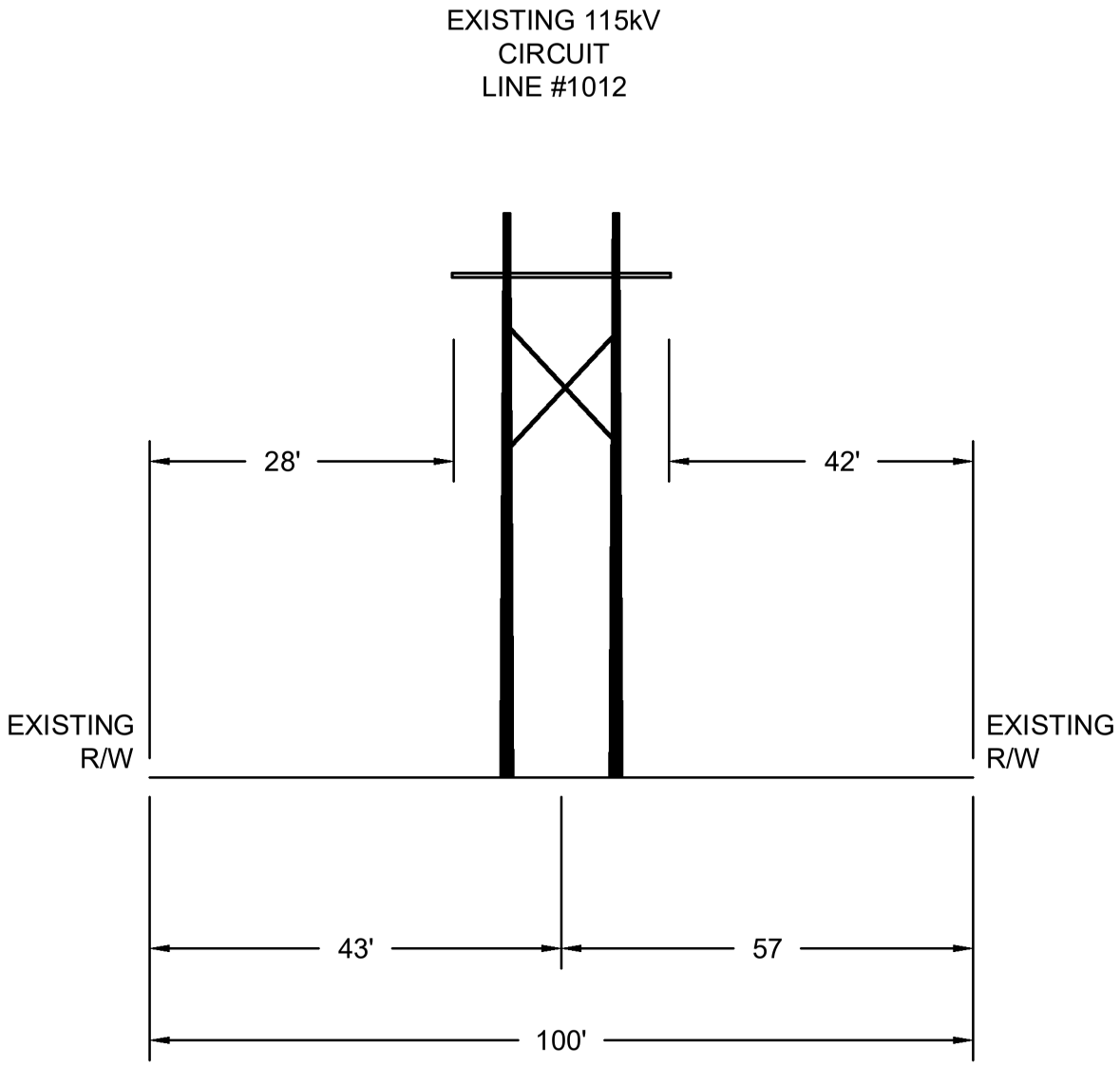
LINE #2281, 2281/15-2281/26
2281/34-2281/50
2281/104-2281/111
2281/118-2281/123
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING
TOWARD BUTLER FARM JUNCTION

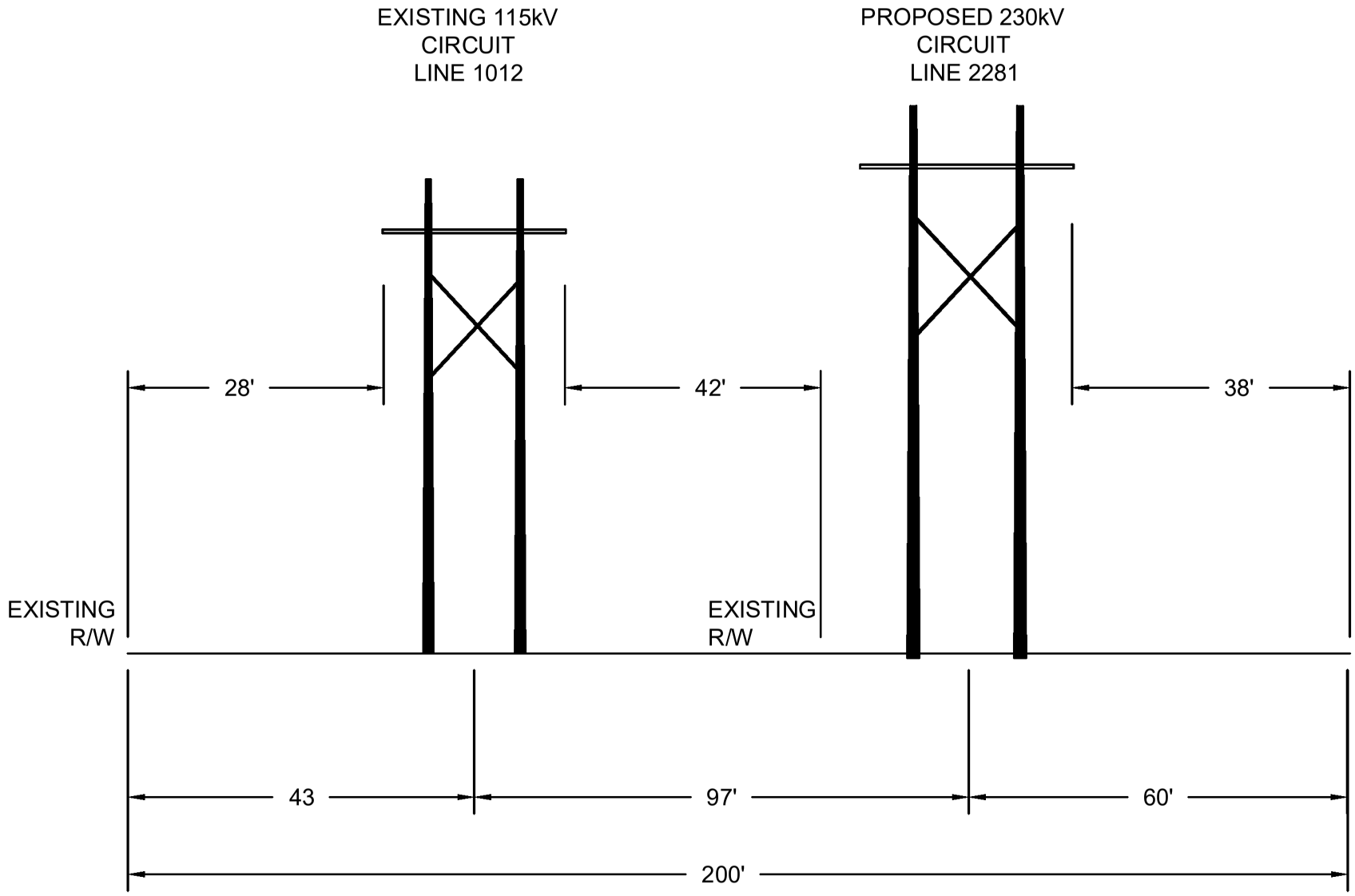
NOTE: INFORMATION CONTAINTED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN

LINE #1012, 1012/555-1012/575
EXISTING CONFIGURATION



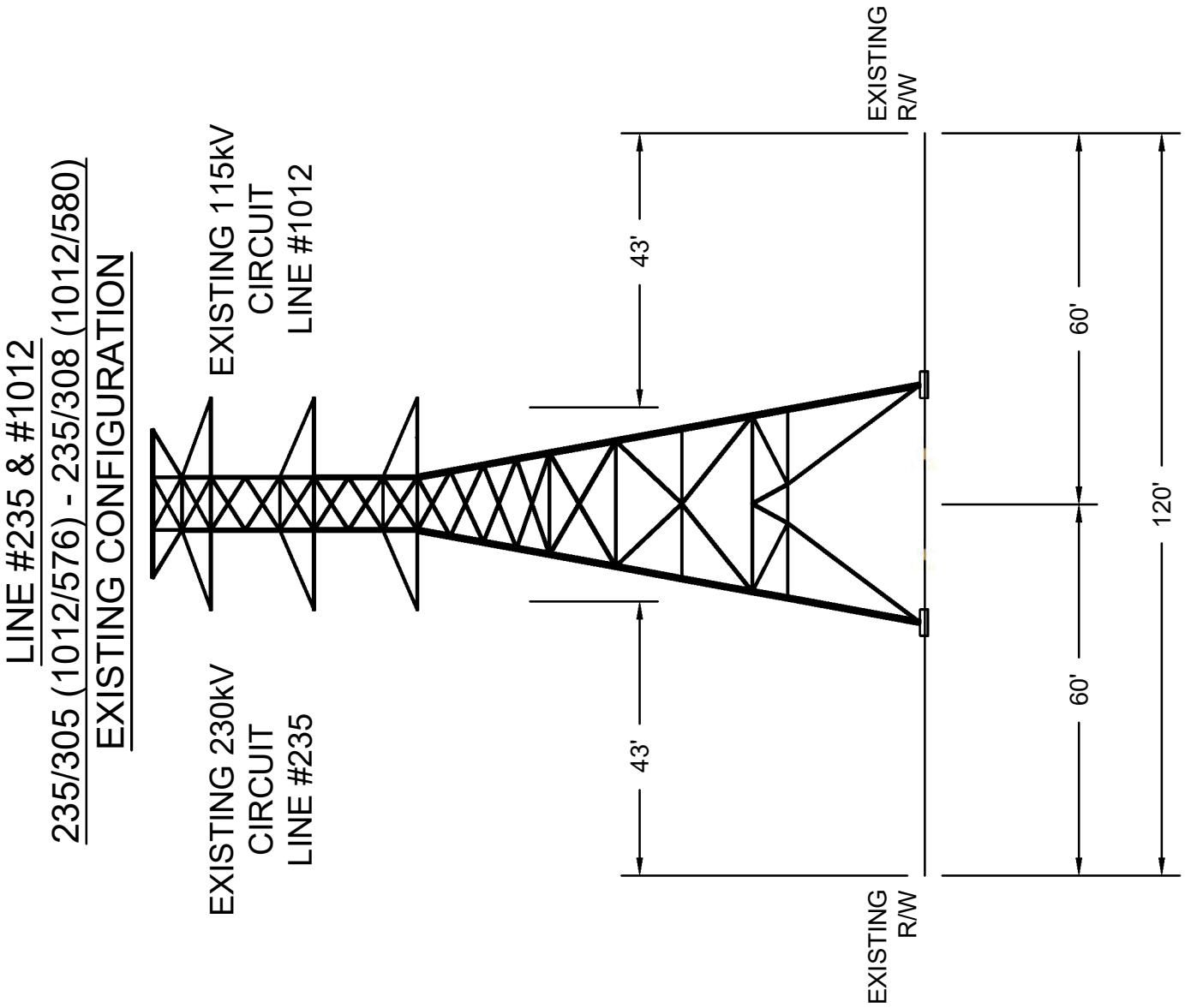
TYPICAL RIGHT OF WAY LOOKING
TOWARD BUTLER FARM JUNCTION

LINE #1012, 1012/553-1012/569 & 1012/572-1012/575
LINE #2281, 2281/111-2281/128 & 2281/133-2281/136
PROPOSED CONFIGURATION

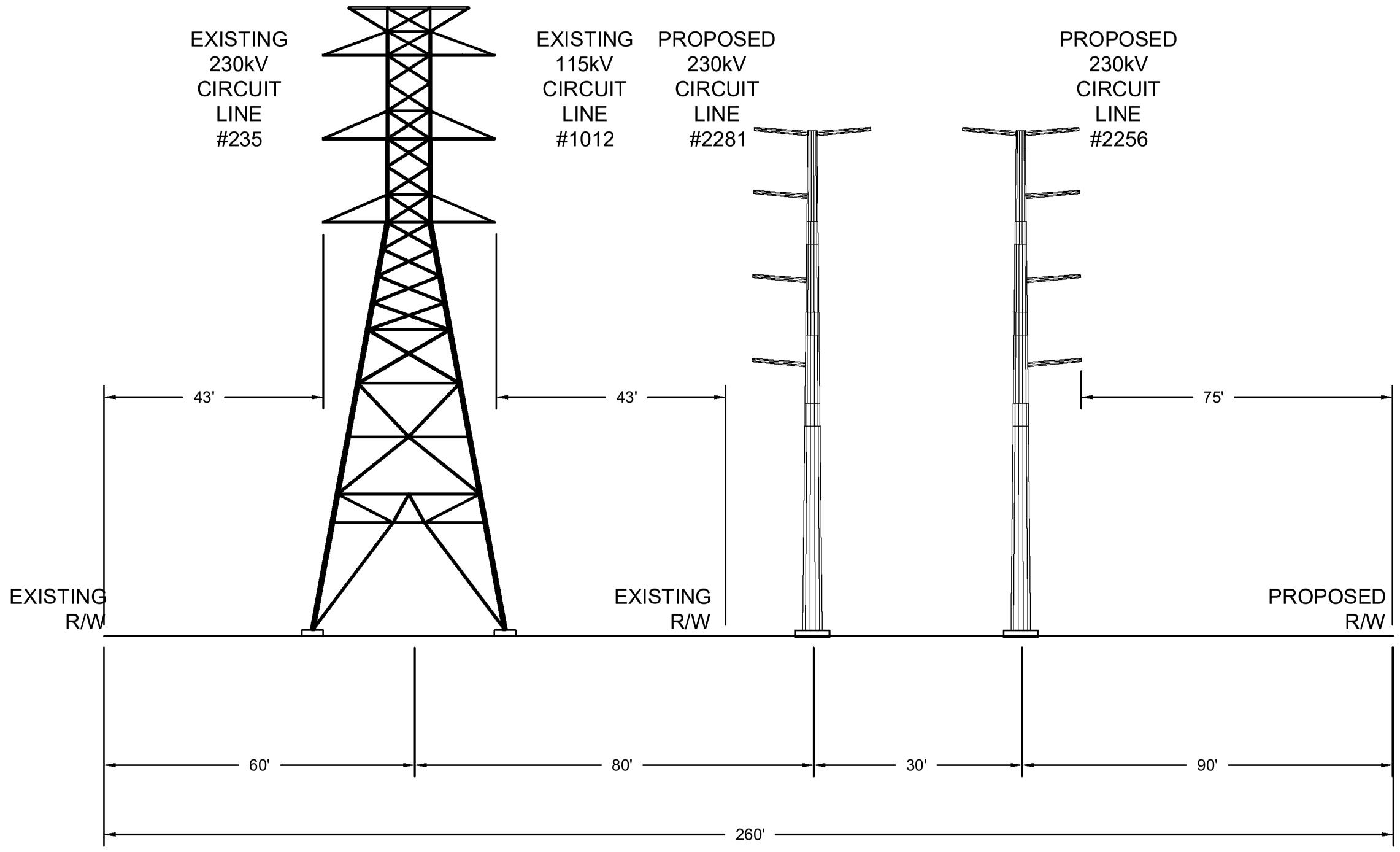


TYPICAL RIGHT OF WAY LOOKING TOWARD BUTLER FARM JCT

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


LINE #235 & #1012
235/305 (1012/576) - 235/308 (1012/580)
EXISTING CONFIGURATION
EXISTING 115kV
CIRCUIT
LINE #1012
EXISTING 230kV
CIRCUIT
LINE #235
43'
43'
EXISTING
R/W
EXISTING
R/W
60'
60'
120'
TYPICAL RIGHT OF WAY LOOKING
TOWARD CHASE CITY

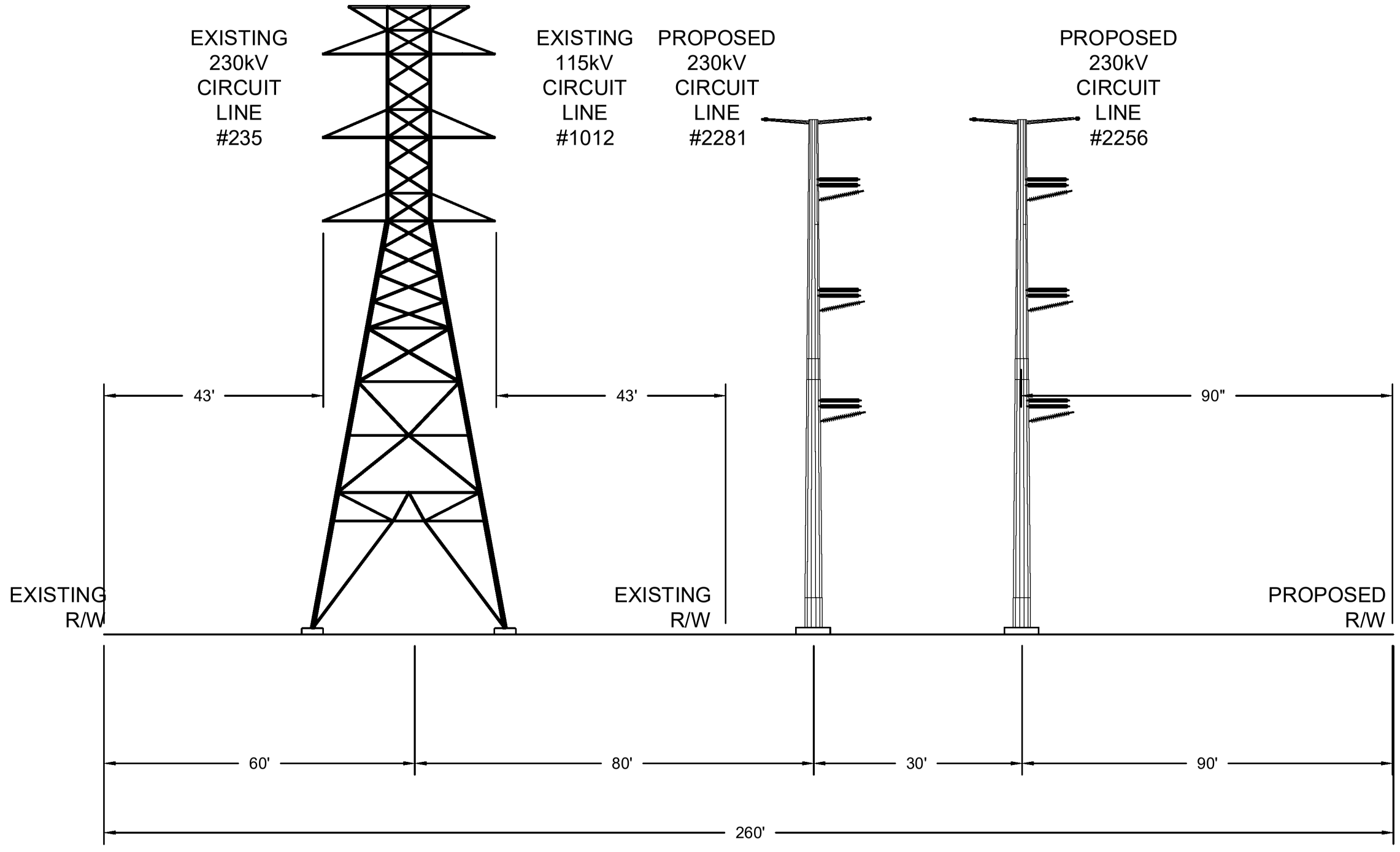
LINE #2281, 2281/136 - 2281/143
LINE #2256, 2256/26 - 2256/31
LINES #235 & #1012, 235/305 (1012/576) - 235/308 (1012/580)
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD CHASE CITY

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN
2.WHILE ONLY 100 FEET OF NEW RIGHT-OF-WAY IS NECESSARY FOR THIS SECTION THE PROPOSED PROJECT, THE COMPANY PROPOSES TO SEEK TO ACQUIRE A TOTAL OF 140-FOOT-WIDE RIGHT-OF-WAY FOR THIS SEGMENT TO ACCOMMODATE INSTALLATION OF A THIRD CIRCUIT IN THE SAME CORRIDOR IN THE FUTURE.

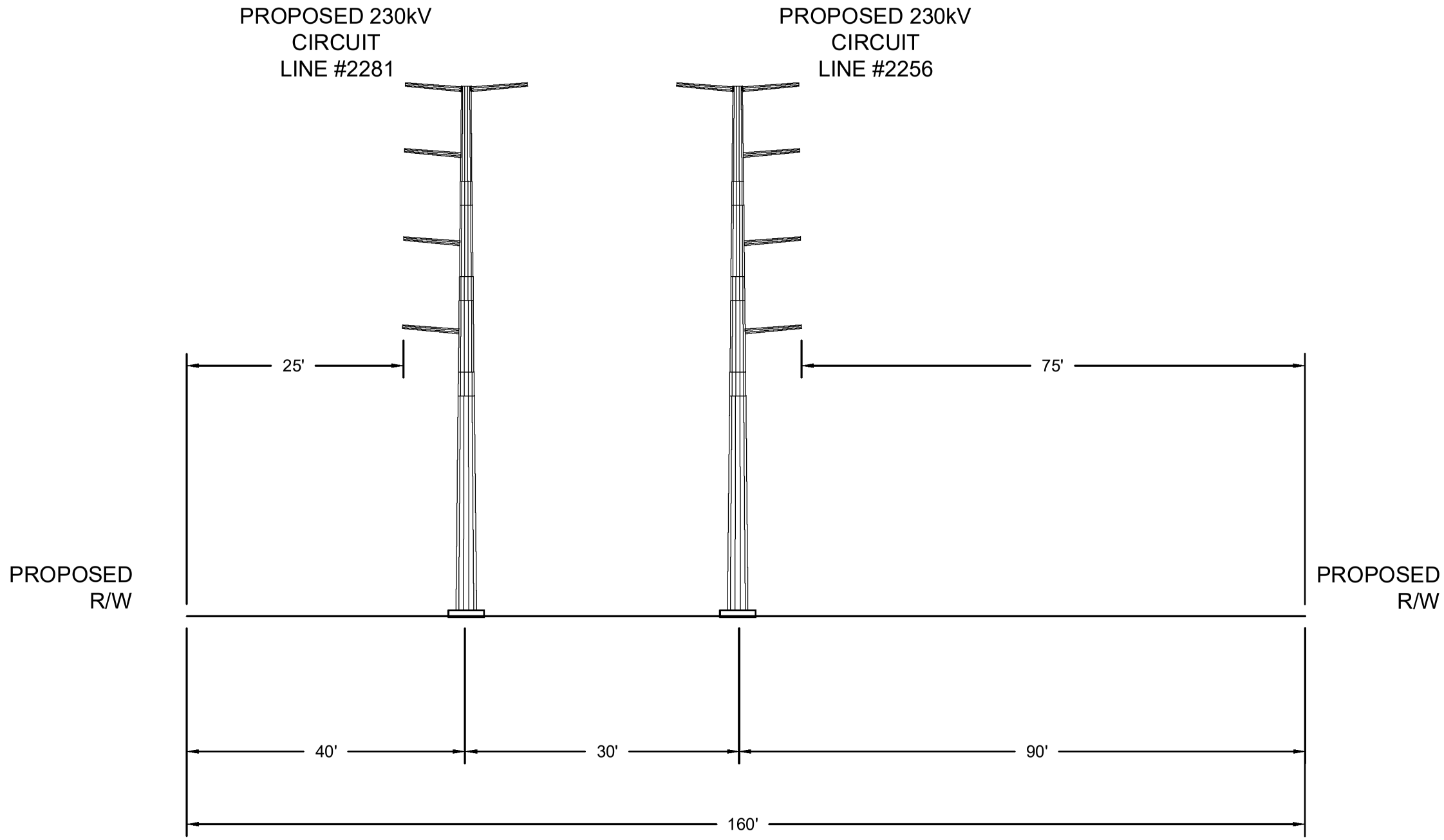
LINE #2281, 2281/136 - 2281/143
LINE #2256, 2256/26 - 2256/31
LINES #235 & #1012, 235/305 (1012/576) - 235/308 (1012/580)
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD CHASE CITY

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN
2. WHILE ONLY 100 FEET OF NEW RIGHT-OF-WAY IS NECESSARY FOR THIS SECTION THE PROPOSED PROJECT, THE COMPANY PROPOSES TO SEEK TO ACQUIRE A TOTAL OF 140-FOOT-WIDE RIGHT-OF-WAY FOR THIS SEGMENT TO ACCOMMODATE INSTALLATION OF A THIRD CIRCUIT IN THE SAME CORRIDOR IN THE FUTURE.

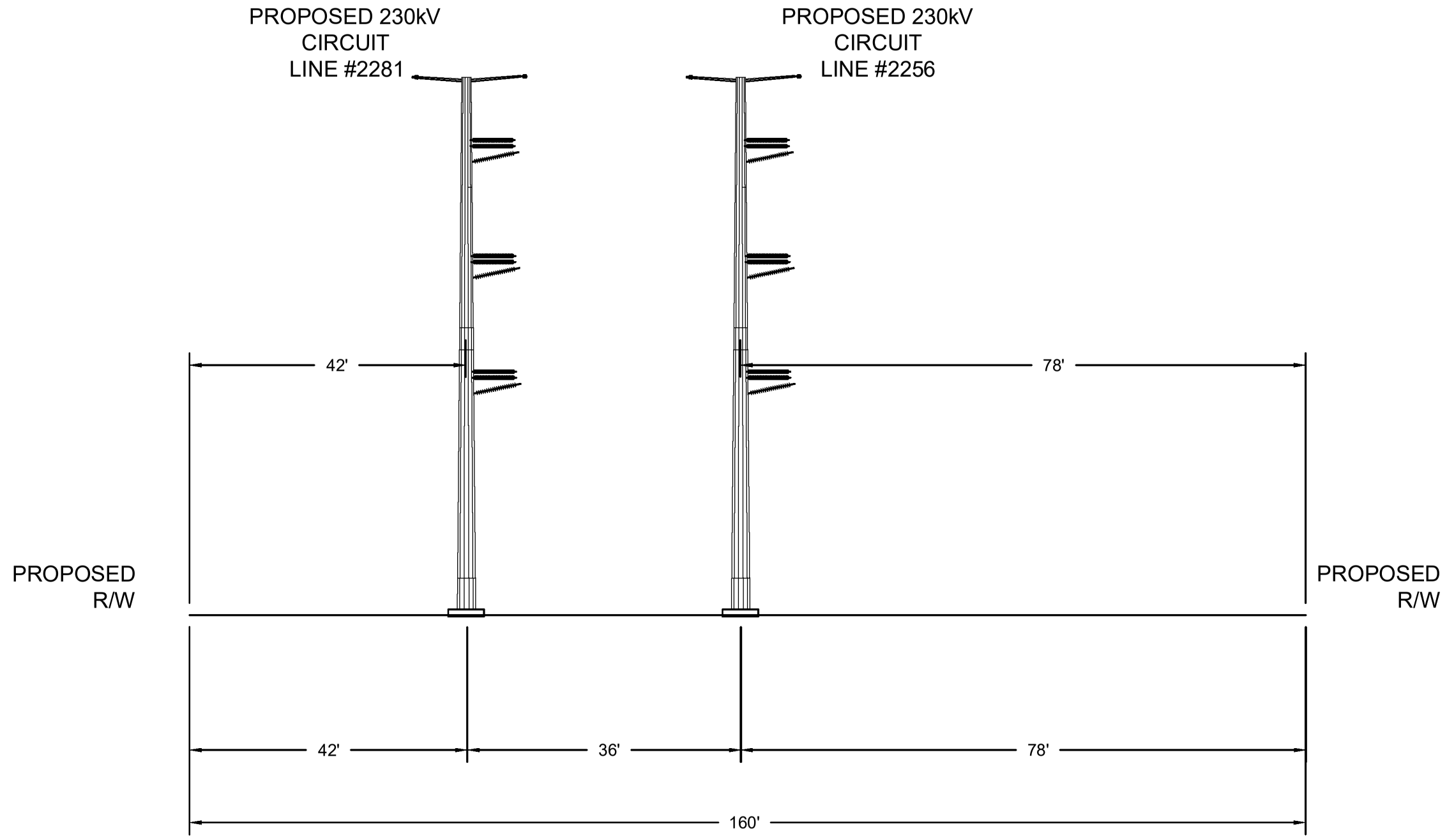
LINE #2281, 2281/143 - 2281/168
LINE #2256, 2256/31 - 2256/58
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD BUTLER FARM

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN
2.WHILE ONLY 120 FEET OF NEW RIGHT-OF-WAY IS NECESSARY FOR THIS SECTION THE PROPOSED PROJECT, THE COMPANY PROPOSES TO SEEK TO ACQUIRE A TOTAL OF 160-FOOT-WIDE RIGHT-OF-WAY FOR THIS SEGMENT TO ACCOMMODATE INSTALLATION OF A THIRD CIRCUIT IN THE SAME CORRIDOR IN THE FUTURE.

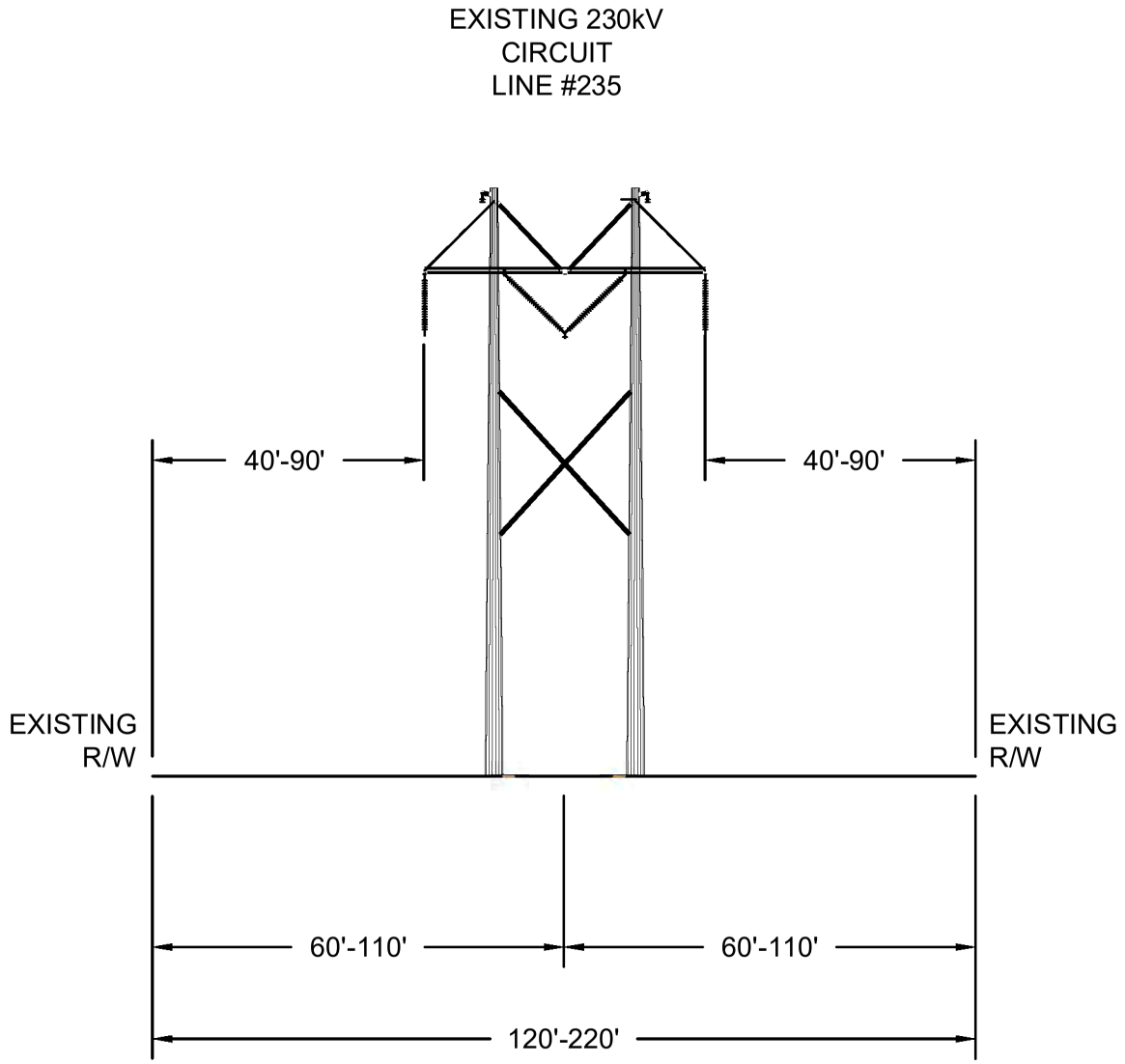
LINE #2281, 2281/143 - 2281/168
LINE #2256, 2256/31 - 2256/58
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD BUTLER FARM

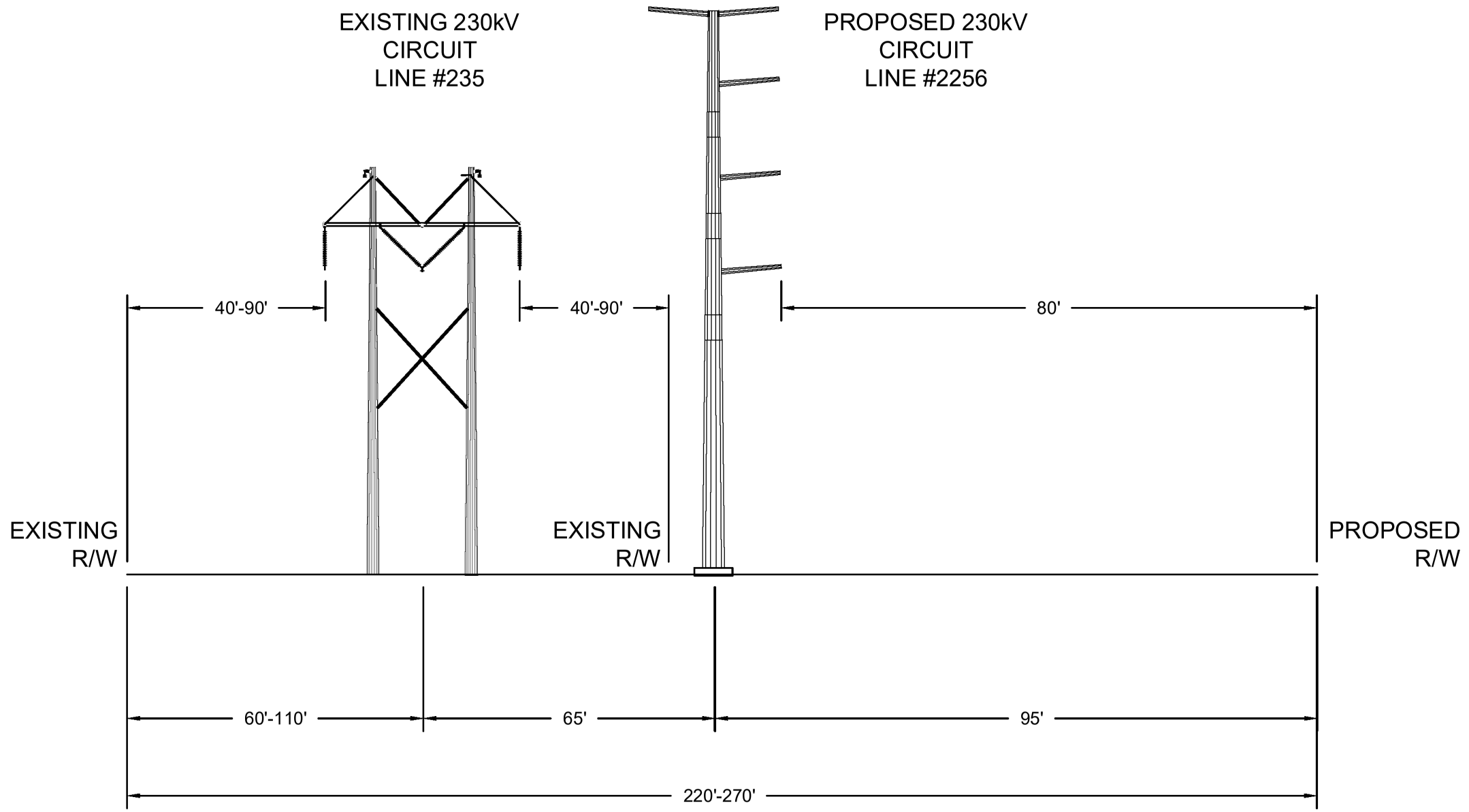
NOTES:
1. INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN
2.WHILE ONLY 120 FEET OF NEW RIGHT-OF-WAY IS NECESSARY FOR THIS SECTION THE PROPOSED PROJECT, THE COMPANY PROPOSES TO SEEK TO ACQUIRE A TOTAL OF 160-FOOT-WIDE RIGHT-OF-WAY FOR THIS SEGMENT TO ACCOMMODATE INSTALLATION OF A THIRD CIRCUIT IN THE SAME CORRIDOR IN THE FUTURE.

LINE #235, 235/285-235/303
EXISTING CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD BUTLER FARM JUNCTION

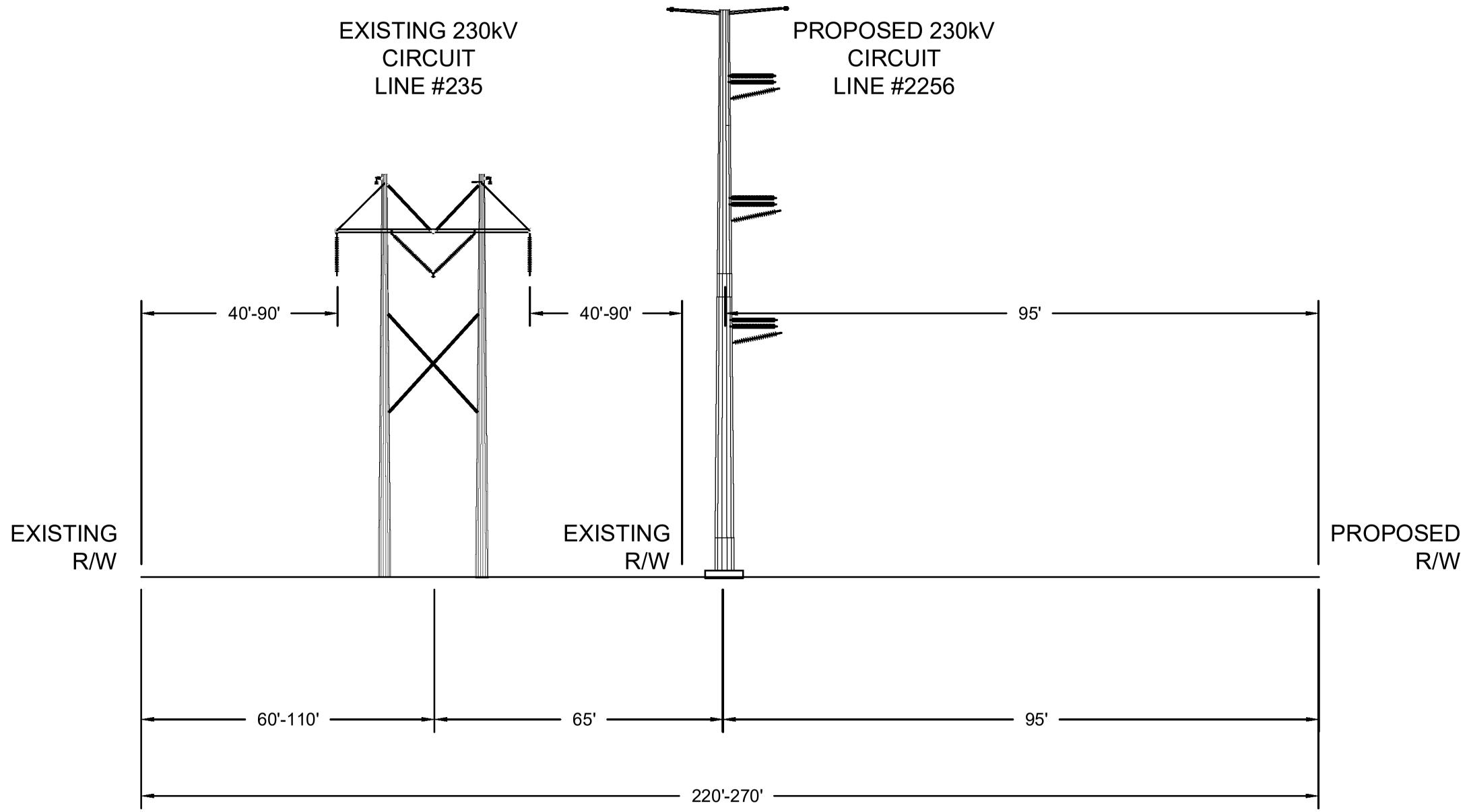
LINE #2256, 2256/3 - 2256/23
LINE #235, 235/285-235/303
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD BUTLER FARM JUNCTION

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN
2.WHILE ONLY 60 FEET OF NEW RIGHT-OF-WAY IS NECESSARY FOR THIS SECTION THE PROPOSED PROJECT, THE COMPANY PROPOSES TO SEEK TO ACQUIRE A TOTAL OF 100-FOOT-WIDE RIGHT-OF-WAY FOR THIS SEGMENT TO ACCOMMODATE INSTALLATION OF A THIRD CIRCUIT IN THE SAME CORRIDOR IN THE FUTURE.

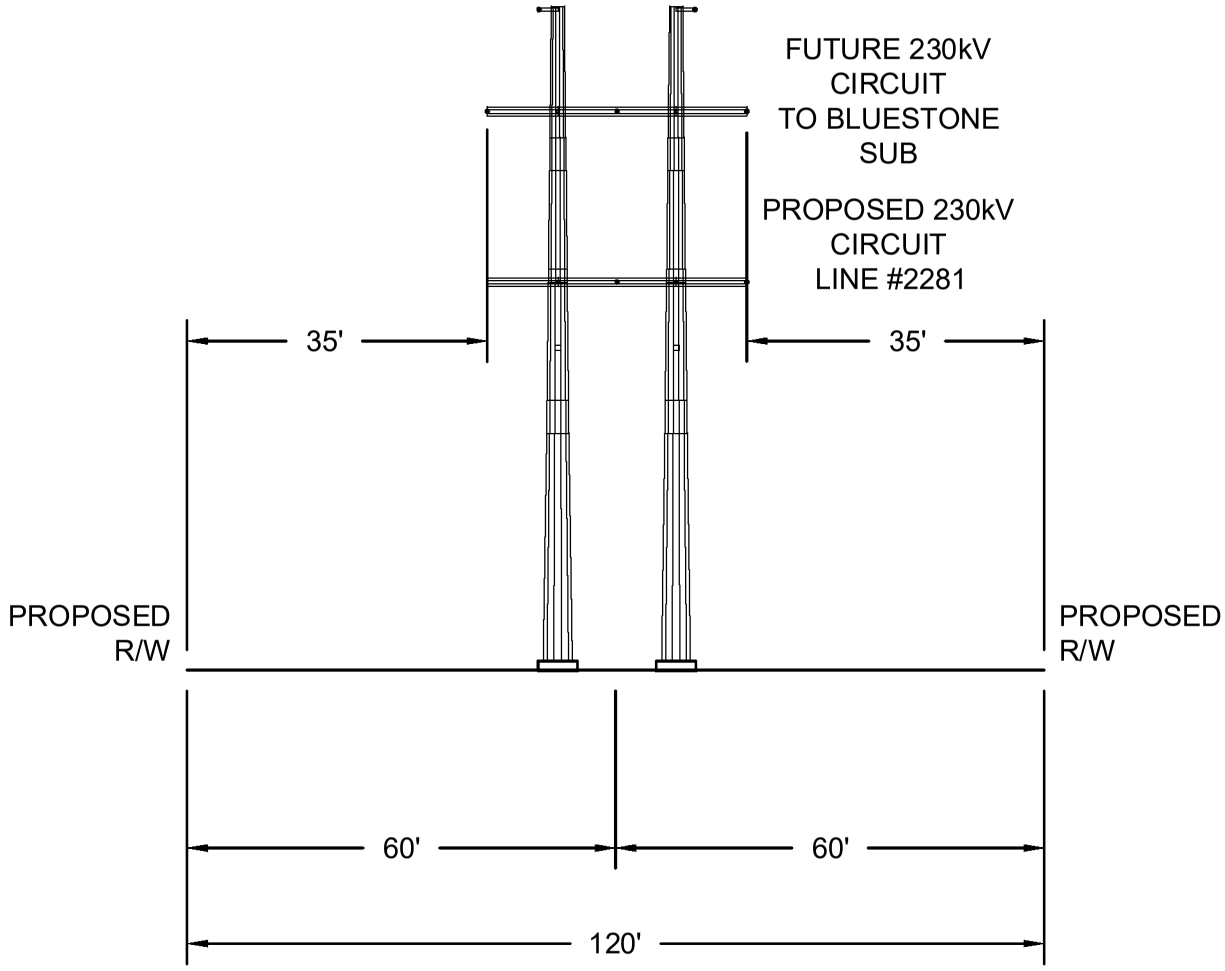
LINE #2256, 2256/3 - 2256/23
LINE #235, 235/285-235/303
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD BUTLER FARM JUNCTION

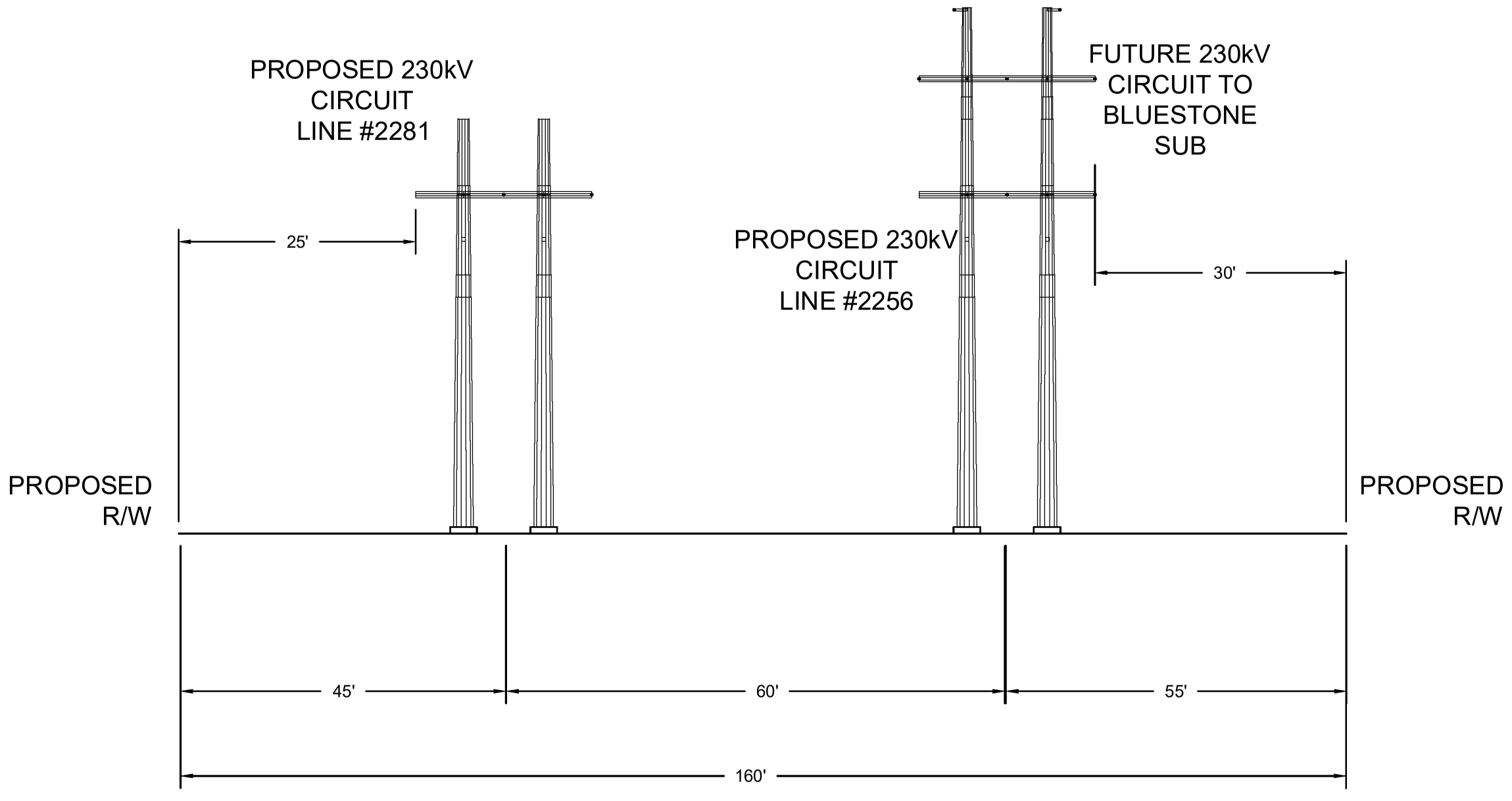
NOTES:
1. INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN
2.WHILE ONLY 60 FEET OF NEW RIGHT-OF-WAY IS NECESSARY FOR THIS SECTION THE PROPOSED PROJECT, THE COMPANY PROPOSES TO SEEK TO ACQUIRE A TOTAL OF 100-FOOT-WIDE RIGHT-OF-WAY FOR THIS SEGMENT TO ACCOMMODATE INSTALLATION OF A THIRD CIRCUIT IN THE SAME CORRIDOR IN THE FUTURE.

LINE #2256, 2256/5-2256/6
LINE #2256, 2256/24-2256/25
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING
TOWARD BUTLER FARM JUNCTION

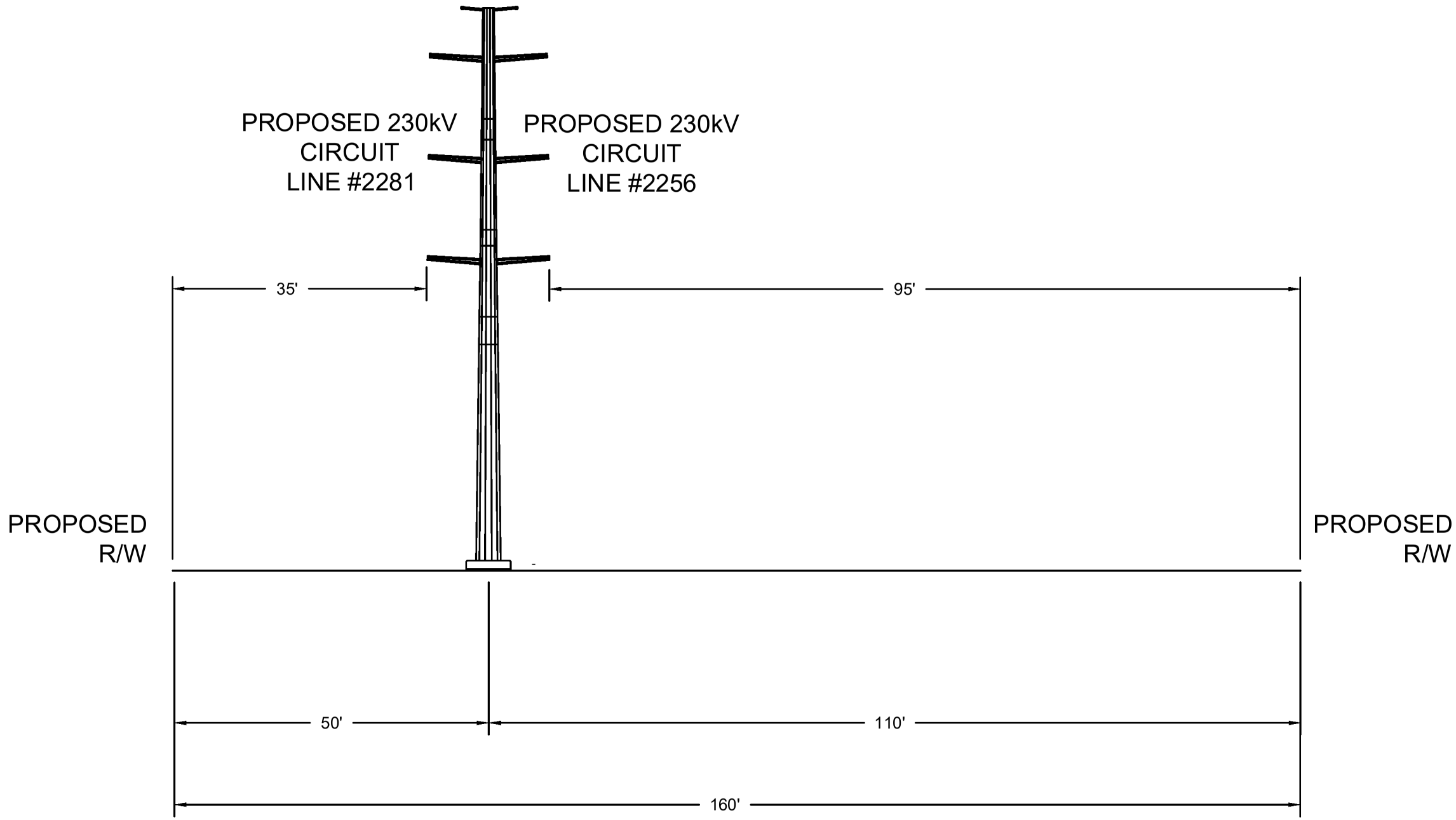
LINE #2281, 2281/144 - 2281/145
LINE #2256, 2256/32
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD BUTLER FARM

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN
2.WHILE ONLY 120 FEET OF NEW RIGHT-OF-WAY IS NECESSARY FOR THIS SECTION THE PROPOSED PROJECT, THE COMPANY PROPOSES TO SEEK TO ACQUIRE A TOTAL OF 160-FOOT-WIDE RIGHT-OF-WAY FOR THIS SEGMENT TO ACCOMMODATE INSTALLATION OF A THIRD CIRCUIT IN THE SAME CORRIDOR IN THE FUTURE.

LINE #2281, 2281/169-BUTLER FARM
LINE #2256, 2256/56-BUTLER FARM
PROPOSED CONFIGURATION



TYPICAL RIGHT OF WAY LOOKING TOWARD BUTLER FARM

NOTES:
1. INFORMATION CONTAINED ON DRAWING IS CONSIDERED PRELIMINARY IN NATURE AND SUBJECT TO CHANGE BASED ON FINAL DESIGN
2.WHILE ONLY 100 FEET OF NEW RIGHT-OF-WAY IS NECESSARY FOR THIS SECTION THE PROPOSED PROJECT, THE COMPANY PROPOSES TO SEEK TO ACQUIRE A TOTAL OF 140-FOOT-WIDE RIGHT-OF-WAY FOR THIS SEGMENT TO ACCOMMODATE INSTALLATION OF A THIRD CIRCUIT IN THE SAME CORRIDOR IN THE FUTURE.

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: The right-of-way for the Proposed and Alternative Routes will require easements for a new-build transmission line. Portions of the routes will overlap existing Dominion Energy Virginia overhead electric transmission line rights-of-way. In most cases, the proposed right-of-way width of the Proposed and Alternative Routes is 120 feet. Where the routes parallel an existing Dominion Energy Virginia overhead electric transmission line, an overlap of 20 feet between the two rights-of-way is proposed. Maps depicting these areas of co-location are included as Attachment II.A.6.

Route	Existing Transmission Line	Existing Easement (feet)	New Easement (feet)
BF – Clover Route BF – Clover Alternative Route 1 BF – Clover Alternative Route 2 BF – Finneywood Alternative Route	Line #556	150	100
BF – Clover Route BF – Finneywood Route	Line #1012	120	100
BF – Clover Route BF – Clover Alternative Route 2 BF - Finneywood Route	Line #235	120-220	50-100
BF – Clover Alternative Route 1 BF – Clover Alternative Route 2	Line #36	70	100
BF – Clover Route BF – Finneywood Route	Line #1012 / #235	120	100-140

The BF – Clover Route overlaps with Line #556 for 8.1 miles from the Clover Station east to Line #1012. The route then overlaps with Line #1012 for 2.6 miles from milepost ("MP") 12.0 to 14.1 and 14.6 to 15.2. At this point, Line #235 enters the existing corridor. The route then overlaps Line #1012 / #235 for 0.6 mile from MP 15.2 to 15.8. The new right-of-way will generally extend 100 feet beyond the existing easements and will overlap with the existing easements by 20 feet.

The BF – Clover Alternative Route 1 overlaps with Line #556 for 6.6 miles from the Clover Station east to Tinker Road, MP 9.4. After the route crosses over Line #235, it overlaps with Line #36 for 1.9 miles from MP 13.0 to 13.4 and MP 14.5 to 16.0, to a point just north of Brankley Road. The new right-of-way will generally extend 100 feet beyond the existing easements and will overlap with the existing easements by 20 feet.

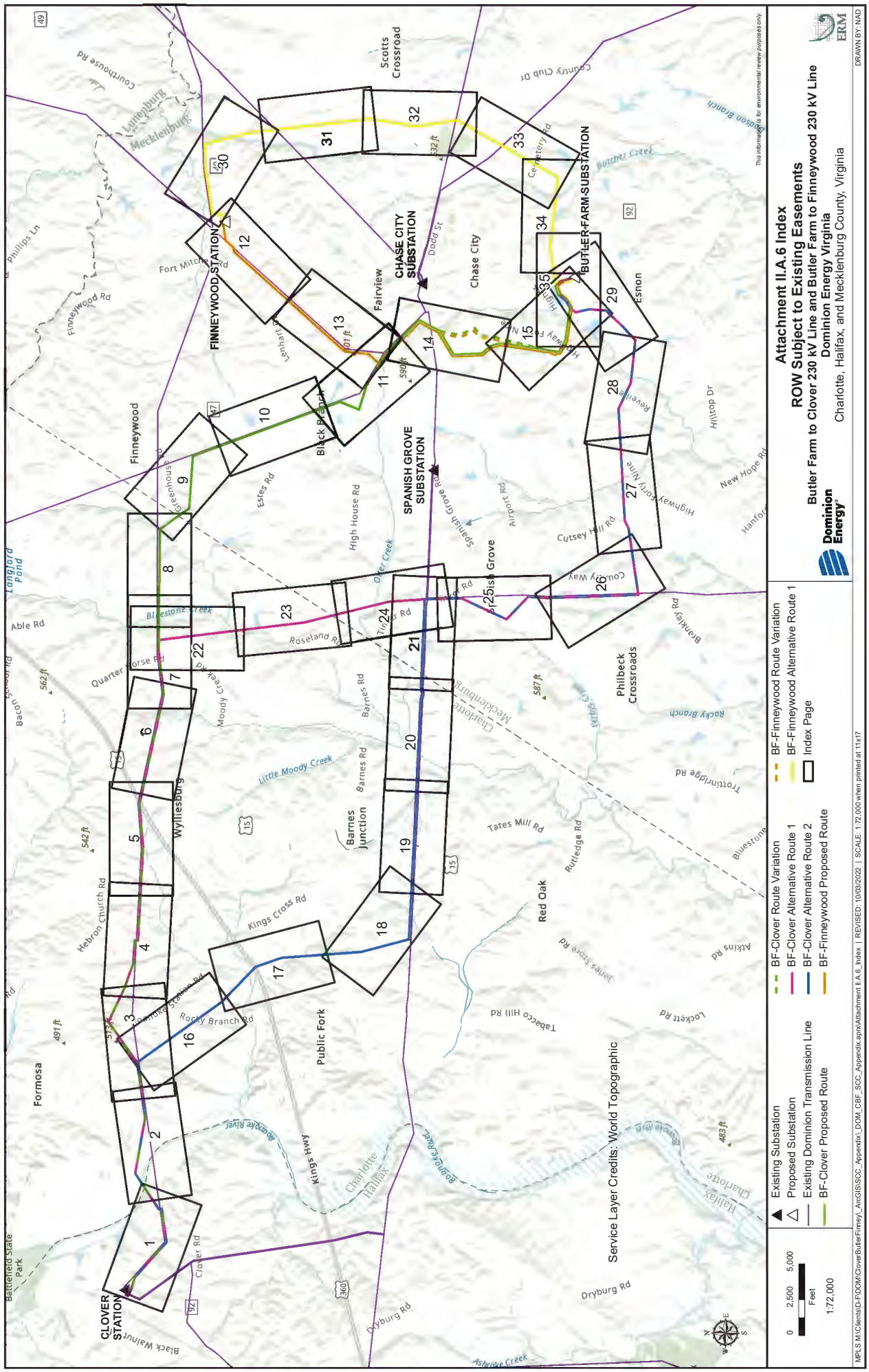
The BF – Clover Alternative Route 2 overlaps with Line #556 for 2.2 miles from the Clover Station east to Colemans Ferry Road, MP 3.5. The route overlaps with Line #235 for 4.5 miles starting at MP 7.6 east to MP 12.1, where the route

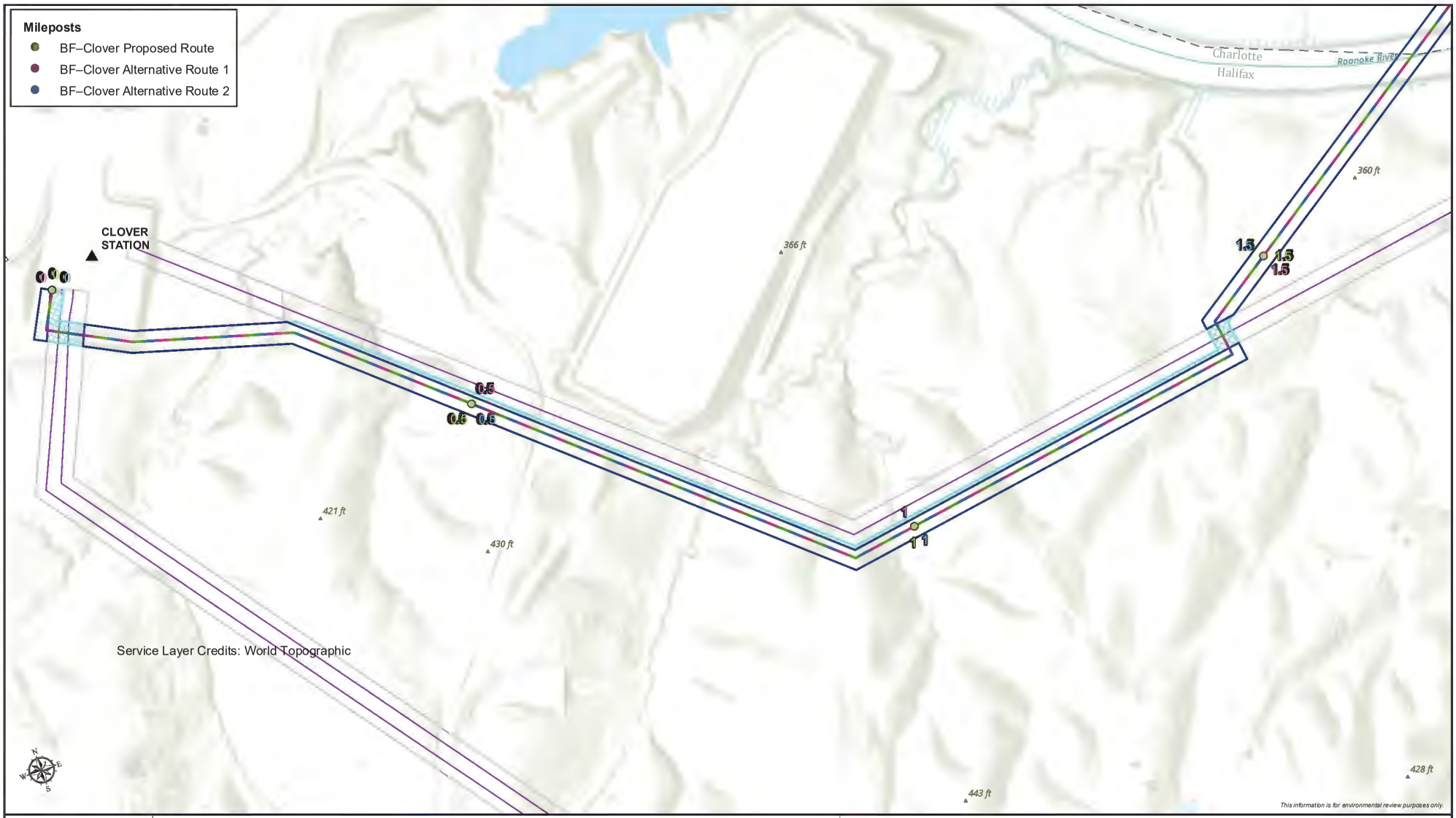
intersects with Line #36. At that point, the route turns south and overlaps with Line #36 for 1.9 miles from MP 12.1 to 12.6 and MP 13.7 to 15.1, to a point just north of Brankley Road. The new right-of-way will generally extend 100 feet beyond the existing easements and will overlap with the existing easements by 20 feet.

The BF – Finneywood Route overlaps with Line #235 for 2.5 miles from just west of the proposed Finneywood Station to just north of where Line #1012 enters the existing corridor, MP 2.7. The route then overlaps Line #1012 for 0.1 mile from MP 2.9 to 3.0 and then Line #1012 / #235 for 0.6 mile from MP 3.0 to 3.7. The new right-of-way will generally extend 100 feet beyond the existing easements and will overlap with the existing easements by 20 feet. The exception to this is the northern-most 0.2 mile of collocation with Line #235. In this area, the new right-of-way will extend 50 feet beyond the existing easements and will overlap with the existing easements by 70 feet.

The BF – Finneywood Alternative Route overlaps with Line #556 for 0.9 mile from MP 0.2 to a point just east of Highway 49, MP 1.1. The new right-of-way will generally extend 100 feet beyond the existing easements and will overlap with the existing easements by 20 feet.

Both BF – Clover Route Variation and BF – Finneywood Route Variation require new easements.


Attachment II.A.6 Index
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia
Dominion Energy
ERM
CLOVER STATION
FINNEYWOOD STATION
CHASE CITY SUBSTATION
SPANISH GROVE SUBSTATION
BUTLER FARM SUBSTATION
Existing Substation
Proposed Substation
Existing Dominion Transmission Line
BF-Clover Proposed Route
BF-Clover Route Variation
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2
BF-Finneywood Proposed Route
BF-Finneywood Route Variation
BF-Finneywood Alternative Route 1
Index Page
Service Layer Credits: World Topographic
0 2,500 5,000
Feet
1:72,000
This information is for environmental review purposes only.
MPLS M:\Clients\D-F\DOM\CloverButlerFinney_ArcGIS\SCC_Appendix_DOM_CBF_SCC_Appendix.aprx\Attachment II.A.6_Index | REV/SED: 10/03/2022 | SCALE: 1:72,000 when printed at 11x17
DRAWN BY: NAD



0 250 500
Feet
1:6,000

- Existing Substation
- Existing Dominion Transmission Line
- Existing Dominion Right-of-Way
- BF-Clover Proposed Route
- BF-Clover Alternative Route 1
- BF-Clover Alternative Route 2

Right-of-Way Type

- Existing Overhead Right-of-Way
- Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

ERM

MPLS M:\Clients\D-F\DOM\CloverButlerFinney_ArcGIS\SCC_Appendix_DOM_CBF_SCC_Appendix.aprx\Attachment II.A.6 | REVISED: 10/03/2022 | SCALE: 1:6,000 when printed at 11x17

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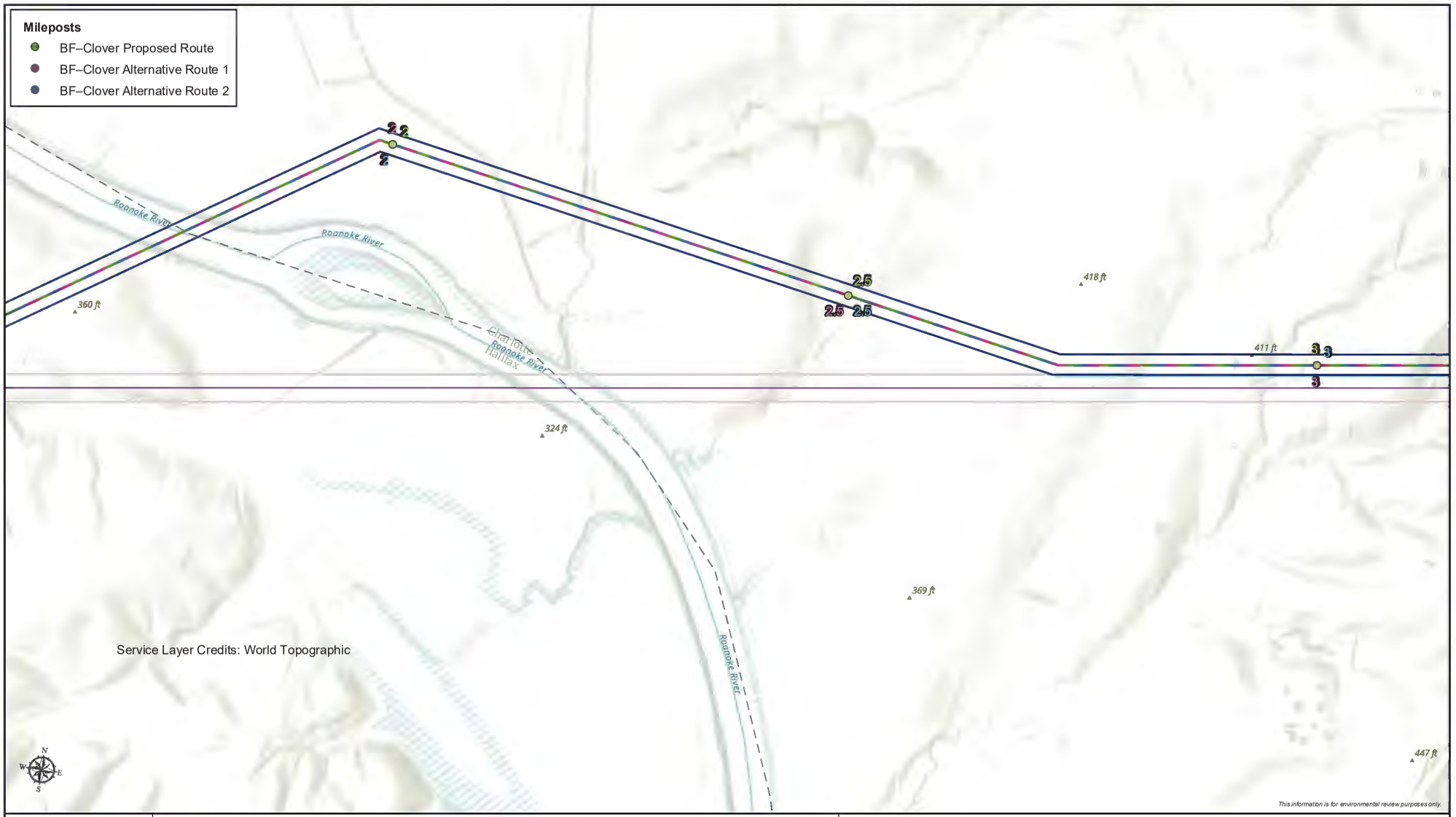

0 250 500
Feet
1:6,000

Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Clover Proposed Route
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

ERM

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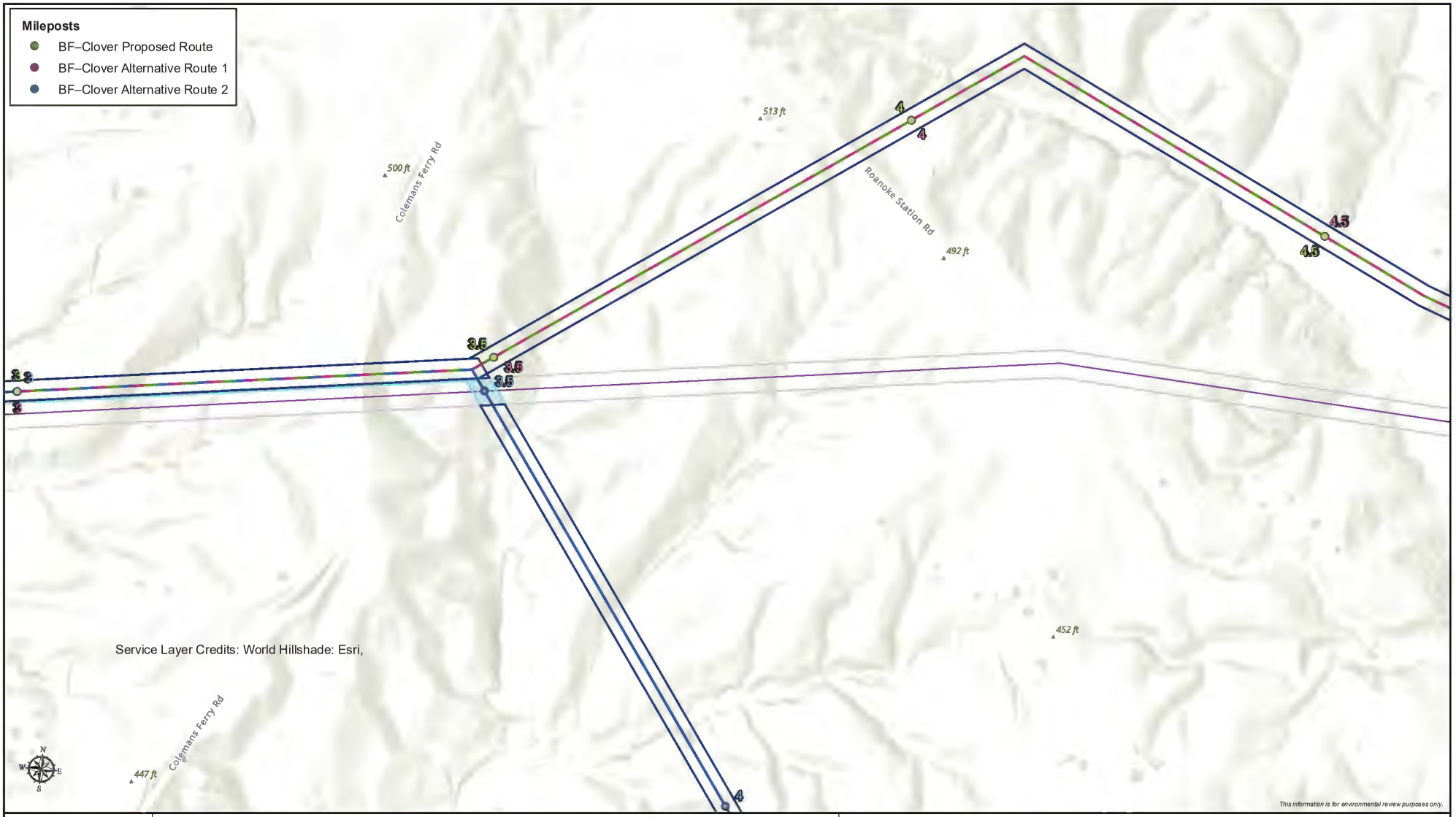

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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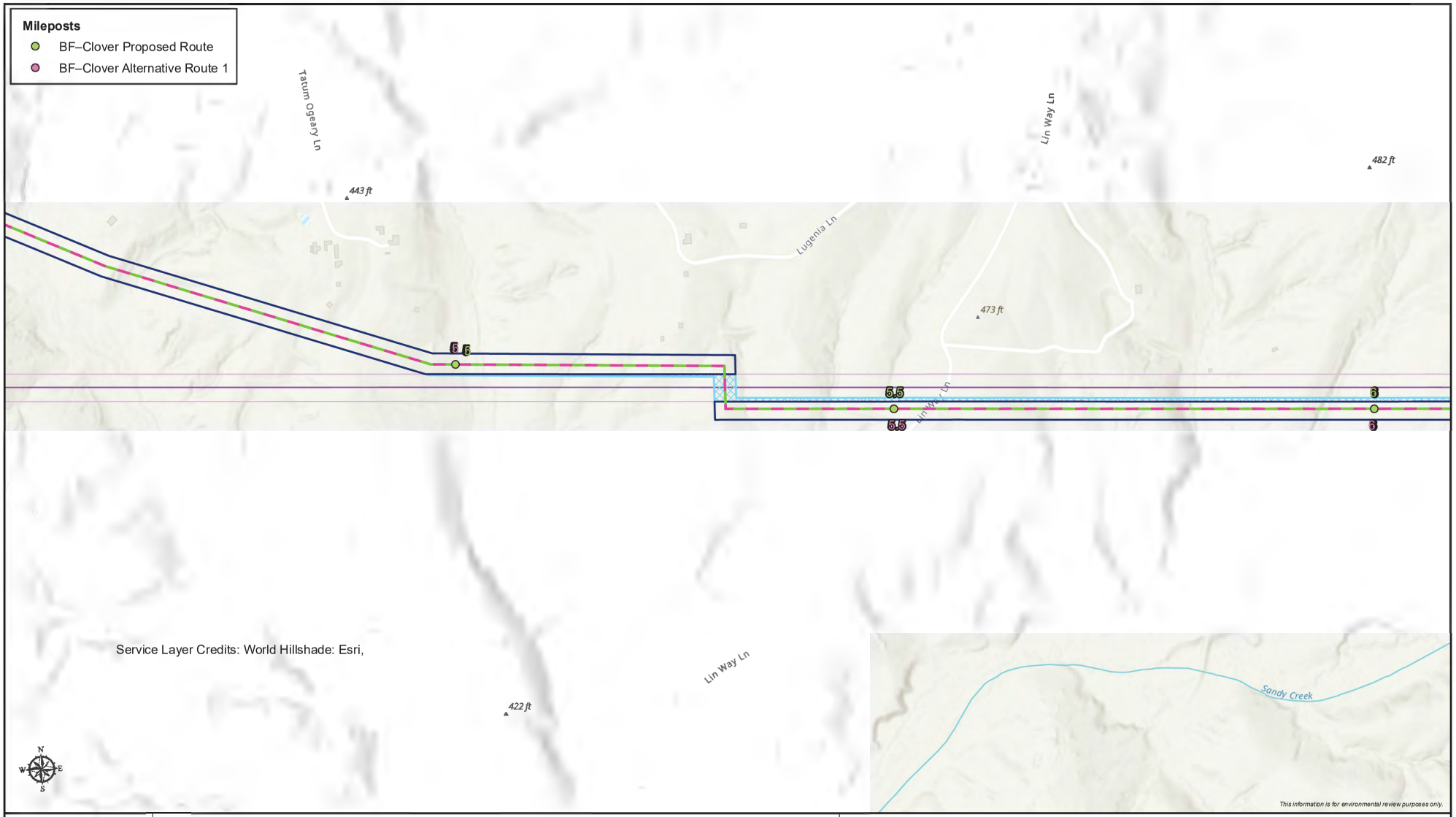

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

ERM

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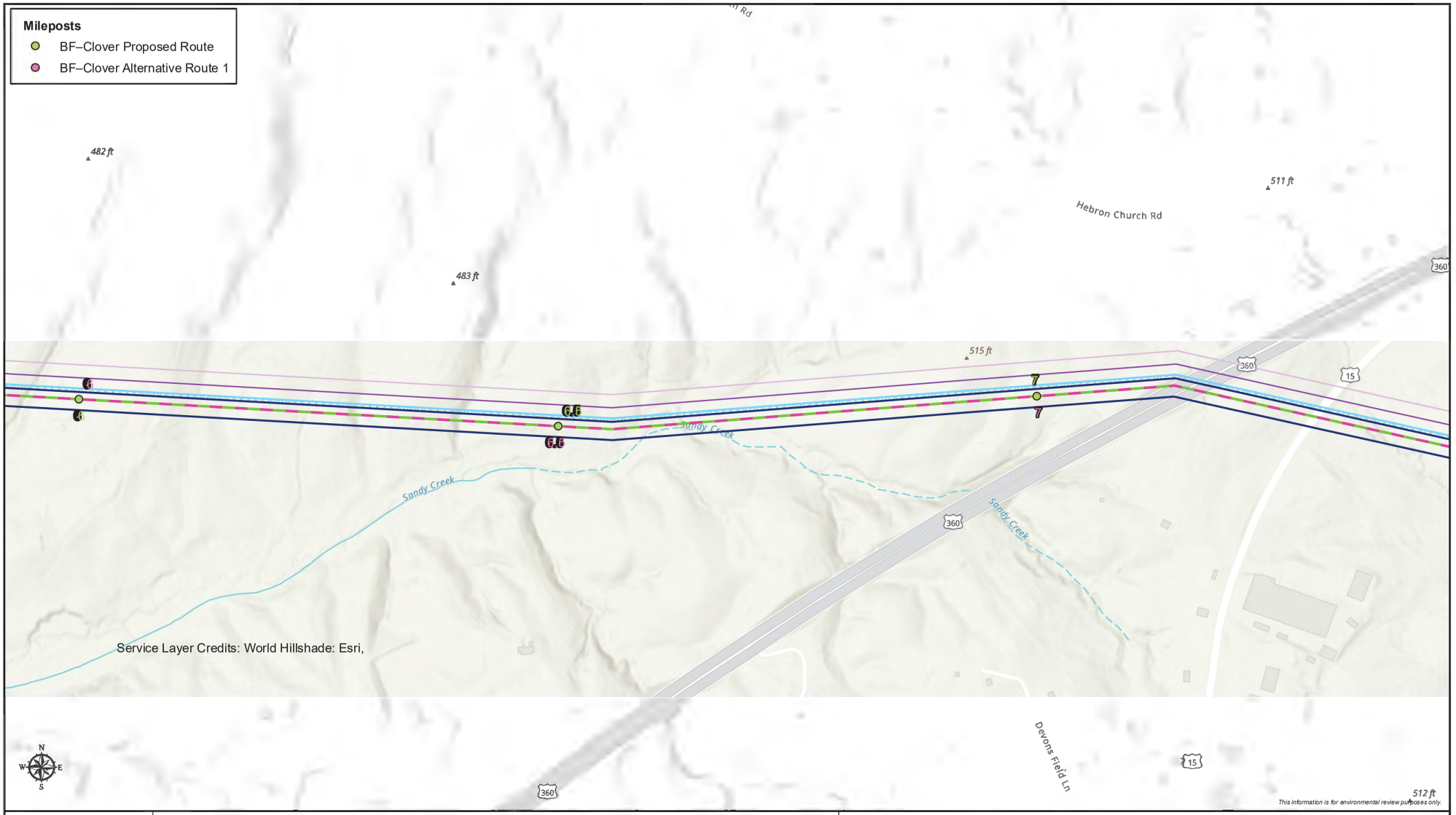

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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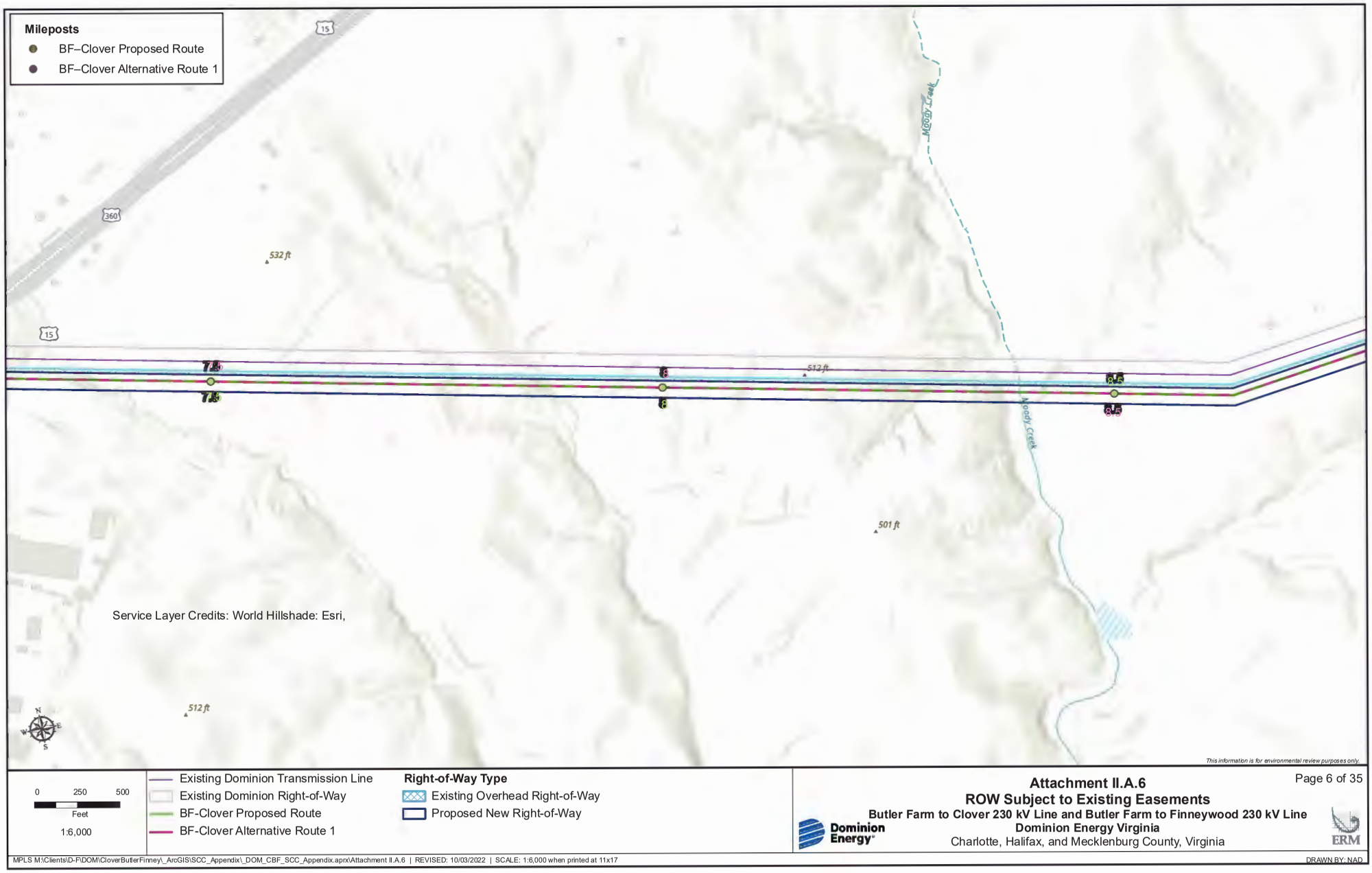

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

ERM

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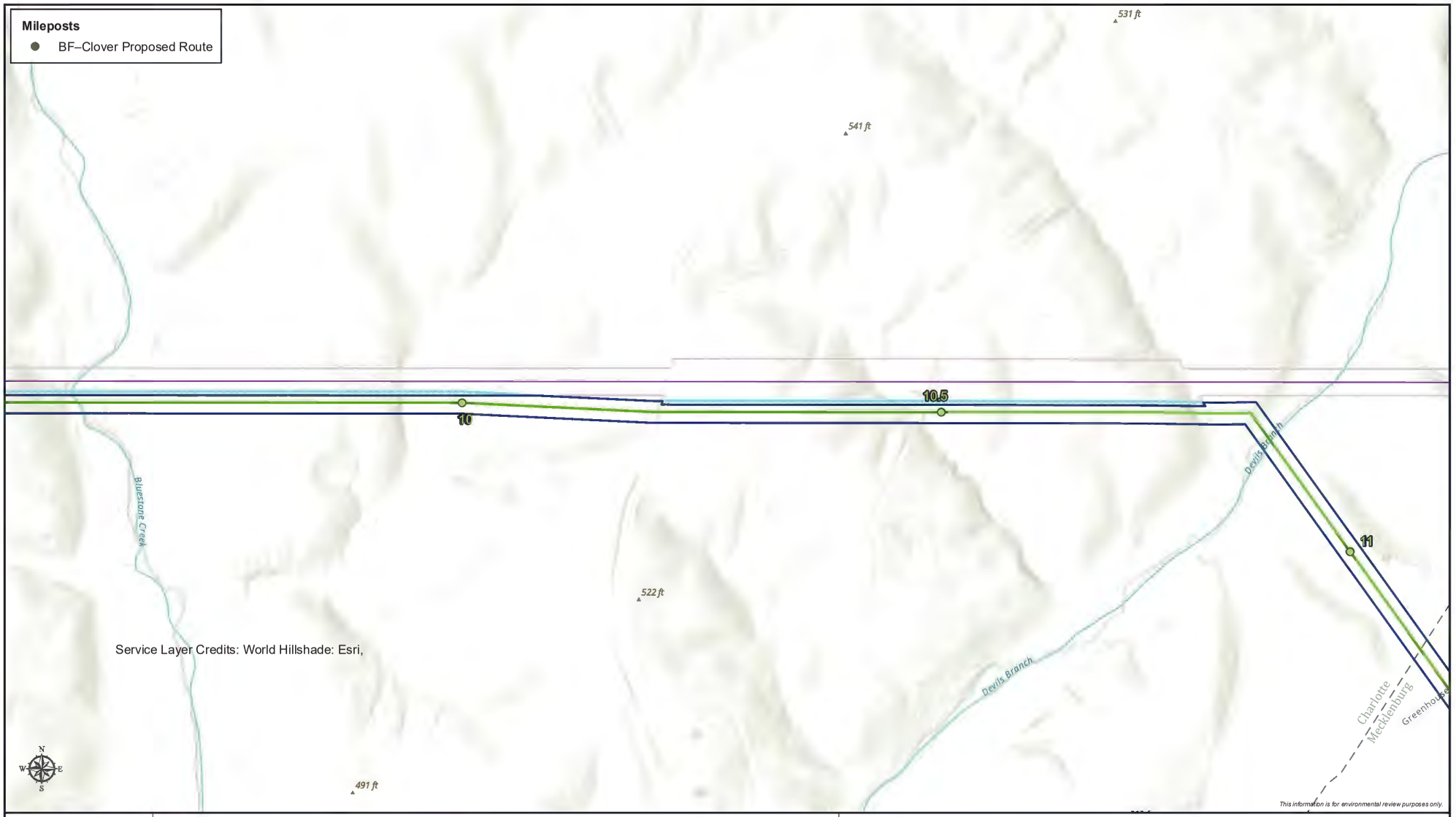

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

ERM

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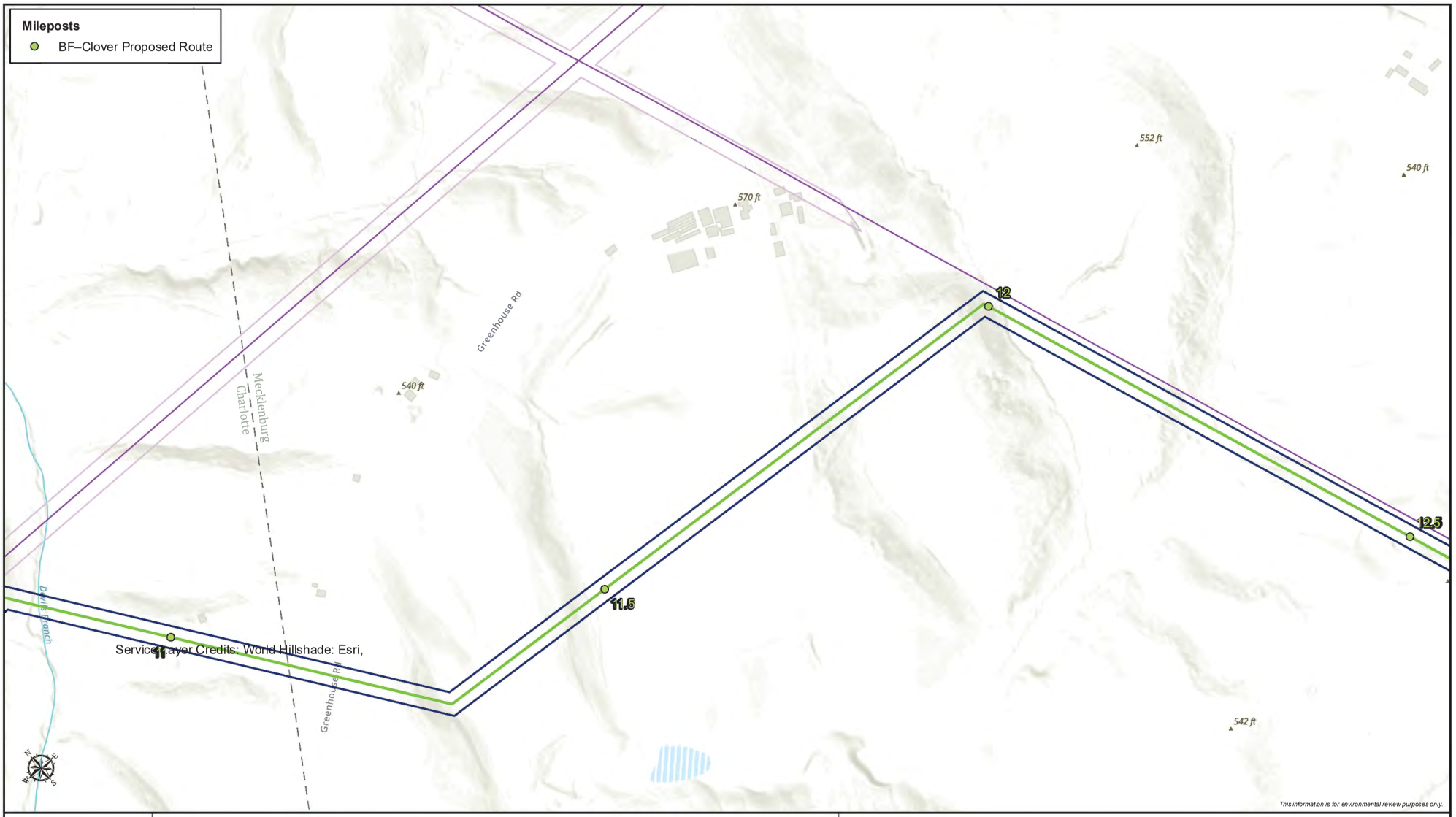

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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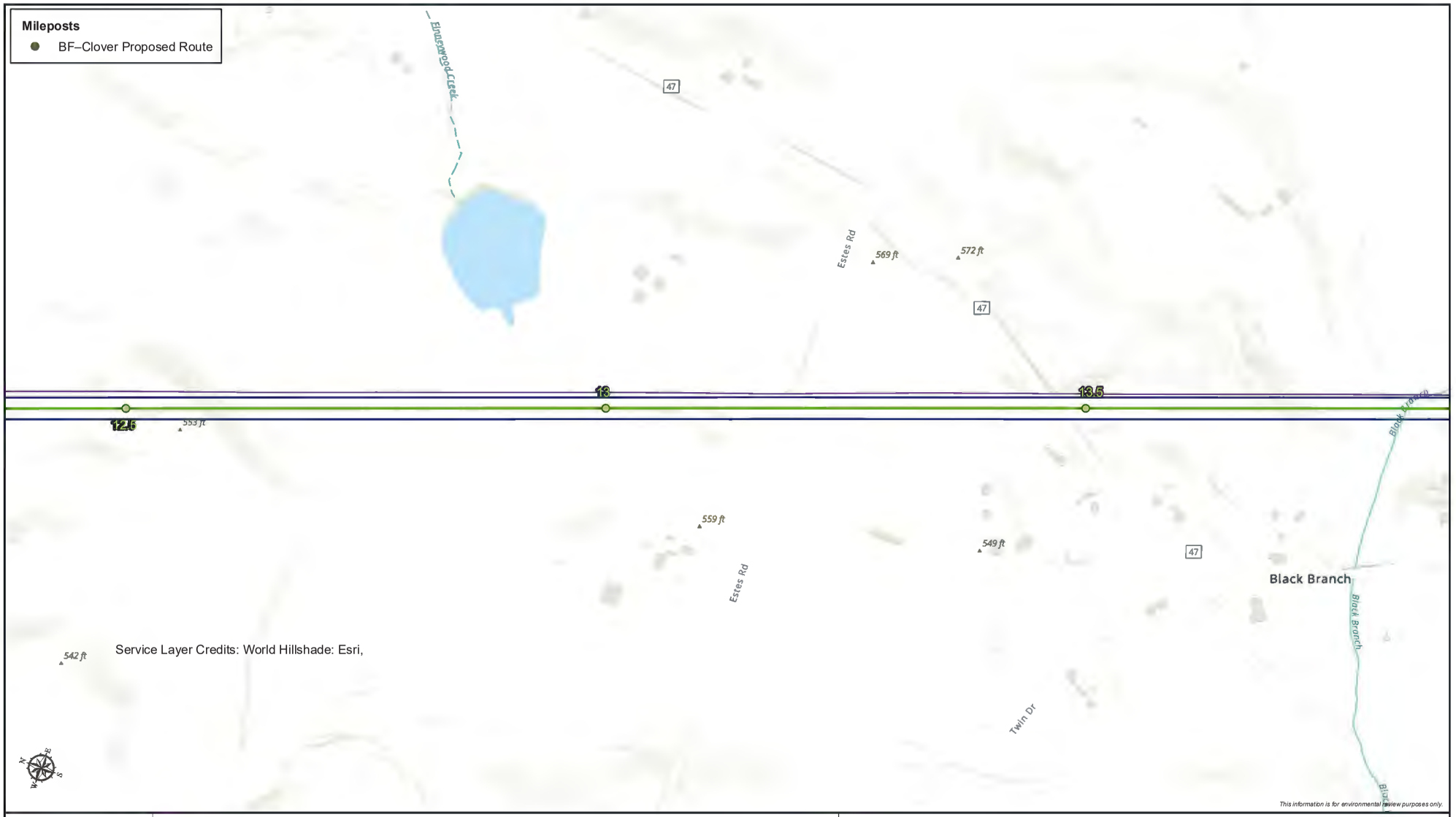

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Existing Dominion Transmission Line
BF-Clover Proposed Route

Right-of-Way Type
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

ERM

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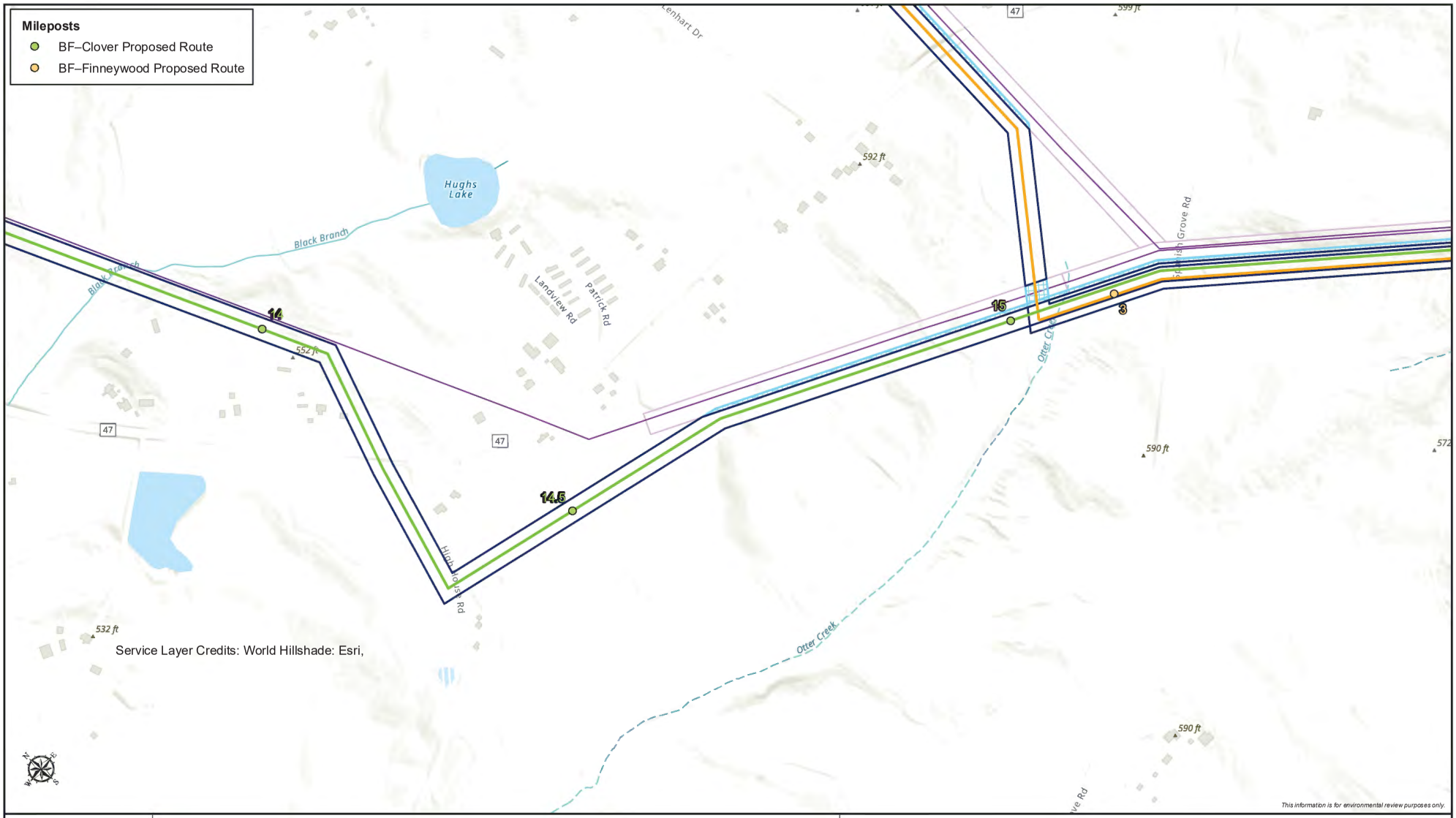

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Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Clover Proposed Route
BF-Finneywood Proposed Route

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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- Proposed Substation
- Existing Dominion Transmission Line
- Existing Dominion Right-of-Way
- BF-Finneywood Proposed Route
- BF-Finneywood Alternative Route 1

Right-of-Way Type

- Existing Overhead Right-of-Way
- Proposed New Right-of-Way
- Proposed Aboveground Facility

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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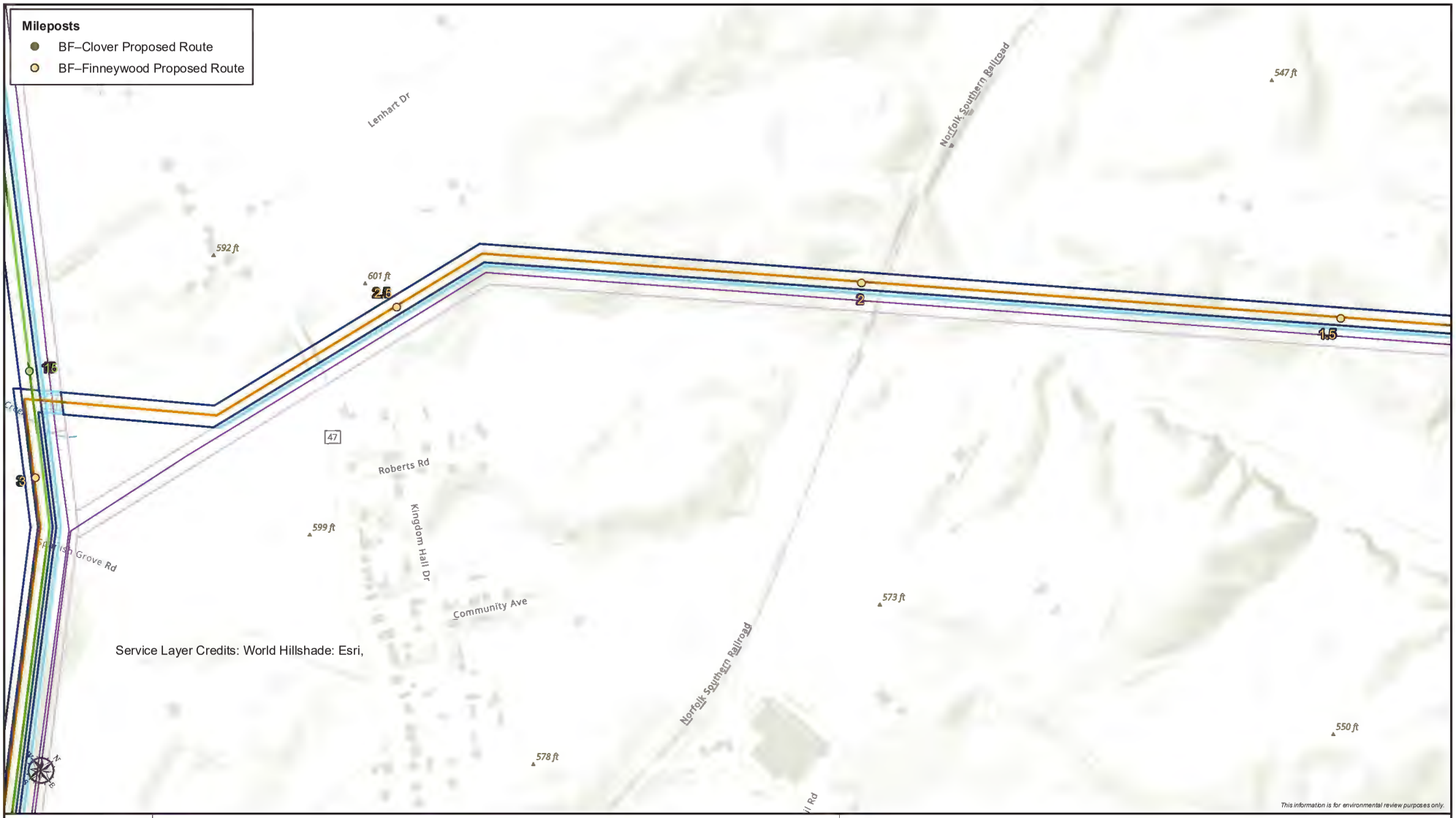

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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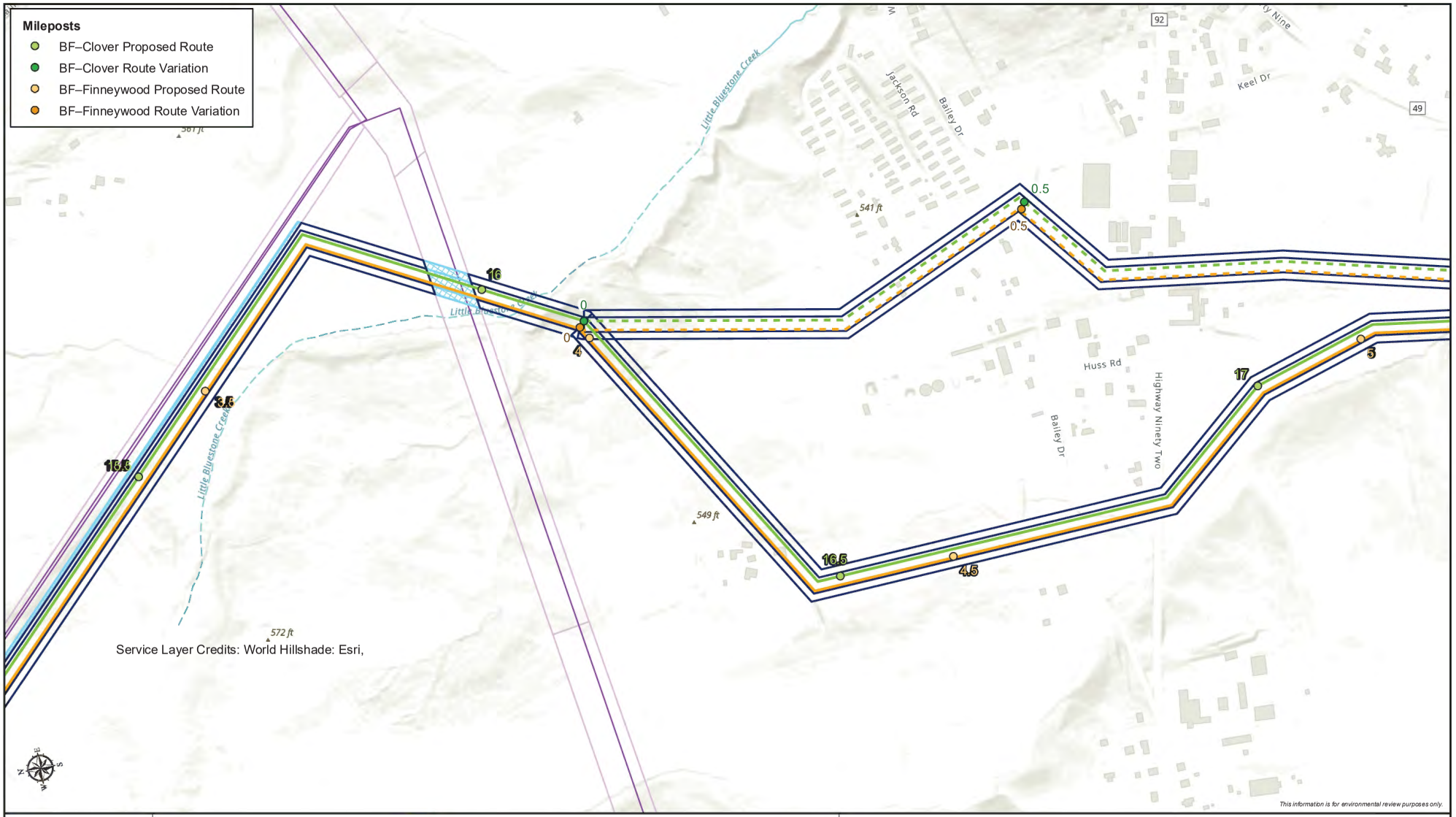

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Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Clover Proposed Route
BF-Clover Route Variation
BF-Finneywood Proposed Route
BF-Finneywood Route Variation

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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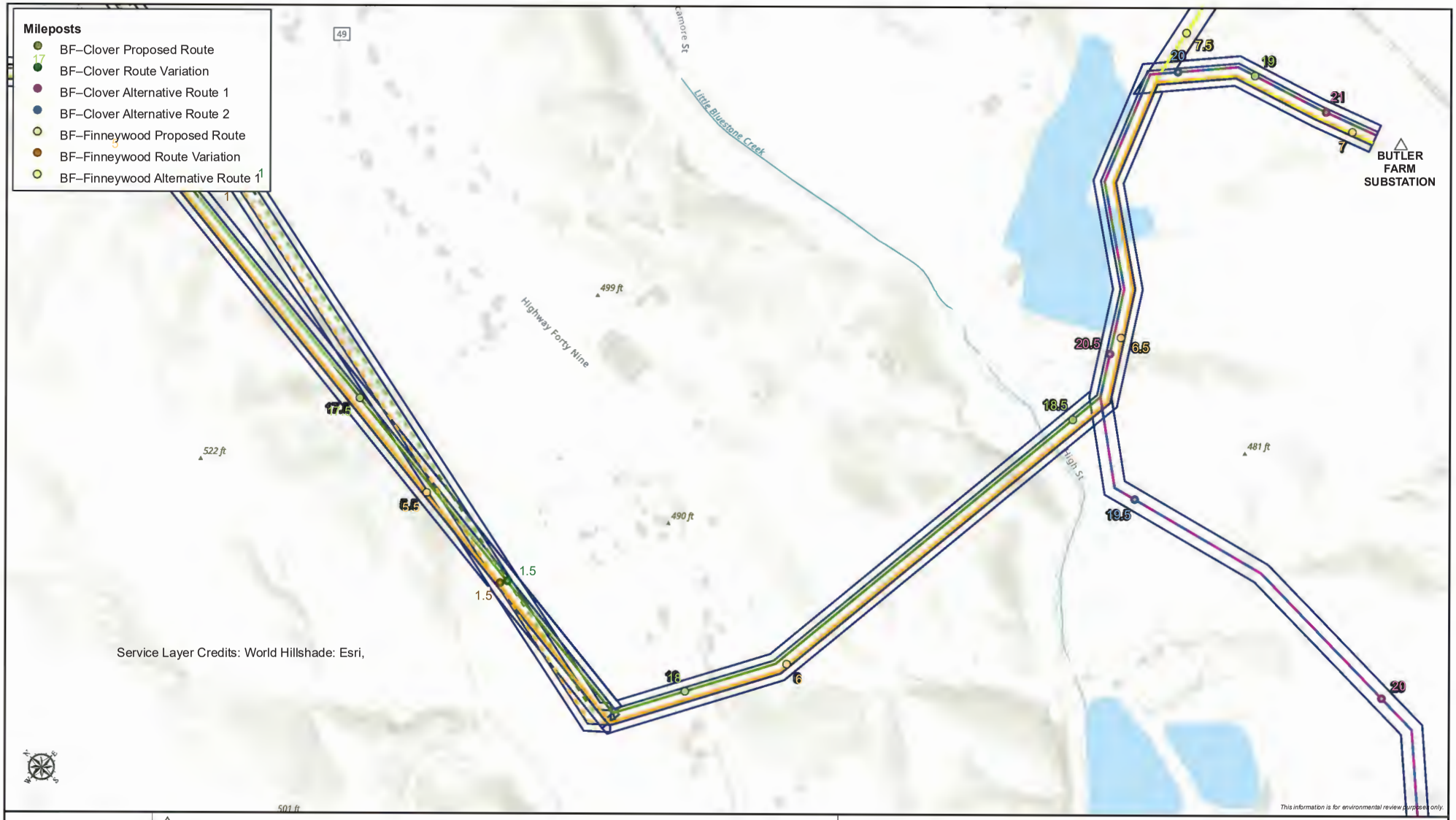

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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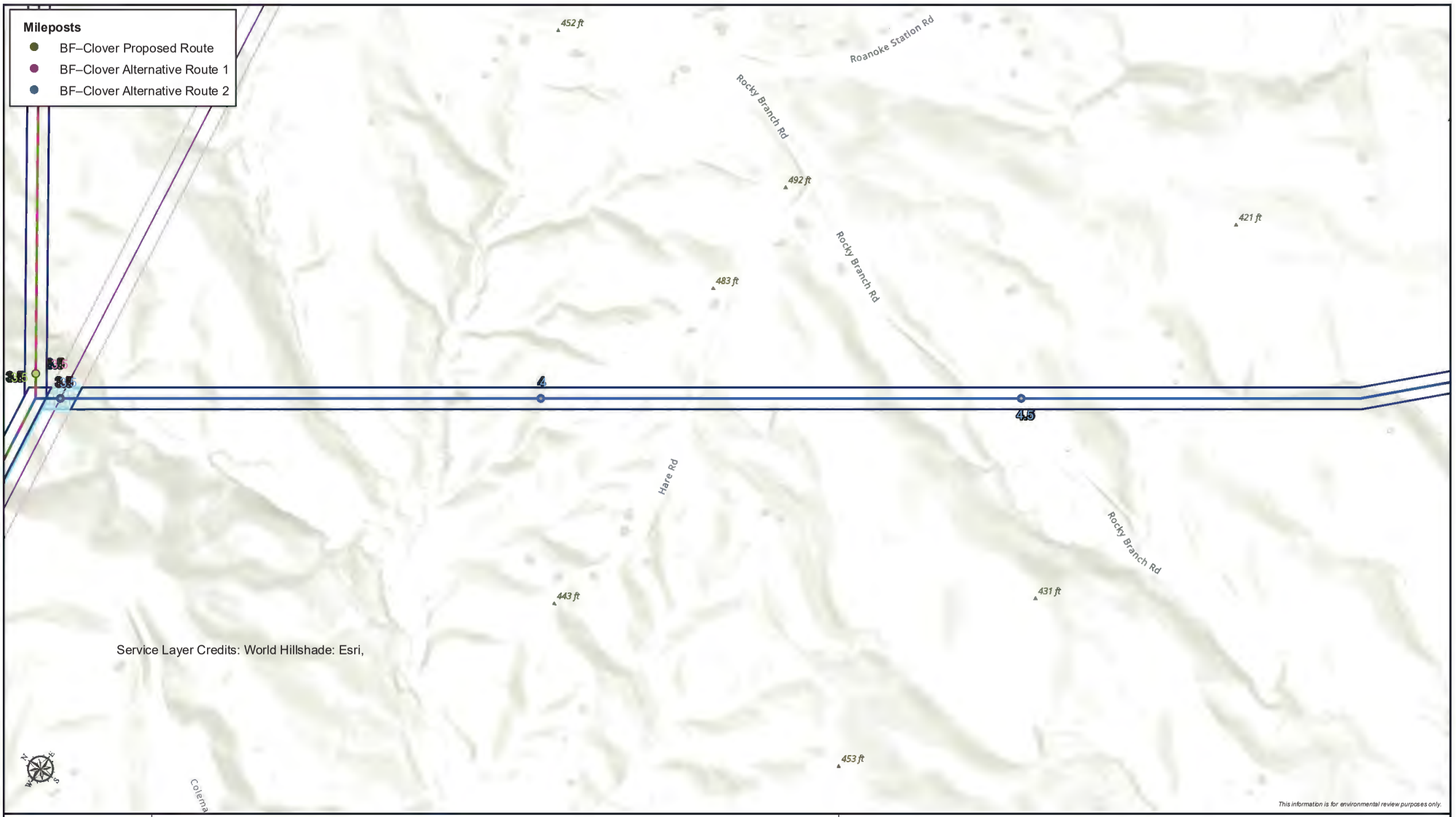

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Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Clover Proposed Route
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

ERM

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BF-Clover Alternative Route 2

Right-of-Way Type

Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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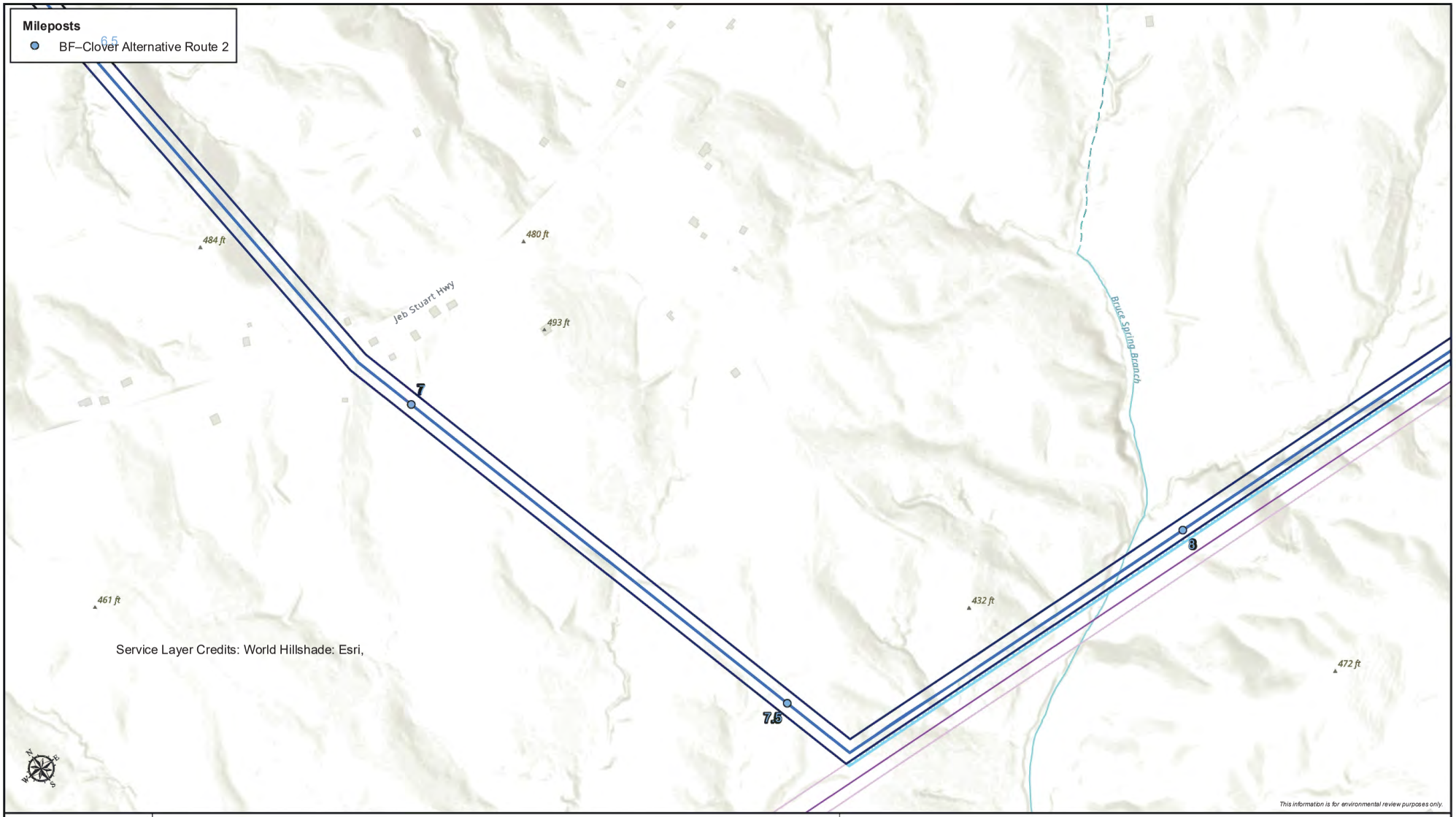

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Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Clover Alternative Route 2

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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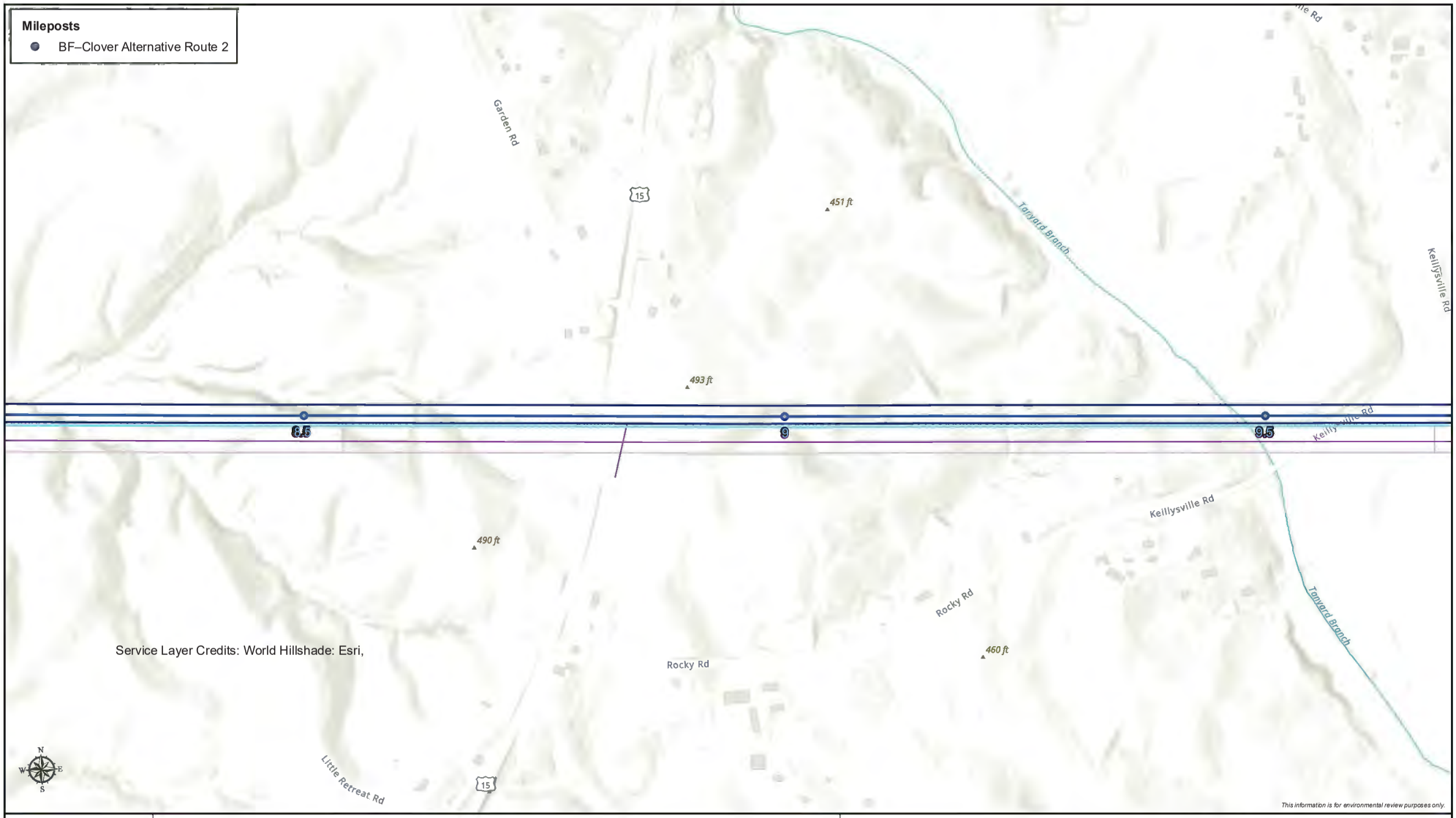

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Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Clover Alternative Route 2

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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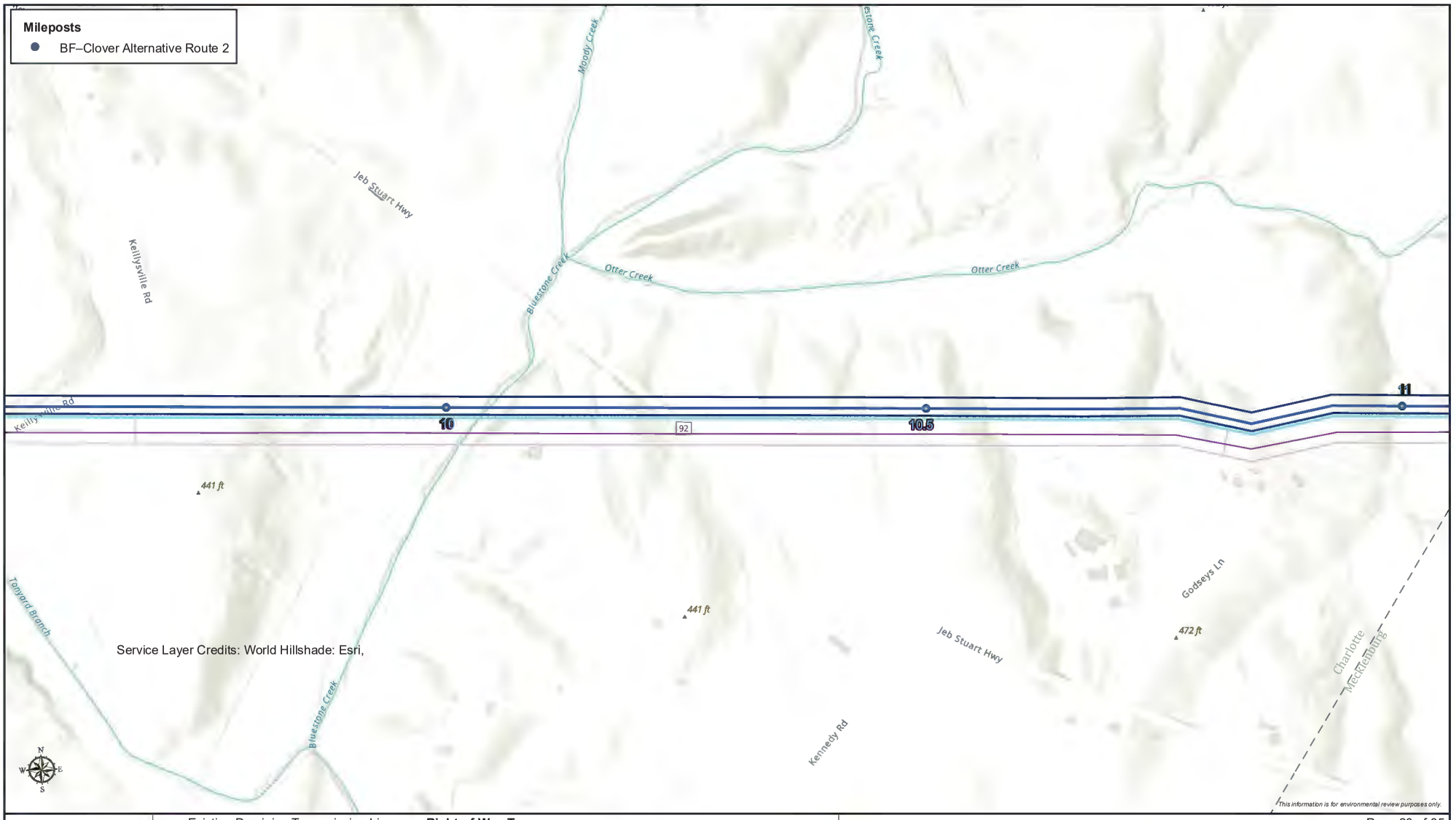

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

ERM

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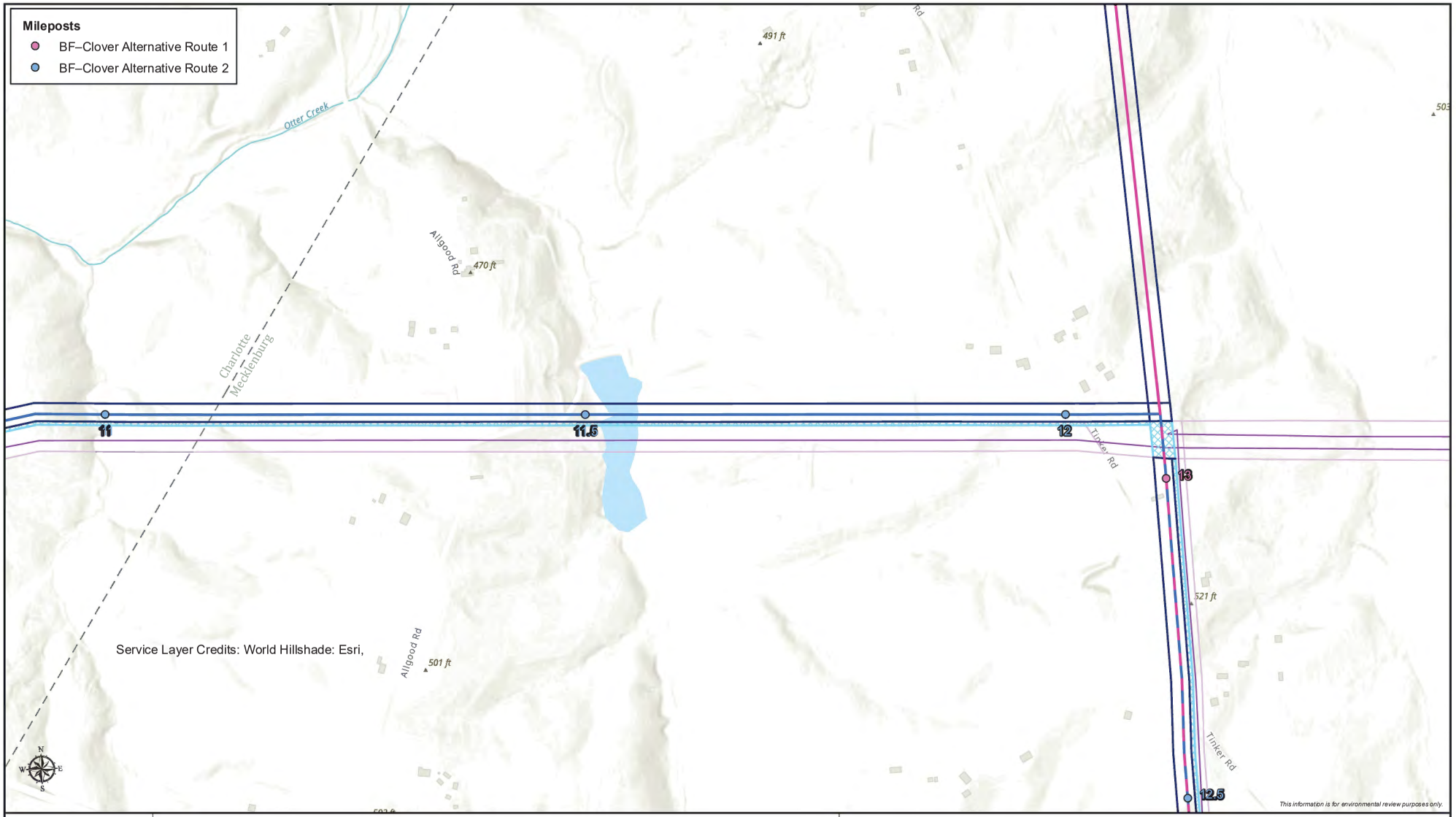

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

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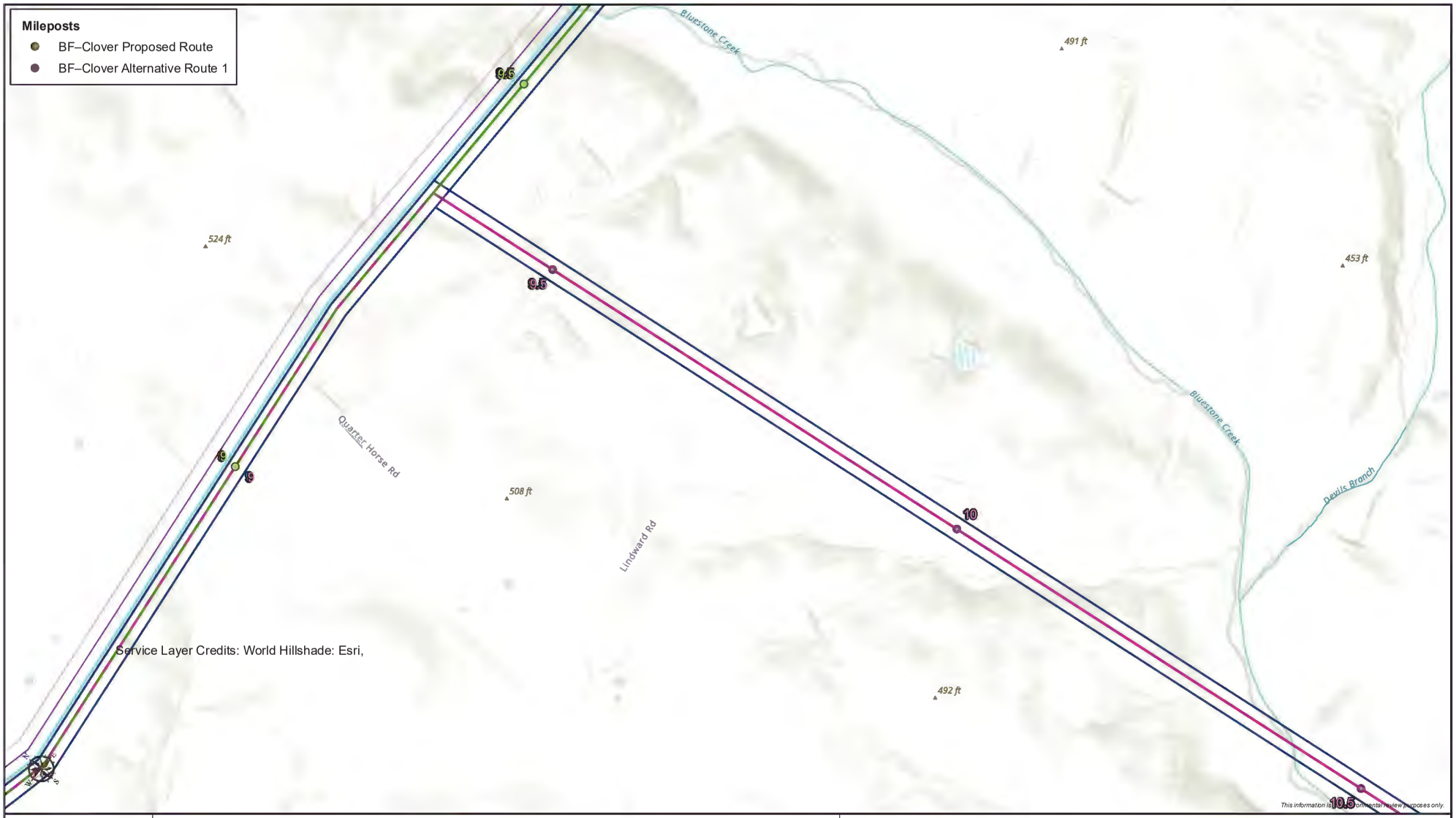

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

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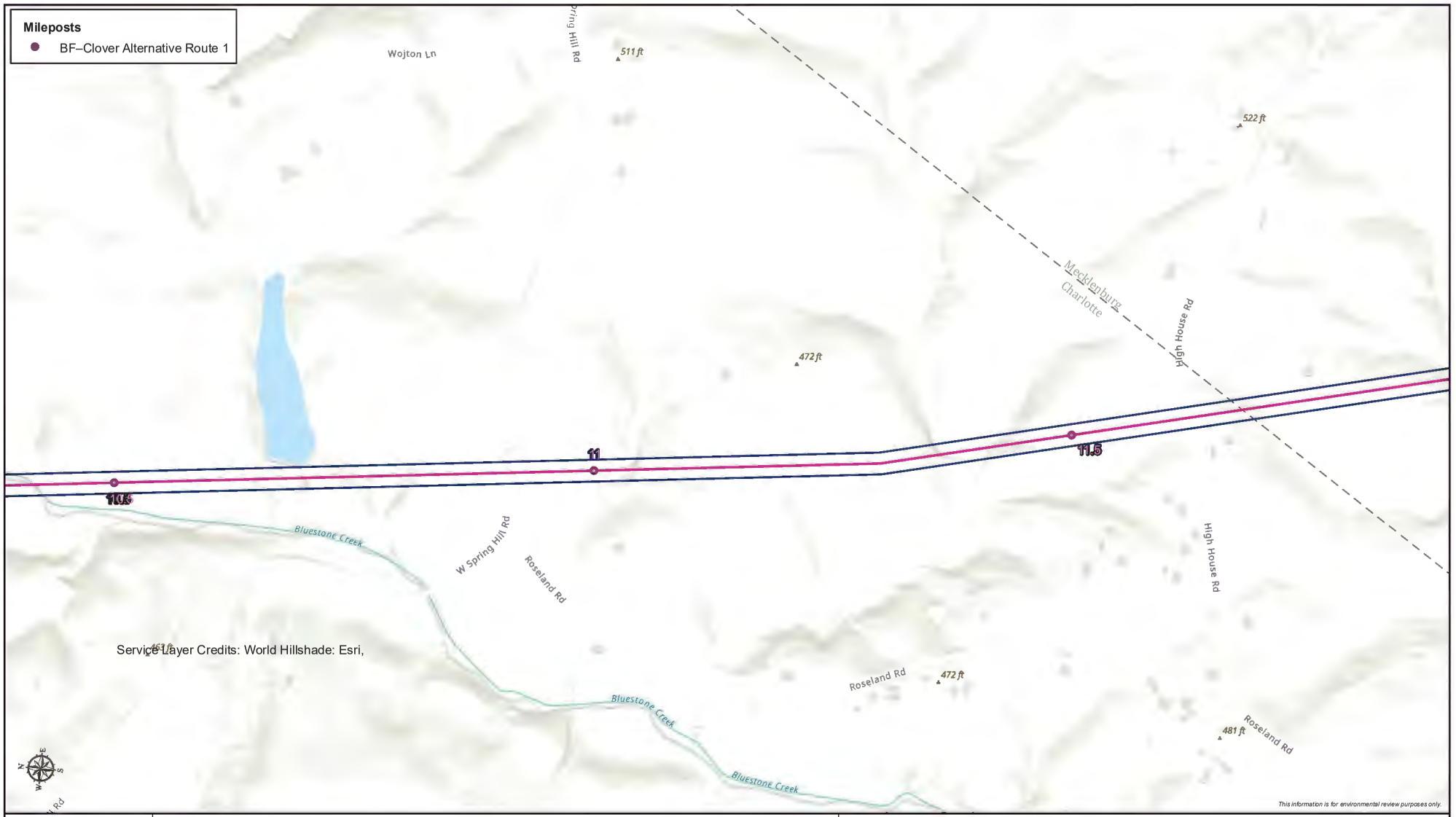

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BF-Clover Alternative Route 1

Right-of-Way Type

Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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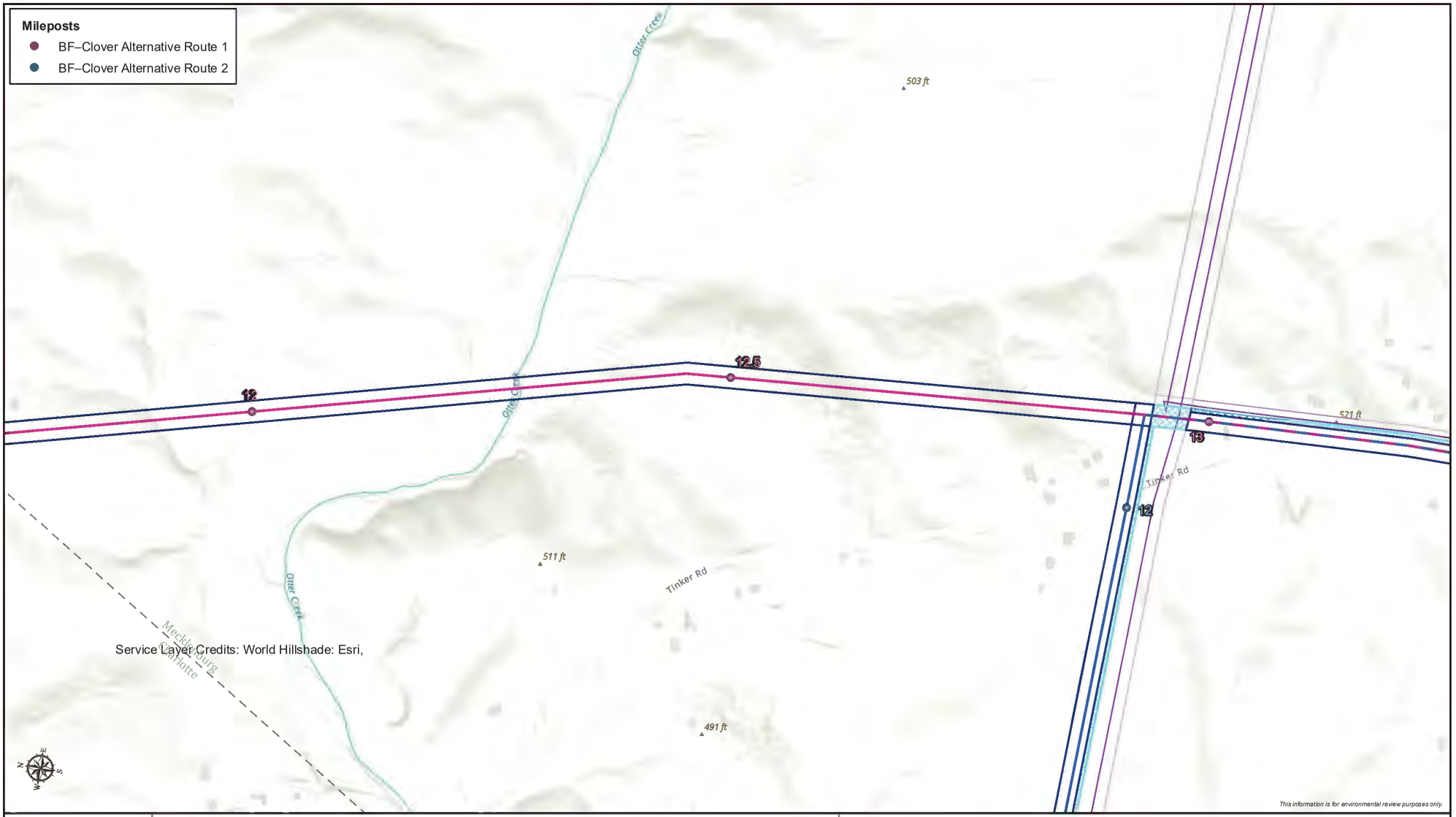

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

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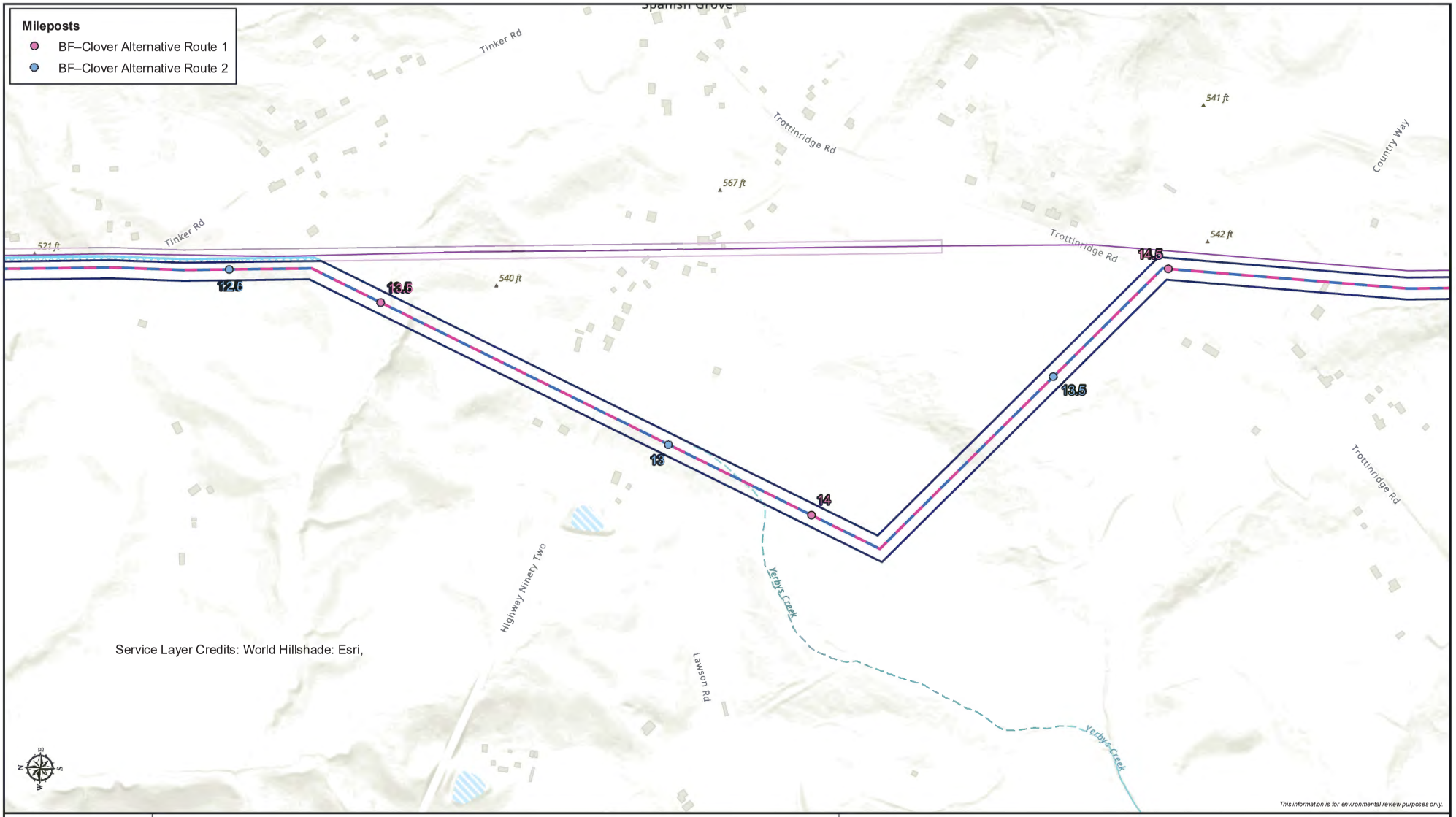

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

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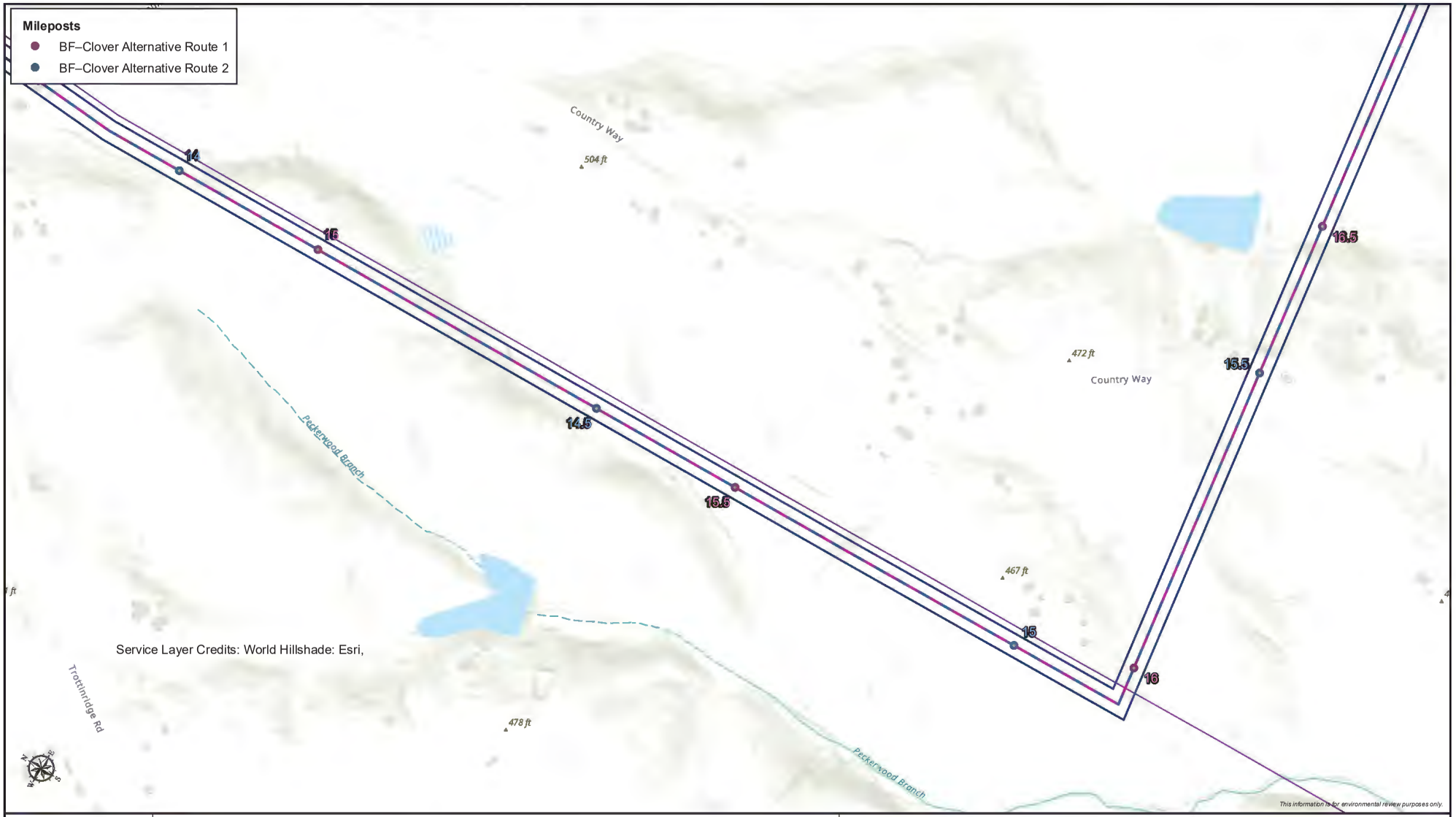

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Existing Dominion Transmission Line
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2

Right-of-Way Type
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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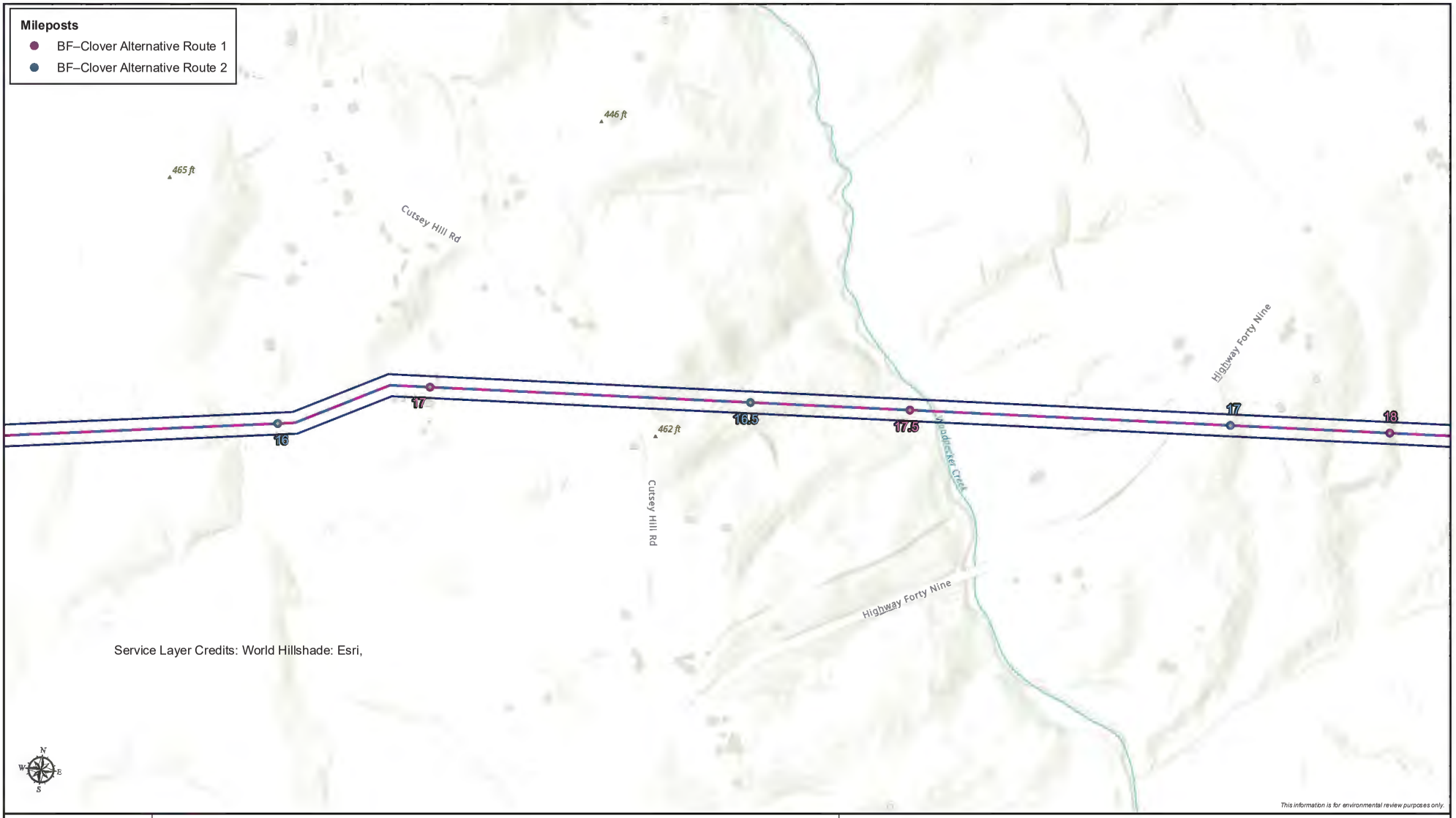

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BF-Clover Alternative Route 1
BF-Clover Alternative Route 2
Right-of-Way Type
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy
ERM

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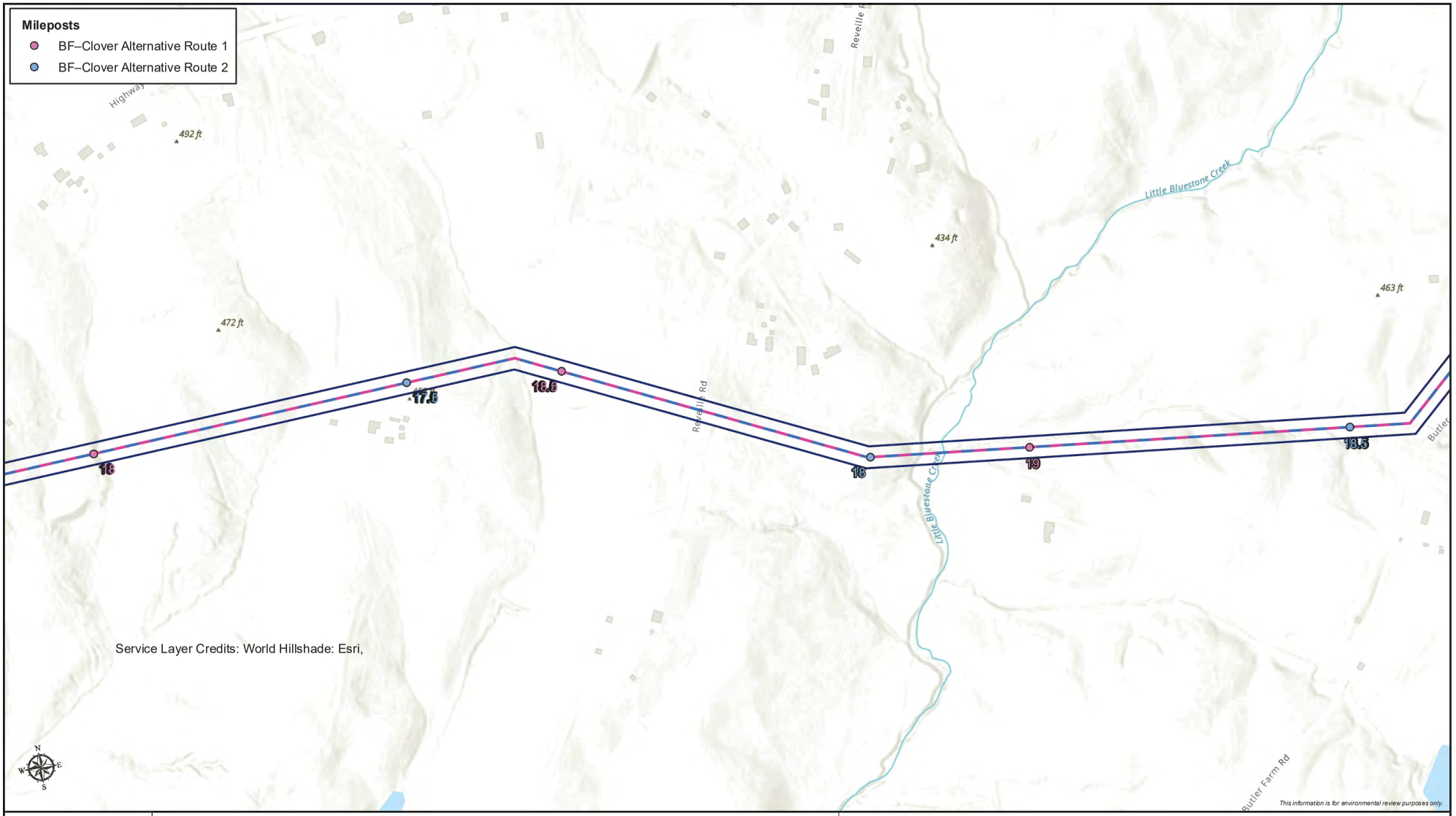

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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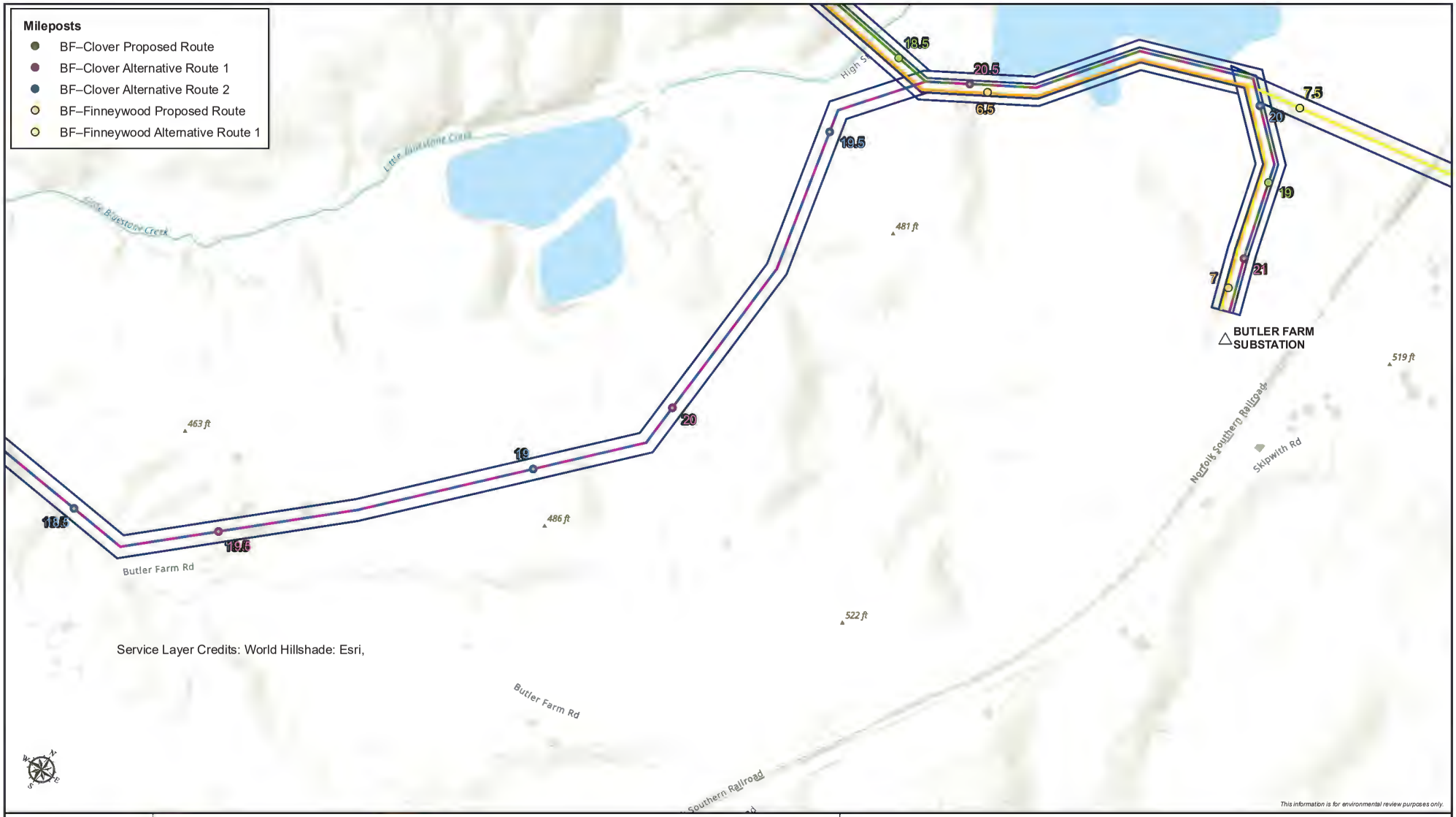

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△ Proposed Substation
BF-Clover Proposed Route
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2
BF-Finneywood Proposed Route
BF-Finneywood Alternative Route 1

Right-of-Way Type
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

ERM

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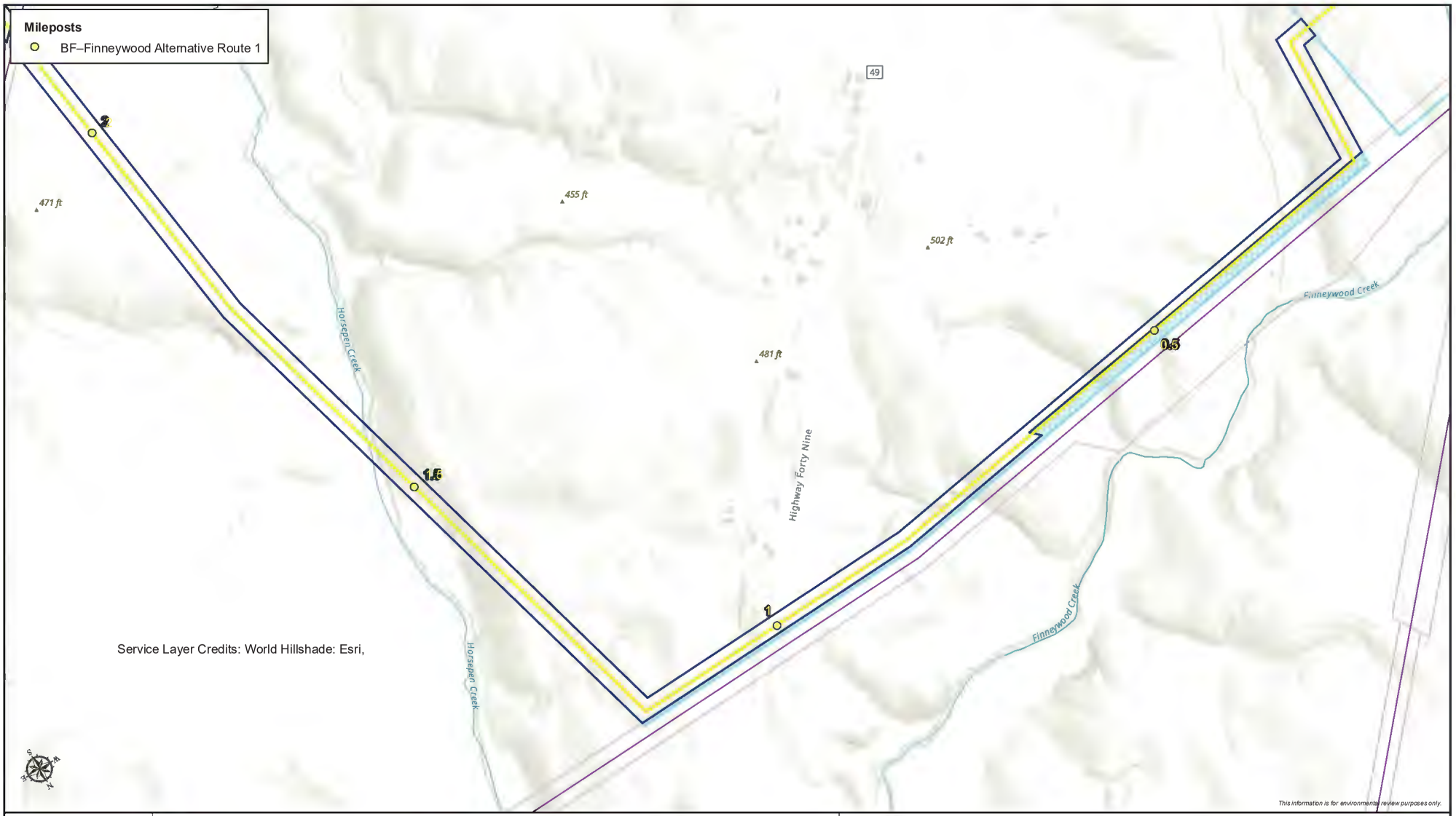

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Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Finneywood Proposed Route
BF-Finneywood Alternative Route 1

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way
Proposed Aboveground Facility

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy
ERM

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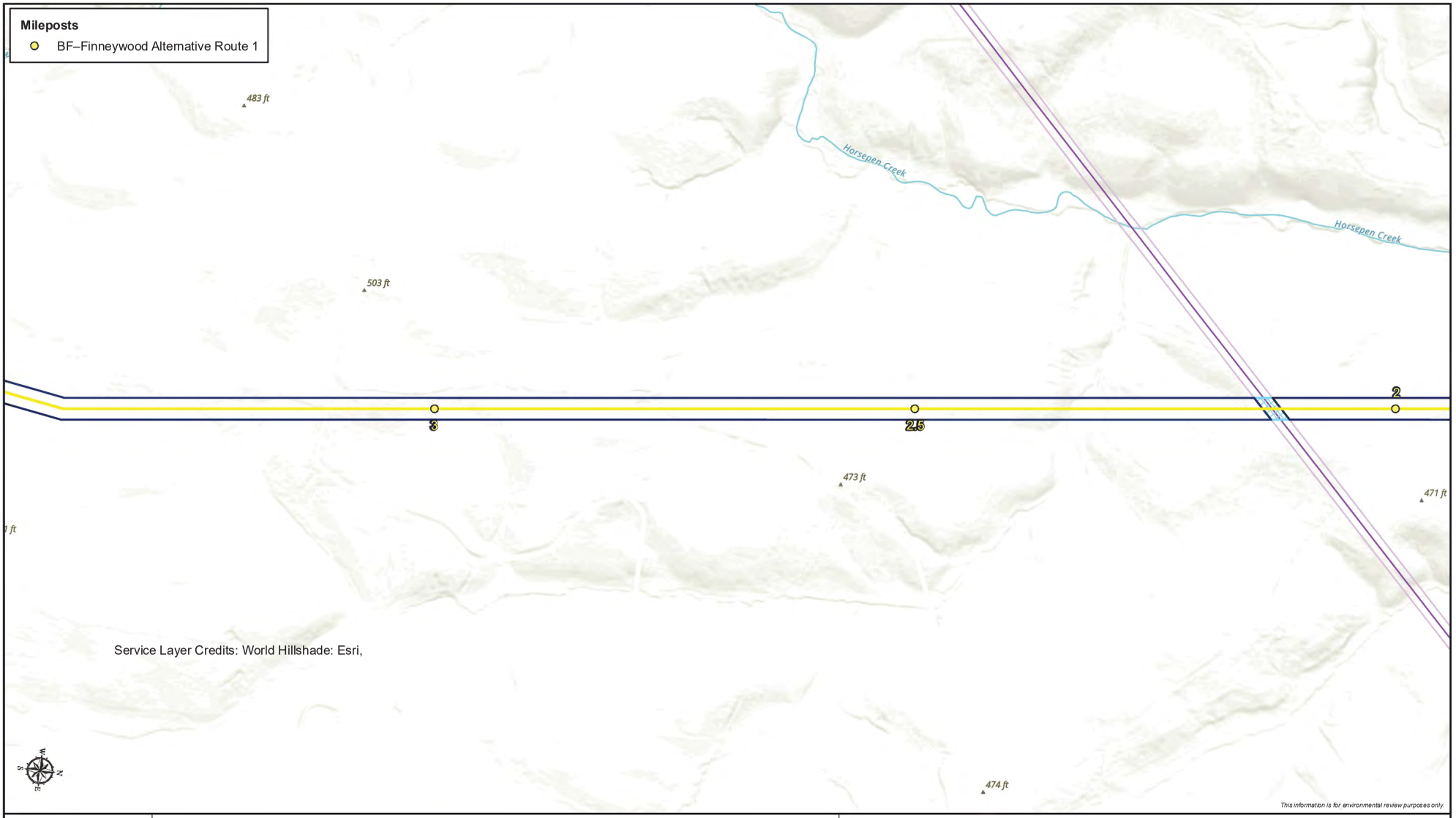

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Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Finneywood Alternative Route 1

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way

Dominion Energy

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

ERM

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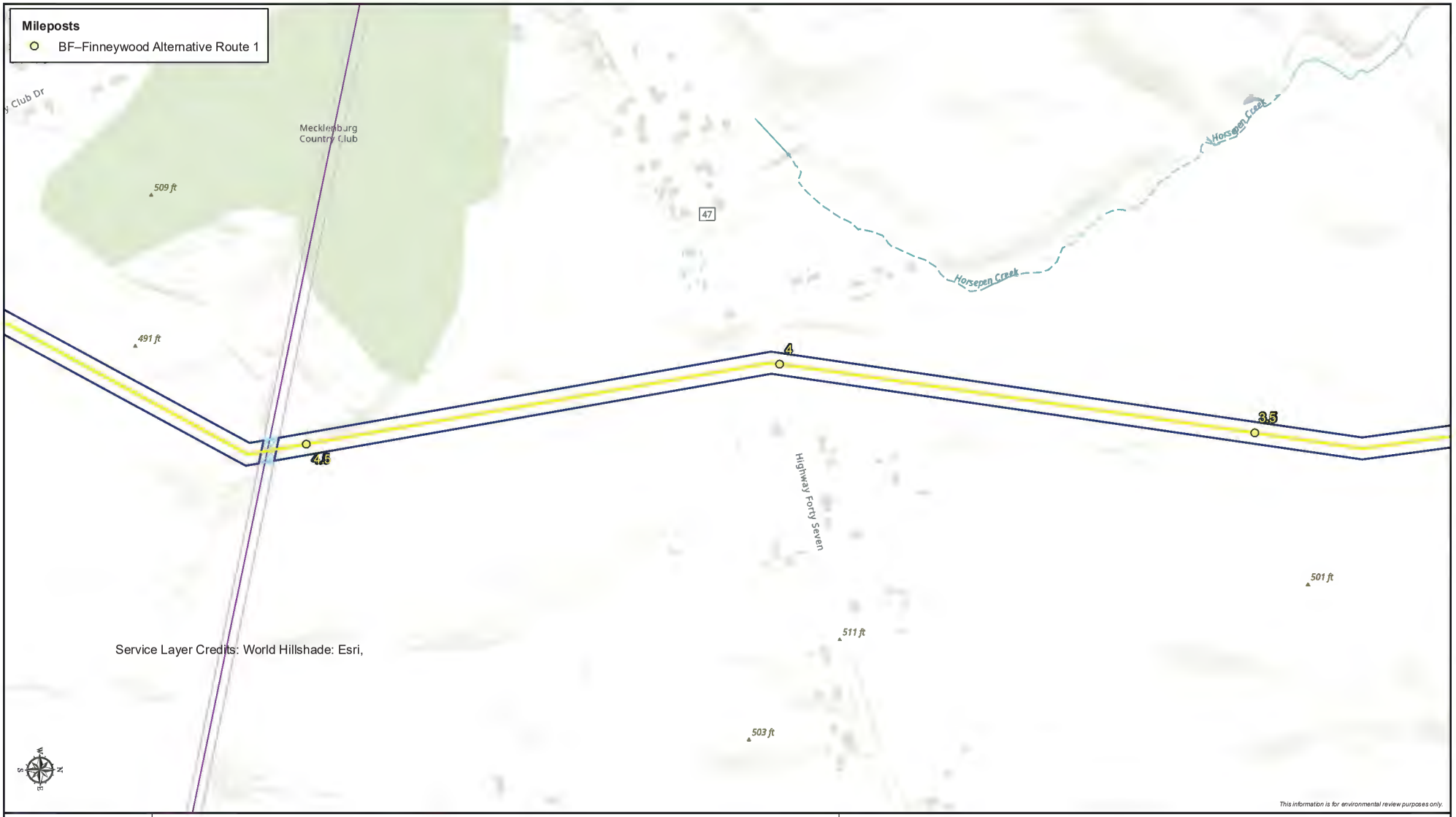

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Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Finneywood Alternative Route 1

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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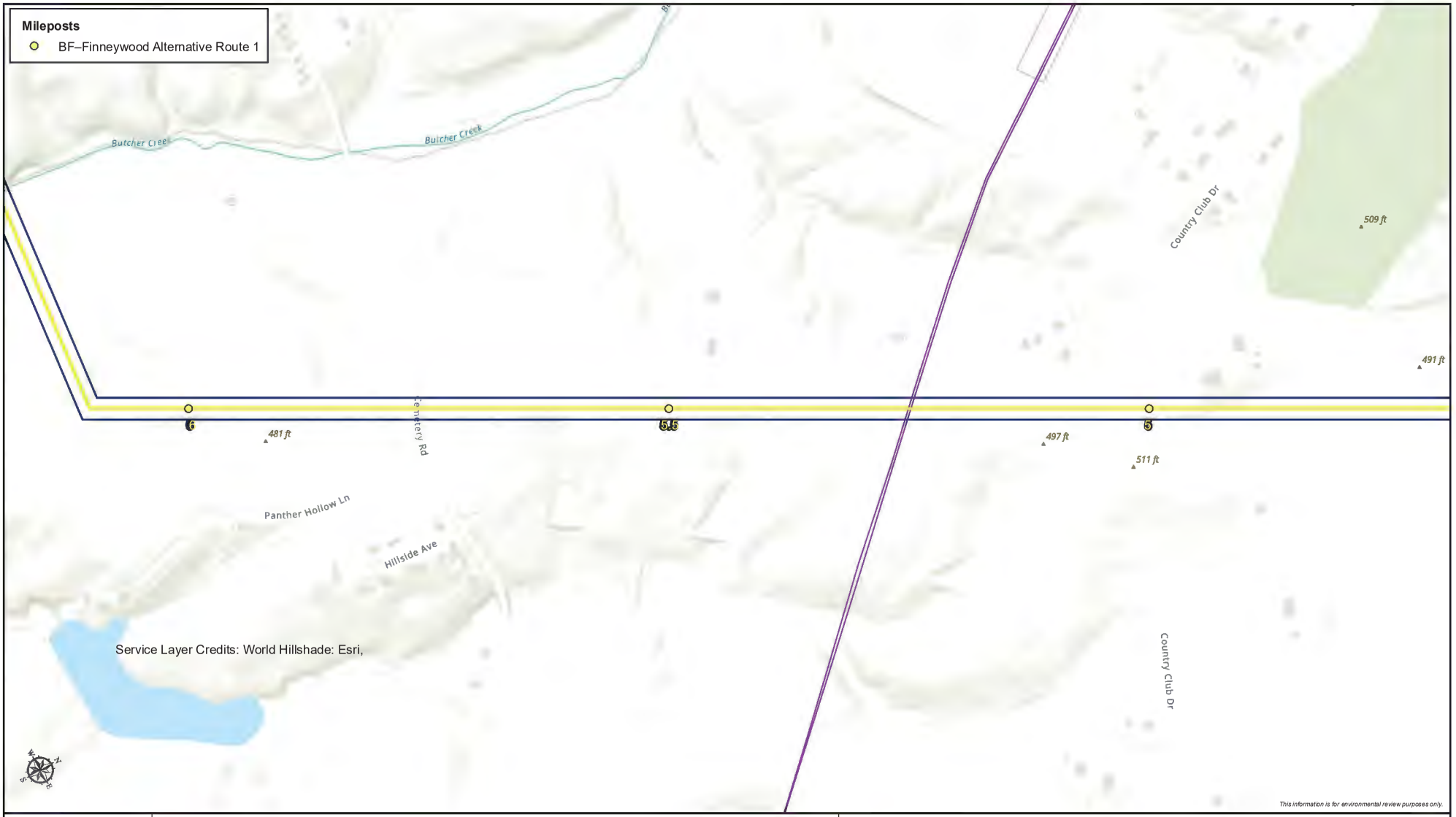

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Existing Dominion Transmission Line
Existing Dominion Right-of-Way
BF-Finneywood Alternative Route 1

Right-of-Way Type
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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BF-Finneywood Alternative Route 1

Right-of-Way Type

Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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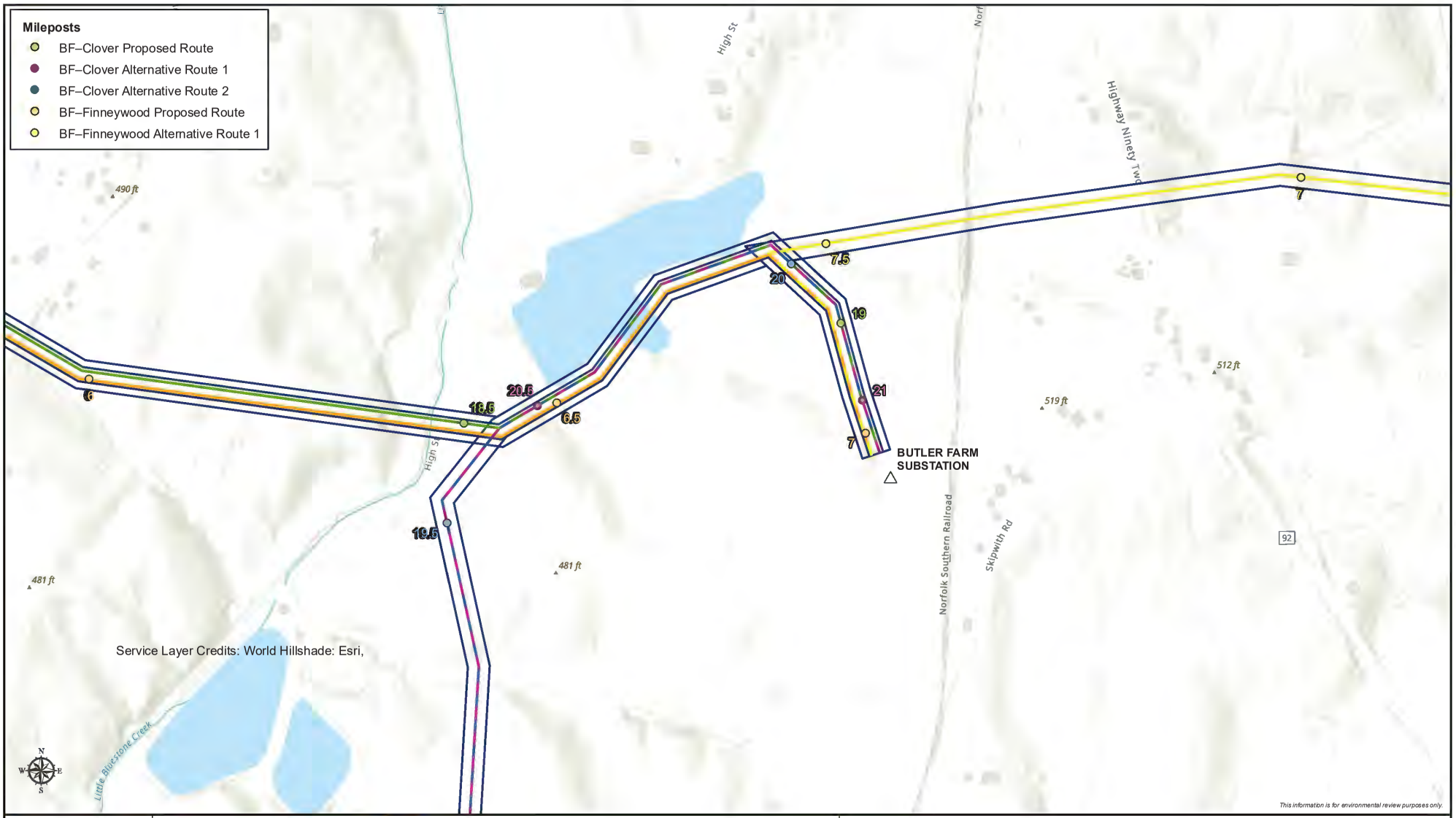

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Proposed Substation
BF-Clover Proposed Route
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2
BF-Finneywood Proposed Route
BF-Finneywood Alternative Route 1

Right-of-Way Type
Proposed New Right-of-Way

Attachment II.A.6
ROW Subject to Existing Easements
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy
ERM

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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: As noted in Section II.A.4, the rights-of-way for the Proposed and Alternative Routes will be 120 feet wide, which is inclusive of existing and new rights-of-way. Clearing will not be required over certain portions of the proposed and alternative routes that overlap existing maintained rights-of-way (20 feet in most locations). The locations of these existing rights-of-way are discussed above in Section II.A.6.

Trimming of tree limbs along the edge of the right-of-way may be conducted to support construction activities for the Project. For any such minimal clearing within the right-of-way, 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 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 Virginia Facilities, 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 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; and,
- 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: The Company's route selection for a new transmission line 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 that may be suitable for a transmission line can be identified.

For this Project, the Company requested 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 investigating various electrical solutions, the Company determined that two electrical line segments are required for the Project:

- Butler Farm – Clover Line: a single circuit 230 kV overhead route that would extend from the existing Clover Station, east to the proposed Butler Farm Substation. A single electrical option was identified for this line segment.

- Butler Farm – Finneywood Line: a single circuit 230 kV overhead route that would extend from the proposed Finneywood Station, south to the proposed Butler Farm Substation. A single electrical option was identified for this line segment.

A study area was developed that encompassed the areas surrounding these two proposed line segments. The route development process for the Project is described in more detail in the Environmental Routing Study included with the Application.

For the Butler Farm – Clover Line, the Company initially identified two different

crossing options of the Staunton River. The initial routes that were identified along these river crossings included a northern and southern route option, both of which were collocated with existing Dominion transmission corridors. The Company met with the U.S. Army Corps of Engineers (the "USACE") to discuss the two proposed crossings. The USACE stated they would not permit a crossing of their land if a viable alternative was available. Based on this meeting, one of the two river crossing locations were rejected from further analysis. The southernmost proposed crossing corridor was deemed not viable as it crossed USACE fee-owned lands and a viable alternative was available. The northernmost river crossing is not located on USACE fee-owned land, but is located on a USACE Flowage Easement, and was deemed the only viable river crossing. The flowage easement would need to be maintained in compliance with agreements with the USACE but is not inhibited by the development of this Project.

Additionally, the northern most river crossing crosses a Virginia Outdoors Foundation (the "VOF") and Conservation Reserve Enhancement Program ("CREP") easement adjacent to the Staunton River as well as a second VOF easement approximately 2.0 miles east of the Staunton River. The Company held multiple coordination calls with the VOF, and through these calls the Company learned that the VOF would require a 37:1 replacement ratio for the acreage that would be impacted, as well as a nominal crossing fee as part of compensation for crossing the easement. Additionally, the VOF would not begin reviewing/processing the crossing applications until after the Commission selected a route. The VOF stated that once they begin the review process it would likely take 6-18 months to approve the crossings. The Company has an in-service date for the proposed Project of July 1, 2025, and if the process extends beyond 12 months, this in-service date would be in jeopardy. For these reasons, the Company decided to not propose crossing the VOF easements and instead propose route adjustments that routed around the easements.

For the Butler Farm – Finneywood Line, the Company identified a viable routing alternative to the east of Chase City and an alternative to the west of Chase City. Route variations to each of these routes were analyzed but were removed from further consideration due to impacts to residences and recreational areas. Routes associated with the Butler Farm – Clover Line and Butler Farm – Finneywood Line that were determined to not be viable and were excluded from further consideration are described in Section 2.5 of the Environmental Routing Study.

A total of three viable routes were identified between the Clover Station and the proposed Butler Farm Substation. Each of the three routes would utilize the same crossing location of the Staunton River. Of these three routes, the BF – Clover Route was identified as the Proposed Route, and the BF – Clover Alternative Routes 1 and 2 were identified as viable alternatives to the Proposed Route.

A total of two viable routes were identified between the proposed Butler Farm Substation and the proposed Finneywood Station. Of these two routes, the BF – Finneywood Route was identified as the Proposed Route. The BF – Finneywood

Alternative Route was identified as a viable alternative to the Proposed Route.

PROPOSED AND ALTERNATIVE ROUTES

BF – Clover Route (Proposed Route)

This route would construct an overhead single circuit 230 kV line from the existing Clover Station to the proposed Butler Farm Substation. The estimated conceptual cost of the BF – Clover Proposed Route is approximately $54.4 million (2022 dollars).

BF – Clover Route is approximately 19.1 miles in length. Starting at the Clover Station, the route heads east for about 1.4 miles, paralleling the south side of the Company's existing Line #556 right-of-way. This segment of the route mostly crosses dense forested lands. From this point, the route turns to the northeast, away from Line #556 for 0.6-mile crossing over the Staunton River at MP 1.7. The route then turns to the southeast for 0.7 mile until it rejoins Line #556 and parallels the north side of the right-of-way for Line #556 for 0.8 mile. The route then again turns to the northeast, away from Line #556 for 0.7 mile before turning back to the southeast for 0.8 mile until it rejoins Line #556. At this point, the route turns to the east and again parallels the north side of the right-of-way of Line #556 for 0.3 mile before crossing to the south side of Line #556, turning east, and paralleling the south side of the right-of-way for an additional 5.5 miles. In this segment, the route passes north of Wylliesburg near MP 7.2, crossing Quarter Horse Road at MP 9.1. At a point near the unincorporated town of Finneywood, the route turns southeast and then east along a greenfield alignment for about 1.2 miles before intersecting the Company's existing right-of-way for Line #1012. The route then continues south paralleling the west side of the existing right-of-way for another 2.1 miles, crossing agricultural and forested tracts and intersecting Highway 47 at about MP 13.5. The route next heads south and east for about 0.6 mile, leaving the existing right-of-way to avoid homes in close proximity to Line #154 along Highway 47.

At about MP 14.6, the route rejoins and follows the west side of the Line #1012 right-of-way for another 1.1 miles to the southeast, crossing a series of forested and agricultural parcels, and intersecting Spanish Grove Road at MP 15.2. This segment of the route passes about 0.9 mile to the west of Chase City. The route then deviates from Line #1012, heading mainly south for about 2.1 miles along a greenfield alignment across forested and agricultural lands, crossing Highway 92 at MP 16.8 and Highway 47 at MP 18.0. The route next turns and extends to the east/southeast for about 1.1 miles, continuing along a greenfield alignment across forested or open parcels. At its terminus, the route enters the proposed data center campus and proposed Butler Farm Substation in the area approximately between High Street and the Norfolk Southern Railroad on the south side of Chase City.

Construction of the BF – Clover Route will cross a total of 19.1 miles of land affecting 278.4 acres of right-of-way. All 74 parcels crossed are privately owned. Land use along the BF – Clover Proposed Route right-of-way consists of 136.5

acres of forested land, 79.9 acres of agricultural land, 51.5 acres of open space, 6.6 acres of open water and 3.8 acres of developed area.

Based on ERM's desktop wetland and waterbody analysis, the right-of-way of the BF – Clover Route will encompass approximately 12.53% (34.9 acres) of land with a medium/high or higher probability of containing wetlands and waterbodies. Of these 34.9 acres, the majority (21.1 acres) consist of forested wetlands. The BF – Clover Route has a total of 51 waterbody crossings, 12 perennial crossings, 31 intermittent crossings, 2 canal/ditch crossings, and 6 lake/pond crossing. Lastly, the BF – Clover Route will require the clearing of approximately 136.5 acres of forested land, which is the least amount of forest clearing anticipated for any of the routes for the Butler Farm – Clover Line.

The BF – Clover Route will be collocated with the Company's existing transmission lines for 11.3 miles (59% of the route), which is the highest collocation percentage of the BF – Clover route alternatives.

The BF – Clover Route is the shortest of the full routes from the Butler Farm Substation to the Clover Station and would require correspondingly less right-of-way acreage. In addition, the route has the greatest length and percentage of collocation of any of the routes. The BF – Clover Route also would require less clearing of forested lands than the other two routes. The route also has the fewest number of residential structures within 500 feet of the route with 17. In addition, the route would have the fewest number of stream crossings and wetland impacts. The BF – Clover Route is tied with BF – Clover Alternative Route 1 with the least number of road crossings at 20, thereby limiting the visual impacts to commuters/through travelers in the Project area. Finally, the route would construct a new crossing of the Staunton River; however, all three routes would utilize the same crossing location. For these reasons, the Company selected the BF – Clover Route as the Proposed Route for the Butler Farm – Clover Line.

BF – Clover Alternative Route 1

This route would construct an overhead single circuit 230 kV line from the existing Clover Station to the proposed Butler Farm Substation. The estimated conceptual cost of the BF – Clover Alternative Route 1 is approximately $67.4 million (2022 dollars).

The BF – Clover Alternative Route 1 is approximately 21.1 miles in length. The route follows the same alignment as BF – Clover Route for the first 9.4 miles from the Clover Station to a point just east of Quarter Horse Road. At that point, the route turns south and continues across forested land or pasture along a greenfield alignment for about 3.6 miles to a crossing of the Company's existing right-of-way for Line #235. This segment of the route crosses High House Road at about MP 11.6, approximately along the Charlotte/Mecklenburg County line. After the route crosses over Line #235, it parallels the west side of the Company's existing right-of-way for Line #36 for approximately 0.5 mile to MP 13.0. To avoid homes close

to Line #36, the route next follows a greenfield alignment for about 0.7 mile to the southwest, then 0.4 mile to the southeast, rejoining the existing right-of-way at the crossing of Trottinridge Road near MP 14.5. At this point, the route turns south and parallels the west side of Line #36 for about 1.5 miles to an intersection with an existing Transcontinental Gas Pipeline Company (Transco) natural gas pipeline corridor. The route then turns east to parallel the south side of the pipeline right-of-way for another 1.5 miles to about MP 17.4, mostly crossing forested or agricultural tracts. The route then deviates from the natural gas pipeline corridor continuing east then northeast for 3.6 miles across forested and agricultural parcels, crossing Highway 49 at MP 17.8 and entering the proposed data center campus. Once on the site, the route crosses through the center of the property into the proposed Butler Farm Substation.

Construction of the BF – Clover Alternative Route 1 will cross a total of 21.1 miles of land affecting 306.3 acres of right-of-way. All 90 parcels crossed are privately owned. Land use along the BF – Clover Alternative Route 1 right-of-way consists of 165.3 acres of forested land, 61.6 acres of agricultural land, 64.8 acres of open space, 10.7 acres of open water and 3.8 acres of developed area.

Based on ERM's desktop wetland and waterbody analysis, the right-of-way of the BF – Clover Alternative Route 1 will encompass approximately 14.07% (43.1 acres) of land with a medium/high or higher probability of containing wetlands and waterbodies. Of these 43.1 acres, the majority (30.5 acres) consist of forested wetlands. The BF – Clover Alternative Route 1 has a total of 61 waterbody crossings, 10 perennial crossings, 42 intermittent crossings, 2 canal/ditch crossings, and 7 lake/pond crossings. Lastly, the BF – Clover Alternative Route 1 will require the clearing of about 165.3 acres of forested land, the most amount of forest clearing needed for any of the routes for the Butler Farm – Clover Line.

The BF – Clover Alternative Route 1 will be collocated with the Company's existing transmission lines for 8.5 miles, a Transco pipeline corridor for 1.8 miles, and roads for 0.2 mile, for a total of 10.5 miles of collocation (50% of the route), which is the least of the three Butler Farm – Clover route alternatives.

The BF – Clover Alternative Route 1 is the longest route for the Butler Farm – Clover Line and would require correspondingly the most right-of-way acreage. Additionally, the route is tied with BF – Clover Route with respect to number of roads crossed. The BF – Clover Alternative Route 1 ranks in the middle with respect to the number of parcels crossed at 90, as well as residential buildings within 500 feet of the route with 34, and waterbody crossings at 61. The BF – Clover Alternative Route 1 would have the most amount of wetland acreage impacts and most amount of forested clearing, when compared to the other two routes. Additionally, the BF – Clover Alternative Route 1 would have the least amount of length and percentage of collocation when compared to the other two routes. Finally, the route would construct a new crossing of the Staunton River; however, all three routes would utilize the same crossing location. While acknowledging the impacts of the BF – Clover Alternative Route 1, the Company proposes the BF –

Clover Alternative Route 1 for notice and the Commission's consideration as a viable alternative to the BF – Clover Route.

BF – Clover Alternative Route 2

This route would construct an overhead single circuit 230 kV line from the existing Clover Station to the proposed Butler Farm Substation. The estimated conceptual cost of the BF – Clover Alternative 2 is approximately $70.6 million (2022 dollars).

The BF – Clover Alternative Route 2 is approximately 20.2 miles in length. The route follows the same alignment as BF – Clover Route for the first 3.5 miles from the Clover Station to a point just east of Colemans Ferry Road. At that point, the route turns and continues southeast for about 4.1 miles along a greenfield alignment across mostly forested and agricultural parcels, crossing Kings Highway at MP 5.5 and Highway 92 at MP 6.9. The route intersects the Company's existing right-of-way for Line #235 at about MP 7.6, then follows the north side of this corridor for about 4.6 miles east to an intersection with the Company's existing right-of-way for Line #36 at MP 12.1. From this point, the route follows the same alignment as BF – Clover Alternative Route 1 for the remaining 8.0 miles to the proposed Butler Farm Substation.

Construction of the BF – Clover Alternative Route 2 will cross a total of 20.2 miles of land affecting 294.2 acres of right-of-way. All 101 parcels crossed are privately owned. Land use along the BF – Clover Alternative Route 2 right-of-way consists of 162.0 acres of forested land, 61.6 acres of agricultural land, 55.9 acres of open space, 9.6 acres of open water and 5.4 acres of developed area.

Based on ERM's desktop wetland and waterbody analysis, the right-of-way of the BF – Clover Alternative Route 2 will encompass approximately 13.29% (39.1 acres) of land with a medium/high or higher probability of containing wetlands and waterbodies. Of these 39.1 acres, the majority (25.1 acres) consist of forested wetlands. The BF – Clover Alternative Route 2 has a total of 64 waterbody crossings, 13 perennial crossings, 41 intermittent crossings, 2 canal/ditch crossings, and 8 lake/pond crossings. Lastly, the BF – Clover Alternative Route 2 will require the clearing of about 162.0 acres of forested land, the second most for any of the routes for the Butler Farm – Clover Line.

The BF – Clover Alternative Route 2 will be collocated with the Company's existing transmission lines for 8.6 miles, a Transco pipeline corridor for 1.8 miles, and roads for 0.2 mile, for a total of 10.6 miles of collocation (52% of the route), which ranks in the middle of the three Butler Farm – Clover route alternatives.

The BF – Clover Alternative Route 2 is ranked second in length of the three Butler Farm – Clover routes and would require correspondingly the second least/most right-of-way acreage. Of the three BF – Clover routes, it is ranked second with respect to number of wetland acreage impacts, acres of clearing of forested lands

required, and length and percentage of collocation when compared to the other two routes. The BF – Clover Alternative Route 2 would have more impacts on the following resources than the other two routes: waterbody crossings; road crossings; parcels affected; and residential buildings within 500 feet of the route with 41. Finally, the route would construct a new crossing of the Staunton River; however, all three routes would utilize the same crossing location. While acknowledging the impacts of the BF – Clover Alternative Route 2, the Company proposes the BF – Clover Alternative Route 2 for notice and for the Commission's consideration as a viable alternative to the BF – Clover Route.

BF – Clover Route Variation

The BF – Clover Route Variation provides an alternative alignment to the BF – Clover Proposed Route where the route crosses through the proposed Chase City Apartment Complex development. The estimated incremental conceptual cost of the BF – Clover Route Variation is approximately $30,585 for total estimated conceptual cost of the BF – Clover Route with the variation of approximately $54.5 million (2022 dollars).

Beginning at MP 16.1 on BF – Clover Route, the route variation extends south for 0.3 mile before turning to the southeast for 0.2 mile and crossing over Bailey Drive. The route variation then heads southwest for 0.1 mile before turning south for 1.1 miles, crossing over Highway 92 at MP 0.7, and terminating at MP 17.9 along the BF – Clover Route. BF – Clover Route Variation measures approximately 1.7 miles.

Construction of the BF – Clover Route Variation will cross a total of 1.7 miles of land affecting 24.5 acres of right-of-way. All 13 parcels crossed are privately owned. Land use along the BF – Clover Route Variation right-of-way consists of 15.3 acres of forested land, 7.0 acres of agricultural land, 1.1 acres of open space, and 1.0 acre of developed area.

Based on ERM's desktop wetland and waterbody analysis, the right-of-way of BF – Clover Route Variation will encompass approximately 14.28% (3.5 acres) of land with a medium/high or higher probability of containing wetlands and waterbodies. Of these 3.5 acres, the majority (2.5 acres) consist of forested wetlands. BF – Clover Route Variation has a total of four waterbody crossings, all of which are perennial crossings. Lastly, the BF – Clover Route Variation will require the clearing of about 15.3 acres of forested land, which is a greater amount of forest clearing than is needed for the comparable segment of the BF – Clover Route.

BF – Clover Route Variation is not collocated with any Company-owned existing transmission lines.

BF – Clover Route Variation is shorter than the BF – Clover Proposed Route by 0.1 mile and would require correspondingly less right-of-way acreage. Neither the BF – Clover Route Variation or the comparable segment of the BF – Clover Route

would be collocated with existing transmission lines. The BF – Clover Route Variation would require a greater amount of clearing of forested lands and affect more ecological cores than the comparable segment. The route variation would have more residences within 500 feet of the centerline, 27 than the comparable segment with four. The route variation would also be in close proximity to the Green Acres Mobile Home Park. The BF – Clover Route Variation and the comparable segment of the BF – Clover Route would each cross four waterbodies. The route variation would have fewer total wetland impacts but would have more forested wetland impacts than the comparable segment.

BF - Finneywood Route (Proposed Route)

This route would construct an overhead single circuit 230 kV line from the proposed Finneywood Station to the proposed Butler Farm Substation. The estimated conceptual cost of the BF – Finneywood Route is approximately $38.0 million (2022 dollars).

The BF – Finneywood Route is approximately 7.0 miles in length. Starting at the Finneywood Station, this route initially extends west from the station for 0.2 mile until it intersects the Company's existing right-of-way for Line #235. The route then turns and continues southeast for about 2.5 miles following the Company's existing right-of-way for Line #235, with the route on the east side of the corridor from MPs 0.2 to 0.4 and the west side of the corridor from MPs 0.4 to 2.7. This segment of the route mostly crosses forested land and isolated parcels of open land or pasture with a crossing of the Norfolk Southern Railroad at MP 2.0 and Highway 47 at MP 2.6. The route leaves the Line #235 right-of-way at about MP 2.7, heading south along a greenfield alignment for 0.2 mile to an intersection with the Company's existing right-of-way for Line #1012. The route then follows the same alignment as BF – Clover Route for 4.1 miles to its terminus at the proposed Butler Farm Substation. If both BF – Clover Route and BF – Finneywood Route are selected for the Project, the centerlines of the two routes would be offset by 40 feet where the routes are collocated, with BF – Finneywood Route to the west of BF – Clover Route.

Construction of the BF – Finneywood Route will cross a total of 7.0 miles of land affecting 116.8 acres of right-of-way. All 41 parcels crossed are privately owned. Land use along the BF – Finneywood Route right-of-way consists of 72.2 acres of forested land, 18.8 acres of agricultural land, 24.2 acres of open space, 0.8 acres of open water, and 0.8 acres of developed area.

Based on ERM's desktop wetland and waterbody analysis, the right-of-way of the BF – Finneywood Route will encompass approximately 11.38% (13.3 acres) of land with a medium/high or higher probability of containing wetlands and waterbodies. Of these 13.3 acres, the majority (8.1 acres) consist of forested wetlands. The BF – Finneywood Route has a total of 12 waterbody crossings, including 5 perennial crossings, 6 intermittent crossings, and 1 lake/pond crossing. Lastly, the BF – Finneywood Route will require the clearing of about 72.2 acres of

forested land, which is the least amount of forest clearing needed for either of the routes for the Butler Farm – Finneywood Line.

The BF – Finneywood Route will be collocated with the Company's existing transmission lines for 3.3 miles (47% of the route), which is the higher collocation percentage for either of the routes for the Butler Farm – Finneywood Line.

The BF – Finneywood Route is shorter than the BF – Finneywood Alternative Route by 0.8 mile and would require correspondingly less right-of-way acreage. As mentioned above, the route has the greatest length and percentage of collocation of either of the routes. The BF – Finneywood Route also would require the least amount of clearing of forested lands of the two routes. In addition, the route would have the least amount of impact to forested areas and ecological cores. The BF – Finneywood Route would have more road crossings (7 compared with 5); however, half of the crossings are at locations where the route is collocated with an existing transmission line and thus reduces the visual impacts to commuters/through travelers in the area. The route would have one more stream crossing (12 compared with 11) and more wetland acreage impacts. For these reasons, the Company selected the BF – Finneywood Route as the Proposed Route for the Butler Farm – Finneywood Line.

BF - Finneywood Alternative Route

This route would construct an overhead single circuit 230 kV line from the proposed Finneywood Station to the proposed Butler Farm Substation. The estimated conceptual cost of the BF – Finneywood Alternative Route is approximately $58.4 million (2022 dollars).

The BF – Finneywood Alternative Route is approximately 7.8 miles in length. This route initially heads east out of the proposed Finneywood Station for 0.1 mile, then turns to the north for 0.1 mile before intersecting the Company's existing right-of-way for Line #556. The route then turns to the east for 0.9 mile paralleling the south side of the existing right-of-way for Line #556. This segment crosses mostly forested land, intersecting Highway 49 at about MP 1.0. The route then turns and continues south along a greenfield alignment through forested or agricultural lands for about 4.9 miles, passing east of Chase City. This route segment crosses the Company's existing right-of-way for Line #98 at MP 2.1, Highway 47 at MP 4.0, and the Company's existing rights-of-way for Lines #40 and #38 at MPs 4.6 and 5.3, respectively. The route next turns west and continues for 1.4 miles along a greenfield alignment across forested or agricultural parcels, crossing Highway 92 and the Norfolk Southern Railroad at MPs 7.2 and 7.4, respectively. The route then follows the same alignment as BF – Finneywood Route about 0.3 mile south to the proposed Butler Farm Substation.

Construction of the BF – Finneywood Alternative Route will cross a total of 7.8 miles of land affecting 128.0 acres of right-of-way. All 23 parcels crossed are privately owned. Land use along the BF – Finneywood Alternative Route right-of-

way consists of 94.4 acres of forested land, 16.0 acres of agricultural land, 16.4 acres of open space, 0.5 acres of open water and 0.6 acres of developed area.

Based on ERM's desktop wetland and waterbody analysis, the right-of-way of the BF – Finneywood Alternative Route will encompass approximately 7.81% (10.0 acres) of land with a medium/high or higher probability of containing wetlands and waterbodies. Of these 10.0 acres, the majority (7.4 acres) consist of forested wetlands. The BF – Finneywood Alternative Route has a total of 11 waterbody crossings including 3 perennial crossings, 7 intermittent crossings, and 1 lake/pond crossing. Lastly, the BF – Finneywood Alternative Route will require the clearing of about 94.4 acres of forested land, which is more forest clearing than is needed for the BF – Finneywood Route.

The BF – Finneywood Alternative Route will be collocated with the Company's existing transmission lines for 0.9 mile (12% of the route), which is significantly less collocation than the BF – Finneywood Route discussed above.

The BF – Finneywood Alternative Route is the longest of the BF – Finneywood routes (by 0.8 mile) and would require correspondingly more right-of-way acreage. The route has fewer parcels crossed and fewer road crossings compared to the BF – Finneywood Route. The route also has fewer residential buildings within 500 feet of the centerline (8 versus 14). The BF – Finneywood Alternative Route has a greater amount of clearing of forested lands than compared to the BF – Finneywood Route. Finally, the route has the shortest length and percentage of collocation of either of the routes. While acknowledging the impacts of the BF – Finneywood Alternative Route, the Company proposes the BF – Finneywood Alternative Route for notice and for the Commission's consideration as a viable alternative to the BF – Finneywood Route.

BF - Finneywood Route Variation

The BF – Finneywood Route Variation provides an alternative alignment to the BF – Finneywood Proposed Route where the route crosses through the proposed Chase City Apartment Complex development. The estimated conceptual cost of the BF Finneywood Route with the variation is approximately the same as the BF – Finneywood Proposed Route.

The BF – Finneywood Route Variation follows the same alignment as the BF – Clover Route Variation for the entirety of the route. If both the BF – Clover Route Variation and the BF – Finneywood Route Variation are selected for the Project, the centerlines of the two routes would be offset by 40 feet, with the BF – Finneywood Route Variation to the west of the BF – Clover Route Variation. The BF - Clover Route Variation measures approximately 1.7 miles.

Construction of the BF – Finneywood Route Variation will cross a total of 1.7 miles of land affecting 24.6 acres of right-of-way. All 14 parcels crossed are privately owned. Land use along the BF – Finneywood Route Variation right-of-way

consists of 14.8 acres of forested land, 7.8 acres of agricultural land, 1.1 acres of open space, and 0.9 acre of developed area.

Based on ERM's desktop wetland and waterbody analysis, the right-of-way of the BF – Finneywood Route Variation will encompass approximately 10.16% (2.5 acres) of land with a medium/high or higher probability of containing wetlands and waterbodies. Of these 2.5 acres, the majority (1.5 acres) consist of forested wetlands. The BF – Finneywood Route Variation has a total of three waterbody crossings, all of which are perennial crossings. Lastly, the BF – Finneywood Route Variation will require the clearing of about 14.8 acres of forested land, which is a greater amount of forest clearing than is needed for the comparable segment of the BF – Finneywood Proposed Route.

The BF – Finneywood Route Variation is not collocated with any Company-owned existing transmission lines.

The BF – Finneywood Route Variation is shorter than the BF – Finneywood Proposed Route by 0.1 mile and would require correspondingly less right-of-way acreage. Neither the BF – Finneywood Route Variation nor the comparable segment of the BF – Finneywood Proposed Route would be collocated with existing transmission lines. The BF – Finneywood Route Variation would require a greater amount of clearing of forested lands and affect more ecological cores than the comparable segment. The route variation would have more residences within 500 feet of the centerline, with 24 versus the comparable segment with four. The route variation would also be in close proximity to the Green Acres Mobile Home Park. The BF – Finneywood Route Variation would cross fewer waterbodies, with three versus the comparable segment with four. The route variation would have fewer total wetland impacts, and fewer forested wetland impacts than the comparable segment.

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 new Lines #2281 and #2256 in a manner that minimizes outage times on the existing Line #556 and the Clover Station. Assuming a final order from the Commission by June 1, 2023, as requested in Section I.H of this Appendix, the Company plans to have County approval from Mecklenburg to start construction of the proposed Butler Farm Substation and the Finneywood Station in Summer 2023. Concurrently, the Company would finalize engineering of the determined route, acquisition of the necessary easements, and permitting of the routes. Construction of the transmission lines should commence around January 2024 and be completed by July 1, 2025.

The Company has requested outages from PJM. It is customary for PJM not to grant approval of outages until shortly before the outages are expected to occur and, therefore, it may be subject to change. Outages will be needed to tie the proposed Butler Farm – Clover Line into the existing Clover Station and to tie existing Lines #235 and #556 into the proposed Finneywood Station. All outages will be less than 30 days but are subject to approval from PJM.

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: The Company utilized Guideline #1 (existing rights-of-way should be given priority when adding additional facilities) by siting portions of the Proposed Routes and Alternative Routes within the existing transmission corridor wherever feasible, as discussed in Section II.A.9. The BF – Clover Route (Proposed Route) will utilize 14.1 miles of existing right-of-way and the BF – Finneywood Route (Proposed Route) will utilize 3.5 miles of existing right-of-way.

Consistent with Guideline #2, the route of the transmission line will avoid or minimize impacts to the maximum extent practicable on national historic places listed in the National Register of Historic Places ("NRHP"). 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 Attachment Appendix F, which was submitted to the Virginia Department of Historic Resources ("VDHR") on July 20, 2022.

The Company has 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 has consulted with the USACE, the VOF, Virginia Department of Conservation and Recreation, and the Counties of Halifax, Charlotte and Mecklenburg. See Section III.B 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 BF – Clover Proposed Route traverses a total of approximately19.1 miles through the counties of Halifax, Charlotte and Mecklenburg, and is located within Dominion Energy Virginia's service territory as well as Mecklenburg Electric Cooperative and Southside Electric Cooperative service territories.

The BF – Finneywood Proposed Route traverses a total of approximately 7.0 miles through the county of Mecklenburg and is located within Dominion Energy Virginia's service territory, as well as Mecklenburg Electric Cooperative's service territory.

b. Three copies of the maps of the Virginia Department of Transportation "General Highway Map" for Charlotte, Halifax, and Mecklenburg Counties have been marked as required and filed with the Application. Reduced copies of the maps are provided as Attachments II.A.12.b.i-iii.

Charlotte 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 Thursday, July 21, 2022. 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 TRANSMISSION LINES AND SUBSTATIONS AS SHOWN IN BLACK DASHES ON THIS MAP.

MECKLENBURG ELECTRIC COOPERATIVE IS NOT OPPOSED TO SUCH CONSTRUCTION IN ITS SERVICE TERRITORY.

SIGNATURE

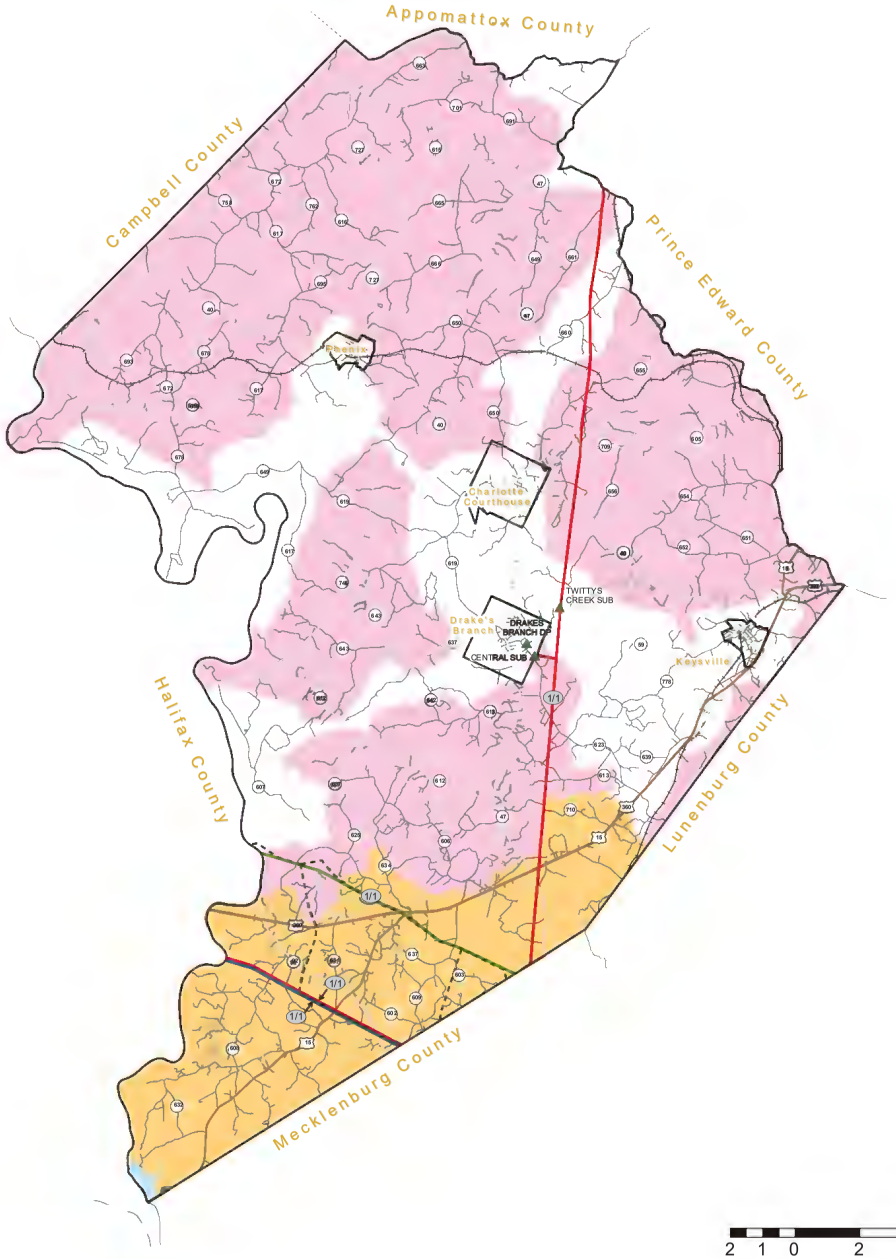
DATE 08/10/2022 TITLE VP of Engineering & Operations

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

SOUTHSIDE ELECTRIC COOPERATIVE IS NOT OPPOSED TO SUCH CONSTRUCTION IN ITS SERVICE TERRITORY.

SIGNATURE Jason C Lovin

DATE 8/18/2022 TITLE President & CEO



Legend

- Proposed
- Number of Lines of Structures/Number of Circuits
- Proposed Substation
- Existing Substation
- 115 kV
- 230 kV
- 500 kV

Provider Service Territory

- MEC
- SSEC
- VEPCO

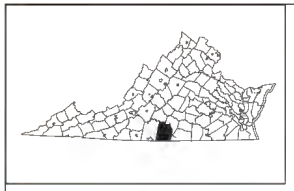
2 1 0 2 4 6 Miles

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

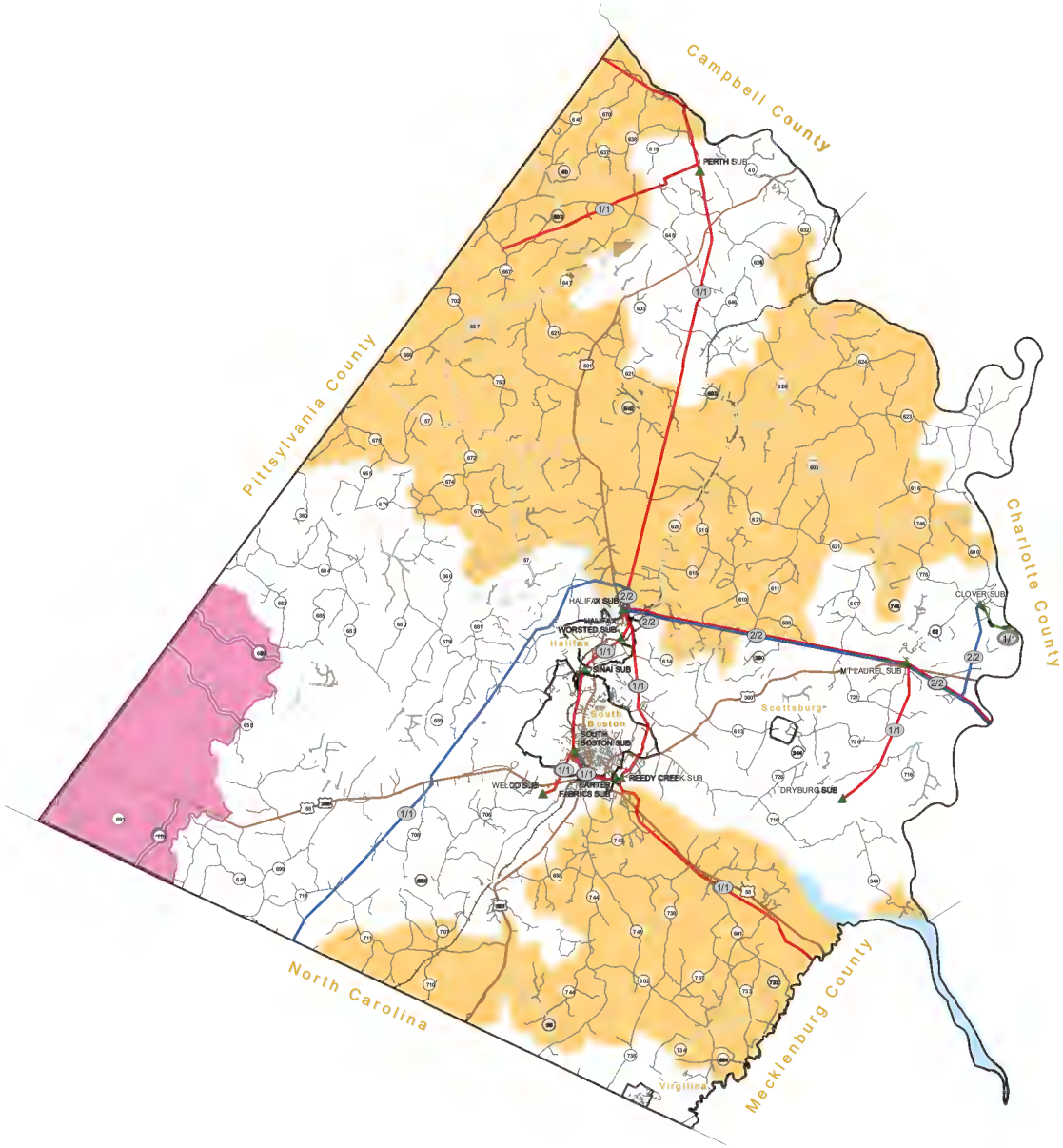
Charlotte

Attachment II.A.12.b.i

Halifax 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 7/25/2022. 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 TRANSMISSION LINES AND SUBSTATIONS AS SHOWN IN BLACK DASHES ON THIS MAP.

_____ IS NOT OPPOSED TO SUCH CONSTRUCTION IN ITS SERVICE TERRITORY.

SIGNATURE

DATE TITLE

Legend

- Proposed
- Number of Lines of Structures/Number of Circuits
- Proposed Substation
- Existing Substation
- 115 kV
- 230 kV
- 500 kV

Provider Service Territory

- City Of Danville
- MEC
- VEPCO

Miles
2 1 0 2 4 6

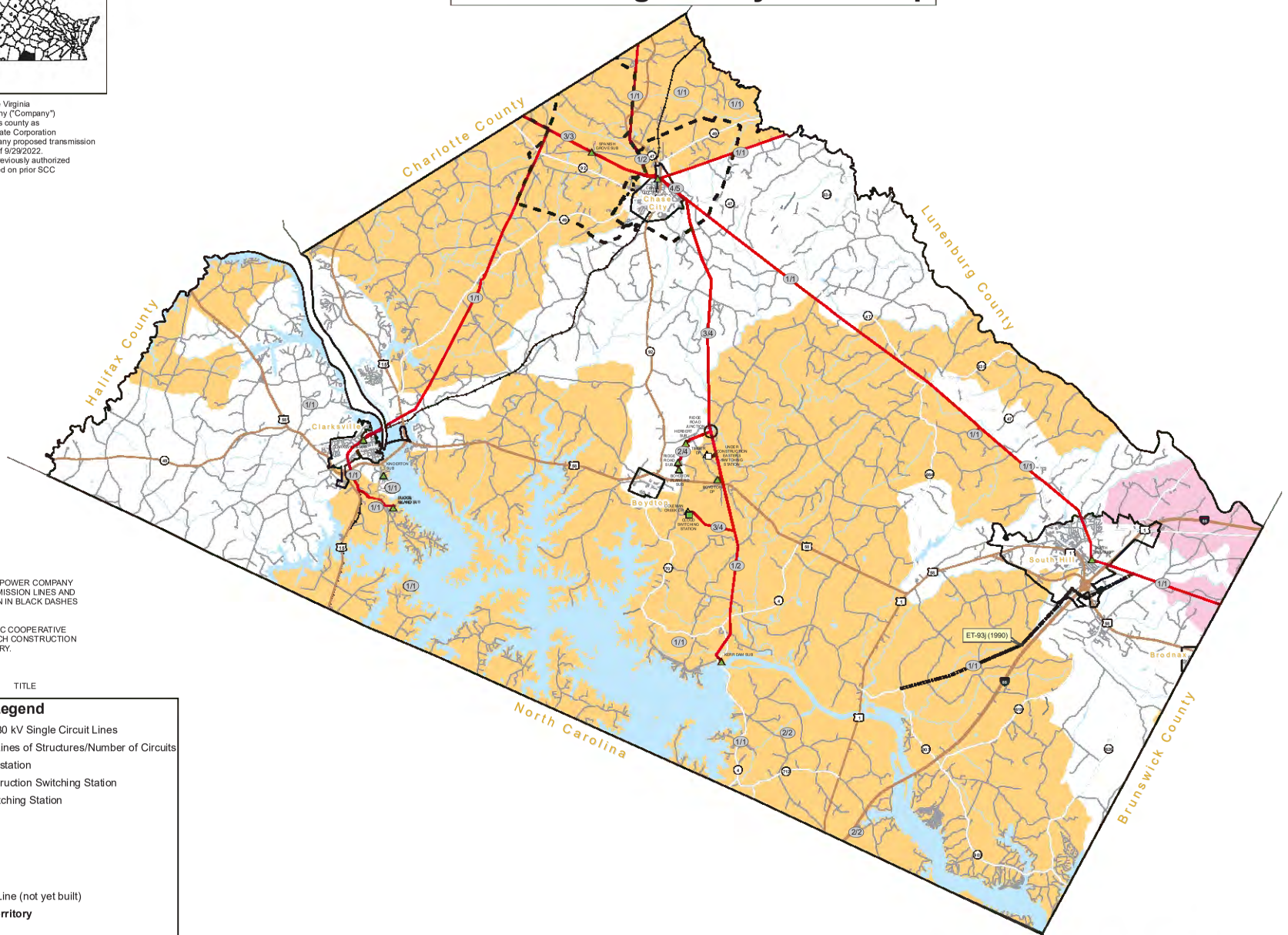
*VDOT and other road data obtained from Navteq and County data, current as of September 2012.

Halifax

Attachment II.A.12.b.ii

Mecklenburg 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 9/29/2022. 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 TRANSMISSION LINES AND SUBSTATIONS AS SHOWN IN BLACK DASHES ON THIS MAP.

MECKLENBURG ELECTRIC COOPERATIVE IS NOT OPPOSED TO SUCH CONSTRUCTION IN ITS SERVICE TERRITORY.

SIGNATURE

DATE TITLE

Legend

- Proposed 230 kV Single Circuit Lines
- Number of Lines of Structures/Number of Circuits
- Existing Substation
- Under Construction Switching Station
- Existing Switching Station
- Junction
- 115 kV
- 230 kV
- 500 kV
- Certificated Line (not yet built)

Provider Service Territory

- MEC
- SSEC
- VEPCO

Miles
2 1 0 2 4 6

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

Mecklenburg

Attachment II.A.12.b.iii

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: From the Clover Station to the proposed Butler Farm Substation, the Company will construct one single circuit 230 kV line (Line #2281).

From the proposed Finneywood Station to the proposed Butler Farm Substation, the Company will construct one single circuit 230 kV line (Line #2256).

Line #235, an existing single circuit 230 kV line, will split at the Finneywood Station, creating Line #235 from Farmville-Finneywood and Line #2258 from Cloud-Finneywood. Both of these lines will continue to operate at 230 kV.

Both the Butler Farm – Clover Line and the Butler Farm – Finneywood Line will have a transfer capability of 1,573 MVA.

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 Company will install 2-768.2 ACSS/HS/TW for Lines #2281 and #2256.

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;

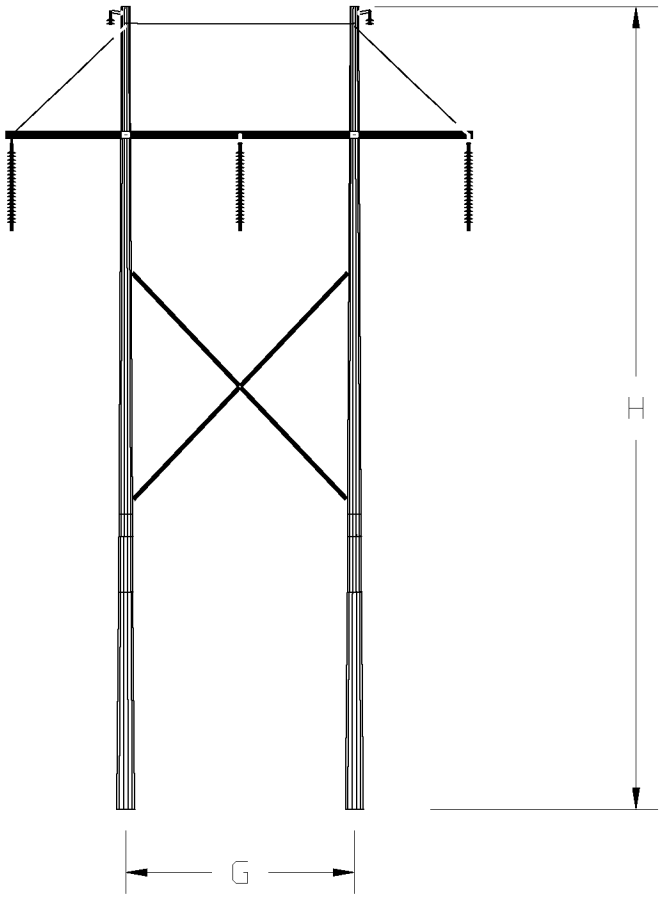
h. the maximum, minimum and average structure heights;

i. the average span length; and

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

Response: See Attachments II.B.3.i through II.B.3.ix.

BUTLER FARM - CLOVER, LINE #2281
STRUCTURES 2281/2 - 2281/137

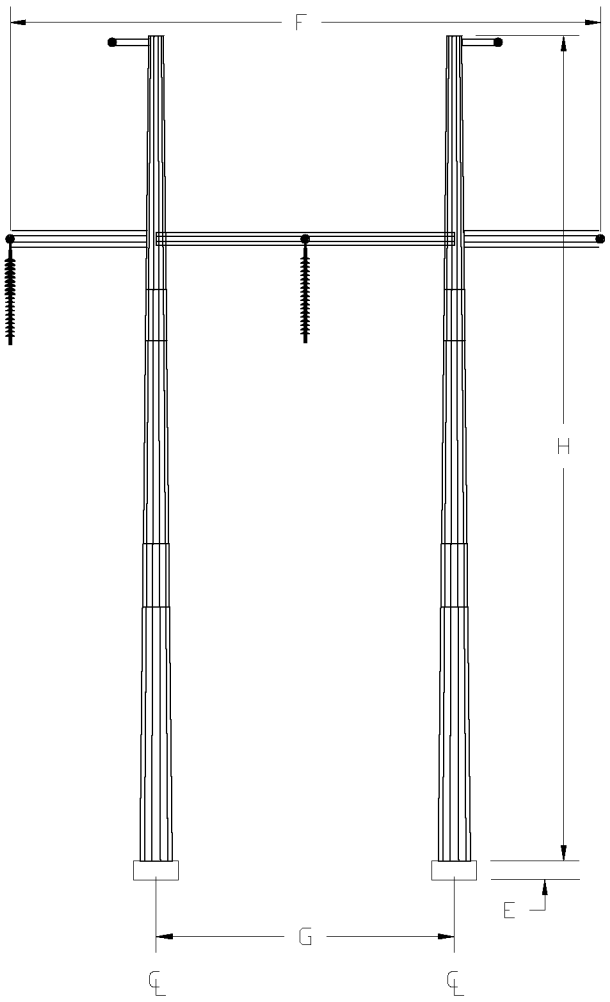


230kV SC H-FRAME DOM POLE SUSPENSION STRUCTURE

A. MAPPING OF THE ROUTE:	N/A
B. RATIONALE FOR STRUCTURE TYPE:	COST AND QUICKER INSTALLATION TO ACCOMMODATE SCHEDULE
C. LENGTH OF R/W (STRUCTURE QTY):	15.1 MILES (106 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONALE FOR MATERIAL:	WEATHERING STEEL WAS SELECTED SINCE OUR STANDARD DOM POLES ARE WEATHERING STEEL
E. FOUNDATION MATERIAL:	N/A, DIRECT EMBED
AVERAGE FOUNDATION REVEAL:	N/A, DIRECT EMBED
F. AVERAGE WIDTH AT CROSS ARM:	42'
G. AVERAGE WIDTH AT BASE:	20.5' BETWEEN POLES, 36' DIAMETER FOUNDATION (SEE NOTE 3)
H. MINIMUM STRUCTURE HEIGHT:	70'
MAXIMUM STRUCTURE HEIGHT:	110'
AVERAGE STRUCTURE HEIGHT:	87'
I. AVERAGE SPAN LENGTH (RANGE):	590' (231'-936') (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 36 INCH DIAMETER IS A MAXIMUM WIDTH AT EACH POLE BASE WHICH ACCOUNTS FOR A PIPE PILE.
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE AND INCLUDE EMBEDDED DEPTH.
4. THE SPAN ASSOCIATED WITH EACH STRUCTURE IS THE AHEAD SPAN.

BUTLER FARM - CLOVER, LINE #2281
STRUCTURES 2281/2 - 2281/137

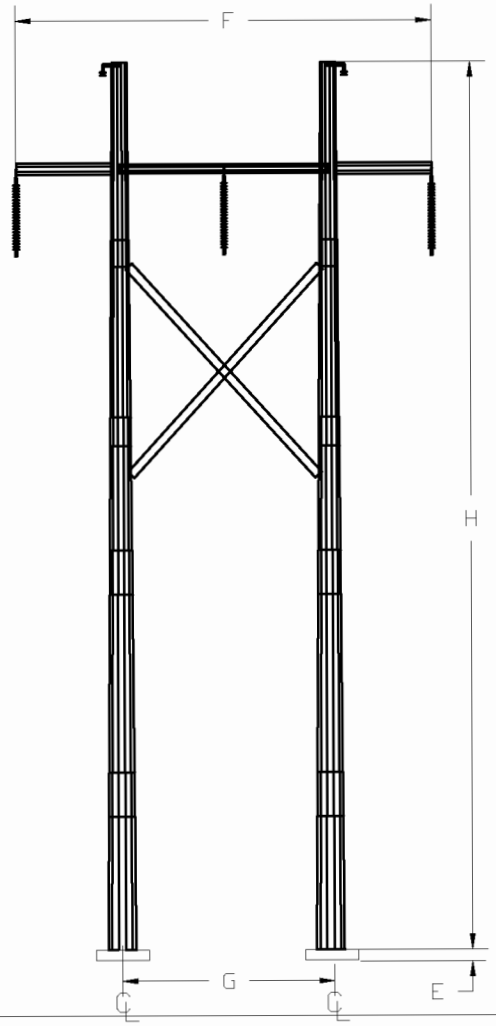


230kV SC H-FRAME ENGINEERED DDE STRUCTURE

A. MAPPING OF THE ROUTE:	N/A
B. RATIONALE FOR STRUCTURE TYPE:	COST AND QUICKER INSTALLATION TO ACCOMMODATE SCHEDULE
C. LENGTH OF R/W (STRUCTURE QTY):	15.1 MILES (28 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONALE FOR MATERIAL:	WEATHERING STEEL WAS SELECTED SINCE OUR STANDARD DOM POLES ARE WEATHERING STEEL
E. FOUNDATION MATERIAL:	CONCRETE
AVERAGE FOUNDATION REVEAL:	SEE NOTE 2
F. AVERAGE WIDTH AT CROSS ARM:	48'
G. AVERAGE WIDTH AT BASE:	23.5' BETWEEN POLES (SEE NOTE 2)
H. MINIMUM STRUCTURE HEIGHT:	60'
MAXIMUM STRUCTURE HEIGHT:	130'
AVERAGE STRUCTURE HEIGHT:	81'
I. AVERAGE SPAN LENGTH (RANGE):	601' (421'-888') (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.

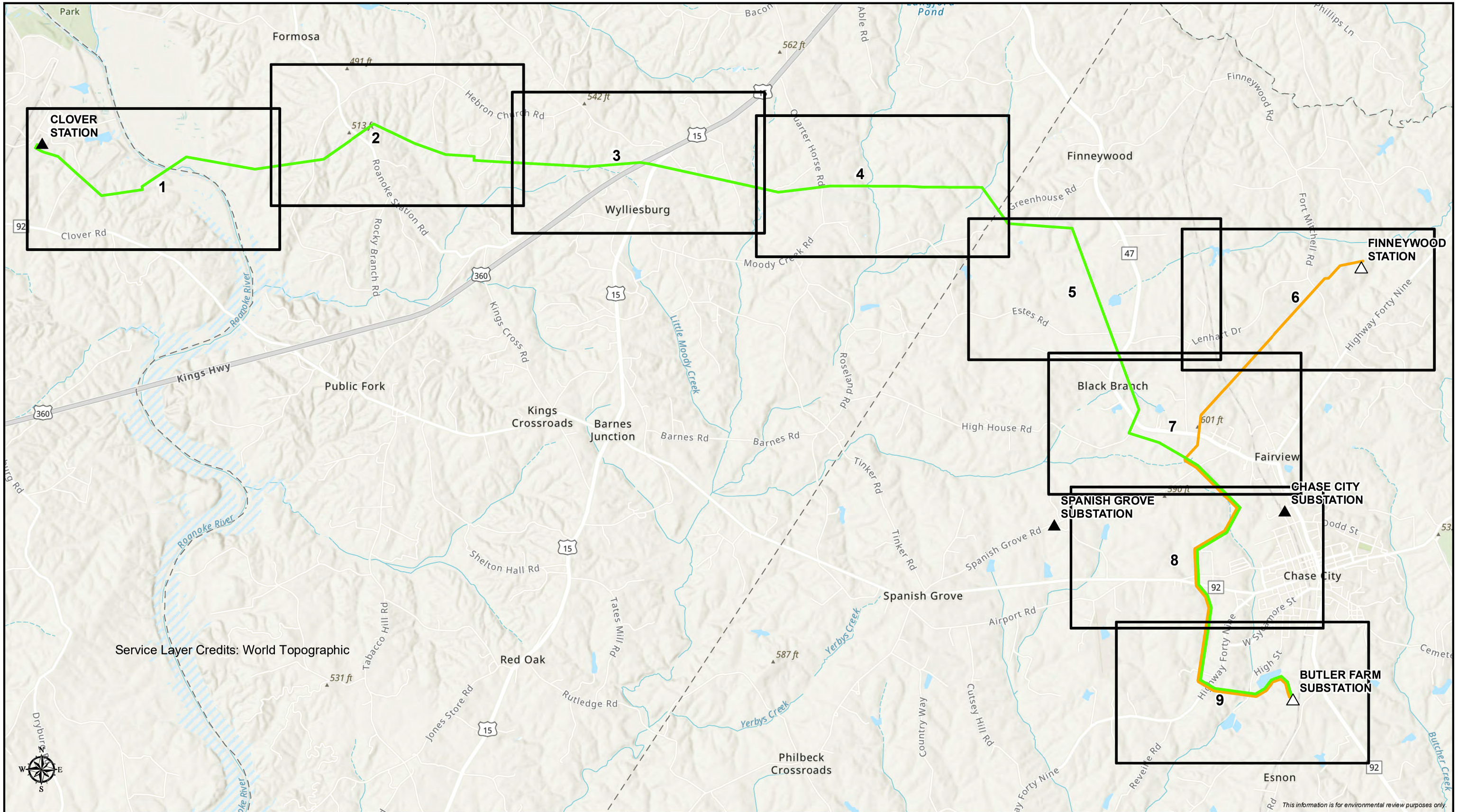
BUTLER FARM - CLOVER, LINE #2281
STRUCTURES 2281/2 - 2281/168



230kV SC H-FRAME ENGINEERED SUSPENSION STRUCTURE

A. MAPPING OF THE ROUTE:	N/A
B. RATIONALE FOR STRUCTURE TYPE:	COST AND QUICKER INSTALLATION TO ACCOMMODATE SCHEDULE
C. LENGTH OF R/W (STRUCTURE QTY):	18.86 MILES (4 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONALE FOR MATERIAL:	WEATHERING STEEL WAS SELECTED SINCE OUR STANDARD DOM POLES ARE WEATHERING STEEL
E. FOUNDATION MATERIAL:	CONCRETE
AVERAGE FOUNDATION REVEAL:	SEE NOTE 2
F. AVERAGE WIDTH AT CROSS ARM:	47'
G. AVERAGE WIDTH AT BASE:	23.5' BETWEEN POLES (SEE NOTE 2)
H. MINIMUM STRUCTURE HEIGHT:	120'
MAXIMUM STRUCTURE HEIGHT:	135'
AVERAGE STRUCTURE HEIGHT:	124'
I. AVERAGE SPAN LENGTH (RANGE):	638' (446'-870') (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.



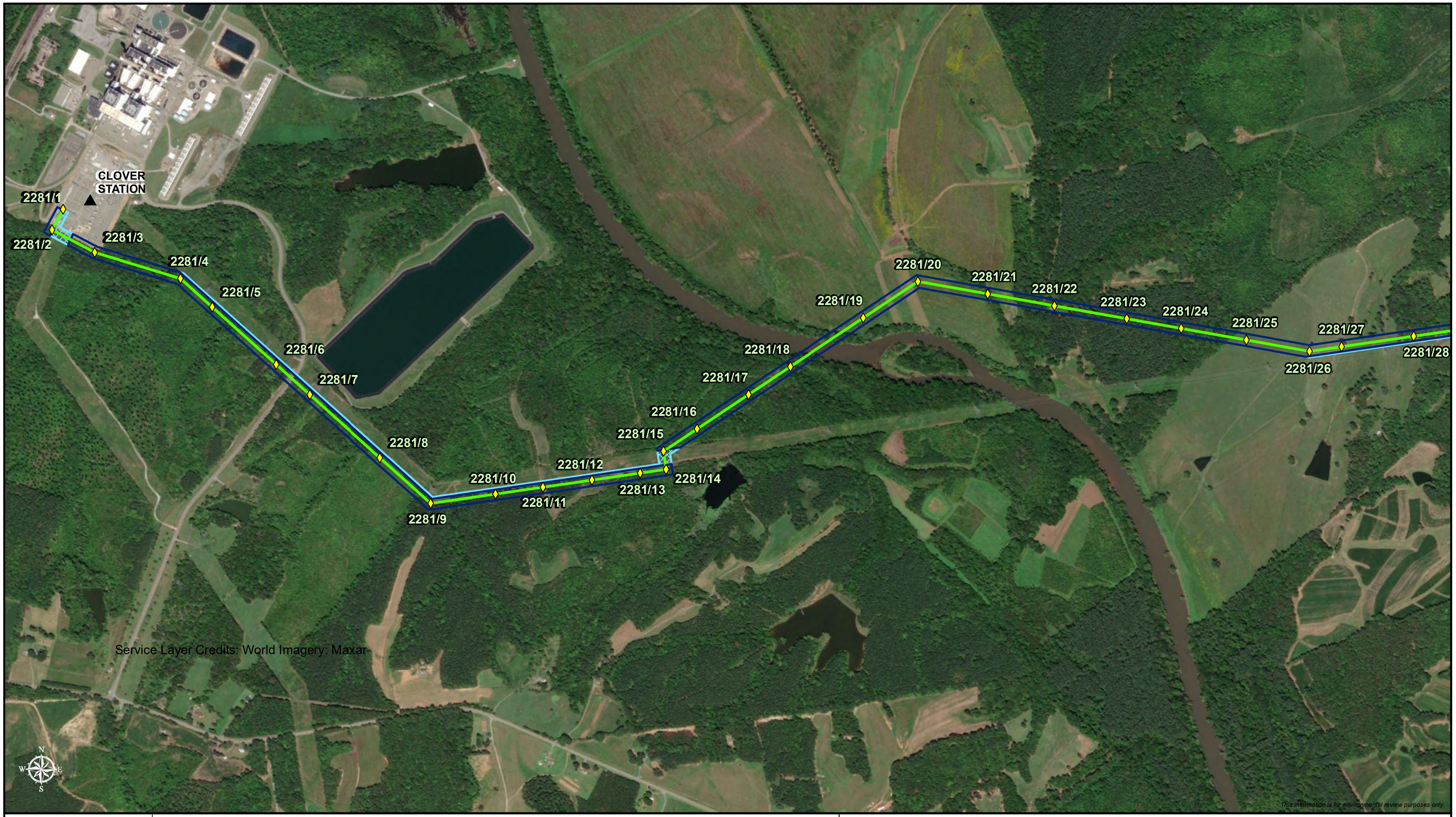
Attachment II.B.3.iv Index
Proposed Structure Locations
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy®

ERM

MPLS M:\Clients\D-F\DOM\CloverButlerFinney_ArcGIS\SCC_Appendix_DOM_CBF_SCC_Appendix.aprx\Attachment II.B.3.iv_Index | REVISED: 10/04/2022 | SCALE: 1:62,000 when printed at 11x17

DRAWN BY: NAD



0 250 500
Feet
1:10,800

- Existing Substation
- Proposed Structure Location

Butler Farm–Clover Line

- BF-Clover Proposed Route

Right-of-Way Type

- Existing Overhead Right-of-Way
- Proposed New Right-of-Way

Attachment II.B.3.iv
Proposed Structure Locations
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy®

ERM

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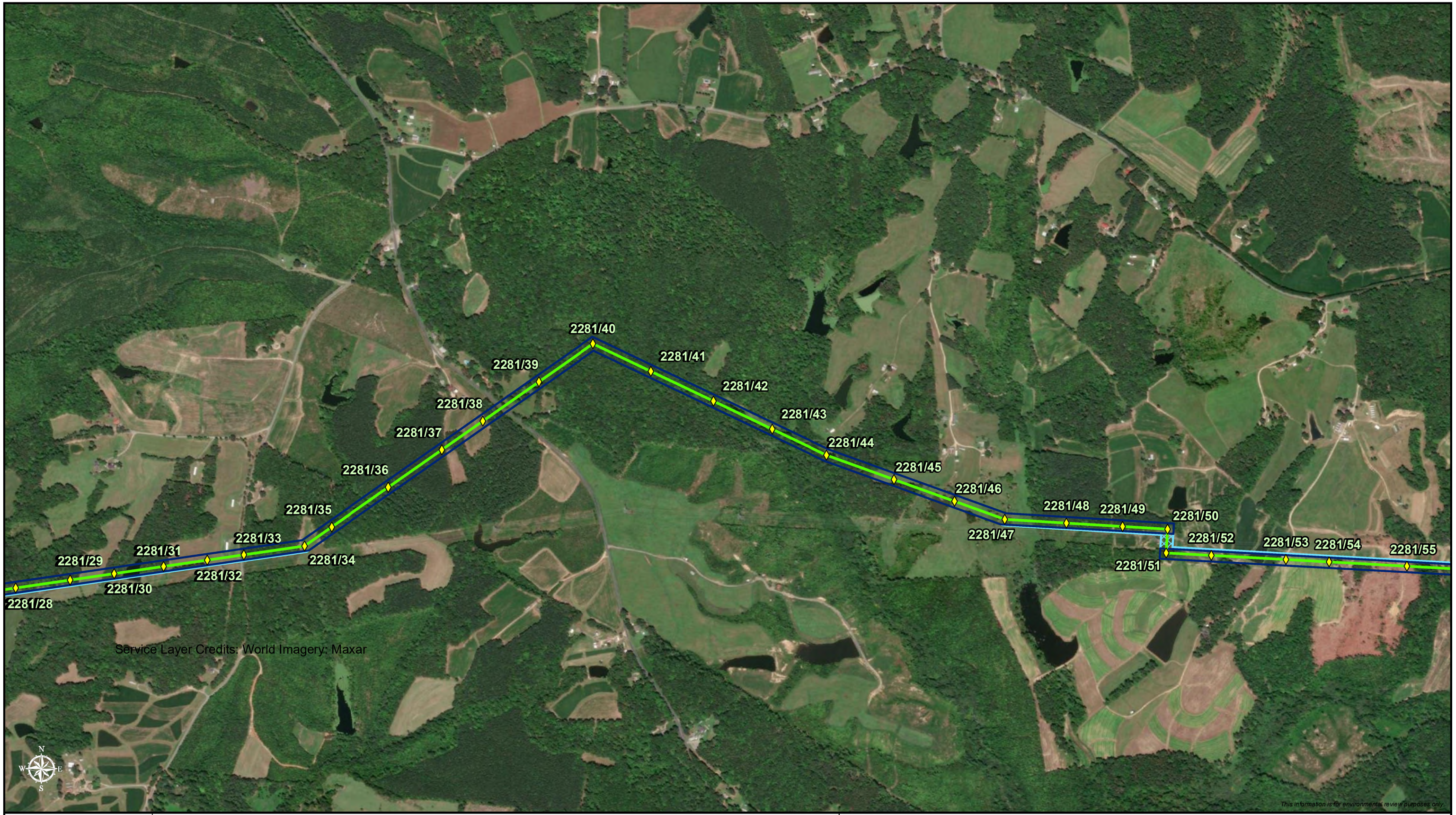

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Proposed Structure Location

Butler Farm–Clover Line

BF-Clover Proposed Route

Right-of-Way Type

Existing Overhead Right-of-Way

Proposed New Right-of-Way

Attachment II.B.3.iv
Proposed Structure Locations
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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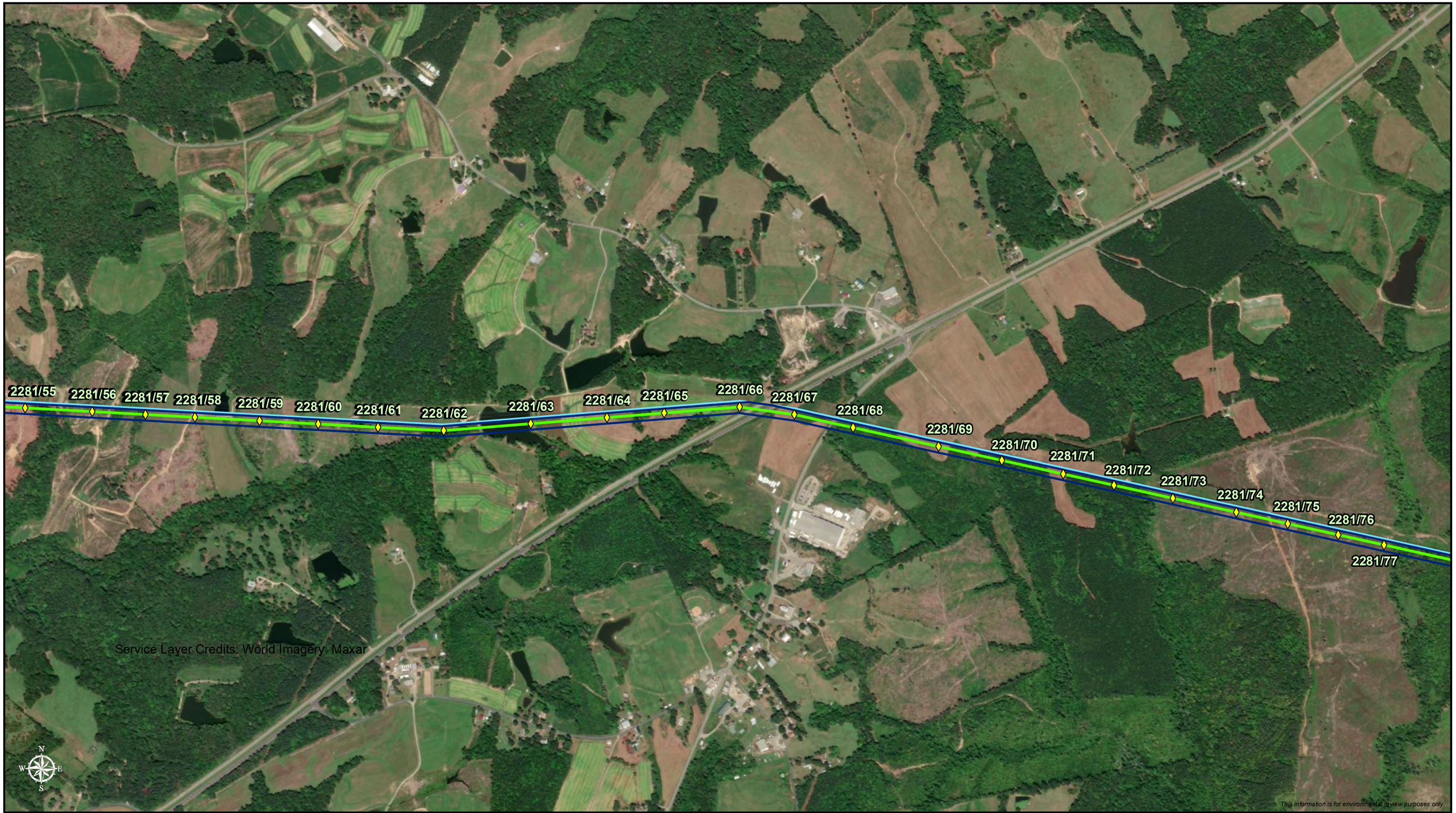

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◊ Proposed Structure Location

Butler Farm–Clover Line

BF-Clover Proposed Route

Right-of-Way Type

Existing Overhead Right-of-Way

Proposed New Right-of-Way

Attachment II.B.3.iv
Proposed Structure Locations
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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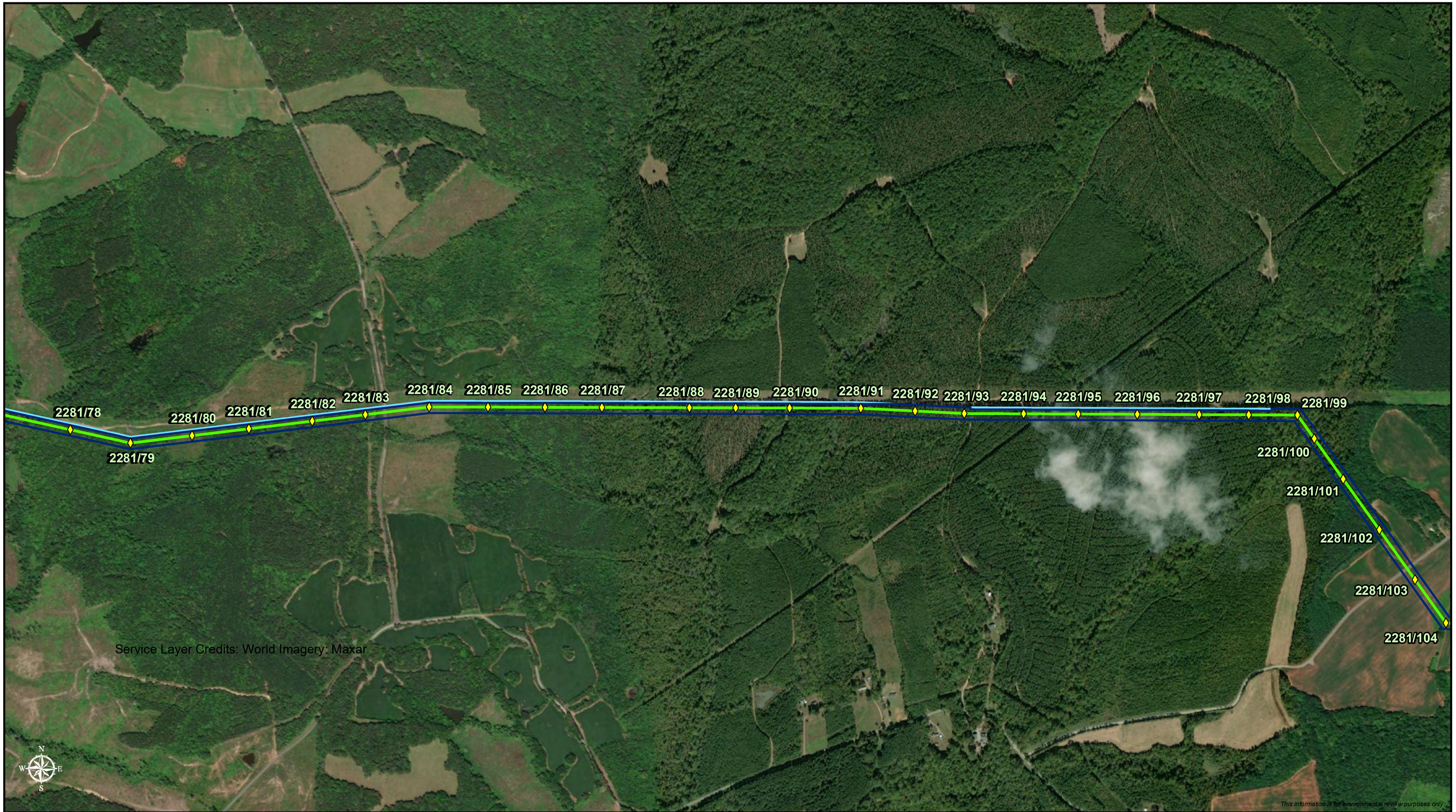

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- Proposed Structure Location
- **Butler Farm–Clover Line**
- BF-Clover Proposed Route

Right-of-Way Type

- Existing Overhead Right-of-Way
- Proposed New Right-of-Way

Attachment II.B.3.iv
Proposed Structure Locations
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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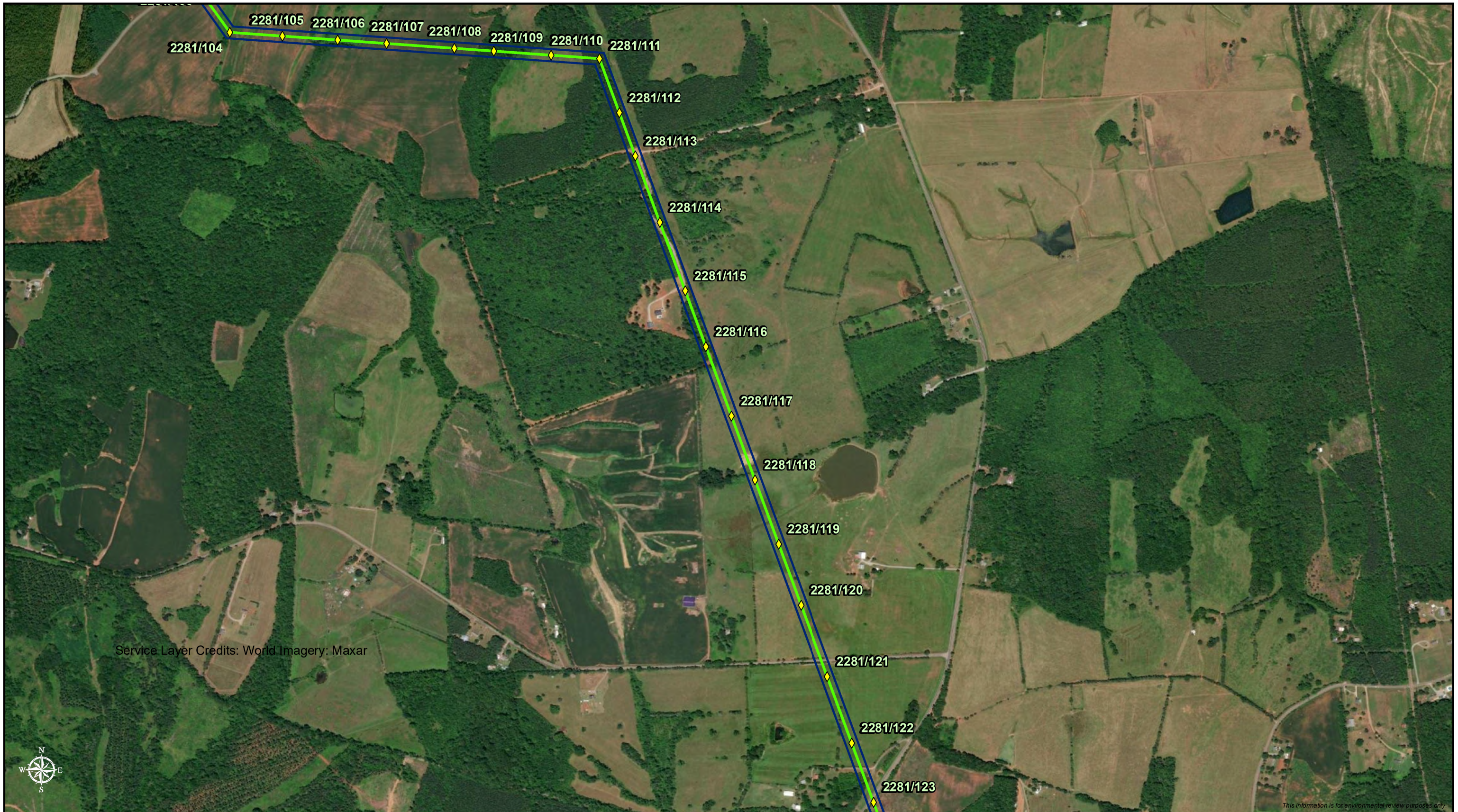

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Proposed Structure Location

Butler Farm–Clover Line

BF-Clover Proposed Route

Right-of-Way Type

Proposed New Right-of-Way

Attachment II.B.3.iv
Proposed Structure Locations
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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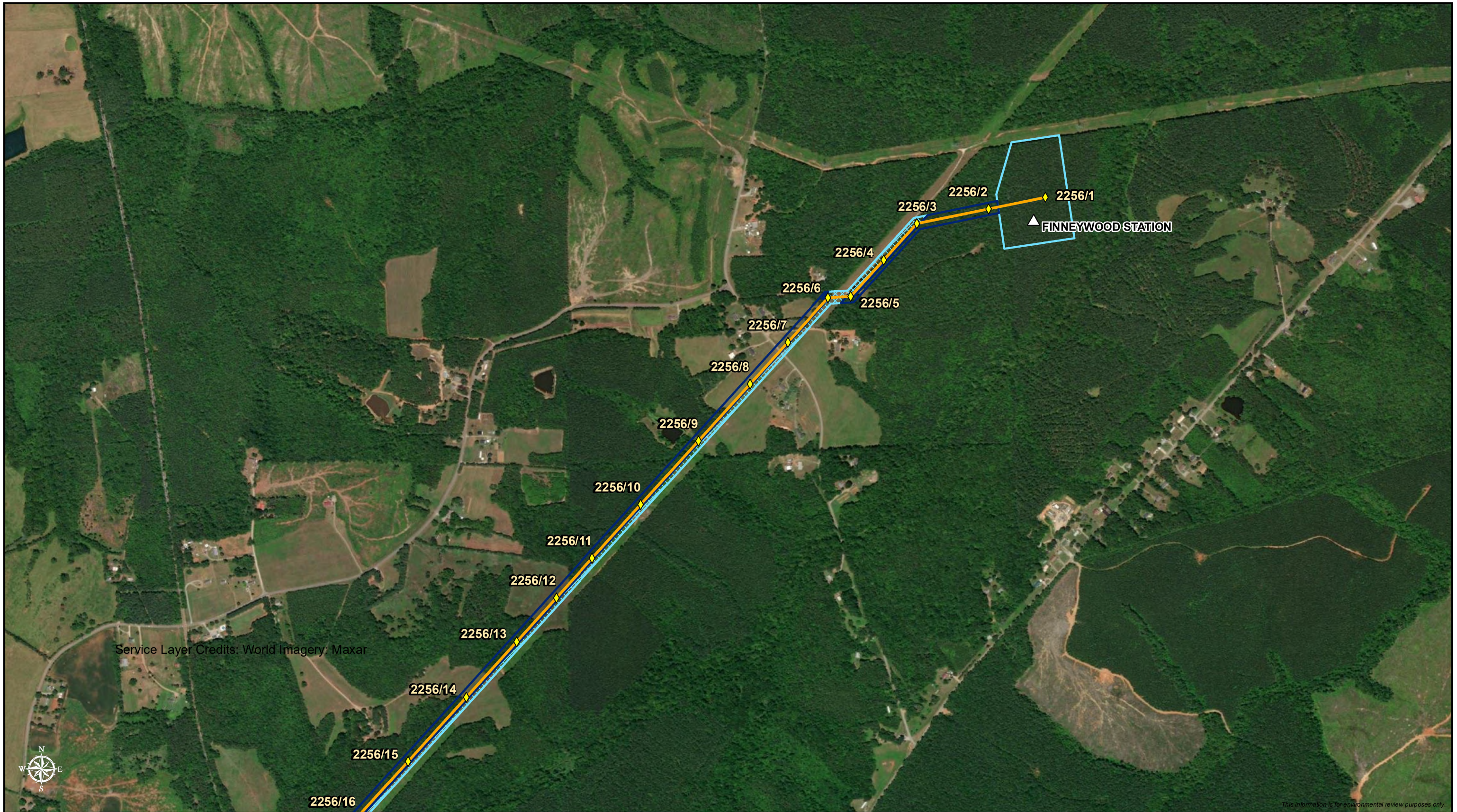

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△ Proposed Substation
◊ Proposed Structure Location

Butler Farm–Finneywood Line
BF-Finneywood Proposed Route

Right-of-Way Type
Existing Overhead Right-of-Way
Proposed New Right-of-Way
Proposed Aboveground Facility

Attachment II.B.3.iv
Proposed Structure Locations
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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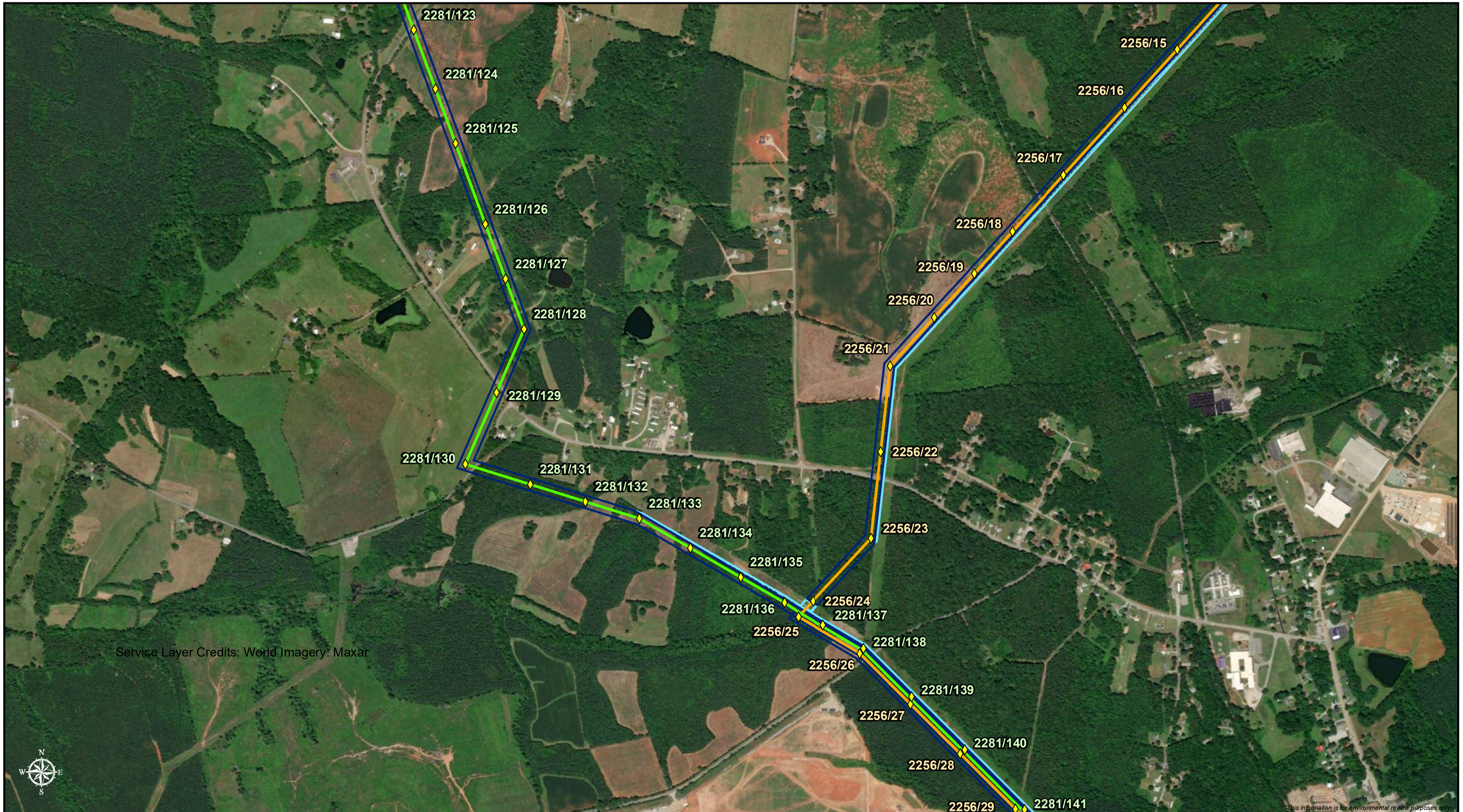

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- Proposed Structure Location

Butler Farm–Clover Line
- BF-Clover Proposed Route

Butler Farm–Finneywood Line
- BF-Finneywood Proposed Route

Right-of-Way Type
- Existing Overhead Right-of-Way
- Proposed New Right-of-Way

Attachment II.B.3.iv
Proposed Structure Locations
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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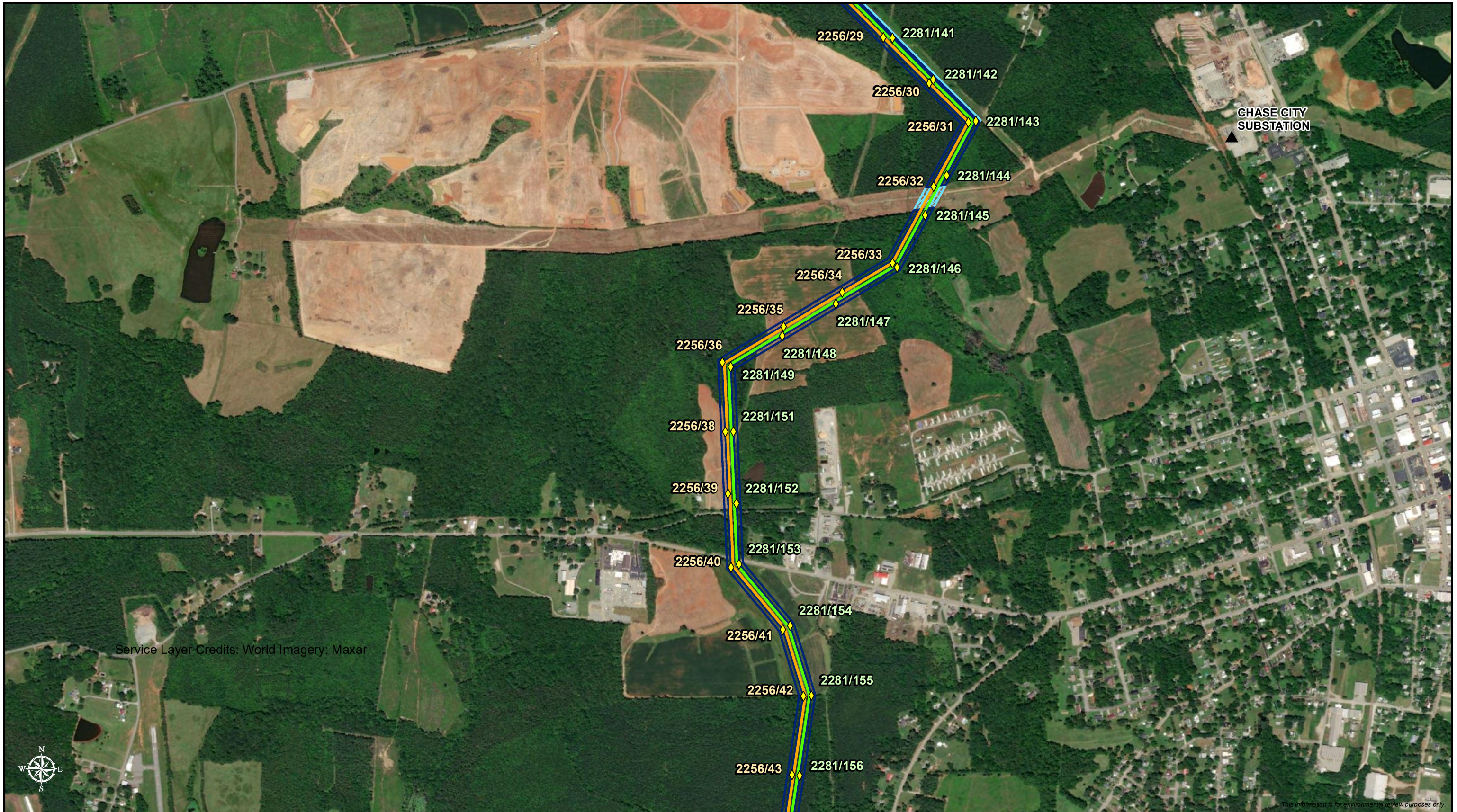

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- Existing Substation
- Proposed Structure Location

Butler Farm–Clover Line
- BF-Clover Proposed Route

Butler Farm–Finneywood Line
- BF-Finneywood Proposed Route

Right-of-Way Type
- Existing Overhead Right-of-Way
- Proposed New Right-of-Way

Attachment II.B.3.iv
Proposed Structure Locations

Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

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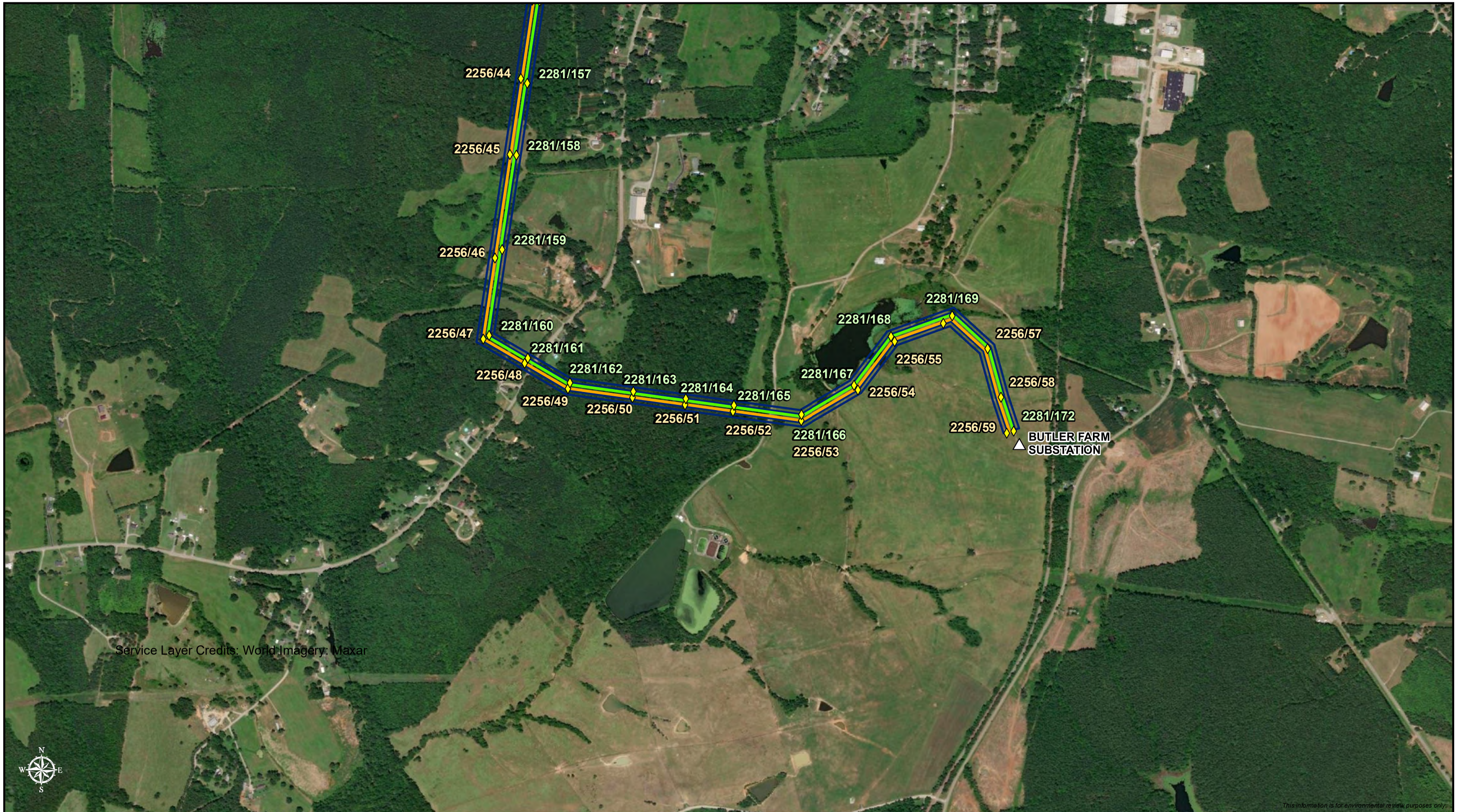

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- Proposed Substation
- Proposed Structure Location

Butler Farm–Clover Line
- BF-Clover Proposed Route

Butler Farm–Finneywood Line
- BF-Finneywood Proposed Route

Right-of-Way Type
- Proposed New Right-of-Way

Attachment II.B.3.iv
Proposed Structure Locations
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy®

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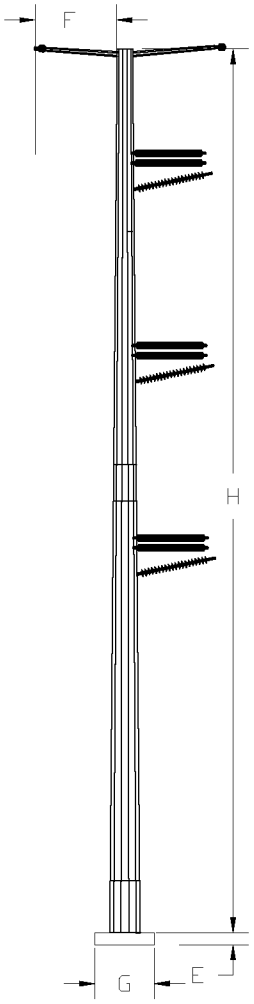
BUTLER FARM - CLOVER, LINE #2281
STRUCTURES 2281/138 - 2281/168

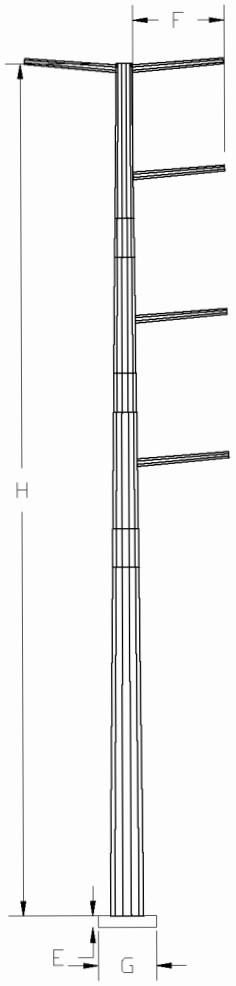


230kV SC ENGINEERED MONOPOLE DDE STRUCTURE

A. MAPPING OF THE ROUTE:	N/A
B. RATIONALE FOR STRUCTURE TYPE:	TO MINIMIZE RIGHT OF WAY WHEN CO-LOCATING WITH NEW LINE #2256
C. LENGTH OF R/W (STRUCTURE QTY):	3.55 MILES (10 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONALE FOR MATERIAL:	WEATHERING STEEL WAS SELECTED TO MATCH THE FIRST SECTION OF LINE
E. FOUNDATION MATERIAL:	CONCRETE
AVERAGE FOUNDATION REVEAL:	SEE NOTE 2
F. AVERAGE WIDTH AT CROSS ARM:	8'
G. AVERAGE WIDTH AT BASE:	SEE NOTE 2
H. MINIMUM STRUCTURE HEIGHT:	100'
MAXIMUM STRUCTURE HEIGHT:	115'
AVERAGE STRUCTURE HEIGHT:	108'
I. AVERAGE SPAN LENGTH (RANGE):	607' (443'-721') (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.

BUTLER FARM - CLOVER, LINE #2256
STRUCTURES 2256/2 - 2256/55

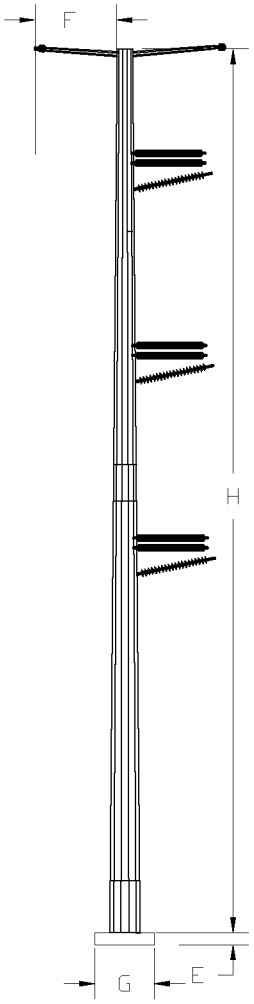


230kV SC ENGINEERED MONOPOLE SUSPENSION STRUCTURE

A. MAPPING OF THE ROUTE:	N/A
B. RATIONALE FOR STRUCTURE TYPE:	TO MINIMIZE RIGHT OF WAY TO ACCOMODATE FUTURE LINE TO BLUESTONE SUB
C. LENGTH OF R/W (STRUCTURE QTY):	6.65 MILES (33 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONALE FOR MATERIAL:	WEATHERING STEEL WAS SELECTED TO MATCH THE 2281 LINE
E. FOUNDATION MATERIAL:	CONCRETE
AVERAGE FOUNDATION REVEAL:	SEE NOTE 2
F. AVERAGE WIDTH AT CROSS ARM:	12'
G. AVERAGE WIDTH AT BASE:	SEE NOTE 2
H. MINIMUM STRUCTURE HEIGHT:	100'
MAXIMUM STRUCTURE HEIGHT:	130'
AVERAGE STRUCTURE HEIGHT:	115'
I. AVERAGE SPAN LENGTH (RANGE):	679' (478'-897') (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.

BUTLER FARM - FINNEYWOOD, LINE #2256
STRUCTURES 2256/2 - 2256/55

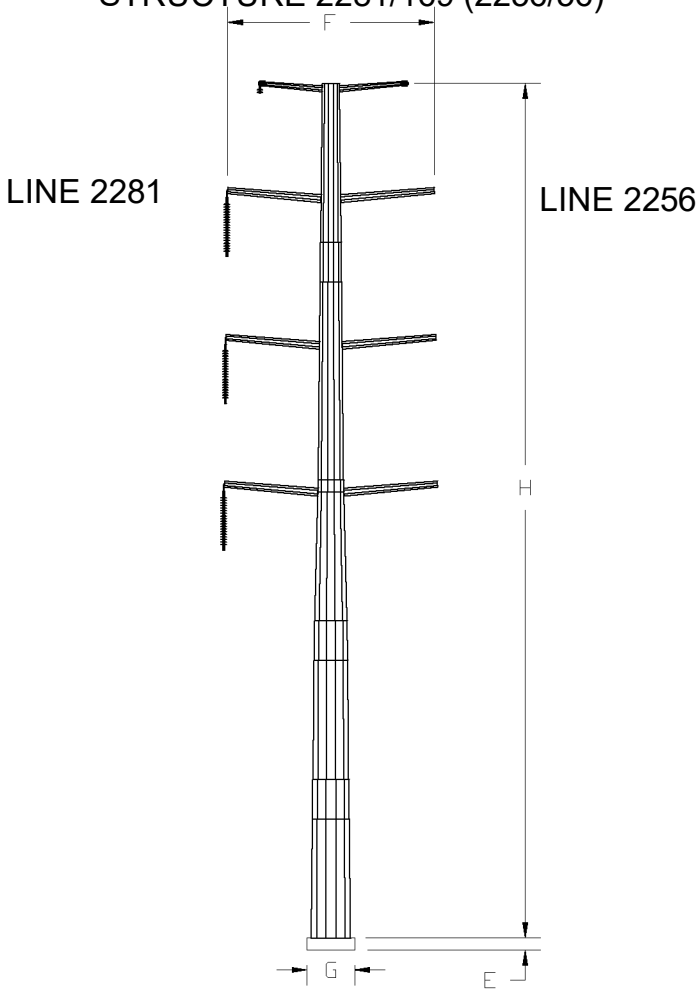


230kV SC ENGINEERED MONOPOLE DDE STRUCTURE

A. MAPPING OF THE ROUTE:	N/A
B. RATIONALE FOR STRUCTURE TYPE:	TO MINIMIZE RIGHT OF WAY TO ACCOMMODATE FUTURE LINE TO BLUESTONE SUB
C. LENGTH OF R/W (STRUCTURE QTY):	6.65 MILES (16 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONALE FOR MATERIAL:	WEATHERING STEEL WAS SELECTED TO MATCH THE FIRST SECTION OF LINE
E. FOUNDATION MATERIAL:	CONCRETE
AVERAGE FOUNDATION REVEAL:	SEE NOTE 2
F. AVERAGE WIDTH AT CROSS ARM:	8'
G. AVERAGE WIDTH AT BASE:	SEE NOTE 2
H. MINIMUM STRUCTURE HEIGHT:	95'
MAXIMUM STRUCTURE HEIGHT:	120'
AVERAGE STRUCTURE HEIGHT:	107'
I. AVERAGE SPAN LENGTH (RANGE):	636' (474'-843') (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.

BUTLER FARM - FINNEYWOOD, LINE #2256
BUTLER FARM - CLOVER, LINE #2281
STRUCTURE 2281/169 (2256/56)



230kV DC ENGINEERED MONOPOLE DDE STRUCTURE

A. MAPPING OF THE ROUTE: N/A

B. RATIONALE FOR STRUCTURE TYPE: TO MINIMIZE FOOTPRINT TO AVOID WETLAND IMPACTS

C. LENGTH OF R/W (STRUCTURE QTY): 0.21 MILES (1 STRUCURE)

D. STRUCTURE MATERIAL: WEATHERING STEEL

RATIONALE FOR MATERIAL: WEATHERING STEEL WAS SELECTED TO MATCH LINES #2281 & #2256

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: 120'

MAXIMUM STRUCTURE HEIGHT: 120'

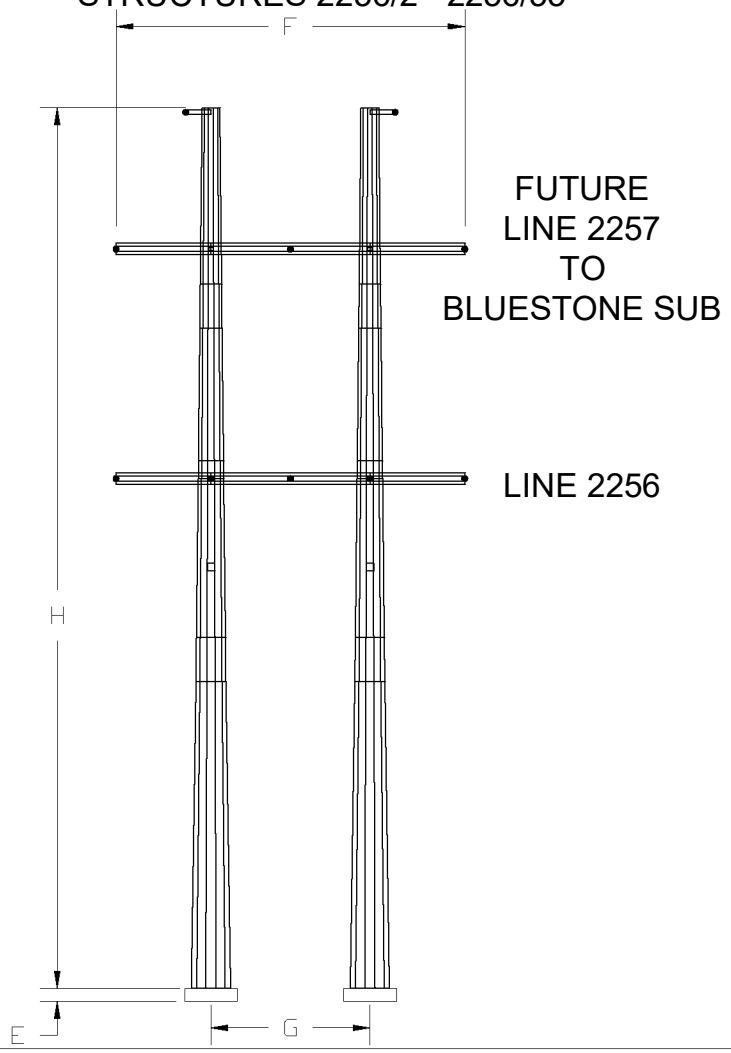
AVERAGE STRUCTURE HEIGHT: 120'

I. AVERAGE SPAN LENGTH (RANGE): 480 (480-480') (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.

BUTLER FARM - FINNEYWOOD, LINE #2256
STRUCTURES 2256/2 - 2256/55



230kV DC ENGINEERED H-FRAME DDE STRUCTURE

A. MAPPING OF THE ROUTE:	N/A
B. RATIONALE FOR STRUCTURE TYPE:	TO FACILITATE TRANSMISSION CROSSINGS AND ACCOMODATE FUTURE LINE TO BLUESTONE SUB
C. LENGTH OF R/W (STRUCTURE QTY):	6.65 MILES (5 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONALE FOR MATERIAL:	WEATHERING STEEL WAS SELECTED TO MATCH THE FIRST SECTION OF LINE
E. FOUNDATION MATERIAL:	CONCRETE
AVERAGE FOUNDATION REVEAL:	SEE NOTE 2
F. AVERAGE WIDTH AT CROSS ARM:	50'
G. AVERAGE WIDTH AT BASE:	SEE NOTE 2
H. MINIMUM STRUCTURE HEIGHT:	110'
MAXIMUM STRUCTURE HEIGHT:	150'
AVERAGE STRUCTURE HEIGHT:	120'
I. AVERAGE SPAN LENGTH (RANGE):	520' (213'-859') (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.

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: The BF – Clover Alternative Route 1 has a maximum structure height of 130 feet, a minimum structure height of 65 feet, and an average structure height of 95 feet.

The BF – Clover Alternative Route 2 has a maximum structure height of 130 feet, a minimum structure height of 65 feet, and an average structure height of 95 feet.

The BF – Clover Route Variation structure heights are the same as the BF – Clover Proposed Route structure heights.

The BF – Finneywood Alternative Route has a maximum structure height of 150 feet, a minimum structure height of 100 feet, and an average structure height of 120 feet.

The BF – Finneywood Route Variation structure heights are the same as the BF – Finneywood Proposed Route structure heights.

Alternative Route	**Maximum Structure Height**	**Minimum Structure Height**	**Average Structure Height**
BF – Clover Alternative Route 1	130 feet	65 feet	95 feet
BF – Clover Alternative Route 2	130 feet	65 feet	95 feet
BF – Finneywood Alternative Route	150 feet	100 feet	120 feet

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: Not applicable.

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] Not applicable. There are no existing structures proposed for removal pursuant to the Project.

[b] See Attachment II.B.6.b for representative photographs of the proposed structures.

[c] Visual simulations showing the appearance of the proposed transmission structures at identified historic locations within 1.0 mile of the proposed centerlines of the Proposed Routes are provided. See Attachment II.B.6.c.i for an overview map of the viewshed and simulation locations. Attachment II.B.6.c.ii includes the existing and simulated proposed views of the Proposed Routes from the historic properties. These simulations were created using GIS modeling to depict whether the proposed structures will be visible from the identified historic properties. The historic properties evaluated are described below. See also the Stage I Pre-Application Analysis Report contained in Appendix F of the Routing Study and Attachment III.B.4 for visual simulations from key locations.

Historic Property	Viewpoint	Comments
Farmstead (VDHR ID# 019-0073)	7	BF – Clover Route and BF – Clover Alternative Route 1 will have no impact on 019-0073.
Vernacular I-House (VDHR ID# 019-0075)	8	BF – Clover Route and BF – Clover Alternative Route 1 will have no impact on 019-0075.
Staunton River Bridge Battlefield (VDHR ID# 019-5190)	9 and 10	BF – Clover Route and BF – Clover Alternative Routes 1 and 2 will have no more than a minimal impact on 019-5190.
Black Walnut (VDHR ID# 041-0006)	1	BF – Clover Route and BF – Clover Alternative Routes 1 and 2 will have no impact on 041-0006.
Pleasant Hill Farm (VDHR ID# 058-0274)	2	BF – Clover Route will have no more than a minimal impact on 058-0274.
Chase City High School (VDHR ID# 186-0002)	3	BF – Clover Route, BF – Clover Route Variation, BF –Finneywood Route, and BF – Finneywood Route Variation will have no impact on 186-0002.

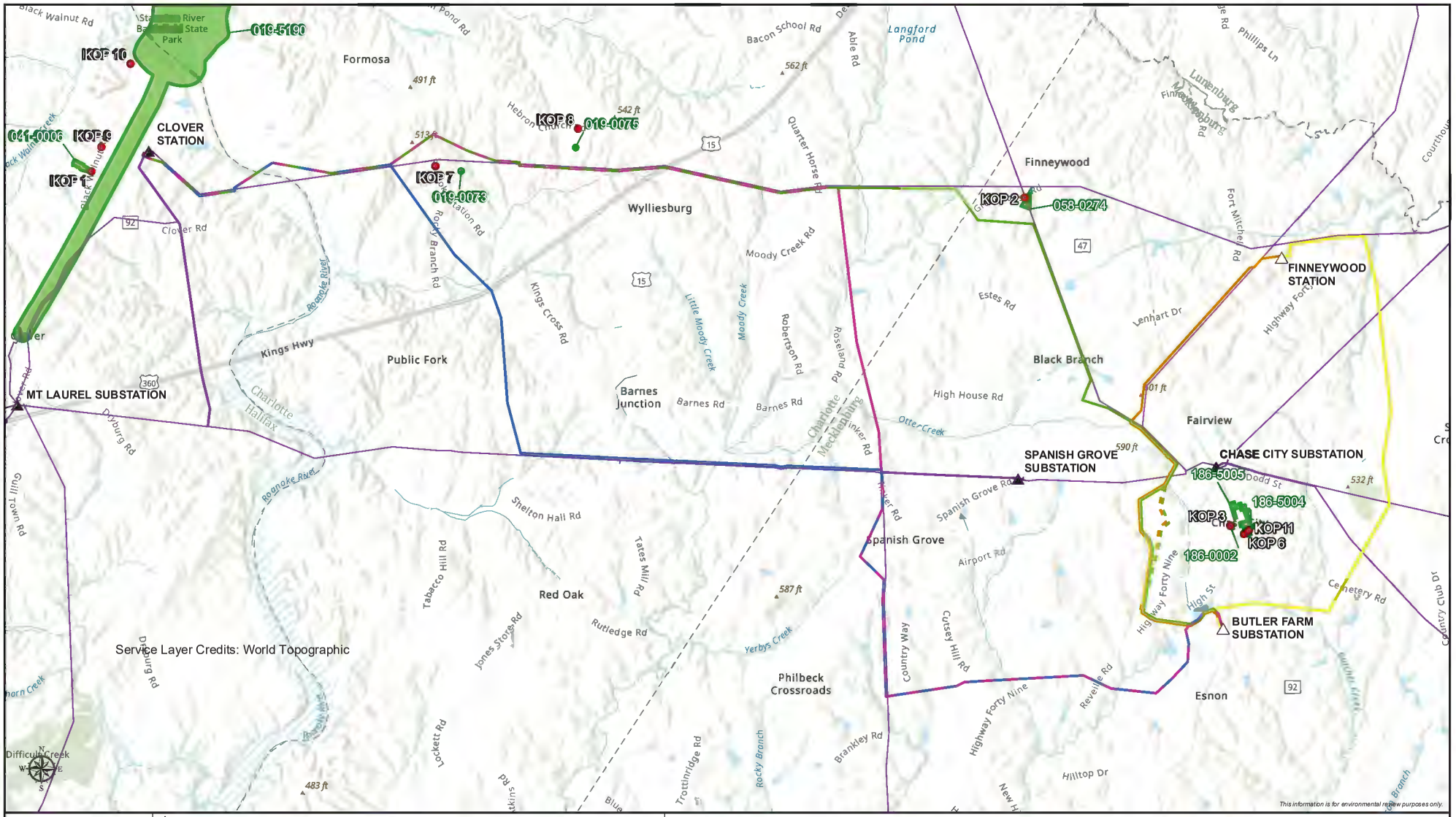
Historic Property	Viewpoint	Comments
Chase City Warehouse and Commercial Historic District (VDHR ID# 186-5005)	6	BF – Clover Route, BF – Clover Route Variation, BF – Finneywood Route, and BF – Finneywood Route Variation will have no impact on 186-5005.
Shadow Lawn (VDHR ID# 186-5004)	11	BF – Clover Route Variation will have no impact on 186-5004

Proposed Structure Type:
230 kV Single Circuit Steel Monopole (Tangent)

Attachment II.B.6.b

Proposed Structure Type:
230 kV Deadend Monopole

Attachment II.B.6.b



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- Proposed Substation
- Existing Substation
- Existing Dominion Transmission Line
- BF-Clover Proposed Route
- BF-Clover Route Variation
- BF-Clover Alternative Route 1
- BF-Clover Alternative Route 2
- BF-Finneywood Proposed Route
- BF-Finneywood Route Variation
- BF-Finneywood Alternative Route 1
- Key Observation Point (KOP)
- Historic Resource

Attachment II.B.6.C.i
Overview Map of Routes Showing Visual Simulation Locations and Associated Aboveground Historic Resources
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia

Dominion Energy

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DRAWN BY: NAD

Figure 1: Aerial photograph depicting land use and photo view for 019-0073.

Existing View

Proposed View

Dominion Energy

ERM

Viewpoint Location UTM Zone 18N:	710216E 4082309N
View Direction:	0 degrees
Viewpoint Elevation:	337 feet
Distance to Development:	227 feet
Horizontal Field of View:	90 degrees

Date of Photography:	25th April 2022 14:22
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet

Figure 2
Viewpoint KOP 7 - BF-C Route
Roanoke Station Rd North of Rocky Branch Rd
019-0073

Pre-Application Analysis
Coastal Virginia Offshore Wind

Figure 3: Aerial photograph depicting land use and photo view for 019-0075.

Existing View

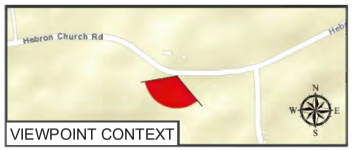
Proposed View

Dominion Energy

ERM

Viewpoint Location UTM Zone 18N:	713069E 4083138N
View Direction:	200 degrees
Viewpoint Elevation:	398 feet
Distance to Development:	2696 feet
Horizontal Field of View:	120 degrees

Date of Photography:	25th April 2022 14:11
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet



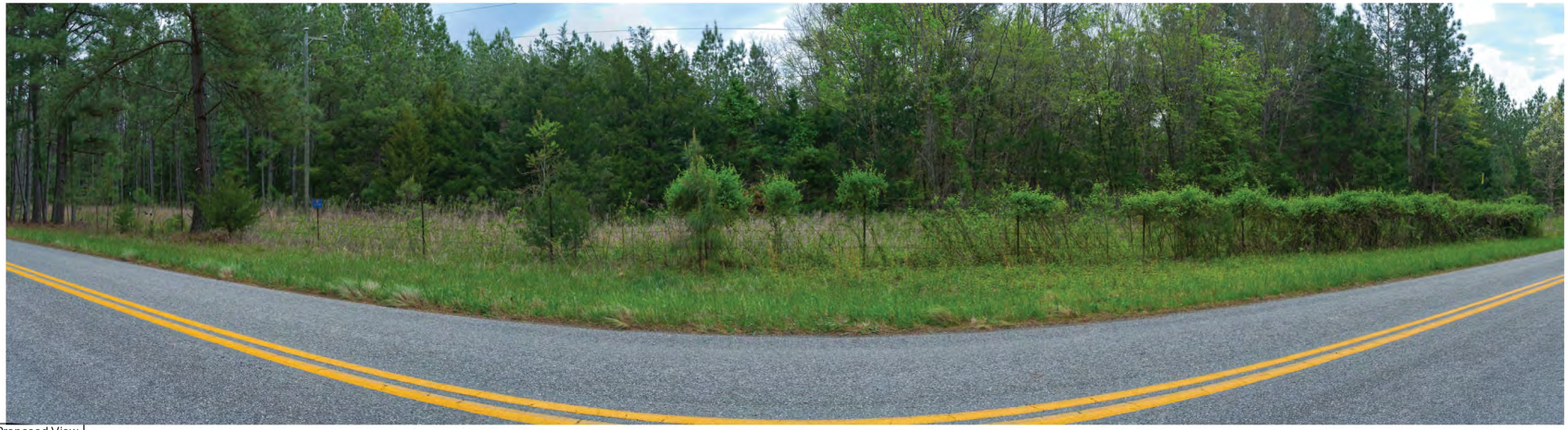
VIEWPOINT CONTEXT

Figure 4
Viewpoint KOP 8 - BF-C Route
Hebron Church Rd East of Lin Way Ln
019-0075

Pre-Application Analysis
Coastal Button-Offshore Wind

Figure 5: Aerial photograph depicting land use and photo view for 019-5190.

Existing View



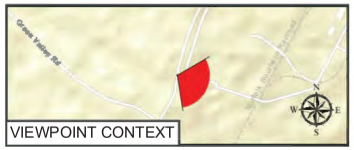
Proposed View

Dominion Energy

ERM

Viewpoint Location UTM Zone 18N:	703493E 4082524N
View Direction:	130 degrees
Viewpoint Elevation:	368 feet
Distance to Development:	3213 feet
Horizontal Field of View:	110 degrees

Date of Photography:	21st April 2022 11:11
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet



VIEWPOINT CONTEXT

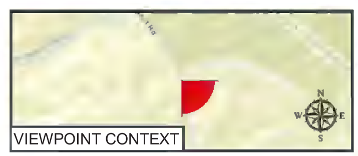
Figure 6
Viewpoint KOP 9 - BF-C Route
Black Walnut Rd North of Green Valley Rd

Existing View

Proposed View

Viewpoint Location UTM Zone 18N:	704035E 4084217N
View Direction:	150 degrees
Viewpoint Elevation:	243 feet
Distance to Development:	5951 feet
Horizontal Field of View:	90 degrees

Date of Photography:	25th April 2022 13:16
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet



VIEWPOINT CONTEXT

Figure 7
Viewpoint KOP 10 - BF-C Route
Black Walnut Rd North of Fort Hill Trail
019-5190

Pre-Application Analysis
Coastal Virginia Offshore Wind

Figure 8: Aerial photograph depicting land use and photo view for 041-0006.

Existing View

Proposed View

Viewpoint Location UTM Zone 18N:	703305E 4082022N
View Direction:	110 degrees
Viewpoint Elevation:	13 feet
Distance to Development:	4046 feet
Horizontal Field of View:	110 degrees

Date of Photography:	25th April 2022 14:24
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet

VIEWPOINT CONTEXT

Figure 9
Viewpoint KOP 1 - BF-C Route
Black Walnut Rd at Black Walnut
041-0006

Pre-Application Analysis
Coster-Butler-Pittsylvania

Figure 10: Aerial photograph depicting land use and photo view for 058-0274.

Existing View

Proposed View

Dominion Energy

ERM

Viewpoint Location UTM Zone 18N:	722090E	4081994N
View Direction:	220 degrees	
Viewpoint Elevation:	449 feet	
Distance to Development:	1258 feet	
Horizontal Field of View:	150 degrees	

Date of Photography:	21st April 2022 13:07
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet

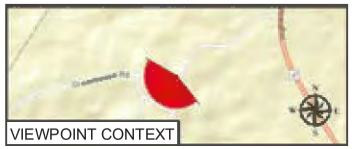


Figure 11
Viewpoint KOP 2 - BF-C Route
Greenhouse Rd at Wootton Bros Greenhouse

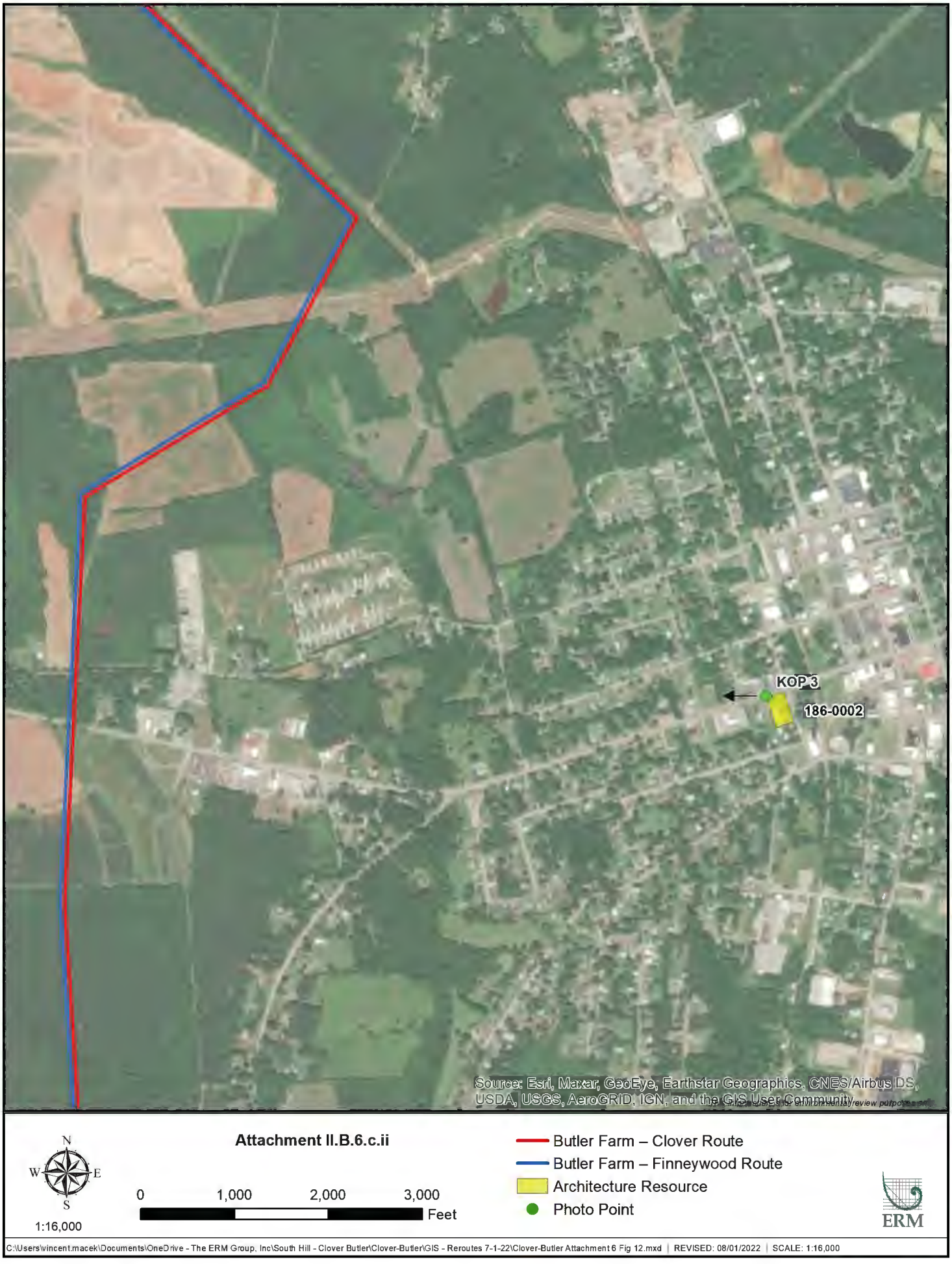


Figure 12: Aerial photograph depicting land use and photo view for 186-0002.

Existing View

Proposed View

Dominion Energy

ERM

Viewpoint Location UTM Zone 18N:	726400E 4075492N
View Direction:	270 degrees
Viewpoint Elevation:	444 feet
Distance to Development:	5851 feet
Horizontal Field of View:	90 degrees

Date of Photography:	25th April 2022 14:09
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet

Figure 13
Viewpoint KOP 3 - BF-C Route
W 2nd St West of Endly St
186-0002

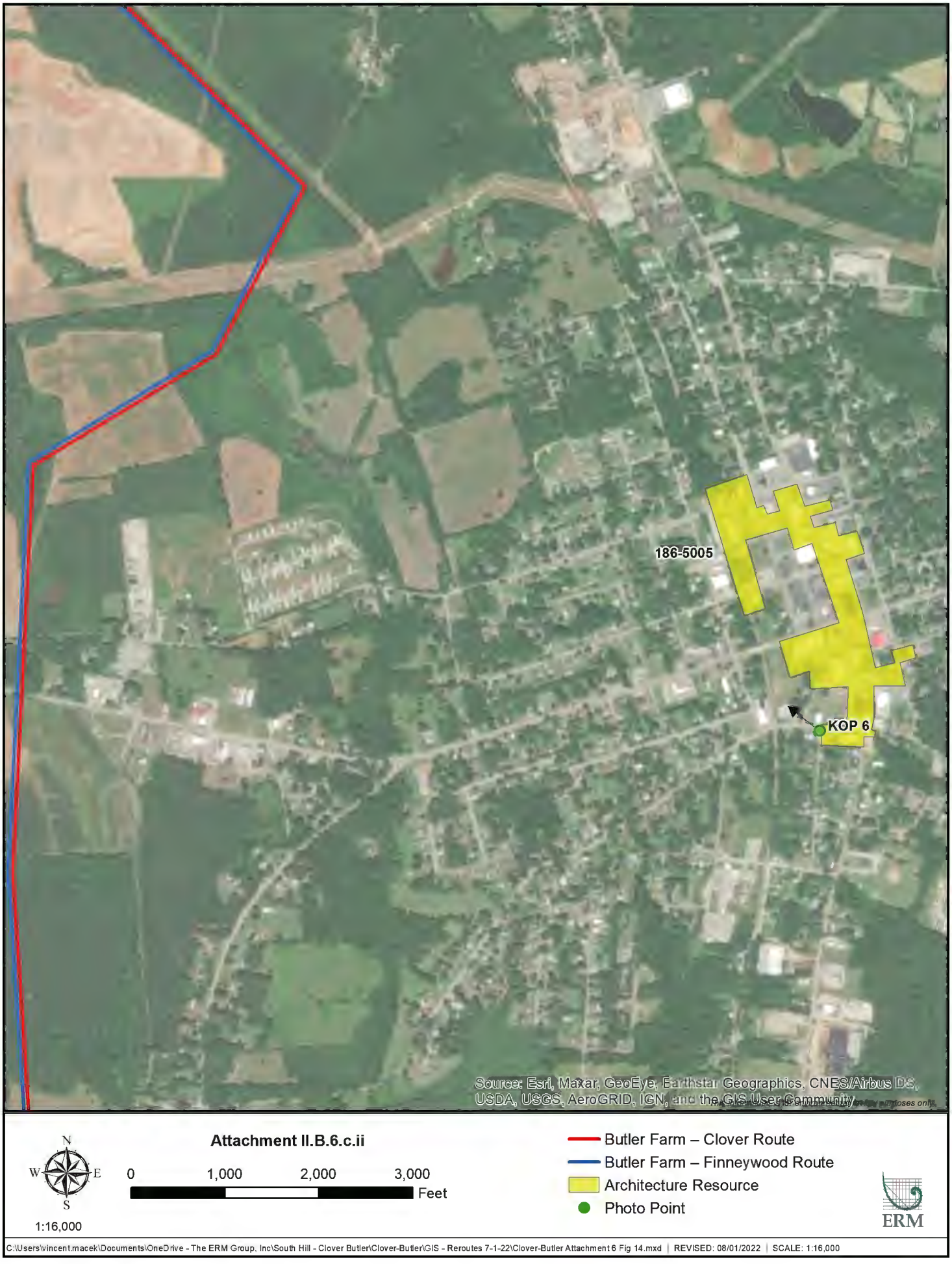


Figure 14: Aerial photograph depicting land use and photo view for 186-5005.

Existing View

Proposed View

Dominion Energy

ERM

Viewpoint Location UTM Zone 18N:	726679E 4075330N
View Direction:	310 degrees
Viewpoint Elevation:	422 feet
Distance to Development:	6144 feet
Horizontal Field of View:	110 degrees

Date of Photography:	21st April 2022 15:01
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet

VIEWPOINT CONTEXT

Figure 15
Viewpoint KOP 6 - BF-C Route
S Grace St at E Sycamore St
186-5005

Pre-Application Analysis
Coastal Button-Offshore Wind

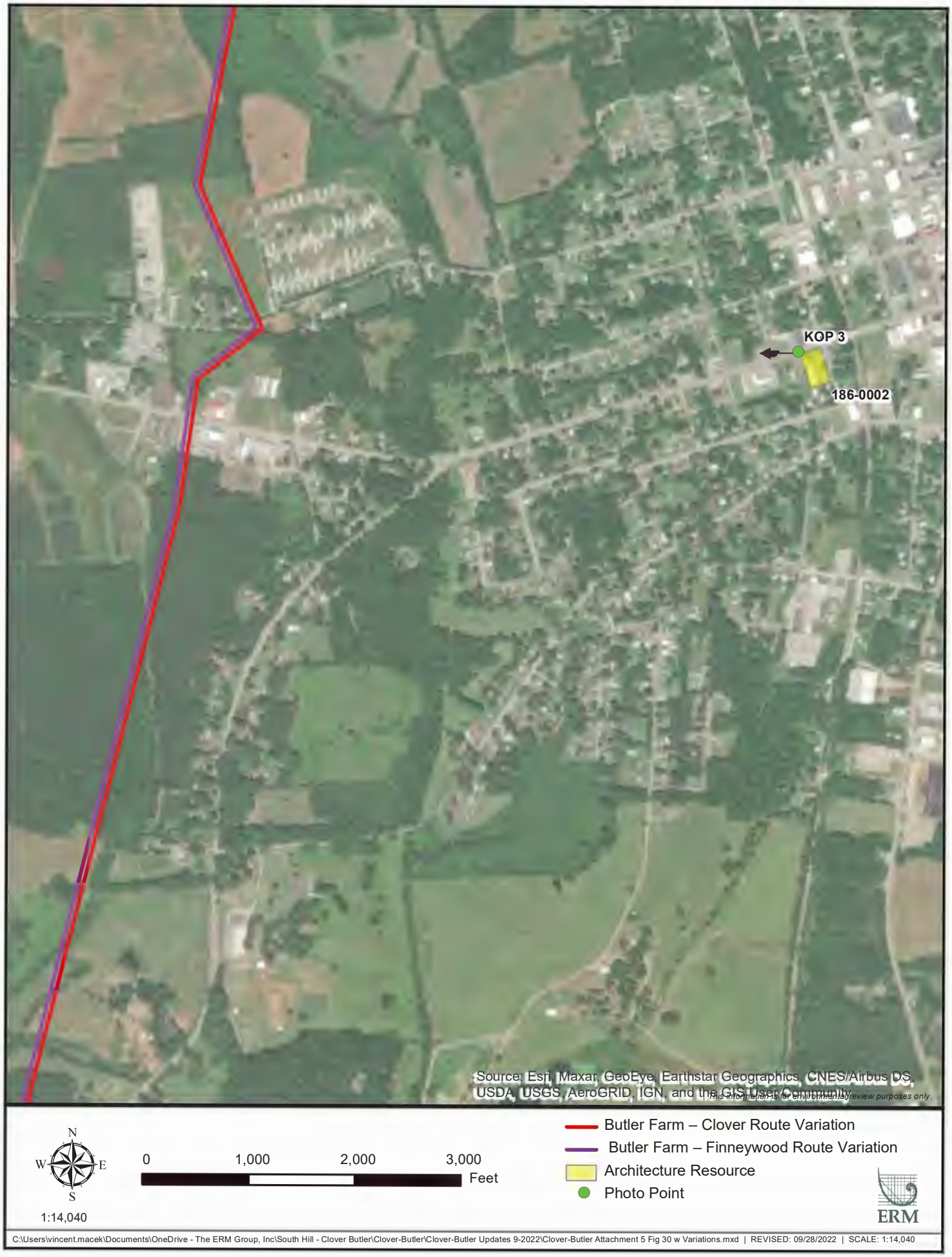


Figure 16: Aerial photograph depicting land use and photo view for 186-0002.

Existing View

Proposed View

Dominion Energy

ERM

Viewpoint Location UTM Zone 18N:	726400E 4075492N
View Direction:	270 degrees
Viewpoint Elevation:	444 feet
Distance to Development:	4400 feet
Horizontal Field of View:	90 degrees

Date of Photography:	25th April 2022 14:09
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet

Figure 17
Viewpoint KOP 3 - BF-C Route Variation 1
W 2nd St West of Endly St
186-0002

Pre-Application Analysis
Chester Butler-Pittsylvania

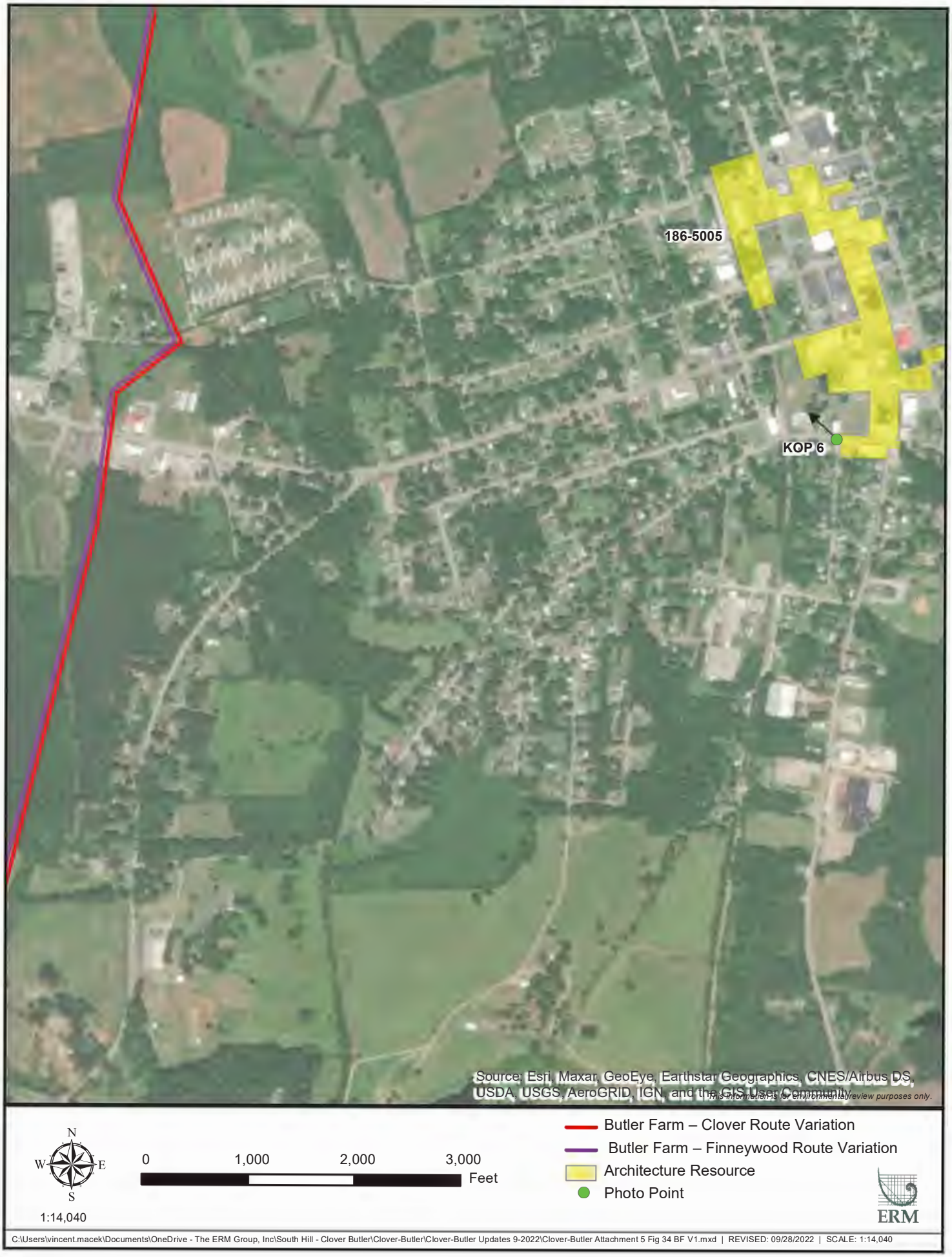


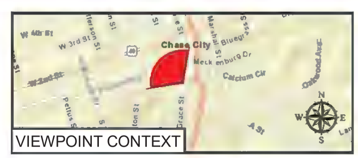
Figure 18: Aerial photograph depicting land use and photo view for 186-5005.

Existing View

Proposed View

Viewpoint Location UTM Zone 17N:	726679E 4075330N
View Direction:	310 degrees
Viewpoint Elevation:	422 feet
Distance to Development:	6000 feet
Horizontal Field of View:	110 degrees

Date of Photography:	21st April 2022 15:01
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet



VIEWPOINT CONTEXT

Figure 19
Viewpoint KOP 6 - BF-C Route Variation 1
S Grace St at E Sycamore St
186-5005

Pre-Application Analysis
Coastal Virginia Offshore Wind

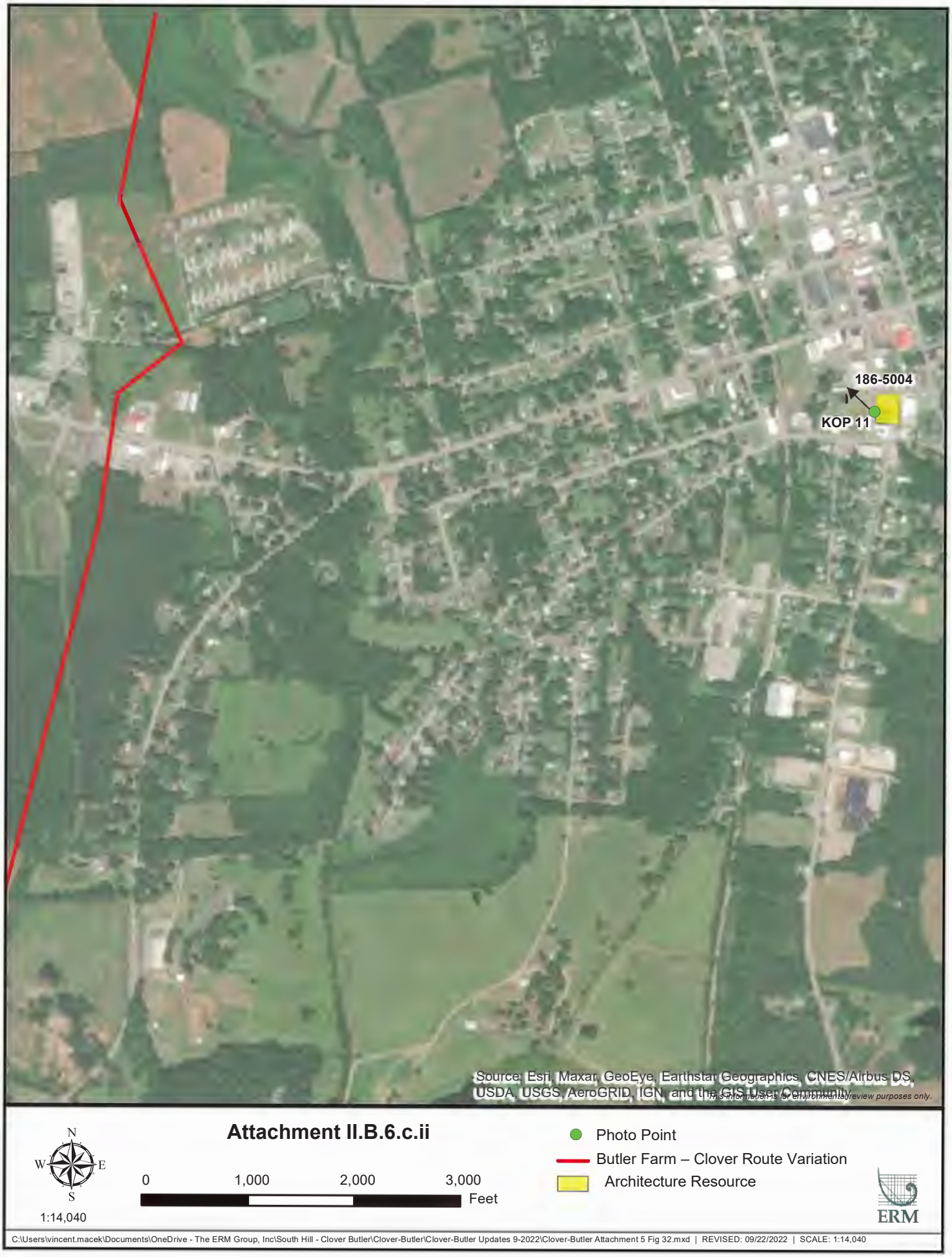


Figure 20: Aerial photograph depicting land use and photo view for 186-5004.

Existing View

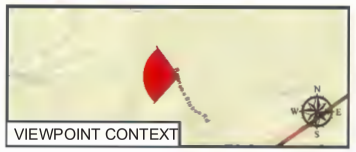
Proposed View

Dominion Energy

ERM

Viewpoint Location UTM Zone 18N:	726764E 4075404N
View Direction:	270 degrees
Viewpoint Elevation:	566 feet
Distance to Development:	5757 feet
Horizontal Field of View:	100 degrees

Date of Photography:	25th April 2022 13:16
Camera:	Nikon D800
Lens:	Nikkor 50mm 1.4
Camera Height:	5 feet



VIEWPOINT CONTEXT

Figure 21
Viewpoint KOP 11 - BF-C Route Variation 1
North Main St South of Mecklenburg Dr
186-5004

II. DESCRIPTION OF THE PROPOSED PROJECT

C. Describe and furnish plan drawings of all new substations, switching stations, and other ground facilities associated with the proposed project. Include size, acreage, and bus configurations. Describe substation expansion capability and plans. Provide one-line diagrams for each.

Response: Butler Farm Substation

The Project requires construction of the proposed 230 kV / 34.6 kV Butler Farm Substation.

The proposed Butler Farm Substation initially will be constructed with four 60 MVA kV transformers, one 84 MVA 230/36.5 kV transformer, six rows of breaker and half scheme with 13 breakers. In total, the proposed Butler Farm Substation will be designed to accommodate future growth in the area with a build-out of six rows of breaker and half scheme 230-kV bus with an ultimate configuration of 15 breakers, and up to four 230 kV transmission lines. The Butler Farm Substation will be built to 4000 Amp Standards.

The proposed arrangement will include installing five 230 kV, Circuit Switchers for Transformer #1, 2, 3, 4, & 5, respectively.

A new control house will be installed to accommodate the communications and protective relays for the proposed equipment.

The one-line and general arrangement for the proposed Butler Farm Substation are provided as Attachment II.C.1 and Attachment II.C.2, respectively.

Finneywood Station

The Project requires construction of the proposed 500/230 kV Finneywood Station at the intersection of Line #556 and Line #235.

The proposed Finneywood Station initially will be constructed with two 840 MVA 500/230 kV transformers, a 230 kV breaker and half bus with ten breakers and a 500 kV ring bus with four breakers. The new Finneywood Station should be able to accommodate two 500 kV transmission lines, two 840 MVA 500/230 kV transformers and up to eight 230 kV transmission lines. The proposed Finneywood Station will be built to 4000 Amp Standards.

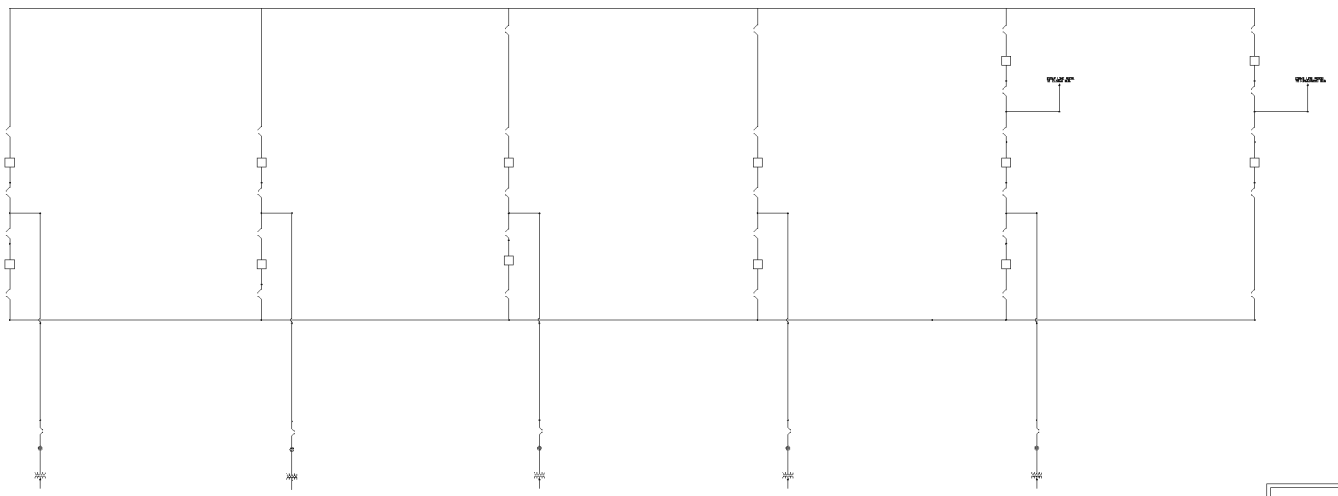
Two control houses will be installed to accommodate the communications and protective relays for the proposed and future equipment.

The one-line and general arrangement for the proposed Finneywood Station are provided as Attachment II.C.3 and Attachment II.C.4, respectively.

Clover Station

The Project requires upgrading existing 230 kV 3000A equipment at the Clover Station to 4000A ratted equipment. The upgrades will require replacing four 230 kV 3000A Breakers, four 230 kV 3000A switches and installing two new 230 kV 4000A switches.

The one-line and general arrangement for the work being performed at the Clover Station are provided as Attachment II.C.5 and Attachment II.C.6, respectively.



No.	Date	By	Checked/Appr.	Description	Project Number B/M

Revisions

USER: mohamms

Typical Drawing Information

Library Location	Cell Name	B/M Assembly	Pipe Stand Foundation Cells (Pier)		Pipe Stand Foundation Cells (Spread)		Foundation Cells for Other Typical Structures		Steel Detail & Assembly
							(Pier)	(Spread)	

Dominion Energy

BUTLER FARM SUB

	Name	Date	Project No.	Sheet No.
Designed by				
Approvals			Scale	OF
Approvals				
		B/M No.	Revisions	

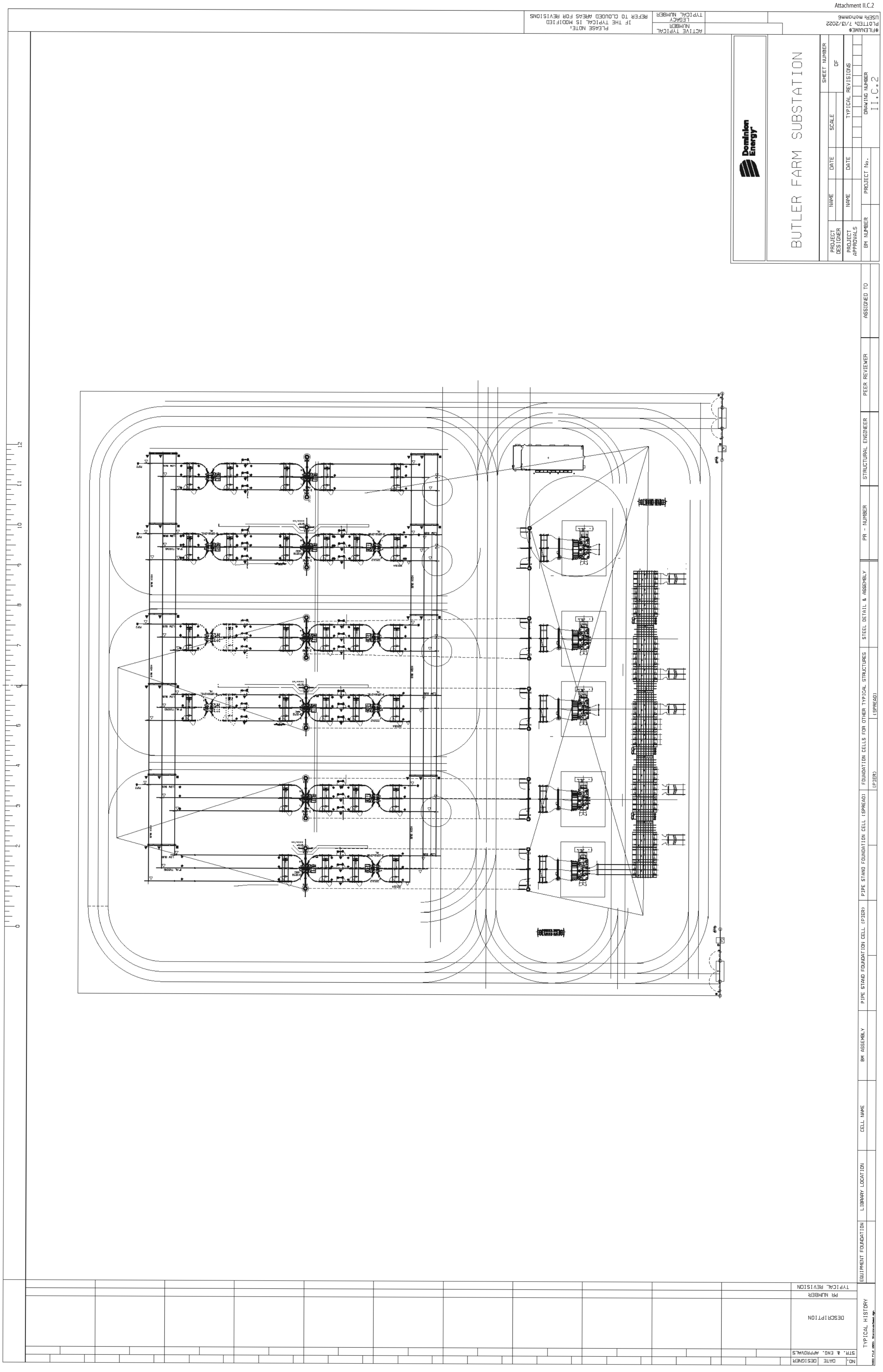
Cad File Name

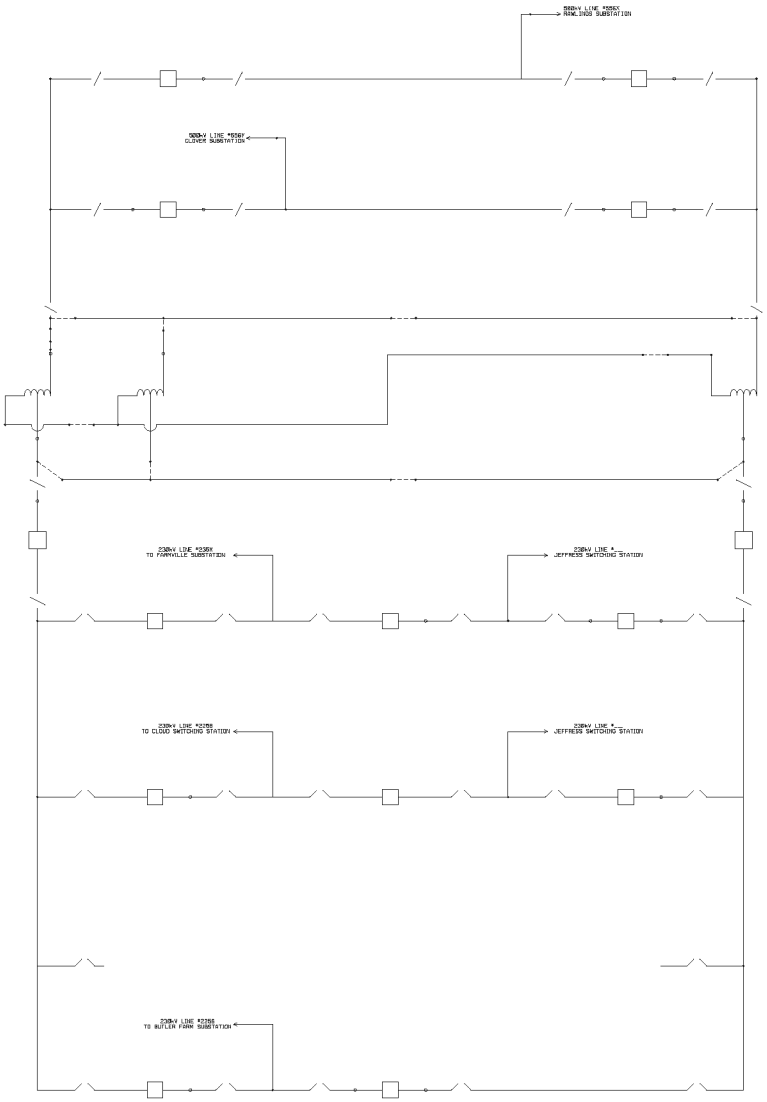
PLOTTED: 7/13/2022

Drawing No. I.I.C.1

#PLDRAW#
PLOTTED: 7/13/2022
USER: mohamms

Attachment I.I.C.1


BUTLER FARM SUBSTATION
PROJECT DESIGNER
PROJECT APPROVALS
BM NUMBER
NAME
DATE
SCALE
SHEET NUMBER
OF
TYPICAL REVISIONS
PROJECT No.
DRAWING NUMBER
II.C.2
PLOTTED 7/13/2022
ACTIVE TYPICAL NUMBER
LEGACY TYPICAL NUMBER
PLEASE NOTE,
IF THE TYPICAL IS MODIFIED
REFER TO CLOUDED AREAS FOR REVISIONS
ASSIGNED TO
PEER REVIEWER
STRUCTURAL ENGINEER
PR - NUMBER
STEEL DETAIL & ASSEMBLY
FOUNDATION CELLS FOR OTHER TYPICAL STRUCTURES
(PIER)
(SPREAD)
PIPE STAND FOUNDATION CELL (SPREAD)
PIPE STAND FOUNDATION CELL (PIER)
BM ASSEMBLY
CELL NAME
LIBRARY LOCATION
EQUIPMENT FOUNDATION
TYPICAL HISTORY
TYPICAL REVISION
PR NUMBER
DESCRIPTION
STR. & ENG. APPROVALS
NO. DATE DESIGNER



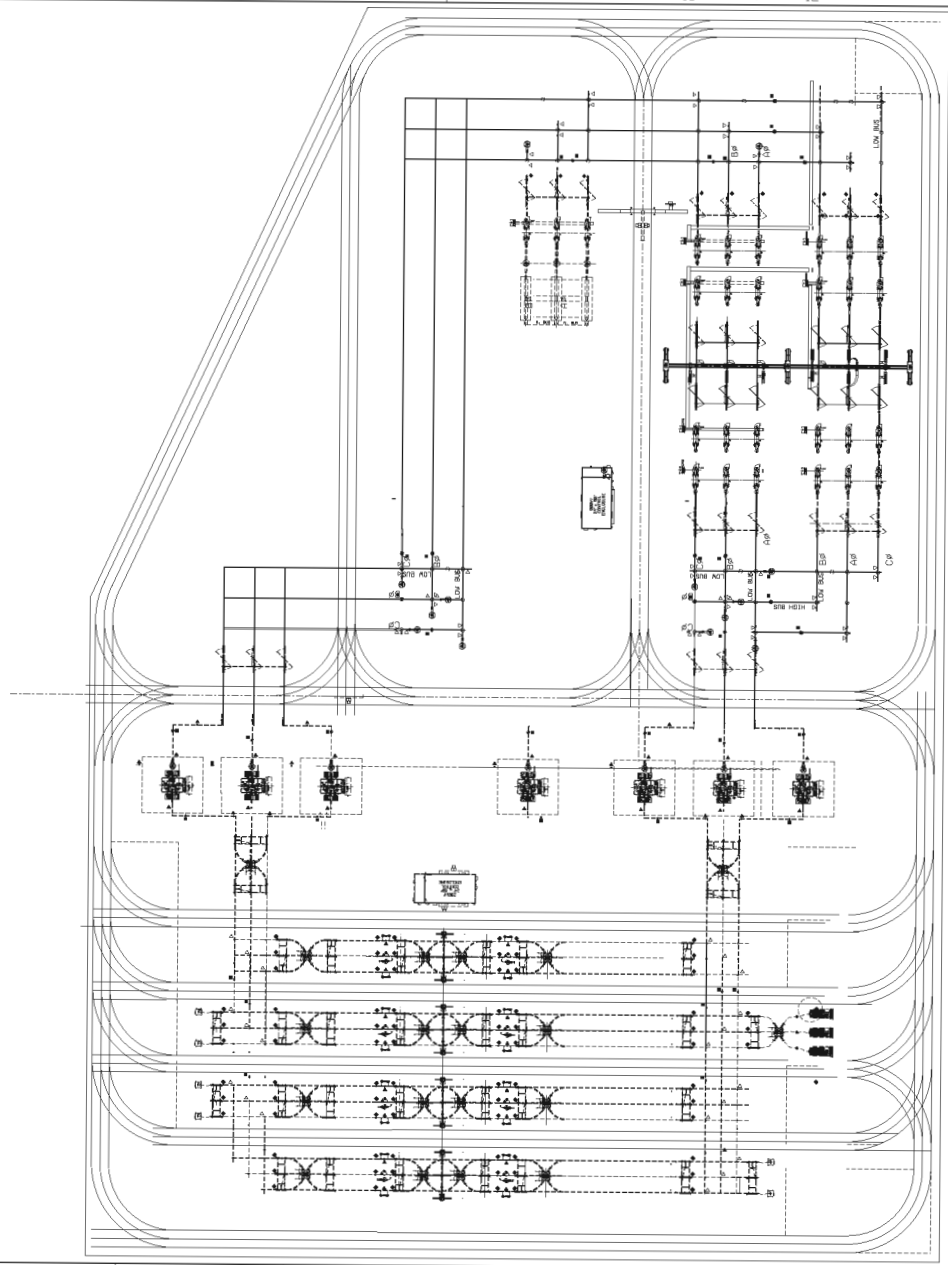
Revisions			
By	Approval		
Date			
Project No.			
DR No.			
Description			

Dominion Energy

ONE LINE DIAGRAM

Drawn By:	Date	FINNEYWOOD SWITCHING STATION
Approval	Date	Drawing No. II.C.3

Attachment II.C.3



No.	Date	By	Description	Project Number	B/M

Revisions

Typical Drawing Information	Library Location	Cell Name	B/M Assembly	Pipe Stand Foundation Cells (Pier)	Pipe Stand Foundation Cells (Spread)	Foundation Cells for Other Typical Structures (Pier)	Foundation Cells for Other Typical Structures (Spread)	Steel Detail & Assembly

USER: mchamb6

Dominion Energy

FINNEYWOOD SWITCHING STATION

	Name	Date	Project No.	Sheet No.
Designed by:	XXXXXXX	XX-XX-XX	XXXXXX	
Approvals	XXXXXX		Scale	OF
Approvals			1"=20'	
		B/M No.	Revisions	
		XXXX		

Cad File Name

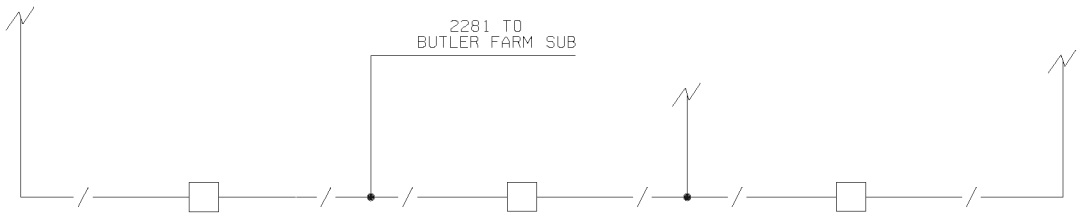
PLOTTED: 7/19/2022

Drawing No.
II.C.4

IF ELEMENTS OF THIS DRAWING ARE NOT USED, mark comments

7/19/2022

Attachment II.C.4



By:	Approval
Date:	
Project No.	
BM No.	
Description	

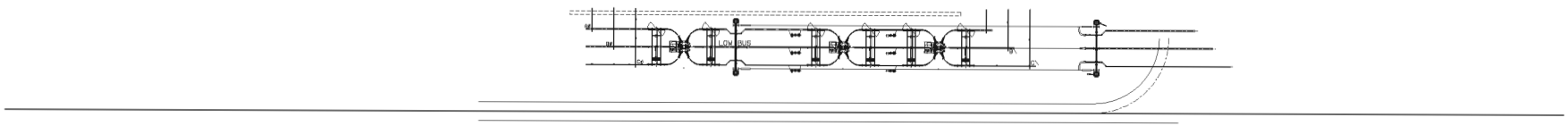
Revisions

Drawn By:	Date	CLOVER SWITCHING STATION
Approval	Date	Drawing No. II.C.5

Dominion Energy

6/23/2022

USER: mohamm6



Dominion Energy

CLOVER SWITCHING STATION

	Name	Date	Project No.	Sheet No.
Designed by:				
Approvals			Scale	OF
Approvals				
			B/M No.	Revisions

Cad File Name

PLOTTED: 6/23/2022

Drawing No. II.C.6

Attachment II.C.6

Typical Drawing Information	Library Location	Cell Name	B/M Assembly	Pipe Stand Foundation Cells (Pier)	Pipe Stand Foundation Cells (Spread)	Foundation Cells for Other Typical Structures (Pier)	Foundation Cells for Other Typical Structures (Spread)	Steel Detail & Assembly

Rev	Date	By	Checked/Appr.	Description	Project Number	B/M

Revisions

USER: mchams6

0 1 2 3 4 5 6 7 8 9 10 11 12

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

A. Describe the character of the area that will be traversed by this line, including land use, wetlands, etc. Provide the number of dwellings within 500 feet, 250 feet and 100 feet of the centerline, and within the ROW for each route considered. Provide the estimated amount of farmland and forestland within the ROW that the proposed project would impact.

Response: **Butler Farm – Clover Line: Proposed Route, Alternative Routes, and Route Variation**

BF - Clover Route

Land Use

The BF – Clover Route traverses approximately 1.7 miles through Halifax County, 9.4 miles through Charlotte County, and 8.0 miles through Mecklenburg County, extending from the existing Clover Station in Clover, east to the proposed Butler Farm Substation just south of Chase City, Virginia. The portion of the route within Halifax County crosses primarily forested land and the route is collocated with existing transmission lines for the initial 1.4 miles. When the route crosses the Staunton River, it enters Charlotte County. The portion of the route within Charlotte County crosses primarily forested and agricultural land with scattered low density residential areas and is mostly collocated with existing transmission lines. After crossing into Mecklenburg County, the route continues across primarily agricultural, forested, and low-density residential areas. As the route makes its way south towards the proposed Butler Farm Substation, it travels around the west side of Chase City near industrial and commercial development, and additional low density residential, forested, and agricultural lands.

According to county parcel data, zoning data, and aerial photo analysis, there are 17 dwellings located within 500 feet of the proposed centerline, five dwellings located within 250 feet of the proposed centerline, and no dwellings located within 100 feet of the proposed centerline or within the right-of-way of the BF – Clover Route. There are 51 non-residential buildings (e.g., sheds and outbuildings) located within 500 feet of the proposed centerline of the BF – Clover Route.

Farmland/Forest

A review of Natural Resources Conservation Service Data ("NRCS") soils data indicates that approximately 71.0 acres of the right-of-way of the BF - Clover Route are classified as prime farmland, 0.5 acre as prime farmland with mitigation (flood protection), and 124.5 acres are classified as farmland of statewide importance. According to a review of recent 2022 aerial photography, there are approximately 79.9 acres of land being used for agricultural purposes within the right-of-way of the BF – Clover Route. About 136.5 acres of forestland will be impacted by construction of the BF – Clover Route. The route overlaps with approximately 11.3

miles of existing transmission line rights-of-way that are regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities. See Attachment III.A.1.

Wetlands

Based on an analysis of the U.S. Geological Survey ("USGS") 7.5-minute current (2014-2017) and historic (1988-2012) topographic mapping, USGS National Hydrography Dataset ("NHD"), the BF – Clover Route crosses a total of 71 waterbodies: 12 perennial and 31 intermittent waterbodies, 2 canal/ditches, and 7 lakes/ponds. Named waterbody crossings include: Little Bluestone Creek, Otter Creek, Black Branch, Devil's Branch, Bluestone Creek (2 crossings), Moody Creek, and the Staunton River. Most of these waterbody crossings are collocated with existing transmission lines. Based on ERM's desktop wetlands and waterbody analysis, 34.9 acres of wetlands are crossed by the right-of-way of the BF – Clover Route. Approximately 5.0 acres are palustrine emergent, 21.1 acres are palustrine forested, 2.3 acres are palustrine shrub scrub, 3.1 acres are palustrine unconsolidated bottom, and 3.3 acres are riverine type wetlands.

Historic Features

A review of the VDHR, Virginia Cultural Resource Information System ("VCRIS") indicates that one previously recorded archaeological site (44HA0228) falls within or adjacent to the rights-of-way for the BF – Clover Route (see Table 1 below). It has not been formally evaluated by the VDHR for the NRHP. Because a formal archaeological survey has not been conducted as part of this Project, impacts have not yet been fully determined; however, it is anticipated that these sites will be avoided and no impacts are likely.

Seven historic resources, defined in accordance with VDHR Guidelines, are associated with the BF – Clover Route. Site 091-0073 is a circa 1825 farmstead with additions that span the 20th century. Portions of the landscape between the resource and route are thickly wooded, and the site is approximately 0.27 mile to the south of the route. The route uses a greenfield alignment, requiring all new right-of-way. However, the area between the resource and the route contains the Company's existing Line #556 with dense forest on both sides of the existing right-of-way. Relative to the resource, the route is north of the existing route and behind the tree line. Due to the dense vegetation, there would be no view to the route from 019-0073. Site 091-0075 is located approximately 0.27-mile to the north of the proposed route. It consists of a Vernacular I-House. The area between the resource and the proposed route is wooded, and like 091-0073, the proposed route runs parallel to the existing Line #556. Due to the dense vegetation, there would be no view to the route from 019-0075. Site 019-5190 is the Staunton River Bridge Battlefield. The area between the battlefield and the proposed route is wooded in areas, with the existing Clover Station between the route and battlefield, at its closest point. This switching station has already introduced modern elements to the battlefield's view. In addition, the existing Line #556 runs parallel to the

proposed route. Thus, the proposed route is unlikely to have any effect on the battlefield.

Site 041-0006, Black Walnut, consists of a circa 1770 dwelling and historic outbuildings that was one of the largest plantations in Halifax County. The area between the resource and the proposed route is densely wooded. It is unlikely to have any view to the proposed route. 058-0274, Pleasant Hill Farm, consists of a circa 1850 dwelling and 20th century outbuildings. The proposed route is located 0.16-mile to the south of the resource. This segment of the route utilizes a greenfield alignment, requiring all new right-of-way. However, existing transmission lines are located to the north and east of the resource, which have diminished the integrity of 058-0274's viewshed. Most of the southern view will be obscured due to the route's placement behind a treeline. The route may be visible when looking southwest and west, but due to distance, it is not likely. Nevertheless, construction of the BF – Clover Route would add modern infrastructure to the west and south, where there currently are no transmission lines. Site 186-0002, Chase City High School, is a Colonial Revival structure built in 1908, and now houses apartments. Site 186-5005 consists of the Chase City Warehouse and Commercial Historic District. The landscape between the two resources and the proposed route contains vegetation and dense residential and commercial infrastructure. Thus, both 186-0002 and 186-5005 will have no view to the proposed route. See Appendix F of the Environmental Routing Study for additional information on these resources.

Table 1. Previously recorded cultural resources within their respective tiered buffer zones for the BF - Clover Route as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia

Buffer(miles)	Considered Resources	VDHR #	Description
1.5	National Historic Landmarks	None	None
1.0	National Register-Listed	041-0006	Black Walnut
		186-0002	Chase City High School/Maple Manor Apartments
		186-5005	Chase City Warehouse and Commercial Historic District
	Battlefields	None	None
	Historic Landscapes	None	None
0.5	National Register-Listed	None	None

Buffer(miles)	Considered Resources	VDHR #	Description
	Battlefields - Potentially Eligible	019-5190	Staunton River Bridge Battlefield
	Historic Landscapes	None	None
	National Register-Eligible	019-0073	Farmstead
		019-0075	Vernacular I-House
		058-0274	Pleasant Hill Farm/Roberts Plantation/Wooten Farm
0.0 (ROW)	National Register-Listed	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	National Register-Eligible	None	None
	Archaeology Sites	44HA0228	Camp (DHR: Unevaluated)

Wildlife

The U.S. Fish and Wildlife Service (the "USFWS") Information for Planning and Consultation IPaC ("IPaC") database query identified one federally listed species: the Northern Long-eared Bat (*Myotis septentrionalis*), threatened that may potentially occur within the Project area. The Virginia Department of Game and Inland Fisheries (the "VAFWIS") database query identified 8 state-listed threatened and endangered species, which includes the federally listed Northern Long-eared Bat that have the potential to occur within 10.0 miles of the geographic center of the natural resources Project area. The seven state only listed species include: Little Brown Bat (*Myotis lucifugus*), Tri-colored Bat (*Perimyotis subflavus*), Eastern Big-eared Bat (*Corynorhinus rafinesquii macrotis*), Loggerhead Shrike (*Lanius ludovicianus*), Henslow's Sparrow (*Ammodramus henslowii*), Carolina Darter (*Etheostoma collis)*, and Whitemouth Shiner *(Notropis alborus)*. The federal listed Atlantic pigtoe (*Fusconaia masoni*) has the potential to occur within a 10.0-mile radius of the geographic center of the Project area. However, waterbodies known to support habitat for this species were not identified within the Project area itself.

Based on landscape and vegetation within the Project area, each route alternative crosses a variety of potential habitat types. These habitats include forested land, shrub land, grass land, agricultural land, and waterbodies with intermittent and perennial stream flow. Within the BF – Clover Route, these habitat types each could have potential to provide suitable habitat for one or more of the species listed above.

Of the species identified, the Atlantic pigtoe, Loggerhead Shrike, Carolina Darter, and the Whitemouth Shiner have been historically documented by state agencies, in areas adjacent to or crossed by any of the routes. No instream work will be

performed for the Project; however, forested areas will be cleared during construction. Dominion Energy Virginia will coordinate with state and federal agencies as needed to determine if any surveys, construction-timing windows, or other mitigation would be required for the Project.

BF - Clover Alternative Route 1

Land Use

The BF – Clover Alternative Route 1 traverses approximately 1.7 miles through Halifax County, 10.0 miles through Charlotte County, and 9.4 miles through Mecklenburg County. The portion of the route within Halifax County crosses primarily forested land and the route is collocated with existing transmission lines for the initial 1.4 miles. When the route crosses the Staunton River, it enters Charlotte County. The portion of the route within Charlotte County crosses primarily forested and agricultural land with scattered low density residential areas as it is collocated with existing transmission lines for 5.1 miles. Once the route turns south, away from the existing transmission corridor, it crosses forested and agricultural land before entering Mecklenburg County. After crossing into Mecklenburg County, the route continues across primarily forested areas until it becomes collocated with existing transmission corridor and then a pipeline corridor, crossing primarily forested and agricultural land with scattered low density residential areas. The route then deviates from the pipeline corridor and crosses mostly forested and open grassland areas as it makes its way to the proposed Butler Farm Substation.

According to county parcel data, zoning data and aerial photo analysis, there are 34 dwellings located within 500 feet of the proposed centerline, nine dwellings located within 250 feet of the proposed centerline, and one dwelling located within 100 feet of the proposed centerline of the BF – Clover Alternative Route 1, and no dwellings within the right-of-way. There are 55 non-residential buildings (e.g., sheds and out buildings) located within 500 feet of the proposed centerline of the BF – Clover Alternative Route 1.

Farmland/Forest

A review of NRCS soils data indicates that approximately 84.4 acres of the right-of-way of the BF – Clover Alternative Route 1 are classified as prime farmland, 0.5 acres of prime farmland with mitigation (flood protection), and 118.5 acres are classified as farmland of statewide importance. According to a review of recent 2022 aerial photography, there are approximately 61.6 acres of land being used for agricultural purposes within the right-of-way of the BF – Clover Alternative Route 1. About 165.3 acres of forestland will be impacted by construction of the BF – Clover Alternative Route 1. The BF – Clover Alternative Route 1 overlaps with approximately 10.5 miles of existing rights-of-way that are regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities. These rights-of-ways include existing transmission lines for

approximately 8.5 miles, existing pipelines for 1.8 miles, and road corridors for 0.2 mile. See Attachment III.A.1.

Wetlands

Based on an analysis of the USGS 7.5-minute current (2014-2017) and historic (1988-2012) topographic mapping, USGS NHD, the BF – Clover Alternative Route 1 crosses a total of 61 waterbodies: 10 perennial and 42 intermittent waterbodies, 2 canal/ditches, and 7 lakes/ponds. Named waterbody crossings include: Little Bluestone Creek, Woodpecker Creek, Yerby's Creek, Otter Creek, Bluestone Creek, Moody Creek, and the Staunton River. Most of these waterbody crossings are collocated with existing transmission lines. Based on ERM's desktop wetland and waterbody analysis, approximately 43.1 acres of wetlands are within the right-of-way of the BF – Clover Alternative Route 1. Approximately 1.9 acres are palustrine emergent, 30.5 acres are palustrine forested, 0.0 acres are palustrine scrub shrub, 4.5 acres are palustrine unconsolidated bottom, and 6.3 acres are riverine type wetlands.

Historic Features

A review of the VDHR, VCRIS indicates that two previously recorded archaeological sites (44HA0228 and 44MC0902) fall within or adjacent to the rights-of-way for BF – Clover Alternative Route 1 (see Table 2 below). One of the sites (44HA0228) has not been formally evaluated by the VDHR for the NRHP. 44MC0902 has been determined potentially eligible for listing on the NRHP. Because a formal archaeological survey has not been conducted as part of this Project, impacts have not yet been fully determined; however, it is anticipated that these sites will be avoided and no impacts are likely.

Four historic resources, defined in accordance with VDHR Guidelines, are associated with the BF – Clover Alternative Route 1. Site 091-0073 is a circa 1825 farmstead with additions that span the 20th century. Portions of the landscape between the resource and route are thickly wooded, and the site is approximately 0.27 mile to the south of the route. The route uses a greenfield alignment, requiring all new right-of-way. However, the area between the resource and the route contains the Company's existing Line #556 with dense forest on both sides of the existing right-of-way. Relative to the resource, the route is north of the existing route and behind the tree line. Due to the dense vegetation, there would be no view to the route from 019-0073.

Site 091-0075 is located approximately 0.27-mile to the north of the route. It consists of a Vernacular I-House. The area between the resource and the route is wooded, and like 091-0073, the route runs parallel to the existing Line #556. Due to the dense vegetation, there would be no view to the route from 019-0075. Site 019-5190 is the Staunton River Bridge Battlefield. The area between the battlefield and the route is wooded in areas, with the existing Clover Station between the route and battlefield, at its closest point. This switching station has already introduced

modern elements to the battlefield's view. In addition, the existing Line #556 runs parallel to the route. Thus, the route is unlikely to have any effect on the battlefield. Site 041-0006, Black Walnut, consists of a circa 1770 dwelling and historic outbuildings that was one of the largest plantations in Halifax County. The area between the resource and the route is densely wooded. It is unlikely to have any view to the route. See Appendix F of the Environmental Routing Study for additional information on these resources.

Table 2. Previously recorded cultural resources within their respective tiered buffer zones for the BF - Clover Alternative Route 1 as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia

Buffer(miles)	Considered Resources	VDHR #	Description
1.5	National Historic Landmarks	None	None
1.0	National Register- Listed	041-0006	Black Walnut
	Battlefields	None	None
	Historic Landscapes	None	None
0.5	National Register- Listed	None	None
	Battlefields - Potentially Eligible	019-5190	Staunton River Bridge Battlefield
	Historic Landscapes	None	None
	National Register-Eligible	019-0073	Farmstead
		019-0075	Vernacular I-House
0.0 (ROW)	National Register- Listed	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	National Register-Eligible	None	None
	Archaeology Sites	44HA0228	Camp (DHR: Unevaluated)
		44MC0902	Early Woodland Lithic Quarry and Scatter

Wildlife

Wildlife impacts for the BF – Clover Alternative Route 1 are anticipated to be similar to the BF – Clover Route, discussed above.

BF - Clover Alternative Route 2

Land Use

The BF – Clover Alternative Route 2 traverses approximately 1.7 miles through Halifax County, 9.4 miles through Charlotte County, and 9.1 miles through Mecklenburg County. The portion of the route within Halifax County crosses primarily forested land and the route is collocated with existing transmission lines for the initial 1.4 miles. When the route crosses the Staunton River, it enters Charlotte County. The route is then collocated with existing transmission lines for 0.8 mile and crosses primarily forested and agricultural lands. Once the route turns south, away from the existing transmission corridor, it crosses forested and agricultural land before turning east and collocating with existing transmission lines to the Mecklenburg County line. After crossing into Mecklenburg County, the route continues to be collocated with existing transmission corridors and then a pipeline corridor, crossing primarily forested and agricultural land with scattered low density residential areas. The route then deviates from the pipeline corridor and crosses mostly forested and open grassland areas as it makes its way to the proposed Butler Farm Substation.

According to county parcel data, zoning data and aerial photo analysis, there are 41 dwellings located within 500 feet of the proposed centerline, eight dwellings located within 250 feet of the proposed centerline, one dwelling located within 100 feet of the proposed centerline, and no dwellings within the right-of-way of the BF – Clover Alternative Route 2. There are 60 non-residential buildings (e.g., sheds and out buildings) located within 500 feet of the proposed centerline of the BF – Clover Alternative Route 2.

Farmland/Forest

A review of NRCS soils data indicates that approximately 80.8 acres of the right-of-way of the BF – Clover Alternative Route 2 are classified as prime farmland, 0.5 acre of prime farmland with mitigation (flood protection), and 116.7 acres are classified as farmland of statewide importance. According to a review of recent 2022 aerial photography, approximately 61.6 acres of land being used for agricultural purposes is within the right-of-way of the BF – Clover Alternative Route 2. About 162.0 acres of forestland will be impacted by construction of the BF – Clover Alternative Route 2. The BF – Clover Alternative Route 2 overlaps with approximately 10.6 miles of existing rights-of-way that are regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities. These rights-of-ways include existing transmission lines for approximately 8.6 miles and existing pipelines for 1.8 miles and roads for 0.2-mile. See Attachment III.A.1.

Wetlands

Based on an analysis of the USGS 7.5-minute current (2014-2017) and historic (1988-2012) topographic mapping, USGS NHD, the BF – Clover Alternative Route 2 crosses a total of 64 waterbodies: 13 perennial and 41 intermittent waterbodies, 2 canal/ditches, and 8 lakes/ponds. Named waterbody crossings include: Little Bluestone Creek (3 crossings), Otter Creek, Black Branch, Devil's Branch, Moody Creek, and the Staunton River. Most of these waterbody crossings are collocated with existing transmission lines. Based on ERM's desktop wetland and waterbody analysis, approximately 39.1 acres of wetlands are within the right-of-way of the BF – Clover Alternative Route 2. Approximately 3.6 acres are palustrine emergent, 25.1 acres are palustrine forested, 0.0 acre are palustrine scrub shrub, 3.9 acres are palustrine unconsolidated bottom and 6.4 acres are riverine type wetlands.

Historic Features

A review of the VDHR, VCRIS indicates that two previously recorded archaeological sites (44HA0228 and 44MC0902) fall within or adjacent to the rights-of-way for the BF-Clover Alternative Route 2 (see Table 3 below). One site (44HA0109 and 44HA0228) has not been formally evaluated by the VDHR for the NRHP. 44MC0902 has been determined potentially eligible for listing on the NRHP. Because a formal archaeological survey has not been conducted as part of this Project, impacts have not yet been fully determined; however, it is anticipated that these sites will be avoided and no impacts are likely.

Two historic resources, defined in accordance with VDHR Guidelines, are associated with the Butler Farm - Clover Alternative Route 2. 019-5190 is the Staunton River Bridge Battlefield. The area between the battlefield and the route is wooded in areas, with the existing Clover Station between the route and battlefield, at its closest point. This substation has already introduced modern elements to the battlefield's view. In addition, the existing Line #556 runs parallel to the route. Thus, the route is unlikely to have any effect on the battlefield. 041-0006, Black Walnut, consists of a circa 1770 dwelling and historic outbuildings that was one of the largest plantations in Halifax County. The area between the resource and the route is densely wooded. It is unlikely to have any view to the route. See Appendix F of the Environmental Routing Study for additional information on these resources.

Table 3. Previously recorded cultural resources within their respective tiered buffer zones for the BF - Clover Alternative Route 2 as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia

Buffer(miles)	Considered Resources	VDHR #	Description
1.5	National Historic Landmarks	None	None

Buffer(miles)	Considered Resources	VDHR #	Description
1.0	National Register- Listed	041-0006	Black Walnut
	Battlefields	None	None
	Historic Landscapes	None	None
0.5	National Register- Listed	None	None
	Battlefields - Potentially Eligible	019-5190	Staunton River Bridge Battlefield
	Historic Landscapes	None	None
	National Register-Eligible	None	None
0.0 (ROW)	National Register- Listed	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	National Register-Eligible	None	None
	Archaeology Sites	44HA0228	Camp (DHR: Unevaluated)
		44MC0902	Early Woodland Lithic Quarry and Scatter

Wildlife

Wildlife impacts for the BF – Clover Alternative Route 2 are anticipated to be similar to the BF – Clover Route, discussed above.

BF – Clover Route Variation

Land Use

The BF – Clover Route Variation provides an alternative to the alignment of the BF – Clover Proposed Route where the route crosses the proposed Chase City Apartment Complex development. The north end of this route variation is forested. As it traverses south, it crosses residential and commercial areas near Highway 92. South of the highway, the routes cross mostly forested areas with small pockets of agricultural lands. All 1.7 miles of the BF – Clover Route Variation are within Mecklenburg County.

According to the County parcel data, zoning data and aerial photo analysis, there are 27 dwellings located within 500 feet of the proposed centerline, six dwellings located within 250 feet of the proposed centerline, and no dwellings located within 100 feet of the proposed centerline or within the right-of-way of the BF – Clover Route Variation. There are 23 non-residential buildings (e.g., sheds and

outbuildings) located within 500 feet of the proposed centerline of the BF – Clover Route Variation.

Farmland/Forest

A review of NRCS soils data indicates that approximately 7.1 acres of the right-of-way of the BF – Clover Route Variation are classified as prime farmland, 0.0 acre of prime farmland with mitigation (flood protection), and 10.2 acres are classified as farmland of statewide importance. According to a review of recent 2022 aerial photography, there are approximately 7.0 acres of land being used for agricultural purposes within the right-of-way of the BF – Clover Route Variation. About 15.3 acres of forestland will be impacted by construction of the BF – Clover Route Variation. The BF - Clover Route Variation does not overlap with any existing rights-of-way. See Attachment III.A.1.

Wetlands

Based on an analysis of the USGS 7.5-minute current (2014-2017) and historic (1988-2012) topographic mapping, USGS NHD, the BF – Clover Route Variation crosses a total of four waterbodies, all of which are perennial waterbodies. No named waterbodies are crossed, all four stream crossings are unnamed tributaries to Little Bluestone Creek. Based on ERM's desktop wetland and waterbody analysis, approximately 3.5 acres of wetlands are within the right-of-way of the BF – Clover Route Variation. Approximately 0.2 acre are palustrine emergent, 2.5 acres are palustrine forested, 0.4 acre are palustrine scrub shrub, 0.0 acre are palustrine unconsolidated bottom, and 0.4 acre are riverine type wetlands.

Historic Features

No archaeological features fall within the right-of-way of the BF – Clover Route Variation (See Table 4 below).

Three historic resources, defined in accordance with VDHR Guidelines, are associated with the BF-Clover Route Variation. 186-0002, Chase City High School, is a Colonial Revival structure built in 1908, and now houses apartments. 186-5004 is an Italianate I-House built in 1934. 186-5005 consists of the Chase City Warehouse and Commercial Historic District. The landscape between the three resources and the Proposed Route with the Variation contains vegetation and dense residential and commercial infrastructure. Thus, 186-0002, 186-5004, and 186-5005 will have no view to the Proposed Route with the Variation.

Table 4. Previously recorded cultural resources within their respective tiered buffer zones for BF – Clover Route Variation as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia

Buffer(miles)	Considered Resources	VDHR #	Description
1.5	National Historic Landmarks	None	None
1.0	National Register- Listed	186-0002	Chase City High School/Maple Manor Apartments
		186-5004	Shadow Lawn
		186-5005	Chase City Warehouse and Commercial Historic District
	Battlefields	None	None
	Historic Landscapes	None	None
0.5	National Register- Listed	None	None
	Battlefields - Potentially Eligible	None	None
	Historic Landscapes	None	None
	National Register-Eligible	None	None
0.0 (ROW)	National Register- Listed	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	National Register-Eligible	None	None
	Archaeology Sites	None	None

Wildlife

Wildlife impacts for the BF – Clover Route Variation are anticipated to be similar to the BF – Clover Route, discussed above.

Butler Farm – Finneywood Line: Proposed Route, Alternative Route, Route Variation

BF - Finneywood Route

Land Use

BF - Finneywood Route is approximately 7.0 miles in length and located entirely

within Mecklenburg County. From the proposed Finneywood Station south, the route is collocated with existing transmission corridors and crosses primarily forested and agricultural land with scattered low density residential areas. West of Chase City, the route deviates from the existing transmission corridors and continues south crossing dense forested areas with some agricultural areas and pockets of low-density residential development before entering the proposed Butler Farm Substation area.

According to county parcel data, zoning data and aerial photo analysis, there are 15 dwellings located within 500 feet of the proposed centerline, four dwellings located within 250 feet of the proposed centerline, and no dwellings located within 100 feet of the proposed centerline or within the right-of-way of the BF – Finneywood Route. There are 27 non-residential buildings (e.g., sheds and outbuildings) located within 500 feet of the proposed centerline of the BF – Finneywood Route.

Farmland/Forest

A review of NRCS soils data indicates that 32.4 acres of the right-of-way of the BF – Finneywood Route are classified as prime farmland, no acres are prime farmland with mitigation (flood protection), and 73.6 acres are classified as farmland of statewide importance. According to a review of recent 2022 aerial photography, there are approximately 18.3 acres of land being used for agricultural purposes within the right-of-way of the BF – Finneywood Route. About 72.2 acres of forestland will be impacted by construction of the BF – Finneywood Route. The BF – Finneywood Route overlaps with approximately 3.3 miles of existing transmission line rights-of-way that are regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities. See Attachment III.A.1.

Wetlands

Based on an analysis of the USGS 7.5-minute current (2014-2017) and historic (1988-2012) topographic mapping, USGS NHD, the BF – Finneywood Route crosses a total of 12 waterbodies: 5 perennial and 6 intermittent waterbodies, and 1 no lake/pond crossings. There are two crossings of named waterbody Little Bluestone Creek. Based on ERM's desktop wetland and waterbody analysis, approximately 13.5 acres of wetlands are crossed by the right-of-way of the BF – Finneywood Route. Approximately 1.2 acres are palustrine emergent, 8.1 acres are palustrine forested, 2.9 acres are palustrine scrub shrub, 0.6 acres are palustrine unconsolidated bottom, and 0.5 acres are riverine type wetlands. Of these, no wetlands are within the footprint of the proposed Finneywood Station.

Historic Features

No archaeological features fall within the right-of-way of the BF – Finneywood Route (See Table 5 below).

Two historic resources, defined in accordance with VDHR Guidelines, are associated with the Proposed Route. 186-0002, Chase City High School, is a Colonial Revival structure built in 1908, and now houses apartments. 186-5005 consists of the Chase City Warehouse and Commercial Historic District. The landscape between the two resources and the Proposed Route contains vegetation and dense residential and commercial infrastructure. Thus, both 186-0002 and 186-5005 will have no view to the Proposed Route.

Table 5. Previously recorded cultural resources within their respective tiered buffer zones for BF – Finneywood Route as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia

Buffer(miles)	Considered Resources	VDHR #	Description
1.5	National Historic Landmarks	None	None
1.0	National Register-Listed	186-0002	Chase City High School/Maple Manor Apartments
		186-5005	Chase City Warehouse and Commercial Historic District
	Battlefields	None	None
	Historic Landscapes	None	None
0.5	National Register-Listed	None	None
	Battlefields - Potentially Eligible	None	None
	Historic Landscapes	None	None
	National Register-Eligible	None	None
0.0 (ROW)	National Register-Listed	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	National Register-Eligible	None	None
	Archaeology Sites	None	None

Wildlife

The USFWS IPaC database query identified one federally listed species: the Northern Long-eared Bat (*Myotis septentrionalis*), threatened that may potentially

occur within the Project area. The VAFWIS database query identified 8 state-listed threatened and endangered species, which includes the federally listed Northern Long-eared Bat, that have the potential to occur within 10.0 miles of the geographic center of the natural resources Project area. The seven state only listed species include: Little Brown Bat (*Myotis lucifugus*), Tri-colored Bat (*Perimyotis subflavus*), Eastern Big-eared Bat (*Corynorhinus rafinesquii macrotis*), Loggerhead Shrike (*Lanius ludovicianus*), Henslow's Sparrow (*Ammodramus henslowii*), Carolina Darter (*Etheostoma collis)*, Whitemouth Shiner *(Notropis alborus)*. The federal listed Atlantic pigtoe (*Fusconaia masoni*) has the potential to occur within a 10.0-mile radius of the geographic center of the Project area, however, waterbodies known to support habitat for this species were not identified within the Project area itself.

Based on landscape and vegetation within the Project area, each route crosses a variety of potential habitat types. These habitats include forested land, shrub land, grass land, agricultural land, and waterbodies with intermittent and perennial stream flow. Within the BF – Finneywood Route, these habitat types each could have potential to provide suitable habitat for one or more of the species listed above.

Of the eight species identified, the Atlantic pigtoe, Loggerhead Shrike, Carolina Darter, and the Whitemouth Shiner have been historically documented by state agencies, in areas adjacent to or crossed by any of the routes. No instream work will be performed for the Project; however, forested areas will be cleared during construction. Dominion Energy Virginia will coordinate with state and federal agencies as needed to determine if any surveys, construction-timing windows, or other mitigation would be required for the Project.

BF – Finneywood Alternative Route

Land Use

The BF – Finneywood Alternative Route is approximately 7.8 miles in length and located entirely within Mecklenburg County. From the proposed Finneywood Station east, the route is collocated with an existing transmission line and crosses dense forest before turning south away from the existing transmission line. As the route traverses south, it crosses dense forested areas with some open fields and agricultural areas. Sparse residential development is located in the area. The route then turns west and crosses mostly forested areas with some open agricultural areas before entering the Butler Farm Substation area.

According to county parcel data, zoning data and aerial photo analysis, there are eight dwellings located within 500 feet of the proposed centerline and no dwellings located within 250 feet of the proposed centerline, 100 feet of the proposed centerline, or within the right-of-way of the BF – Finneywood Alternative Route. There are 25 non-residential buildings (e.g., sheds and out-buildings) located within 500 feet of the proposed centerline of the BF – Finneywood Alternative Route.

Farmland/Forest

A review of NRCS soils data indicates that approximately 44.4 acres of the right-of-way of the BF – Finneywood Alternative Route are classified as prime farmland, no acres are prime farmland with mitigation (flood protection), and 65.1 acres are classified as farmland of statewide importance. According to a review of recent 2022 aerial photography, there are approximately 16.0 acres of land being used for agricultural purposes within the right-of-way of the BF - Finneywood Alternative Route. About 94.4 acres of forestland will be impacted by construction of the BF – Finneywood Route. The BF – Finneywood Alternative Route overlaps with approximately 0.9 mile of existing rights-of-way that are regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities. See Attachment III.A.1.

Wetlands

Based on an analysis of the USGS 7.5-minute current (2014-2017) and historic (1988-2012) topographic mapping, USGS NHD, the BF – Finneywood Alternative Route crosses a total of 11 waterbodies: 3 perennial, 7 intermittent waterbodies, and 1 lake/pond crossing. Named waterbody crossings include: Horsepen Creek and Butcher Creek. Based on ERM's desktop wetland and waterbody analysis, approximately 10.0 acres of wetlands are within the right-of-way of the BF – Finneywood Alternative Route. Of these, approximately 2.1 acres are palustrine emergent, 7.4 acres are forested, and 0.6 acres are riverine type wetlands. Of these, no wetlands are within the footprint of the proposed Finneywood Station.

Historic Features

No historic or archaeological features fall within the right-of-way of VDHR study tiers for the proposed route.

Wildlife

Wildlife impacts for the BF – Finneywood Alternative Route are anticipated to be similar to the BF – Finneywood Route discussed above.

BF – Clover Finneywood Variation

Land Use

BF – Finneywood Route Variation provides an alternative to the alignment of the BF – Finneywood Route where the route crosses the proposed Chase City Apartment Complex development. The north end of this route variation is forested. As it traverses south, it crosses residential and commercial areas near Highway 92. South of the highway, the routes cross mostly forested areas with small pockets of agricultural lands. All 1.7 miles are within Mecklenburg County.

According to county parcel data, zoning data and aerial photo analysis, there are 24 dwellings located within 500 feet of the proposed centerline, three dwellings located within 250 feet of the proposed centerline, and no dwellings located within 100 feet of the proposed centerline or within the right-of-way of BF – Finneywood Route Variation. There are 20 non-residential buildings (e.g., sheds and outbuildings) located within 500 feet of the proposed centerline of BF – Finneywood Route Variation.

Farmland/Forest

A review of NRCS soils data indicates that approximately 6.8 acres of the right-of-way of BF – Finneywood Route Variation are classified as prime farmland, 0.0 acre of prime farmland with mitigation (flood protection), and 11.6 acres are classified as farmland of statewide importance. According to a review of recent 2022 aerial photography, there are approximately 7.8 acres of land being used for agricultural purposes within the right-of-way of BF – Finneywood Route Variation. About 14.8 acres of forestland will be impacted by construction of BF – Finneywood Route Variation. BF – Finneywood Route Variation does not overlap with any existing rights-of-way. See Attachment III.A.1.

Wetlands

Based on an analysis of the USGS 7.5-minute current (2014-2017) and historic (1988-2012) topographic mapping, USGS NHD, BF – Finneywood Route Variation crosses a total of three waterbodies, all of which are perennial waterbodies. No named waterbodies are crossed, all three stream crossings are unnamed tributaries to Little Bluestone Creek. Based on ERM's desktop wetland and waterbody analysis, approximately 2.5 acres of wetlands are within the right-of-way of BF – Finneywood Route Variation. Approximately 0.3 acre are palustrine emergent, 1.5 acres are palustrine forested, 0.4 acre are palustrine scrub shrub, 0.0 acre are palustrine unconsolidated bottom, and 0.3 acre are riverine type wetlands.

Historic Features

No archaeological features fall within the right-of-way of the BF – Finneywood Route Variation (See Table 6 below).

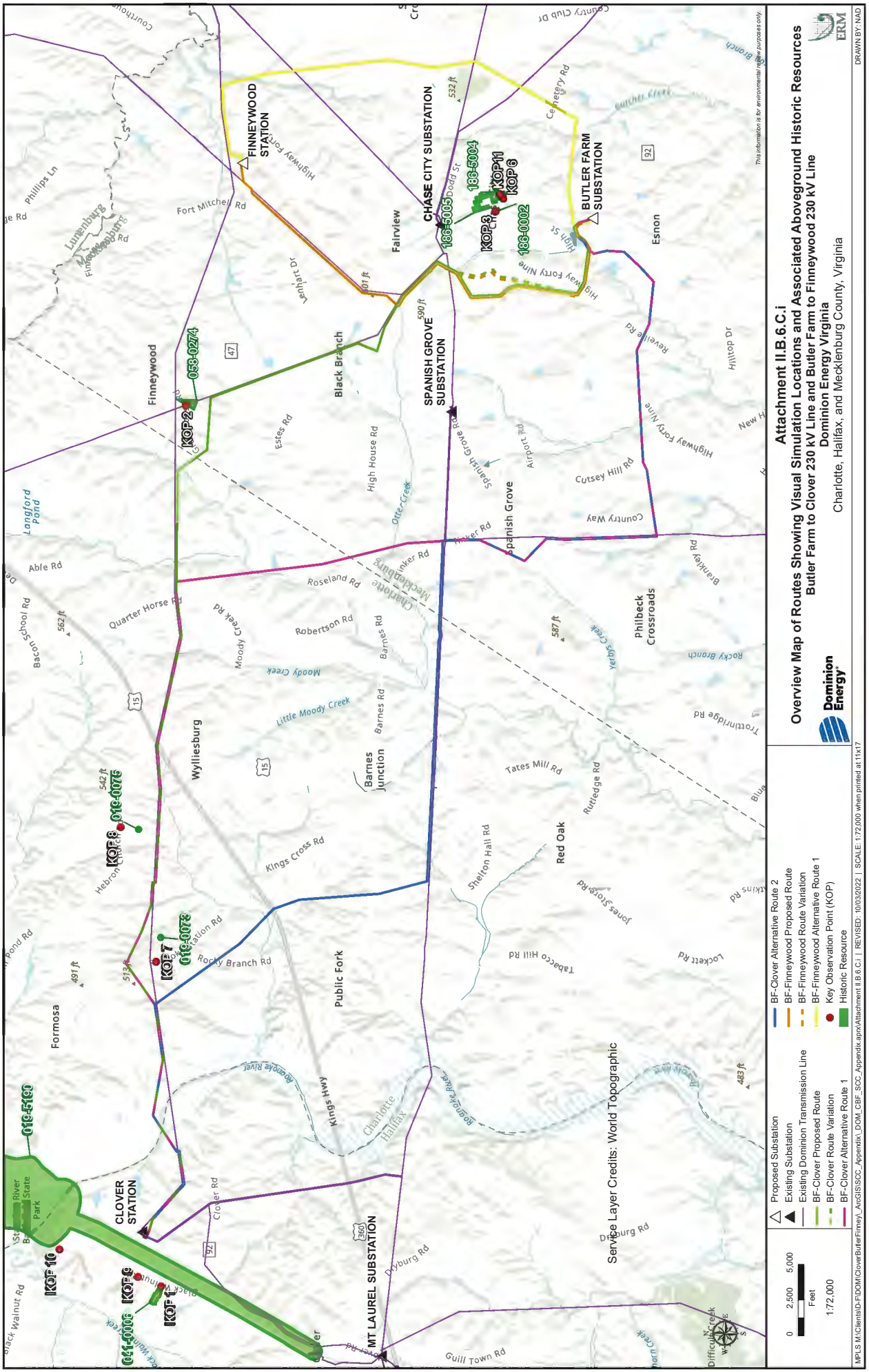
Two historic resources, defined in accordance with VDHR Guidelines, are associated with the BF – Finneywood Route Variation. 186-0002, Chase City High School, is a Colonial Revival structure built in 1908, and now houses apartments. 186-5005 consists of the Chase City Warehouse and Commercial Historic District. The landscape between the two resources and the Proposed Route with the Variation contains vegetation and dense residential and commercial infrastructure. Thus, both 186-0002 and 186-5005 will have no view to the Proposed Route with the Variation.

Table 6. Previously recorded cultural resources within their respective tiered buffer zones for BF – Finneywood Route Variation as specified in the VDHR Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia

Buffer(miles)	Considered Resources	VDHR #	Description
1.5	National Historic Landmarks	None	None
1.0	National Register- Listed	186-0002	Chase City High School/Maple Manor Apartments
		186-5005	Chase City Warehouse and Commercial Historic District
	Battlefields	None	None
	Historic Landscapes	None	None
0.5	National Register- Listed	None	None
	Battlefields - Potentially Eligible	None	None
	Historic Landscapes	None	None
	National Register- Eligible	None	None
0.0 (ROW)	National Register- Listed	None	None
	Battlefields	None	None
	Historic Landscapes	None	None
	National Register- Eligible	None	None
	Archaeology Sites	None	None

Wildlife

Wildlife impacts for the BF – Finneywood Route Variation are anticipated to be similar to the BF – Finneywood Route, discussed above.


Attachment II.B.6.C.i
Overview Map of Routes Showing Visual Simulation Locations and Associated Aboveground Historic Resources
Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line
Dominion Energy Virginia
Charlotte, Halifax, and Mecklenburg County, Virginia
Dominion Energy
ERM
Proposed Substation
Existing Substation
Existing Dominion Transmission Line
BF-Clover Proposed Route
BF-Clover Route Variation
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2
BF-Finneywood Proposed Route
BF-Finneywood Route Variation
BF-Finneywood Alternative Route 1
Key Observation Point (KOP)
Historic Resource
0 2,500 5,000 Feet
1:72,000
Service Layer Credits: World Topographic
CLOVER STATION
MT LAUREL SUBSTATION
FINNEYWOOD STATION
CHASE CITY SUBSTATION
SPANISH GROVE SUBSTATION
BUTLER FARM SUBSTATION
KOP 1
KOP 2
KOP 3
KOP 4
KOP 5
KOP 6
KOP 7
KOP 8
KOP 10
016-5199
053-0274
136-5005
136-5004
136-0002
016-0075
016-0073
044-0006
This information is for environmental review purposes only.
MPLS M:\Clients\D-F\DOM\CloverButlerFinney_ArcGIS\SCC_Appendix_DOM_CBF_SCC_Appendix.aprx\Attachment II.B.6.C.i | REVISED: 10/03/2022 | SCALE: 1:72,000 when printed at 11x17
DRAWN BY: NAD

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

B. Describe any public meetings the Applicant has had with neighborhood associations and/or officials of local, state or federal governments that would have an interest or responsibility with respect to the affected area or areas.

Response: Beginning in January 2022, the Company has engaged with Charlotte, Halifax, and Mecklenburg Counties regarding the proposed Project, including the following.

- In January 2022, Company representatives briefed the Mecklenburg County Administrator to introduce the Project prior to the Mecklenburg County Board of Supervisors ("BOS") meeting.

- In February 2022, Company representatives approached the Mecklenburg County BOS to introduce the Project.

- In February 2022, Company representatives held a meeting with the USACE to introduce the Project and discuss the viability of crossing USACE lands.

- In March 2022, Company representatives held a meeting with the VOF to introduce the Project.

- In March 2022, Company representatives held a meeting with Department of Conservation and Recreation ("DCR") to introduce the Project and viability of crossing the CREP.

- In March 2022, the Company held a meeting with Mecklenburg County Planning and Zoning department to discuss the Project and solicit feedback on preliminary route options.

- In March 2022, Company representatives approached representatives of Halifax County and Charlotte County to introduce the Project.

- In March 2022, Company representatives briefed the Town Manager of Chase City in Mecklenberg County about the Project. The Town Manager of Chase City also attended the May 3, 2022 in-person community meeting.

- In April 2022, Company representatives held a meeting with the VOF to further discuss the Project and moving forward with the river crossing collocation and presenting to the VOF Board prior to filing with the Commission.

- In June 2022, Company representative held a meeting with the VOF to further discuss the Roanoke River Crossing by the Project and support for this crossing.

- In April 2022, Company representative briefed Charlotte County Supervisors via email providing a high-level overview of the Project prior to the Company presenting to the Charlotte County BOS.

- In May 2022, Company representatives approached the Charlotte County BOS to introduce the Project.

- In July 2022, Company representatives provided an update to Mecklenburg County BOS on the Project and outreach to the community.

In March 2022, the Company launched an internet website dedicated to the proposed Project: www.dominionenergy.com/butlerfarm. The website includes a description of the proposed Project, an explanation of the need, routing options, GeoVoice (an interactive mapping tool), photo renderings and simulations, recordings of the in-person community meeting presentations, and information on the Commission review process.

The Company hosted three in-person public meetings in May and June 2022. The purpose of the May 3, 2022, and May 11, 2022, meetings was to build community awareness about the Project, share preliminary routes for the Project, and address property owner concerns. Approximately 100 individuals attended the May 2022 meetings. A presentation used during the May meetings is included as Attachment III.B.1. Structure renderings and aerial renderings presented during the May meetings are included as Attachment III.B.2 and Attachment III.B.3. The purpose of the June 21, 2022, meeting was to provide the community with an update on the Project after incorporating public input to address property owner concerns. Approximately 25 individuals attended the June 2022 meeting. Photo simulations from key locations, which are included as Attachment III.B.4, and updated routing options were presented at the meeting.

Since March 2022, the Company released four mailers totaling nearly 25,304 pieces of correspondence informing the public about the Project and inviting the public to learn more about the Project and its development. Templates of those four mailers are included as Attachments III.B.5.i through III.B.5.iv.

The Company deployed an online tool called GeoVoice on April 20, 2022 (embedded within the DominionEnergy.com/butlerfarm website: Mecklenburg GeoVoice Portal (powereng.com)), which allows users to review the potential transmission routing options and provide location-based comments to share insights. Users do not need to register before viewing the routing details but do need to register to submit a comment to the project team.

The Company used traditional and digital media to build awareness, promote public events, and ensure interested community members knew that the Company is available to discuss their interests and concerns about the Project. A copy of the traditional and digital media advertisements are included as Attachment.III.B.6.

An overview of the digital campaign results as of July 2022 is as follows.

- Pre-Event 5/3 and 5/11 campaign results:
  - 1,380,079 Impressions Delivered
  - 2,149 Link Clicks
  - 88,110 Video Views with an Average 23.23% Video Completion Rate
  - 0.48% Clickthrough Rate

- Pre-Event 6/21 campaign results:
  - 369,661 Impressions Delivered
  - 2,123 Link Clicks
  - 50,157 Video Views with an Average 28.60% Video Completion Rate
  - 0.94% Clickthrough Rate

- Post-Event campaign results:
  - 740,876 Impressions Delivered
  - 3,730 Link Clicks
  - 67,541 Video Views with an Average 28.00% Video Completion Rate
  - 0.92% Clickthrough Rate

Newspaper print advertisements regarding the Project and community meetings were placed in the Charlotte Gazette, the Gazette Virginian, the Mecklenburg Sun, the News & Record, and the News Progress. The advertisements ran on April 27, 2022, in the Charlotte Gazette, the Mecklenburg Sun, and the News Progress, and on May 2, 2022, in the Gazette Virginian and the News & Record.

Email addresses that were provided to the Company at the first two community meetings were used to send a reminder email about the third and final community meeting. A copy of the email included as Attachment III.B.7.

Input from the stakeholder groups regarding community considerations about regional development and land use, vulnerable populations, and environmental and cultural resources were considered during project design.

Based on additional investigation and developer site plans, a route variation was created along the BF – Clover Proposed Route and the BF – Finneywood Proposed Route. Subsequently, the Company sent out a letter, including a map, inviting property owners within 1,000 feet of the route variation to attend a September 28, 2022 community meeting to learn more about the route variation and speak directly to project team members. The community meeting was held at a local restaurant close to the route variation, as well as a low-income community, qualifying as an EJ Community. The letter and map, which were mailed on September 15, 2022, is included as Attachment III.B.8. On September 27, 2022, door hangers were

distributed to most of the EJ Community informing them of the upcoming meeting. A sample door hanger is included as Attachment III.B.9. The community meeting was held on September 28, 2022 from 11a.m. to 6 p.m. to accommodate different work schedules. Eleven individuals attended the community meeting, none of which were from or represented the EJ Community. The Company also updated the routes in GeoVoice.

As part of preparing for the Project, the Company researched the demographics of the surrounding communities using the Environmental Protection Agency's EJ mapping and screening tool, EJScreen 2.0 and census data from the U.S. Census Bureau 2015–2019 American Community. This information revealed that nine Census Block Groups ("CBG") are within the Project study area and are within one mile of the routing options. A review of census data for several demographic characteristics identified populations within the Project study area that meet the Virginia Environmental Justice Act threshold to be defined as Environmental Justice Communities ("EJ Communities"). Communities of color have been identified in one of nine CBGs within the Project study area. Three out of nine CBGs within the Project study area appear to be low-income. Five CBGs contain communities of color and low-income populations.

Pursuant to Va. Code §§ 56.46.1 C and 56-259 C and FERC Guidelines, there is a strong preference for the use/paralleling of existing utility rights-of-way whenever feasible. While the Project creates new rights-of-way, the Project mainly follows existing infrastructure corridors, uses weathering steel structures to better blend in with surrounding forested areas, and generally limits impacts on the surrounding areas. Based on the analysis of the Project, the Company does not anticipate disproportionately high or adverse impacts to the surrounding community and the EJ Communities located within the study area.

In addition to its evaluation of impacts, the Company has and will continue to engage the EJ Communities and others affected by the Project in a manner that allows them to meaningfully participate in the project development and approval process so that their views and input can be taken into consideration. See Attachment III.B.10 for a copy of the Company's Environmental Justice Policy.

Meeting Virginia's Energy Needs

Dominion Energy

Actions Speak Louder

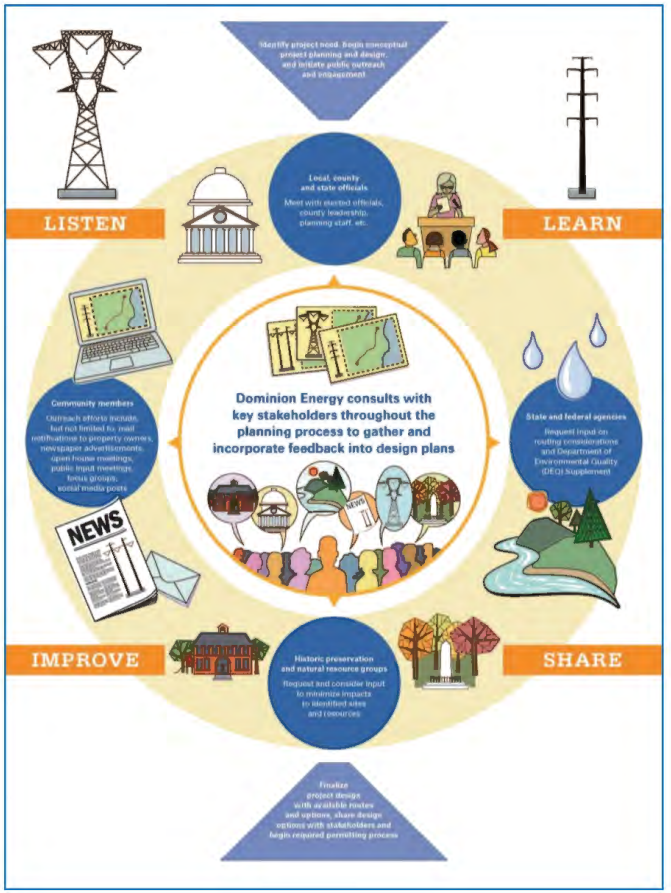
Electric Transmission Line Planning and Approval Process

Relationships

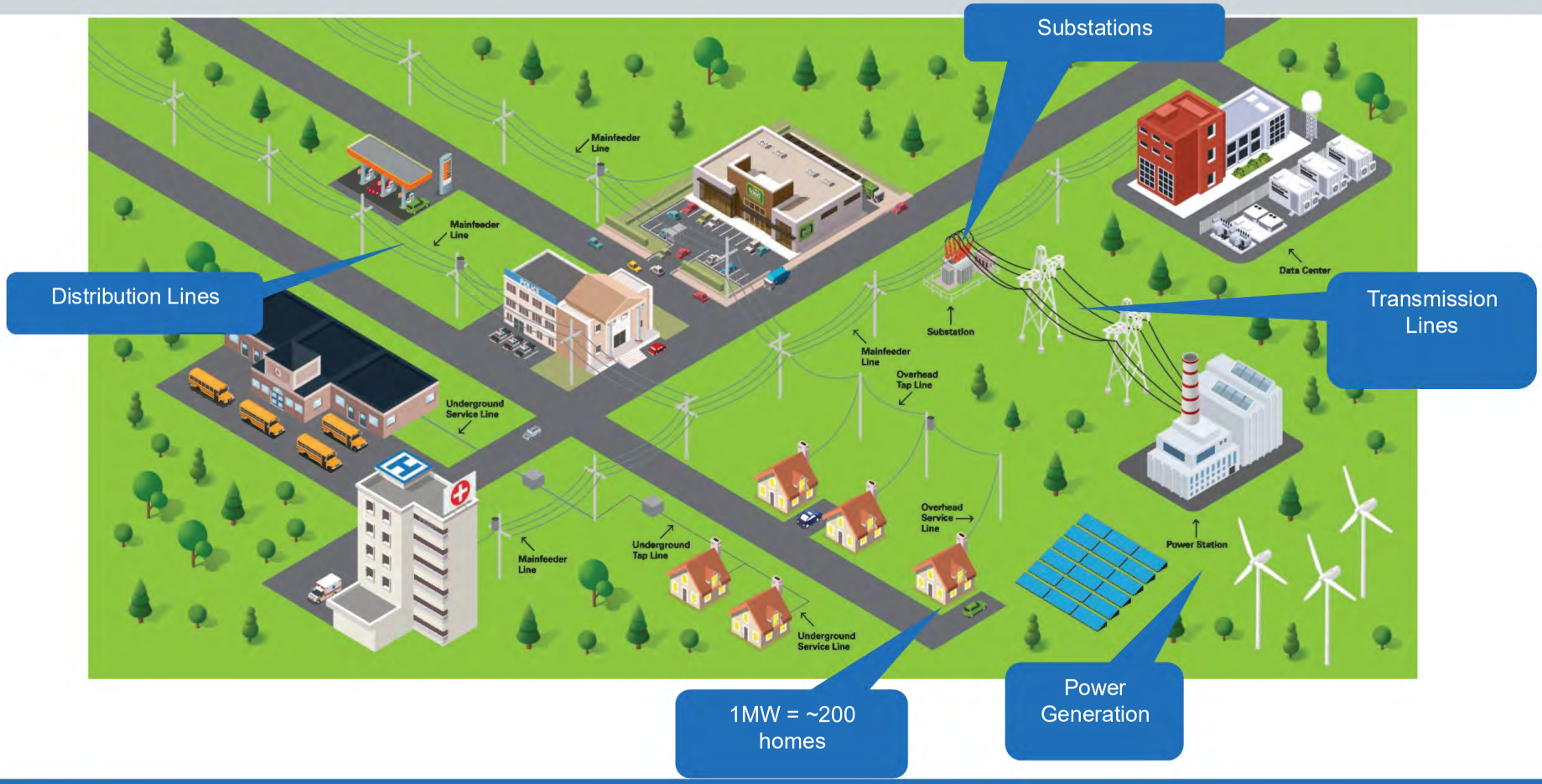
- Value what the community values
- Seek available mutual benefits

Trust

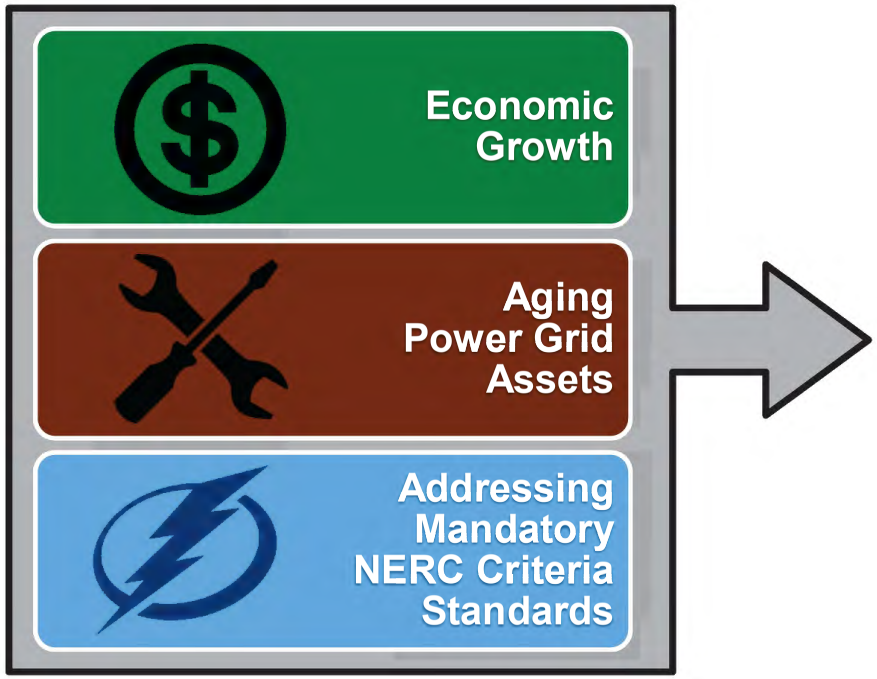
- Discussion, connection and empathy
- Stakeholders' willingness to compromise



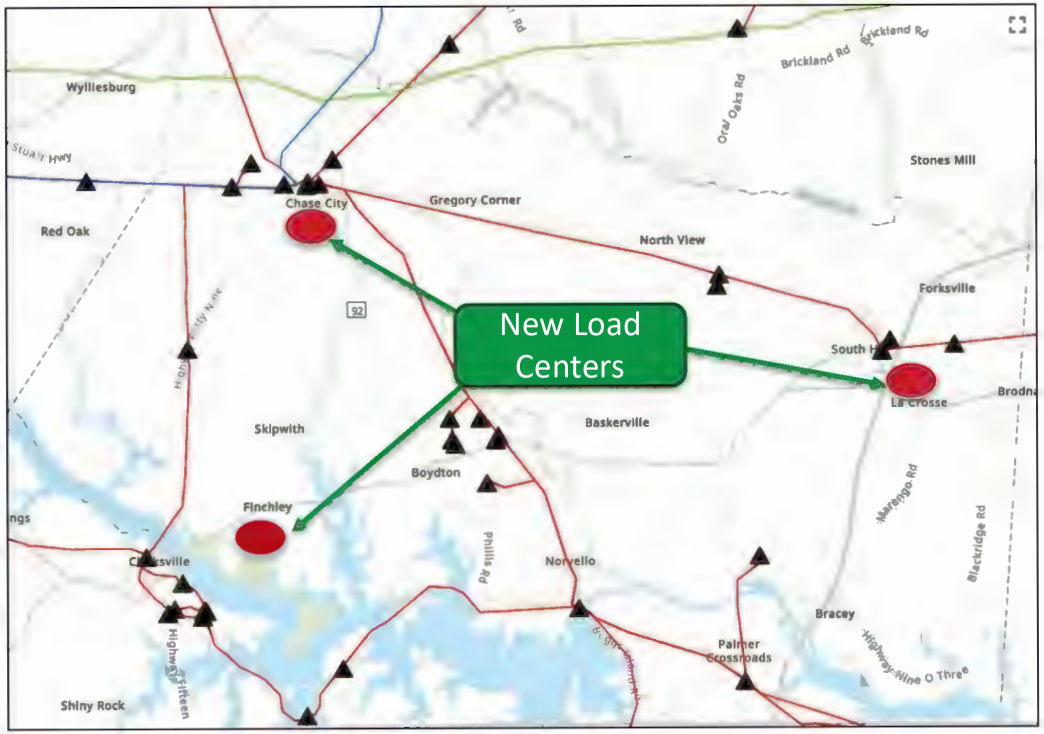
The Grid and Obligation to Serve



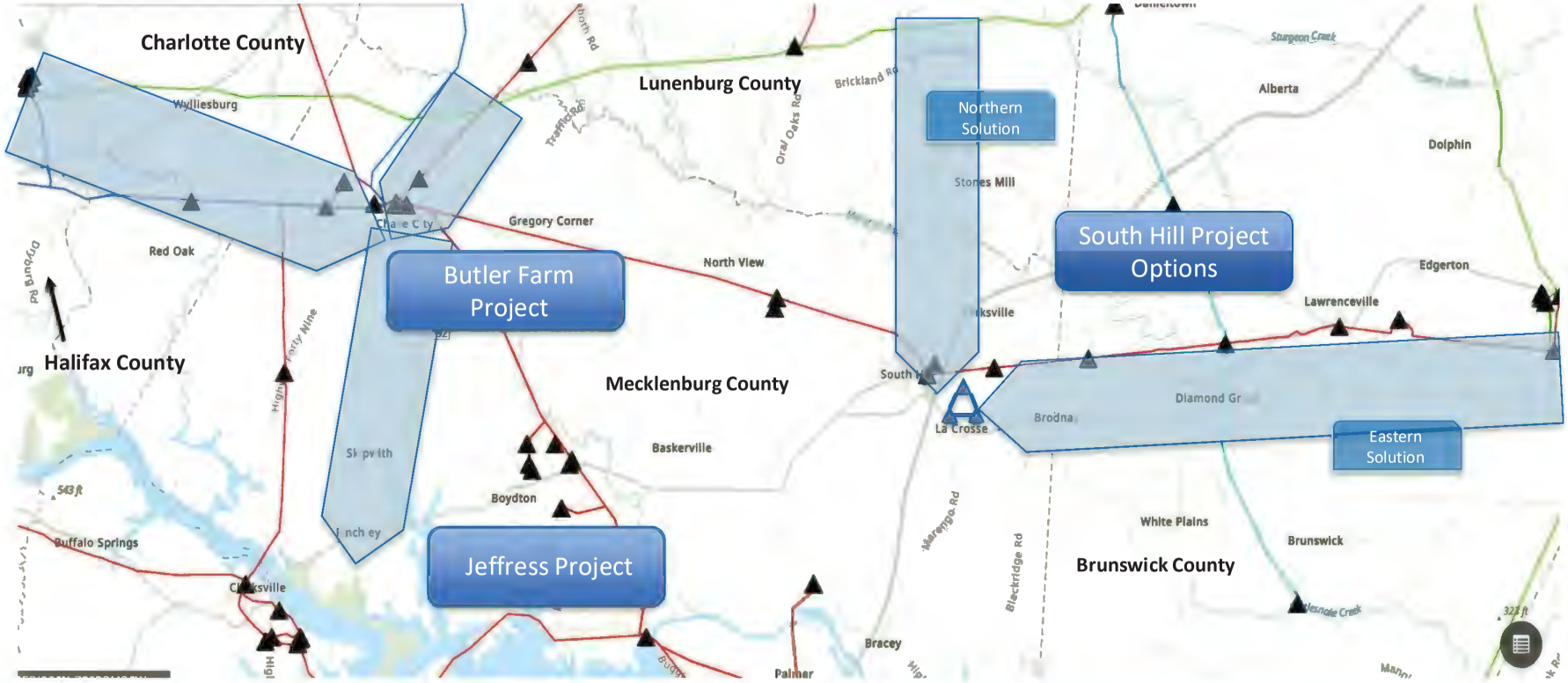
Forces Driving Infrastructure Need



Current System



Southside Infrastructure Enhancements Overview



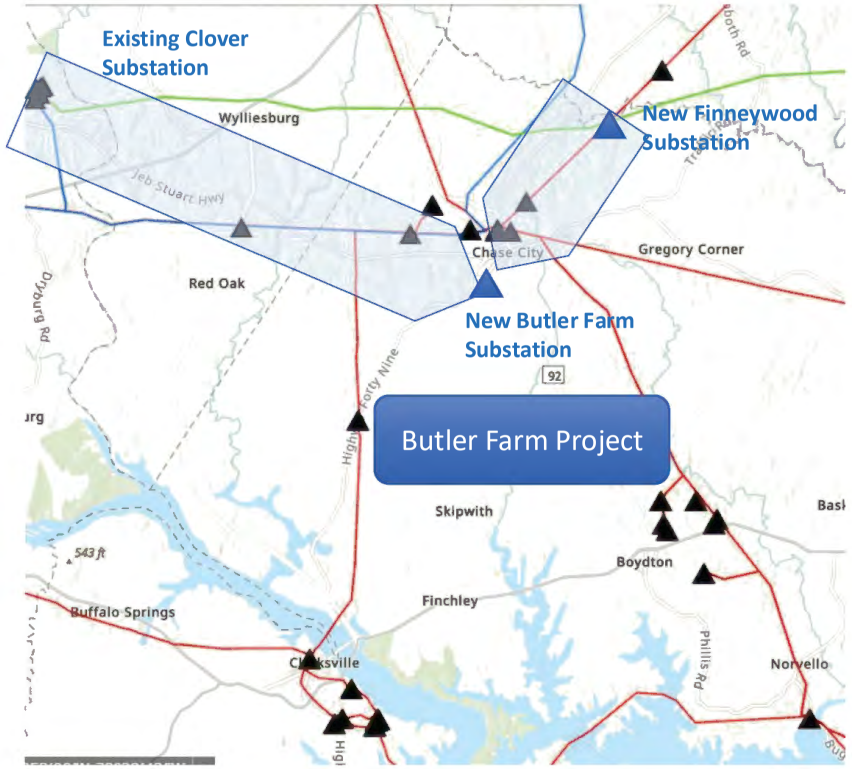
Butler Farm Project Scope

Charlotte, Halifax, and Mecklenburg counties

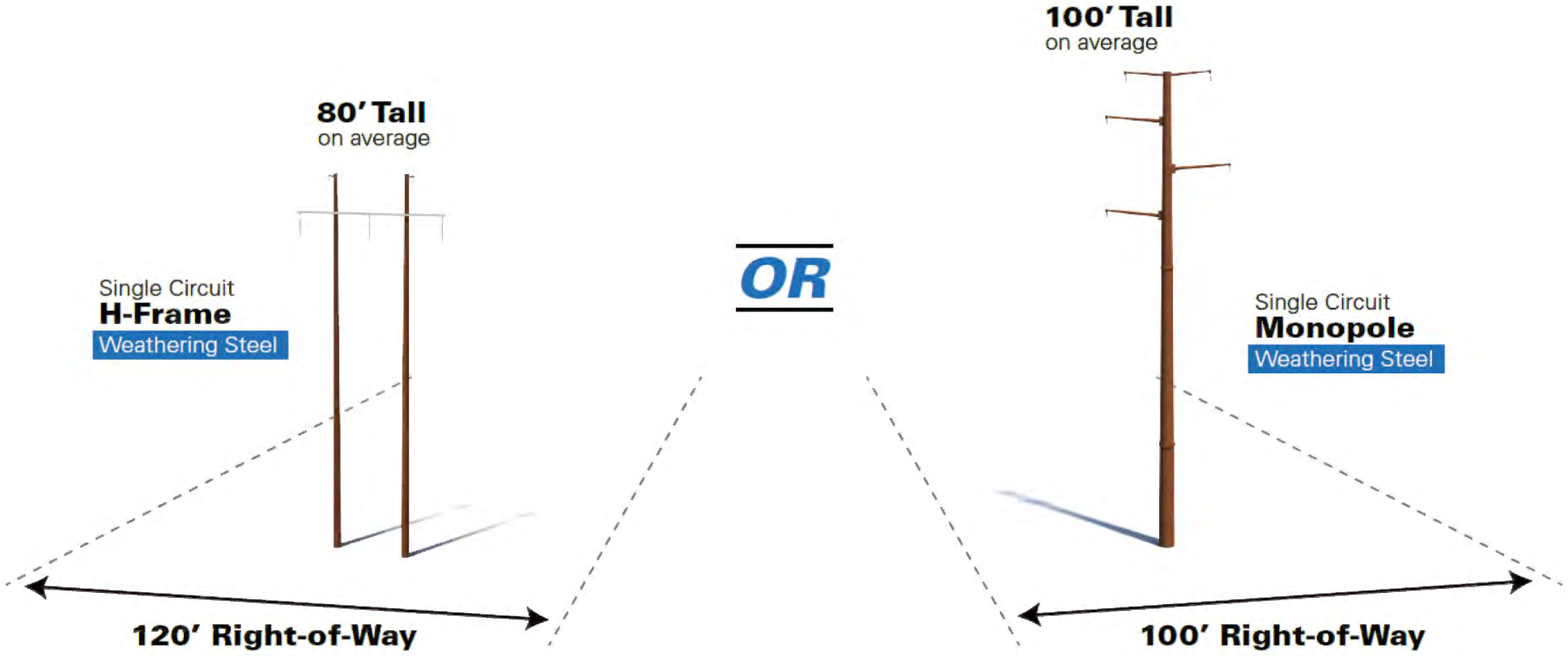
Project Goal Scope:

- **Clover-Butler Farm:** Build approximately 18 miles of new single-circuit 230 kV transmission line from the existing Clover Substation to the proposed Butler Farm Substation
  - Right of way needs: ~100’ wide

- **Finneywood-Butler Farm:** Build approximately 7 miles of new single-circuit 230 kV transmission line right of way between the proposed Butler Farm Substation and the proposed Finneywood 500 kV/230 kV Substation
  - Right of way needs: ~120’ wide
  - An additional 230 kV transmission line may be needed in this corridor in the future

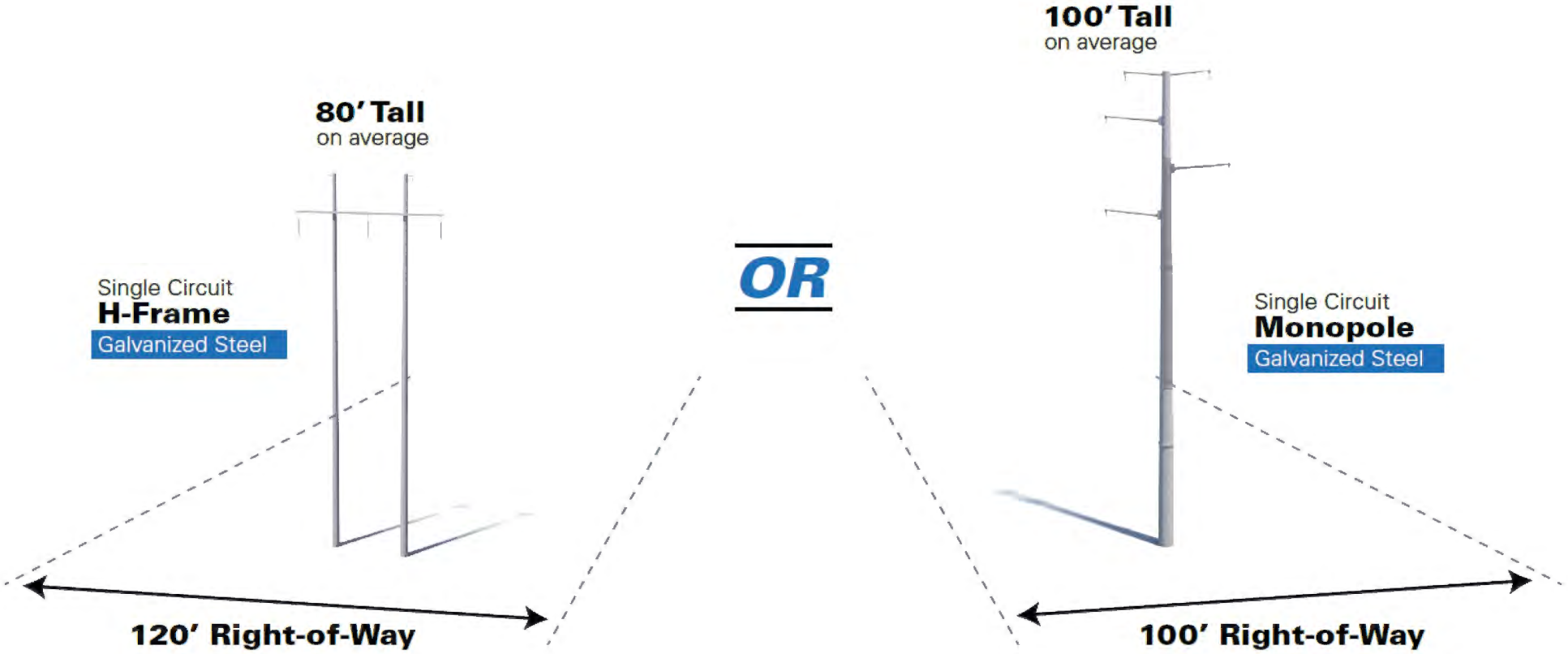


Clover Butler Farm, Typical Structures



Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Clover Butler Farm, Typical Structures



Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Fi[illegible] Clover Butler Farm

Typical Structures

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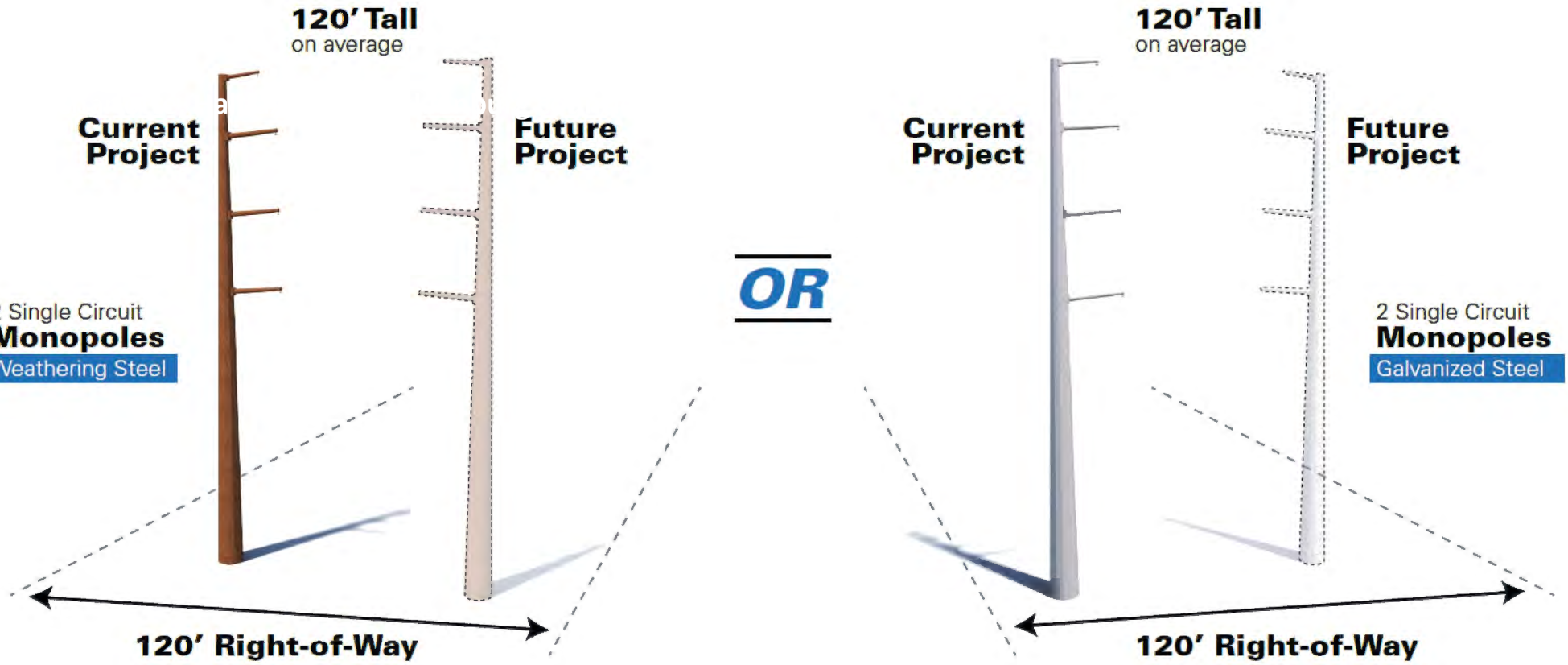

Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Routing Considerations

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Charlotte, Halifax, and Mecklenburg counties

Foundational Principles

- Process always begins with review of existing rights of way
- Respect the land use of the property owners
- Co-locate with other infrastructure, where appropriate
- Stay close to property boundaries
- Minimize impact on private property, and environmental, historic, cultural and scenic resources

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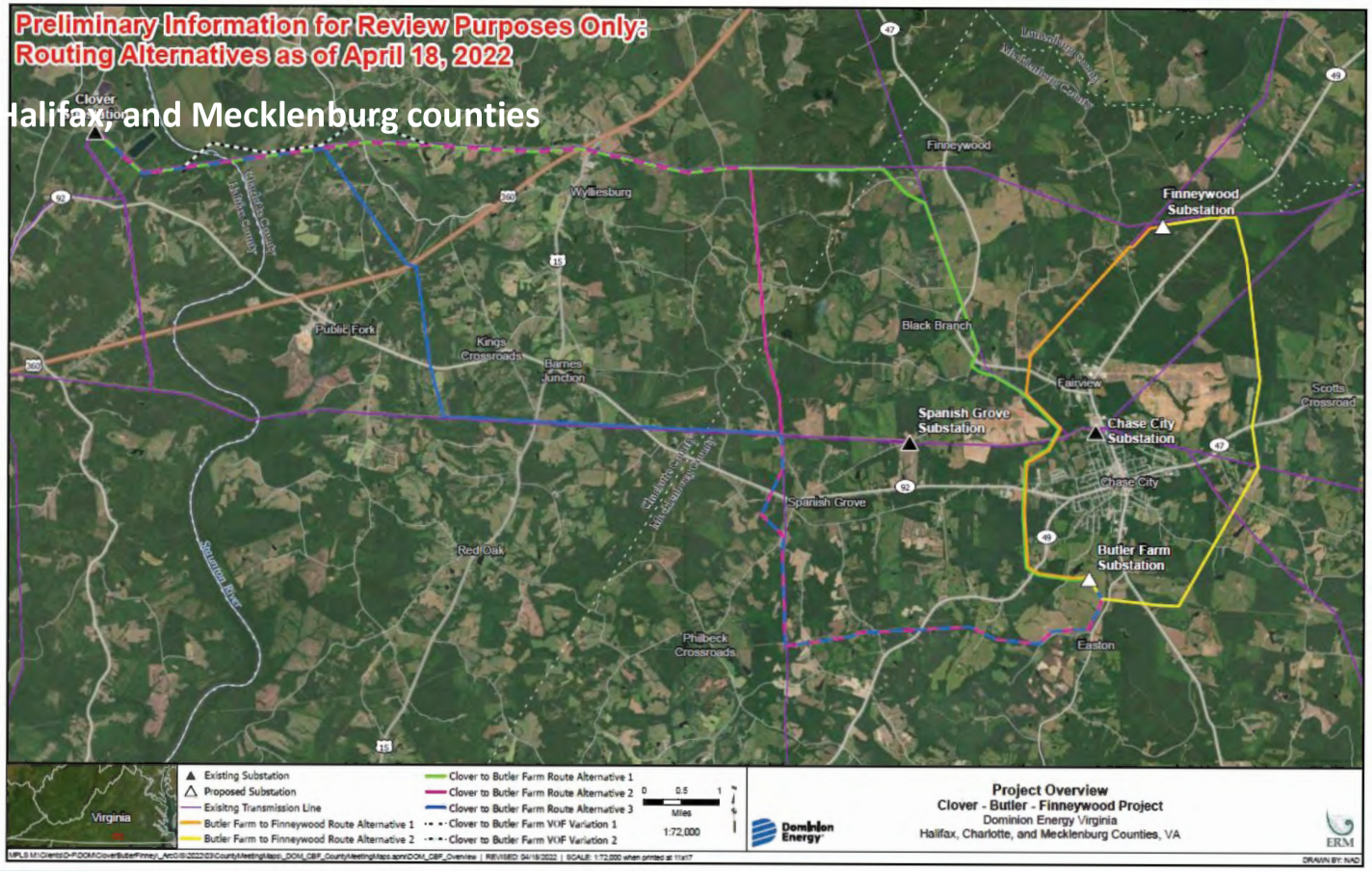
Route Options



Clover - Butler Farm

Charlotte, Halifax, and Mecklenburg counties

Existing Conditions

Proposed Conditions

Butler Farm
Transmission Line Project

Aerial Rendering 1
Clover to Butler Farm

Typical Structure:
80' - Single-Circuit H-Frame

Right-of-Way Width:
120 Feet

Structure Material:
Weathering Steel

Viewing Direction:
East

Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

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Clover - Butler Farm

Charlotte, Halifax, and Mecklenburg counties

Existing Conditions

Proposed Conditions

Butler Farm
Transmission Line Project

Aerial Rendering 1
Clover to Butler Farm

Typical Structure:
100' Single-Circuit Monopole

Right-of-Way Width:
100 Feet

Structure Material:
Galvanized Steel

Viewing Direction:
East

Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

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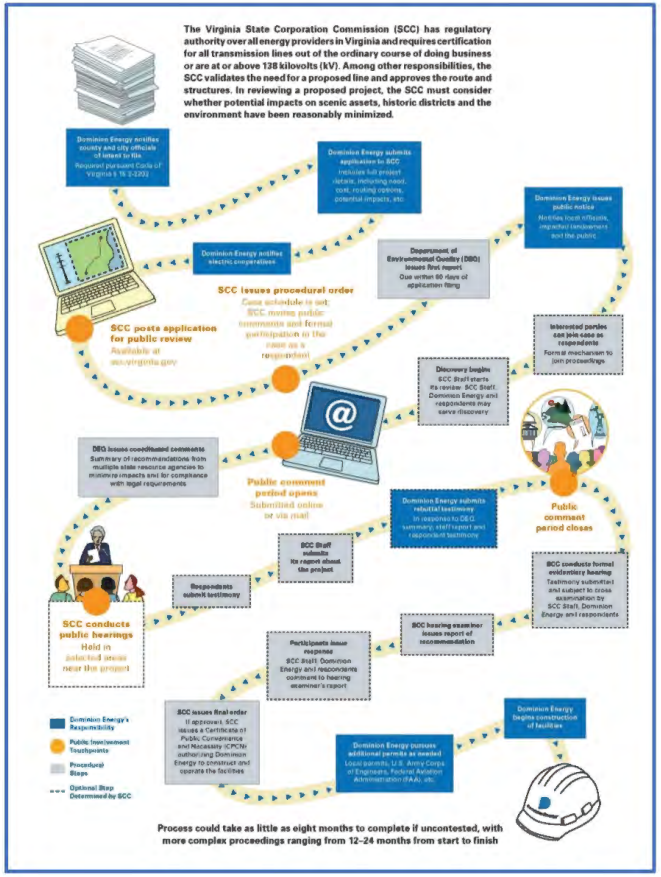
Permitting

- **Virginia State Corporation Commission (SCC):** Certificate of Public Convenience and Necessity
  - Alternatives Analysis
  - Routing Study
  - Department of Environmental Quality Supplement and coordinated review
- **U.S. Army Corps of Engineers**
- **Other Agency Review**
  - Department of Environmental Quality (DEQ)
  - Virginia Marine Resources Commission (VMRC)
  - Virginia Department of Transportation (VDOT)
- **Local Permitting Requirements**
  - Substations on Data Center property/part of developer's site plans
  - New Finneywood 500 kV/230 kV substation

Transmission Line Planning and Public Engagement Process
SCC Application

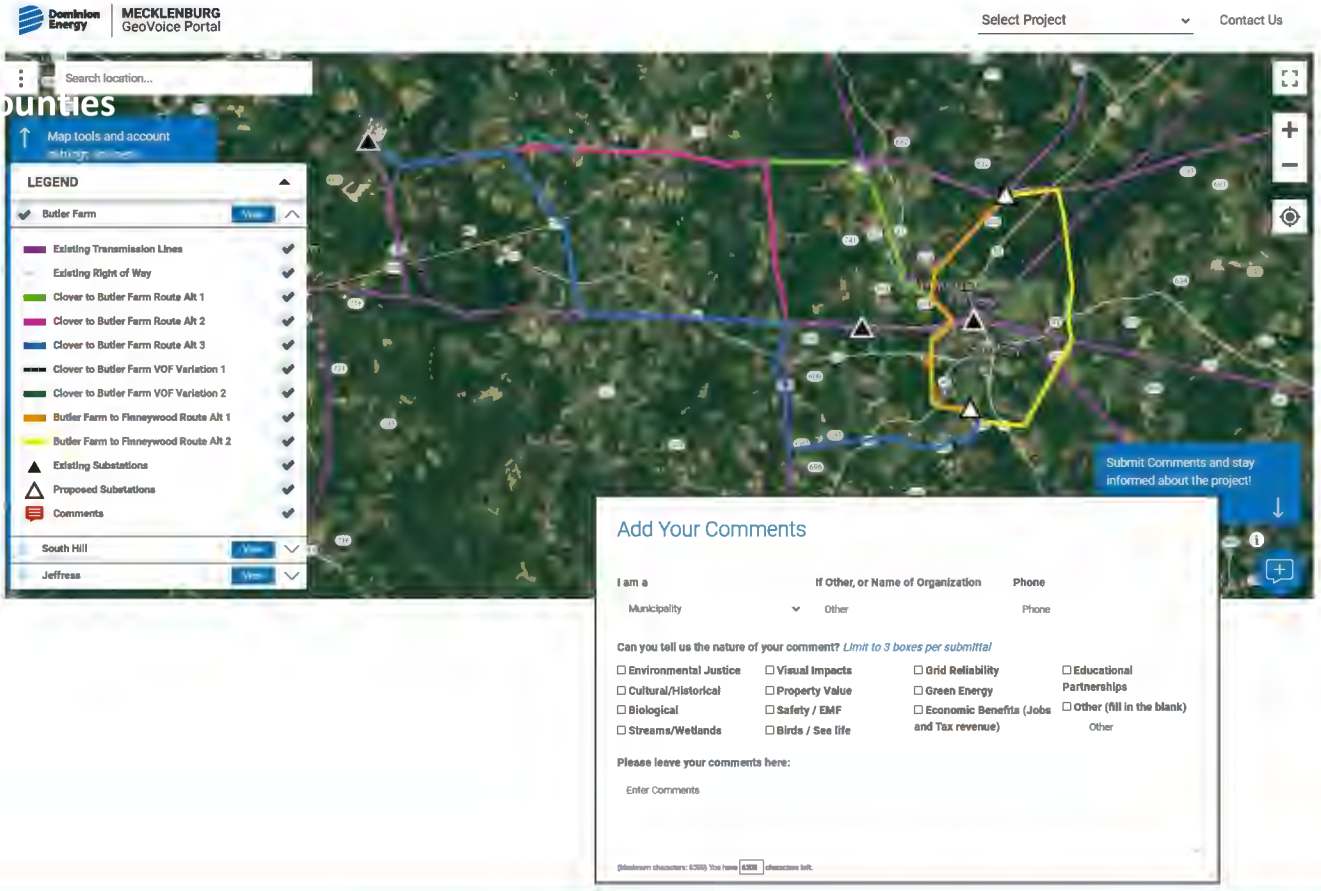
Opportunities for public involvement throughout the process, including public hearings

Process could take as little as eight months to complete if uncontested, with more complex proceedings ranging from 12–24 months from start to finish

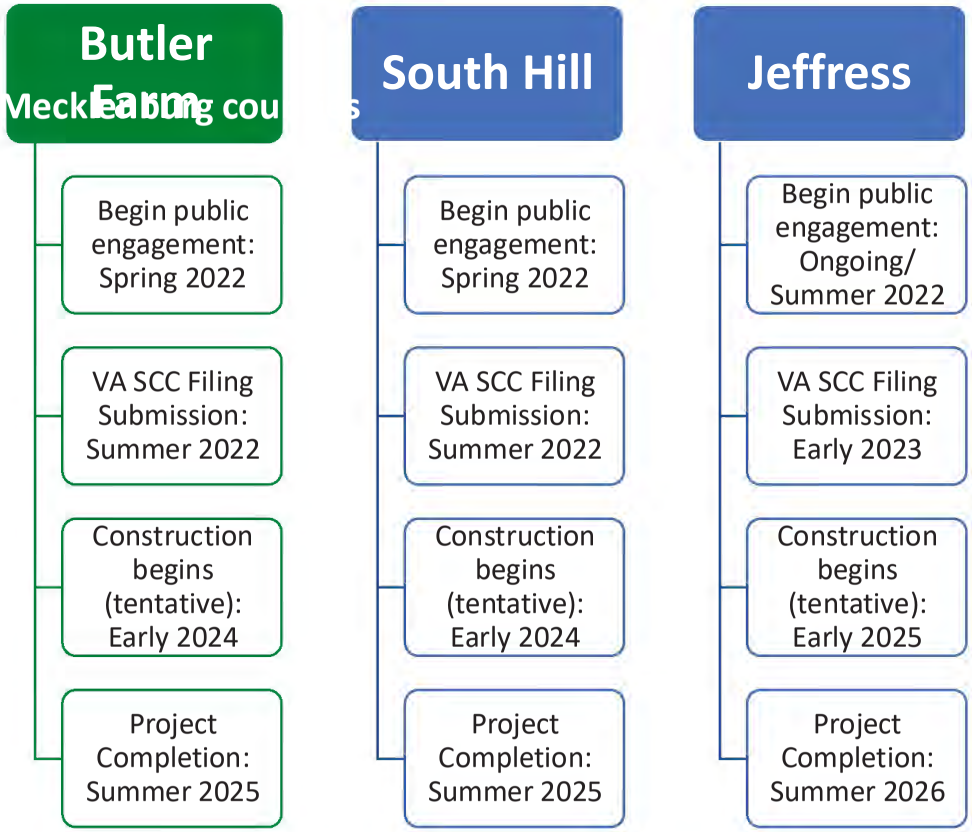


GeoVoice

- DominionEnergy.com/butlerfarm
- Review the study areas
- Interactive mapping tool
- Evolves as routing options become available and are refined
- Add comments, provide input or share insight on the location of important personal concerns or natural and historical resources
- Track project development and receive updates



Timeline


Butler Farm
Mecklenburg cou
Begin public engagement: Spring 2022
VA SCC Filing Submission: Summer 2022
Construction begins (tentative): Early 2024
Project Completion: Summer 2025
South Hill
Begin public engagement: Spring 2022
VA SCC Filing Submission: Summer 2022
Construction begins (tentative): Early 2024
Project Completion: Summer 2025
Jeffress
Begin public engagement: Ongoing/ Summer 2022
VA SCC Filing Submission: Early 2023
Construction begins (tentative): Early 2025
Project Completion: Summer 2026

What's Next?

- Review routing options and speak to subject matter experts
- Another in-person Community Meeting later this summer once public input is received and incorporated into project planning
- For questions throughout the project, send an email to **powerline@dominionenergy.com** or call **888-291-0190**
- For more information and to access GeoVoice, please visit: **DominionEnergy.com/butlerfarm**

Thank you for joining!

Clover - Butler Farm Typical Structures

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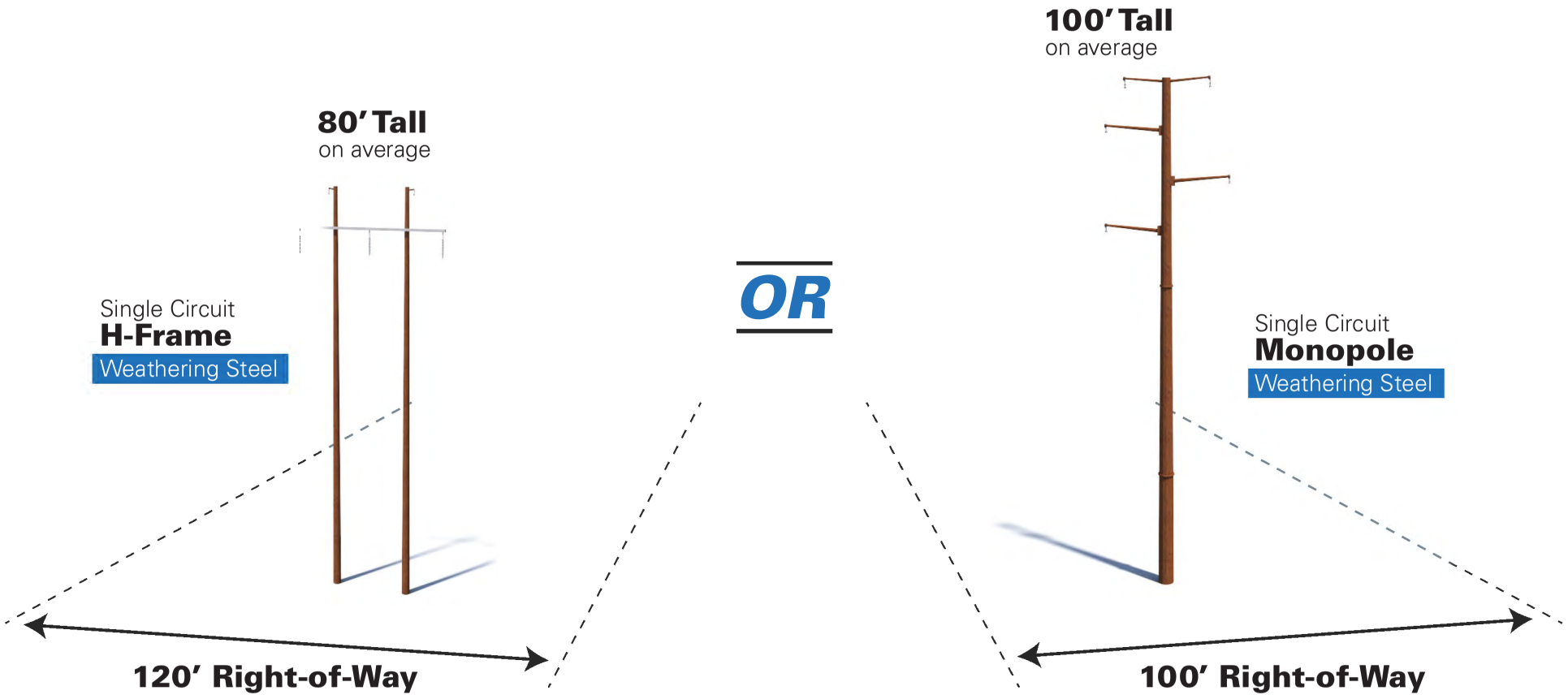

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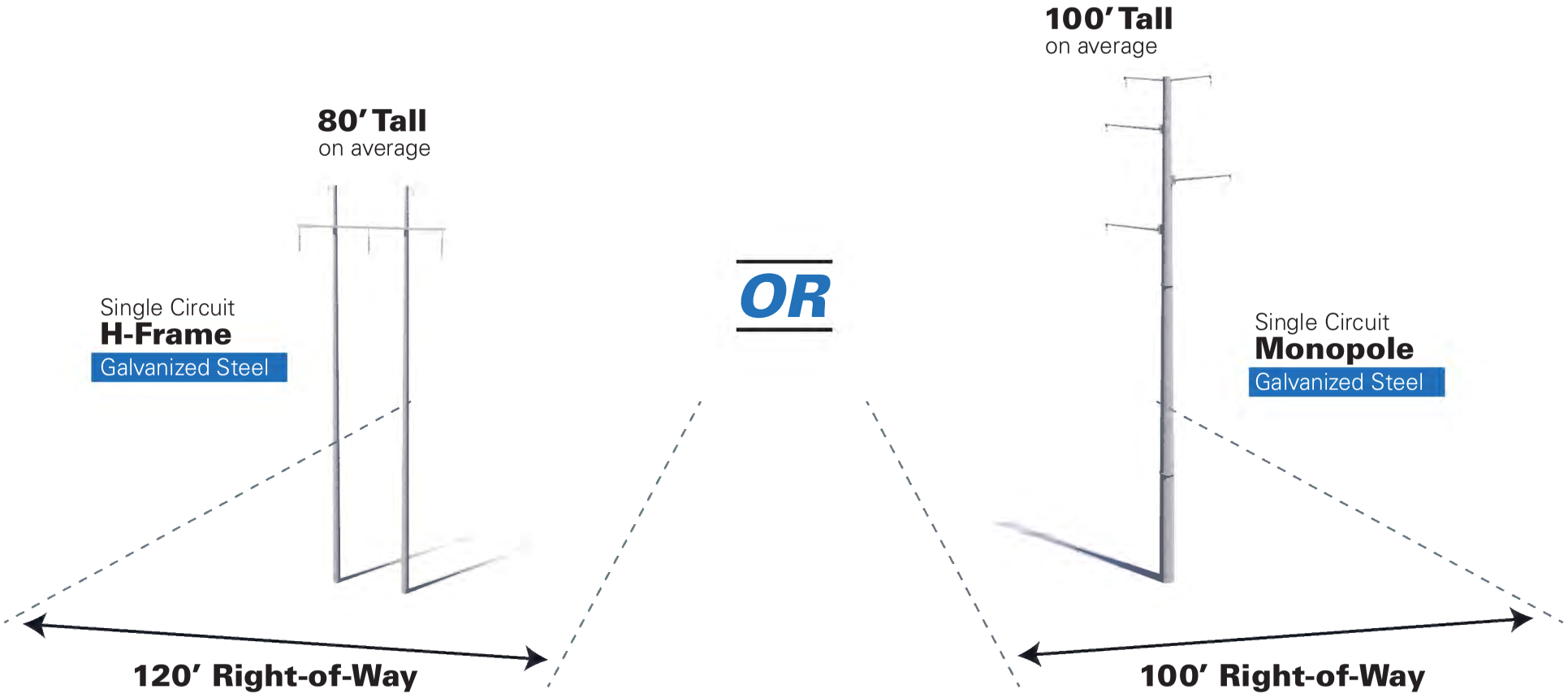
Clover - Butler Farm Typical Structures



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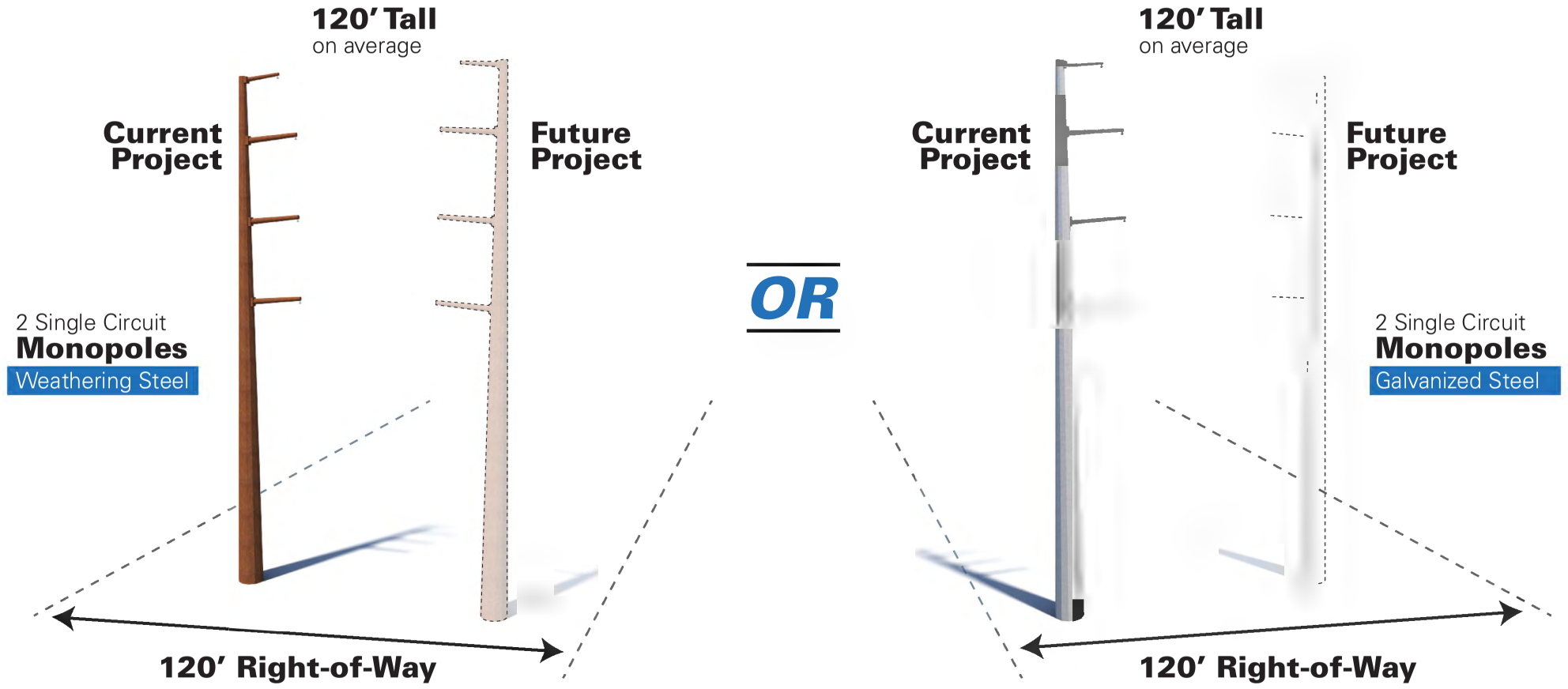
Finneywood - Butler Farm Typical Structures



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Existing Conditions

Proposed Conditions

Butler Farm

Transmission Line Project

Aerial Rendering 1

Clover to Butler Farm

Typical Structure:

80' - Single-Circuit H-Frame

Right-of-Way Width:

120 Feet

Structure Material:

Weathering Steel

Viewing Direction:

East

Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

Existing Conditions

Proposed Conditions

Butler Farm

Transmission Line Project

Aerial Rendering 1

Clover to Butler Farm

Typical Structure:

100' Single-Circuit Monopole

Right-of-Way Width:

100 Feet

Structure Material:

Galvanized Steel

Viewing Direction:

East

Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

Existing Conditions

Proposed Conditions

Butler Farm

Transmission Line Project

Aerial Rendering 1

Clover to Butler Farm

Typical Structure:

100’ Single-Circuit Monopole

Right-of-Way Width:

100 Feet

Structure Material:

Weathering Steel

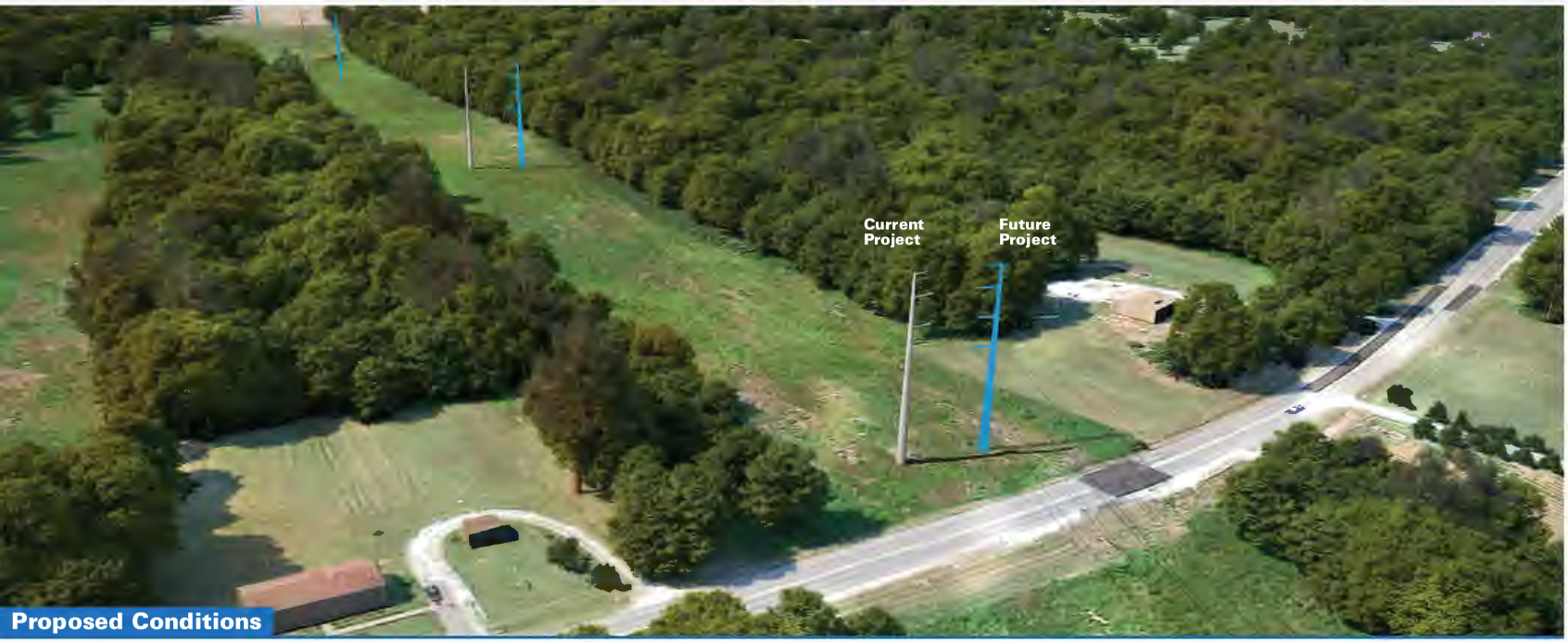
Viewing Direction:

East

Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

Existing Conditions



Proposed Conditions

Butler Farm

Transmission Line Project

Aerial Rendering 3

Finneywood to Butler Farm

Typical Structure:

120' - Single-Circuit Monopoles

Right-of-Way Width:

100 Feet

Structure Material:

Galvanized Steel

Viewing Direction:

Southwest

Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

Butler Farm

Transmission Line Project

Aerial Rendering 3

Finneywood to Butler Farm

Typical Structure:

120' - Single-Circuit Monopoles

Right-of-Way Width:

100 Feet

Structure Material:

Weathering Steel

Viewing Direction:

Southwest

Visualization is for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

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BUTLER FARM
Substation Project

- PHOTO VIEWPOINT
- EXISTING SUBSTATIONS
- PROPOSED SUBSTATIONS

- CLOVER TO BUTLER FARM ROUTE ALTERNATIVE 1
- CLOVER TO BUTLER FARM ROUTE ALTERNATIVE 2
- CLOVER TO BUTLER FARM ROUTE ALTERNATIVE 3
- CLOVER TO BUTLER FARM VOF VARIATION
- BUTLER FARM TO FINNEYWOOD ROUTE ALTERNATIVE 1
- BUTLER FARM TO FINNEYWOOD ROUTE ALTERNATIVE 2

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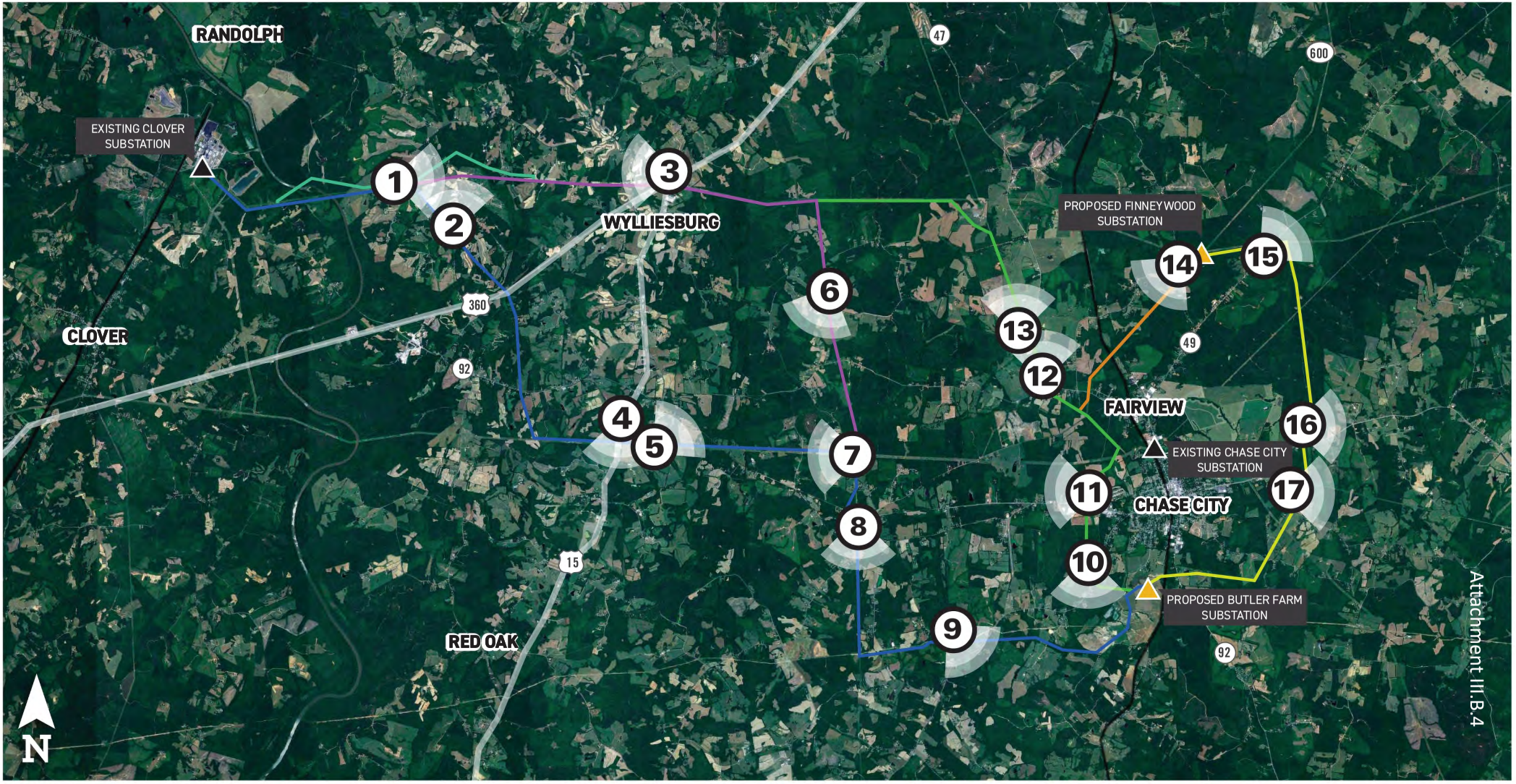

BUTLER FARM
Substation Project

SIMULATION 1
Date: 4/29/22
Time: 9:48am
Viewing Direction: West

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

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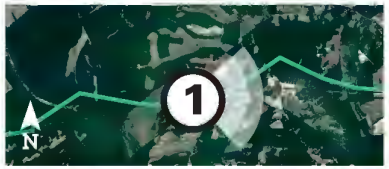
BUTLER FARM
Substation Project

SIMULATION 1
Date: 4/29/22
Time: 9:48am
Viewing Direction: West



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Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 1
Date: 4/29/22
Time: 9:48am
Viewing Direction: West

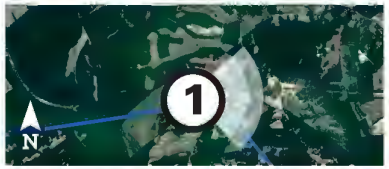

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

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BUTLER FARM
Substation Project

SIMULATION 2
Date: 4/29/22
Time: 10:07am
Viewing Direction: North

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

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BUTLER FARM
Substation Project

SIMULATION 3
Date: 4/29/22
Time: 8:41am
Viewing Direction: Northwest

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 4
Date: 4/28/22
Time: 12:38PM
Viewing Direction: South

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

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BUTLER FARM
Substation Project

SIMULATION 5

Date: 4/28/22
Time: 12:20pm
Viewing Direction: Northeast

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

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BUTLER FARM
Substation Project

SIMULATION 6
Date: 4/28/22
Time: 10:36am
Viewing Direction: Southwest

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

240

BUTLER FARM
Substation Project

SIMULATION 7
Date: 4/28/22
Time: 11:14am
Viewing Direction: West

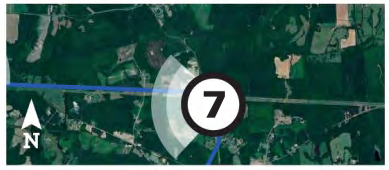

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 8
Date: 4/28/22
Time: 11:51am
Viewing Direction: South

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 9
Date: 4/29/22
Time: 10:07am
Viewing Direction: Southeast

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

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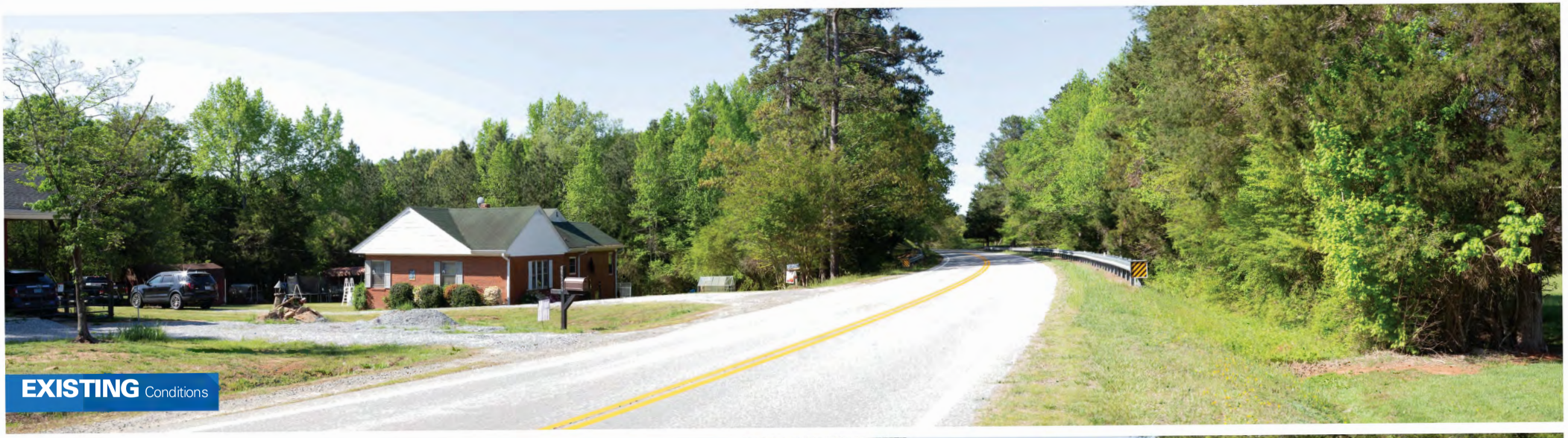

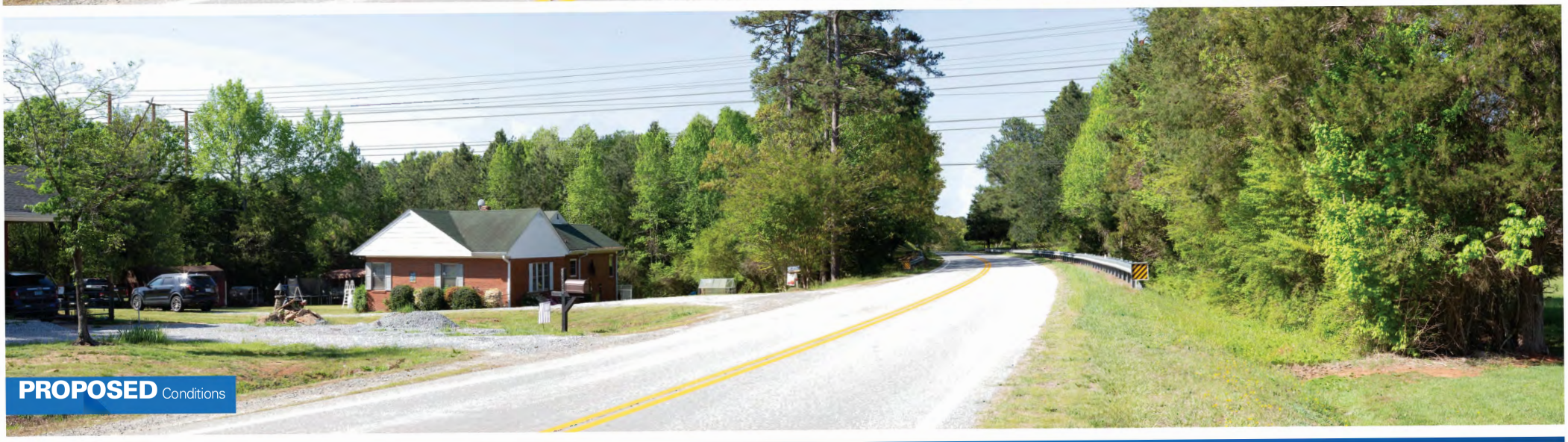

BUTLER FARM
Substation Project

SIMULATION 10

Date: 4/28/22
Time: 8:49pm
Viewing Direction: South

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 11
Date: 4/28/22
Time: 9:21am
Viewing Direction: West

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 12
Date: 4/28/22
Time: 7:37am
Viewing Direction: North

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 13
Date: 4/28/22
Time: 9:53am
Viewing Direction: North

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Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 14
Date: 4/28/22
Time: 8:20am
Viewing Direction: Southwest

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 15
Date: 4/28/22
Time: 2:23pm
Viewing Direction: Northeast

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 16
Date: 4/28/22
Time: 1:32pm
Viewing Direction: East

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

BUTLER FARM
Substation Project

SIMULATION 17
Date: 4/28/22
Time: 12:03pm
Viewing Direction: East

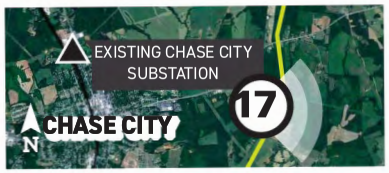


Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®

Electric Transmission
P.O. Box 26666
Richmond, VA 23261

Dominion Energy®

Actions Speak Louder

Investing in Our Communities

IMPORTANT

Local Power Line Project Information

Use your iPhone camera or the QR reader app on other smartphones to visit the project page on our website.

Butler Farm 230 kV Electric Transmission Line and Substation Project

AT DOMINION ENERGY, we are committed to providing safe, reliable and secure energy to our communities. We are constantly evaluating our customers' needs along with the economic developments that contribute to increased electrical demands.

Mecklenburg County, Virginia, has been successful in diversifying its economic prospects and growing new industries in the county. As data center development continues to materialize, there is a growing need for new electric infrastructure. As such, we are currently evaluating and planning for two new electric transmission lines in the Chase City area. This project will also include two new substations within Mecklenburg County.

We are in the early design stages and are committed to involving the public in the planning process, including the new right of way needed for the transmission lines. Be on the lookout for invitations to public meetings where you can review the routing options and speak with project team members.

Thank you for your patience and understanding as we invest in the region to maintain reliable service in your community.

HIGH-LEVEL ACTIVITIES

- At least two public meetings in the spring and early summer
- Submit application for approval with the Virginia State Corporation Commission (SCC) mid-year
- Tentative construction start date in early 2024
- Project completion targeted for mid-year 2025

WHAT:

This proposed project will include two new electric transmission lines on new right of way: A line coming from the west from our existing Clover Substation in Halifax County and a line coming from a new substation in northern Mecklenburg south through the Chase City area. Both lines will connect to a new substation, Butler Farm, on the southside of Chase City.

WHY:

New data center development requires new investment in southside Virginia to support the electrical needs of this growth. Mecklenburg County is experiencing growth in three areas of the county, all of which require new electrical infrastructure — South Hill/La Crosse, Chase City, and southwest Mecklenburg.

WHERE:

The new western transmission line will start at our existing Clover Substation in Halifax County, traverse through Charlotte County and into Mecklenburg. The new northern transmission line will start at a newly proposed substation in northern Mecklenburg near Finneywood Creek and run south through the Chase City area.

CONTACT US — Visit our website at DominionEnergy.com/butlerfarm for project updates. Or contact us by calling 888-291-0190 or sending an email to powerline@dominionenergy.com.

Dominion Energy image. Not project specific.

Electric Transmission
P.O. Box 26666
Richmond, VA 23261

Dominion Energy®

Actions Speak Louder

YOU'RE INVITED TO A COMMUNITY MEETING!

INFORMATION ENCLOSED

IMPORTANT

Local Power Line Project Information

Use your iPhone camera or the QR reader app on other smartphones to visit our website.

Butler Farm 230 kV Electric Transmission Line and Substation Project — Community Meetings

AT DOMINION ENERGY, we are committed to providing safe, reliable and secure energy to the communities we serve. Part of this commitment involves evaluating our customers' needs along with the impact of economic growth that can contribute to increased electrical demands.

You are receiving this postcard because we would like to invite you to attend one of two community meetings to learn about a recently announced project. This project involves the construction of two new 230 kV electric transmission lines in Charlotte, Halifax, and Mecklenburg Counties, Virginia.

During the meetings, our project team will give a 20-minute presentation explaining the project need, routing options, impact and construction timelines. You will be able to speak with and ask questions directly to our subject matter experts. The presentation begins at 5 p.m. However, if your schedule does not allow you to attend the presentation, you are still welcome to join us until the meeting concludes.

Unable to attend? We will host another series of in-person meetings once public input is received and incorporated into project planning. You may also contact us and request a presentation be given to a smaller group in your community.

We look forward to your attendance and will continue to engage the community in our project development.

CONTACT US

Visit our website at DominionEnergy.com/butlerfarm for project updates. Or contact us by sending an email to powerline@dominionenergy.com or calling 888-291-0190.

COMMUNITY MEETINGS

Tuesday, May 3, 2022
5 – 7 p.m.

Robert E. Lee Community Center
121 East Second Street
Chase City, VA 23924

(20-minute presentation begins at 5 p.m.)

Wednesday, May 11, 2022
5 – 7 p.m.

Red Oak Excavating
5192 Barnesville Highway
Red Oak, VA 23964

(20-minute presentation begins at 5 p.m.)

Dominion Energy Virginia
Electric Transmission
P.O. Box 26666, Richmond, VA 23261-6666
DominionEnergy.com

April 21, 2022

Butler Farm 230 kV Electric Transmission Line and Substation Project

Dear Neighbor:

At Dominion Energy, we are committed to keeping our neighbors informed about projects in the communities we serve. You recently received an invitation to attend one of two in-person Community Meetings. During the meetings, you will learn about and be able to provide input on a recently announced project which includes two new 230 kilovolt (kV) electric transmission lines and two new substations in Mecklenburg County, Virginia. Data center development requires new investment in Southside Virginia to support the electrical needs of this growth.

A new 230 kV single-circuit transmission line, approximately 18 miles long, will need to be constructed from the existing Clover Substation in Halifax County, traversing Charlotte County, to the proposed Butler Farm Substation in southside Chase City. Another new 230 kV single-circuit transmission line, approximately seven miles long, will need to be constructed between the proposed Butler Farm Substation and the proposed Finneywood Substation, near Finneywood Creek in northern Mecklenburg County. These lines will require new right of way.

Community input is an important part of our project planning and development. We hope you will attend at least one of our meetings to learn more about this project, review the routing options, and speak directly with our subject matter experts. Each meeting will begin with a 20-minute presentation at 5 p.m. If your schedule doesn't allow you to attend the presentation, please join us as your schedule permits for the option house portion.

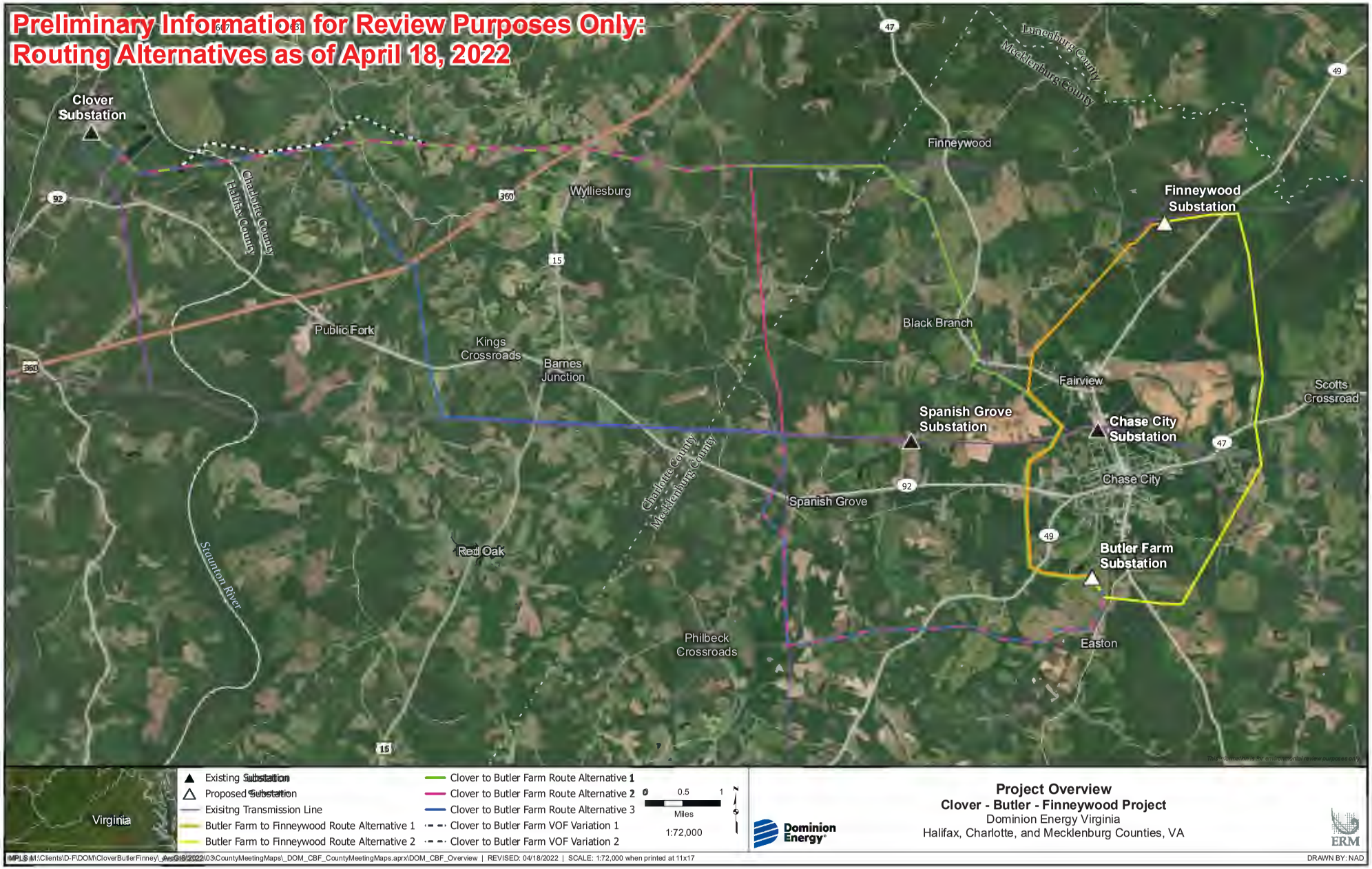
May 3, 2022
5 – 7 p.m.
Robert E. Lee Community Center
121 East Second Street
Chase City, VA 23924
(20-minute presentation begins at 5 p.m.)

May 11, 2022
5 – 7 p.m.
Red Oak Excavating
5192 Barnesville Highway
Red Oak, VA 23964
(20-minute presentation begins at 5 p.m.)

Unable to attend? We will host another in-person Community Meeting once public input is received and incorporated into project planning. You may also contact us and request a presentation be given to a smaller group in your community. Visit our website at DominionEnergy.com/butlerfarm for details and project updates. You may also contact us by calling 888-291-0190 or sending an email to powerline@dominionenergy.com.

Sincerely,

The Electric Transmission Project Team


Preliminary Information for Review Purposes Only:
Routing Alternatives as of April 18, 2022
Clover Substation
Finneywood
Finneywood Substation
Wylliesburg
Public Fork
Kings Crossroads
Barnes Junction
Black Branch
Fairview
Scotts Crossroad
Spanish Grove Substation
Chase City Substation
Chase City
Spanish Grove
Red Oak
Butler Farm Substation
Philbeck Crossroads
Easton
Lunenburg County
Mecklenburg County
Charlotte County
Halifax County
Staunton River
Virginia
Existing Substation
Proposed Substation
Exisitng Transmission Line
Butler Farm to Finneywood Route Alternative 1
Butler Farm to Finneywood Route Alternative 2
Clover to Butler Farm Route Alternative 1
Clover to Butler Farm Route Alternative 2
Clover to Butler Farm Route Alternative 3
Clover to Butler Farm VOF Variation 1
Clover to Butler Farm VOF Variation 2
0 0.5 1
Miles
1:72,000
Project Overview
Clover - Butler - Finneywood Project
Dominion Energy Virginia
Halifax, Charlotte, and Mecklenburg Counties, VA
Dominion Energy
ERM
MPLS M:\Clients\D-F\DOM\CloverButlerFinney_ArcGIS\2022\03\CountyMeetingMaps_DOM_CBF_CountyMeetingMaps.aprx\DOM_CBF_Overview | REVISED: 04/18/2022 | SCALE: 1:72,000 when printed at 11x17
DRAWN BY: NAD

Dominion Energy image. Not project specific.

Electric Transmission
P.O. Box 26666
Richmond, VA 23261

Dominion Energy®

Actions Speak Louder

YOU'RE INVITED TO A COMMUNITY MEETING!

INFORMATION ENCLOSED

<<NAME>>
<<ADDRESS>>

IMPORTANT

Local Power Line Project Information

Use your iPhone camera or the QR reader app on other smartphones to visit our website.

Butler Farm 230 kV Electric Transmission Line and Substation Project — Community Meeting

AT DOMINION ENERGY, we are committed to providing safe, reliable and secure energy to the communities we serve. Part of this commitment involves evaluating our customers' needs along with the impact of economic growth that can contribute to increased electrical demands.

Based on your feedback, we have refined the transmission route alternatives previously shared. Your ongoing involvement is critical throughout the development of this project, and we want to hear from you again before we present the final route alternatives to the Virginia State Corporation Commission (SCC) for review this summer.

Join us in-person to review the route changes and continue the conversation. We look forward to your attendance and continued participation in our project development. In the meantime, we encourage you to sign-up for GeoVoice on our project website to review the updated routing alternatives, search for your address, and provide comments to the project team.

COMMUNITY MEETING

Tuesday • June 21, 2022 • 5 – 7 p.m.

(drop by anytime during these hours)

Chase City YMCA

316 N. Main Street • Chase City, VA 23924

LEARN MORE about the project

ASK QUESTIONS about the project and get answers

PROVIDE FEEDBACK on the potential route options for transmission lines

CONTACT US

Visit our website at DominionEnergy.com/butlerfarm for project updates. Or contact us by sending an email to powerline@dominionenergy.com or calling 888-291-0190.

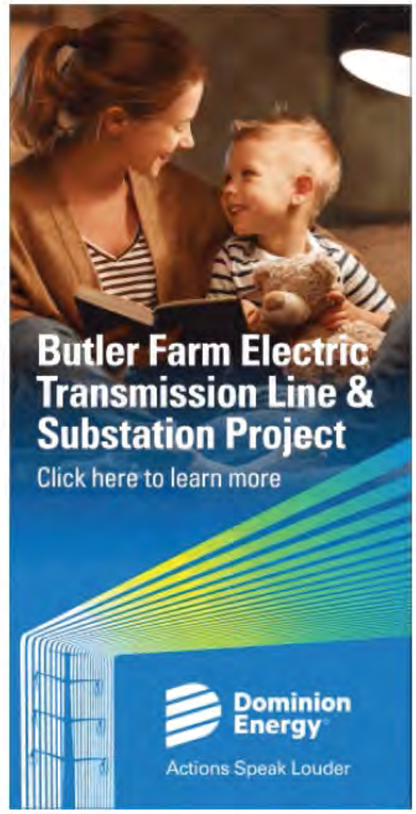
charles ryan associates

Dominion Energy Electric Transmission Contact:
Roxana Demeter, roxana.d.demeter@dominionenergy.com

Butler Farm Creative

5/3, 5/11 & 6/21
Pre-event
Display

6/29
Post-event
Display



Butler Farm Creative

Pre- and Post-event Nextdoor Imagery

5/03, 5/11 & 6/21 Pre-event Post Image:

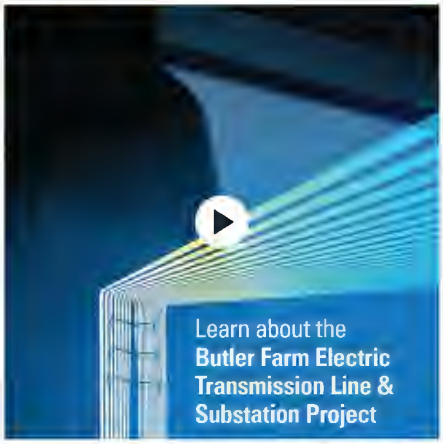
6/29 Post-event Post Image:

Butler Farm Creative

Pre- and Post-event Social Videos

5/03, 5/11 & 6/21 Pre-event Post Videos:

6/29 Post-event Post Videos:



Butler Farm Creative

6/29
Post-event
Geovoice
Social Videos

Butler Farm Creative

5/3 & 5/11
Pre-event
Newspaper

Dear Neighbor:

At Dominion Energy, we are committed to staying connected to the communities we serve. You are receiving this email because we want to thank you for attending the community meeting for the Butler Farm 230 kV Transmission Line and Substation Project. As a follow-up, we invite you to attend another in-person meeting scheduled later this month.

Based on your feedback, we have refined the transmission route alternatives previously shared. Your ongoing involvement is critical throughout the development of this project, and we want to hear from you again before we present the final route alternatives to the Virginia State Corporation Commission (SCC) for review this summer.

Join us in-person to review the route changes and continue the conversation. We look forward to your attendance and continued participation in our project development. In the meantime, we encourage you to sign-up for GeoVoice on our project website to review the updated routing alternatives, search for your address, and provide comments to the project team.

COMMUNITY MEETING
Tuesday • June 21, 2022 • 5 – 7 p.m.
(*drop by anytime during these hours*)
Chase City YMCA
316 N. Main Street • Chase City, VA 23924

Thank you for your patience as we continue to work on this important project. *If you are no longer interested in receiving updates about this project, please send an email to powerline@dominionenergy.com.

Sincerely,

The Electric Transmission Project Team

Dominion Energy Virginia
Electric Transmission
P.O. Box 26666, Richmond, VA 23261-6666
DominionEnergy.com

Sept. 14, 2022

Butler Farm 230 kV Electric Transmission Line and Substation Project

Dear Neighbor:

At Dominion Energy, we are committed to keeping our neighbors informed about projects in the communities we serve. While we have held three in-person community meetings on the Butler Farm project, we want to make you aware of a new route variation along the Butler Farm-Clover Route 1 (green route) and the Butler Farm-Finneywood Route 1 (orange route). Recent investigations led us to adding this new route variation, which is identified in the enclosed map by the dashed orange and green lines. To view all route options on this project, access GeoVoice, an interactive mapping tool, on the project website.

As a reminder, a new 230 kilovolt (kV) single-circuit transmission line, approximately 18 miles long, will need to be constructed from the existing Clover Substation in Halifax County, crossing Charlotte County, to the proposed Butler Farm Substation in southside Chase City. Another new 230 kV single-circuit transmission line, approximately seven miles long, will need to be constructed between the proposed Butler Farm Substation and the proposed Finneywood Substation, near Finneywood Creek in northern Mecklenburg County. These lines will require mostly new right of way.

Community input is an important part of our project planning and development. Join us in-person to learn more about this route variation and speak directly with project team members. We will be available from 11 a.m. to 6 p.m., so stop by anytime as your schedule allows. We will have the route variation map enlarged for viewing, as well as refreshments.

September 28, 2022
Stop by anytime between 11 a.m. – 6 p.m.
Lois' Family Kitchen
1037 W 2nd Street
Chase City, VA 23924

Unable to attend? You may also contact us and request a presentation be given to a smaller group in your community. Visit our website at DominionEnergy.com/butlerfarm to access GeoVoice and for project details and updates. You may also contact us by calling 888-291-0190 or sending an email to powerline@dominionenergy.com.

Sincerely,

The Electric Transmission Project Team


Service Layer Credits: World Imagery: Maxar
This information is for environmental review purposes only.
Butler Farm–Clover Route 1
Butler Farm–Finneywood Route 1
Butler Farm–Clover Route Variation 1
Butler Farm–Finneywood Route Variation 1
Butler Farm–Clover Route 2
Butler Farm–Clover Route 3
N
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Feet
Dominion Energy
ERM
Proposed Route Variations
Butler Farm to Clover Line and Butler Farm to Finneywood Line Project
Dominion Energy, Virginia
Halifax, Charlotte, and Mecklenburg Counties, VA
MPLS M:\Clients\D-F\DOM\CloverButlerFinney_ArcGIS\2022\09\Variation_Fig_DOM_CBF_Route_Variations_Fig.aprx\Apartment Complex Route Variations | REVISED: 09/08/2022 | SCALE: 1:8,000 when printed at 11x17
DRAWN BY: NAD

YOU'RE INVITED!

Join us in-person to learn more about a route variation on the Butler Farm project and speak directly with project team members.

Use your iPhone camera or the QR reader app on other smartphones to visit our website.

AT DOMINION ENERGY, we are committed to keeping our neighbors informed about projects in the communities we serve.

While we have held three in-person meetings on the Butler Farm project, we invite you to learn about a new route variation on this project.

Join us in-person to learn more about this route variation and speak directly with project team members.

We will be available from 11 a.m. to 6 p.m., so stop by anytime. We will have the route variation map enlarged to view, as well as refreshments.

SEPTEMBER 28, 2022
Stop by anytime between 11 a.m. – 6 p.m.

Lois' Family Kitchen
1037 W 2nd Street
Chase City, VA 23924

To view all route options on this project, access GeoVoice, an interactive mapping tool, on the project website.

Unable to attend? You may also contact us and request a presentation be given to a smaller group in your community.

Visit our website at **DominionEnergy.com/butlerfarm** to access GeoVoice and for project details and updates. You may also contact us by calling **888-291-0190** or sending an email to **powerline@dominionenergy.com**.

Dominion Energy®

Actions Speak Louder

Environmental Justice: Ongoing Commitment to Our Communities

At Dominion Energy, we are committed to providing reliable, affordable, clean energy in accordance with our values of safety, ethics, excellence, embrace change and team work. This includes listening to and learning all we can from the communities we are privileged to serve.

Our values also recognize that environmental justice considerations must be part of our everyday decisions, community outreach and evaluations as we move forward with projects to modernize the generation and delivery of energy.

To that end, communities should have a meaningful voice in our planning and development process, regardless of race, color, national origin, or income. Our neighbors should have early and continuing opportunities to work with us. We pledge to undertake collaborative efforts to work to resolve issues. We will advance purposeful inclusion to ensure a diversity of views in our public engagement processes.

Dominion Energy will be guided in meeting environmental justice expectations of fair treatment and sincere involvement by being inclusive, understanding, dedicated to finding solutions, and effectively communicating with our customers and our neighbors. We pledge to be a positive catalyst in our communities.

November 2018

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

C. Detail the nature, location, and ownership of each building that would have to be demolished or relocated if the project is built as proposed.

Response: During the initial review of the proposed rights-of-way, the Company identified three outbuildings associated with the Butler Farm – Clover Proposed and Alternative Routes that will need to be relocated or removed.

Along BF – Clover Route, where the route is collocated with Line #1012, 1.0 mile north of Estes Road at MP 12.2, a large shed is located within the proposed right-of-way and will need to be relocated.

Along BF – Clover Alternative Route 1 and 2, where the route is collocated with Line #36, adjacent to the south side of Country Way (MP 14.7 for Alternative Route 1 and 13.8 for Alternative Route 2), a shed is located within the proposed right-of-way and will need to be relocated.

Along BF – Clover Alternative Route 2, where the route is collocated with Line #235, 0.4 mile east of Highway 15 (Barnesville Highway) at MP 9.2, a barn/shed is located partially within the proposed right-of-way and will need to be relocated.

The Company will coordinate with each landowner on the removal or relocation of the impacted buildings prior to construction.

No buildings would need to be demolished or relocated along the BF – Finneywood Proposed Route or BF – Finneywood Alternative Route or either route variation.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

D. Identify existing physical facilities that the line will parallel, if any, such as existing transmission lines, railroad tracks, highways, pipelines, etc. Describe the current use and physical appearance and characteristics of the existing ROW that would be paralleled, as well as the length of time the transmission ROW has been in use.

Response: The proposed and alternative routes parallel the Company's existing overhead Line #556, Line #1012, Line #147, Line #235, Line #36, and Lines #1012 / #235. The table below lists the year of structure installation. These existing rights-of-way are regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities.

Route	Existing Transmission Line	Collocation Length (Mi)	Installation Year – Dominion to Provide
BF – Clover Route	Line #556	8.1	1995
BF – Clover Alternative Route 1		6.6	
BF – Clover Alternative Route 2		2.2	
BF – Finneywood Alternative Route		0.9	
BF – Clover Route	Line #1012	2.6	2011
BF – Finneywood Route		0.1	
BF – Clover Alternative Route 2	Line #235	4.5	1976
BF – Finneywood Route		2.5	
BF – Clover Alternative Route 1	Line #36	1.9	2009
BF – Clover Alternative Route 2		1.9	
BF – Clover Route	Line #1012 / #235	0.6	1976
BF – Finneywood Route		0.6	

The BF – Clover Route parallels Line #556 for 8.1 miles from the Clover Station east to Line #1012. The route then parallels Line #1012 for 2.6 miles to where Line #235 enters the corridor. The route then parallels Lines #1012 / #235 for 0.6 mile south to a point just north of where Line #235 turns to the west.

The BF – Clover Alternative Route 1 parallels Line #556 for 6.6 miles from the Clover Station east to Tinker Road. After the route crosses over Line #235, it parallels Line #36 for 1.9 miles south to a point just north of Brankley Road. The route then turns east and parallels a Transco natural gas pipeline, owned by Williams, for 1.8 miles. The Transco pipeline corridor is regularly maintained in a grassy herbaceous state for the safe operation of the pipeline.

The BF – Clover Alternative Route 2 parallels Line #556 for 2.2 miles from the Clover Station east to Colemans Ferry Road. The route then turns south and crosses privately owned parcel for 4.1 miles until it reaches Line #235, approximately one mile east of Tobacco Hill Road. The route then turns east and parallels Line #235 for 4.5 miles to the intersection with Line #36. At that point it turns south and parallels Line #36 for 1.9 miles south to just north of Brankley Road. The route then turns east and parallels a Transco natural gas pipeline, owned by Williams, for 1.6 miles. The Transco pipeline corridor is regularly maintained in a grassy herbaceous state for the safe operation of the pipeline.

The BF – Finneywood Route parallels Line #235 for 2.5 miles from west of the proposed Finneywood Station to where Line #1012 enters the corridor. The route then parallels Line #1012 for 0.1 mile and then Line #1012 / #235 for 0.6 mile south to just north of where Line #235 turns to the west.

The BF – Finneywood Alternative Route parallels Line #556 for 0.9 mile from just east of the proposed Finneywood Station east to a point just east of Highway 49.

The BF – Clover Route Variation and the BF – Finneywood Route Variation do not parallel any existing transmission lines, pipelines, roads or other existing physical facilities.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

E. Indicate whether the Applicant has investigated land use plans in the areas of the proposed route and indicate how the building of the proposed line would affect any proposed land use.

Response: The Mecklenburg Long Range Plan (adopted 2012 and amended 2017),[17] Charlotte County Comprehensive Plan (adopted 2017), including Strategic Development Plan and Tourism Strategic Plan,[18] and Halifax County Comprehensive Plan (adopted 2017)[19] were each reviewed to evaluate the potential effect the Proposed and Alternative Routes could have on future development.

Mecklenburg Long Range Plan

The Mecklenburg Long Range Plan does not address electric transmission lines other than in discussion with emergence of solar energy facilities and collocation with existing transmission lines. It should be noted that the county vision includes providing cost effective utility infrastructure to help drive future development and has advanced investment in telecommunications and utility infrastructure to attract a number of high-profile technology companies. There is an emphasis in the plan to market the County for information technology and data center business opportunities, including creating a Technology Advisory Council to connect businesses and schools. The arrival or expansion of industries including Hewlett Packard and Microsoft, potentially herald the start of an information technology and data center cluster in Mecklenburg County. Additionally, one of the goals established in the Strategic Economic Development Plan is to implement a highspeed rail line from Raleigh to Richmond. Demand is expected to continue to grow with new data centers and the Southeast High-Speed Rail.

Planned development within Mecklenburg County includes transportation improvements such as bridge rehabilitation, bypass construction, and general road improvement projects. There are no planned unit or clustered development provisions included in the plan, however, the county is working to revise zoning codes to allow for additional development.

The Proposed and Alternative Routes within Mecklenburg County are collocated with existing transmission lines to the maximum extent possible to minimize new corridor creation and avoid impacts to the area. The Proposed and Alternative BF – Clover and BF – Finneywood routes are not expected to interfere with future planning in Mecklenburg County and are expected to aid in the development goals of the County by increasing connectivity to potential data centers and meeting

[17] See https://va-mecklenburgcounty.civicplus.com/DocumentCenter/View/284/Mecklenburg-County-Comprehensive-Plan?bidId=

[18] See https://www.charlotteva.com/comp_plan.htm

[19] See https://www.halifaxcountyva.gov/index.asp?SEC=90522713-D4FA-488E-BB5A-D8995B5CC452&Type=B_DIR

growing electricity demands.

Charlotte County Comprehensive Plan

The Charlotte County Comprehensive Plan identifies three electric service companies that provide service within their jurisdiction, including Dominion Energy Virginia, Southside Electric Cooperative, and Mecklenburg Electric Cooperative. The plan does not address electric transmission lines directly. The plan describes the County as predominantly rural with the goal of maintaining its rural character, while acknowledging the need for growth and physical development and lists meeting infrastructure needs of new businesses as one of the biggest challenges in attracting new businesses to rural localities. The County has adopted a Future Land Use Plan that will extend utilities to population centers to encourage dense development in those areas and conserve natural and scenic assets, as well as protect farmland.

Planned projects discussed in the Future Land Use Plan include a new Charlotte County Courthouse and Fire Department. Transportation planning is focused almost exclusively on state road system administered by the Virginia Department of Transportation ("VDOT"). There are no suggested projects or VDOT Six-Year Plans.

The Proposed and Alternative BF – Clover routes within Charlotte County have been designed to maximize collocation with existing Company transmission lines, which minimizes impacts to natural and scenic areas and farmland while supporting the goal of the county to extend utility services to populated areas and encourage development where infrastructure is most readily available. Therefore, the proposed Butler Farm – Clover Line is not anticipated to affect any proposed land use in Charlotte County.

The Proposed and Alternative BF – Finneywood routes are outside of Charlotte County boundaries.

Halifax County Comprehensive Plan

The Halifax County Comprehensive Plan discusses the need to ensure availability of adequate energy resources through properly sited and developed transmission and pipeline infrastructure. The Halifax County Implementation Strategy includes siting and developing new transmission infrastructure within the next 1-5 years. Specific projects the County will implement include working with the state of Virginia, River Rails to Trails, Inc., and other localities to continue the expansion of existing Tobacco Heritage Trail. Future land use for the area around Clover is planned to transition from mainly agricultural, forest, and open land to mainly residential.

The Proposed and Alternative BF – Clover routes begin at the existing Clover Station and travel east for approximately 2.0 miles within Halifax County. The routes are entirely collocated with the Company's existing transmission Line #556.

The proposed Butler Farm – Clover Line is expected to have minimal impact on the Halifax County Comprehensive Plan or future land use and will support the continued provision of electricity to the Clover area.

The Proposed and Alternative BF – Finneywood routes are outside of Halifax County boundaries.

Virginia Department of Transportation

Review of VDOT Projects and Studies was completed to determine the impact of the Proposed Routes on future road projects. No future road projects were identified within or near the Proposed or Alternative BF – Clover or BF – Finneywood routes. See Appendix Section II.A.9 and Sections 3.1.8 and 4.1.5 of the Environmental Routing Study.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

F. Government Bodies

1. Indicate if the Applicant determined from the governing bodies of each county, city and town in which the proposed facilities will be located whether those bodies have designated the important farmlands within their jurisdictions, as required by § 3.2-205 B of the Code.

2. If so, and if any portion of the proposed facilities will be located on any such important farmland:

a. Include maps and other evidence showing the nature and extent of the impact on such farmlands;

b. Describe what alternatives exist to locating the proposed facilities on the affected farmlands, and why those alternatives are not suitable; and

c. Describe the Applicant's proposals to minimize the impact of the facilities on the affected farmland.

Response: (1) Coordination with Charlotte, Halifax, and Mecklenburg Counties concluded that no land is designated as important farmlands within the study area.

(2) Not applicable.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

G. Identify the following that lie within or adjacent to the proposed ROW:

1. **Any district, site, building, structure, or other object included in the National Register of Historic Places maintained by the U.S. Secretary of the Interior;**

2. **Any historic architectural, archeological, and cultural resources, such as historic landmarks, battlefields, sites, buildings, structures, districts or objects listed or determined eligible by the Virginia Department of Historic Resources ("DHR");**

3. **Any historic district designated by the governing body of any city or county;**

4. **Any state archaeological site or zone designated by the Director of the DHR, or its predecessor, and any site designated by a local archaeological commission, or similar body;**

5. **Any underwater historic assets designated by the DHR, or predecessor agency or board;**

6. **Any National Natural Landmark designated by the U.S. Secretary of the Interior;**

7. **Any area or feature included in the Virginia Registry of Natural Areas maintained by the Virginia Department of Conservation and Recreation ("DCR");**

8. **Any area accepted by the Director of the DCR for the Virginia Natural Area Preserves System;**

9. **Any conservation easement or open space easement qualifying under §§ 10.1-1009 – 1016, or §§ 10.1-1700 – 1705, of the Code (or a comparable prior or subsequent provision of the Code);**

10. **Any state scenic river;**

11. **Any lands owned by a municipality or school district; and**

12. **Any federal, state or local battlefield, park, forest, game or wildlife preserve, recreational area, or similar facility. Features, sites, and the like listed in 1 through 11 above need not be identified again.**

Response: (1) None
(2) None

(3) None

(4) The known archaeological sites in the right-of-way for the Proposed and Alternative Routes are summarized in the table below. Of the two resources located within the rights-of-way, one is potentially eligible for the NRHP, and one is unevaluated. None of the previously recorded archaeological sites are cemeteries. One is associated with camps or farmsteads, and one is a lithic scatter.

Route Alternative	Site Number	Description	NRHP Status
BF – Clover Route BF – Clover Alternative Route 1 BF – Clover Alternative Route 2	44HA0228	Camp (N/A)	Unevaluated
BF – Clover Alternative Route 1 BF – Clover Alternative Route 2	44MC0902	Lithic quarry, Lithic scatter (Early Woodland)	Potentially Eligible

(5) None

(6) None

(7) None

(8) None

(9) The table below includes easements that are crossed by the BF – Clover Route as well as the BF – Clover Alternative Routes 1 and 2, as shown in Attachment II.A.2.

Easement Type	Route
USACE Flowage Easement	BF - Clover Route BF - Clover Alternative Route 1 BF - Clover Alternative Route 2

No conservation easements are crossed by the BF – Finneywood route alternatives.

(10) The Staunton River, a designated Virginia Scenic River, is crossed by the BF – Clover Route (MP 1.7), the BF – Clover Alternative Route 1 (MP 1.7), and the BF – Clover Alternative Route 2 (MP 1.7), approximately 2.0 miles south of Staunton River Battlefield State Park and 1.8 miles north of the confluence with Sandy Creek. These routes would require a new crossing approximately 0.4-mile northwest of the existing Line #556 crossing.

(11) None

(12) None

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

H. List any registered aeronautical facilities (airports, helipads) where the proposed route would place a structure or conductor within the federally-defined airspace of the facilities. Advise of contacts, and results of contacts, made with appropriate officials regarding the effect on the facilities' operations.

Response: The Federal Aviation Administration ("FAA") is responsible for overseeing air transportation in the United States. The FAA manages air traffic in the United States and evaluates physical objects that may affect the safety of aeronautical operations through an obstruction evaluation. The prime objective of the FAA in conducting an obstruction evaluation is to ensure the safety of air navigation and the efficient utilization of navigable airspace by aircraft.

The Company has reviewed the FAA's website[20] to identify airports within 10.0 miles of the proposed Project. Based on this review, the following FAA-restricted airports are located within ten miles of the Project:

Airport Name	Approximate Distance and Direction from Proposed Dominion Energy Virginia Facility (nautical miles)	Use
Chase City Municipal Airport	○ 1.0 mile west of BF – Clover Route and BF – Finneywood Route ○ 0.9 mile north of BF – Clover Alternative Route 1 and BF – Clover Alternative Route 2	Public Use
Hazelswart Airport	○ 1.4 miles northeast of BF – Finneywood Alternative Route 1 ○ 2.3 miles northeast of BF – Finneywood Route	Private Use
Murdocks Flying V Airport	○ 3.3 miles southeast of BF – Finneywood Alternative Route 1 ○ 4.1 miles southeast of BF – Clover Route, BF – Clover Alternative Route 1, BF – Clover Alternative Route 2 and BF – Finneywood Route	Private Use
Murdock's Holly Bu Airport	○ 4.6 miles south of BF – Finneywood Alternative Route ○ 4.7 miles south of BF – Clover Alternative Route 1 and BF – Clover Alternative Route 2	Private Use

[20] *See* https://oeaaa.faa.gov/oeaaa/external/portal.jsp.

Airport Name	Approximate Distance and Direction from Proposed Dominion Energy Virginia Facility (nautical miles)	Use
	○ 5.0 miles south of BF – Clover Route and BF – Finneywood Route	
Twin Towers Airport	○ 5.6 miles east of BF – Finneywood Alternative Route ○ 6.6 miles east of BF – Clover Route, BF – Clover Alternative Route 1, BF – Clover Alternative Route 2 and BF – Finneywood Route	Private Use
Alpha Hotel Airport	○ 5.4 miles southwest of BF – Clover Route, BF – Clover Alternative Route 1 and BF – Clover Alternative Route 2	Private Use

Of these airports, it was determined only the Chase City Municipal Airport was in close enough proximity to potentially impact navigable airspace. The Company conducted an airport analysis to determine if any of the FAA defined Civil Airport Imaginary Surface would be penetrated by structures associated with the Project. The Company hired ERM to conduct the review. ERM reviewed the height limitations associated with FAA-defined imaginary surfaces for runway 18/36 associated with the airport. Standard GIS tools, including ESRI's ArcMap 3D and Spatial Extension software were used to create and geo-reference the imaginary surfaces in space, and in relation to the locations and proposed heights of the transmission structures. Ground surface data for the study area was derived by using a USGS 10 Meter Digital Elevation Model. Based on the results of this review it was determined there would be no potential for penetration into any of the proposed imaginary surfaces and thus there would be no impacts to navigable airspace from the proposed Project.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

I. Advise of any scenic byways that are in close proximity to or that will be crossed by the proposed transmission line and describe what steps will be taken to mitigate any visual impacts on such byways. Describe typical mitigation techniques for other highways' crossings.

Response: Highway 47 in Mecklenburg County, as it extends south into Chase City as well as west out of Chase City, is designated as a Virginia Byway. This designation identifies roads "having relatively high aesthetic or cultural value, leading to or within areas of historical, natural or recreational significance."[21] The designation does not carry land use or visual impact controls, but instead recognizes roads "controlled by zoning or otherwise, to reasonably protect the aesthetic or cultural value of the highway."[22]

The BF – Clover Route would cross Highway 47 twice, north of Chase City, once in a greenfield location and once in a location where the route is collocated with the Company's existing Line #1012. The northern crossing, located between Estes Road and Twin Drive at MP 13.5, would cross Highway 47 as it parallels Line #1012. Crossing the road at an existing transmission line crossing will significantly minimize any new visual impacts to Highway 47. The second crossing will cross Highway 47 approximately 0.7 mile south of the northern crossing at MP 14.2. The second crossing is in an area where the route deviates from Line #1012 due to several residences being in close proximity to the existing line in this area. This second crossing would occur at a near perpendicular angle reducing overall visual impacts.

The BF – Finneywood Route would cross Highway 47 once, north of Chase City, where the route parallels the Company's existing Line #235. The crossing, located between Lenhart Drive and Roberts Road at MP 2.6, would cross the road as it parallels Line #235. As stated above, crossing at an existing transmission line crossing will significantly minimize any new visual impacts to Highway 47. Additionally, the crossing is at a perpendicular angle to the highway with dense tree cover on both sides that will reduce the visual impacts of the new line.

The BF – Finneywood Alternative Route would cross Highway 47 once, east of Chase City. The crossing is located 0.6 mile east of Country Club Drive at MP 4.0. The crossing would be a new greenfield crossing of the byway. The route crosses Highway 47 at nearly a perpendicular angle reducing overall visual impacts. Given tree coverage will remain beyond the right-of-way on both sides, visual impacts will be held to the area impacted and short durations while driving.

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[21] VDOT (Virginia Department of Transportation). 2019. Virginia's Scenic Byways. Accessed: June 2021. Retrieved from: http://www.virginiadot.org/programs/prog-byways.asp.

[22] Va. Code § 33.2-406.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

J. Identify coordination with appropriate municipal, state, and federal agencies.

Response: As described in detail in Sections III.B and V.D of the Appendix, the Company solicited feedback from Halifax, Charlotte and Mecklenburg Counties regarding the proposed Project. Below is a list of coordination that has occurred with municipal, state, and federal agencies:

- In February 2022, the Company engaged the USACE to introduce the project and solicit feedback on the proposed routes. Continued coordination will take place as appropriate to obtain necessary approvals for the Project.

- In March 2022, the Company engaged the VOF to introduce the project and solicit feedback on the proposed routes in relation to crossing VOF easements. Continued coordination will take place as appropriate to obtain necessary approvals for the Project.

- In March 2022, the Company engaged the DCR to introduce the project and solicit feedback on the proposed routes in relation to crossing CREP easements. Continued coordination will take place as appropriate to obtain necessary approvals for the Project.

- On April 12, 2022, the Company solicited comments via letter from several federal and state recognized Native American tribes, including the Cheroenhaka (Nottoway) Indian Tribe, Chickahominy Indian Tribe, Chickahominy Indian Tribe Eastern Division, Mattaponi Tribe, Monacan Indian Nation, Nansemond Indian Tribe of Virginia, Nottoway Indian Tribe of Virginia, Pamunkey Indian Tribal Resource Officer, Pamunkey Indian Tribe, Patawomeck Indian Tribe of Virginia, Rappahannock Tribe, Upper Mattaponi Indian Tribe, Catawba Indian Nation, Delaware Nation, Oklahoma, and Sappony Tribe. A copy of the letter template, which included a project overview map, is included as Attachment III.J.1.

    - The Catawba tribe responded on May 13, 2022 and had no immediate concerns about the Project. A copy of their response letter is included as Attachment III.J.2.

- The following Native American Tribes were included on the Company's public mailings, which invited communities to the public meetings: Cheroenhaka (Nottoway) Indian Tribe, Chickahominy Indian Tribe, Chickahominy Indian Tribe Eastern Division, Mattaponi Tribe, Monacan Indian Nation, Nansemond Indian Tribe of Virginia, Nottoway Indian Tribe of Virginia, Pamunkey Indian Tribal Resource Officer, Pamunkey Indian Tribe, Patawomeck Indian Tribe of Virginia, Rappahannock Tribe, Upper Mattaponi Indian Tribe, Catawba Indian Nation, Delaware Nation,

Oklahoma, and Sappony Tribe. See Attachments III.B.5.iii and Attachment III.B.5.iv for copies of those public mailings.

- A letter was submitted to the agencies listed in Section V.C on July 5, 2022, describing the Project and requesting comment. See Attachment 2 to the DEQ Supplement.

- A Stage I Pre-Application Analysis has been prepared and was submitted to VDHR on October 17, 2022. See Attachment 2.I.1 to the DEQ Supplement.

- On July 1, 2022 and July 5, 2022, Dominion Energy Virginia representatives coordinated with the following agencies, via email correspondence, describing the proposed Project and requesting comment. See Attachment 2 to the DEQ Supplement:

    - Virginia Department of Wildlife Resources
    - Virginia Marine Resources Commission – Habitat Management Division
    - Virginia Department of Conservation and Recreation
    - Department of Environmental Quality – Office of Environmental Impact Review
    - Virginia Department of Forestry – Forestland Conservation Division
    - U.S. Army Corps of Engineers
    - Department of Conservation and Recreation
    - U.S. Fish and Wildlife Services
    - Virginia Department of Agriculture and Consumer Affairs – Endangered Plant and Insect Species Program

Dominion Energy Virginia
Electric Transmission
P.O. Box 26666, Richmond, VA 23261-6666
DominionEnergy.com

April 12, 2022

New Electric Transmission Needs in Mecklenburg County

Dear _____:

At Dominion Energy, we are dedicated to maintaining reliable and secure electric service in the communities we serve. As a valued stakeholder with a vested interest in the community, we invite you to participate in the development of a series of upcoming electric transmission projects in Mecklenburg County, Virginia. These projects will also include the Virginia counties of Brunswick, Lunenburg, Charlotte, and Halifax.

Mecklenburg County has been successful in diversifying its economic prospects and growing new industries in the county. As data center development continues to materialize, there is a growing need for new electric infrastructure. As such, we are currently evaluating and planning for three separate electric transmission projects. Each project requires new 230 kilovolt (kV) transmission lines and related substations:

Butler Farm Project:
- Counties involved: Halifax, Charlotte, Mecklenburg
- Project Goal Scope:
    - Clover - Butler Farm: Build approximately 18 miles of new single-circuit 230 kV transmission line from the existing Clover Substation to the Proposed Butler Farm Substation. Right of way Needs: ~100’ wide
    - Finneywood - Butler Farm: Build approximately 7 miles of double-circuit 230 kV transmission line structures between the proposed Finneywood 500 kV/230 kV Substation and proposed Butler Farm Substation. Right of way needs: ~120’ wide
    - Proposed Butler Farm Substation is on data center property

South Hill Project:
- Counties involved: Brunswick, Mecklenburg, Lunenburg counties
- Project Scope
    - Build two new single-circuit 230 kV transmission lines parallel to one another on shared right of way into the South Hill/La Crosse areas (two different electric solutions being evaluated). Right of way needs: ~120’ wide
    - Build three substations in South Hill/La Crosse
        - Build a connecting transmission line loop between the three proposed substations
        - Substations on data center property

Jeffress Project:
- Counties involved: Mecklenburg County
- Project Goal Scope:

- Build approximately 18 miles of new two single-circuit 230 kV transmission lines paralleling one another on shared right of way from the new Finneywood Substation to the proposed Jeffress Substation. Right of way needs: ~120' wide
- Proposed Jeffress Substation on data center property

We are currently in the conceptual phase and are seeking input prior to submitting applications with the Virginia State Corporation Commission (SCC). Doing so allows us to hear any concerns you may have as we work to meet the projects needs. Enclosed is a project overview map to help in your review. Please feel free to notify other relevant organizations that may have an interest in the project area.

All three projects are in various stages of development, and each has its own targeted SCC filing date. As projects develop, you will be given project-specific details so that you may provide comments. At this time, we are not seeking input, but if you have general feedback regarding the area, please let us know as soon as possible. More information will be provided in the coming weeks, including initial routing options. We appreciate your assistance as we move through the planning process.

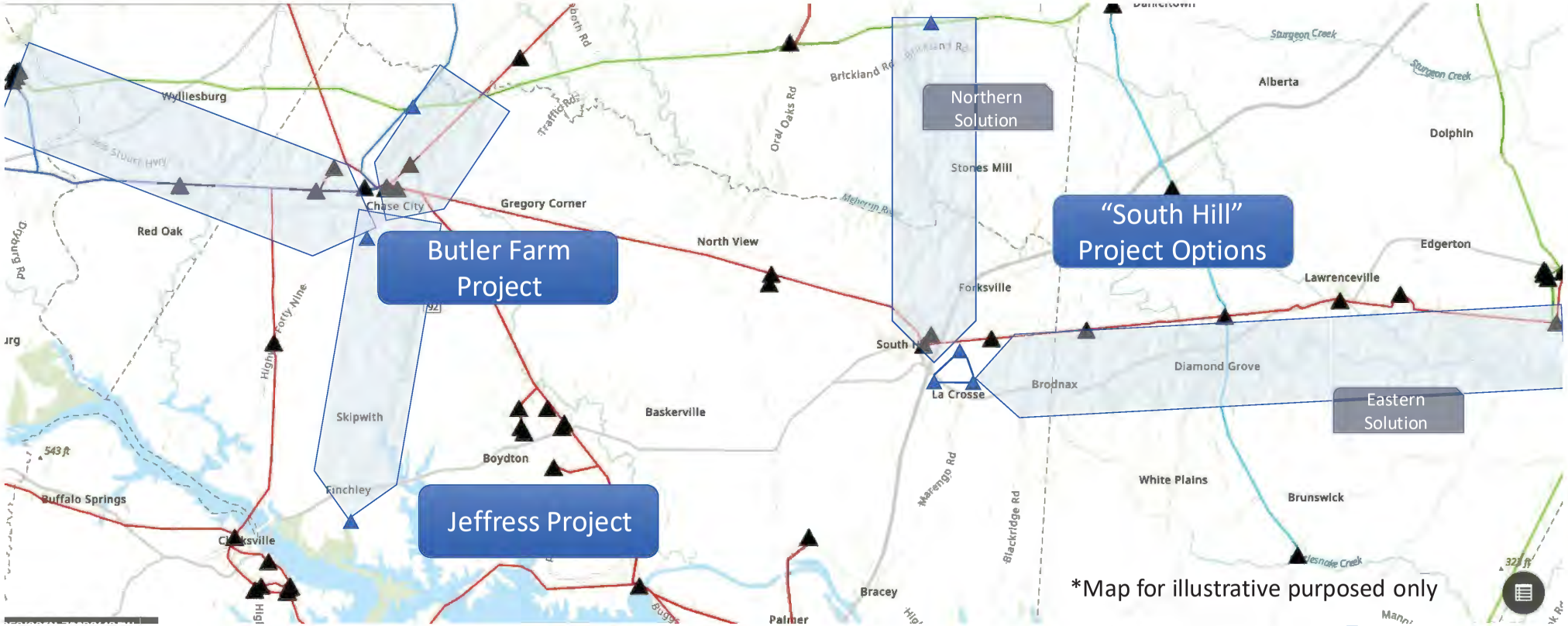
If you would like to meet to discuss, we are happy to do so and of course, if you have any initial questions, please do not hesitate to contact us by contacting Ken Custalow, Tribal Relations Manager at ken.custalow@dominionenergy.com.

Sincerely,

Roxana Demeter
The Electric Transmission Project Team

[Enclosure: Project Overview Map]

Overview: Mecklenburg Infrastructure Enhancements

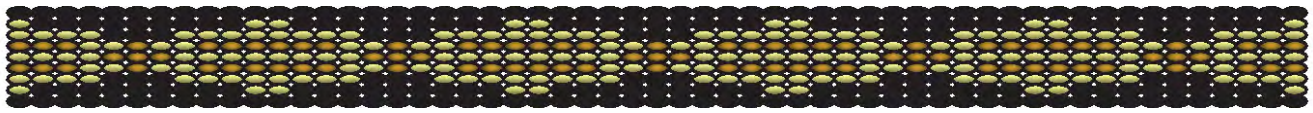


Proposed substation

March 2022

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427



May 13, 2022

Attention: Ken Custalow
Dominion Energy Virginia
P.O. Box 26666
Richmond, VA 23261-6666

Re. THPO #	TCNS #	Project Description
2022-1108-5		New Electric Transmission Needs in Mecklenburg Co. – Butler Farm Project, South Hill Project and Jeffress Project

Dear Mr. Custalow,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail Caitlin.Rogers@catawba.com.

Sincerely,

Caitlin Rogers for

Wenonah G. Haire
Tribal Historic Preservation Officer

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

K. Identify coordination with any non-governmental organizations or private citizen groups.

Response: On March 22, 2022, the Company solicited comments via letter from the community leaders, environmental groups, and business groups identified below. A copy of the letter template, which included a project overview map, is included as Attachment III.K.1.

These community leaders, environmental groups, and business groups identified below were also included in the Company's public mailings, which invited communities to the public meetings. See Attachments III.B.5.i through III.B.5.iv for copies of those public mailings.

Name	Organization
Ms. Elizabeth S. Kostelny	Preservation Virginia
Ms. Eleanor Breen, PhD, RPA	Council of Virginia Archaeologists
Ms. Leighton Powell	Scenic Virginia
Ms. Elaine Chang	National Trust for Historic Preservation
Mr. Adam Gillenwater	Piedmont Environmental Council
Mr. Thomas Gilmore	American Battlefield Trust
Mr. Jim Campi	American Battlefield Trust
Mr. Steven Williams	Colonial National Historical Park
Mr. Alexander Macaulay	Macaulay and Jamerson
Dr. Newby-Alexander	Norfolk State University
Mr. Dave Dutton	Dutton + Associates, LLC
Mr. Max Hokit	American Battlefield Trust
Mr. Roger Kirchen, Archaeologist	Virginia Department of Historic Resources
Ms. Adrienne Birge-Wilson	Virginia Department of Historic Resources

Dominion Energy Virginia
Electric Transmission
P.O. Box 26666, Richmond, VA 23261-6666
DominionEnergy.com

March 22, 2022

New Electric Transmission Needs in Mecklenburg County

Dear [insert name]:

At Dominion Energy, we are dedicated to maintaining reliable and secure electric service in the communities we serve. As a valued stakeholder with a vested interest in the community, we invite you to participate in the development of a series of upcoming electric transmission projects in southern Virginia. These projects include the counties of Mecklenburg, Brunswick, Lunenburg, Charlotte, and Halifax.

Mecklenburg County has been successful in diversifying its economic prospects and growing new industries in the county. As data center development continues to materialize, there is a growing need for new electric infrastructure. As such, we are currently evaluating and planning for three separate electric transmission projects. Each project requires new 230 kilovolt (kV) transmission lines and related substations:

Butler Farm Project:
- Counties involved: Halifax, Charlotte, Mecklenburg
- Project Goal Scope:
    - Clover - Butler Farm: Build approximately 18 miles of new single-circuit 230 kV transmission line from the existing Clover Substation to the proposed Butler Farm Substation. Right of way needs: ~100' wide
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Jeffress Project:
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- Project Goal Scope:

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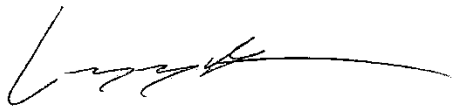
- Proposed Jeffress Substation on data center property

We are currently in the conceptual phase and are seeking input prior to submitting an application with the Virginia State Corporation Commission (SCC). Doing so allows us to hear any concerns you may have as we work to meet the projects' needs. Enclosed is a project overview map to help in your review. Please feel free to notify other relevant organizations that may have an interest in the project area. For reference, other recipients of this letter include countywide and statewide historic, cultural, and scenic organizations, as well as Native American Tribes.

All three projects are in various stages of development, and each has its own targeted SCC filing date. As projects develop, you will be given project-specific details so that you may provide comments. At this time, we are not seeking input, but if you have general feedback regarding the area, please let us know as soon as possible. More information will be provided in the coming weeks, including initial routing options. We appreciate your assistance as we move through the planning process.

If you would like to meet to discuss, we are happy to do so and of course, if you have any initial questions, please do not hesitate to contact us by sending an email to Gregory.E.Mathe@dominionenergy.com or calling 804-229-7650.

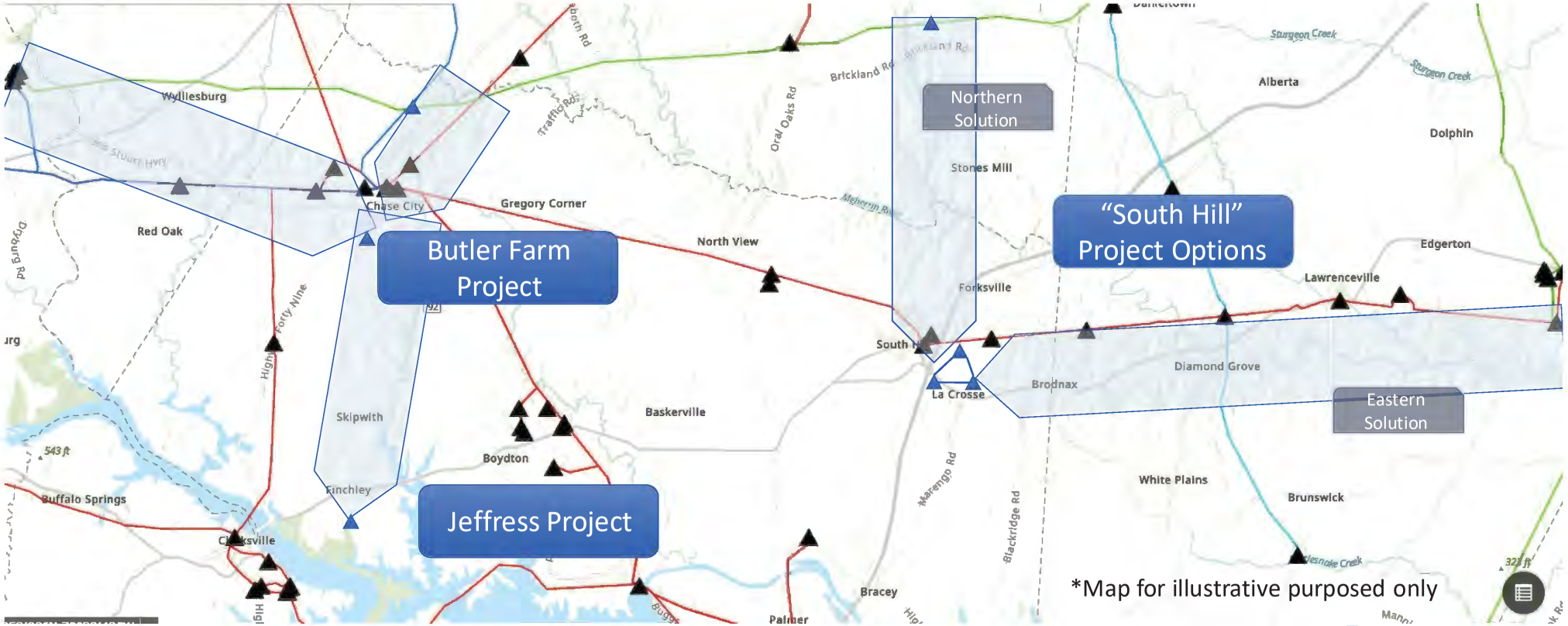
Sincerely,



Gregory E. Mathe
The Electric Transmission Project Team

[Enclosure: Project Overview Map]

Overview: Mecklenburg Infrastructure Enhancements



*Map for illustrative purposed only

▲ Proposed substation

March 2022

Dominion Energy®

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

L. Identify any environmental permits or special permissions anticipated to be needed.

Response: The permits or special permissions that are likely to be required for the proposed Project are listed below.

Activity	Potential Permit	Agency/Organization
Impacts to wetlands and other waters of the U.S.	Nationwide Permit 57	U.S. Army Corps of Engineers
Section 10 Aerial Water Crossing	Subaqueous Habitat Management Permit	Virginia Marine Resources Commission
Impacts to flowage easement	TBD	U.S. Army Corps of Engineers
Impacts to wetlands and other waters of the U.S.	Virginia Water Protection Permit	Virginia Department of Environmental Quality
Discharge of stormwater from construction	Construction General Permit	Virginia Department of Environmental Quality
Work within VDOT rights-of-way	Land Use Permit	Virginia Department of Transportation
Airspace obstruction evaluation	FAA 7460-1	Chase City Municipal Airport
Work within, over or on Railroad property	Utility Occupancy Permit	Norfolk Southern Railroad
Clover Station Expansion	Conditional Use Permit	Halifax County
Construction of Finneywood Station	Conditional Use Permit	Mecklenburg County

IV. HEALTH ASPECTS OF ELECTROMAGNETIC FIELDS ("EMF")

A. Provide the calculated maximum electric and magnetic field levels that are expected to occur at the edge of the ROW. If the new transmission line is to be constructed on an existing electric transmission line ROW, provide the present levels as well as the maximum levels calculated at the edge of ROW after the new line is operational.

Response: Public exposure to magnetic fields is best estimated by field levels from power lines calculated at annual average loading. For any day of the year, the EMF levels associated with average conditions provide the best estimate of potential exposure. Maximum (peak) values are less relevant as they may occur for only a few minutes or hours each year.

This section describes the levels of EMF associated with the proposed transmission lines. EMF levels are provided for future (2025) annual average and maximum (peak) loading conditions.

Proposed project – Projected average loading in 2025

EMF levels were calculated for the proposed Project at the ***projected average*** load condition (365 amps for Line #2256 and 474 amps for Line #2281) and at an operating voltage of 241.5 kV when supported on the proposed Project structures.

These field levels were calculated at mid-span where the conductors are closest to the ground and the conductors are at a projected average load operating temperature.

EMF levels at the edge of the rights-of-way for the proposed Project at the projected average loading:

Proposed Lines - Projected Average Loading

Attachment	Left Edge Looking Towards Lakeside		Right Edge Looking Towards Lakeside	
	Electric Field (kV/m)	Magnetic Field (mG)	Electric Field (kV/m)	Magnetic Field (mG)
II.A.5.ii	2.406	7.628	1.185	9.819
II.A.5.iii	1.382	14.223	1.382	14.223
II.A.5.v	0.671	8.388	1.373	13.471
II.A.5.vii	0.188	3.225	0.103	2.433
II.A.5.viii	0.165	2.735	0.106	0.873
II.A.5.ix	1.414	16.998	0.081	2.666
II.A.5.x	0.514	9.534	0.080	0.984

II.A.5.xii	1.063	3.360	0.246	4.325
II.A.5.xiii	1.045	3.594	0.270	3.216
II.A.5.xiv	1.635	13.271	1.635	13.271
II.A.5.xv	3.054	24.280	2.004	11.605
II.A.5.xvi	0.531	10.105	0.082	0.571

Proposed project – Projected Peak loading in 2025

EMF levels were calculated for the proposed Project at the ***projected peak*** load condition (398 amps for Line #2256 and 601 amps for Line #2281) and at an operating voltage of 241.5 kV when supported on the proposed Project structures.

These field levels were calculated at mid-span where the conductors are closest to the ground and the conductors are at a projected peak load operating temperature.

EMF levels at the edge of the rights-of-way for the proposed Project at the projected peak loading:

Proposed Lines - Projected Peak Loading

Attachment	Left Edge Looking Towards Lakeside		Right Edge Looking Towards Lakeside	
	Electric Field (kV/m)	Magnetic Field (mG)	Electric Field (kV/m)	Magnetic Field (mG)
II.A.5.ii	2.406	8.127	1.185	17.126
II.A.5.iii	1.382	18.041	1.382	18.041
II.A.5.v	0.671	14.718	1.373	16.785
II.A.5.vii	0.187	5.007	0.103	2.366
II.A.5.viii	0.164	4.438	0.107	1.208
II.A.5.ix	1.414	21.903	0.081	2.575
II.A.5.x	0.513	12.794	0.080	0.809
II.A.5.xii	1.063	5.302	0.247	4.560
II.A.5.xiii	1.044	5.600	0.270	3.405
II.A.5.xiv	1.635	14.472	1.635	14.472
II.A.5.xv	3.055	31.313	2.004	12.039
II.A.5.xvi	0.531	13.734	0.082	0.532

Existing lines – Historical average loading in 2020

Existing Lines - Historic Average Loading

Attachment	Left Edge Looking per Drawing		Right Edge Looking per Drawing	
	Electric Field (kV/m)	Magnetic Field (mG)	Electric Field (kV/m)	Magnetic Field (mG)
II.A.5.i	2.402	4.402	2.402	4.402
II.A.5.iv	0.746	2.827	0.389	1.751
II.A.5.vi	0.144	5.129	0.191	1.698
II.A.5.xi	1.178	5.395	1.178	5.395

Existing lines – Historical peak loading in 2020

Existing Lines - Historic Peak Loading

Attachment	Left Edge Looking per Drawing		Right Edge Looking per Drawing	
	Electric Field (kV/m)	Magnetic Field (mG)	Electric Field (kV/m)	Magnetic Field (mG)
II.A.5.ii	2.402	6.233	2.402	6.233
II.A.5.iv	0.746	11.240	0.389	6.959
II.A.5.vi	0.144	20.123	0.191	6.636
II.A.5.xi	1.176	21.444	1.176	21.444

IV. HEALTH ASPECTS OF ELECTROMAGNETIC FIELDS ("EMF")

B. If the Applicant is of the opinion that no significant health effects will result from the construction and operation of the line, describe in detail the reasons for that opinion and provide references or citations to supporting documentation.

Response: The conclusions of multidisciplinary scientific review panels assembled by national and international scientific agencies during the past two decades are the foundation of the Company's opinion that no adverse health effects will result from the operation of the proposed Project. Each of these panels has evaluated the scientific research related to health and power-frequency EMF and provided conclusions that form the basis of guidance to governments and industries. The Company regularly monitors the recommendations of these expert panels to guide their approach to EMF.

Research on EMF and human health varies widely in approach. Some studies evaluate the effects of high, short-term EMF exposures not typically found in people's day-to-day lives on biological responses, while others evaluate the effects of common, lower EMF exposures found throughout communities. Studies also have evaluated the possibility of effects (*e.g.*, cancer, neurodegenerative diseases, and reproductive effects) of long-term exposure. Altogether, this research includes well over a hundred epidemiologic studies of people in their natural environment and many more laboratory studies of animals (*in vivo*) and isolated cells and tissues (*in vitro*). Standard scientific procedures, such as weight-of-evidence methods, were used by the expert panels assembled by agencies to identify, review, and summarize the results of this large and diverse research.

The reviews of EMF biological and health research have been conducted by numerous scientific and health agencies, including the European Health Risk Assessment Network on Electromagnetic Fields Exposure ("EFHRAN"), the International Commission on Non-Ionizing Radiation Protection ("ICNIRP"), the World Health Organization ("WHO"), the IEEE's International Committee on Electromagnetic Safety ("ICES"), the Scientific Committee on Emerging and Newly Identified Health Risks ("SCENIHR") of the European Commission, and the Swedish Radiation Safety Authority ("SSM") (formerly the Swedish Radiation Protection Authority ["SSI"]) (WHO, 2007; SCENIHR, 2009, 2015; EFHRAN, 2010, 2012; ICNIRP, 2010; SSM, 2015, 2016, 2018, 2019, 2020, 2021; ICES, 2019). The general scientific consensus of the agencies that have reviewed this research, relying on generally accepted scientific methods, is that the scientific evidence does not confirm that common sources of EMF in the environment, including transmission lines and other parts of the electric system, appliances, etc., are a cause of any adverse health effects.

The most recent reviews on this topic include the 2015 report by SCENIHR and annual reviews published by SSM (*e.g.*, for the years 2015 through 2021). These reports, similar to previous reviews, found that the scientific evidence does not

confirm the existence of any adverse health effects caused by environmental or community exposure to EMF.

The WHO has recommended that countries adopt recognized international standards published ICNIRP and ICES. Typical levels of EMF from Dominion's power lines outside its property and rights-of-way are far below the screening reference levels of EMF recommended for the general public and still lower than exposures equivalent to restrictions to limits on fields within the body (ICNIRP, 2010; ICES, 2019).

Thus, based on the conclusions of scientific reviews and the levels of EMF associated with the proposed Project, the Company has determined that no adverse health effects are anticipated to result from the operation of the proposed Project.

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IV. HEALTH ASPECTS OF ELECTROMAGNETIC FIELDS ("EMF")

C. Describe and cite any research studies on EMF the Applicant is aware of that meet the following criteria:

1. Became available for consideration since the completion of the Virginia Department of Health's most recent review of studies on EMF and its subsequent report to the Virginia General Assembly in compliance with 1985 Senate Joint Resolution No. 126;

2. Include findings regarding EMF that have not been reported previously and/or provide substantial additional insight into findings; and

3. Have been subjected to peer review.

Response: The Virginia Department of Health ("VDH") conducted its most recent review and issued its report on the scientific evidence on potential health effects of extremely low frequency ("ELF") EMF in 2000: "[T]he Virginia Department of Health is of the opinion that there is no conclusive and convincing evidence that exposure to extremely low frequency EMF emanated from nearby high voltage transmission lines is causally associated with an increased incidence of cancer or other detrimental health effects in humans."[23]

The continuing scientific research on EMF exposure and health has resulted in many peer-reviewed publications since 2000. The accumulating research results have been regularly and repeatedly reviewed and evaluated by national and international health, scientific, and government agencies, including most notably:

- The WHO, which published one of the most comprehensive and detailed reviews of the relevant scientific peer-reviewed literature in 2007;
- SCENIHR, a committee of the European Commission, which published its assessments in 2009 and 2015;
- The SSM, which has published annual reviews of the relevant peer-reviewed scientific literature since 2003, with its most recent review published in 2021; and,
- EFHRAN, which published its reviews in 2010 and 2012.

The above reviews provide detailed analyses and summaries of relevant recent peer-reviewed scientific publications. The conclusions of these reviews that the evidence overall does not confirm the existence of any adverse health effects due to exposure to EMF below scientifically established guideline values are consistent with the conclusions of the VDH report. With respect to the statistical association observed in some of the childhood leukemia epidemiologic studies, the most recent

[23] *See* http://www.vdh.virginia.gov/content/uploads/sites/12/2016/02/highfinal.pdf.

comprehensive review of the literature by SCENIHR, published in 2015, concluded that "no mechanisms have been identified and no support is existing [*sic*] from experimental studies that could explain these findings, which, together with shortcomings of the epidemiological studies prevent a causal interpretation" (SCENIHR, 2015, p. 16).

While research is continuing on multiple aspects of EMF exposure and health, many of the recent publications have focused on an epidemiologic assessment of the relationship between EMF exposure and childhood leukemia and EMF exposure and neurodegenerative diseases. Of these, the following recent publications, published following the inclusion date (June 2014) for the SCENIHR (2015) report through May 2021, provided additional evidence and contributed to clarification of previous findings. Overall, new research studies have not provided evidence to alter the previous conclusions of scientific and health organizations, including the WHO and SCENIHR.

Recent epidemiologic studies of EMF and childhood leukemia include:

- Bunch et al. (2015) assessed the potential association between residential proximity to high-voltage underground cables and development of childhood cancer in the United Kingdom largely using the same epidemiologic data as in a previously published study on overhead transmission lines (Bunch et al., 2014). No statistically significant associations or trends were reported with either distance to underground cables or calculated magnetic fields from underground cables for any type of childhood cancers.

- Pedersen et al. (2015) published a case-control study that investigated the potential association between residential proximity to power lines and childhood cancer in Denmark. The study included all cases of leukemia (n=1,536), central nervous system tumor, and malignant lymphoma (n=417) diagnosed before the age of 15 between 1968 and 2003 in Denmark, along with 9,129 healthy control children matched on sex and year of birth. Considering the entire study period, no statistically significant increases were reported for any of the childhood cancer types.

- Salvan et al. (2015) compared measured magnetic-field levels in the bedroom for 412 cases of childhood leukemia under the age of 10 and 587 healthy control children in Italy. Although the statistical power of the study was limited because of the small number of highly exposed subjects, no consistent statistical associations or trends were reported between measured magnetic-field levels and the occurrence of leukemia among children in the study.

- Bunch et al. (2016) and Swanson and Bunch (2018) published additional analyses using data from an earlier study (Bunch et al., 2014). Bunch et al. (2016) reported that the association with distance to power lines observed in earlier years was linked to calendar year of birth or year of cancer diagnosis, rather than the age of the power lines. Swanson and Bunch (2018) re-analyzed

data using finer exposure categories (e.g., cut-points of every 50-meter distance) and broader groupings of diagnosis date (e.g., 1960-1979, 1980-1999, and 2000-on) and reported no overall associations between exposure categories and childhood leukemia for the later periods (1980 and on), and consistent pattern for the periods prior to 1980.

- Crespi et al. (2016) conducted a case-control epidemiologic study of childhood cancers and residential proximity to high-voltage power lines (60 kilovolts ["kV"] to 500 kV) in California. Childhood cancer cases, including 5,788 cases of leukemia and 3,308 cases of brain tumor, diagnosed under the age of 16 between 1986 and 2008, were identified from the California Cancer Registry. Controls, matched on age and sex, were selected from the California Birth Registry. Overall, no consistent statistically significant associations for leukemia or brain tumor and residential distance to power lines were reported.

- Kheifets et al. (2017) assessed the relationship between calculated magnetic-field levels from power lines and development of childhood leukemia within the same study population evaluated in Crespi et al. (2016). In the main analyses, which included 4,824 cases of leukemia and 4,782 controls matched on age and sex, the authors reported no consistent patterns, or statistically significant associations between calculated magnetic-field levels and childhood leukemia development. Similar results were reported in subgroup and sensitivity analyses. In two subsequent studies, Amoon et al. (2018a, 2019) examined the potential impact of residential mobility (i.e., moving residences between birth and diagnosis) on the associations reported in Crespi et al. (2016) and Kheifets et al. (2017). Amoon et al. (2018a) concluded that changing residences was not associated with either calculated magnetic-field levels or proximity to the power lines, while Amoon et al. (2019) concluded that while uncontrolled confounding by residential mobility had some impact on the association between EMF exposure and childhood leukemia, it was unlikely to be the primary driving force behind the previously reported associations in Crespi et al. (2016) and Kheifets et al. (2017).

- Amoon et al. (2018b) conducted a pooled analysis of 29,049 cases and 68,231 controls from 11 epidemiologic studies of childhood leukemia and residential distance from high-voltage power lines. The authors reported no statistically-significant association between childhood leukemia and proximity to transmission lines of any voltage. Among subgroup analyses, the reported associations were slightly stronger for leukemia cases diagnosed before 5 years of age and in study periods prior to 1980. Adjustment for various potential confounders (*e.g.*, socioeconomic status, dwelling type, residential mobility) had little effect on the estimated associations.

- Kyriakopoulou et al. (2018) assessed the association between childhood acute leukemia and parental occupational exposure to social contacts, chemicals, and electromagnetic fields. The study was conducted at a major pediatric hospital in Greece and included 108 cases and 108 controls matched for age, gender,

and ethnicity. Statistically non-significant associations were observed between paternal exposure to magnetic fields and childhood acute leukemia for any of the exposure periods examined (1 year before conception; during pregnancy; during breastfeeding; and from birth until diagnosis); maternal exposure was not assessed due to the limited sample size. No associations were observed between childhood acute leukemia and exposure to social contacts or chemicals.

- Auger et al. (2019) examined the relationship between exposure to EMF during pregnancy and risk of childhood cancer in a cohort of 784,000 children born in Quebéc. Exposure was defined using residential distance to the nearest high-voltage transmission line or transformer station. The authors reported statistically non-significant associations between proximity to transformer stations and any cancer, hematopoietic cancer, or solid tumors. No associations were reported with distance to transmission lines.
- Crespi et al. (2019) investigated the relationship between childhood leukemia and distance from high-voltage lines and calculated magnetic-field exposure, separately and combined, within the California study population previously analyzed in Crespi et al. (2016) and Kheifets et al. (2017). The authors reported that neither close proximity to high-voltage lines nor exposure to calculated magnetic fields alone were associated with childhood leukemia; an association was observed only for those participants who were both close to high-voltage lines (< 50 meters) and had high calculated magnetic fields (≥ 0.4 microtesla [i.e., ≥ 4 milligauss]). No associations were observed with low-voltage power lines (< 200 kV). In a subsequent study, Amoon et al. (2020) examined the potential impact of dwelling type on the associations reported in Crespi et al. (2019). Amoon et al. (2020) concluded that while the type of dwelling at which a child resides (e.g., single-family home, apartment, duplex, mobile home) was associated with socioeconomic status and race or ethnicity, it was not associated with childhood leukemia and did not appear to be a potential confounder in the relationship between childhood leukemia and magnetic-field exposure in this study population.
- Swanson et al. (2019) conducted a meta-analysis of 41 epidemiologic studies of childhood leukemia and magnetic-field exposure published between 1979 and 2017 to examine trends in childhood leukemia development over time. The authors reported that while the estimated risk of childhood leukemia initially increased during the earlier period, a statistically non-significant decline in estimated risk has been observed from the mid-1990s until the present (*i.e.*, 2019).
- Talibov et al. (2019) conducted a pooled analysis of 9,723 cases and 17,099 controls from 11 epidemiologic studies to examine the relationship between parental occupational exposure to magnetic fields and childhood leukemia. No statistically significant association was found between either paternal or maternal exposure and leukemia (overall or by subtype). No associations were observed in the meta-analyses.

- Núñez-Enríquez et al. (2020) assessed the relationship between residential magnetic-field exposure and B-lineage acute lymphoblastic leukemia ("B-ALL") in children under 16 years of age in Mexico. The study included 290 cases and 407 controls matched on age, gender, and health institution; magnetic-field exposure was assessed through the collection of 24-hour measurements in the participants' bedrooms. While the authors reported some statistically significant associations between elevated magnetic-field levels and development of B-ALL, the results were dependent on the chosen cut-points.

- Seomun et al. (2021) performed a meta-analysis based on 33 previously published epidemiologic studies investigating the potential relationship between magnetic-field exposure and childhood cancers, including leukemia and brain cancer. For childhood leukemia, the authors reported statistically significant associations with some, but not all, of the chosen cut-points for magnetic-field exposure. The associations between magnetic-field exposure and childhood brain cancer were statistically non-significant. The study provided limited new insight as most of the studies included in the current meta-analysis, were included in previously conducted meta- and pooled analyses.

Recent epidemiologic studies of EMF and neurodegenerative diseases include:

- Seelen et al. (2014) conducted a population-based case-control study in the Netherlands and included 1,139 cases diagnosed with amyotrophic lateral sclerosis ("ALS") between 2006 and 2013 and 2,864 frequency-matched controls. The shortest distance from the case and control residences to the nearest high-voltage power line (50 to 380 kilovolts [kV]) was determined by geocoding. No statistically significant associations between residential proximity to power lines with voltages of either 50 to 150 kV or 220 to 380 kV and ALS were reported.

- Sorahan and Mohammed (2014) analyzed mortality from neurodegenerative diseases in a cohort of approximately 73,000 electricity supply workers in the United Kingdom. Cumulative occupational exposure to magnetic-fields was calculated for each worker in the cohort based on their job titles and job locations. Death certificates were used to identify deaths from neurodegenerative diseases. No associations or trends for any of the included neurodegenerative diseases (Alzheimer's disease, Parkinson's disease, and ALS) were observed with various measures of calculated magnetic fields.

- Koeman et al. (2015, 2017) analyzed data from the Netherlands Cohort Study of approximately 120,000 men and women who were enrolled in the cohort in 1986 and followed up until 2003. Lifetime occupational history, obtained through questionnaires, and job-exposure matrices on ELF magnetic fields and other occupational exposures were used to assign exposure to study subjects. Based on 1,552 deaths from vascular dementia, the researchers reported a statistically not significant association of vascular dementia with estimated exposure to metals, chlorinated solvents, and ELF magnetic fields. However,

because no exposure-response relationship for cumulative exposure was observed and because magnetic fields and solvent exposures were highly correlated with exposure to metals, the authors attributed the association with ELF magnetic fields and solvents to confounding by exposure to metals (Koeman et al., 2015). Based on a total of 136 deaths from ALS among the cohort members, the authors reported a statistically significant, approximately two-fold association with ELF magnetic fields in the highest exposure category. This association, however, was no longer statistically significant when adjusted for exposure to insecticides (Koeman et al., 2017).

- Fischer et al. (2015) conducted a population-based case-control study that included 4,709 cases of ALS diagnosed between 1990 and 2010 in Sweden and 23,335 controls matched to cases on year of birth and sex. The study subjects' occupational exposures to ELF magnetic fields and electric shocks were classified based on their occupations, as recorded in the censuses and corresponding job-exposure matrices. Overall, neither magnetic fields nor electric shocks were related to ALS.

- Vergara et al. (2015) conducted a mortality case-control study of occupational exposure to electric shock and magnetic fields and ALS. They analyzed data on 5,886 deaths due to ALS and over 58,000 deaths from other causes in the United States between 1991 and 1999. Information on occupation was obtained from death certificates and job-exposure matrices were used to categorize exposure to electric shocks and magnetic fields. Occupations classified as "electric occupations" were moderately associated with ALS. The authors reported no consistent associations for ALS, however, with either electric shocks or magnetic fields, and they concluded that their findings did not support the hypothesis that exposure to either electric shocks or magnetic fields explained the observed association of ALS with "electric occupations."

- Pedersen et al. (2017) investigated the occurrence of central nervous system diseases among approximately 32,000 male Danish electric power company workers. Cases were identified through the national patient registry between 1982 and 2010. Exposure to ELF magnetic fields was determined for each worker based on their job titles and area of work. A statistically significant increase was reported for dementia in the high exposure category when compared to the general population, but no exposure-response pattern was identified, and no similar increase was reported in the internal comparisons among the workers. No other statistically significant increases among workers were reported for the incidence of Alzheimer's disease, Parkinson's disease, motor neuron disease, multiple sclerosis, or epilepsy, when compared to the general population, or when incidence among workers was analyzed across estimated exposure levels.

- Vinceti et al. (2017) examined the association between ALS and calculated magnetic-field levels from high-voltage power lines in Italy. The authors included 703 ALS cases and 2,737 controls; exposure was assessed based on

residential proximity to high-voltage power lines. No statistically significant associations were reported and no exposure-response trend was observed. Similar results were reported in subgroup analyses by age, calendar period of disease diagnosis, and study area.

- Checkoway et al. (2018) investigated the association between Parkinsonism[24] and occupational exposure to magnetic fields and several other agents (endotoxins, solvents, shift work) among 800 female textile workers in Shanghai. Exposure to magnetic fields was assessed based on the participants' work histories. The authors reported no statistically significant associations between Parkinsonism and occupational exposure to any of the agents under study, including magnetic fields.

- Gunnarsson and Bodin (2018) conducted a meta-analysis of occupational risk factors for ALS. The authors reported a statistically significant association between occupational exposures to EMF, estimated using a job-exposure matrix, and ALS among the 11 studies included. Statistically significant associations were also reported between ALS and jobs that involve working with electricity, heavy physical work, exposure to metals (including lead) and chemicals (including pesticides), and working as a nurse or physician. The authors reported some evidence for publication bias. In a subsequent publication, Gunnarsson and Bodin (2019) updated their previous meta-analysis to also include Parkinson's disease and Alzheimer's disease. A slight, statistically significant association was reported between occupational exposure to EMF and Alzheimer's disease; no association was observed for Parkinson's disease.

- Huss et al. (2018) conducted a meta-analysis of 20 epidemiologic studies of ALS and occupational exposure to magnetic fields. The authors reported a weak overall association; a slightly stronger association was observed in a subset analysis of six studies with full occupational histories available. The authors noted substantial heterogeneity among studies, evidence for publication bias, and a lack of a clear exposure-response relationship between exposure and ALS.

- Jalilian et al. (2018) conducted a meta-analysis of 20 epidemiologic studies of occupational exposure to magnetic fields and Alzheimer's disease. The authors reported a moderate, statistically significant overall association; however, they noted substantial heterogeneity among studies and evidence for publication bias.

- Röösli and Jalilian (2018) performed a meta-analysis using data from five epidemiologic studies examining residential exposure to magnetic fields and

[24] Parkinsonism is defined by Checkoway et al. (2018) as "*a syndrome whose cardinal clinical features are bradykinesia, rest tremor, muscle rigidity, and postural instability. Parkinson disease is the most common neurodegenerative form of [parkinsonism]"* (p. 887).

ALS. A statistically non-significant negative association was reported between ALS and the highest exposed group, where exposure was defined based on distance from power lines or calculated magnetic-field level.

- Gervasi et al. (2019) assessed the relationship between residential distance to overhead power lines in Italy and risk of Alzheimer's dementia and Parkinson's disease. The authors included 9,835 cases of Alzheimer's dementia and 6,810 cases of Parkinson's disease; controls were matched by sex, year of birth, and municipality of residence. A weak, statistically non-significant association was observed between residences within 50 meters of overhead power lines and both Alzheimer's dementia and Parkinson's disease, compared to distances of over 600 meters.

- Peters et al. (2019) examined the relationship between ALS and occupational exposure to both magnetic fields and electric shock in a pooled study of data from three European countries. The study included 1,323 ALS cases and 2,704 controls matched for sex, age, and geographic location; exposure was assessed based on occupational title and defined as low (background), medium, or high. Statistically significant associations were observed between ALS and ever having been exposed above background levels to either magnetic fields or electric shocks; however, no clear exposure-response trends were observed with exposure duration or cumulative exposure. The authors also noted significant heterogeneity in risk by study location.

- Filippini et al. (2020) investigated the associations between ALS and several environmental and occupational exposures, including electromagnetic fields, within a case-control study in Italy. The study included 95 cases and 135 controls matched on age, gender, and residential province; exposure to electromagnetic fields was assessed using the participants' responses to questions related to occupational use of electric and electronic equipment, occupational EMF exposure, and residential distance to overhead power lines. The authors reported a statistically significant association between ALS and residential proximity to overhead power lines and a statistically non-significant association between ALS and occupational exposure to EMF; occupational use of electric and electronic equipment was associated with a statistically non-significant decrease in ALS development.

- Huang et al. (2020) conducted a meta-analysis of 43 epidemiologic studies examining potential occupational risk factors for dementia or mild cognitive impairment. The authors included five cohort studies and seven case-control studies related to magnetic-field exposure. For both study types, the authors reported positive associations between dementia and work-related magnetic-field exposures. The paper, however, provided no information on the occupations held by the study participants, their magnetic-field exposure levels, or how magnetic-field levels were assessed; therefore, the results are difficult to interpret. The authors also reported a high level of heterogeneity among

studies. Thus, this analysis adds little, if any, to the overall weight of evidence on a potential association between dementia and magnetic fields.

- Jalilian et al. (2020) conducted a meta-analysis of ALS and occupational exposure to both magnetic fields and electric shocks within 27 studies from Europe, the United States, and New Zealand. A weak, statistically significant association was reported between magnetic-field exposure and ALS; however, the authors noted evidence of study heterogeneity and publication bias. No association was observed between ALS and electric shocks.

- Chen et al. (2021) conducted a case-control study to examine the association between occupational exposure to electric shocks, magnetic fields, and motor neuron disease ("MND") in New Zealand. The study included 319 cases with a MND diagnosis (including ALS) and 604 controls, matched on age and gender; exposure was assessed using the participants' occupational history questionnaire responses and previously developed job-exposure matrices for electric shocks and magnetic fields. The authors reported no associations between MND and exposure to magnetic fields; positive associations were reported between MND and working at a job with the potential for electric shock exposure.

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V. NOTICE

A. Furnish a proposed route description to be used for public notice purposes. Provide a map of suitable scale showing the route of the proposed project. For all routes that the Applicant proposed to be noticed, provide minimum, maximum and average structure heights.

Response: A map showing the location of the BF – Clover Proposed Route, Alternative Routes and Route Variation, the BF – Finneywood Proposed Route, Alternative Route and Route Variation, the proposed Butler Farm Substation, and proposed Finneywood Station is provided as Attachment V.A. A written description of the Proposed and Alternative Routes is as follows:

BF – Clover Route (Proposed Route)

BF – Clover Route is approximately 19.1 miles in length. Starting at the Clover Station, the route heads east for about 10.8 miles, mostly paralleling the Company's existing Line #556 right-of-way. The Route then turns to the southeast for 5.0 miles mostly paralleling Company's existing Line #1012 and Line #235 rights-of-way. At this point, the route turns to the south for 2.1 miles along a greenfield route, passing west of Chase City. The route then turns to the east for 1.2 miles before terminating at the Butler Farm Substation.

The BF – Clover Route has a maximum structure height of 135 feet, a minimum structure height of 55 feet, and an average structure height of 90 feet.

BF – Clover Alternative Route 1

The BF – Clover Alternative Route 1 is approximately 21.1 miles in length. The route follows the same alignment as BF – Clover Route for the first 9.4 miles from the Clover Station to a point just east of Quarter Horse Road. The route then turns south for about 3.6 miles along a greenfield route, to a crossing of the Company's existing right-of-way for Line #235. After the route crosses Line #235, it mostly parallels the Company's existing right-of-way for Line #36 for approximately 3.0 miles. At this point, the route turns east and parallels an existing natural gas pipeline corridor for 1.5 miles. The route then deviates from the natural gas pipeline corridor continuing east then northeast for 3.6 miles before terminating at the proposed Butler Farm Substation.

The BF – Clover Alternative Route 1 has a maximum structure height of 130 feet, a minimum structure height of 65 feet, and an average structure height of 95 feet.

BF – Clover Alternative Route 2

The BF – Clover Alternative Route 2 is approximately 20.2 miles in length. The route follows the same alignment as BF – Clover Route for the first 3.5 miles from the Clover Station to a point just east of Colemans Ferry Road. At that point, the route turns to the southeast for about 4.1 miles along a greenfield alignment to a

crossing of the Company's existing right-of-way for Line #235. After the route crosses Line #235, it turns to the east and parallels Line #235 for about 4.5 miles east to an intersection with the Company's existing right-of-way for Line #36. From this point, the route follows the same alignment as BF – Clover Alternative Route 1 for the remaining 8.1 miles to the proposed Butler Farm Substation.

The BF – Clover Alternative Route 2 has a maximum structure height of 130 feet, a minimum structure height of 65 feet, and an average structure height of 95 feet.

BF – Clover Route Variation

The BF – Clover Route Variation provides an alternative to the alignment of the BF – Clover Route where the route crosses the proposed Chase City Apartment Complex development. Beginning south of the Company's Line #235, the route heads south for 0.7 mile crossing Bailey Drive and Highway 92. After Crossing Highway 92, the route continues south for 1.0 mile before terminating at the BF – Clover Route. The BF – Clover Route Variation is 1.7 miles in length.

The BF – Clover Route Variation has a maximum structure height of 135 feet, a minimum structure height of 55 feet, and an average structure height of 90 feet.

BF - Finneywood Route (Proposed Route)

The BF – Finneywood Route is approximately 7.0 miles in length. Starting at the Finneywood Station, this route initially extends southeast for about 2.9 miles mostly following the Company's existing right-of-way for Line #235. The route then turns to the southeast and follows the same alignment as BF – Clover Proposed Route for 4.1 miles to its terminus at the proposed Butler Farm Substation. If both the BF – Clover Proposed Route and the BF – Finneywood Proposed Route are selected for the Project, the centerlines of the two routes would be offset by 40 feet where the routes are collocated, with BF – Finneywood Proposed Route to the west of BF – Clover Proposed Route.

The BF – Finneywood Route has a maximum structure height of 150 feet, a minimum structure height of 95 feet, and an average structure height of 113 feet.

BF - Finneywood Alternative Route

The BF – Finneywood Alternative Route is approximately 7.8 miles in length. This route initially heads east for 1.2 miles mostly paralleling the Company's existing right-of-way for Line #556. The route then turns south along a greenfield alignment through forested or agricultural lands for about 4.9 miles, passing east of Chase City. At this point, the route turns west and continues for 1.4 miles along a greenfield alignment to the data center campus. The route then turns south for 0.3-mile to the proposed Butler Farm Substation.

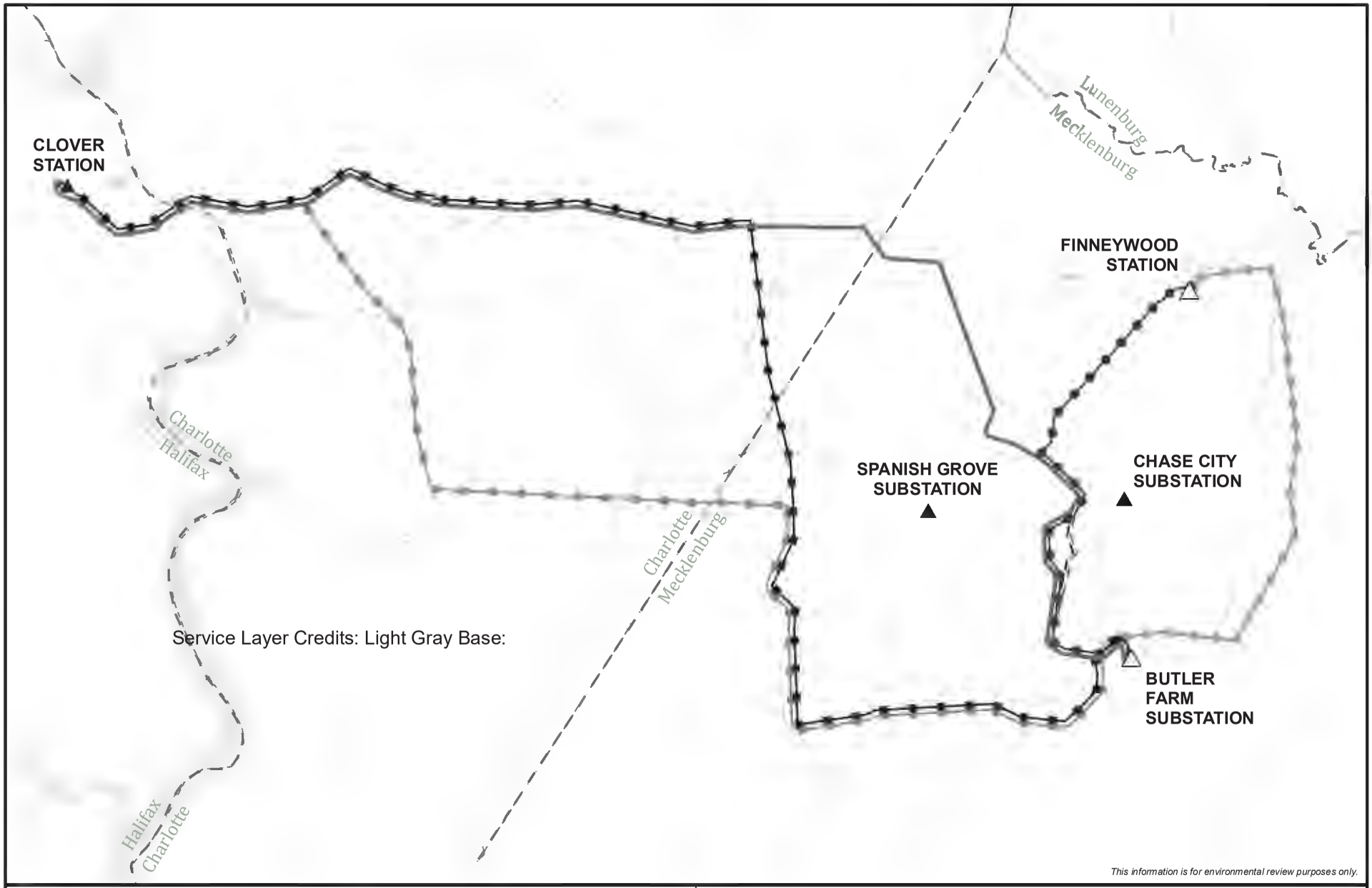
The BF – Finneywood Alternative Route has a maximum structure height of 150 feet, a minimum structure height of 100 feet, and an average structure height of 120

feet.

BF – Finneywood Route Variation

The BF – Finneywood Route Variation provides an alternative to the alignment of the BF – Finneywood Route where the route crosses the proposed Chase City Apartment Complex development. Beginning south of the Company's Line #235, the route heads south for 0.7 miles crossing Bailey Drive and Highway 92. After Crossing Highway 92, the route continues south for 1.0 mile before terminating at the BF – Finneywood Route. The BF - Finneywood Route Variation is 1.7 miles in length.

The BF - Finneywood Route Variation has a maximum structure height of 150 feet, a minimum structure height of 95 feet, and an average structure height of 113 feet.



Attachment V.A
Notice Map
Butler Farm to Clover Line and Butler Farm to Finneywood Line Project
Dominion Energy, Virginia
Halifax, Charlotte, and Mecklenburg Counties, VA

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V. NOTICE

B. List Applicant offices where members of the public may inspect the application. If applicable, provide a link to website(s) where the application may be found.

Response: The Application will be made available electronically for public inspection at: www.dominionenergy.com/butlerfarm.

V. NOTICE

C. List all federal, state, and local agencies and/or officials that may reasonably be expected to have an interest in the proposed construction and to whom the Applicant has furnished or will furnish a copy of the application.

Response:

Ms. Bettina Rayfield
Office of Environmental Impact Review
Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218

Ms. S. Rene Hypes
Virginia Department of Conservation and Recreation
Environmental Review Coordinator, Natural Heritage Program
600 East Main Street, Suite 1400
Richmond, Virginia 23219

Ms. Kristal Mckelvey
Department of Conservation and Recreation, Planning Bureau
600 East Main Street, 17th Floor
Richmond, Virginia 23219

Mr. Roger Kirchen
Department of Historic Resources
Review and Compliance Division
2801 Kensington Avenue
Richmond, Virginia 23221

Ms. Amy M. Ewing
Virginia Department of Wildlife Resources
P.O. Box 90778
Henrico, Virginia 23228

Mr. Keith Tignor
Endangered Plant and Insect Species Program
Virginia Department of Agriculture and Consumer Affairs
102 Governor Street
Richmond, Virginia 23219

Mr. Karl Didier, PhD
Forestland Conservation Division
Virginia Department of Forestry
900 Natural Resources Drive, Suite 800
Charlottesville, Virginia 22903

Mr. Mark Eversole
Virginia Marine Resources Commission
Habitat Management Division
Building 96, 380 Fenwick Road
Ft. Monroe, Virginia 23651

Mr. Troy Andersen
US Fish and Wildlife Service
Virginia Field Office, Ecological Services
6669 Short Lane
Gloucester, Virginia 23061

Regulator of the Day
US Army Corps of Engineers
Norfolk District
803 Front Street
Norfolk, Virginia 23510

Scott Denny
Virginia Department of Aviation, Airport Services Division
5702 Gulfstream Road
Richmond, Virginia 23250

Martha Little
Deputy Director
Virginia Outdoors Foundation
600 East Main Street, Suite 402
Richmond, Virginia 23219

Mr. Tommy Johnson
Residency Administrator
Virginia Department of Transportation
1013 West Atlantic St.
P.O. Box 249
South Hill, Virginia 23970

Mr. H. Wayne Carter, III
Mecklenburg County Administrator
P.O. Box 307
Boydton, Virginia 23917

Mr. C.F. “Dusty” Forbes
Chase City Town Manager
319 North Main Street
Chase City, Virginia 23924

Mr. Scott R. Simpson
Halifax County Administrator
1050 Mary Bethune Street
Halifax, Virginia 24558

Mr. Daniel Witt
Charlotte County Administrator
250 LeGrande Ave., Suite A
Charlotte Court House, Virginia 23923

V. NOTICE

D. If the application is for a transmission line with a voltage of 138 kV or greater, provide a statement and any associated correspondence indicating that prior to the filing of the application with the SCC the Applicant has notified the chief administrative officer of every locality in which it plans to undertake construction of the proposed line of its intention to file such an application, and that the Applicant gave the locality a reasonable opportunity for consultation about the proposed line (similar to the requirements of § 15.2-2202 of the Code for electric transmission lines of 150 kV or more).

Response: In accordance with Va. Code § 15.2-2202 E, letters dated June 30, 2022, and July 12, 2022, were delivered to Mr. H. Wayne Carter, III, Administrator of Mecklenburg County; Mr. C.F. "Dusty" Forbes, Town Manager of Chase City; Mr. Scott R. Simpson, Administrator of Halifax County; and Mr. Daniel Witt, Administrator of Charlotte County, where the Project is located. The letters stated the Company's intention to file this Application and invited the counties to consult with the Company about the Project. These letters are included as Attachment V.D.

Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, VA 23219
DominionEnergy.com

June 30, 2022

Mr. H. Wayne Carter, III
Mecklenburg County Administrator
P.O. Box 307
Boydton, Virginia 23917

RE: Dominion Energy Virginia's Proposed Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line Project, Charlotte, Halifax, and Mecklenburg Counties, Virginia

Dear Mr. Carter,

Dominion Energy Virginia (the "Company") is proposing to build a new 230 kV line from the proposed Butler Farm Substation to the existing Clover Switching Station ("BF – Clover Line") and another new 230 kV line from the proposed Butler Farm Substation to the proposed Finneywood Switching Station ("BF – Finneywood Line") (collectively, the "Project"). The proposed Project is located within Charlotte, Halifax, and Mecklenburg Counties, Virginia and will provide service requested by a data center customer in Mecklenberg County, Virginia.

Specifically, the maximum approximate length of the proposed BF – Clover Line along the proposed or alternative routes is 24.7 miles. The maximum approximate length of the BF – Finneywood Line along the proposed or alternative route is 7.6 miles. The new lines will be constructed on existing and new right-of-way. The Project also includes building the Butler Farm Substation and the Finneywood Switching Station.

The Company is preparing an application for a Certificate of Public Convenience and Necessity from the Virginia State Corporation Commission ("SCC"). Pursuant to Va. Code § 15.2-2202, the Company is writing to notify you of the proposed Project in advance of this SCC filing. We respectfully request that you submit any comments or additional information you feel would have bearing on the project within 30 days of the date of this letter. Enclosed is a Project Location Map depicting the proposed routes and project location.

If you would like to receive a GIS shapefile of the transmission line routes to assist in the project review or if there are any questions, please do not hesitate to contact me at (804) 239-6450 or charles.h.weil@dominionenergy.com.

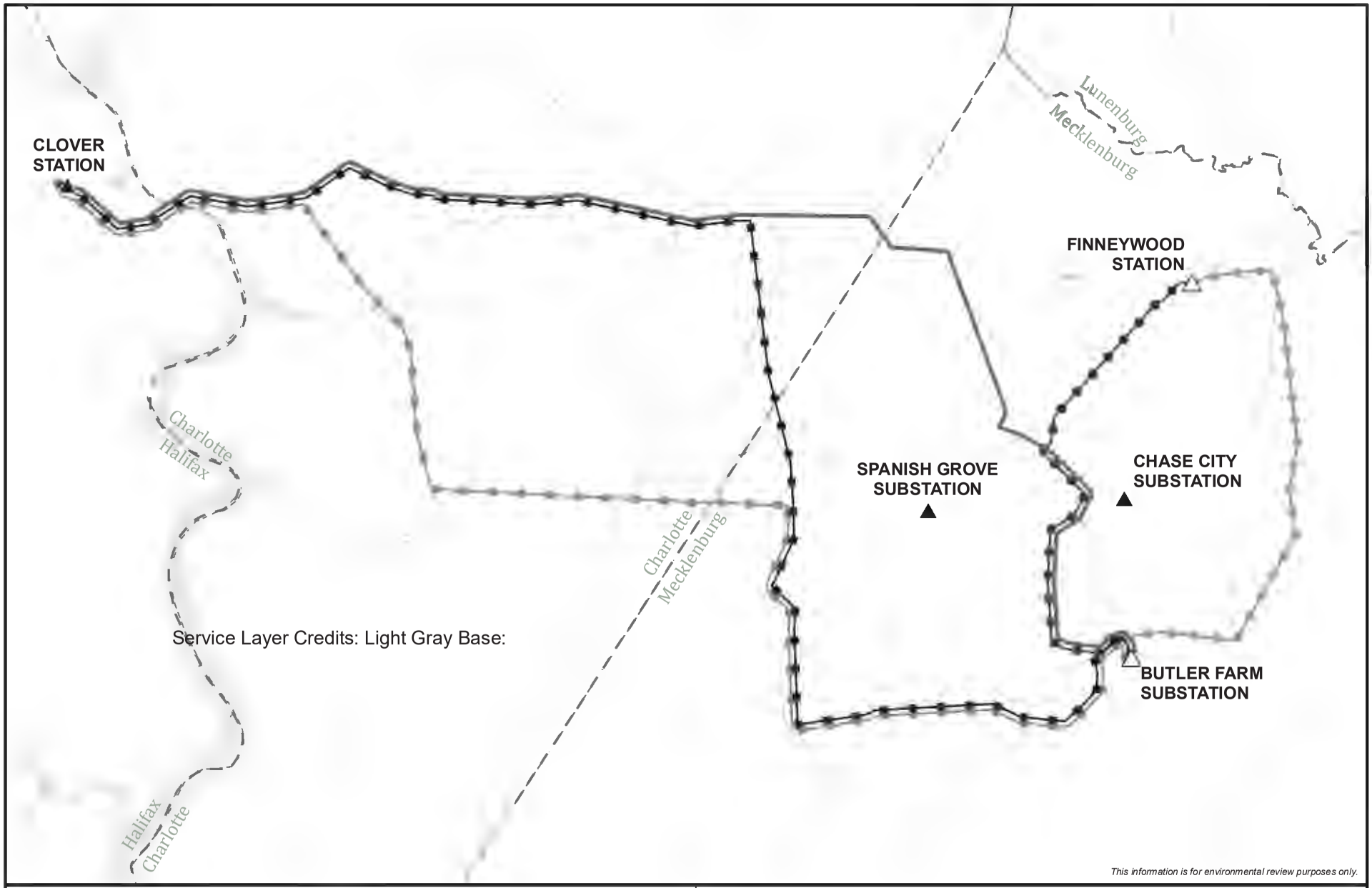
We appreciate your assistance with this project review and look forward to any additional information you may have to offer.

Sincerely,

Dominion Energy Virginia

Charles H. Weil, PE
Engineer II
Siting and Permitting Group

Attachment: Project Notice Map



△ Proposed Substation
▲ Existing Substation
BF-Clover Proposed Route
BF-Clover Alternative Route 1
BF-Clover Alternative Route 2
BF-Finneywood Proposed Route
BF-Finneywood Alternative Route 1

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Dominion Energy

Attachment V.A
Notice Map
Butler Farm to Clover Line and Butler Farm to Finneywood Line Project
Dominion Energy, Virginia
Halifax, Charlotte, and Mecklenburg Counties, VA

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Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, VA 23219
DominionEnergy.com

June 30, 2022

Mr. C.F. "Dusty" Forbes
Chase City Town Manager
319 North Main Street
Chase City, Virginia 23924

RE: Dominion Energy Virginia's Proposed Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line Project, Charlotte, Halifax, and Mecklenburg Counties, Virginia

Dear Mr. Forbes,

Dominion Energy Virginia (the "Company") is proposing to build a new 230 kV line from the proposed Butler Farm Substation to the existing Clover Switching Station ("BF – Clover Line") and another new 230 kV line from the proposed Butler Farm Substation to the proposed Finneywood Switching Station ("BF – Finneywood Line") (collectively, the "Project"). The proposed Project is located within Charlotte, Halifax, and Mecklenburg Counties, Virginia and will provide service requested by a data center customer in Mecklenberg County, Virginia.

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The Company is preparing an application for a Certificate of Public Convenience and Necessity from the Virginia State Corporation Commission ("SCC"). Pursuant to Va. Code § 15.2-2202, the Company is writing to notify you of the proposed Project in advance of this SCC filing. We respectfully request that you submit any comments or additional infomation you feel would have bearing on the project within 30 days of the date of this letter. Enclosed is a Project Location Map depicting the proposed routes and project location.

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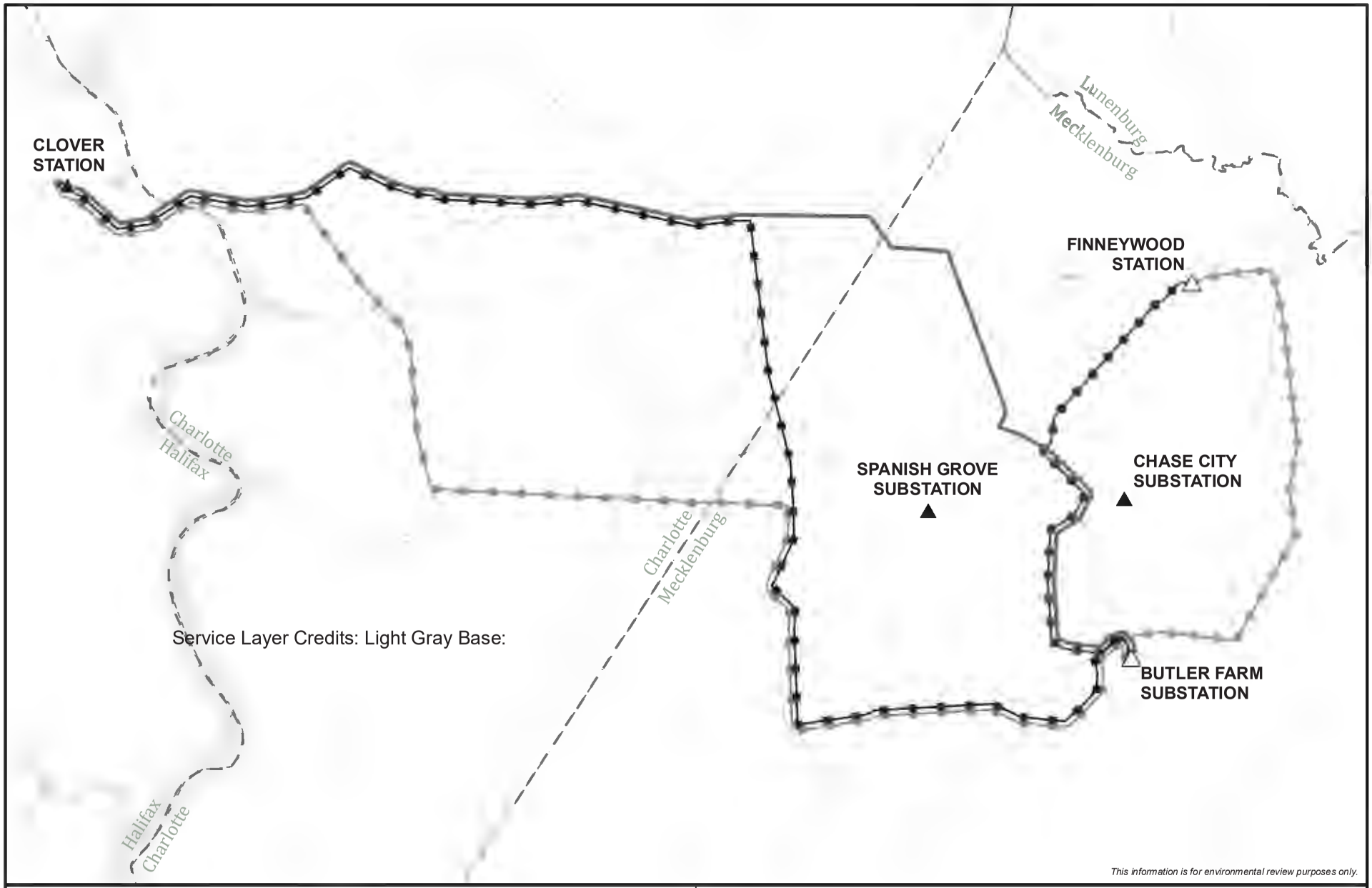
We appreciate your assistance with this project review and look forward to any additional information you may have to offer.

Sincerely,

Dominion Energy Virginia

Charles H. Weil, PE
Engineer II
Siting and Permitting Group

Attachment: Project Notice Map



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Notice Map
Butler Farm to Clover Line and Butler Farm to Finneywood Line Project
Dominion Energy, Virginia
Halifax, Charlotte, and Mecklenburg Counties, VA

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Dominion Energy Services, Inc. 120 Tredegar
Street Richmond, VA 23219
DominionEnergy.com

July 12, 2022

Mr. Scott R. Simpson
Halifax County Administrator
1050 Mary Bethune St.
Halifax, VA 24558

RE: Dominion Energy Virginia's Proposed Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line Project, Charlotte, Halifax, and Mecklenburg Counties, Virginia

Dear Mr. Simpson,

Dominion Energy Virginia (the "Company") is proposing to build a new 230 kV line from the proposed Butler Farm Substation to the existing Clover Switching Station ("BF – Clover Line") and another new 230 kV line from the proposed Butler Farm Substation to the proposed Finneywood Switching Station ("BF – Finneywood Line") (collectively, the "Project"). The proposed Project is located within Charlotte, Halifax, and Mecklenburg Counties, Virginia and will provide service requested by a data center customer in Mecklenberg County, Virginia.

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The Company is preparing an application for a Certificate of Public Convenience and Necessity from the Virginia State Corporation Commission ("SCC"). Pursuant to Va. Code § 15.2-2202, the Company is writing to notify you of the proposed Project in advance of this SCC filing. We respectfully request that you submit any comments or additional infomation you feel would have bearing on the project within 30 days of the date of this letter. Enclosed is a Project Location Map depicting the proposed routes and project location.

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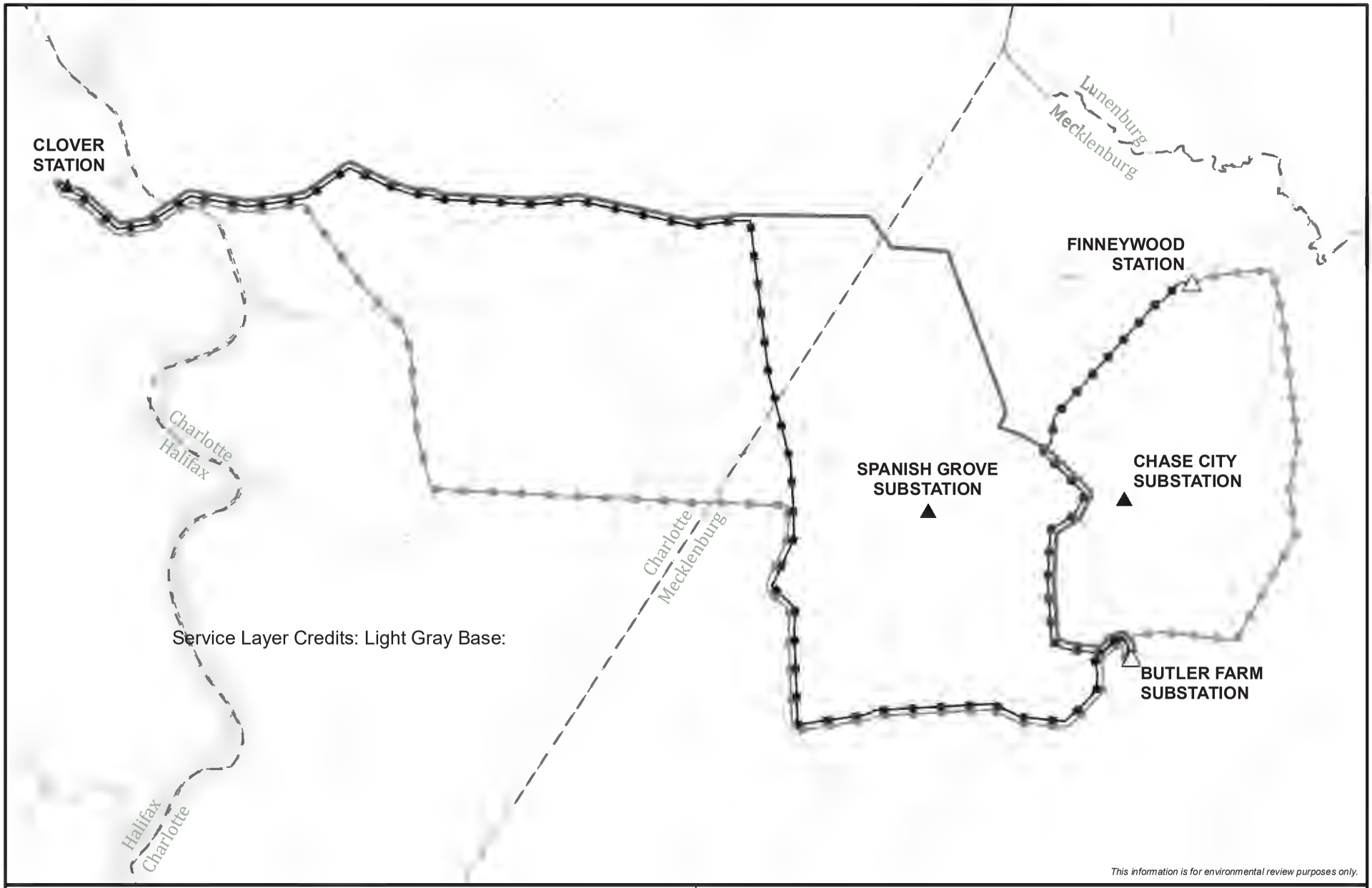

△ Proposed Substation
▲ Existing Substation
— BF-Clover Proposed Route
— BF-Clover Alternative Route 1
— BF-Clover Alternative Route 2
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— BF-Finneywood Alternative Route 1

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Dominion Energy

Attachment V.A
Notice Map
Butler Farm to Clover Line and Butler Farm to Finneywood Line Project
Dominion Energy, Virginia
Halifax, Charlotte, and Mecklenburg Counties, VA

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Dominion Energy Services, Inc. 120 Tredegar Street
Richmond, VA 23219 DominionEnergy.com

July 12, 2022

Mr. Daniel Witt
Charlotte County Adminstrator
250 LeGrande Ave
Suite A
Charlotte Court House, VA 23923

RE: Dominion Energy Virginia's Proposed Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line Project, Charlotte, Halifax, and Mecklenburg Counties, Virginia

Dear Mr. Witt,

Dominion Energy Virginia (the "Company") is proposing to build a new 230 kV line from the proposed Butler Farm Substation to the existing Clover Switching Station ("BF – Clover Line") and another new 230 kV line from the proposed Butler Farm Substation to the proposed Finneywood Switching Station ("BF – Finneywood Line") (collectively, the "Project"). The proposed Project is located within Charlotte, Halifax, and Mecklenburg Counties, Virginia and will provide service requested by a data center customer in Mecklenberg County, Virginia.

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The Company is preparing an application for a Certificate of Public Convenience and Necessity from the Virginia State Corporation Commission ("SCC"). Pursuant to Va. Code § 15.2-2202, the Company is writing to notify you of the proposed Project in advance of this SCC filing. We respectfully request that you submit any comments or additional infomation you feel would have bearing on the project within 30 days of the date of this letter. Enclosed is a Project Location Map depicting the proposed routes and project location.

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Sincerely,

Dominion Energy Virginia

Charles H. Weil, PE
Engineer II
Siting and Permitting Group

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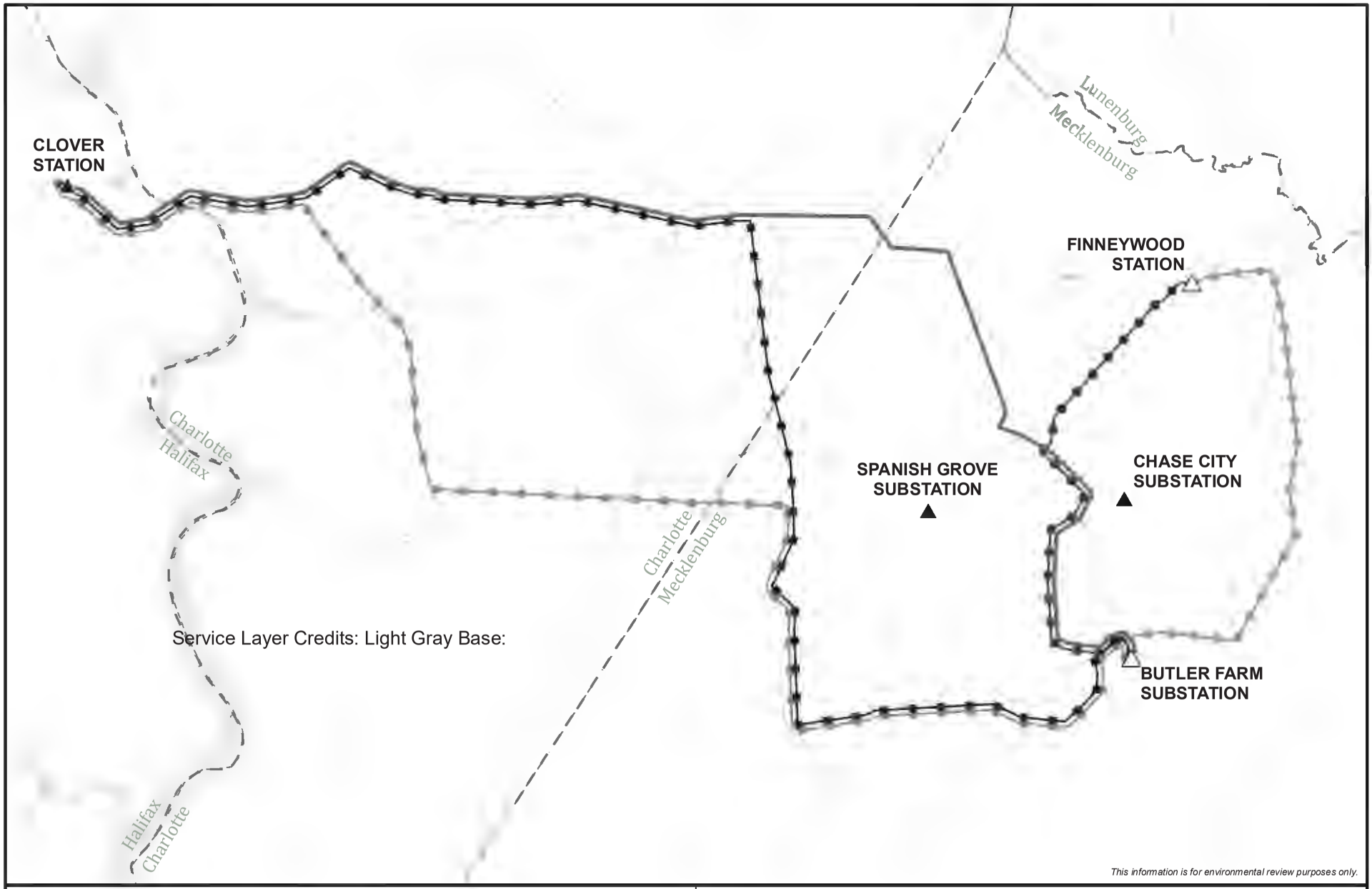

Attachment V.A
Notice Map
Butler Farm to Clover Line and Butler Farm to Finneywood Line Project

Dominion Energy, Virginia

Halifax, Charlotte, and Mecklenburg Counties, VA

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COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

APPLICATION OF	)	
	)	
VIRGINIA ELECTRIC AND POWER COMPANY	)	Case No. PUR-2022-00175
	)	
For approval and certification of electric transmission facilities: Butler Farm to Clover 230 kV Line, Butler Farm to Finneywood 230 kV Line, and Related Projects	)	

IDENTIFICATION, SUMMARIES, AND TESTIMONY OF DIRECT WITNESSES OF VIRGINIA ELECTRIC AND POWER COMPANY

Kunal S. Amare

Witness Direct Testimony Summary
Direct Testimony
Appendix A: Background and Qualifications

Emmanuel J. Dobson

Witness Direct Testimony Summary
Direct Testimony
Appendix A: Background and Qualifications

Chloe A. Genova

Witness Direct Testimony Summary
Direct Testimony
Appendix A: Background and Qualifications

Mohammad M. Othman

Witness Direct Testimony Summary
Direct Testimony
Appendix A: Background and Qualifications

Chuck H. Weil

Witness Direct Testimony Summary
Direct Testimony
Appendix A: Background and Qualifications

Jon M. Berkin, PhD

Witness Direct Testimony Summary
Direct Testimony
Appendix A: Background and Qualifications

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Kunal S. Amare

Title: Engineer III – Electric Transmission Planning

Summary:

Company Witness Kunal Amare sponsors those sections of the Appendix describing the Company's electric transmission system and the need for, and benefits of, the proposed Project, as follows:

- Section I.G: This section provides a system map for the affected area.
- Section I.J: This section provides information about the project if approved by the RTO.
- Section I.K: This section, when applicable, provides outage history and maintenance history for existing transmission lines if the proposed project is a rebuild and is due in part to reliability issues.
- Section I.M: This section, when applicable, contains information for transmission lines interconnecting a non-utility generator.
- Section II.A.3: This section provides color maps of existing or proposed rights-of-way in the vicinity of the proposed project.
- Section II.A.10: This section provides details of the construction plans for the proposed project, including requested line outage schedules.

Additionally, Company Witness Amare co-sponsors the following sections of the Appendix:

- Section I.A (co-sponsored with Company Witnesses Emmanuel J. Dobson, Chloe A. Genova, Mohammad M. Othman, Chuck H. Weil, and Jon M. Berkin): This section details the primary justifications for the proposed project.
- Section I.B (co-sponsored with Company Witness Emmanuel J. Dobson): This section details the engineering justifications for the proposed project.
- Section I.C (co-sponsored with Company Witness Emmanuel J. Dobson): This section describes the present system and details how the proposed project will effectively satisfy present and projected future load demand requirements.
- Section I.D (co-sponsored with Company Witness Emmanuel J. Dobson): This section, when applicable, describes critical contingencies and associated violations due to the inadequacy of the existing system.
- Section I.E (co-sponsored with Company Witness Emmanuel J. Dobson): This section explains feasible project alternatives, when applicable.
- Section I.H (co-sponsored with Company Witnesses Emmanuel J. Dobson and Chuck H. Weil): This section provides the desired in-service date of the proposed project and the estimated construction time.
- Section I.L (co-sponsored with Company Witness Chloe A. Genova): This section, when applicable, provides details on the deterioration of structures and associated equipment.
- Section I.N (co-sponsored with Company Witness Emmanuel J. Dobson): This section provides 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.

A statement of Mr. Amare's background and qualifications is attached to his testimony as Appendix A.

DIRECT TESTIMONY
OF
KUNAL S. AMARE
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2022-00175

Q. Please state your name, position with Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company"), and business address.

A. My name is Kunal S. Amare, and I am an Engineer III in the Electric Transmission Planning Department for the Company. My business address is 10900 Nuckols Road, Glen Allen, Virginia 23060. A statement of my qualifications and background is provided as Appendix A.

Q. Please describe your areas of responsibility with the Company.

A. I am responsible for planning the Company's electric transmission system for voltages of 69 kilovolt ("kV") through 500 kV.

Q. What is the purpose of your testimony in this proceeding?

A. In order to provide service requested by a data center customer (the "Customer"), to maintain reliable service for the overall growth in the area, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards, Dominion Energy Virginia proposes the following in Charlotte, Halifax, and Mecklenburg Counties, Virginia, to:

- Construct a new approximately 19.1-mile 230 kV single circuit transmission line (the "Butler Farm – Clover Line" or "Line #2281") primarily on new right-of-way. The proposed Butler Farm – Clover Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's existing 500/230 kV Clover Switching Station. The proposed Butler Farm – Clover Line will be constructed primarily with single circuit H-frame weathering steel structures,

utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The remainder of the line will be constructed with single circuit weathering steel monopole structures. The Butler Farm – Clover Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 47 feet to 120 feet.

- Construct a new approximately 7.0-mile 230 kV single circuit transmission line (the "Butler Farm – Finneywood Line" or "Line #2256") primarily on new right-of-way. The Butler Farm – Finneywood Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's proposed new 500/230 kV Finneywood Switching Station. The proposed Butler Farm – Finneywood Line will be constructed primarily with single circuit weathering steel monopole structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Butler Farm—Finneywood Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 50 to 107 feet.

- Construct a new 230 kV substation in Mecklenburg County, Virginia (the "Butler Farm Substation").

- Construct a new 500/230 kV switching station in Mecklenburg County, Virginia (the "Finneywood Station").

- Perform minor substation-related work at the Clover Switching Station (the "Clover Station").

The Butler Farm – Clover Line, the Butler Farm – Finneywood Line, the Butler Farm Substation, the Finneywood Station, and related substation work are collectively referred to as the "Project."

The purpose of my testimony is to describe the Company's electric transmission system and the need for, and benefits of, the proposed Project. I am sponsoring Sections I.G, I.J, I.K, I.M, II.A.3, and II.A.10 of the Appendix. Additionally, I co-sponsor the Executive Summary and Section I.A with Company Witnesses Emmanuel J. Dobson, Chloe A. Genova, Mohammad M. Othman, Chuck H. Weil, and Jon M. Berkin; Sections I.B, I.C, I.D, I.E, and I.N with Company Witness Emmanuel J. Dobson; Section I.H with

Company Witnesses Emmanuel J. Dobson and Chuck H. Weil; and Section I.L with Company Witness Chloe A. Genova.

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.

BACKGROUND AND QUALIFICATIONS OF KUNAL S. AMARE

Kunal S. Amare received a Master of Science degree in Electrical Engineering from Virginia Polytechnic Institute and State University in 2016. He received a Bachelor of Technology degree in Electrical Engineering from the University of Mumbai in 2014. He has been licensed as a Professional Engineer in the State of Texas since 2019. He has been employed with the Company in the Transmission Planning team since June 2020. Prior to working with Dominion, Mr. Amare worked with Entergy Services LLC in the Transmission Planning Department from 2017-2020. Mr. Amare is skilled in Transmission Planning, Transient Stability Analysis, Renewable Energy Systems, and Electromagnetic Transient Analysis.

Mr. Amare has previously submitted pre-filed testimony to the State Corporation Commission of Virginia.

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Emmanuel J. Dobson

Title: Engineer III – Distribution Planning Group

Summary:

Company Witness Emmanuel J. Dobson co-sponsors those sections of the Appendix describing the Company's electric distribution system and the need for, and benefits of, the proposed Project, as follows:

- Section I.A (co-sponsored with Company Witnesses Kunal S. Amare, Chloe A. Genova, Mohammad M. Othman, Chuck H. Weil, and Jon M. Berkin): This section details the primary justifications for the proposed project.

- Section I.B (co-sponsored with Company Witness Kunal S. Amare): This section details the engineering justifications for the proposed project.

- Section I.C (co-sponsored with Company Witness Kunal S. Amare): This section describes the present system and details how the proposed project will effectively satisfy present and projected future load demand requirements.

- Section I.D (co-sponsored with Company Witness Kunal S. Amare): This section, when applicable, describes critical contingencies and associated violations due to the inadequacy of the existing system.

- Section I.E (co-sponsored with Company Witness Kunal S. Amare): This section explains feasible project alternatives, when applicable.

- Section I.H (co-sponsored with Company Witnesses Kunal S. Amare and Chuck H. Weil): This section provides the desired in-service date of the proposed project and the estimated construction time.

- Section I.N (co-sponsored with Company Witness Kunal S. Amare): This section provides 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.

A statement of Mr. Dobson's background and qualifications is attached to his testimony as Appendix A.

DIRECT TESTIMONY
OF
EMMANUEL J. DOBSON
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2022-00175

Q. Please state your name, position with Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company"), and business address.

A. My name is Emmanuel J. Dobson, and I am an Engineer III in the Company's Distribution Planning Group. My business address is 600 E. Canal Street, Richmond, Virginia 23219. A statement of my qualifications and background is provided as Appendix A.

Q. Please describe your areas of responsibility with the Company.

A. I am responsible for planning the Company's electric distribution system that serves data centers. My areas of responsibilities are throughout the Company's Virginia service territory.

Q. What is the purpose of your testimony in this proceeding?

A. In order to provide service requested by a data center customer (the "Customer"), to maintain reliable service for the overall growth in the area, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards, Dominion Energy Virginia proposes the following in Charlotte, Halifax, and Mecklenburg Counties, Virginia, to:

- Construct a new approximately 19.1-mile 230 kV single circuit transmission line (the "Butler Farm – Clover Line" or "Line #2281") primarily on new right-of-way. The proposed Butler Farm – Clover Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's existing 500/230

kV Clover Switching Station. The proposed Butler Farm – Clover Line will be constructed primarily with single circuit H-frame weathering steel structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The remainder of the line will be constructed with single circuit weathering steel monopole structures. The Butler Farm – Clover Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 47 feet to 120 feet.

- Construct a new approximately 7.0-mile 230 kV single circuit transmission line (the "Butler Farm – Finneywood Line" or "Line #2256") primarily on new right-of-way. The Butler Farm – Finneywood Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's proposed new 500/230 kV Finneywood Switching Station. The proposed Butler Farm – Finneywood Line will be constructed primarily with single circuit weathering steel monopole structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Butler Farm – Finneywood Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 50 to 107 feet.

- Construct a new 230 kV substation in Mecklenburg County, Virginia (the "Butler Farm Substation").

- Construct a new 500/230 kV switching station in Mecklenburg County, Virginia (the "Finneywood Station").

- Perform minor substation-related work at the Clover Switching Station (the "Clover Station").

The Butler Farm – Clover Line, the Butler Farm – Finneywood Line, the Butler Farm Substation, the Finneywood Station, and related substation work are collectively referred to as the "Project."

The purpose of my testimony is to describe the Company's electric distribution system and the need for, and benefits of, the proposed Project. I co-sponsor the Executive Summary and Section I.A with Company Witnesses Kunal S. Amare, Chloe A. Genova, Mohammad M. Othman, Chuck H. Weil, and Jon M. Berkin. Additionally, I co-sponsor Sections I.B, I.C, I.D, I.E, and I.N of the Appendix with Company Witness Kunal S.

Amare; and Section I.H with Company Witnesses Kunal S. Amare and Chuck H. Weil.

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.

APPENDIX A

BACKGROUND AND QUALIFICATIONS
OF
EMMANUEL J. DOBSON

Emmanuel J. Dobson received a Bachelor of Science degree in Electrical Engineering from Clemson University in 2007. He has been employed by the Company since 2013. Mr. Dobson's experience with the Company includes substation engineering (6 years) and distribution planning (2.5 years). Prior to working for the Company, Mr. Dobson worked as an electrical plant engineer and a reliability engineer for six years.

Mr. Dobson has previously submitted pre-filed testimony to the State Corporation Commission of Virginia.

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Chloe A. Genova

Title: Engineering Technical Specialist II

Summary:

Company Witness Chloe A. Genova sponsors those sections of the Appendix providing an overview of the design characteristics of the transmission facilities for the proposed Project, and discussing electric and magnetic field levels, as follows:

- Section I.F: This section, when applicable, describes any lines or facilities that will be removed, replaced, or taken out of service upon completion of the proposed project.
- Section II.A.5: This section provides drawings of the right-of-way cross section showing typical transmission lines structure placements.
- Sections II.B.1 to II.B.2: These sections provide the line design and operational features of the proposed project, as applicable.
- Section IV: This section provides analysis on the health aspects of electric and magnetic field levels.

Additionally, Company Witness Genova co-sponsors the following sections of the Appendix:

- Section I.A (co-sponsored with Company Witnesses Kunal S. Amare, Emmanuel J. Dobson, Mohammad M. Othman, Chuck H. Weil, and Jon M. Berkin): This section details the primary justifications for the proposed project.
- Section I.I. (co-sponsored with Company Witness Mohammad M. Othman): This section provides the estimated total cost of the proposed project.
- Section I.L (co-sponsored with Company Witness Kunal S. Amare): This section, when applicable, provides details on the deterioration of structures and associated equipment.
- Sections II.B.3 to II.B.5 (co-sponsored with Company Witness Chuck H. Weil): These sections, when applicable, provide supporting structure details along the proposed and alternative routes.
- Section II.B.6 (co-sponsored with Company Witnesses Chuck H. Weil and Jon M. Berkin): This section provides photographs of existing facilities, representations of proposed facilities, and visual simulations.
- Section V.A (co-sponsored with Company Witnesses Chuck H. Weil and Jon M. Berkin): This section provides the proposed route description and structure heights for notice purposes.

A statement of Ms. Genova's background and qualifications is attached to his testimony as Appendix A.

DIRECT TESTIMONY
OF
CHLOE A. GENOVA
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2022-00175

Q. Please state your name, position with Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company"), and business address.

A. My name is Chloe A. Genova, and I am an Engineering Technical Specialist II in the Electric Transmission Line Engineering Department of the Company. My business address is 10900 Nuckols Road, Glen Allen, Virginia 23060. A statement of my qualifications and background is provided as Appendix A.

Q. Please describe your areas of responsibility with the Company.

A. I am responsible for the estimating, conceptual, and final design of high voltage transmission line projects from 69 kilovolt ("kV") to 500 kV.

Q. What is the purpose of your testimony in this proceeding?

A. In order to provide service requested by a data center customer (the "Customer"), to maintain reliable service for the overall growth in the area, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards, Dominion Energy Virginia proposes the following in Charlotte, Halifax, and Mecklenburg Counties, Virginia, to:

- Construct a new approximately 19.1-mile 230 kV single circuit transmission line (the "Butler Farm – Clover Line" or "Line #2281") primarily on new right-of-way. The proposed Butler Farm – Clover Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's existing 500/230 kV Clover Switching Station. The proposed Butler Farm – Clover Line will be constructed primarily with single circuit H-frame weathering steel structures,

utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The remainder of the line will be constructed with single circuit weathering steel monopole structures. The Butler Farm – Clover Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 47 feet to 120 feet.

- Construct a new approximately 7.0-mile 230 kV single circuit transmission line (the "Butler Farm – Finneywood Line" or "Line #2256") primarily on new right-of-way. The Butler Farm – Finneywood Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's proposed new 500/230 kV Finneywood Switching Station. The proposed Butler Farm – Finneywood Line will be constructed primarily with single circuit weathering steel monopole structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Butler Farm – Finneywood Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 50 to 107 feet.

- Construct a new 230 kV substation in Mecklenburg County, Virginia (the "Butler Farm Substation").

- Construct a new 500/230 kV switching station in Mecklenburg County, Virginia (the "Finneywood Station").

- Perform minor substation-related work at the Clover Switching Station (the "Clover Station").

The Butler Farm – Clover Line, the Butler Farm – Finneywood Line, the Butler Farm Substation, the Finneywood Station, and related substation work are collectively referred to as the "Project."

The purpose of my testimony is to describe the design characteristics of the transmission facilities for the proposed Project, and also to discuss electric and magnetic field ("EMF") levels. I am sponsoring Sections I.F, II.A.5, II.B.1, II.B.2, and IV of the Appendix. Additionally, I co-sponsor the Executive Summary and Section I.A with Company Witnesses Kunal S. Amare, Emmanuel J. Dobson, Mohammad M. Othman, Chuck H. Weil, and Jon M. Berkin; Section I.I with Company Witness Mohammad S.

Othman; Section I.L with Company Witness Kunal S. Amare; Sections II.B.3 to II.B.5 with Company Witness Chuck H. Weil; and Sections II.B.6 and V.A with Company Witnesses Chuck H. Weil and Jon M. Berkin.

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.

APPENDIX A

BACKGROUND AND QUALIFICATIONS
OF
CHLOE A. GENOVA

Chloe A. Genova received a Bachelor of Science degree in Civil Engineering Technology from the Pennsylvania College of Technology in 2018. She currently possesses an Engineer-in-Training certification in Virginia. She worked as a contractor for Dominion Energy for three years before being hired as a full-time employee in July 2021. Ms. Genova's experience with the Company includes Overhead Electric Transmission Line Design (July 2018-Present).

Ms. Genova has previously submitted pre-filed testimony to the State Corporation Commission of Virginia.

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Mohammad M. Othman

Title: Engineer III – Substation Engineering

Summary:

Company Witness Mohammad M. Othman sponsors or co-sponsors the following sections of the Appendix describing the substation work to be performed for the proposed Project as follows:

- Section I.A (co-sponsored with Company Witnesses Kunal S. Amare, Emmanuel J. Dobson, Chloe A. Genova, Chuck H. Weil, and Jon M. Berkin): This section details the primary justifications for the proposed project.

- Section I.I (co-sponsored with Company Witness Chloe A. Genova): This section provides the estimated total cost of the proposed project.

- Section II.C: This section describes and furnishes a one-line diagram of the substation associated with the proposed project.

A statement of Mr. Othman's background and qualifications is attached to his testimony as Appendix A.

DIRECT TESTIMONY
OF
MOHAMMAD M. OTHMAN
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2022-00175

Q. Please state your name, position with Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company"), and business address.

A. My name is Mohammad M. Othman, and I am an Engineer III in the Substation Engineering section of the Electric Transmission group of the Company. My business address is 2400 Grayland Avenue, Richmond, Virginia 23220. A statement of my qualifications and background is provided as Appendix A.

Q. Please describe your areas of responsibility with the Company.

A. I am responsible for evaluation of the substation project requirements, feasibility studies, conceptual physical design, scope development, preliminary engineering, and cost estimating for high voltage transmission and distribution substations.

Q. What is the purpose of your testimony in this proceeding?

A. In order to provide service requested by a data center customer (the "Customer"), to maintain reliable service for the overall growth in the area, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards, Dominion Energy Virginia proposes the following in Charlotte, Halifax, and Mecklenburg Counties, Virginia, to:

- Construct a new approximately 19.1-mile 230 kV single circuit transmission line (the "Butler Farm – Clover Line" or "Line #2281") primarily on new right-of-way. The proposed Butler Farm – Clover Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's existing 500/230

kV Clover Switching Station. The proposed Butler Farm – Clover Line will be constructed primarily with single circuit H-frame weathering steel structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The remainder of the line will be constructed with single circuit weathering steel monopole structures. The Butler Farm – Clover Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 47 feet to 120 feet.

- Construct a new approximately 7.0-mile 230 kV single circuit transmission line (the "Butler Farm – Finneywood Line" or "Line #2256") primarily on new right-of-way. The Butler Farm – Finneywood Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's proposed new 500/230 kV Finneywood Switching Station. The proposed Butler Farm – Finneywood Line will be constructed primarily with single circuit weathering steel monopole structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Butler Farm – Finneywood Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 50 to 107 feet.

- Construct a new 230 kV substation in Mecklenburg County, Virginia (the "Butler Farm Substation").

- Construct a new 500/230 kV switching station in Mecklenburg County, Virginia (the "Finneywood Station").

- Perform minor substation-related work at the Clover Switching Station (the "Clover Station").

The Butler Farm – Clover Line, the Butler Farm – Finneywood Line, the Butler Farm Substation, the Finneywood Station, and related substation work are collectively referred to as the "Project."

The purpose of my testimony is to describe the work to be performed as part of the Project. As it pertains to station work, I sponsor Section II.C of the Appendix. Additionally, I co-sponsor the Executive Summary and Section I.A with Company Witnesses Kunal S. Amare, Emmanuel J. Dobson, Chloe A. Genova, Chuck H. Weil, and Jon M. Berkin; and Section I.I of the Appendix with Company Witness Chloe A. Genova.

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.

BACKGROUND AND QUALIFICATIONS OF MOHAMMAD M. OTHMAN

Mohammad M. Othman received a Bachelor of Science degree in Electrical Engineering from Virginia Commonwealth University in 2008. Mr. Othman's responsibilities include the evaluation of the substation project requirements, development of scope documents and schedules, preparation of estimates and proposals, preparation of specifications and bid documents, material procurement, design substation physical layout, development of detailed physical drawings, bill of materials, electrical schematics and wiring diagrams. Mr. Othman joined the Dominion Energy Virginia Substation Engineering department in 2010 as an Engineer II and was later promoted to Engineer III, the title he currently holds.

Mr. Othman has previously submitted pre-filed testimony to the State Corporation Commission of Virginia.

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Chuck H. Weil

Title: Electric Transmission Local Permitting Consultant

Summary:

Company Witness Chuck H. Weil will sponsor those sections of the Appendix providing an overview of the design of the route for the proposed Project, and related permitting, as follows:

- Section II.A.12: This section identifies the counties and localities through which the proposed project will pass and provides General Highway Maps for these localities.
- Sections V.B-D: These sections provide information related to public notice of the proposed project.

Additionally, Mr. Weil co-sponsors the following portion of the Appendix:

- Section I.A (co-sponsored with Company Witnesses Kunal S. Amare, Emmanuel J. Dobson, Chloe A. Genova, Mohammad M. Othman, and Jon M. Berkin): This section details the primary justifications for the proposed project.
- Section I.H (co-sponsored with Company Witnesses Kunal S. Amare and Emmanuel J. Dobson): This section provides the desired in-service date of the proposed project and the estimated construction time.
- Section II.A.1 (co-sponsored with Company Witness Jon M. Berkin): This section provides the length of the proposed corridor and viable alternatives to the proposed project.
- Section II.A.2 (co-sponsored with Company Witness Jon M. Berkin): This section provides a map showing the route of the proposed project in relation to notable points close to the proposed project.
- Section II.A.4 (co-sponsored with Company Witness Jon M. Berkin): This section explains why the existing right-of-way is not adequate to serve the need.
- Sections II.A.6 to II.A.8 (co-sponsored with Company Witness Jon M. Berkin): These sections provide detail regarding the right-of-way for the proposed project.
- Section II.A.9 (co-sponsored with Company Witness Jon M. Berkin): This section describes the proposed route selection procedures and details alternative routes considered.
- Section II.A.11 (co-sponsored with Company Witness Jon M. Berkin): This section details how the construction of the proposed project follows the provisions discussed in Attachment 1 of the Transmission Appendix Guidelines.
- Sections II.B.3 to II.B.5 (co-sponsored with Company Witness Chloe A. Genova): These sections, when applicable, provide supporting structure details along the proposed and alternative routes.
- Section II.B.6 (co-sponsored with Company Witnesses Chloe A. Genova and Jon M. Berkin): This section provides photographs of existing facilities, representations of proposed facilities, and visual simulations.
- Section III (co-sponsored with Company Witness Jon M. Berkin): This section details the impact of the proposed project on scenic, environmental, and historic features.
- Section V.A (co-sponsored with Company Witnesses Chloe A. Genova and Jon M. Berkin): This section provides the proposed route description and structure heights for notice purposes.

Finally, Mr. Weil co-sponsors the DEQ Supplement filed with the Application with Company Witness Jon M. Berkin. A statement of Mr. Weil's background and qualifications is attached to his testimony as Appendix A.

DIRECT TESTIMONY
OF
CHUCK H. WEIL
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2022-00175

Q. Please state your name, position with Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company"), and business address.

A. My name is Chuck H. Weil, and I am an Electric Transmission Local Permitting Consultant for the Company. My business address is 10900 Nuckols Road, Glen Allen, Virginia 23060. A statement of my qualifications and background is provided as Appendix A.

Q. Please describe your areas of responsibility with the Company.

A. I am responsible for identifying appropriate routes for transmission lines and obtaining necessary federal, state, and local approvals and environmental permits for those facilities. In this position, I work closely with government officials, permitting agencies, property owners, and other interested parties, as well as with other Company personnel, to develop facilities needed by the public so as to reasonably minimize environmental and other impacts on the public in a reliable, cost-effective manner.

Q. What is the purpose of your testimony in this proceeding?

A. In order to provide service requested by a data center customer (the "Customer"), to maintain reliable service for the overall growth in the area, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards, Dominion Energy Virginia proposes the following in Charlotte, Halifax, and

Mecklenburg Counties, Virginia, to:

- Construct a new approximately 19.1-mile 230 kV single circuit transmission line (the "Butler Farm – Clover Line" or "Line #2281") primarily on new right-of-way. The proposed Butler Farm – Clover Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's existing 500/230 kV Clover Switching Station. The proposed Butler Farm – Clover Line will be constructed primarily with single circuit H-frame weathering steel structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The remainder of the line will be constructed with single circuit weathering steel monopole structures. The Butler Farm – Clover Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 47 feet to 120 feet.

- Construct a new approximately 7.0-mile 230 kV single circuit transmission line (the "Butler Farm – Finneywood Line" or "Line #2256") primarily on new right-of-way. The Butler Farm – Finneywood Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's proposed new 500/230 kV Finneywood Switching Station. The proposed Butler Farm—Finneywood Line will be constructed primarily with single circuit weathering steel monopole structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Butler Farm – Finneywood Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 50 to 107 feet.

- Construct a new 230 kV substation in Mecklenburg County, Virginia (the "Butler Farm Substation").

- Construct a new 500/230 kV switching station in Mecklenburg County, Virginia (the "Finneywood Station").

- Perform minor substation-related work at the Clover Switching Station (the "Clover Station").

The Butler Farm – Clover Line, the Butler Farm – Finneywood Line, the Butler Farm Substation, the Finneywood Station, and related substation work are collectively referred to as the "Project."

The purpose of my testimony is to provide an overview of the route and permitting for the proposed Project. I sponsor Sections II.A.12 and V.B to V.D of the Appendix.

Additionally, I co-sponsor the Executive Summary and Section I.A with Company Witnesses Kunal S. Amare, Emmanuel J. Dobson, Chloe A. Genova, Mohammad M. Othman, and Jon M. Berkin; Section I.H with Company Witnesses Kunal S. Amare and Emmanuel J. Dobson; Sections II.A.1, II.A.2, II.A.4, II.A.6 to II.A.9, II.A.11, and III with Company Witness Jon M. Berkin; Sections II.B.3 to II.B.5 with Company Witness Chloe A. Genova; and Sections II.B.6 and V.A with Company Witnesses Chloe A. Genova and Jon M. Berkin. Finally, I co-sponsor the DEQ Supplement with Company Witness Jon M. Berkin.

Q. Has the Company complied with Va. Code § 15.2-2202 E?

A. Yes. In accordance with Va. Code §15.2-2202 E, letters dated June 30, 2022, and July 12, 2022, were delivered to Mr. H. Wayne Carter, III, Administrator of Mecklenburg County; Mr. C.F. "Dusty" Forbes, Town Manager of Chase City; Mr. Scott R. Simpson, Administrator of Charlotte County, where the Project is located. These letters stated the Company's intention to file this Application and invited the Counties and the Town of Chase City to consult with the Company about the Project. These letters are included as Attachment V.D. to the Appendix.

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.

APPENDIX A

BACKGROUND AND QUALIFICATIONS
OF
CHUCK H. WEIL

Mr. Chuck H. Weil graduated from Virginia Tech in 2012 with a Bachelor of Science in Civil and Environmental Engineering. He has a professional license in Civil Engineering. He was previously a transportation engineer with various consulting firms and the City of Suffolk, Virginia before joining Dominion Energy Virginia as an Engineer II in the Siting and Permitting Group in 2019.

Mr. Weil has previously submitted pre-filed testimony to the Virginia State Corporation Commission.

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Jon M. Berkin, PhD

Title: Partner, Environmental Resource Management

Summary:

Company Witness Jon M. Berkin sponsors the Environmental Routing Study provided as part of the Company's Application.

Additionally, Dr. Berkin co-sponsors the following portions of the Appendix:

- Section I.A (co-sponsored with Company Witnesses Kunal S. Amare, Emmanuel J. Dobson, Chloe A. Genova, Mohammad M. Othman, and Chuck H. Weil): This section details the primary justifications for the proposed project.
- Section II.A.1 (co-sponsored with Company Witness Chuck H. Weil): This section provides the length of the proposed corridor and viable alternatives to the proposed project.
- Section II.A.2 (co-sponsored with Company Witness Chuck H. Weil): This section provides a map showing the route of the proposed project in relation to notable points close to the proposed project.
- Section II.A.4 (co-sponsored with Company Witness Chuck H. Weil): This section explains why the existing right-of-way is not adequate to serve the need.
- Sections II.A.6 to II.A.8 (co-sponsored with Company Witness Chuck H. Weil): These sections provide detail regarding the right-of-way for the proposed project.
- Section II.A.9 (co-sponsored with Company Witness Chuck H. Weil): This section describes the proposed route selection procedures and details alternative routes considered.
- Section II.A.11 (co-sponsored with Company Witness Chuck H. Weil): This section details how the construction of the proposed project follows the provisions discussed in Attachment 1 of the Transmission Appendix Guidelines.
- Section II.B.6 (co-sponsored with Company Witnesses Chloe A. Genova and Chuck H. Weil): This section provides photographs of existing facilities, representations of proposed facilities, and visual simulations.
- Section III (co-sponsored with Company Witness Chuck H. Weil): This section details the impact of the proposed project on scenic, environmental, and historic features.
- Section V.A (co-sponsored with Company Witnesses Chloe A. Genova and Chuck H. Weil): This section provides the proposed route description and structure heights for notice purposes.

Finally, Dr. Berkin co-sponsors the DEQ Supplement filed with this Application with Company Witness Chuck H. Weil.

A statement of Dr. Berkin's background and qualifications is attached to his testimony as Appendix A.

DIRECT TESTIMONY
OF
JON M. BERKIN
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2022-00175

Q. Please state your name, position and place of employment and business address.

A. My name is Jon M. Berkin. I am employed as a Partner with Environmental Resource Management ("ERM"). My business address is 222 South 9th Street, Suite 2900, Minneapolis, Minnesota 55402. A statement of my qualifications and background is provided as Appendix A.

Q. What professional experience does ERM have with the routing of linear energy transportation facilities?

A. ERM has extensive experience in the routing, feasibility assessments, and permitting of energy infrastructure projects. It has assisted its clients in the identification, evaluation and development of linear energy facilities for the past 30 years. During this time, it has developed a consistent approach for linear facility routing and route selection based on the identification, mapping and comparative evaluation of routing constraints and opportunities within defined study areas. ERM uses data-intensive Geographic Information System spatial and dimensional analysis and the most current and refined data layers and aerial photography resources available for the identification, evaluation and selection of transmission line routes.

In addition to Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company"), its clients include some of the largest energy companies in the United

States, Canada, and the world, including ExxonMobil, TC Energy, Shell, NextEra Energy, Phillips 66, Kinder Morgan, British Petroleum, Enbridge Energy, and others. ERM also routinely assists the staff of the Federal Energy Regulatory Commission, United States Army Corps of Engineers, and the U.S. Forest Service in the identification and/or evaluation of linear energy routes to support federal National Environmental Policy Act evaluations. ERM works on both small and large energy projects and has assisted in or conducted the routing and route evaluation of some of the largest electric transmission line and pipeline facilities in North America.

In Virginia, we served as routing consultant to Dominion Energy Virginia for many projects over the last 15 years, including:

- Cannon Branch – Cloverhill 230 kV transmission line project in the City of Manassas and Prince William County (Case No. PUE-2011-00011);
- Dahlgren 230 kV double circuit transmission line project in King George County (Case No. PUE-2011-00113);
- Surry – Skiffes Creek – Whealton 500 and 230 kV transmission lines (Case No. PUE-2012-00029);
- Remington CT – Warrenton 230 kV double circuit transmission line (Case No. PUE-2014-00025);
- Haymarket 230 kV Line and Substation Project (Case No. PUE-2015-00107);
- Remington – Gordonsville Electric Transmission Project (Case No. PUE-2015-00117);
- Norris Bridge (Case No. PUE-2016-00021);
- Idylwood – Tysons 230 kV single circuit underground transmission line, Tysons Substation rebuild, and related transmission facilities (Case No. PUR-2017-00143);
- Lockridge 230 kV Line Loop and Substation (Case No. PUR-2019-00215);
- DTC 230 kV Line Loop and DTC Substation (Case No. PUR-2021-00280); and

- Nimbus Substation and 230 Farmwell-Nimbus Transmission Line (Case No. PUR-2022-00027).

Most recently, ERM served as the routing consultant for the Company's Coastal Virginia Offshore Wind Commercial Project, in Case No. PUR-2021-00142; Aviator 230 kV Line Loop and Substation, in Case. No. PUR-2022-00012; and 500-230 kV Unity Switching Station, 230 kV Tunstall-Unity Lines #2259 and #2262, 230-36.5 kV Tunstall, Evans Creek, Raines Substations, and 230 kV Substation Interconnect Lines, in Case No. PUR-2022-00167.

ERM's role as routing consultant for each of these transmission line projects included preparation of an Environmental Routing Study for the project and submission of testimony sponsoring it.

Q. What were you asked to do in connection with this case?

A. In order to provide service requested by a data center customer (the "Customer"), to maintain reliable service for the overall growth in the area, and to comply with mandatory North American Electric Reliability Corporation Reliability Standards, Dominion Energy Virginia proposes the following in Charlotte, Halifax, and Mecklenburg Counties, Virginia, to:

- Construct a new approximately 19.1-mile 230 kV single circuit transmission line (the "Butler Farm – Clover Line" or "Line #2281") primarily on new right-of-way. The proposed Butler Farm – Clover Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's existing 500/230 kV Clover Switching Station. The proposed Butler Farm – Clover Line will be constructed primarily with single circuit H-frame weathering steel structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The remainder of the line will be constructed with single circuit weathering steel monopole structures. The Butler Farm – Clover Line will utilize a total of 120 feet of right-of-way, which includes

new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 47 feet to 120 feet.

- Construct a new approximately 7.0-mile 230 kV single circuit transmission line (the "Butler Farm – Finneywood Line" or "Line #2256") primarily on new right-of-way. The Butler Farm – Finneywood Line will extend from the Company's proposed new 230 kV Butler Farm Substation to the Company's proposed new 500/230 kV Finneywood Switching Station. The proposed Butler Farm – Finneywood Line will be constructed primarily with single circuit weathering steel monopole structures, utilizing three-phase twin-bundled 768.2 ACSS/TW type conductor with a summer transfer capability of 1,573 MVA. The Butler Farm – Finneywood Line will utilize a total of 120 feet of right-of-way, which includes new, existing, and collocated right-of-way. The amount of new right-of-way for this line will vary from 50 to 107 feet.

- Construct a new 230 kV substation in Mecklenburg County, Virginia (the "Butler Farm Substation").

- Construct a new 500/230 kV switching station in Mecklenburg County, Virginia (the "Finneywood Station").

- Perform minor substation-related work at the Clover Switching Station (the "Clover Station").

The Butler Farm – Clover Line, the Butler Farm–Finneywood Line, the Butler Farm Substation, the Finneywood Station, and related substation work are collectively referred to as the "Project."

ERM was engaged on behalf of the Company to assist it in the identification and evaluation of route alternatives to resolve the identified electrical need that would meet the applicable criteria of Virginia law and the Company's operating needs.

The purpose of my testimony is to introduce and sponsor the Environmental Routing Study, which is included as part of the Application filed by the Company in this proceeding. Additionally, I co-sponsor the Executive Summary and Section I.A with Company Witnesses Kunal S. Amare, Emmanuel J. Dobson, Chloe A. Genova, Mohammad M. Othman, and Chuck H. Weil; Sections II.A.1, II.A.2, II.A.4, II.A.6 to

II.A.9, II.A.11, and III with Company Witness Chuck H. Weil; and Sections II.B.6 and V.A with Company Witnesses Chloe A. Genova and Chuck H. Weil. Lastly, I co-sponsor the DEQ Supplement with Company Witness Chuck H. Weil.

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.

APPENDIX A

BACKGROUND AND QUALIFICATIONS OF JON M. BERKIN

Jon M. Berkin earned a Bachelor of Arts degree from Boston University and a Master of Arts and a Doctoral degree from Bryn Mawr College. He has approximately 30 years of experience working in the energy-related consulting field specializing in the siting and regulatory permitting of major linear energy facilities, including both interstate and intrastate electric transmission lines and gas and oil pipelines throughout the United States. During this time, he was employed for 5 years with R. Christopher Goodwin and Associates, Inc. and 24 years with ERM, a privately-owned consulting company specializing in the siting, licensing and environmental construction compliance of large, multi-state energy transportation facilities.

Dr. Berkin's professional experience related to electric transmission line projects includes the direct management of field studies, impact assessments and agency consultations associated with the routing and licensing of multiple transmission line projects in the mid-Atlantic region, including the management and/or supervision of the routing and permitting. Work on these projects included studies to identify and delineate routing constraints and options; identification and evaluation of route alternatives; and the direction of field studies to inventory wetlands, stream crossings, cultural resources and sensitive habitats and land uses. Within the last several years he has managed or directed the identification and evaluation of over 150 miles of 230 and 500 kV transmission line route alternatives in the Commonwealth for Virginia Electric and Power Company.

Dr. Berkin has previously testified before the State Corporation Commission of Virginia.