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September 10, 2025

**BY ELECTRONIC FILING**

Hon. Bernard J. Logan, Clerk  
State Corporation Commission  
Tyler Building, 1<sup>st</sup> Floor  
1300 East Main Street  
Richmond, VA 23219

**Re: Application of Virginia Electric and Power Company for Approval and Certification of Electric Transmission Facilities: Chesterfield-Lanexa Corridor Lines #92, #192, #217, #287, and #2129 Partial Rebuild – Case No. PUR-2025-00154.**

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, and DEQ Supplement, including attachments.

As indicated in Section II.A.12.b of the Appendix, electronic copies of the Virginia Department of Transportation “General Highway Map” for Henrico, Charles City, and New Kent Counties, as well as the digital geographic information system (“GIS”) map required by Va. Code § 56-46.1, which is Attachment II.A.2 to the Appendix, were provided via an e-room to the Commission’s Division of Public Utility Regulation.

If you have any questions or need further information, please feel free to contact us.

Sincerely,

/s/ Timothy L. McHugh  
Timothy L. McHugh

/s/ Andrew J. Flavin  
Andrew J. Flavin

Enclosures

cc: David J. DePippo, Esq.  
Charlotte P. McAfee, Esq.  
Annie C. Larson, Esq.  
Viktoria De Las Casas, Esq.  
Abigail Hylton, Esq.



**Dominion  
Energy®**

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

Before the State Corporation  
Commission of Virginia

Chesterfield-Lanexa Corridor  
Lines #92, #192, #217, #287, and  
#2129 Partial Rebuild

Application No. 354

Case No. PUR-2025-00154

Filed: September 10, 2025

Volume 1 of 2

COMMONWEALTH OF VIRGINIA  
BEFORE THE  
STATE CORPORATION COMMISSION

APPLICATION OF  
VIRGINIA ELECTRIC AND POWER COMPANY  
FOR APPROVAL AND CERTIFICATION  
OF ELECTRIC TRANSMISSION FACILITIES

Chesterfield-Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild

Application No. 354

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COMMONWEALTH OF VIRGINIA  
STATE CORPORATION COMMISSION

APPLICATION OF	)	
	)	
VIRGINIA ELECTRIC AND POWER	)	Case No. PUR-2025-00154
COMPANY	)	
	)	
For approval and certification of electric	)	
transmission facilities: Chesterfield – Lanexa	)	
Corridor Lines #92, #I92, #217, #287, and	)	
#2129 Partial Rebuild	)	

**APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY  
FOR APPROVAL AND CERTIFICATION OF  
ELECTRIC TRANSMISSION FACILITIES:  
CHESTERFIELD – LANEXA CORRIDOR  
LINES #92, #I92, #217, #287, AND #2129 PARTIAL REBUILD**

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 shows 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.

3. In this Application, in order to maintain the structural integrity and reliability of the networked transmission system in compliance with mandatory North American Electric Reliability Corporation (“NERC”) Reliability Standards, the Company proposes, in Henrico, Charles City, and New Kent Counties, to rebuild within existing right-of-way, with the exception of an approximately 1.68-acre area near the Chickahominy Substation<sup>1</sup> where the existing right-of-way must be expanded slightly, approximately:

- (i) 28.2 miles of the existing 115 kilovolt (“kV”) Chesterfield-Lanexa Line #92, starting at Structure #92/5, which is located northeast of the Company’s Chesterfield Substation on the east side of the James River, and ending at Structure #92/274 outside the Lanexa Substation, by removing the existing structures, the majority of which are double circuit three-pole wood H-frame structures, and replacing them with new galvanized engineered steel double circuit monopole structures. Additionally, approximately 0.9 mile of existing idle Line #I92 will be rebuilt on double circuit structures with existing Line #92, starting in the same area northeast of Chesterfield Substation on the east side of the James River at Structure #I92/2007, then going east and ending at Structure #I92/13;
- (ii) 13.8 miles of the existing 230 kV Chesterfield-Chickahominy Line #287, starting at Structure #287/6, which is located northeast of Chesterfield Substation on the east side of the James River, and ending at Chickahominy Substation, also by removing the existing structures, the majority of which are double circuit three-pole wood H-frame structures, and replacing them with new galvanized engineered steel double circuit monopole structures;
- (iii) 0.8 mile of the existing 230 kV Chesterfield-Chickahominy Line #217 on double circuit structures with Line #287, starting with Structure #217/7, which is located northeast of Chesterfield Substation on the east side of the James River, then going east and tying into Structure #217/14.<sup>2</sup> After

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<sup>1</sup> The Chickahominy Substation operates at 230 kV.

<sup>2</sup> After Structure #217/7, the rebuilt Line #217 will continue on Structure #217/7A, then Structures #217/8 through #217/13A until it reaches Structure #217/14.

rebuilding this segment of Line #217, the Company will idle it and rename it Line #I217. Line #I217 will be idled for approximately 0.7 mile between Structures #I217/7A and #I217/13A;<sup>3</sup> and

- (iv) 14.2 miles of the existing 230 kV Chickahominy-Lanexa Line #2129, starting at Chickahominy Substation and ending at Structure #2129/137 outside the Lanexa Substation, also by removing the existing structures, the majority of which are double circuit three-pole wood H-frame structures, and replacing them with new galvanized engineered steel double circuit monopole structures.

The Company also will replace the existing conductors on Lines #92, #I92, #287, #217, and #2129 with bundled 768.2 ACSS/TW/HS conductor.

(collectively, the “Rebuild Project”).<sup>4</sup>

4. The Rebuild Project will replace aging infrastructure that is at the end of its service life to comply with the Company’s mandatory electric transmission planning criteria (the “Planning Criteria”), thereby enabling the Company to maintain the overall long-term reliability of its transmission system. Specifically, the structures on Lines #92, #287, and #2129 are primarily double circuit three-pole wood H-frame structures built in 1952 and 1966. An assessment of the condition of these lines indicated wood pole rot and decay in numerous locations. Industry guidelines indicate equipment life for wood structures is 35–55 years, whereas the current wooden

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<sup>3</sup> Within this segment, the Company will reframe the existing Structure #I217/7A and will add one new structure, #I217/13A. The Company will only remove conductor from existing Structures #217/7 through #217/7A and new Structure #I217/13A to existing Structure #217/14. Line #I217 will therefore be approximately 0.7 mile long. The Company does not propose any work on existing Structures #I217/8 through #I217/13. The Company deems work described in this footnote an “ordinary extension[] or improvement[] in the usual course of business” (*i.e.*, “ordinary course”) pursuant to § 56-265.2(A)(1) of the Code of Virginia (“Va. Code”) and, therefore, does not require approval pursuant to Va. Code § 56-46.1(B) or a CPCN from the Commission.

<sup>4</sup> The Company will also perform work associated with the Rebuild Project at the Chesterfield 115 kV, Chesterfield 230 kV, Providence Forge, Chickahominy, and Lanexa Substations. In addition, the Company will reconductor Lines #92 and #287 leaving the Chesterfield 115 kV and 230 kV Substations and crossing the James River, which will include work in Chesterfield County. This substation and line reconductoring work, while not included as part of the Rebuild Project, is discussed in Section II.C. The Company considers the work at these substations and crossing the James River to qualify as ordinary course. *See supra*, n.3. Because this work is not a component of the proposed Rebuild Project, the costs associated with this work are not included in the total Rebuild Project costs. This approach is consistent with the Commission’s July 6, 2017 guidance, available at <https://www.scc.virginia.gov/media/sccvirginiagov-home/regulated-industries/utility-regulation/responsibilities/guidance-documents/staffguidanceordvsnonord.pdf>.

structures are between 59 and 73 years old. The combination of deteriorating condition and age indicate that these structures and line equipment have reached their end of life. Further, removal of Line pairs #92 and #287 and #92 and #2129 will cause a Generator Deliverability violation on 500 kV Ladysmith-Possum Point Line #568.

5. In addition, the Rebuild Project is needed to reduce the number of points where Lines #92, #I92, #287, #217, and #17<sup>5</sup> cross each other between existing Structures #287/13 and #287/15. These line crossings have the potential to create unsafe conditions and logistical inefficiencies for the Company's operations and maintenance staff, contractors, and others. As a result, it may be more challenging and more expensive to service these lines in the existing configuration. Through its design process, the Company's engineers identified ways to reduce these safety concerns and logistical inefficiencies by reconfiguring the lines and eliminating the number of crossings of some of these lines as part of the Rebuild Project.

6. Specifically, the Company proposes to rebuild approximately 0.9 mile of existing Line #I92 on double circuit structures with existing Line #92, which will eliminate Line #I92 crossing Lines #92, #217, and #17. In addition, the Company proposes to rebuild approximately 0.8 mile of Line #217 on double circuit structures with Line #287, to eliminate Line #217 crossing Lines #287, #92, and #I92. Comparison maps/simulations are provided in Section I.A of the Appendix. This proposed work, therefore, is essential to reducing risk and ensuring the facilities continue operating in a safe and reliable manner.

7. Due to anticipated data center load growth in Henrico and Chesterfield counties, the Company plans to retain the existing idle lines for future use. This approach ensures the Company will be ready to meet the increased demand in the near future without needing to

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<sup>5</sup> Line #17 runs parallel to Line #92 between existing Structure #92/1 and existing Structure #92/533. The Rebuild Project does not involve work on Line #17.

construct new transmission lines at that future time. In addition, retaining the idle lines will be less costly than removing them. The Company will energize idle Lines #I217 and #I92 when the need arises.

8. Except for the 1.68-acre area near the Chickahominy Substation where the existing right-of-way must be expanded slightly to re-route the underground portion of Line #92 aboveground, the Rebuild Project, spanning approximately 28.2 miles, will primarily be located on existing transmission line right-of-way or on Company-owned property.<sup>6</sup> Given the availability of existing rights-of-way and the statutory preference to use existing rights-of-way, and because additional costs and environmental impacts would be associated with the acquisition and construction of new rights-of-way, the Company did not consider any alternate routes requiring new rights-of-way for this Rebuild Project.

9. The desired in-service target date for the Rebuild Project is December 31, 2028. The Company estimates it will take approximately 30 months after a final order from the State Corporation Commission (“Commission”) for detailed engineering, materials procurement, permitting, real estate, and construction of the Rebuild Project. Accordingly, to support this estimated construction timeline and construction plan, the Company respectfully requests a final order by June 2026. Should the Commission issue a final order by June 2026, the Company estimates that construction should begin in December 2026 with the Rebuild Project to be completed by the in-service target date of December 31, 2028. This schedule is contingent upon obtaining the necessary permits and careful coordination of outages, the latter of which may be particularly challenging due to the amount of new load growth, rebuilds, and new builds scheduled

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<sup>6</sup> For a complete discussion of the additional 1.68-acre area requiring new right-of-way, see Section II.A.4 of the Appendix.

to occur in this load area. Dates may need to be adjusted based on permitting delays or design modifications to comply with additional agency requirements identified during the permitting application process, as well as the ability to schedule outages, and unpredictable delays due to labor shortages or materials/supply issues. Based on the Rebuild Project's complexity, there may be delays with procurement of materials.

10. In addition, the Company is actively monitoring regulatory changes and requirements associated with the Northern Long Eared Bat ("NLEB") and how they could potentially impact construction timing associated with time of year restrictions ("TOYRs"). The U.S. Fish and Wildlife Service ("USFWS") issued the final guidance, replacing the interim guidance, on October 23, 2024, and the final guidance was fully implemented November 30, 2024. The Company is reviewing the final guidance to the extent it applies to the Company's projects and will coordinate with USFWS during the permitting stage. The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat ("TCB"). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered Species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024, but as of the date of this filing, the TCB listing decision has not been issued. The Company is tracking actively this ruling and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

11. Any adjustments to the Rebuild Project schedule resulting from these or similar challenges could necessitate a minimum of a six- to twelve-month delay in the targeted in-service date. Accordingly, for purposes of judicial economy, the Company requests that the Commission issue a final order approving both a desired in-service target date (*i.e.*, December 31, 2028) and an authorization sunset date (*i.e.*, December 31, 2029) for energization of the Rebuild Project.

12. The estimated conceptual cost of the Rebuild Project is approximately \$145.8 million (in 2025 dollars).

13. The proposed Rebuild Project will afford the best means of meeting the continuing need for reliable service while reasonably minimizing adverse impact on the scenic, environmental, and historic assets of the area.

14. 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.

15. 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.

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

17. In addition to the information provided in the Appendix and the DEQ Supplement, this Application is supported by the pre-filed direct testimony of Company Witnesses Mounik Sarkar, Carl J. Lindemann, Jr., Antoaneta Yanev, and Calton Ford.

18. Because this Application seeks approval to rebuild existing lines primarily within existing right-of-way or Company-owned property, the Company respectfully requests, in the interest of judicial economy, that the Commission issue an Order for Notice and Comment setting forth a procedural schedule in this proceeding without a scheduled evidentiary hearing, but with an

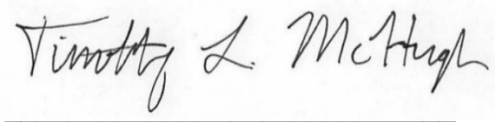
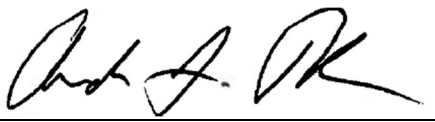
opportunity for interested persons to request an evidentiary hearing if the issues raised cannot be addressed adequately without a hearing. An Order for Notice and Comment will still allow the Company, Commission Staff, and any interested parties that join the proceeding to develop a complete record without prejudice, as Commission Staff or any party may file with the Commission a request for hearing.

WHEREFORE, Dominion Energy Virginia respectfully requests that the Commission:

- a) direct that notice of this Application be given as required by Va. Code § 56-46.1;
- b) approve pursuant to Va. Code § 56-46.1 the construction of the Rebuild Project; and
- c) grant a certificate of public convenience and necessity for the Rebuild Project under the Utility Facilities Act, Va. Code §§ 56-265.1, *et seq.*, by June 30, 2026, if possible.

**VIRGINIA ELECTRIC AND POWER COMPANY**

By:



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Chesterfield-Lanexa Corridor  
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Application No. 354

Appendix

Containing Information in Response to  
“Guidelines for Transmission Line Applications Filed Under Title 56 of the Code of Virginia”

Case No. PUR-2025-00154

Filed: September 10, 2025

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## EXECUTIVE SUMMARY

In order to maintain the structural integrity and reliability of the networked transmission system in compliance with mandatory North American Electric Reliability Corporation (“NERC”) Reliability Standards, Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”) proposes, in Henrico, Charles City, and New Kent Counties, to:

Rebuild within existing right-of-way, with the exception of an approximately 1.68-acre area near the Chickahominy Substation<sup>1</sup> where the existing right-of-way must be expanded slightly, approximately:

- (i) 28.2 miles of the existing 115 kilovolt (“kV”) Chesterfield-Lanexa Line #92, starting at Structure #92/5, which is located northeast of the Company’s Chesterfield Substation on the east side of the James River, and ending at Structure #92/274 outside the Lanexa Substation, by removing the existing structures, the majority of which are double circuit three-pole wood H-frame structures, and replacing them with new galvanized engineered steel double circuit monopole structures. Additionally, approximately 0.9 mile of existing idle Line #I92 will be rebuilt on double circuit structures with existing Line #92, starting in the same area northeast of Chesterfield Substation on the east side of the James River at Structure #I92/2007, then going east and ending at Structure #I92/13;
- (ii) 13.8 miles of the existing 230 kV Chesterfield-Chickahominy Line #287, starting at Structure #287/6, which is located northeast of Chesterfield Substation on the east side of the James River, and ending at Chickahominy Substation, also by removing the existing structures, the majority of which are double circuit three-pole wood H-frame structures, and replacing them with new galvanized engineered steel double circuit monopole structures;
- (iii) 0.8 mile of the existing 230 kV Chesterfield-Chickahominy Line #217 on double circuit structures with Line #287, starting with Structure #217/7, which is located northeast of Chesterfield Substation on the east side of the James River, then going east and tying into Structure #217/14.<sup>2</sup> After rebuilding this segment of Line #217, the Company will idle it and rename it Line #I217. Line #I217 will be idled for approximately 0.7 mile between Structures #I217/7A and #I217/13A;<sup>3</sup> and

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<sup>1</sup> The Chickahominy Substation operates at 230 kV.

<sup>2</sup> After Structure #217/7, the rebuilt Line #217 will continue on Structure #217/7A, then Structures #217/8 through #217/13A until it reaches Structure #217/14.

<sup>3</sup> Within this segment, the Company will reframe the existing Structure #I217/7A and will add one new structure, #I217/13A. The Company will only remove conductor from existing Structures #217/7 through #217/7A and new Structure #I217/13A to existing Structure #217/14. Line #I217 will therefore be approximately 0.7 mile long. The Company does not propose any work on existing Structures #I217/8 through #I217/13. The Company deems work described in this footnote an “ordinary extension[] or improvement[] in the usual course of business” (*i.e.*, “ordinary

- (iv) 14.2 miles of the existing 230 kV Chickahominy-Lanexa Line #2129, starting at Chickahominy Substation and ending at Structure #2129/137 outside the Lanexa Substation, also by removing the existing structures, the majority of which are double circuit three-pole wood H-frame structures, and replacing them with new galvanized engineered steel double circuit monopole structures.

The Company also will replace the existing conductors on Lines #92, #192, #287, #217, and #2129 with bundled 768.2 ACSS/TW/HS conductor.

(collectively, the “Rebuild Project”).<sup>4</sup>

First, the Rebuild Project is necessary to replace aging infrastructure that is at the end of its service life in order to comply with the Company’s mandatory electric transmission planning criteria (the “Planning Criteria”), which are required under NERC Reliability Standards and aim to ensure long-term reliability of service to the Company’s customers. Second, the Rebuild Project is also needed to address safety concerns by reducing the number of line crossings, as discussed below.

The Company has developed a proactive plan to rebuild transmission lines comprised of wood pole structures that are experiencing maintenance and reliability issues, including decaying and rotting wood poles in numerous locations along all three lines. A majority of Line #92, which shares structures with Lines #287 and #2129, was constructed in 1952 on wooden H-frame structures. Similarly, a majority of Line #287 was constructed in 1966 on wooden H-frame structures. Likewise, a majority of Line #2129 was also constructed in 1966 on wooden H-frame structures. These wooden structures have been identified for rebuild based on the Company’s assessment in accordance with the Company’s Planning Criteria. Industry experience indicates that equipment life is approximately 35 to 55 years for wooden pole structures, approximately 40 to 60 years for conductor and connectors, and approximately 50 years for porcelain insulators. The proposed Rebuild Project will replace aging infrastructure that is at the end of its service life in order to comply with the Company’s mandatory Planning Criteria, thereby enabling the Company to maintain the overall long-term reliability of its transmission system.

Further, removal of Line pairs #92 and #287 and #92 and #2129 will cause a Generator Deliverability violation on 500 kV Ladysmith-Possum Point Line #568.

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course”) pursuant to § 56-265.2(A)(1) of the Code of Virginia (“Va. Code”) and, therefore, does not require approval pursuant to Va. Code § 56-46.1(B) or a CPCN from the Commission.

<sup>4</sup> The Company will also perform work associated with the Rebuild Project at the Chesterfield 115 kV, Chesterfield 230 kV, Providence Forge, Chickahominy, and Lanexa Substations. In addition, the Company will re-conductor Lines #92 and #287 leaving the Chesterfield 115 kV and 230 kV Substations and crossing the James River; which will include work in Chesterfield County. This substation and line re-conducting work, while not included as part of the Rebuild Project, is discussed in Section II.C. The Company considers the work at these substations and crossing the James River to qualify as ordinary course. *See supra*, n.3. Because this work is not a component of the proposed Rebuild Project, the costs associated with this work are not included in the total Rebuild Project costs. This approach is consistent with the Commission Staff’s July 6, 2017 guidance, available at <https://www.scc.virginia.gov/media/sccviriniagov-home/regulated-industries/utility-regulation/responsibilities/guidance-documents/staffguidanceordvsnonord.pdf>.

In addition, Lines #92, #I92, #287, #217, and #17,<sup>5</sup> located in the area subject to this Rebuild Project, cross each other between existing Structures #287/13 and #287/15. These line crossings have the potential to create unsafe conditions and logistical inefficiencies for the Company's operations and maintenance staff, contractors, and others. As a result, it may be more challenging and more expensive to service these lines in the existing configuration. Through its design process, the Company's engineers identified ways to reduce these safety concerns and logistical inefficiencies by reconfiguring the lines and eliminating the number of crossings of some of these lines as part of the Rebuild Project. Specifically, the Company proposes to rebuild approximately 0.9 mile of existing Line #I92 on double circuit structures with existing Line #92, which will eliminate Line #I92 crossing Lines #92, #217, and #17. In addition, the Company proposes to rebuild approximately 0.8 mile of Line #217 on double circuit structures with Line #287, to eliminate Line #217 crossing Lines #287, #92, and #I92. Comparison maps and simulations are provided in Section I.A of this Appendix. This proposed work, therefore, is essential to reducing risk and ensuring the facilities continue operating in a safe and reliable manner.

Due to anticipated data center load growth in Henrico and Chesterfield counties, the Company plans to retain the existing idle lines for future use. This approach ensures the Company will be ready to meet the increased demand in the near future without needing to construct new transmission lines at that future time. In addition, retaining the idle lines will be less costly than removing them. The Company will energize idle Lines #I217 and #I92 when the need arises.

The total length of the existing right-of-way and Company-owned property to be used for the Rebuild Project is approximately 28.2 miles. With the exception of a 1.68-acre area near the Chickahominy Substation where the existing right-of-way must be expanded slightly to re-route the underground portion of Line #92 aboveground, the existing right-of-way and Company-owned property are adequate to construct the proposed Rebuild Project. Given the availability of existing rights-of-way for the majority of the Rebuild Project, the statutory preference to use existing rights-of-way, and the additional costs and environmental impacts that would be associated with the acquisition and construction of new rights-of-way, the Company did not consider any alternate routes requiring new rights-of-way for the Rebuild Project. The Company considered removing and replacing the underground portion of Line #92, which would not require any additional right-of-way near the Chickahominy Substation. However, this option would cost significantly more than removing and re-routing the underground portion of Line #92 aboveground. Specifically, re-routing the portion of Line #92 aboveground will cost approximately \$814,000, while the cost to keep this portion of Line #92 underground is estimated at \$11,056,749 (over thirteen times more expensive).

The total estimated conceptual cost of the Rebuild Project is approximately \$145.8 million (in 2025 dollars).

The desired in-service date for the Rebuild Project is December 31, 2028. The Company estimates it will take approximately 30 months for detailed engineering, materials, procurement, permitting,

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<sup>5</sup> Line #17 runs parallel to Line #92 between existing Structure #92/1 and existing Structure #92/533. The Rebuild Project does not involve work on Line #17.

and construction of the Rebuild Project after a final order from the Commission. Accordingly, to support this estimated pre-construction activity timeline and construction plan, the Company respectfully requests a final order on the Rebuild Project by June 2026. Should the Commission issue a final order by June 2026, the Company estimates that construction of the Rebuild Project should begin by December 2026 and be completed by December 31, 2028. This construction timeline will enable the Company to meet the targeted in-service date for the Rebuild Project. This schedule is contingent upon obtaining the necessary permits and outages. Dates may need to be adjusted based on permitting delays or design modifications to comply with additional agency requirements identified during the permitting application process, as well as the ability to schedule outages or unpredictable delays due to labor shortages and/or materials/supply issues based on other extensive project work ongoing in the vicinity of the Rebuild Project.

In addition, the Company is monitoring actively regulatory changes and requirements associated with the Northern long-eared bat (“NLEB”) and how they could potentially impact construction timing associated with time of year restrictions (“TOYRs”). The U.S. Fish and Wildlife Service (“USFWS”) issued the final guidance, replacing the interim guidance, on October 23, 2024, and the final guidance was fully implemented November 30, 2024. The Company is reviewing the final guidance to the extent it applies to the Company’s projects and will coordinate with USFWS during the permitting stage.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the Tricolored bat (“TCB”). On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered Species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024, but as of the date of this filing, the TCB listing decision has not been issued. The Company is tracking actively this ruling and evaluating the effects of potential outcomes on Company projects’ permitting, construction, and in-service dates, including electric transmission projects.

Any adjustments to the Rebuild Project schedule resulting from these or similar challenges could necessitate a minimum of a six- to twelve-month delay in the targeted in-service date. Accordingly, for purposes of judicial economy, the Company requests that the Commission issue a final order approving both a desired in-service target date (*i.e.*, December 31, 2028) and an authorization sunset date (*i.e.*, December 31, 2029) for energization of the Rebuild Project.<sup>6</sup>

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<sup>6</sup> The Company notes that this request is consistent with the Commission’s findings in other recent proceedings. See *Application of Virginia Electric and Power Company for approval and certification of electric transmission facilities: 230 kV Rebuild, Reconductoring, and New Line Projects to Network Takeoff Substation*, Case No. PUR-2024-00131, Final Order (Mar. 19, 2025) (approving an in-service date of August 1, 2027, and a CPCN sunset date of August 1, 2028, for energization of that project in Ordering Paragraph (3)); *Application of Virginia Electric and Power Company for approval of electric transmission facilities: Fentress-Yadkin 500 kV Line #588 Rebuild and New 500 kV Fentress-Yadkin Line #5005*, Case No. PUR-2024-00105, Final Order (Feb. 28, 2025) (approving an in-service date of January 1, 2027, and a CPCN sunset date of January 1, 2028, for energization of that project in Ordering Paragraph (8)); *Application of Virginia Electric and Power Company for approval of electric transmission facilities: 500-230 kV Aspen Substation, 500 kV Aspen-Goose Creek Line #5002, 500 kV and 230 kV Aspen-Golden Lines #5001 and #2333, 500-230 kV Golden Substation, and Lines #2081/#2150 Loop*, Case No. PUR-2024-00032, Final Order (Feb. 6, 2025) (approving an in-service date of June 1, 2028, and a CPCN sunset date of June 1, 2029, for energization of that project in Ordering Paragraph (8)); *Application of Virginia Electric and Power Company for approval of electric transmission facilities: 230 kV Apollo-Twin Creeks Lines, and Twin Creeks, Sycolin Creek, Starlight, Lunar, and Apollo*

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*Substations*, Case No. PUR-2024-00044, Final Order (Feb. 5, 2025) (approving an in service date of September 30, 2028, and a CPCN sunset date of September 30, 2029, for energization of that project in Ordering Paragraph (8)).

## 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 proposed Rebuild Project is necessary to replace aging infrastructure that is at the end of its service life along an approximately 28.2-mile segment of 115 kV Line #92, 13.8-mile segment of 230 kV Line #287, and 14.2-mile segment of 230 kV Line #2129 in Henrico, Charles City, and New Kent Counties. Replacement of this aging infrastructure will also allow the Company to act proactively to ensure compliance with mandatory NERC Reliability Standards and maintain reliable service to accommodate overall growth in the area. In addition, the Rebuild Project is needed to address identified safety concerns by reducing the number of crossings of Lines #92, #192, #287, #217, and #17. See [Attachment I.A.1](#) for an overview map of the Rebuild Project.

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

Dominion Energy Virginia is part of PJM Interconnection L.L.C. (“PJM”), the regional transmission organization (“RTO”) that provides service to a large portion of the eastern United States. PJM currently is responsible for ensuring the reliability of, 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 July 16, 2024, the DOM Zone set a record high of 23,127 MW for summer peak demand. On January 23, 2025, the DOM Zone set a winter and all-time record demand of 24,678 MW. Based on the 2025 PJM Load Forecast, the DOM Zone is expected to grow with average growth rates of 6.3% summer and 6.0% winter over the next 10 years compared to the PJM average of

3.1% and 3.8% over the same period for the summer and winter, respectively.<sup>7</sup>

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.<sup>8</sup>

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.<sup>9</sup> 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.<sup>10</sup> 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

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<sup>7</sup> A copy of the 2025 PJM Load Report is available at the following: <https://www.pjm.com/-/media/DotCom/library/reports-notice/load-forecast/2025-load-report.pdf>. See, in particular, page 9 (PJM) and page 34 (DOM Zone).

<sup>8</sup> See Facility Connection ("FAC") Standard FAC-001-4 (effective January 1, 2024), which can be found at <https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-001-4.pdf>.

<sup>9</sup> PJM Manual 14B (effective September 25, 2024) focuses on the RTEP process and can be found at <https://www.pjm.com/-/media/DotCom/documents/manuals/m14b.pdf>.

<sup>10</sup> See PJM Manual 14B, Attachment D: PJM Reliability Planning Criteria. See *supra*, n.9 for a link to PJM Manual 14B.

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, Reliability First, 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 Rebuild Project is classified as a supplemental project. While supplemental projects are included in the RTEP, and the PJM Board administers stakeholder review of supplemental projects as part of the RTEP process, the PJM Board does not actually approve such projects. See Section I.J for a discussion of the PJM process as it relates to this Rebuild Project.

### **NEED FOR THE REBUILD PROJECT**

As discussed in more detail below, the Rebuild Project is necessary to ensure that the Company can continue to provide reliable service in the Rebuild Project area. The proposed Rebuild Project will accomplish these goals by allowing the Company to proactively replace aging infrastructure and address safety concerns and logistical inefficiencies by reducing the number of line crossings.

#### **Addressing Aging Infrastructure**

The Company has developed a proactive plan to rebuild transmission lines that are comprised of aging wood towers. The Rebuild Project is necessary to address the rotting and decaying conditions of Lines #92, #287, and #2129, which are at their end of service life. The Rebuild Project will address these issues by rebuilding approximately 28.2 miles of existing infrastructure, in compliance with the Company’s mandatory Planning Criteria, thereby enabling the Company to maintain the overall long-term reliability of its transmission system.

A majority of Line #92 was constructed primarily on double circuit three-pole wood H-frame structures in 1952—meaning its structures are currently 73 years old and approaching their expected life span. Similarly, a majority of Line #287 was constructed in 1966, also using wood H-frame structures that are now 59 years old. Likewise, a majority of Line #2129 was constructed in 1966 on wooden H-frame structures, making the structures also 59 years old. Field inspections show considerable damage, including wood pole rot and decay in numerous locations along all three lines. These wood structures have also been identified for rebuild based on the Company’s assessment in accordance with the Company’s mandatory Planning Criteria.

Section 3.1.9 of the Planning Criteria addresses electric transmission infrastructure at its end of life:<sup>11</sup>

Electric transmission infrastructure reaches its end of life as a result of many factors. Some factors, such as extreme weather and environmental conditions, can shorten infrastructure life, while others, such as maintenance activities, can lengthen its life. Once the end of life is recognized, in order to ensure continued reliability of the transmission grid, a decision must be made regarding the best way to address this end-of-life asset.

For this criterion, “end of life” is defined as the point at which infrastructure is at risk of failure, and continued maintenance and/or refurbishment of the infrastructure is no longer a valid option to extend the life of the facilities consistent with Good Utility Practices and Dominion Energy Transmission Planning Criteria. The infrastructure to be evaluated under this end-of-life criteria are all regional transmission lines operated at 500 kV and above.

The decision point of this criterion is based on satisfying two metrics:

1. *The Facility is nearing, or has already passed, its end of life, and*
2. *Continued operation risks negatively impacting the reliability of the Transmission System.*

For Facilities that satisfy both of these metrics, this criterion mandates either replacing these Facilities with in-kind infrastructure that meets current Dominion Energy standards or employing an alternative solution to ensure the Dominion Energy Transmission System satisfies all applicable reliability criteria.

Effective March 24, 2020, the Company updated its Planning Criteria so that infrastructure to be evaluated under end of life criteria changed from “all transmission lines at 69 kV and above” to “all regional transmission lines operated at 500 kV and above.” The remaining transmission lines between 100 kV and 500 kV are evaluated under the Company’s Attachment M-3 End-of-Life Planning Criteria. The latest version of this criteria was presented at the December 12, 2024, PJM Sub-Regional RTEP meeting. See Attachment I.A.2 for updated slides

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<sup>11</sup> The Company’s Transmission Planning Criteria (effective Apr. 1, 2025) can be found in Attachment 1 of the Company’s Facility Interconnection Requirements (“FIR”) document, which is available online at <https://cdn-dominionenergy-prd-001.azureedge.net/-/media/content/large-business-services/pdfs/virginia/facility-interconnection-requirements.pdf?rev=f791a63728ba4fad96d9847586530276&hash=F3F2B78F011C1B507F37AB475AB785D6>.

presented by the Company at that meeting. As discussed in Attachment I.A.2, end of life projects between 100 kV and 500 kV are classified as supplemental projects. The process, however, for determining that an asset has reached its end of life remains the same; therefore, the Company continues to use the criteria evaluation process outlined in Section 3.1.9 of the Planning Criteria. The Company submitted the Rebuild Project in accordance with the PJM RTEP process to address the end-of-life criteria.

1. *Facility is nearing, or has already passed, its end of life.*

Factors that support a determination that a facility has reached its end of life include, but are not limited to, the following:

- **Condition** of the facility, taking into consideration:
  - Industry recommendations on service life for the particular type of facility
  - The facility's performance history
  - Documented evidence indicating that the facility has reached the end of its useful service life
  - The facility's maintenance and expense history
- **Third-party assessment** – While not required, the Company has the option of seeking a third-party assessment of a facility to determine if industry specialists agree the facility has reached the end of its useful service life

2. *Reliability and System Impact*

The reliability impact of continued operation of a facility will be determined based on a planning power flow assessment and operational performance considerations. The end-of-life determination for a facility to be tested for reliability impact will be assessed by evaluating the impact on short- and long-term reliability with and without the facility in service in the power flow model. The existing system with the facility removed will become the base case system for which all reliability tests will be performed.

The primary four (4) reliability tests to be considered are:

1. NERC Reliability Standards
2. PJM Planning Criteria - as documented in PJM Manual 14B - PJM Region Transmission Planning Process

3. Dominion Energy Transmission Planning Criteria contained in this document

4. Operational Performance - This test will be based on input from PJM and/or Dominion Energy System Operations as to the impact on reliably operating the system without the facility.

Additional factors to be evaluated under system impact may include but not be limited to:

1. Market efficiency
2. Stage 1A [Auction Revenue Rights] sufficiency
3. Public policy
4. [SERC Reliability Corporation] reliability criteria.

Failure of any of these reliability tests, along with the end-of-life assessment discussed herein, will indicate a violation of the End-of-Life Criteria and necessitate replacement as mandated earlier in this document.

After the end of service life and reliability impact of a facility are evaluated and it has been determined that the facility violates the End-of-Life Criteria, a determination will be made as to whether replacement of the facility is the most effective solution for an identified reliability need, or whether an alternative solution should be employed. One or more of the following factors may be considered in determining whether to proceed with facility replacement or with an alternative solution:

- Planning analysis which may include power flow studies
- Operational performance
- System Reliability
- Effectiveness of the alternative as compared to the replacement facility
- Future load growth in the study area
- Future transmission projects or interconnects that impact the study area
- Constructability comparison
- Cost comparison

The Rebuild Project will rebuild approximately 28.2 miles of Line # 92, 13.8 miles of Line #287, and 14.2 miles of Line #2129, which have been identified for rebuild, consistent with sound engineering judgment, and based on Dominion Energy Virginia's assessment in accordance with the Company's Planning Criteria, as follows:

1. *Facility is nearing, or has already passed, its end of life.*

In regard to the first metric of the Company's Planning Criteria addressing end of life, the structures on Lines #92, #287, and #2129 are primarily double circuit three-pole wood H-frame structures built in 1952 and 1966. A field-condition assessment indicated wood pole rot and decay in numerous locations for all three lines. Further, industry guidelines indicate equipment life for wood structures is 35–55 years, whereas the current wooden structures are between 59 and 73 years old. The combination of deteriorating condition and age indicate that these structures and line equipment have reached their end of life.

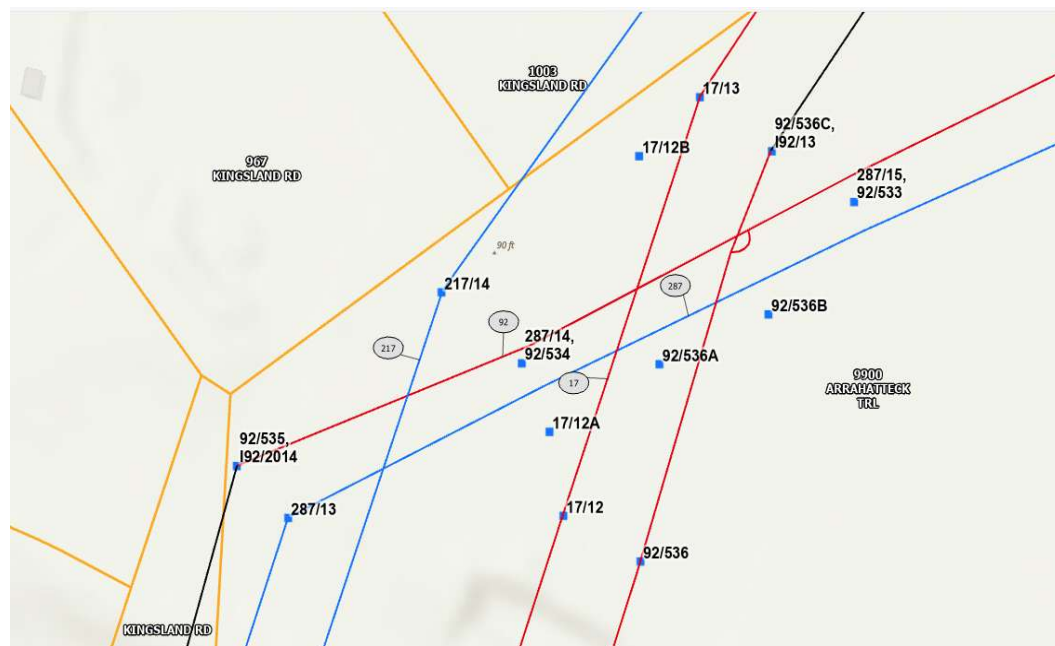
2. *Continued operation risks negatively impacting reliability of the transmission system.*

Regarding the second metric of the Company's Planning Criteria addressing end of life, Lines #92, #287, and #2129 are necessary to provide transmission service to Virginia customers.

Removal of Line pairs #92 and #287 and #92 and #2129 will cause a Generator Deliverability violation on 500 kV Ladysmith-Possum Point Line #568. Line #92 has direct connected loads at the 115 kV tap at the Turner Substation and at the Providence Forge Substation. Failure of these Line pairs would lose the generation at Providence Forge Substation. Additionally, Lines #92 and #287 provide outlets for the generation at Chesterfield 230 kV Substation and Chesterfield 115 kV Substation. Addressing aging infrastructure through the Rebuild Project will support the Company's ability to continue providing reliable transmission service to these areas.

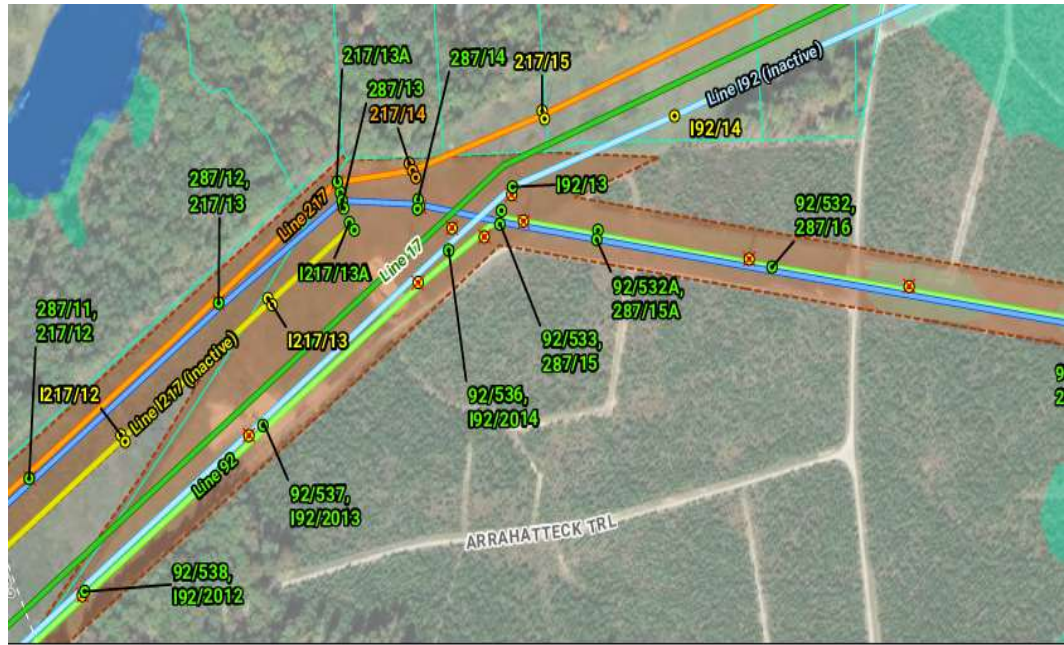
## Addressing Safety Concerns by Reducing Line Crossings

Lines #92, #I92, #287, #217, and #17, located in the area subject to this Rebuild Project, cross each other in the area between existing Structures #287/13 and #287/15, as shown in Figure 1 below:



**Figure 1**

These line crossings have the potential to create unsafe conditions and logistical inefficiencies for the Company's operations and maintenance staff, contractors, and others. As a result, it may be more challenging and more expensive to service these lines in the existing configuration. Through its design process, the Company's engineers identified ways to reduce these safety concerns and logistical inefficiencies by reconfiguring the lines and eliminating the number of crossings of some of these lines as part of the Rebuild Project. Specifically, the Company proposes to rebuild approximately 0.9 mile of existing Line #I92 on double circuit structures with existing Line #92, which will eliminate Line #I92 crossing Lines #92, #217, and #17. In addition, the Company proposes to rebuild approximately 0.8 mile of Line #217 on double circuit structures with Line #287, to eliminate Line #217 crossing Lines #287, #92, and #I92. Following the Rebuild Project, the reconfigured area will look as shown in Figure 2:



**Figure 2**

This proposed work, therefore, is essential to reducing risk and ensuring the facilities continue operating in a safe and reliable manner.

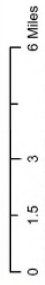
Due to anticipated data center load growth in Henrico and Chesterfield counties, the Company plans to retain the existing idle lines for future use. This approach ensures the Company will be ready to meet the increased demand in the near future without needing to construct new transmission lines at that future time. In addition, retaining the idle lines will be less costly than removing them. The Company will energize idle Lines #1217 and #192 when the need arises.

In summary, the Rebuild Project will replace aging infrastructure at the end of its service life to comply with the Company’s mandatory Planning Criteria, which are required under NERC Reliability Standards, and reduce the number of line crossings, thereby enabling the Company to maintain the overall long-term reliability and safety of its transmission system.

**ATTACHMENT I.A.1  
PROJECT OVERVIEW MAP**

Chesterfield-Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

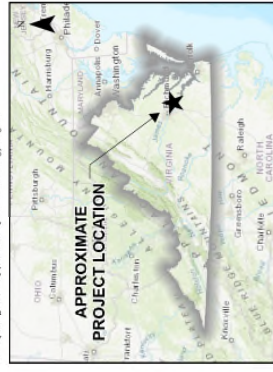
Client: Dominion Energy Virginia  
C2 Env Project: K4S  
0968  
Prepared By: K4S  
Date: 7/30/25



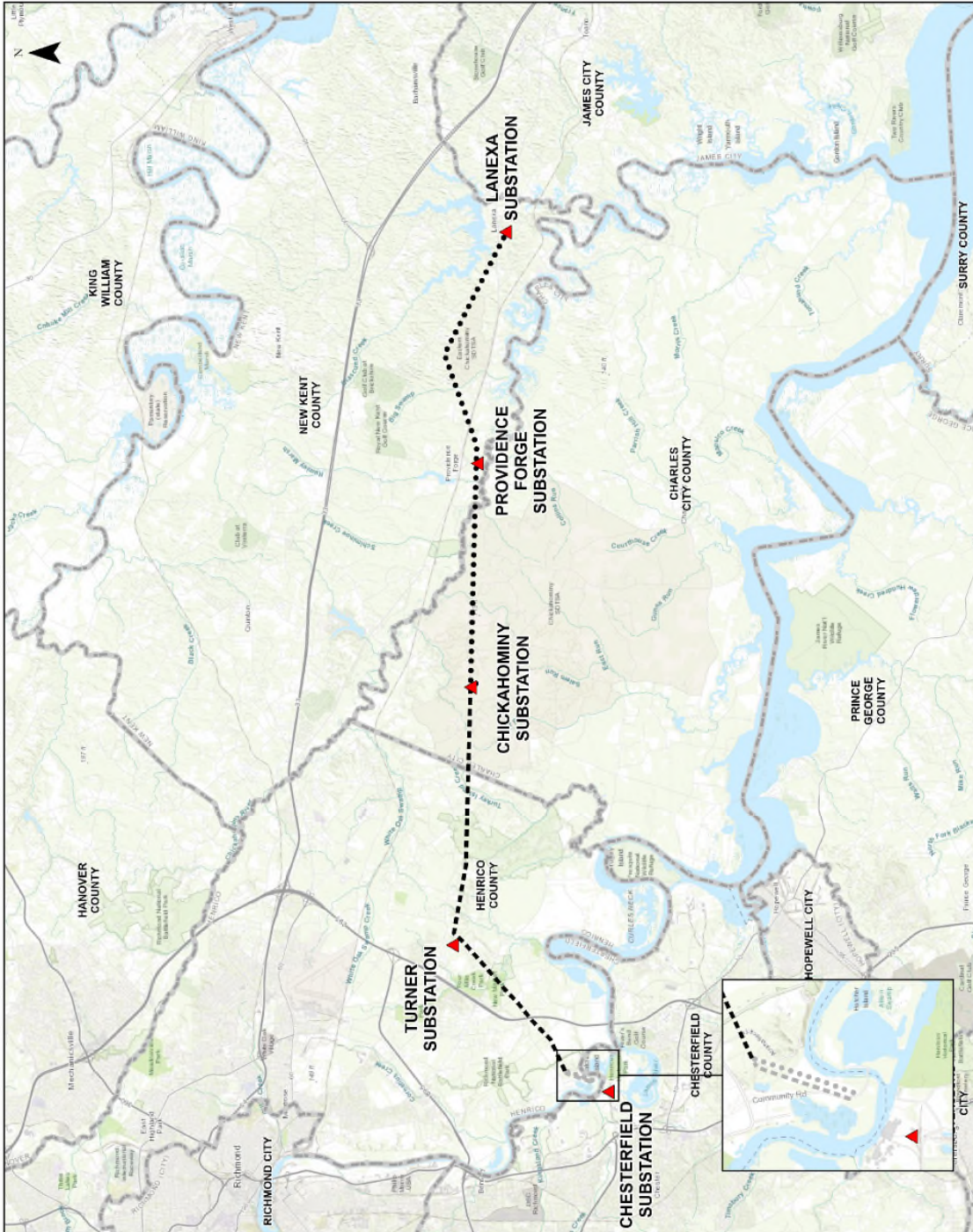
**SITE DATA**

- ▬ Partial Rebuild of Lines #287 and #217
- Partial Rebuild of Lines #92 and #92
- ▬ Partial Rebuild of Lines #92 and #287
- Partial Rebuild of Lines #92 and #2129
- ▲ Existing Substation

Notes:  
1. Base map from ESRI World Topographic Map  
2. Project right-of-way provided by Dominion Energy Virginia



SHEET 1 OF 1



# Dominion Energy

PJM Southern Sub-Regional RTEP Meeting

Planning Assumptions

SRRTEP South – Dominion Assumptions 12/12/2024



# Planning Criteria and Assumptions

- PJM Assumptions Apply
- All analysis and solutions must satisfy
  - NERC TPL standards
  - PJM Planning Criteria in Attachment D & G of PJM Manual 14B
  - [Dominion Energy's Facility Interconnection Requirements](#)
    - Requirements to connect to Dominion's Transmission system
    - Attachment 1 – Dominion's FERC Form 715 Planning Criteria
    - Attachment 3 – Generation Interconnection Protection Requirements
    - Attachment 4 – Generator Ride-Through Requirements
    - Attachment 5 – Generator Interconnection Data Communication and Data Exchange Requirements
    - Attachment 6 – Technical Requirements for Generation Interconnection Substations
  - Supplemental Project Drivers as Described Below
- PJM and Dominion validate each other's study results to ensure solutions resolve specific need and create no other harm to system
- Proposed solutions are presented
  - TEAC for facilities 230 kV and above
  - Southern Sub-regional for facilities below 230 kV

# Power Flow Modeling Assumptions

- Dominion uses PJM RTEP developed power flow models for 5 year and intermediate year assessments
- For situations where a PJM RTEP model is not available, Dominion will create a specific case using a PJM RTEP case
- Dominion at times may also utilize a MMWG series power flow case
- Loads used in all power flow cases will be modeled consistent with the 2025 PJM Load Forecast Report
- Generation retirements modeled as outlined in the PJM's Generation Retirement Process
  - Dominion may also consider future generation retirements consistent with the VA/NC Integrated Resource Plan

# Dominion Energy's FERC Form 715 End of Life Planning Criteria

- Infrastructure to be evaluated under this end-of-life criteria are all regional transmission lines operated at 500 kV and above
- The decision point of this criterion is based on satisfying two metrics:
  - 1) Facility is nearing, or has already passed, its end of life, and
  - 2) Continued operation risks negatively impacting reliability of the transmission system, including our ability to serve local load.
- Projects approved by PJM under this criteria are classified as baseline
- Detailed discussion on the End of Life criteria can be found in Attachment 1, section C.2.9 of [Dominion Energy's Facility Interconnection Requirements](#) document
- All other asset management of transmission infrastructure is covered by the M-3 Supplemental process
- The Appendix lists transmission lines expected to be evaluated using the FERC Form No. 715 End of Life criteria in the 2025 RTEP cycle

# Supplemental Project Drivers



# Summary of Supplemental Project Drivers

## I. Customer Service

- Service to new and existing customers. Interconnect new customer load. Address distribution load growth, customer outage exposure, equipment loading

## II. Equipment Material Condition, Performance and Risk

- Degraded equipment performance, material condition, obsolescence, equipment failure, employee and public safety and environmental impact
- Substation Assets, Transmission Line Assets, Transmission Transformers

## III. Operational Flexibility and Efficiency

- Optimizing system configuration, equipment duty cycles and restoration capability, minimize outages

## IV. Infrastructure Resilience

- Improve system ability to anticipate, absorb, adapt to, and/or rapidly recover from a potentially disruptive event, including severe weather, geo-magnetic disturbances, electromagnetic pulses, physical and cyber security challenges, critical infrastructure reduction.

## V. Other

- Meet objectives not included in other definitions

# I. Customer Service

- Service to new and existing customers. Interconnect new customer load. Address distribution load growth, customer outage exposure, equipment loading



# Customer Service Considerations

## Project Drivers typically include:

- New Load Delivery Points (DP)
- Upgrades or modifications to existing Load Delivery Points(DP)
- Other customer requests

## II. Equipment Material Condition, Performance and Risk

- Degraded equipment performance, material condition, obsolescence, equipment failure, employee and public safety and environmental impact
- Substation Assets, Transmission Line Assets, Transmission Transformers

# Equipment Material Condition, Performance and Risk

- End of Life
  - Transmission Lines operated at or above 100 kV and below 500 kV
  - Transformers with high-side operated at or above 100 kV
- Other Asset Management
 

*Types of equipment assessed include but not limited to:*

  - Transmission Lines below 100 kV
  - Line Components (not part of EOL Criteria)
  - Transformers below 100 kV
  - Breakers
  - Circuit Switchers
  - Reactors
  - Capbanks
  - Wave Traps
  - Relaying
  - Switches
  - Bus Work, Leads
  - FACTS Devices



# Equipment Material Condition, Performance and Risk

## Project Drivers

- EOL and Asset Management projects include the replacement, modification, upgrade or addition of transmission equipment for the following purposes:
  - Replacement of equipment due to eminent failure
  - Safety concerns
  - Compliance (internal and external)
  - Reliability
  - Operating Flexibility
  - Obsolescence
  - Other

## Dominion Energy's Attachment M-3 End of Life Planning Criteria for Transmission Lines

- Infrastructure to be evaluated under this end-of-life criteria are all transmission lines operated at or above 100kV and below 500 kV
- Projects must satisfy the following two decision point metrics:
  - 1) Facility is nearing, or has already passed, its end of life, and
  - 2) Continued operation risks negatively impacting reliability of the transmission system, including our ability to serve local load.
- Projects will be classified as supplemental

# Transmission Line Facilities

## Project Development Process

- All project requests and inputs are reviewed
- Records of inspections, component failures, refurbishments/repairs, tower loading studies, COR-TEN corrosion studies and other relevant information are reviewed
- Field sampling and inspections are performed
- Perform analysis to determine condition of individual lines and a ranking to support remediation

# Transmission Line Components

## Project Development Process

- Industry typical “expected” service life are considered:
  - Steel structures 40 to 60 years
  - Conductors 60 years
  - Connectors 40 to 60 years
  - Insulators (Porcelain/Glass) 50 years+ (Polymer) 30 years
  - Fiber 30 years
  - Wood 55 years with maintenance
- However, the actual service life is dependent upon many variables and ongoing inspection to evaluate condition is the best determinant of end of service life.

# Dominion Energy's Attachment M-3 End of Life Planning Criteria for Transformers

- Infrastructure to be evaluated under this end-of-life criteria are transmission transformers, high side operated at or above 100kV
- Transformer Health Assessment Program (THA)

500 kV Transformer Failure in 2000



230 kV Transformer Failure in 2001



## Transmission Transformer THA Overview

- For Transmission Transformers, Dominion uses a Transformer Health Assessment (THA) approach to prioritize replacement
- A proven systematic approach to calculating transformer health and risk
- Not just about age – several condition-based parameters are considered
- Supports possible additional maintenance, online monitoring, proactive replacements

# Transmission Transformer THA Overview

## Parameters Considered for Proactive Replacement:

- THA score less than 80
- Maintenance history/environmental risk
- Previous transformer failures of same manufacturer
- Previous failures and remanufacturing history
- Dissolved Gas-in-Oil Analysis (DGA) trends

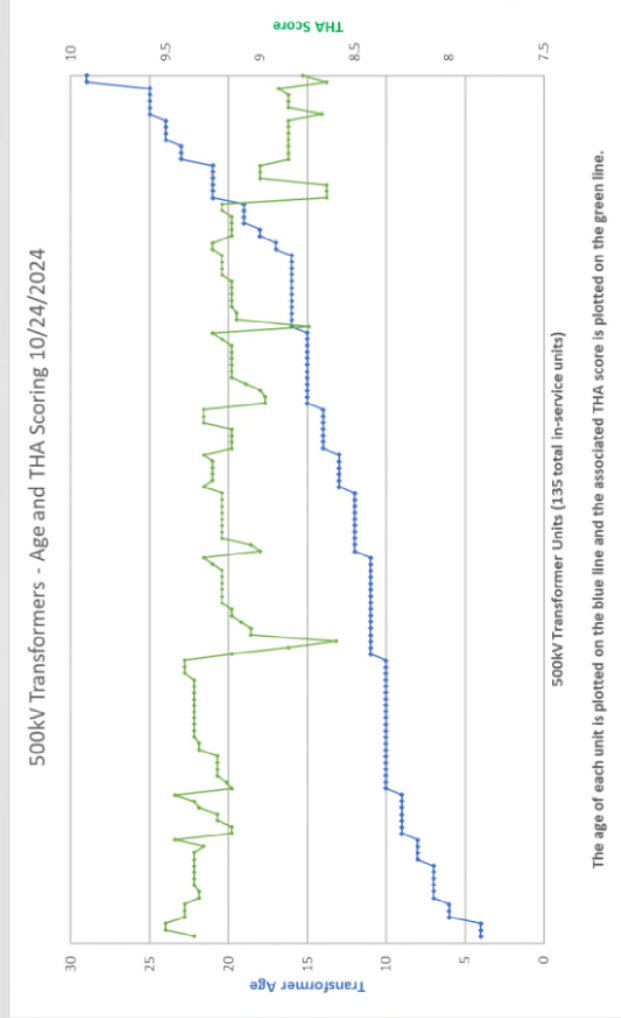
# THA Condition-Based Parameter Weighting

Data Type	Parameter	Weights	Sub-Weights
Design	Age	15%	
	BIL Ratings	10%	
	LTC Design	5%	
Testing	Winding Power Factor	5%	
	Moisture in Oil/Insulation	5%	
	Disolved Gas-In-Oil Analysis	30%	
	C2H2		46%
	H2		9%
Accessories	C2H4		15%
	TOTAL COMB. GAS		10%
	C2H6		5%
	CH4		5%
	CO		5%
	CO2		5%
	Bushing Type/Age	5%	
Operational	Bushing Power Factor	5%	
	Fault Exposure	10%	
	Loading	10%	



# Example Scoring of Age Parameter

Age	Score
0 - 10 years	10
10 - 30 years	7
30 - 40 years	4
40 - 45 years	1
45 - 50 years	-5
50 - 55 years	-10
> 55 years	-15



# Other Asset Management

## Project Development Process

### Other Transmission Line and Transformer Projects (below 100kV)

- Projects are evaluated using the same process as EOL

### Substation Projects

- Projects are prioritized based on many different factors including:
  - Project Type
  - Likelihood and consequence of failure
  - Completing work in conjunction with other planned capital improvement work or scheduled maintenance activities and outages
  - Project cost
- Projects are assigned to a project manager and the conceptual team for detailed review and estimating
- Planning reviews projects to ensure they do not conflict with long term plans prior to submittal to PJM through the M-3 Planning process

# Other Asset Management

## Project Development Process

- All project requests and inputs are reviewed
- Compliance projects (time based) are identified and documented.  
These typically include:
  - Wave Traps – 25 years
  - CCVT's - 25 years
  - Batteries – 20 years
  - Battery Chargers – 20 years
  - Nuclear (Switchyard and one terminal away) – 20 years
- A high-level scope and cost estimate is developed

### III. Operational Flexibility and Efficiency

- Optimizing system configuration, equipment duty cycles and restoration capability, minimize outages

# Operational Flexibility and Efficiency

## Considerations

### Project Drivers typically include:

- Operational flexibility issues identified by Dominion's SOC and/or field operations
- Recurring thermal, voltage, or stability issues identified by System Operations in real time but not captured in planning studies
- Projects related to ability to safely and reliably operate the transmission system
- Provide flexibility and improvement to serve customer load
- Adherence to Facility Interconnection Requirements
- Other

## IV. Infrastructure Resilience

- Improve system ability to anticipate, absorb, adapt to, and/or rapidly recover from a potentially disruptive event, including severe weather, geomagnetic disturbances, physical and cyber security challenges, critical infrastructure reduction

# Infrastructure Resilience

## Considerations

### Project Drivers typically include:

- Hardening for severe weather
- GMD (geo-magnetic disturbances)
- EMP (electromagnetic pulses)
- Physical and Cyber security challenges
- Reduction of Critical Infrastructure
- Rapid Restoration of Services (mobiles, spares, etc.)
- Adherence to Facility Interconnection Requirements

# V. Other

- Meet objectives not included in other definitions

# Other Planning Considerations

Project Drivers typically include:

- Unique situations that drive “needs” not covered in other objectives
- Adhere to Good Utility Practice
- Maintain system reliability

# Questions?

SRRTEP South – Dominion Assumptions 12/12/2024

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# Appendix A: Transmission lines expected to be evaluated using Dominion Energy's FERC Form 715 End of Life criteria in 2025 RTEP cycle

Line A	Line B	Line Section	Line A kV	Line B kV	Line A Year	Line B Year
None			500			

Note: This list covers lines to be evaluated under Dominion's End of Life criteria during the 2025 planning cycle. The evaluation could lead to some of these facilities being delayed, cancelled or removed from consideration as well as other facilities added.



**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: **Engineering Justification for Project**

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

For a detailed description of the engineering justification of the proposed Rebuild Project, see Section I.A.

**Known Future Projects**

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

There are no known future projects that require the Rebuild Project to be constructed. The Rebuild Project is required by the Company's end-of-life criteria and to address safety concerns by reducing the number of line crossings, as described in Section I.A.

**Planning Studies**

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

The power flow model used for the end-of-life study was the 2029 RTEP Case. The PJM RTEP model accounts for all other generation and transmission facilities impacting the affected load area, including approved generation and transmission facilities that have not been placed into service. The model also considered generation deactivations and projects that have been driven by the generation deactivations.

PJM’s RTEP framework is governed by the procedures outlined in Attachment M-3 of the PJM Open Access Transmission Tariff (“OATT”). This classification applies to transmission enhancements that are not required to meet PJM baseline reliability, operational performance, economic planning, or public policy criteria, but are instead driven by Transmission Owner asset management activities, including the replacement of facilities approaching the end of their useful life.

Per PJM Manual 14B, Section 1.4.1.5 and related guidance, the determination of end-of-useful-life status is made in accordance with good utility practice and is not based on accounting or depreciation schedules, but rather on engineering assessments, condition monitoring, and risk-based evaluations. These assessments may include factors such as equipment age, failure history, maintenance trends, and probability risk analysis (“PRA”) of aging infrastructure.

Prior to integration, PJM performs a “do no harm” study to ensure that Lines #92, #217, #287, and #2129 are needed to maintain reliable service to the Company’s customers and do not adversely affect the reliability of the transmission system. If adverse impacts are identified, any necessary system upgrades are considered part of the Supplemental Project and remain the responsibility of the sponsoring Transmission Owner.

**Facilities List**

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

Not applicable.

## 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: Attachment I.G.1 shows the portion of the transmission system in the area of the proposed Rebuild Project. The existing Lines #92, #192, #217, #287, and #2129 are part of the Company's 115 kV and 230 kV networks, which support the delivery of electric generation to retail and wholesale customers.

Lines #92 and #287 originate from the Chesterfield Substation located in Chesterfield County, Virginia. This substation comprises two 230 kV switching yards—Chesterfield A and Chesterfield B—and one 115 kV yard. Chesterfield A is configured in a breaker-and-a-half arrangement and includes five 230 kV line terminations. Chesterfield B has four 230 kV line terminations with the same configuration. The 115 kV yard is electrically connected to Chesterfield A and accommodates six 115 kV line terminations.<sup>12</sup>

Lines #92 and #287 exit the Chesterfield A 230 kV yard and the 115 kV yard heading southeast. Line #92 follows a 300-foot right-of-way, while Line #287 follows a 253-foot right-of-way. These rights-of-way merge after crossing the James River.

For approximately 0.5 mile from the Chesterfield Substation, Line #92 shares structures with Line #17. Similarly, Line #287 shares structures with Line #217 for approximately 0.5 mile. After crossing the James River, Line #287 transitions to separate structures. Approximately 1.5 miles from Chesterfield, Lines #217 and #17 diverge northward, terminating at the Lakeside and Northeast Substations, respectively.

Lines #92 and #287 continue on shared structures with a 150-foot right-of-way until reaching the Turner Tap Junction. From there, the right-of-way expands to 200 feet as the lines proceed eastward toward the Chickahominy Substation, accompanied by Line #286. Approximately 11.5 miles of this right-of-way lies within Henrico County, and approximately 0.3 mile lie within Chesterfield County.

At approximately 7.1 miles from the Chesterfield Substation, Line #92 passes the Turner Tap and continues for another 7.5 miles toward Chickahominy. Line #287 terminates at the Chickahominy 230 kV Substation, which is a 500/230 kV facility

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<sup>12</sup> The work performed at the Chesterfield Substation and in Chesterfield County is considered ordinary course, as explained in footnote 4.

housing two 500 kV lines and seven 230 kV lines. Line #92 bypasses the Chickahominy Substation and continues eastward toward Lanexa. Approximately 8.1 miles of this right-of-way lies within Charles City County.

From Chickahominy, the 115 kV Line #92 and the 230 kV Line #2129 share structures and a 200-foot right-of-way with Lines #2024 and #2102. Approximately 7.5 miles of this right-of-way lie within New Kent County. Line #92 crosses the Providence Forge Generating Station before Lines #92 and #2129 terminate at the Lanexa Substation, a 230/115 kV facility.

The tables in Attachment I.C.1 provide the historic summer and winter loads from 2024 to 2032. The projected loads in Attachment I.C.1 represent the Company's forecasted peaks based on actual load and the PJM 2024 Load Forecast and demonstrate stable load demand in the area.

The existing Lines #92, #I92, #217, #287, and #2129 cannot continue to adequately serve the needs of the Company and its customers due to the condition of its aging infrastructure and potential safety risks associated with multiple lines crossings in a relatively small area, as discussed in Section I.A. In addition, removal of Line pairs #92 and 287 and #92 and #2129 will cause a Generator Deliverability violation on 500 kV Ladysmith-Possum Line #568. The Company has created a proactive plan to address its end-of-life facilities and potential safety issues associated with multiple line crossings, setting target completion dates for end-of-life projects based on the condition of the facilities and the identified potential safety issues, the Company's resources, and the need to schedule outages. The desired in-service date for completion of the Rebuild Project is December 31, 2028.

Completing the Rebuild Project will support the Company's ability to continue to provide reliable electric service to retail and wholesale customers and will support the future overall growth and system reliability in the area. See Section I.A.

Loads taken from MWs & Vars 2025 to 2040\_DRAFT44\_HI SIDE 2031-35\_Final  
 Highlighted cells used in application

**Forecast Load MW**

	2024	2025	2026	2027	2028	2029	2030	2031	2032	MAX	MIN
Richmond Area - Summer	2186	2344	2462	2581	2749	2899	3030	3297	2492	<b>3297</b>	<b>2186</b>
Yorktown Area - Summer	1352	1398	1403	1407	1407	1407	1408	1408	1409	<b>1409</b>	<b>1352</b>
Chesterfield Area - Summer	1757	1814	1822	1849	1856	1986	2071	2150	2201	<b>2201</b>	<b>1757</b>
Richmond Area - Winter	2464	2537	2653	2775	2938	3076	3110	3412	3802	<b>3802</b>	<b>2464</b>
Yorktown Area - Winter	1254	1260	1263	1264	1264	1264	1264	1264	1264	<b>1264</b>	<b>1254</b>
Chesterfield Area - Winter	1977	2012	2018	2053	2095	2208	2275	2362	2426	<b>2426</b>	<b>1977</b>

**Historic Load MW**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	MAX	MIN
Richmond Area - Summer	1894	1927	1980	1908	1947	1878	2006	1980	2056	2210	<b>2210</b>	<b>1878</b>
Yorktown Area - Summer	1318	1440	1413	1401	1329	1329	1396	1363	1369	1410	<b>1440</b>	<b>1318</b>
Chesterfield Area - Summer	1629	1688	1744	1687	1650	1618	1734	1714	1704	1777	<b>1777</b>	<b>1618</b>
Richmond Area - Winter	2285	2433	2098	2311	2441	2087	1816	1819	2131	2400	<b>2441</b>	<b>1816</b>
Yorktown Area - Winter	1281	1444	1226	1211	1312	1156	1072	1020	1198	1212	<b>1444</b>	<b>1020</b>
Chesterfield Area - Winter	2100	2231	1808	2129	2269	1774	1666	1688	2045	2080	<b>2269</b>	<b>1666</b>

Peak Load Historic and Projected (Summer)	<b>3297</b>	<b>1318</b>
Peak Load Historic and Projected (Winter)	<b>3802</b>	<b>1020</b>

**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 Company performed, and PJM validated, an end-of-life study for pair Lines #92 and #287 and Lines #92 and #2129, modeled as out-of-service to assess the reliability impact of these lines. The study identified thermal overloads which are shown in Attachment I.D.1.

Monitored Facility				Cont Name		Final AC %LD					
						Scenario	92 and 2129 Removed	92 and 287 Removed	Base		
				Areas							
314911	8LADYSMITH	500	314922	8POSSUM	500	1	DVP_P1-2: LN 568	345	100.31	100.67	99.22

Monitored Facility				Cont Name		Final AC %LD					
						Scenario	All Lines Rebuilt	Base			
				Areas							
314911	8LADYSMITH	500	314922	8POSSUM	500	1	DVP_P1-2: LN 568	345	99.22		99.22

## 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: Feasible Project Alternatives

The Company did not identify any feasible alternatives for the proposed Project because there is no alternative within the existing right-of-way that can satisfy the proposed Rebuild Project's primary drivers, which are to: (i) comply with mandatory NERC Reliability Standards; (ii) replace aging infrastructure that is at the end of its service life to comply with the Company's mandatory Planning Criteria, which are required under NERC Reliability Standards; and (iii) address identified safety issues by reducing the number of line crossings, thereby enabling the Company to maintain the overall long-term reliability of its transmission system. See Section I.A.

### **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 an analysis of demand-side resources ("DSM") as incorporated into the Company's planning studies. DSM is the broad term that includes both energy efficiency ("EE") and demand response ("DR").<sup>13</sup> In this case, the Company has identified a need for the Rebuild Project based on the need to replace aging infrastructure at the end of its service life, in order to comply with the Company's mandatory Planning Criteria and consistent with sound engineering judgment, thereby enabling the Company to maintain the overall long-term reliability of its transmission system, and to address identified safety issues by reducing the number of line crossings. Notwithstanding, when performing an analysis based on PJM's 50/50 load forecast, there is no adjustment in load for DR programs because PJM only dispatches DR when the system is under stress (*i.e.*, a system emergency). Accordingly, while existing DSM is considered to the extent the load forecast accounts for it, DR that has been bid previously into PJM's capacity market is not a factor in this Rebuild Project because of the identified need. Based on these considerations, the evaluation of the Rebuild Project demonstrated that despite accounting for DSM consistent with PJM's methods, the Rebuild Project is necessary.

Incremental DSM also will not eliminate the need for the Rebuild Project. As reflected in Attachment I.C.1, the highest annual projected peak load over the next

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<sup>13</sup> While the PJM load forecast does not directly incorporate DR, its load forecast incorporates variables derived from Itron that reflect EE by modeling the stock of end-use equipment and its usages. Further, because PJM's load forecast considers the historical non-coincident peak ("NCP") for each load serving entity ("LSE") within PJM, it reflects the actual load reductions achieved by DSM programs to the extent an LSE has used DSM to reduce its NCPs.

10 years in the DOM Zone is projected to total approximately 3802 MW (including future planned stations). By way of comparison, statewide, the Company achieved demand savings of 322.9 MW (net) / 399.0 MW (gross) from its DSM programs in 2024.

## 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: **Lines #92, #I92, #217, and #287 (Chesterfield Substation to Chickahominy Substation)**

To rebuild Lines #92 and #287, the Company plans to remove all structures on these two lines from just north of the James River (Chesterfield 115 kV and 230 kV Substations) all the way to Chickahominy Substation (approximately 13.8 miles). The first section of Line #92 from Structure #92/5 to Structure #92/533 will be rebuilt on double circuit structures with the idle Line #I92. The first section of Line #287 from Structure #287/6 to #287/13 will be rebuilt on double circuit structures with Line #217. Also in this approximately 0.8-mile-long stretch, the existing structures supporting Line #217 will remain, and the existing line will become idle (thereby becoming "I217"). From this corner near Structures #92/533 and #287/13, the line turns northeast, and both Lines #92 and #287 will be rebuilt on double circuit structures all the way to Chickahominy Substation, passing through the Turner and Providence Forge Substations (electrically connected to Line #92 only). At Turner Substation, the Company will cut into the first structure. Line #92 is not electrically connected at Chickahominy Substation; only Line #287 is electrically connected at Chickahominy Substation. This section is approximately 12.9 miles in length. All work will be performed within the existing right-of-way, except for a small, approximately 1.68-acre area south and east of the Chickahominy Substation needed to re-route the underground portion of Line #92 aboveground around the existing substation. See Attachment I.A.1.

The existing structures being replaced are predominantly double circuit three-pole wood H-frame structures. These structures will primarily be replaced with galvanized engineered steel double circuit monopole structures on concrete drilled pier foundations with davit arms.

In addition, the Company proposes to replace the existing 477 ACSR (Line #92) and 1033.5 ACSR (Line #287) conductor with bundled 768.2 ACSS/TW/HS conductor on each of these lines. After the proposed Rebuild Project, the capacity of the new conductor will have a normal/emergency rating of 1573/1573 MVA summer and 1648/1648 MVA winter.

### **Lines #92 and #2129 (Chickahominy Substation to Lanexa Substation)**

To rebuild Lines #92 and #2129, the Company plans to remove all structures on Lines #92 and #2129 from Chickahominy Substation to Lanexa Substation, which is approximately 14.2 miles. This section will be rebuilt as a double circuit with Lines #92 and #2129. All work will be performed within the existing right-of-way, except for a small, approximately 1.68-acre area south and east of the

Chickahominy Substation required to re-route the underground portion of Line #92 aboveground around the existing substation. See Attachment I.A.1.

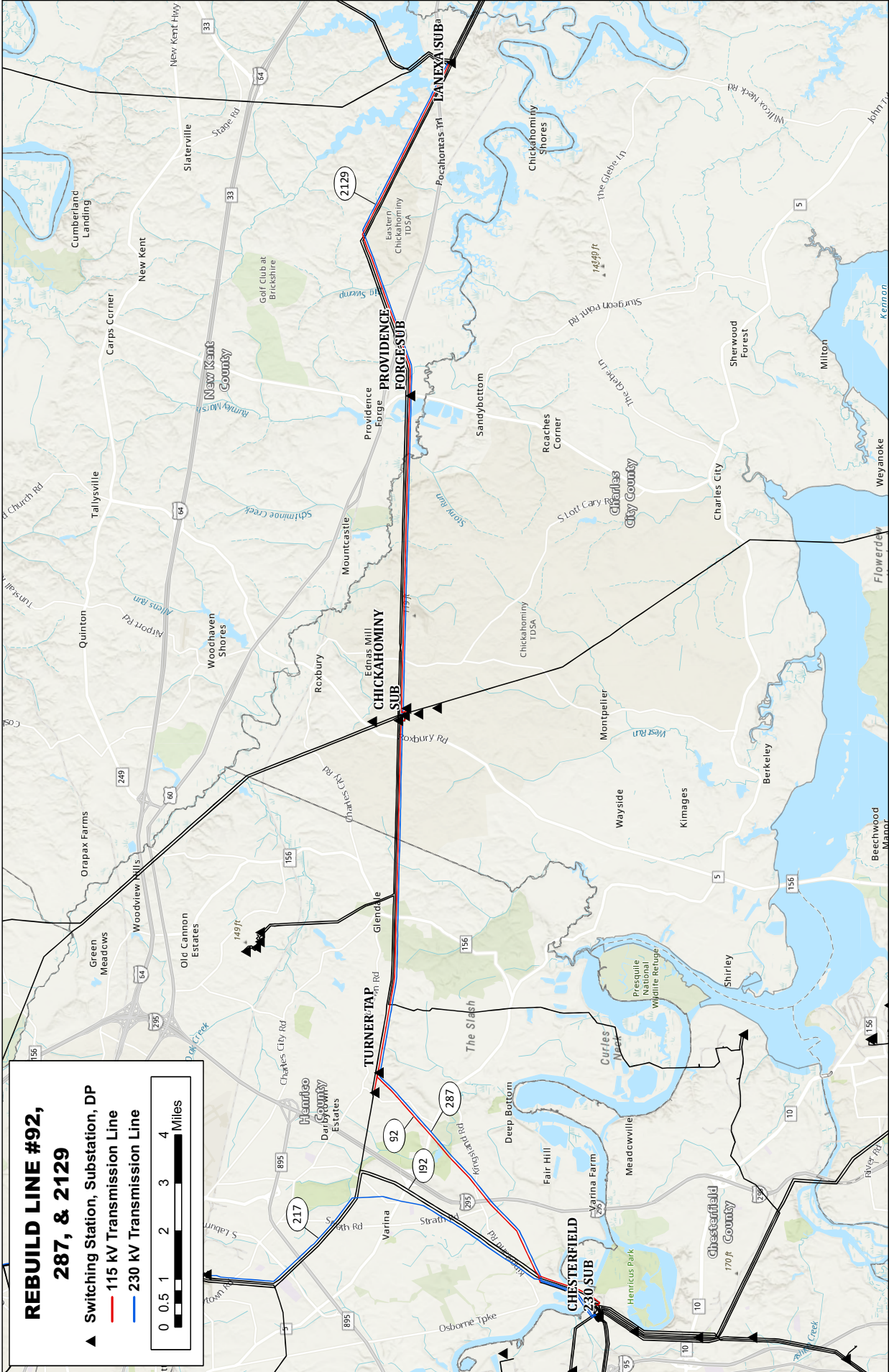
The existing structures being replaced are predominantly double circuit 3-pole wood horizontal structures. These structures will primarily be replaced with galvanized engineered steel double circuit monopole structures on concrete drilled pier foundations with davit arms.

In addition, the Company proposes to replace the existing 477 ACSR (Line #92) and 1033.5 ACSR (Line #2129) conductor with bundled 768.2 ACSS/TW/HS conductor on each of these lines. After the proposed Rebuild Project, the capacity of the new conductor will have a normal/emergency rating of 1573/1573 MVA summer and 1648/1648 MVA winter.

**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.



## 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 Rebuild Project is December 31, 2028. The Company estimates it will take approximately 30 months after a final order from the Commission for detailed engineering, materials procurement, permitting, real estate, and construction of the Rebuild Project. Accordingly, to support this estimated construction timeline and construction plan, the Company respectfully requests a final order by June 2026. Should the Commission issue a final order by June 2026, the Company estimates that construction should begin by December 2026, with the Rebuild Project to be completed by the in-service target date of December 31, 2028. This schedule is contingent upon obtaining the necessary permits and careful coordination of outages, the latter of which may be particularly challenging due to the amount of new load growth, rebuilds, and new builds scheduled to occur in this load area. Dates may need to be adjusted based on permitting delays or design modifications to comply with additional agency requirements identified during the permitting application process, as well as the ability to schedule outages, and unpredictable delays due labor shortages or materials/supply issues. Based on the Rebuild Project's complexity, there may be delays with procurement of materials.

In addition, the Company is monitoring actively regulatory changes and requirements associated with the NLEB and how they could potentially impact construction timing associated with TOYRs. The USFWS issued the final guidance, replacing the interim guidance, on October 23, 2024, and the final guidance was fully implemented November 30, 2024. The Company is reviewing the final guidance to the extent it applies to the Company's projects and will coordinate with USFWS during the permitting stage.

The Company is also monitoring potential regulatory changes associated with the potential up-listing of the TCB. On September 14, 2022, the USFWS published the proposed rule to the Federal Register to list the TCB as endangered under the Endangered Species Act. USFWS extended its Final Rule issuance target from September 2023 to September 2024, but as of the date of this filing, the TCB listing decision has not been issued. The Company is tracking actively this ruling and evaluating the effects of potential outcomes on Company projects' permitting, construction, and in-service dates, including electric transmission projects.

Any adjustments to the Rebuild Project schedule resulting from these or similar challenges could necessitate a minimum of a six- to twelve-month delay in the targeted in-service date. Accordingly, for purposes of judicial economy, the Company requests that the Commission issue a final order approving both a desired in-service target date (*i.e.*, December 31, 2028) and an authorization sunset date

(*i.e.*, December 31, 2029) for energization of the Rebuild Project.<sup>14</sup>

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<sup>14</sup> *See supra*, n.6.

**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 proposed Rebuild Project is approximately \$145.8 million (in 2025 dollars). This estimated conceptual cost does not include any work considered “ordinary course.” For example, substation-related work, which is estimated at approximately \$2.7 million (in 2025 dollars) and discussed in Footnote 4 and Section II.C, is not included in this cost estimate.

**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 Company submitted the Rebuild Project proposal as a supplemental project to the PJM RTEP process in June 2025 (the Rebuild Project need information) and submitted the Rebuild Project solution information in July 2025, to address the end-of-life criteria. Attachment I.J.1 contains the relevant slide presented at the June 2025 PJM TEAC meeting, Attachment I.J.2 contains the relevant slides presented at the July 2025 PJM TEAC meeting, and Attachment I.J.3 contains the relevant updated slides presented at the September 2025 PJM TEAC meeting, which account for the updated cost estimate for the Rebuild Project.

The Rebuild Project is 100% cost allocated to the DOM Zone.

# Dominion Transmission Zone: Supplemental Equipment Material Condition, Performance and Risk

**Need Number:** DOM-2025-0026

**Process Stage:** Need Meeting 06/05/2025

**Project Driver:** Equipment Material Condition, Performance Risk

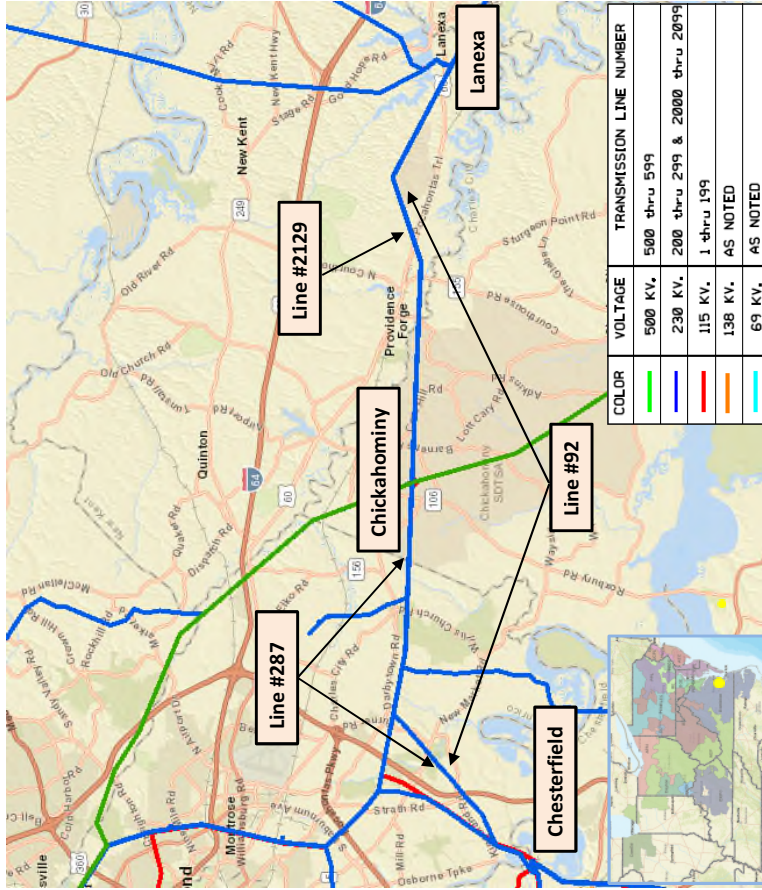
**Specific Assumption References:**

See details on Equipment Material Condition, Performance and Risk in Dominion's Planning Assumptions presented in December 2024.

**Problem Statement:**

Dominion Energy has identified a need to replace the lines between its Chesterfield and Lanexa Substations, based on the Company's End of Life criteria. These include 115 kV Line #92 from Chesterfield to Lanexa (30 miles); 230 kV Line #287 from Chesterfield to Chickahominy (14.6 miles); and Line #2129 from Chickahominy to Lanexa (14.2 miles).

- Lines #92 and #287 lines were constructed on double circuit, 3-pole wood H-frame structures in 1952 and 1966, respectively. Both lines have ACSR conductor and 3/8" steel static.
- Industry guidelines indicate equipment life for steel structures is 40-60 years, wood structures is 35-55 years, conductor and connectors are 40-60 years, and porcelain insulators are 50 years.
- Removal of line pair #92 and #287 and of line pair #92 and #2129 causes a Generator Deliverability violation on line #539 (Ladysmith to Possum Point) and the loss of generation at Providence Forge Substation. Line #92 has direct connected loads at the 115kV tap at Turner substation and at the Providence Forge substation. Additionally, lines #92 and #287 provide outlets for the generation at Chesterfield.



TEAC – Dominion Supplemental 06/05/2025



# Dominion Supplemental Projects

Transmission Expansion Advisory  
Committee  
July 08, 2025



## Solutions

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

# Dominion Transmission Zone: Supplemental Equipment Material Condition, Performance and Risk

**Need Number:** DOM-2025-0026  
**Process Stage:** Solution Meeting 07/08/2025  
**Previously Presented:** Need Meeting 06/05/2025  
**Project Driver:** Equipment Material Condition, Performance Risk

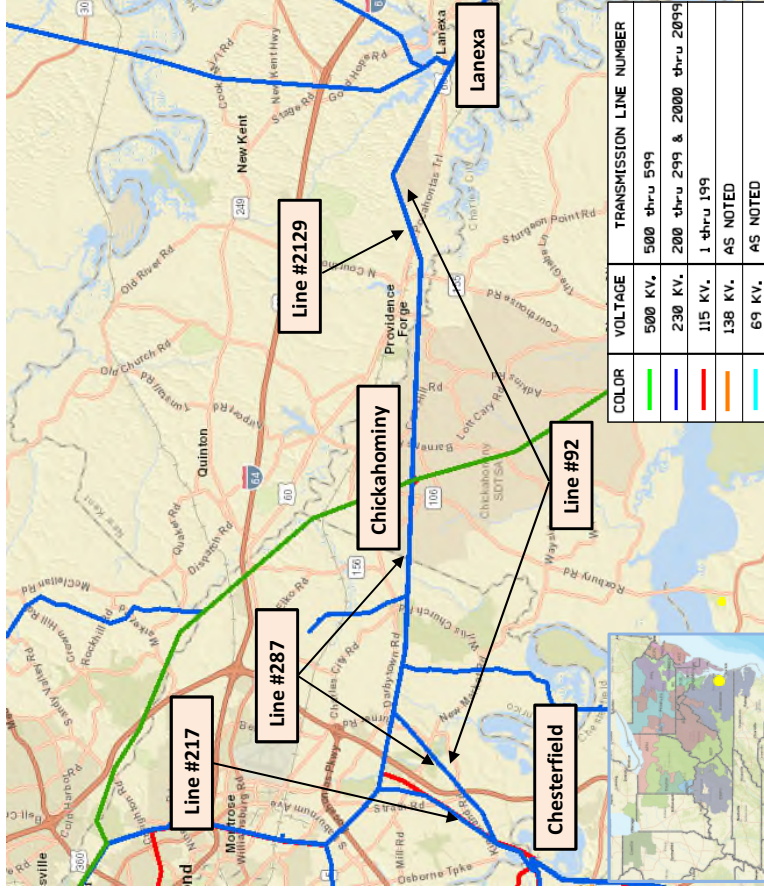
**Specific Assumption References:**

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**Problem Statement:**

Dominion Energy has identified a need to replace the lines between its Chesterfield and Lanexa Substations, based on the Company’s End of Life criteria. These include 115 kV Line #92 from Chesterfield to Lanexa (30 miles); 230 kV Line #287 from Chesterfield to Chickahominy (14.6 miles); and Line #2129 from Chickahominy to Lanexa (14.2 miles).

- Lines #92 and #287 lines were constructed on double circuit, 3-pole wood H-frame structures in 1952 and 1966, respectively. Both lines have ACSR conductor and 3/8” steel static.
- Industry guidelines indicate equipment life for steel structures is 40-60 years, wood structures is 35-55 years, conductor and connectors are 40-60 years, and porcelain insulators are 50 years.
- Removal of line pair #92 and #287 and of line pair #92 and #2129 causes a Generator Deliverability violation on line #539 (Ladysmith to Possum Point) and the loss of generation at Providence Forge Substation. Line #92 has direct connected loads at the 115kV tap at Turner substation and at the Providence Forge substation. Additionally, lines #92 and #287 provide outlets for the generation at Chesterfield.



TEAC – Dominion Supplemental 07/08/2025



## Dominion Transmission Zone: Supplemental Lines #92, #287, and #2129 EOL Rebuild

**Need Number:** DOM-2025-0026

**Process Stage:** Solution Meeting 07/08/2025

**Project Driver:** Equipment Material Condition, Performance Risk

**Proposed Solution:**

Rebuild approximately 30 miles of Line 92 from Chesterfield to Lanexa to current 230kV standards but will operate at 115 kV. Rebuild approximately 14.6 miles Line 287 from Chesterfield to Chickahominy and 14.2 miles Line 2129 from Chickahominy to Lanexa to current 230kV standards. The minimum normal summer rating of this line will be 1573 MVA.

Reconductor approximately 1.5 miles of Line 217 from Chesterfield with minimum summer normal rating of 1573 MVA.

Rebuild approximately 0.66 miles Idle Line I-92 to 230kV standard.

Upgrade all terminal equipment to 4000 Amps for 230kV and 2000Amps for 115kV.

**Estimated Project Cost:** \$54M

Transmission Line: \$51.3M, Substation: \$2.7M

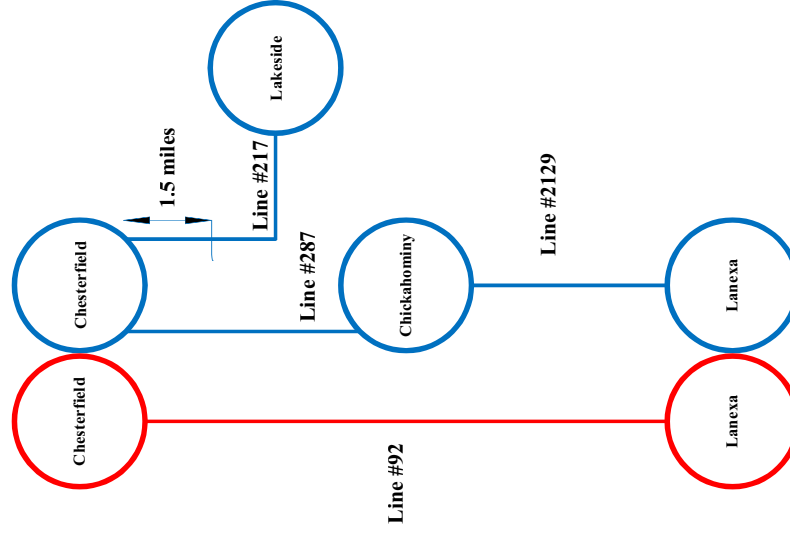
**Alternatives Considered:**

No feasible alternatives, End-of-Life

**Project In-service Date:** 12/31/2028

**Project Status:** Engineering

**Model:** 2029 RTEP



# Appendix



# High level M-3 Meeting Schedule

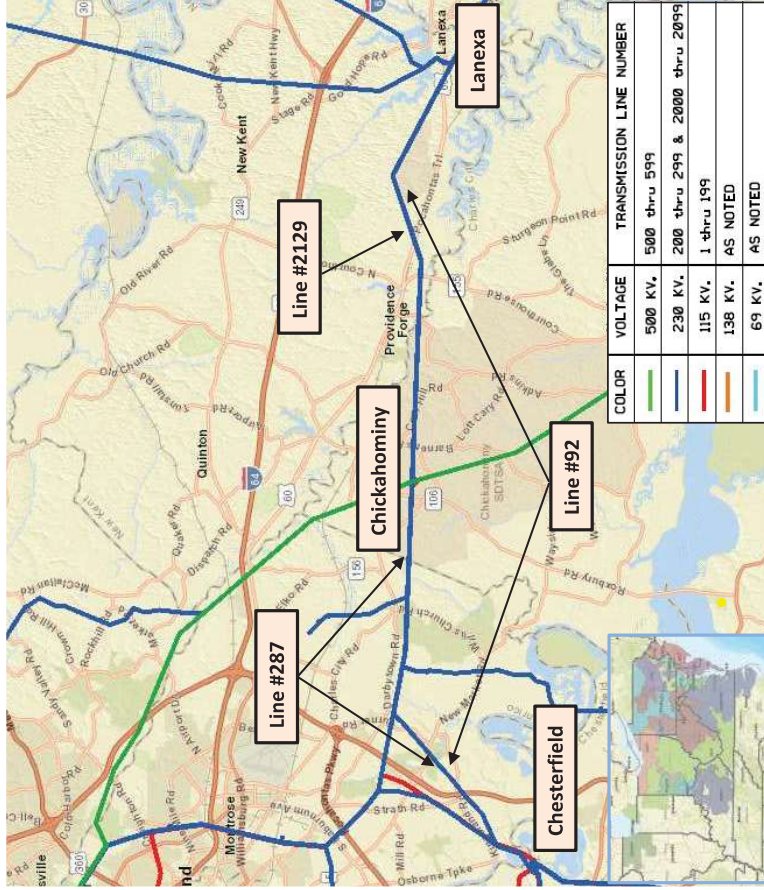
Assumptions	<b>Activity</b>	<b>Timing</b>
	Posting of TO Assumptions Meeting information	20 days before Assumptions Meeting
	Stakeholder comments	10 days after Assumptions Meeting
Needs	<b>Activity</b>	<b>Timing</b>
	TOs and Stakeholders Post Needs Meeting slides	10 days before Needs Meeting
	Stakeholder comments	10 days after Needs Meeting
Solutions	<b>Activity</b>	<b>Timing</b>
	TOs and Stakeholders Post Solutions Meeting slides	10 days before Solutions Meeting
	Stakeholder comments	10 days after Solutions Meeting
Submission of Supplemental Projects & Local Plan	<b>Activity</b>	<b>Timing</b>
	Do No Harm (DNH) analysis for selected solution	Prior to posting selected solution
	Post selected solution(s)	Following completion of DNH analysis
	Stakeholder comments	10 days prior to Local Plan Submission for integration into RTEP
	Local Plan submitted to PJM for integration into RTEP	Following review and consideration of comments received after posting of selected solutions



## Revision History

06/26/2025 – V1 – Original version posted to pjm.com

# Dominion Transmission Zone: Supplemental Customer Load Request



**Need Number:** DOM-2025-0026 **Update**  
**Process Stage:** Solution Meeting 09/09/2025  
**Previously Presented:** Solution Meeting 07/08/2025  
**Project Driver:** Equipment Material Condition, Performance Risk

**Specific Assumption References:**  
 See details on Equipment Material Condition, Performance and Risk in Dominion's Planning Assumptions presented in December 2024.

- Problem Statement:**  
 Dominion Energy has identified a need to replace approximately Line #92 extends 30 miles from Chesterfield to Lanexa; Line #287 extends 14.6 miles from Chesterfield to Chickahominy; and Line #2129 extends 14.2 miles from Chickahominy to Lanexa to new 230kV standards based on the Company's End of Life criteria.
- Lines #92 and #287 lines are constructed on double circuit 3 pole wood H-frame structures in the years 1952 and 1966, respectively. Both lines have ACSR conductor and 3/8" steel static.
  - Industry guidelines indicate equipment life for steel structures is 40-60 years, wood structures is 35-55 years, conductor and connectors are 40-60 years, and porcelain insulators are 50 years.
  - Removal of line pair #92 and #287 and of line pair #92 and #2129 cause a Generator Deliverability violation on line #539 #568 (Ladysmith to Possum Point) and loses the generation at Providence Forge Substation. Line #92 has direct connected loads at the 115kV tap at Turner substation and at the Providence Forge substation justifying the need to rebuild it. Besides, lines #92 and #287 provide outlets for the generation at Chesterfield.

TEAC – Dominion Supplemental 09/09/2025



## Dominion Transmission Zone: Supplemental Equipment Material Condition, Performance and Risk

**Need Number:** DOM-2025-0026 **Update**

**Process Stage:** Solution Meeting 09/09/2025

**Project Driver:** Equipment Material Condition, Performance Risk

**Proposed Solution:**

Rebuild approximately 30 miles of Line 92 from Chesterfield to Lanexa to current 230kV standards but will operate at 115 kV. Rebuild approximately 14.6 miles Line 287 from Chesterfield to Chickahominy and 14.2 miles Line 2129 from Chickahominy to Lanexa to current 230kV standards. The minimum normal summer rating of this line will be 1573 MVA.

Reconductor approximately 1.5 miles of Line 217 from Chesterfield with minimum summer normal rating of 1573 MVA.

Rebuild approximately 0.66 miles Idle Line I-92 to 230kV standard.

Upgrade all terminal equipment to 4000 Amps for 230kV and 2000Amps for 115kV.

**Estimated Project Cost:** ~~\$54M~~ \$160M

Transmission Line: ~~\$51.3M~~ \$157.3M, Substation: \$2.7M

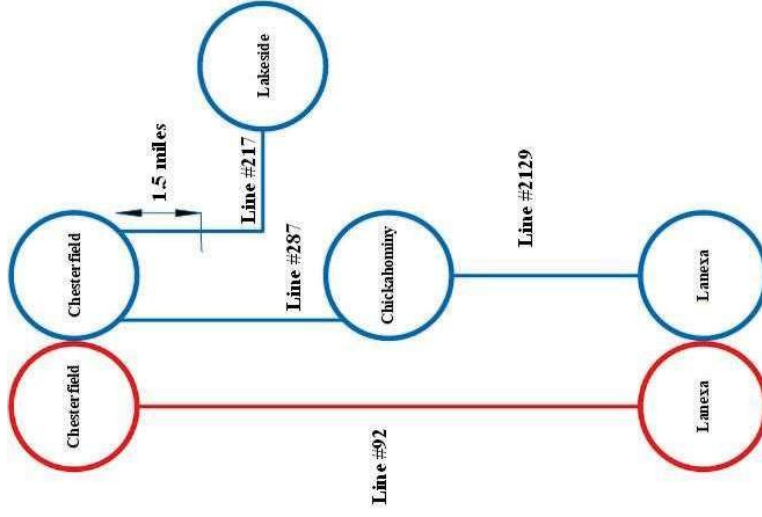
**Alternatives Considered:**

No feasible alternatives, End-of-Life

**Project In-service Date:** 12/31/2028

**Project Status:** Engineering

**Model:** 2029 RTEP



**I. NECESSITY FOR THE PROPOSED PROJECT**

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

Response: Not applicable. The need for the Rebuild Project is not driven by outage history, but rather by the need to replace transmission infrastructure at end of life and address safety concerns by reducing the number of line crossings. 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: The proposed Rebuild Project will replace aging infrastructure on Lines #92, #287, and #2129 that is at the end of its service life.

See Attachment I.L.1 for representative photographs of the deterioration of the wood pole structures supporting Lines #92, #287, and #2129 that have been identified for rebuild. See Attachment I.L.2 for inspection records detailing the condition of those representative structures.

**Woodpecker Damage**

Structure #287/12, I92/2013



Structures #287/72, 92/476



Structures #287/53, 92/495



Structure #287/81, 92/467



Structures #287/64, 92/484



Structure #2129/27, 92/384



**Woodpecker Damage, Continued**

Structure #2129/74, 92/337



**Pole Splitting**

Structure #287/39, 92/509



Structures #287/71, 92/477



Structure #287/61, 92/487



Structures #287/79, 92/469



Structures #287/69, 92/479



Structure #287/97, 92/451



**Pole Splitting, Continued**

Structure #2129/50, 92/361



Structure #2129/73, 92/338



**Loose Cables and Guy Wires**

Structure #287/14, 92/534



Structure #287/86, 92/462



Structures #287/44, 92/504



Structure #287/88, 92/460



Structures #2129/68, 92/480



**Rust**

Structure #287/14, 92/534



Structure #287/26, 92/522



Structures #287/20, 92/528



Structures #287/36, 92/511



Structures #287/23, 92/524



Structures #287/40, 92/508



**Rust, Continued**

Structures #287/64, 92/484



Structure #287/66, 92/482



Structure #287/78, 92/470



**Pole Bending and Other Pole Damage**

Structure #2129/27, 92/384



Structure #2129/103, 92/308



Structure #2129/80, 92/331



Structure #2129/129, 92/282



Reported By	Notification	Description	Component	Cause Code 1	Cause Text 1	Cause Code 2 (Position)	Cause Text 2 (Position)	Picture	Priority	Required End	GPS Latitude	GPS Longitude
PrecisionHawk	4/20/2023										37.3811264	-77.3873444
PrecisionHawk	4/20/2023										37.3827209	-77.3867111
PrecisionHawk	4/20/2023				287.5 Bird Nesting and Contamination						37.3841057	-77.3840027
PrecisionHawk	4/20/2023				287_6 asset tag and poles rusted						37.3856087	-77.3810577
PrecisionHawk	4/20/2023				287_10 static line rusted						37.3871798	-77.3873878
PrecisionHawk	4/20/2023				287_100 nesting						37.3938569	-77.3749161
PrecisionHawk	4/20/2023				287_100 helicopter tag						37.4403114	-77.2336121
PrecisionHawk	4/20/2023				287_100 static line and horizontal cable rusted						37.4403114	-77.2336121
PrecisionHawk	4/20/2023				287_101 nesting						37.4402504	-77.2317657
PrecisionHawk	4/20/2023				287_102 static line and horizontal cable rusted						37.440197	-77.2298005
PrecisionHawk	4/20/2023				287_103 top horizontal cable slightly loose						37.4401474	-77.2283936
PrecisionHawk	4/20/2023				N/A						37.4400482	-77.2254105
PrecisionHawk	4/20/2023				287_105 damaged helicopter tag						37.4398972	-77.2233353
PrecisionHawk	4/20/2023				287_106 nesting						37.4398994	-77.2204971
PrecisionHawk	4/20/2023				287_107 DL right cable and bracket rusted						37.4397621	-77.2162075
PrecisionHawk	4/20/2023				287_108 all phases rusted						37.4396229	-77.2131348
PrecisionHawk	4/20/2023				287_109 nesting						37.4395323	-77.2134321
PrecisionHawk	4/20/2023				287_11 rusted static line						37.4395981	-77.2109528
PrecisionHawk	4/20/2023				287_110 helicopter tag						37.4395981	-77.2109528
PrecisionHawk	4/20/2023				287_110 static line and horizontal cable rusted						37.4395981	-77.2109528
PrecisionHawk	4/20/2023				287_11 rusting all phases						37.4395989	-77.2097931
PrecisionHawk	4/20/2023				287_12 static line and horizontal cable rusted						37.4394988	-77.208657
PrecisionHawk	4/20/2023				287_113 static line and horizontal cable rusted						37.4394988	-77.208657
PrecisionHawk	4/20/2023				287_115 all phases N/A						37.439272	-77.2082669
PrecisionHawk	4/20/2023				287_115 helicopter tag						37.4393168	-77.202034
PrecisionHawk	4/20/2023				287_116 nesting all phases						37.4392509	-77.1998367
PrecisionHawk	4/20/2023				N/A						37.4391899	-77.1981125
PrecisionHawk	4/20/2023				287_118 bird damage DL right pole						37.4391327	-77.1981899
PrecisionHawk	4/20/2023				287_12 all phases and saddles rusted						37.4390717	-77.194397
PrecisionHawk	4/20/2023				287_12 DL right pole has bird damage						37.3971634	-77.3735199
PrecisionHawk	4/20/2023				287_12 DL left static line rusted						37.3971634	-77.3735199
PrecisionHawk	4/20/2023				287_121 nesting all phases						37.4390335	-77.1930542
PrecisionHawk	4/20/2023				287_122 nesting all phases and components						37.4389725	-77.1912308
PrecisionHawk	4/20/2023				N/A						37.4389038	-77.1869496
PrecisionHawk	4/20/2023				287_124 static line rusted						37.4388568	-77.1874237
PrecisionHawk	4/20/2023				287_124 bird damage						37.4388084	-77.1859741
PrecisionHawk	4/20/2023				287_125 nesting all phases						37.4387283	-77.1835661
PrecisionHawk	4/20/2023				287_125 helicopter tag						37.4387283	-77.1835661
PrecisionHawk	4/20/2023				287_126 static line and horizontal cable rusted						37.4386635	-77.1815262
PrecisionHawk	4/20/2023				287_127 nesting all phases						37.4386215	-77.1801987
PrecisionHawk	4/20/2023				N/A						37.4385872	-77.1791153
PrecisionHawk	4/20/2023				287_129 nesting all phases and components						37.4385185	-77.1770477
PrecisionHawk	4/20/2023				287_13 all phases rusted						37.4382897	-77.3729248
PrecisionHawk	4/20/2023				287_130 rusting all phases						37.4382897	-77.3729248
PrecisionHawk	4/20/2023				287_131 helicopter tag						37.4381713	-77.1751148
PrecisionHawk	4/20/2023				287_131 rusting on all phases						37.4381713	-77.1751148
PrecisionHawk	4/20/2023				287_132 rusted static line components						37.4381455	-77.1734487
PrecisionHawk	4/20/2023				287_132 rusted static line components						37.4383507	-77.1716232
PrecisionHawk	4/20/2023				287_133 loose horizontal cable						37.4383507	-77.1716232
PrecisionHawk	4/20/2023				287_133 damaged asset tag						37.4382782	-77.1695786
PrecisionHawk	4/20/2023				287_133 DL right poles splitting						37.4382782	-77.1695786
PrecisionHawk	4/20/2023				287_134 rusting all phases						37.4382782	-77.1695786
PrecisionHawk	4/20/2023				287_134 rusting all phases						37.4382248	-77.1675491
PrecisionHawk	4/20/2023				287_135 damaged asset tag						37.4381714	-77.1657562
PrecisionHawk	4/20/2023				287_135 nesting all phases						37.4381714	-77.1657562
PrecisionHawk	4/20/2023				287_135 helicopter tag						37.4381714	-77.1657562
PrecisionHawk	4/20/2023				287_136 nesting all components and phases						37.438076	-77.1631546
PrecisionHawk	4/20/2023				287_137 vegetation encroachment						37.4378967	-77.1613988
PrecisionHawk	4/20/2023				287_137A asset tag						37.4378967	-77.1613988
PrecisionHawk	4/20/2023				287_14 DL left PHS rusted						37.437664	-77.1605377
PrecisionHawk	4/20/2023				287_14 DL left PHS rusted						37.3985901	-77.1595764
PrecisionHawk	4/20/2023				287_14 loose guy wire						37.3985901	-77.1595764
PrecisionHawk	4/20/2023				287_14 top support cable and static line rusted						37.3985901	-77.1595764
PrecisionHawk	4/20/2023				287_15 all components rusted						37.3985901	-77.1595764
PrecisionHawk	4/20/2023				287_16 all phases rusted						37.3986686	-77.3712311
PrecisionHawk	4/20/2023				287_16 all components rusted						37.3986686	-77.3712311
PrecisionHawk	4/20/2023				287_17 left and right static rusted						37.3997307	-77.3692093
PrecisionHawk	4/20/2023				287_17 left and right static rusted						37.3997307	-77.3692093
PrecisionHawk	4/20/2023				287_18 all phases rusted						37.4002724	-77.367216
PrecisionHawk	4/20/2023				287_18 left and right static line rusted						37.4002724	-77.367216
PrecisionHawk	4/20/2023				287_19 both static lines rusted						37.4008408	-77.3661346
PrecisionHawk	4/20/2023				287_20 helicopter tag						37.401824	-77.3646469
PrecisionHawk	4/20/2023				287_20 rust and discoloration on all parts						37.401824	-77.3646469
PrecisionHawk	4/20/2023				287_21 rust and discoloration on all parts						37.4020293	-77.3628693
PrecisionHawk	4/20/2023				287_22 all components rusted						37.4020293	-77.3628693
PrecisionHawk	4/20/2023				287_22 all components rusted						37.4025955	-77.3612871
PrecisionHawk	4/20/2023				287_22 all components rusted						37.4032669	-77.3594131





Reported By	Notification Date	Transmission Line/Struc	Description	Component	Cause Code 1	Cause Text 1	Cause Code 2 (Position)	Cause Text 2 (Position)	Picture	Priority	Required End	GPS Latitude	GPS Longitude
HeloAir	5/27/2021	2129/11	Conductor		SC13	static bonding loose			<a href="#">P0990099.jpg</a>			37.4373436	-77.1397858
HeloAir	3/25/2021	2129/19	Conductor		SC13	static leaning			<a href="#">DJI_0240.jpg</a>			37.4368858	-77.1251755
HeloAir	3/25/2021	2129/19	Conductor		SC13	static leaning			<a href="#">DJI_0239.jpg</a>			37.4368858	-77.1251755
HeloAir	3/25/2021	2129/24	Insulator		IC10	insulator hook facing outward	IC01	top phase	<a href="#">DJI_0232.jpg</a>			37.4365349	-77.1144257
HeloAir	3/25/2021	2129/25	Structure		PL19	woodpecker damage	PL01	right pole	<a href="#">DJI_0233.jpg</a>			37.4364243	-77.1109848
HeloAir	3/25/2021	2129/26	Insulator		IC10	insulator hook facing outward	IC01	right phase	<a href="#">DJI_0236.jpg</a>			37.4363594	-77.1090012
HeloAir	3/25/2021	2129/27	Structure		PL19	woodpecker damage	PL01	middle pole mid section	<a href="#">DJI_0229.jpg</a>			37.4362984	-77.1070862
HeloAir	3/25/2021	2129/27	Structure		PL19	woodpecker damage	PL01	middle pole top	<a href="#">DJI_0230.jpg</a>			37.4362984	-77.1070862
HeloAir	3/25/2021	2129/27	Structure		PL12	pole bending	PL01	at woodpecker damage	<a href="#">DJI_0235.jpg</a>			37.4362984	-77.1070862
HeloAir	3/23/2021	2129/44	Structure		PL20	pole in standing water			<a href="#">DJI_0225.jpg</a>			37.4351044	-77.0718918
HeloAir	3/23/2021	2129/45	Structure		PL20	pole in standing water			<a href="#">DJI_0224.jpg</a>			37.4350815	-77.0699005
HeloAir	3/23/2021	2129/47	Structure		PL20	pole in standing water			<a href="#">DJI_0223.jpg</a>			37.4349594	-77.0662384
HeloAir	3/23/2021	2129/50	Structure		PL15	pole split	PL01	right ascending	<a href="#">DJI_0221.jpg</a>			37.4347878	-77.0611038
HeloAir	3/23/2021	2129/51	Conductor		CD13	armor rod missing	CD01	all phases	<a href="#">DJI_0222.jpg</a>			37.4347343	-77.0593109
HeloAir	3/23/2021	2129/62	Insulator		IC02	broken insulator	IC01	middle phase	<a href="#">DJI_0219.jpg</a>			37.4340935	-77.0398178
HeloAir	3/23/2021	2129/68	Structure		GY07	slack guy wire			<a href="#">DJI_0218.jpg</a>			37.4337463	-77.0292892
HeloAir	3/22/2021	2129/72	Structure		PL15	pole damage	PL01	left	<a href="#">DJI_0210.jpg</a>			37.4350777	-77.022583
HeloAir	3/22/2021	2129/73	Structure		PL15	pole split			<a href="#">DJI_0211.jpg</a>			37.4355965	-77.020668
HeloAir	3/22/2021	2129/74	Structure		PL20	metal splint	PL01	middle pole	<a href="#">DJI_0213.jpg</a>			37.4360466	-77.0189514
HeloAir	3/22/2021	2129/74	Structure		PL19	woodpecker damage			<a href="#">DJI_0212.jpg</a>			37.4360466	-77.0189514
HeloAir	3/22/2021	2129/80	Structure		PL15	pole damage	PL01	middle	<a href="#">DJI_0208.jpg</a>			37.4387817	-77.0087891
HeloAir	3/22/2021	2129/80	Structure		PL15	pole damage	PL01	right	<a href="#">DJI_0207.jpg</a>			37.4387817	-77.0087891
HeloAir	3/22/2021	2129/92	Structure		SC13	leaning static			<a href="#">DJI_0203.jpg</a>			37.44442596	-76.9888881
HeloAir	3/22/2021	2129/97	Structure		SC13	leaning static			<a href="#">DJI_0204.jpg</a>			37.4465714	-76.9797668
HeloAir	3/12/2021	2129/101	Structure		PL05	X crossing sign	PL01	on ground	<a href="#">DJI_0198.jpg</a>			37.4458504	-76.9746704
HeloAir	44267	2129/101	Insulator		IC04	insulator flashed	IC01	middle phase	<a href="#">DJI_0195.jpg</a>			37.4458504	-76.9746704
HeloAir	44267	2129/103	Structure		PL15	pole damage	PL01	left ascending	<a href="#">DJI_0195.jpg</a>			37.4444618	-76.9713516
HeloAir	44266	2129/121	Structure		PL19	damage WP and split	PL01	middle pole	<a href="#">DJI_0184.jpg</a>			37.4321899	-76.9421463
HeloAir	44264	2129/129	Structure		PL15	pole damage	PL01	center	<a href="#">DJI_0180.jpg</a>			37.4254723	-76.9261627
HeloAir	44264	2129/129	Structure		PL15	pole damage	PL01	center	<a href="#">DJI_0179.jpg</a>			37.4254723	-76.9261627

**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: Not applicable.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way (“ROW”)

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

Response: The total length of the existing Rebuild Project transmission corridor is approximately 28.2 miles between the start of the rebuild activity on the east side of the James River and Lanexa Substation. The right-of-way is in the Commonwealth of Virginia within Henrico, Charles City, and New Kent Counties.

No alternative routes are proposed for the Rebuild Project. See Section II.A.9 of the Appendix for an explanation of the Company’s route selection process.

The Company will secure an additional approximately 1.68-acre of right-of-way near the Chickahominy Substation to re-route the underground portion of Line #92 aboveground. The existing underground right-of-way and Company owned substation property does not provide enough space for re-rerouting Line #92 aboveground in this area. The Rebuild Project has been designed to minimize the amount of additional right-of-way that will be required in this area, which is limited to one property owner near the Chickahominy Substation – New Lexington Energy Storage LLC. The Company considered removing and replacing the underground portion of Line #92, which would not require any additional right-of-way near the Chickahominy Substation. However, this option would cost significantly more than removing and re-routing the underground portion of Line #92 aboveground, as discussed in Section II.A.9, which necessitates the 1.68-acre right-of-way.

## 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, which includes existing linear utilities paralleled by the existing transmission line corridor.

The Rebuild Project is located primarily within existing transmission line right-of-way or on Company-owned property. The Company will secure a new 1.68-acre right-of-way to re-route the underground portion of Line #92 around Chickahominy Substation aboveground. 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 Rebuild Project Application.

**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

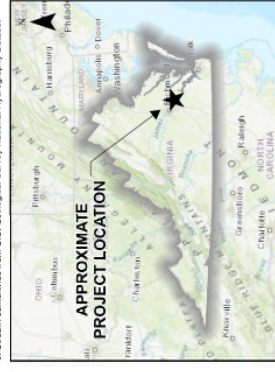
Client:  
Dominion Energy Virginia  
C2 Env Project: KAS  
Prepared By: KAS  
Date: 7/29/25

Scale is 1" = 3.33 miles when printed at original size of 11x17

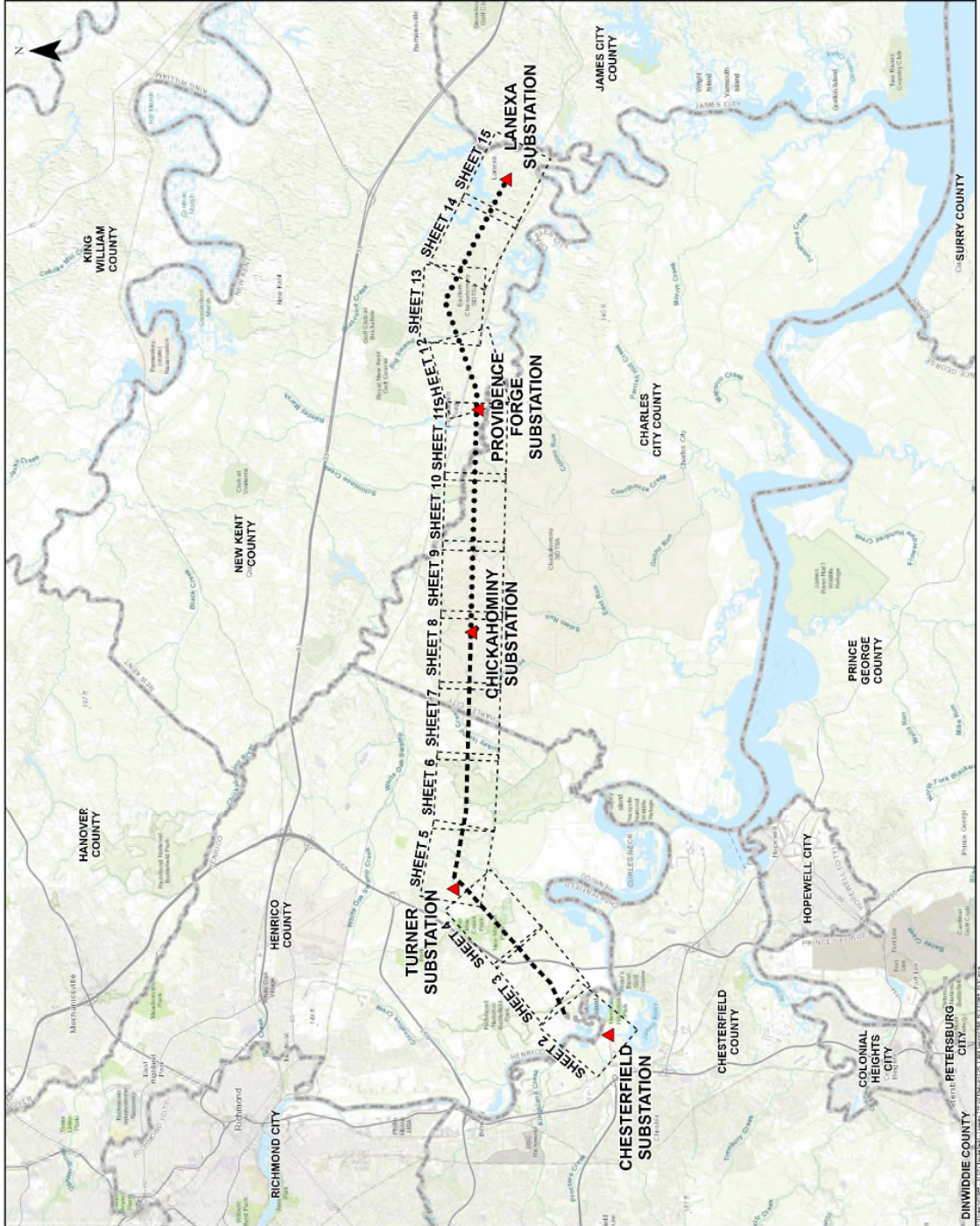
**SITE DATA**

- Partial Rebuild of Lines #287 and #217
- Partial Rebuild of Lines #92 and #92
- Partial Rebuild of Lines #92 and #287
- Partial Rebuild of Lines #92 and #2129
- Existing Substation
- Map Sheet

- Notes:
1. Borrowing from EIRB World Topographic Map
  2. Conservation lands, easements, and local lands from Virginia Department of Conservation and Recreation, U.S. Geological Survey Protected Areas Database of America, and Department of Historic Resources' Virginia Cultural Resources Information System
  3. Parcels from Henrico County Department of Public Works, PaveRIA or digitized
  4. Railroads from Virginia Geographic Information Network
  5. Stream centerlines from U.S. Geological Survey National Hydrography Dataset

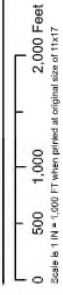


SHEET 1 OF 15



**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**  
Chesterfield - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

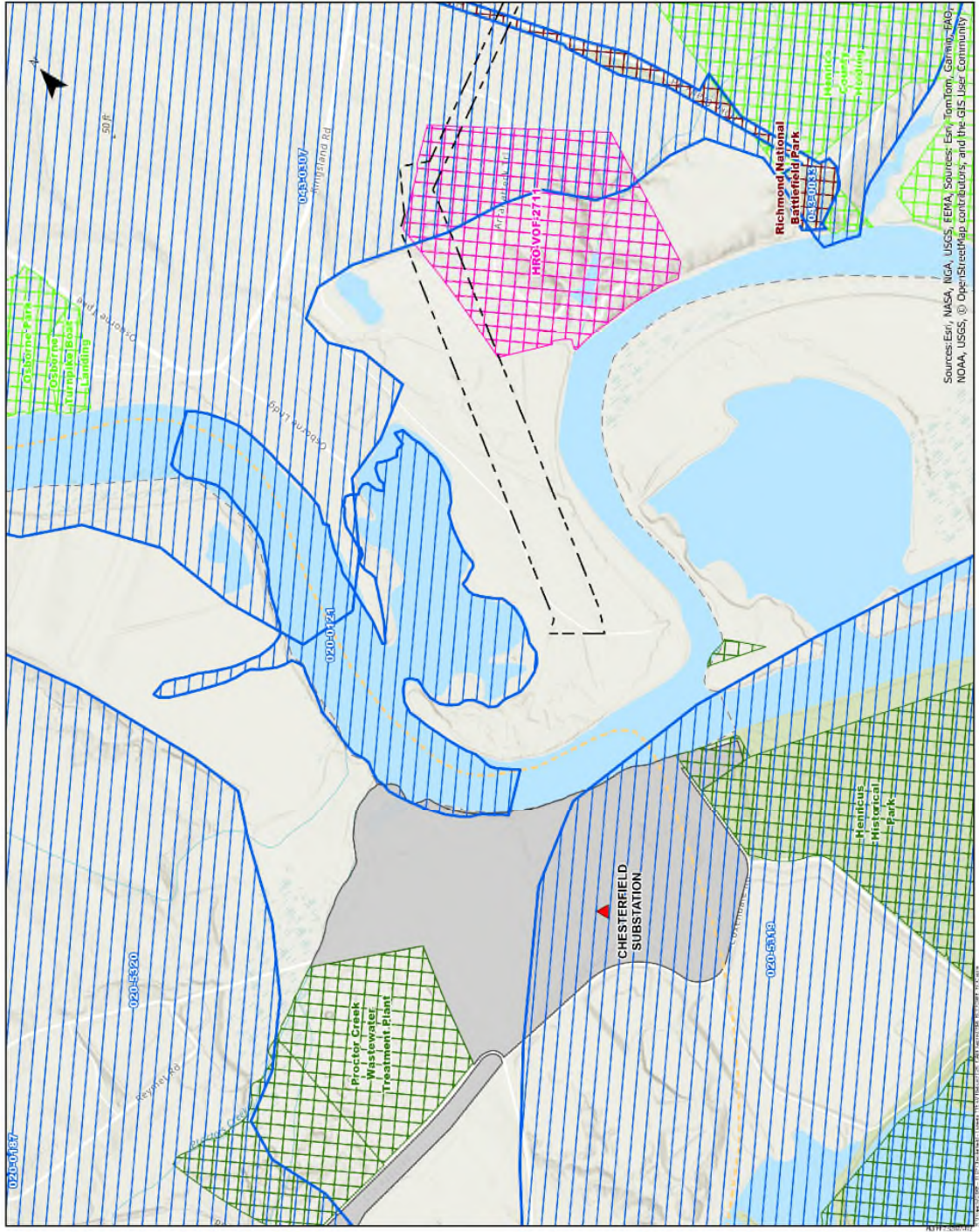
Client: Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25



- Proposed Project Area
- Existing Substation
- Dominion Station Parcel
- Overseerfield County Owned Land
- Henrico County Owned Land
- James City County Owned Land
- New Kent County Owned Land
- Virginia Department of Historic Resources Easement
- Federally Owned Land
- State Owned Land
- Private Conservation Land
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- National Park Service Administrative Boundary (Not Federally Owned)
- Existing Dominion Easement
- Proposed Dominion Easement
- Listed, Eligible or Potentially Eligible VCRIS Architecture Resource
- School
- Church
- Cemetery
- US Bic Route 76
- Virginia Capital Trail
- Captain John Smith Chesapeake National Historic Trail
- Future New Market Heights Trail



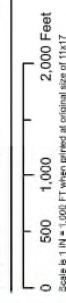
SHEET 2 OF 15



Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, Esri, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community

**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**  
Chesterfield - Lanexa Corridor  
Lines #92, #17, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

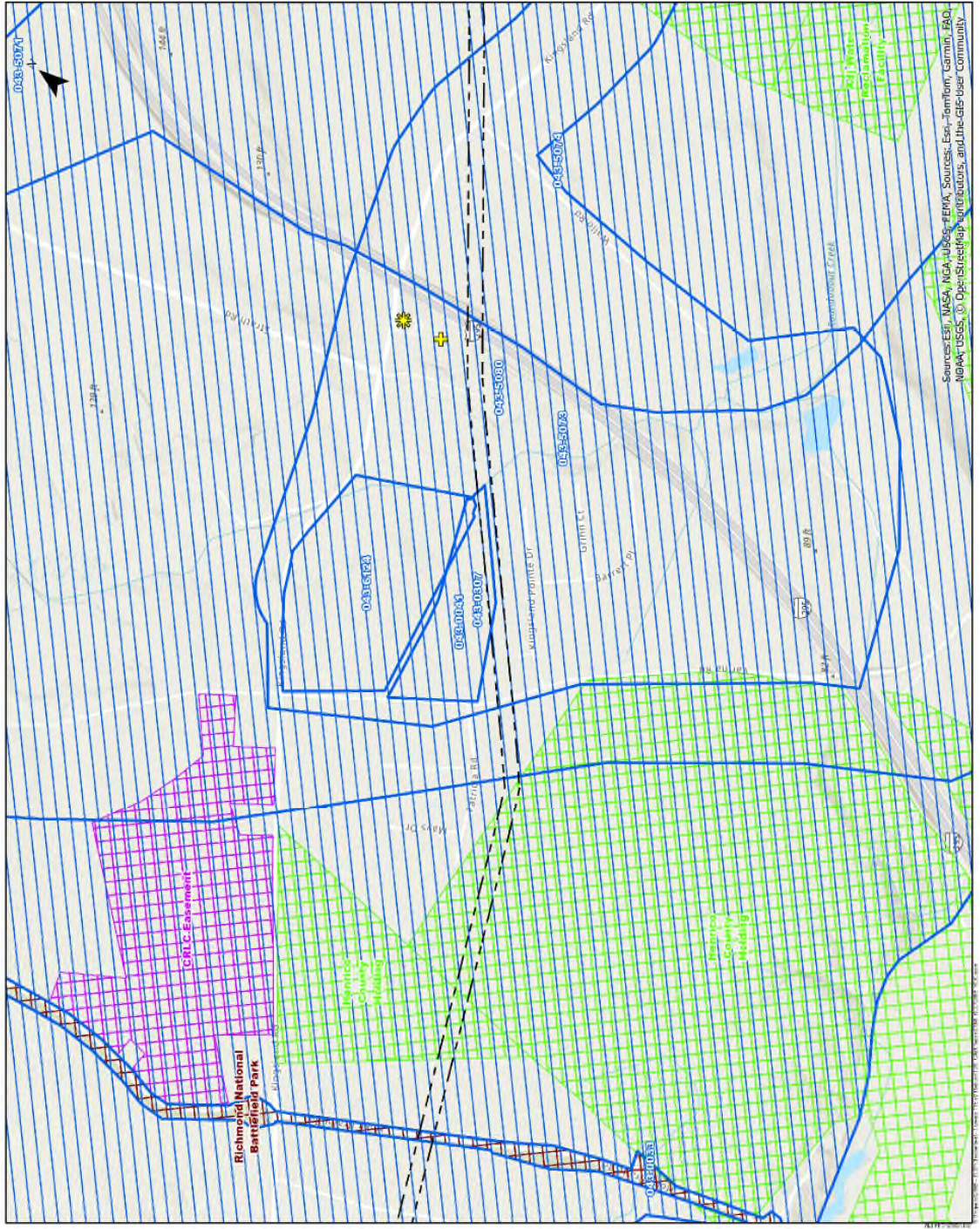
Client: Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25



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SHEET 3 OF 15

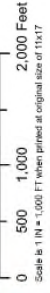


Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, US OpenStreetMap contributors, and the GIS User Community

**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #17, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

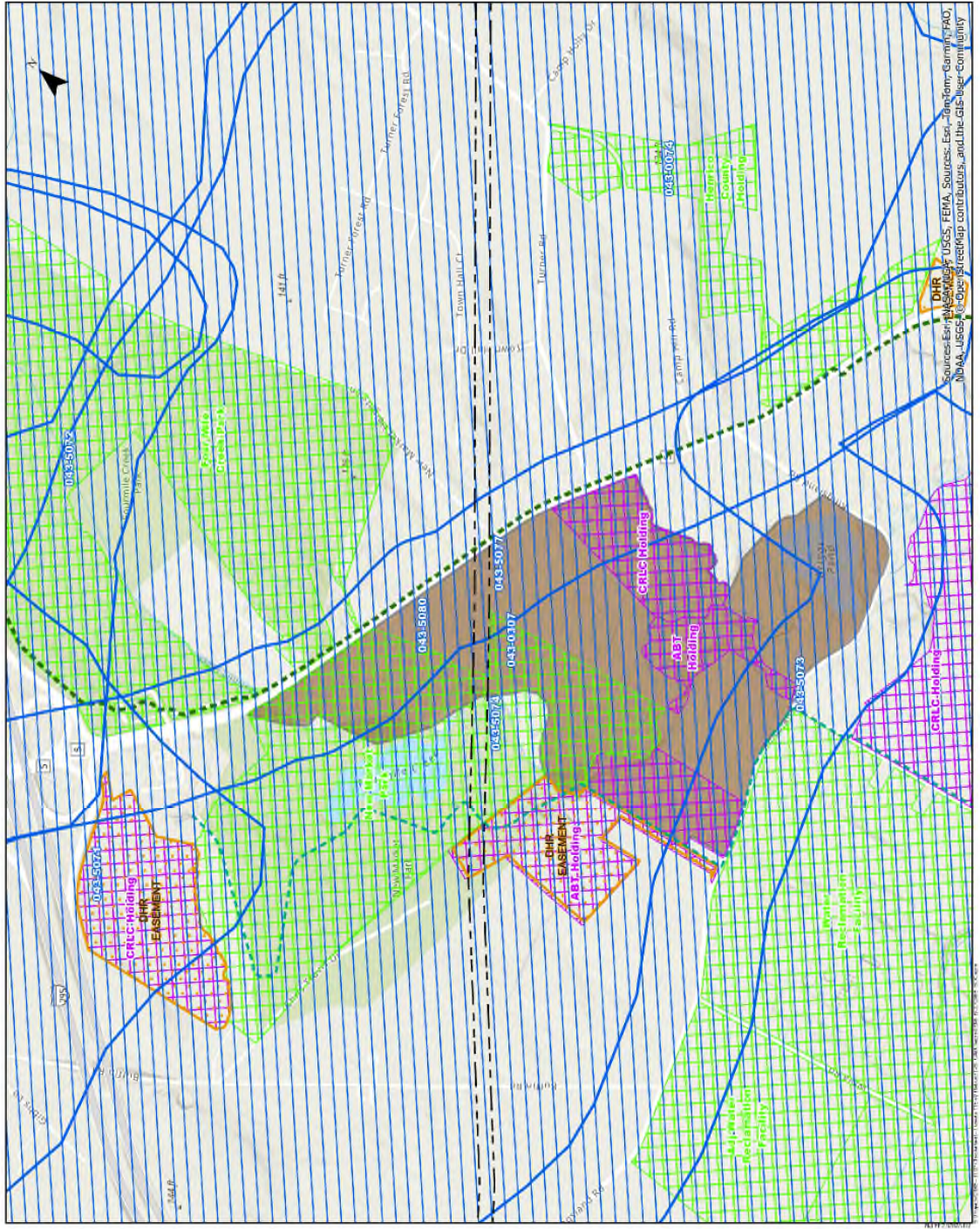
Client:  
Dominion Energy Virginia  
C2 Env Project:  
0368  
Prepared By:  
KAS  
Date:  
7/29/25



- Proposed Project Area
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SHEET 4 OF 15



**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**  
Chesterfield - Lanexa Corridor  
Lines #92, #17, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

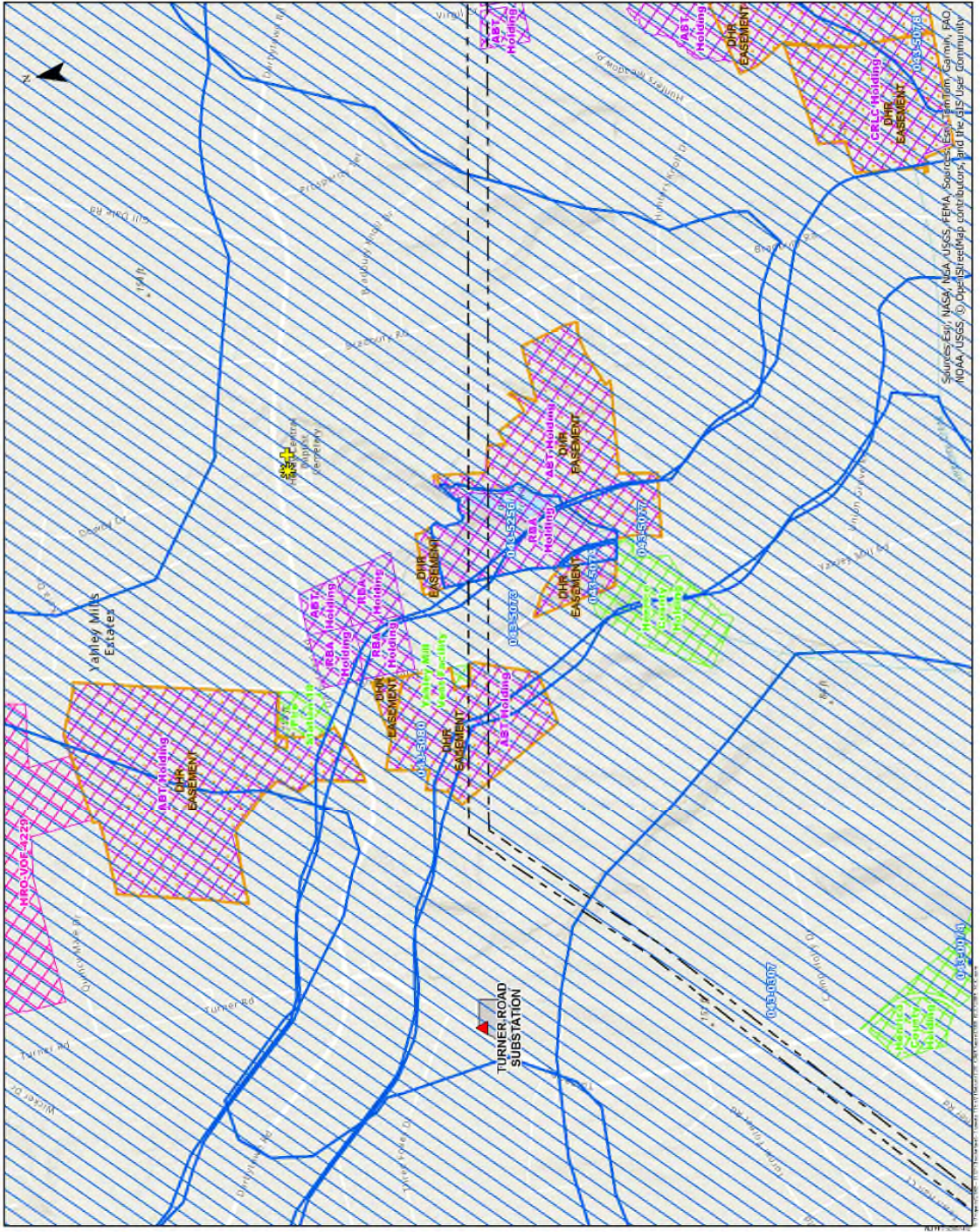
Client: Dominion Energy Virginia  
C2 Env Project: KCS  
Prepared By: KCS  
Date: 7/29/25



- Proposed Project Area
- Existing Substation
- Dominion Station Parcel
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SHEET 5 OF 15



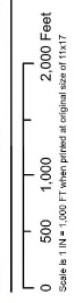
Sources: Esri, NASA, NSA, USGS, FEMA, Source: Esri, Garmin, Geo  
NOAA, USGS, OpenStreetMap contributors, and the GIS User Community



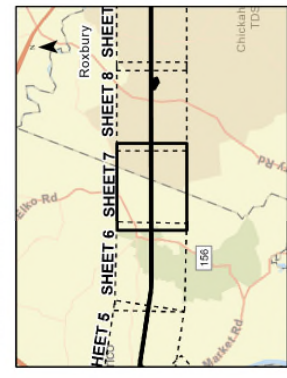
**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #17, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

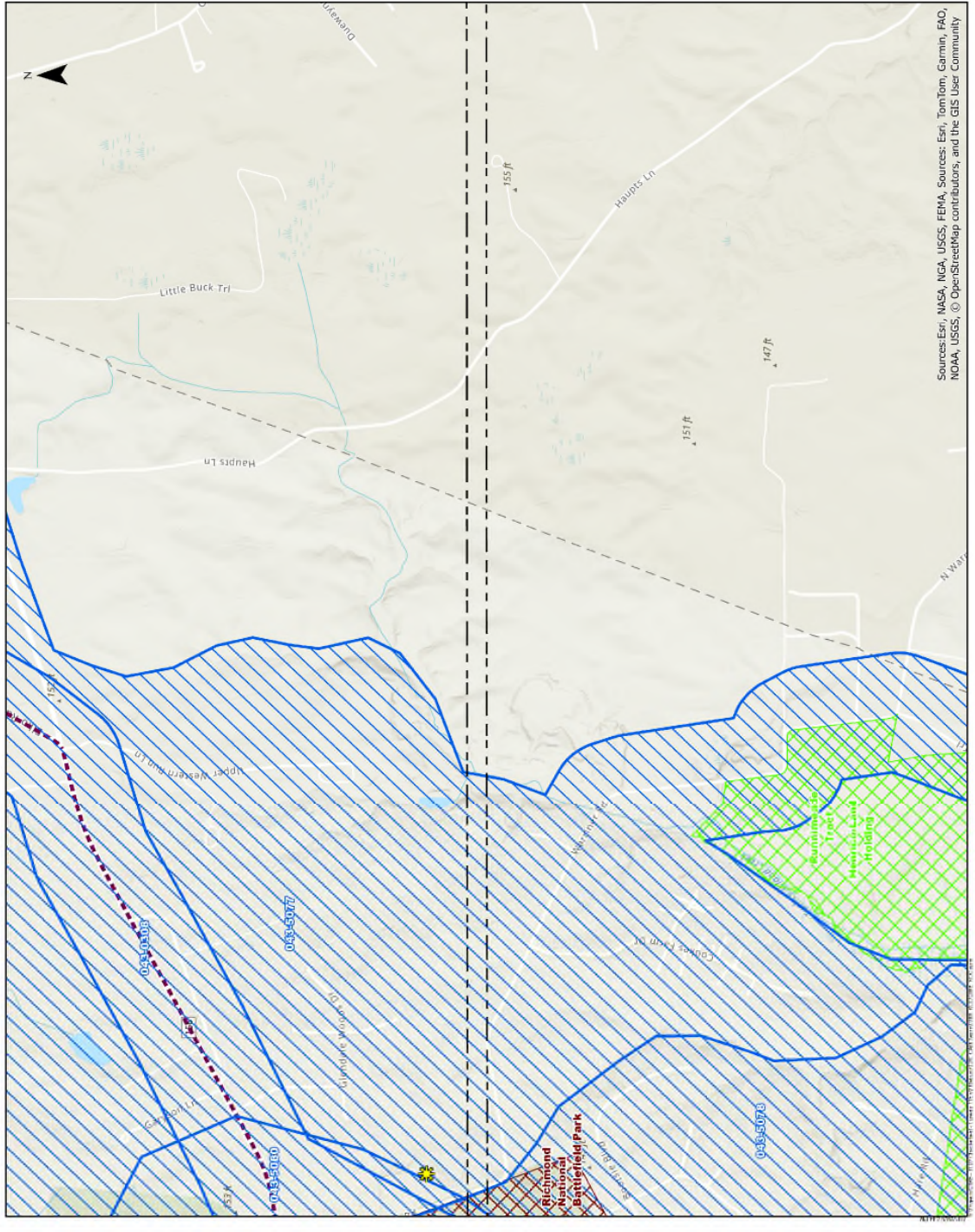
Client:  
Dominion Energy Virginia  
C2 Env Project:  
0368  
Prepared By:  
KAS  
Date:  
7/29/25



- Proposed Project Area
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SHEET 7 OF 15



Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

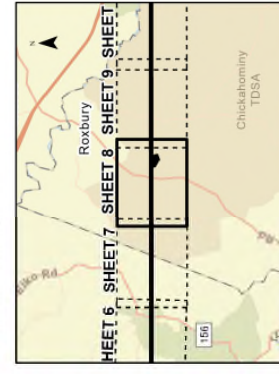
**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #17, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

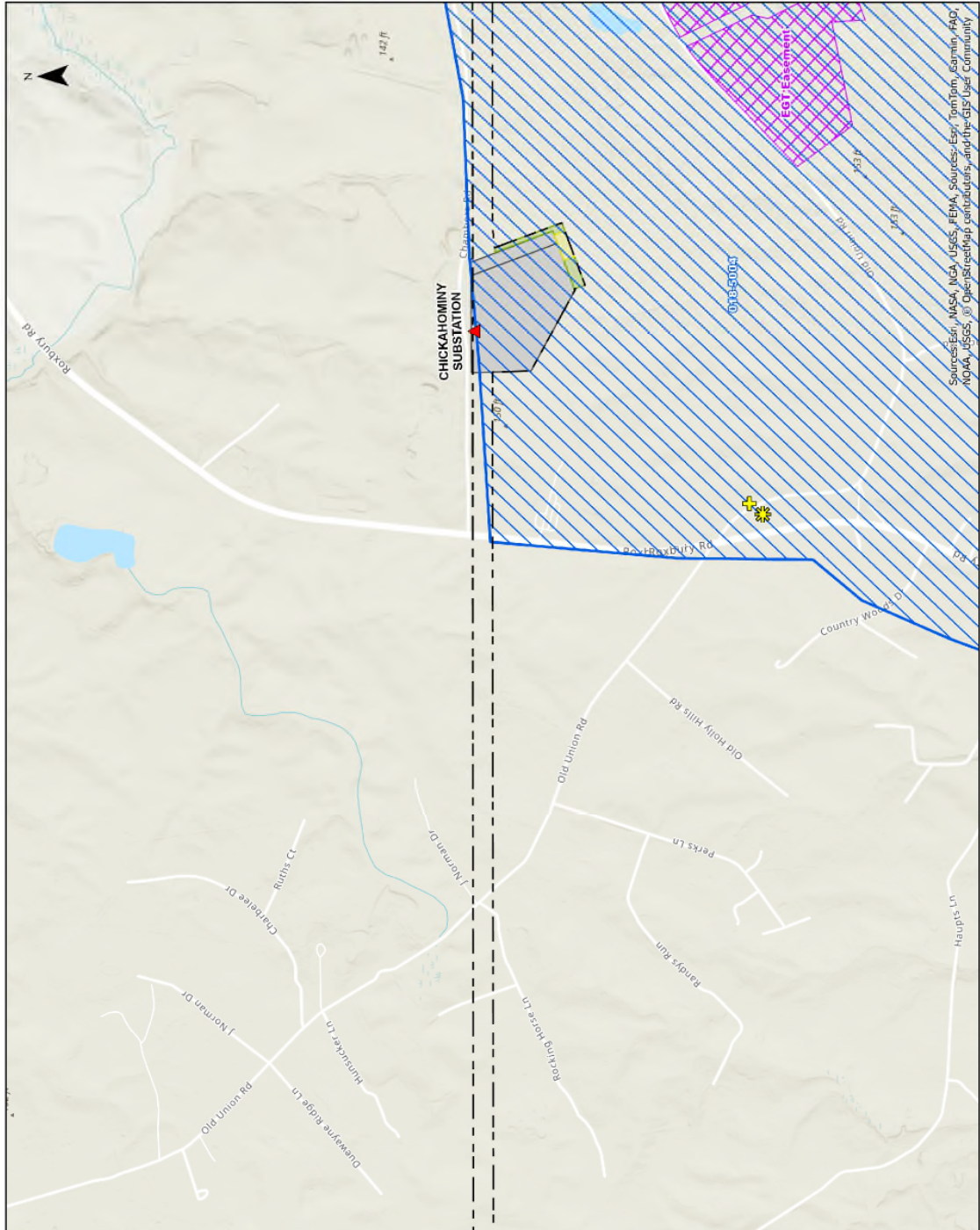
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Dominion Energy Virginia  
C2 Env Project:  
0368  
Prepared By:  
KAS  
Date:  
7/29/25



- Proposed Project Area
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SHEET 8 OF 15

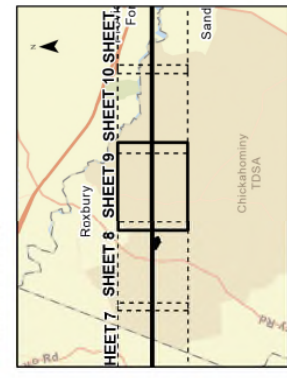


**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**  
Chesterfield - Lanexa Corridor  
Lines #92, #127, #287, and #1219 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

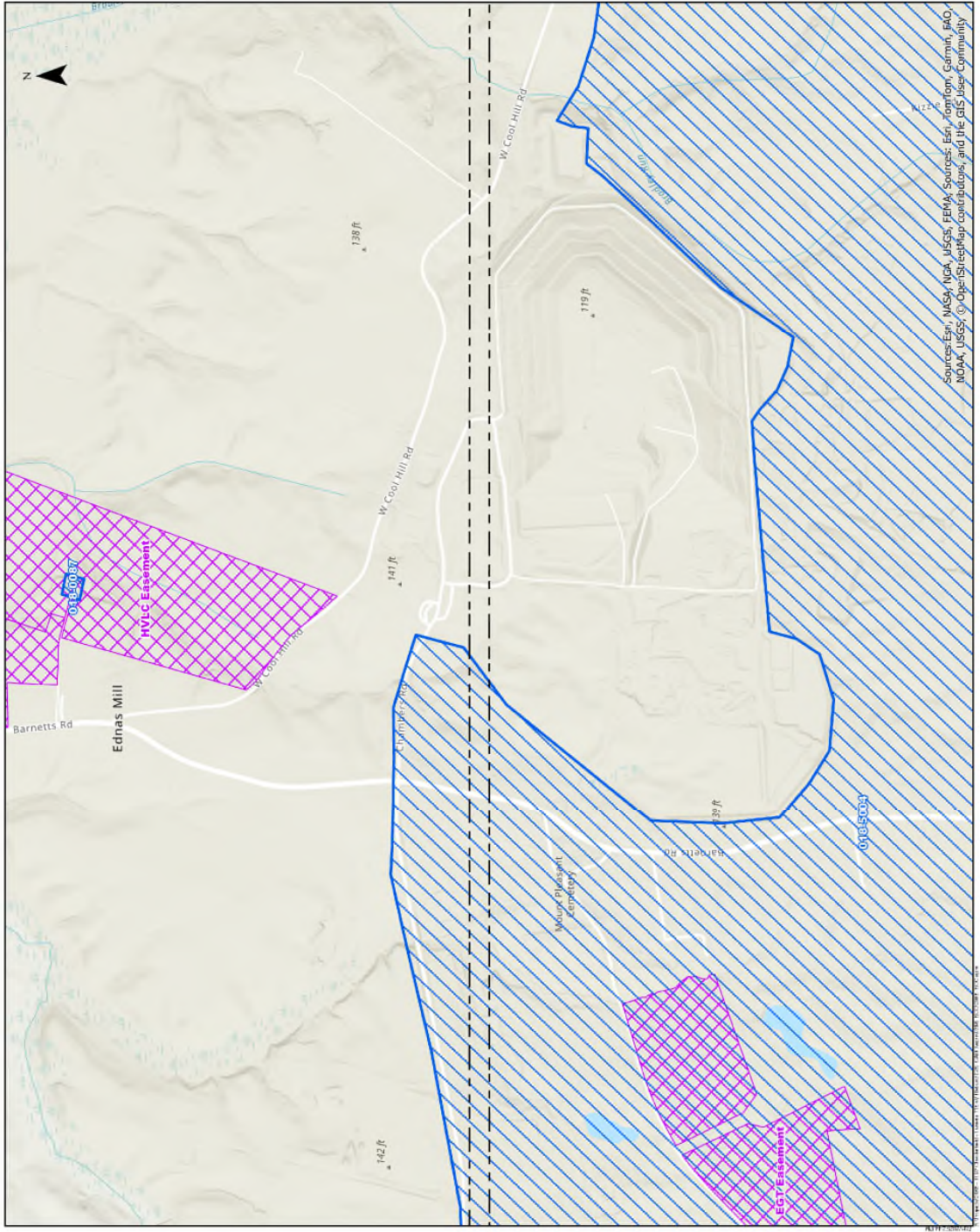
Client:  
Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25



- Proposed Project Area
- Existing Substation
- Dominion Station Parcel
- Chesapeake County Owned Land
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SHEET 9 OF 15



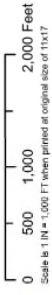
**ATTACHMENT II.A.2**

**ENVIRONMENTAL CONSTRAINTS MAP**

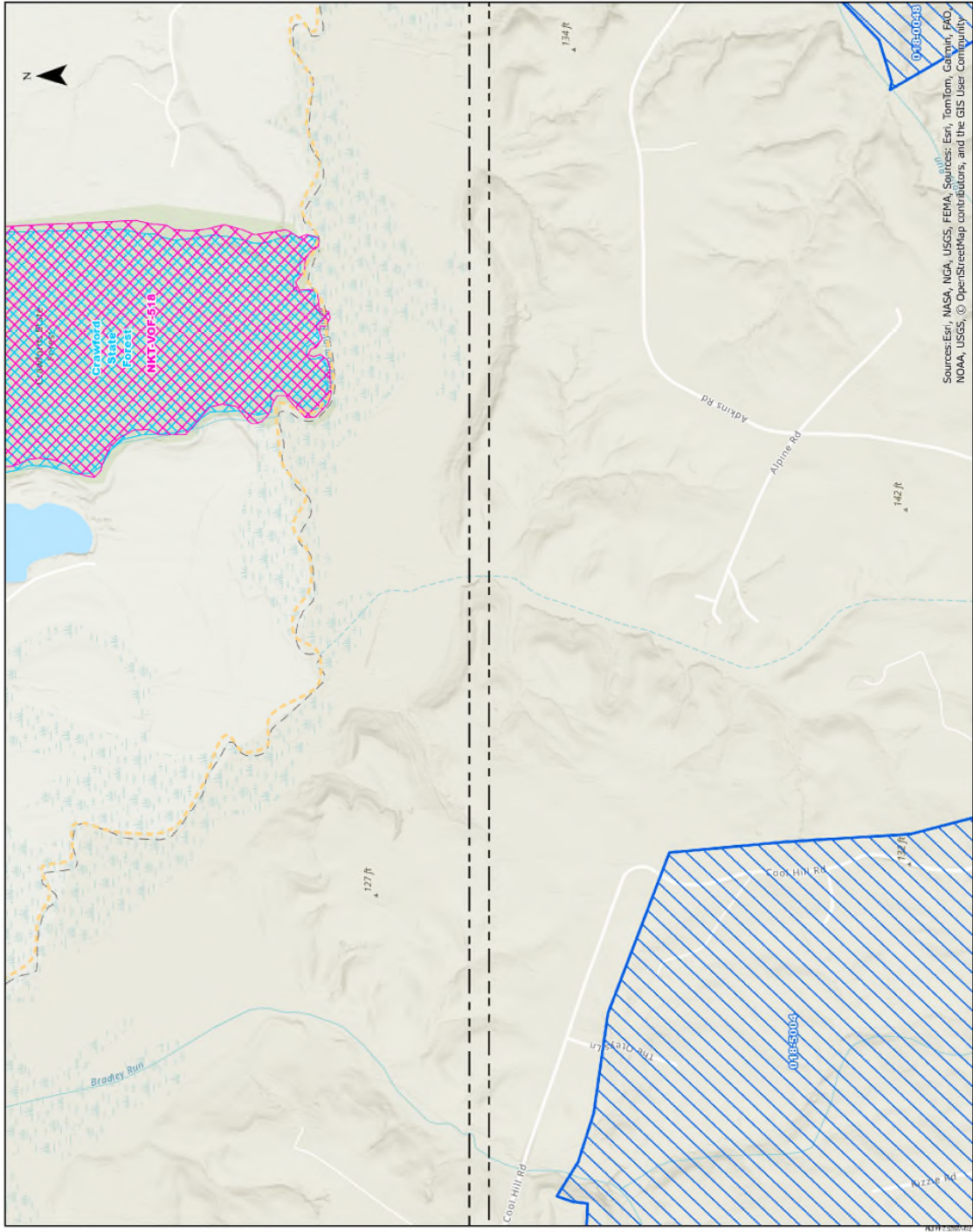
Chesterfield - Lanexa Corridor  
 Lines #92, #127, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent  
 Counties, Virginia

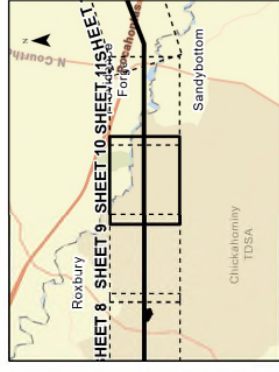
Client:  
 Dominion Energy Virginia  
 C2 Env Project: K4S  
 Prepared By: K4S  
 Date: 7/29/25



- Proposed Project Area
- Existing Substation
- Dominion Station Parcel
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Sources: Esri, NASA, NGA, USGS, FEMA, Swirex: Esri, TomTom, Garmin, FDO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

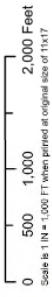


SHEET 10 OF 15

**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #192, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

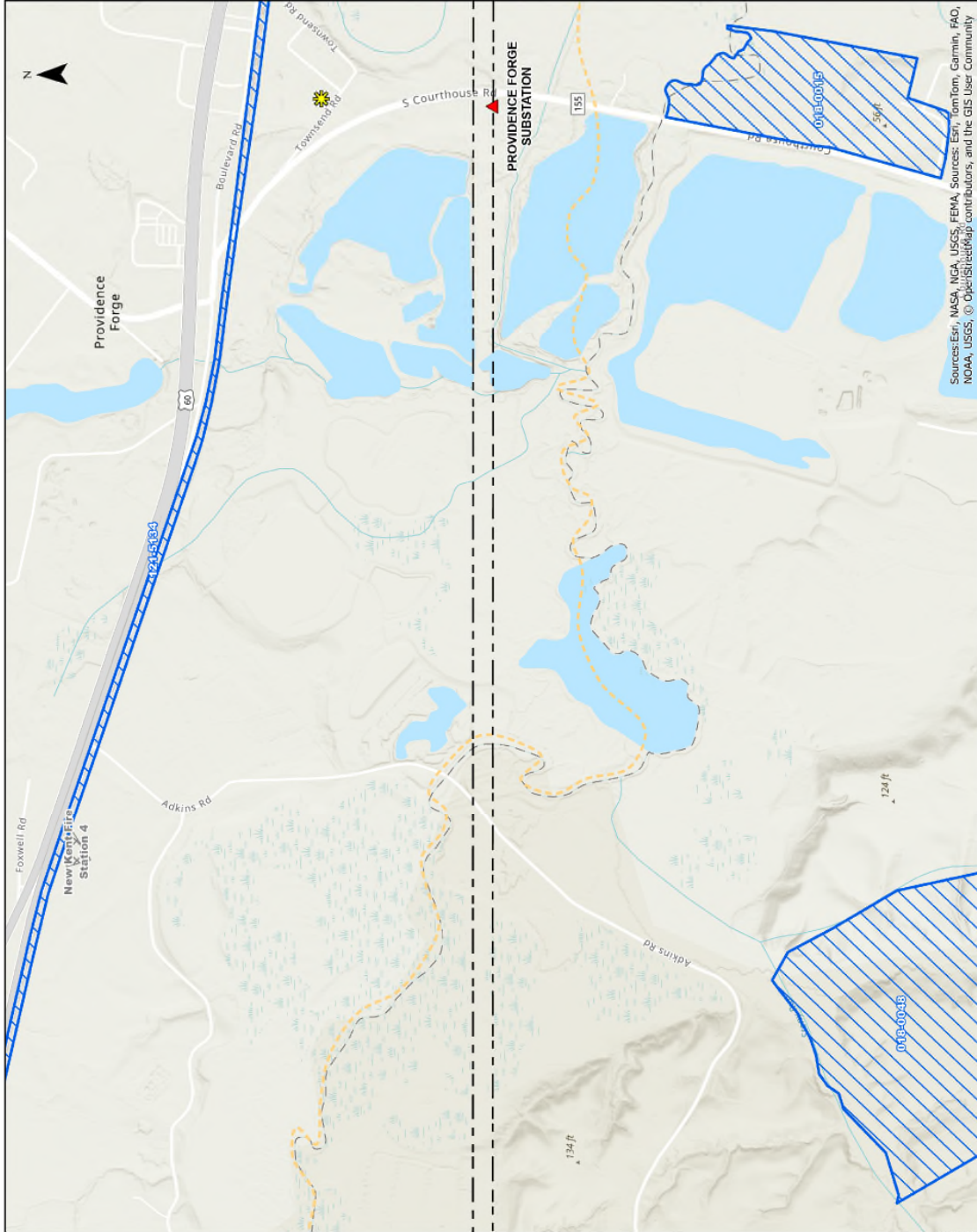
Client:  
Dominion Energy Virginia  
C2 Env Project:  
K4S  
Prepared By:  
K4S  
Date:  
7/29/25



- Proposed Project Area
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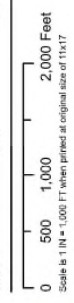
SHEET 11 OF 15



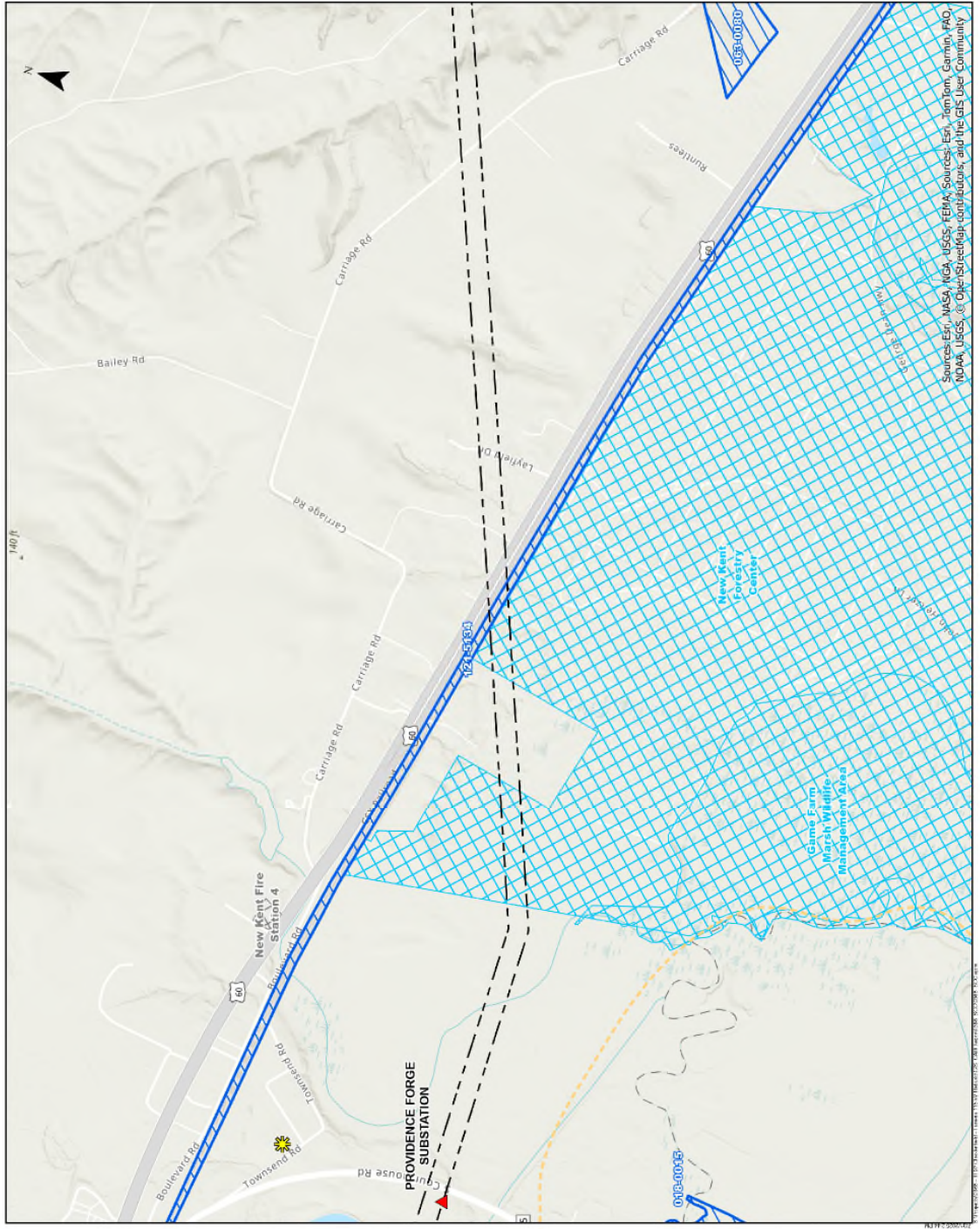
Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**  
Chestertown - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client: Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25



- Proposed Project Area
- Existing Substation
- Dominion Station Parcel
- Overseerfield County Owned Land
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**ATTACHMENT II.A.2**

**ENVIRONMENTAL CONSTRAINTS MAP**

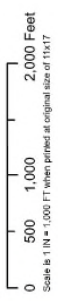
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 Lines #92, #127, #287, and #2129 Partial Rebuild  
 Henrico, Charles City and New Kent  
 Counties, Virginia

Client:  
 Dominion Energy Virginia

C2 Env Project:  
 0368

Prepared By:  
 KAS

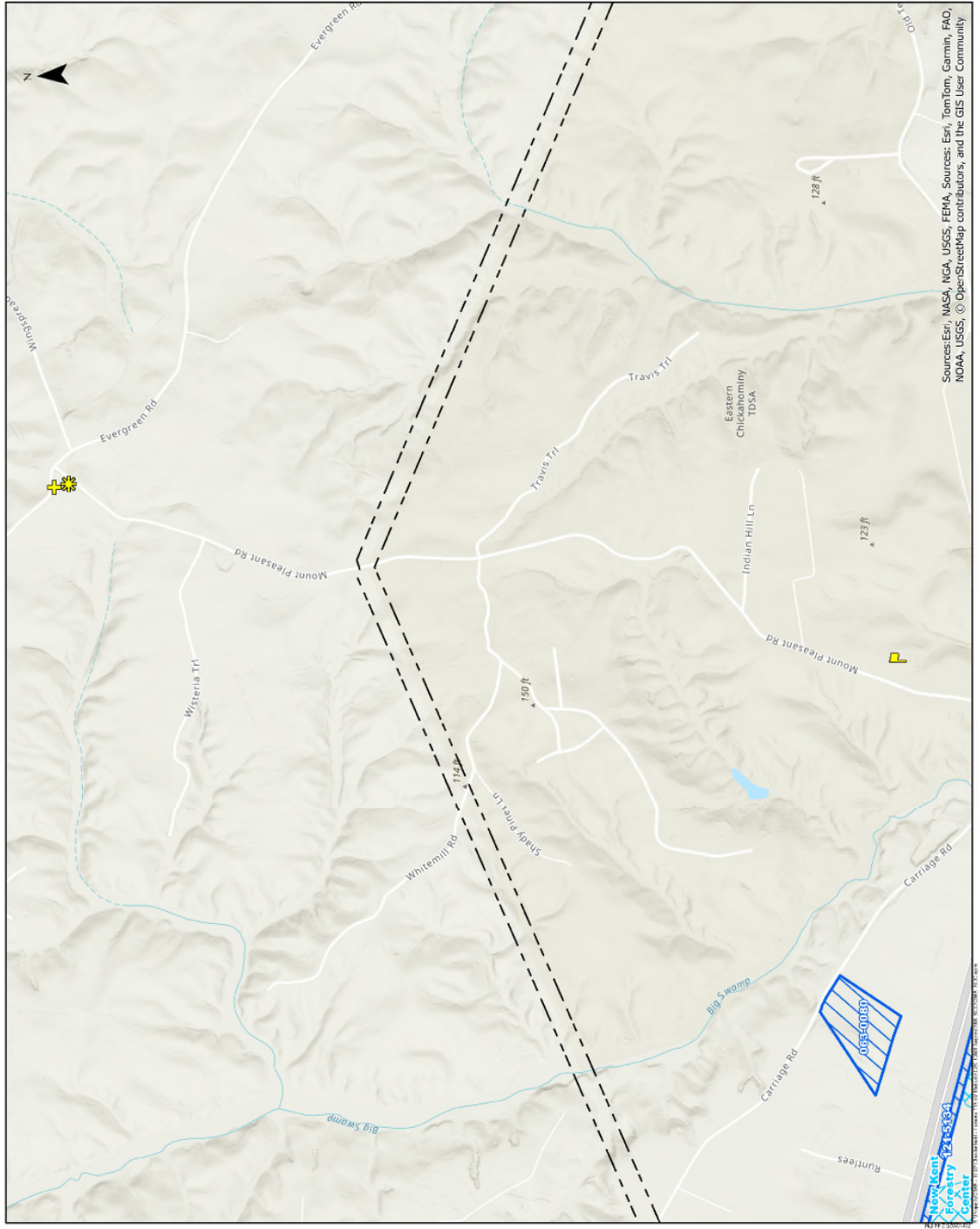
Date:  
 7/29/25



- Proposed Project Area
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SHEET 13 OF 15



Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community

**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**  
Chesterfield - Lanexa Corridor  
Lines #92, #192, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

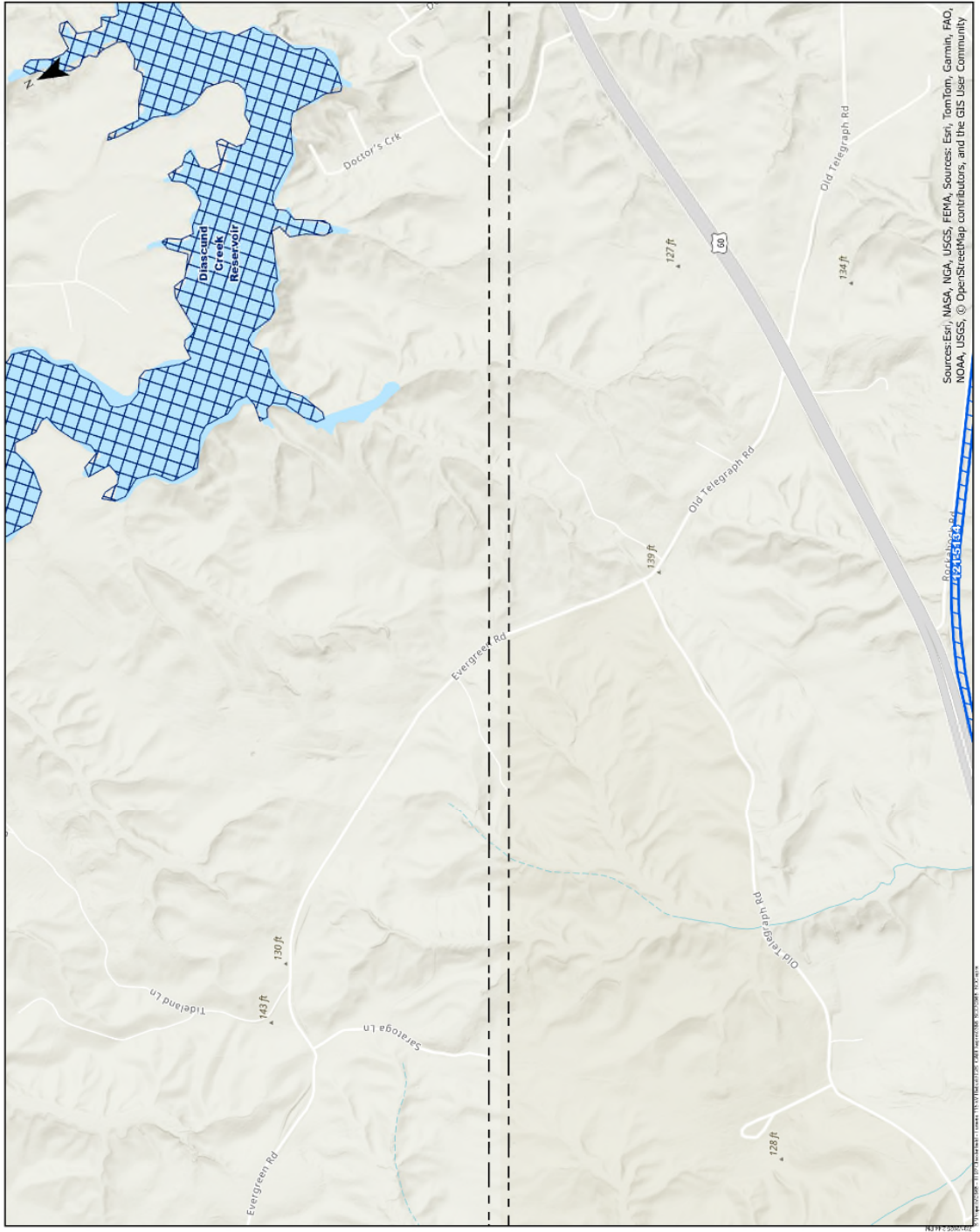
Client: Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25



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SHEET 14 OF 15



Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

**ATTACHMENT II.A.2  
ENVIRONMENTAL CONSTRAINTS MAP**  
Chesterfield - Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
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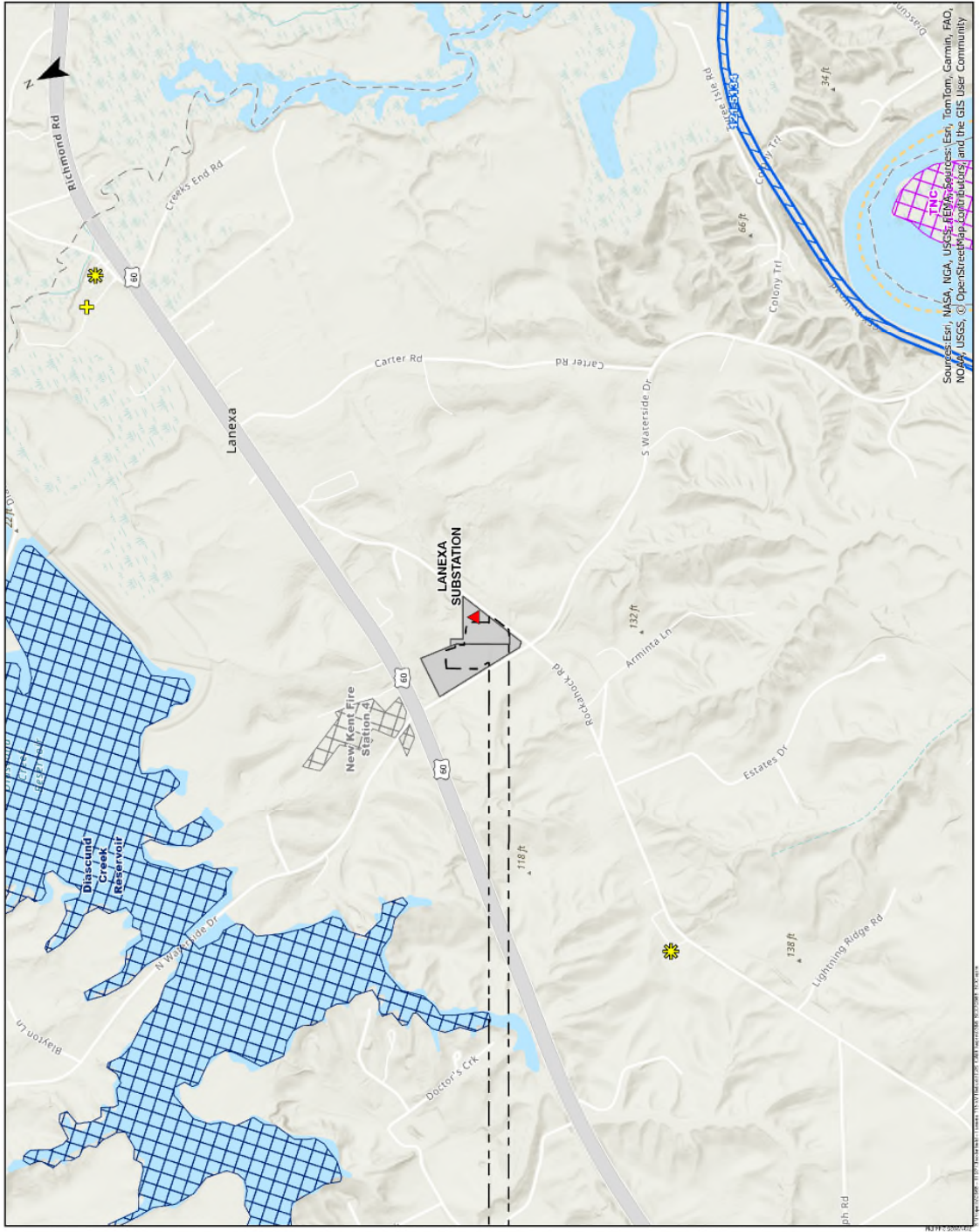
Client: Dominion Energy Virginia  
C2 Env Project: K4S  
0368  
Prepared By: KAS  
Date: 7/29/25



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SHEET 15 OF 15



Sources: Esri, NASA, NGA, USGS, FEMA, Swire, Esri, TomTom, Garmin, FAD, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community

## **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: The proposed route is primarily located within existing rights-of-way or on Company-owned property, with the exception of a 1.68-acre area near Chickahominy Substation where the existing right-of-way cannot adequately service the Company’s needs and must be expanded slightly to re-route Line #92 around Chickahominy Substation aboveground.

Specifically, a portion of Line #92 around Chickahominy Substation is currently underground. The underground line, however, is not capable of handling the 3000 amps required to operate Line #92 in the future. Therefore, the additional right-of-way is required to re-route the underground portion of Line #92 aboveground so that it may handle the ampacity needed to ensure reliable service. The Company considered removing and replacing the underground portion of Line #92, which would not require any additional right-of-way near the Chickahominy Substation. However, this option would cost significantly more than removing and re-routing the underground portion of Line #92 aboveground, which necessitates the additional 1.68-acre right-of-way.

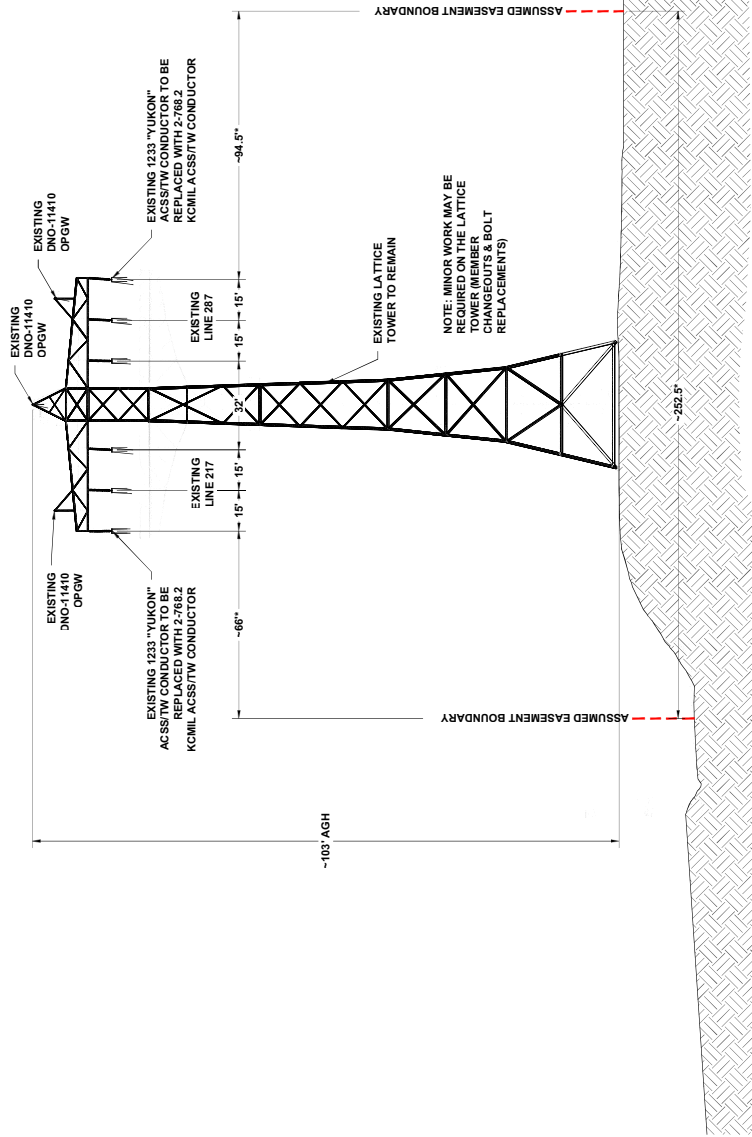
## **II. DESCRIPTION OF THE PROPOSED PROJECT**

### **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.a through II.A.5.g.

**PROPOSED CROSS SECTION LINE 192/287/17/92  
CHESTERFIELD SUBSTATION TO CHICKAHOMINY SUBSTATION  
STRUCTURE 217/5 TO 217/6 & 287/4 TO 287/5**



**LOOKING NORTHEAST  
JAMES RIVER CROSSING**

\*) NOTE: RIGHT OF WAY LINES ARE APPROXIMATE.  
SURVEY RIGHT OF WAY LINES HAVE NOT BEEN PROVIDED  
AT THIS TIME.

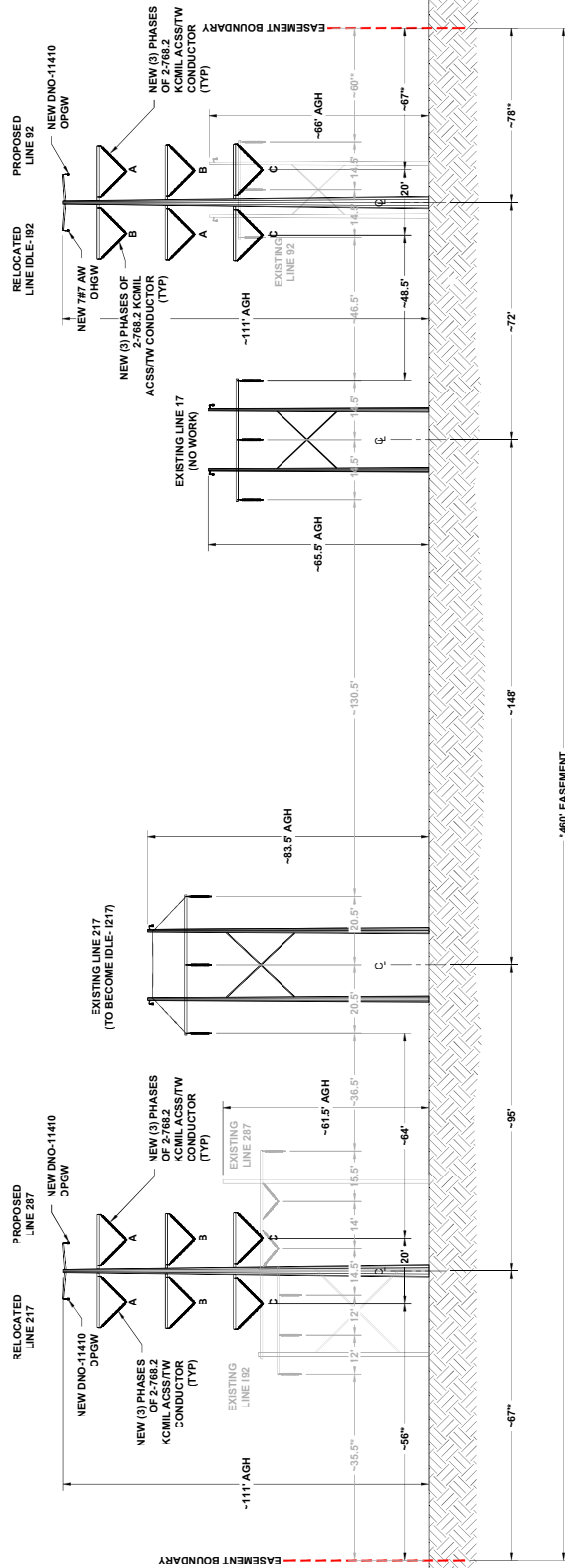


REV	DATE	ISSUED FOR REVIEW	DESCRIPTION
A	03/21/2025		

REV	DATE	ISSUED FOR REVIEW	DESCRIPTION
GAG	JLJ	BJW	
RY		CKO	APP

DOMINION ENERGY		LINE 92, 287, 2129 EOL REBUILD	
SCALE: N.T.S. DRAWN BY: GAG CHECKED BY: JLJ DATE: 03/21/2025		CROSS SECTION PACKAGE ATTACHMENT II.A.5.B	
PROJECT: 217/5 to 217/6 & 287/4 to 287/5 DRAWN BY: GAG CHECKED BY: JLJ DATE: 03/21/2025		Dominion Energy	
PROJECT: 217/5 to 217/6 & 287/4 to 287/5 DRAWN BY: GAG CHECKED BY: JLJ DATE: 03/21/2025		SHEET 1 OF 7	

**PROPOSED CROSS SECTION LINE 192/287/17/92  
CHESTERFIELD SUBSTATION TO CHICKAHOMINY SUBSTATION  
STRUCTURE 92/5 TO 92/536 & 287/6 TO 287/13**



**PICKETT**  
PICKETT AND ASSOCIATES, LLC  
702 CHERLIE ROAD, STE. 210  
RALEIGH, NORTH CAROLINA 27605  
PHONE: 919.355.5530

**LOOKING NORTH  
NORTH OF JAMES RIVER CROSSING TO FIRST TURN**

\*) NOTE: RIGHT OF WAY LINES ARE APPROXIMATED.  
SURVEY RIGHT OF WAY LINES HAVE NOT BEEN PROVIDED  
AT THIS TIME.

REV	DATE	ISSUED FOR REVIEW	DESCRIPTION
A	03/21/2025		

GAS	JLJ	BW

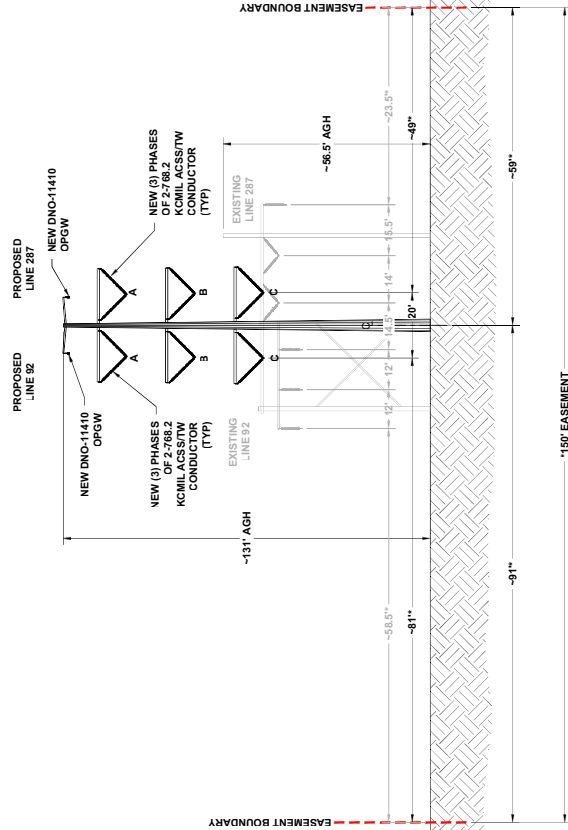
  

DOMINION ENERGY		LINE 92, 287, 2129 EOL REBUILD	
SCALE: N.T.S.	DATE: 03/21/2025		
DRAWN BY: GAG	CHECKED BY: JLJ		
ENGINEER: BW	FILE NAME: Typical Cross Section.dwg		
CROSS SECTION SECTION 2	CROSS SECTION SECTION 2		
SHEET 2 OF 7			

**CROSS SECTION PACKAGE**  
ATTACHMENT II.A.5.b



# PROPOSED CROSS SECTION LINE 92/287 CHESTERFIELD SUBSTATION TO CHICKAHOMINY SUBSTATION STRUCTURES 92/532, 287/16 TO 92/483, 287/65



\*) NOTE: RIGHT OF WAY LINES ARE APPROXIMATED.  
SURVEY RIGHT OF WAY LINES HAVE NOT BEEN PROVIDED  
AT THIS TIME.

**811**  
Know what's below.  
Call before you dig.

**PICKETT**  
PICKETT AND ASSOCIATES, LLC  
702 CBERLIN ROAD, STE. 210  
RALEIGH, NORTH CAROLINA 27605  
PHONE: 919.355.5530

REV	DATE	ISSUED FOR REVIEW	DESCRIPTION
A	02/2/2025		

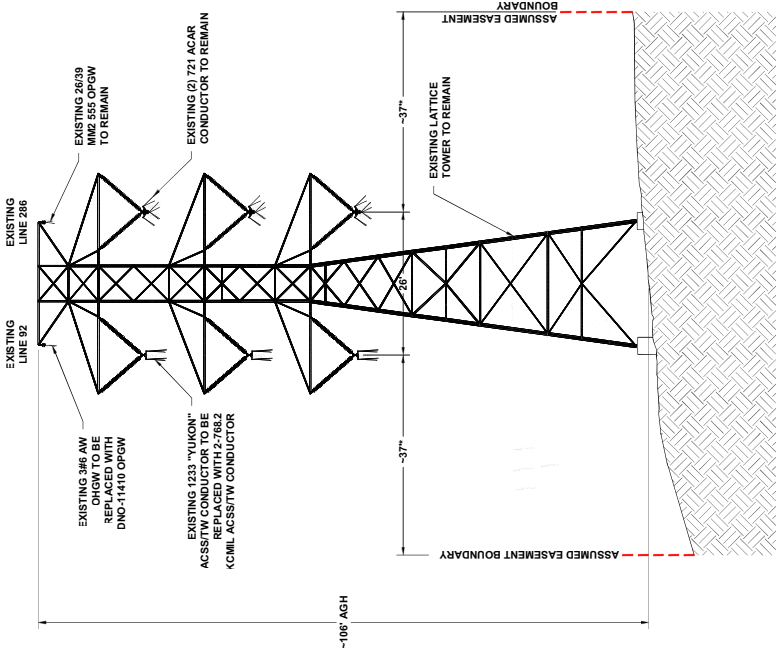
  

GAS	JLI	BMW	BY	CDD	APP

<b>DOMINION ENERGY</b>	<b>LINE 92, 287, 2129 EOL REBUILD</b>
SCALE: N.T.S. DRAWN BY: GAG CHECKED BY: JLI ENGINEER: BMW DATE: 02/2/2025 FILE NAME: Turner Cross Section.dwg CROSS SECTION SECTION 3 SHEET 3 OF 7	<b>DOMINION ENERGY</b> CROSS SECTION PACKAGE ATTACHMENT II.A.5.c

**PROPOSED CROSS SECTION LINE 92 & 286  
CHESTERFIELD TO CHICKAHOMINY SUBSTATION  
STRUCTURES 92/603, 286/61 TO 92/606, 286/58C**



**LOOKING WEST  
TURNER TAP LINE**

\*) NOTE: RIGHT OF WAY LINES ARE APPROXIMATED.  
SURVEY RIGHT OF WAY LINES HAVE NOT BEEN PROVIDED  
AT THIS TIME.

**811**  
Know what's below.  
Call before you dig.

**PICKETT**  
PICKETT AND ASSOCIATES, LLC  
702 CHERLUM ROAD, STE. 210  
RALEIGH, NORTH CAROLINA 27605  
PHONE: 919.356.5530

REV	DATE	ISSUED FOR REVIEW	DESCRIPTION
A	02/12/2025		

DESIGNED BY	CHECKED BY	DATE	SCALE
GAG	JLJ	02/12/2025	N.T.S.

BY	DATE	SCALE
BMW	02/12/2025	N.T.S.

**DOMINION ENERGY**

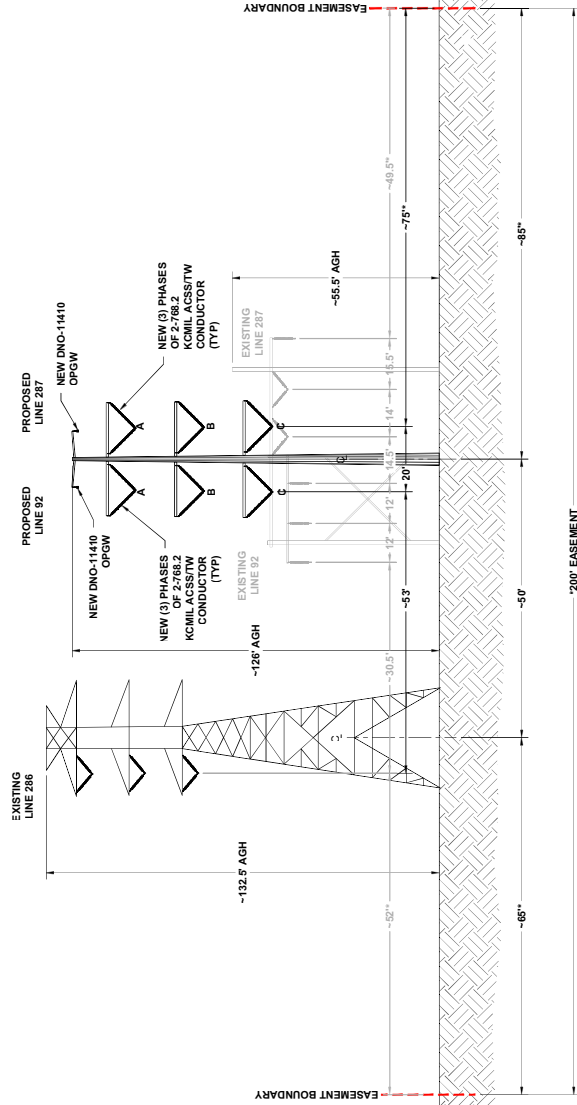
DATE: 02/12/2025  
DRAWN BY: GAG  
ENGINEER: BMW  
FILE NAME: Turner Cross Section.dwg  
CROSS SECTION SECTION 4  
SHEET 4 OF 7

**DOMINION ENERGY**

LINE 92, 287, 2129 EOL REBUILD

**CROSS SECTION PACKAGE**  
ATTACHMENT II.A.5.d

**PROPOSED CROSS SECTION LINE 92/287  
CHESTERFIELD SUBSTATION TO CHICKAHOMINY SUBSTATION  
STRUCTURES 92/480, 287/68 TO 92/411, 287/137**



\*) NOTE: RIGHT OF WAY LINES ARE APPROXIMATED.  
SURVEY RIGHT OF WAY LINES HAVE NOT BEEN PROVIDED  
AT THIS TIME.

**811**  
Know what's below.  
Call before you dig.

**PICKETT**  
PICKETT AND ASSOCIATES, LLC  
702 CHERLUM ROAD, STE. 210  
RALEIGH, NORTH CAROLINA 27605  
PHONE: 919.355.5530

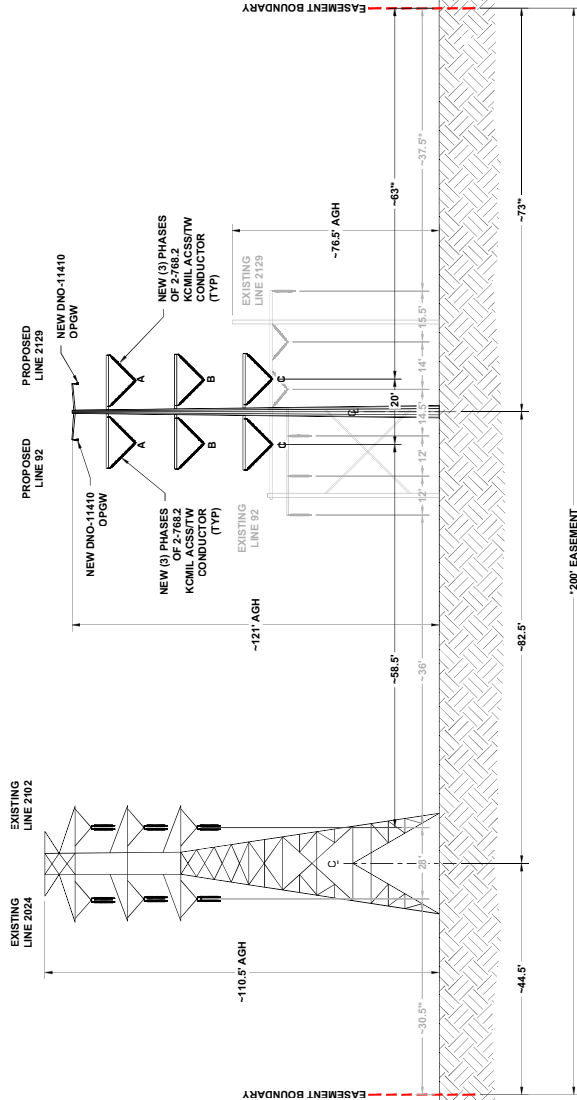
**LOOKING EAST  
TURNER TAP TO CHICKAHOMINY SUBSTATION**

REV	DATE	ISSUED FOR REVIEW	DESCRIPTION
A	02/2/2025		

SCALE: N.T.S.	DOMINION ENERGY	LINE 92, 287, 2129 EOL REBUILD
DRAWN BY: GAG		CROSS SECTION PACKAGE
CHECKED BY: JJJ		ATTACHMENT II.A.5.e
ENGINEER: BMW		
DATE: 02/1/2025		
FILE NAME: Turner Cross Section.dwg		
CROSS SECTION SECTION 5		
SHEET 5 OF 7		

GAG	JJJ	BMW
BY	CHKD	APP

**PROPOSED CROSS SECTION LINE 92/287  
CHICKAHOMINY SUBSTATION TO LANEXA SUBSTATION  
STRUCTURES 92/408, 2129/3 TO 92/314, 2129/97**



\*) NOTE: RIGHT OF WAY LINES ARE APPROXIMATED.  
SURVEY RIGHT OF WAY LINES HAVE NOT BEEN PROVIDED  
AT THIS TIME.

**811**  
Know what's below.  
Call before you dig.

**PICKETT**  
PICKETT AND ASSOCIATES, LLC  
702 CHERLIE ROAD, STE. 210  
RALEIGH, NORTH CAROLINA 27605  
PHONE: 919.355.5530

**LOOKING EAST  
CHICKAHOMINY SUBSTATION TO MT PLEASANT RD**

REV	DATE	DESCRIPTION	ISSUED FOR REVIEW	BY	CHKD	APP
A	02/21/2025			GAG	JLJ	BW

**DOMINION ENERGY**

DATE: 02/21/2025  
CHECKED BY: JLJ  
FILE NAME: Typical Cross Section.dwg  
CROSS SECTION SECTION 6  
SHEET 6 OF 7

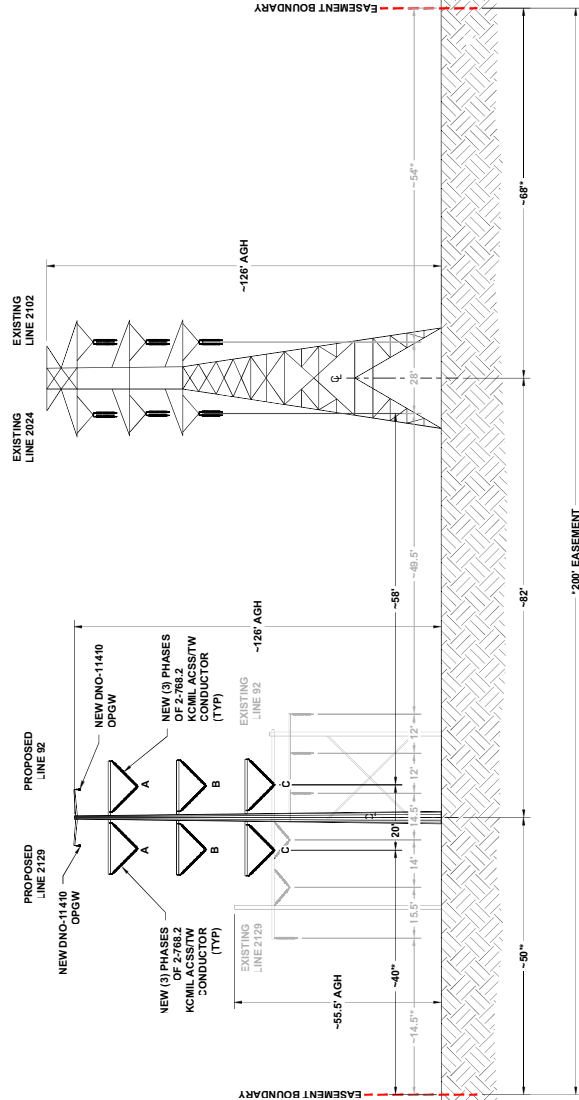
SCALE: N.T.S.  
DRAWN BY: GAG  
ENGINEER: BW

**DOMINION ENERGY**

LINE 92, 287, 2129 EOL REBUILD

**CROSS SECTION PACKAGE**  
ATTACHMENT II.A.5.f

**PROPOSED CROSS SECTION LINE 92/2129  
CHICKAHOMINY SUBSTATION TO LANEXA SUBSTATION  
STRUCTURES 92/312, 2129/100 TO 92/276, 2129/135**



\*) NOTE: RIGHT OF WAY LINES ARE APPROXIMATED.  
SURVEY RIGHT OF WAY LINES HAVE NOT BEEN PROVIDED  
AT THIS TIME.

**811**  
Know what's below.  
Call before you dig.

**PICKETT**  
PICKETT AND ASSOCIATES, LLC  
702 CHERLUM ROAD, STE. 210  
RALEIGH, NORTH CAROLINA 27605  
PHONE: 919.355.5530

REV	DATE	ISSUED FOR REVIEW	DESCRIPTION
A	03/21/2025		

GAS	JLI	BMV
BY	CHKD	APP

**LOOKING SOUTHEAST  
MOUNT PLEASANT RD TO LANEXA SUBSTATION**

**DOMINION ENERGY**

SCALE: N.T.S.  
DRAWN BY: GAG  
ENGINEER: BMV  
DATE: 03/21/2025  
CHECKED BY: JLI  
FILE NAME: Typo/way Cross Section.dwg  
CROSS SECTION SECTION 7  
SHEET 7 OF 7

**DOMINION ENERGY**

LINE 92, 287, 2129 EOL REBUILD

**CROSS SECTION PACKAGE**  
ATTACHMENT II.A.5.g

## 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 Company obtained most of its easements along the existing right-of-way of the Rebuild Project corridor for initial construction of Lines #92 and #192, which were mostly completed in approximately 1952; Lines # 287 and #2129, which were mostly completed in 1966; and Line #217, which was mostly completed in 1957. The corridor has been in continuous use since.

The Company’s proposed route would require the Company to obtain an additional approximately 1.68-acre right-of-way near the Chickahominy Substation to re-route the underground portion of Line #92 aboveground.

Seven existing conservation easements are crossed by the Rebuild Project as listed below. All conservation easements were established after the company’s initial establishment of the transmission corridor in 1952, 1957, and 1966.

- Virginia Outdoors Foundation (HRO-VOF-2711) – Established 2008
- Rock Tract DHR Easement (043-0307-0001) and American Battlefield Trust (“ABT”) Land Holding – Established 2020
- Bowyer Tract DHR Easement (043-5080-0004) and ABT Land Holding – Established 2022
- Second Deep Bottom Richmond Battlefields Association (“RBA”) Easement – Established 2023
- Robertson-Welch Tract DHR Easement (043-5080-0007) and ABT Land Holding – Established 2024
- ABT Land Holding – Established 2013
- ABT Land Holding - Established 2011

The Company does not anticipate that new conservation easements will be required for this Rebuild Project. See Attachment II.A.6 for a conservation easement map of the Rebuild Project.

**ATTACHMENT II.A.6  
CONSERVATION EASEMENTS MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

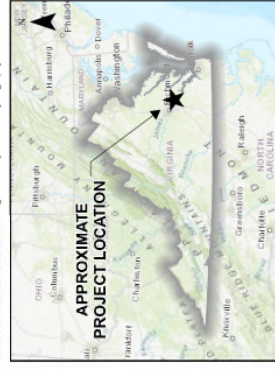
Client: Dominion Energy Virginia  
CZ Env Project: KAS  
Prepared By: KAS  
Date: 7/29/25

Scale is 1" = 3/4" when printed at original size of 11x17  
0 1.5 3 6 Miles

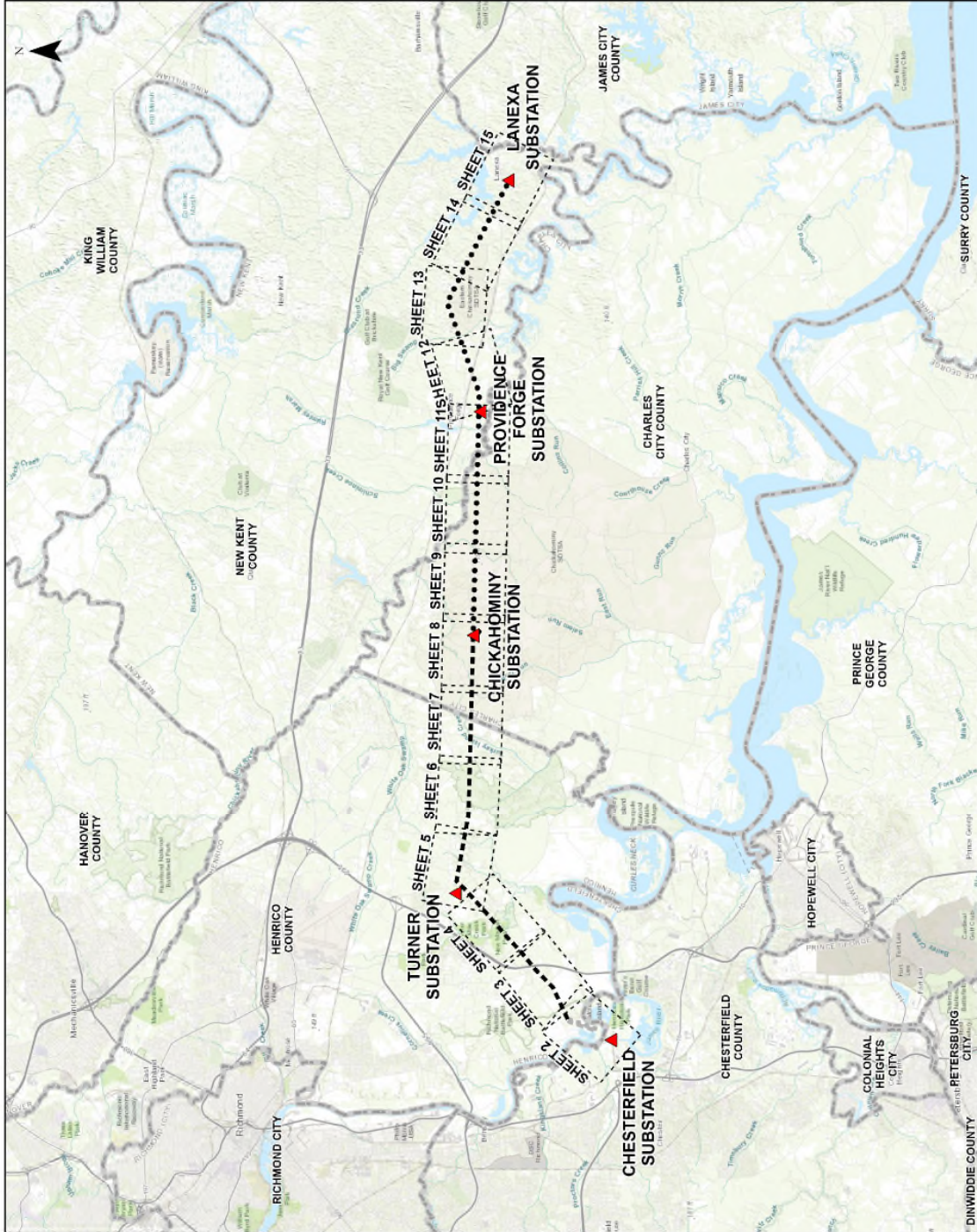
**SITE DATA**

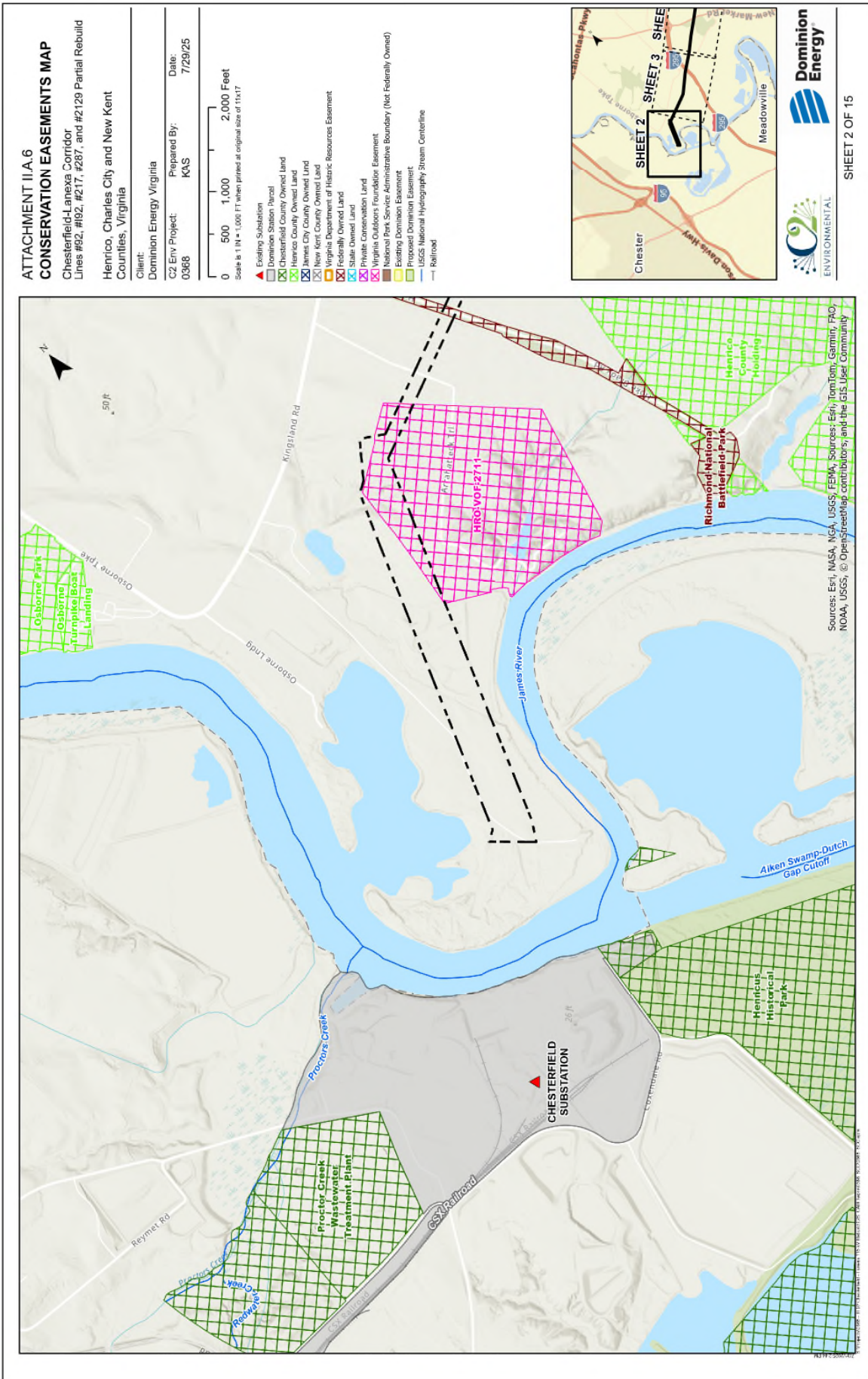
- Partial Rebuild of Lines #287 and #217
- Partial Rebuild of Lines #92 and #192
- Partial Rebuild of Lines #92 and #287
- Partial Rebuild of Lines #92 and #2129
- Existing Substation
- Map Sheet

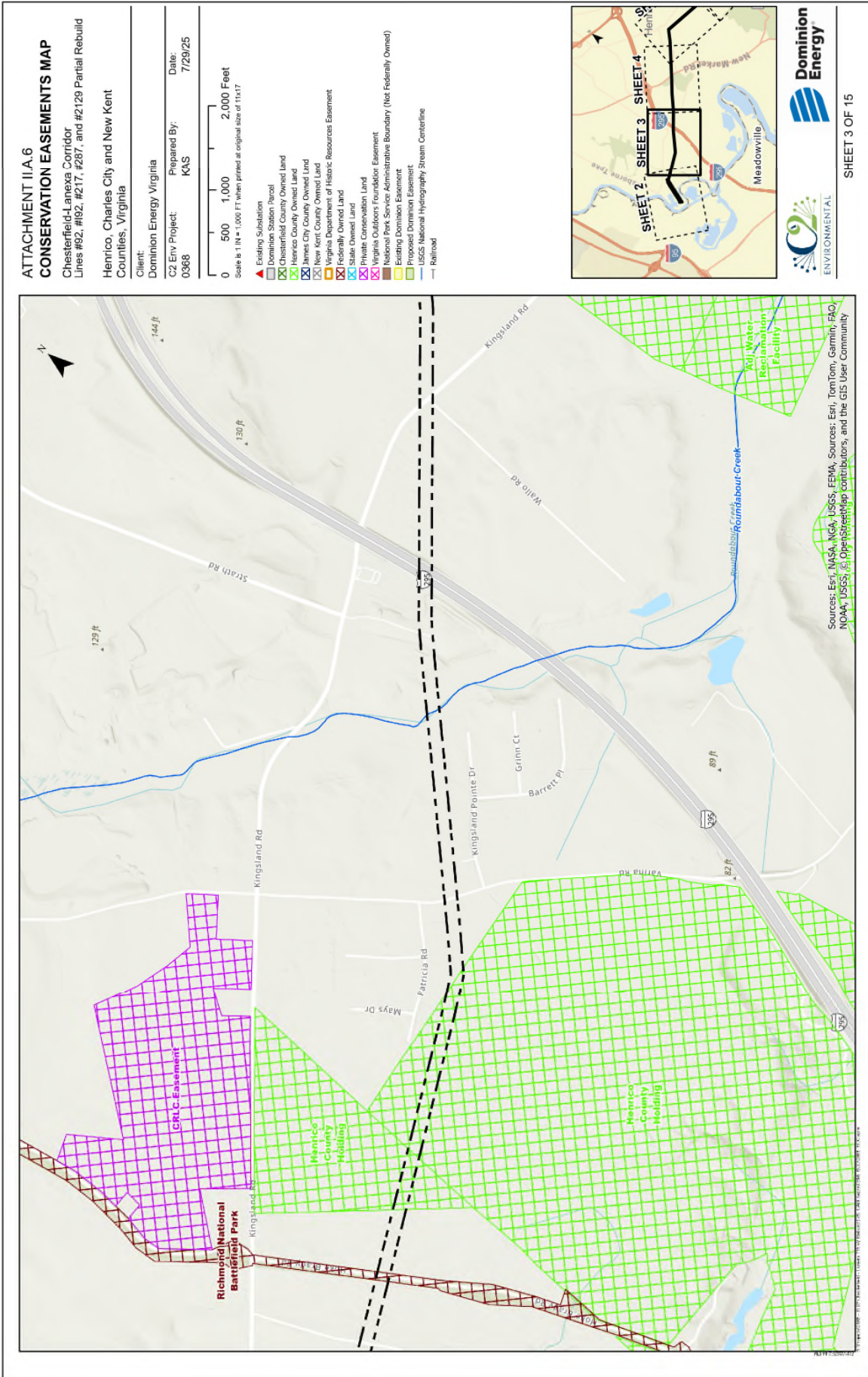
- Notes:
1. Baseimage from ESRI World Topographic Map
  2. Project right-of-way provided by Dominion Energy Virginia
  3. Wetlands provided by Virginia Department of Conservation and Recreation, U.S. Geological Survey Protected Areas Database of the U.S., and Department of Historic Resources, Virginia Cultural Resources
  4. Railroads from Virginia Geographic Information Network
  5. Stream centerlines from U.S. Geological Survey National Hydrography Dataset



SHEET 1 OF 15







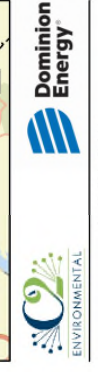
**ATTACHMENT II.A.6  
CONSERVATION EASEMENTS MAP**

Chesterfield-Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

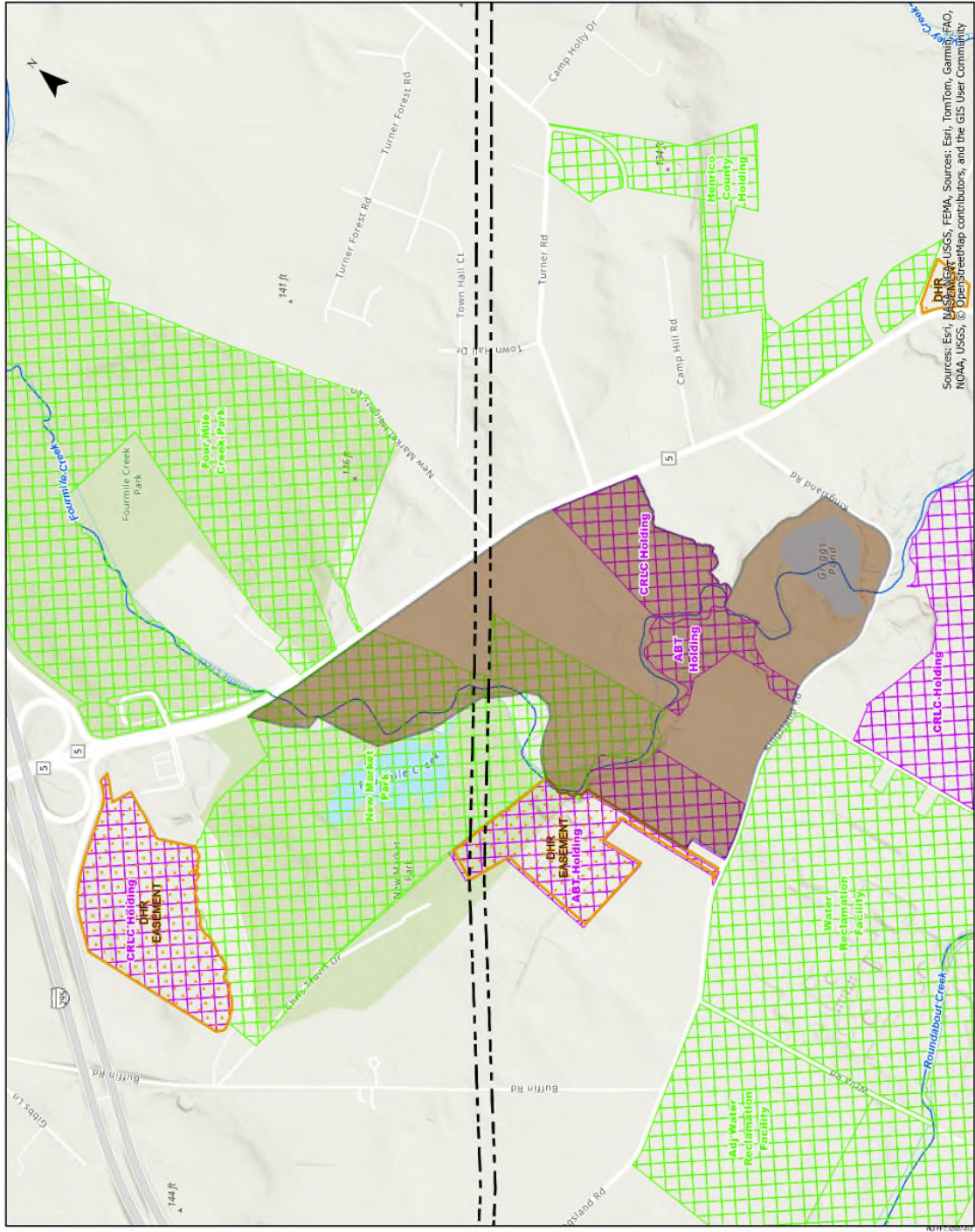
Client:  
Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25

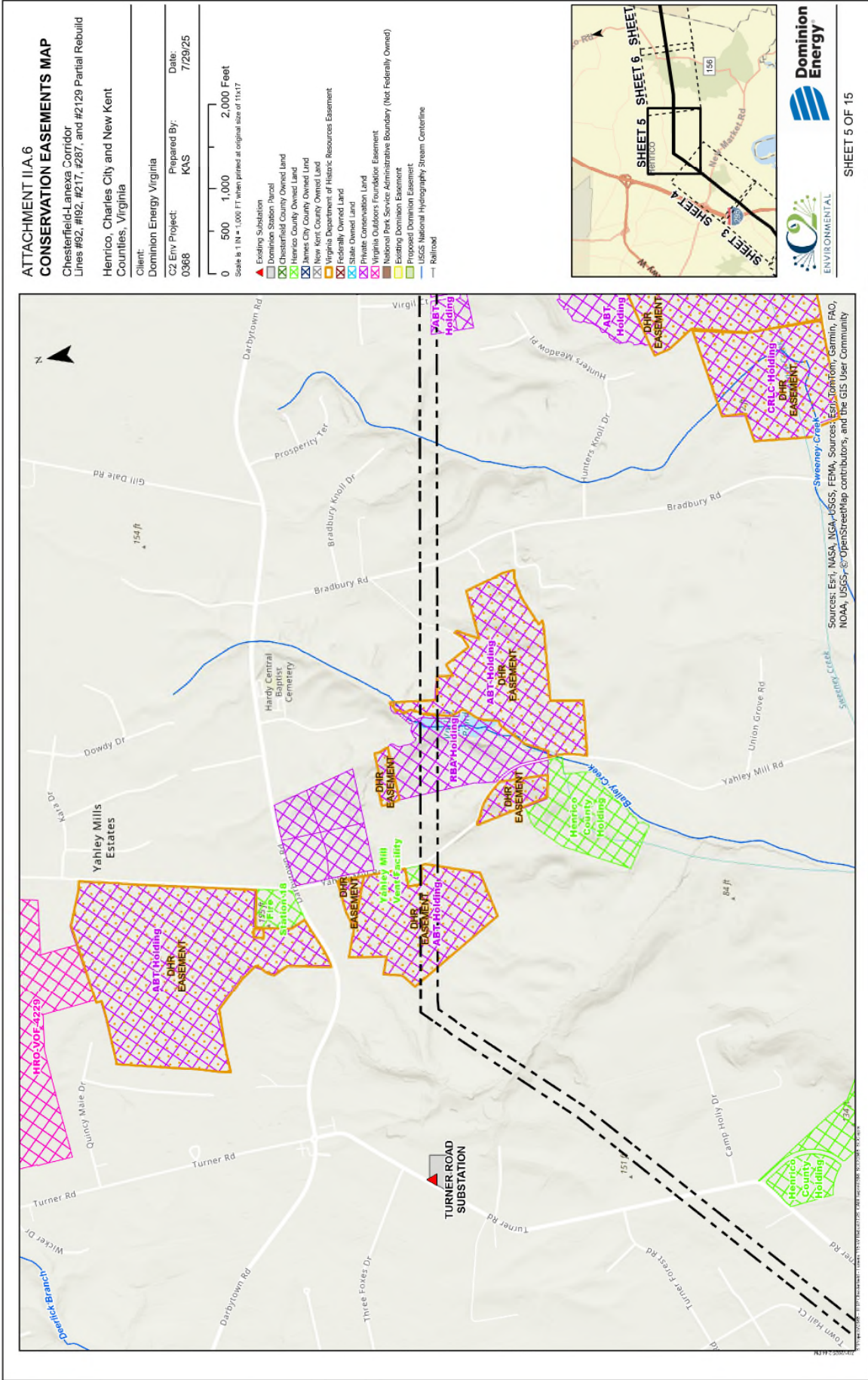


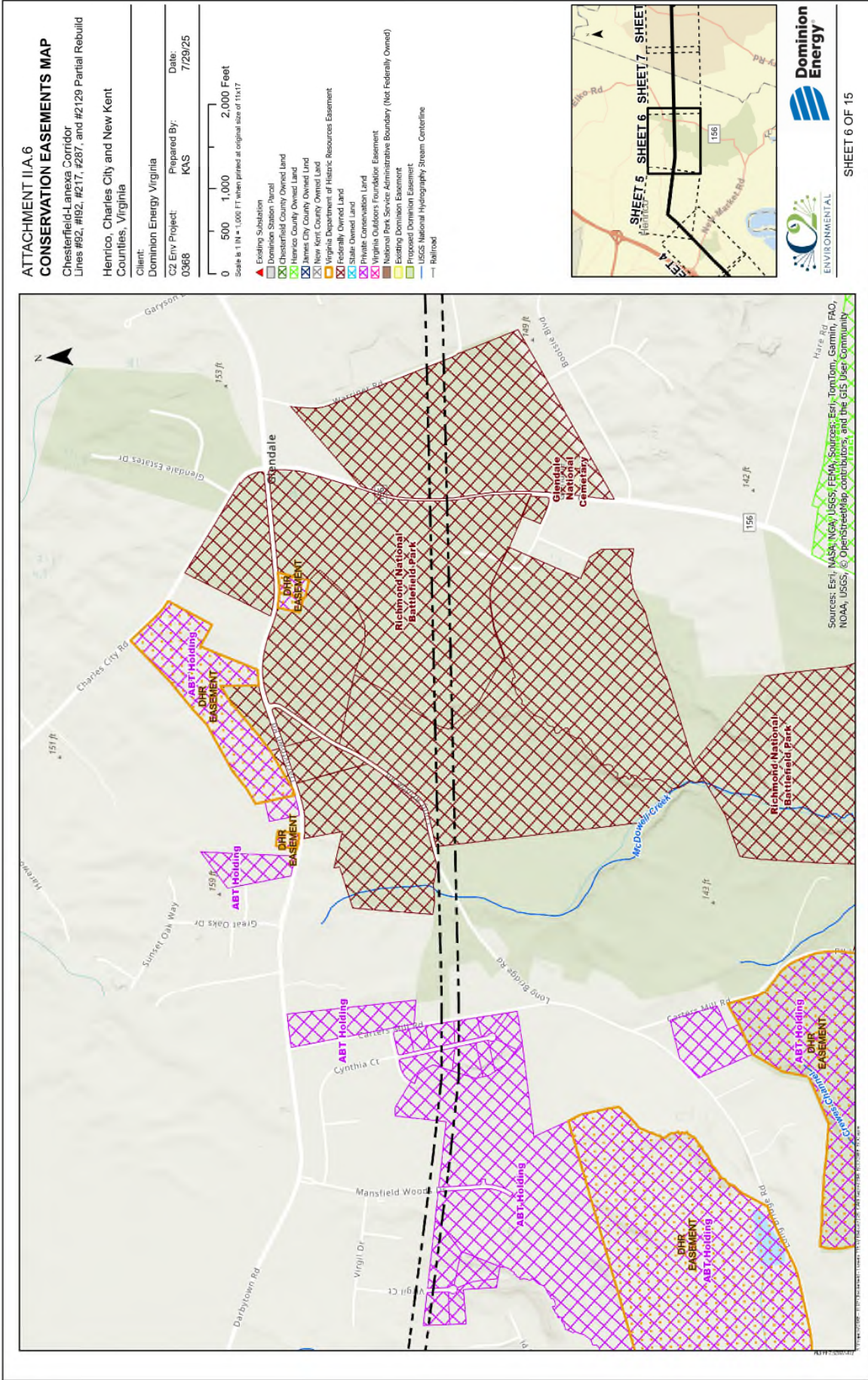
- ▲ Existing Substation
- Dominion Station Parcel
- ▨ Chesterfield County Owned Land
- ▨ Henrico County Owned Land
- ▨ James City County Owned Land
- ▨ New Kent County Owned Land
- ▨ Original Easement of Historic Resources Easement
- ▨ Recreation Land
- ▨ State Owned Land
- ▨ Private Conservation Land
- ▨ Virginia Outdoors Foundation Easement
- ▨ National Park Service Administrative Boundary (Not Federally Owned)
- ▨ Existing Dominion Easement
- ▨ Proposed Dominion Easement
- ▨ USGS National Hydrography Stream Centerline
- Railroad



SHEET 4 OF 15







**ATTACHMENT II.A.6  
CONSERVATION EASEMENTS MAP**

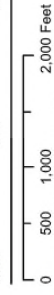
Chesterfield-Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client:  
Dominion Energy Virginia

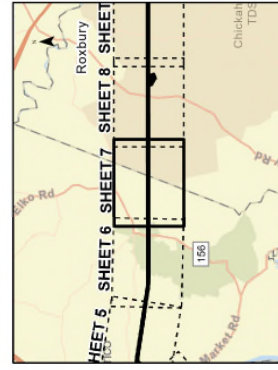
C2 Env Project: 0368

Prepared By: KAS

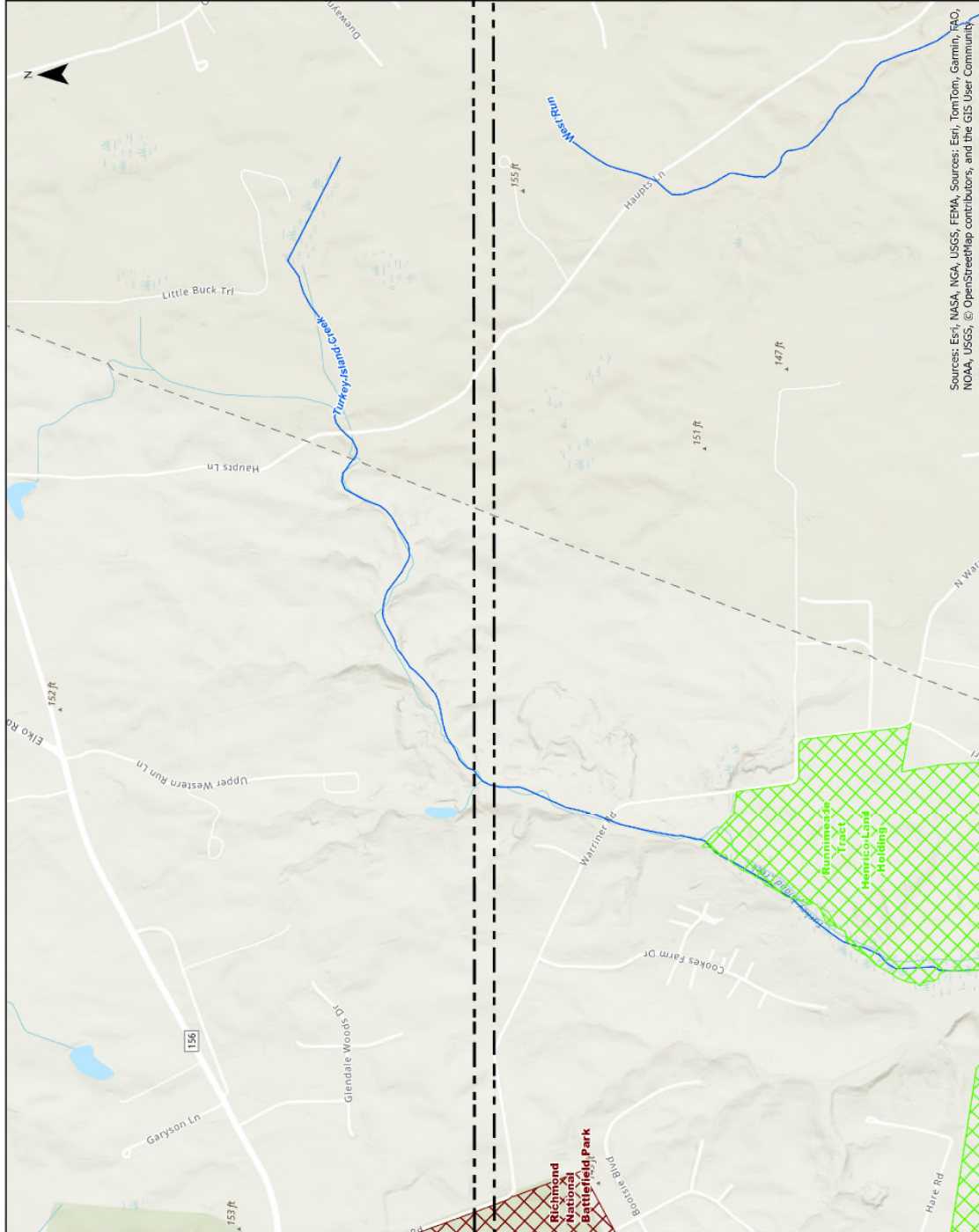
Date: 7/29/25



- Existing Substation
- Dominion Station Parcel
- Chesterfield County Owned Land
- Henrico County Owned Land
- James City County Owned Land
- New Kent County Owned Land
- Original Easement of Historic Resources Easement
- Locally Owned Land
- State Owned Land
- Private Conservation Land
- Virginia Outdoors Foundation Easement
- National Park Service Administrative Boundary (Not Federally Owned)
- Existing Dominion Easement
- Proposed Dominion Easement
- USGS National Hydrography Stream Centerline
- Railroad



SHEET 7 OF 15



Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, IGO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

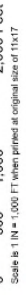
**ATTACHMENT II.A.6  
CONSERVATION EASEMENTS MAP**

Chesterfield-Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

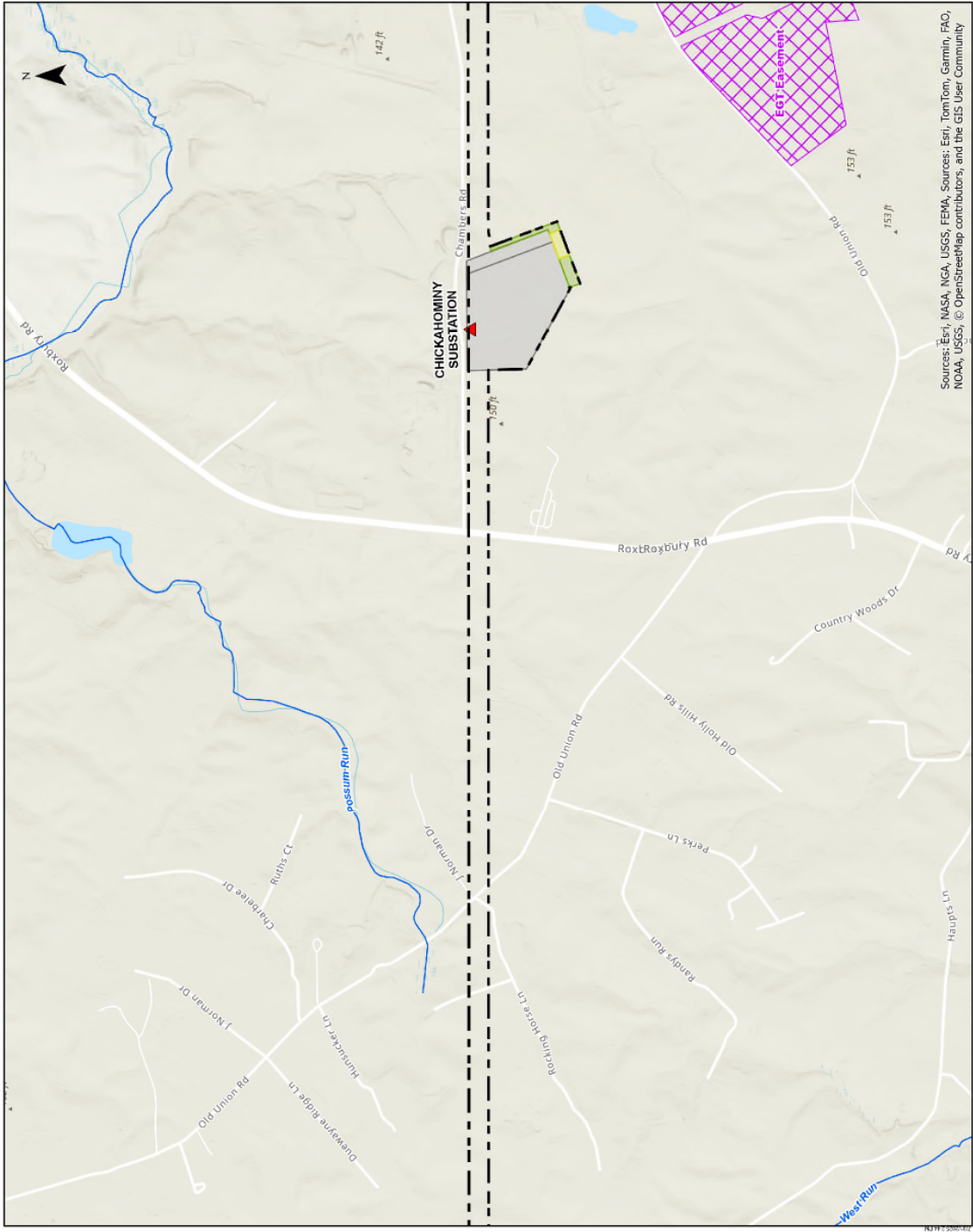
Client:  
Dominion Energy Virginia

C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25

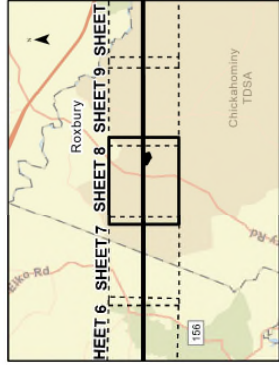
Scale is 1 IN = 1,000 FT when printed at original size of 11x17



- ▲ Existing Substation
- Dominion Station Parcel
- Chesterfield County Owned Land
- Henrico County Owned Land
- James City County Owned Land
- New Kent County Owned Land
- Virginia Department of Historic Resources Easement
- Locally Owned Land
- State Owned Land
- Private Conservation Land
- Virginia Outdoors Foundation Easement
- National Park Service Administrative Boundary (Not Federally Owned)
- Existing Dominion Easement
- Proposed Dominion Easement
- USGS National Hydrography Stream Centerline
- Railroad



Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



SHEET 8 OF 15

**ATTACHMENT II.A.6  
CONSERVATION EASEMENTS MAP**

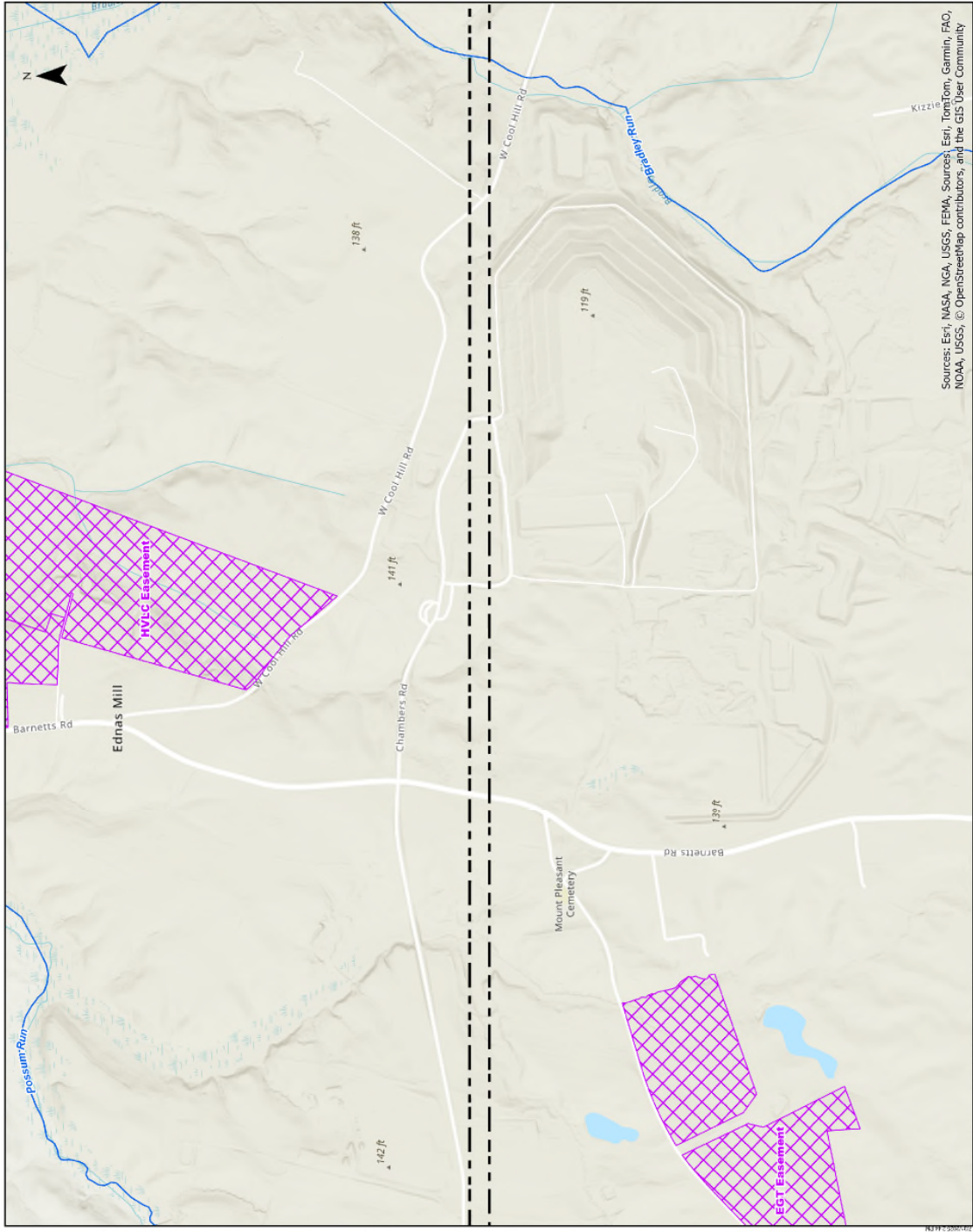
Chesterfield-Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client:  
Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25

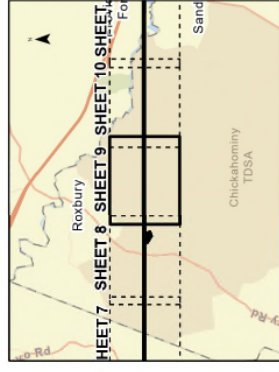
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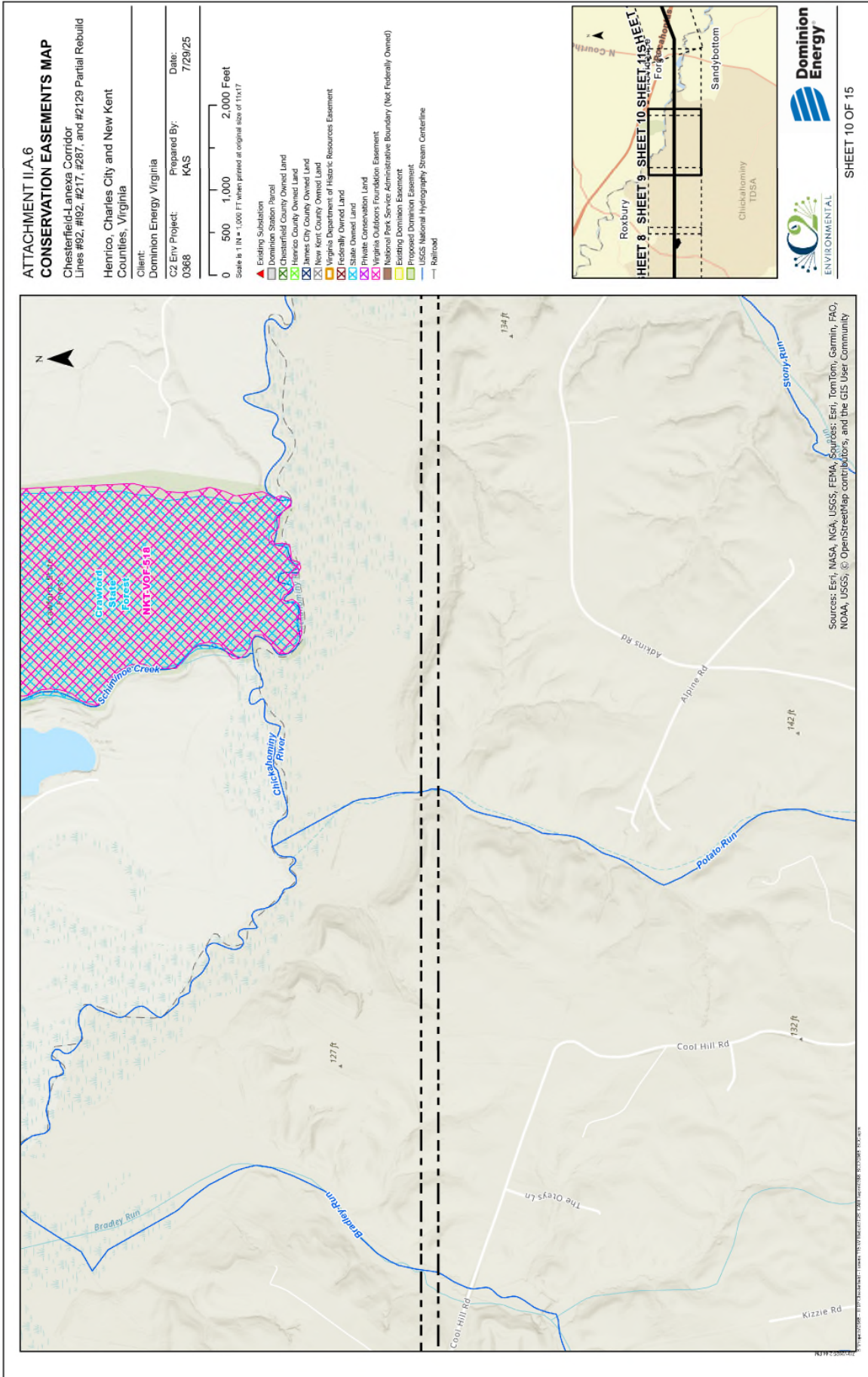
- ▲ Existing Substation
- Dominion Station Parcel
- Chesterfield County Owned Land
- Henrico County Owned Land
- James City County Owned Land
- New Kent County Owned Land
- Virginia Department of Historic Resources Easement
- Federally Owned Land
- Private Conservation Land
- Virginia Outdoors Foundation Easement
- National Park Service Administrative Boundary (Not Federally Owned)
- Existing Dominion Easement
- Proposed Dominion Easement
- USGS National Hydrography Stream Centerline
- Railroad

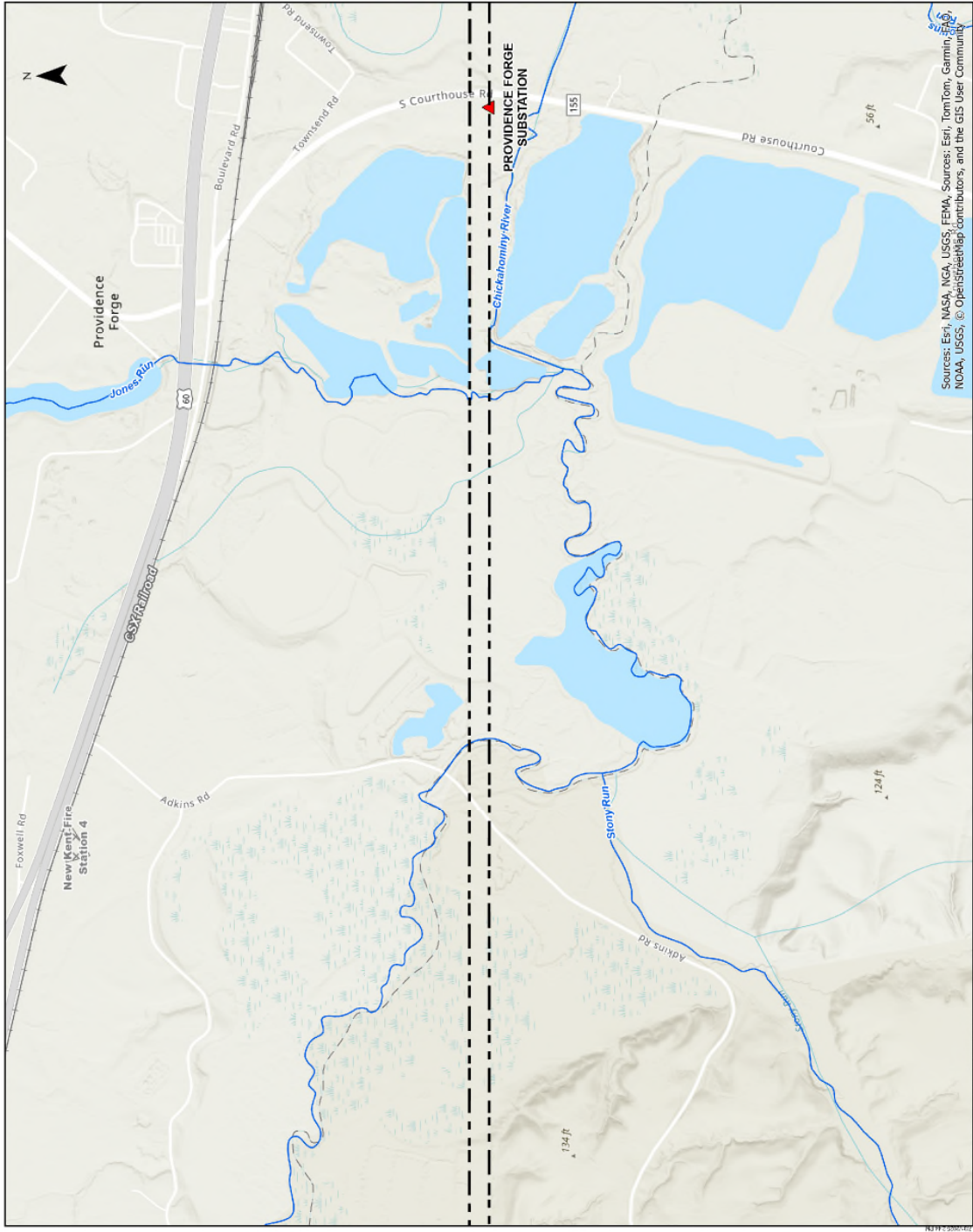
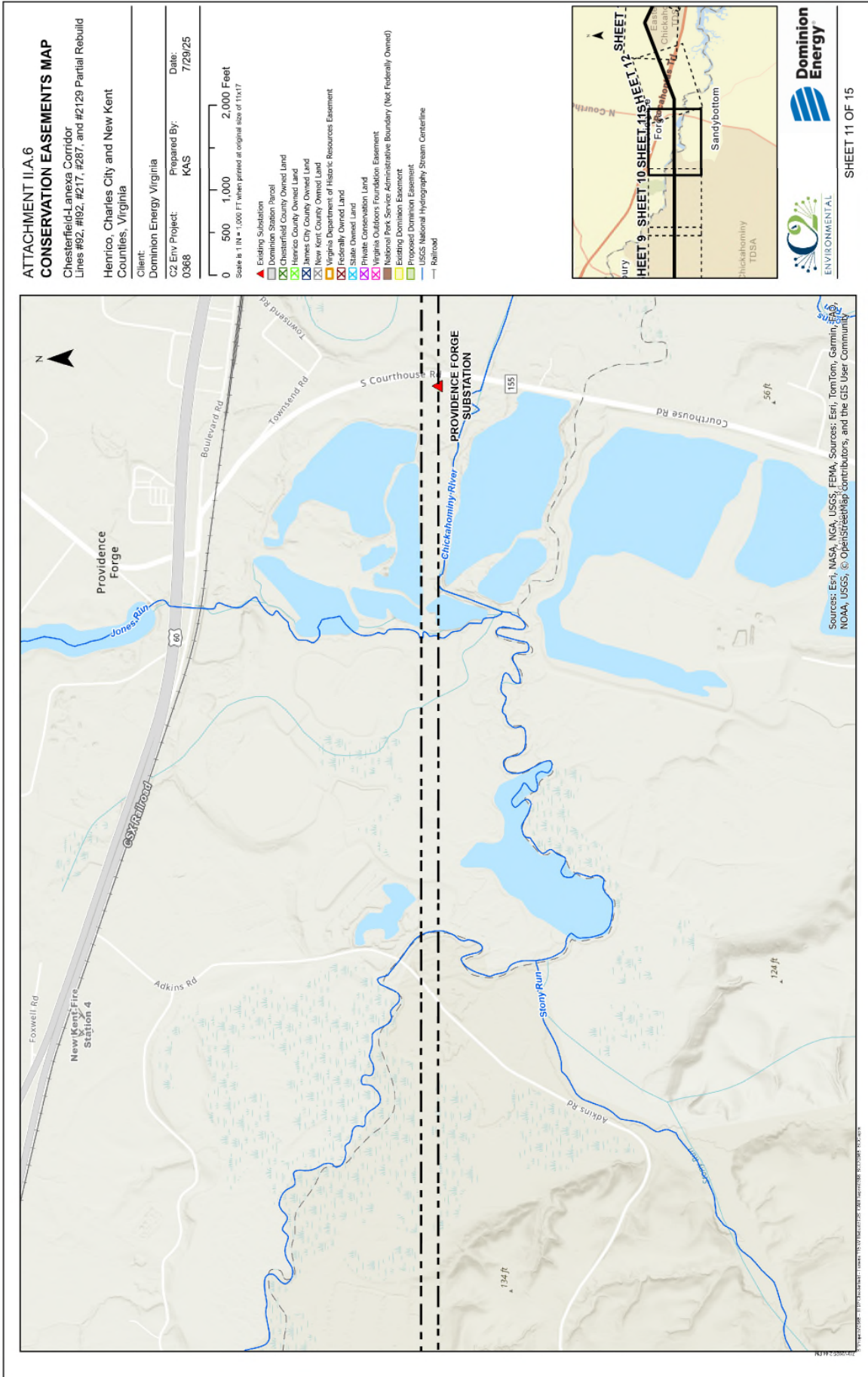


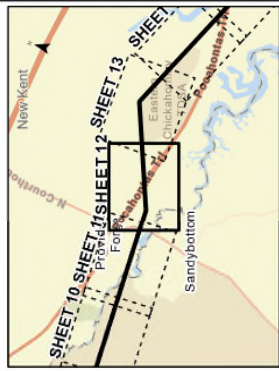
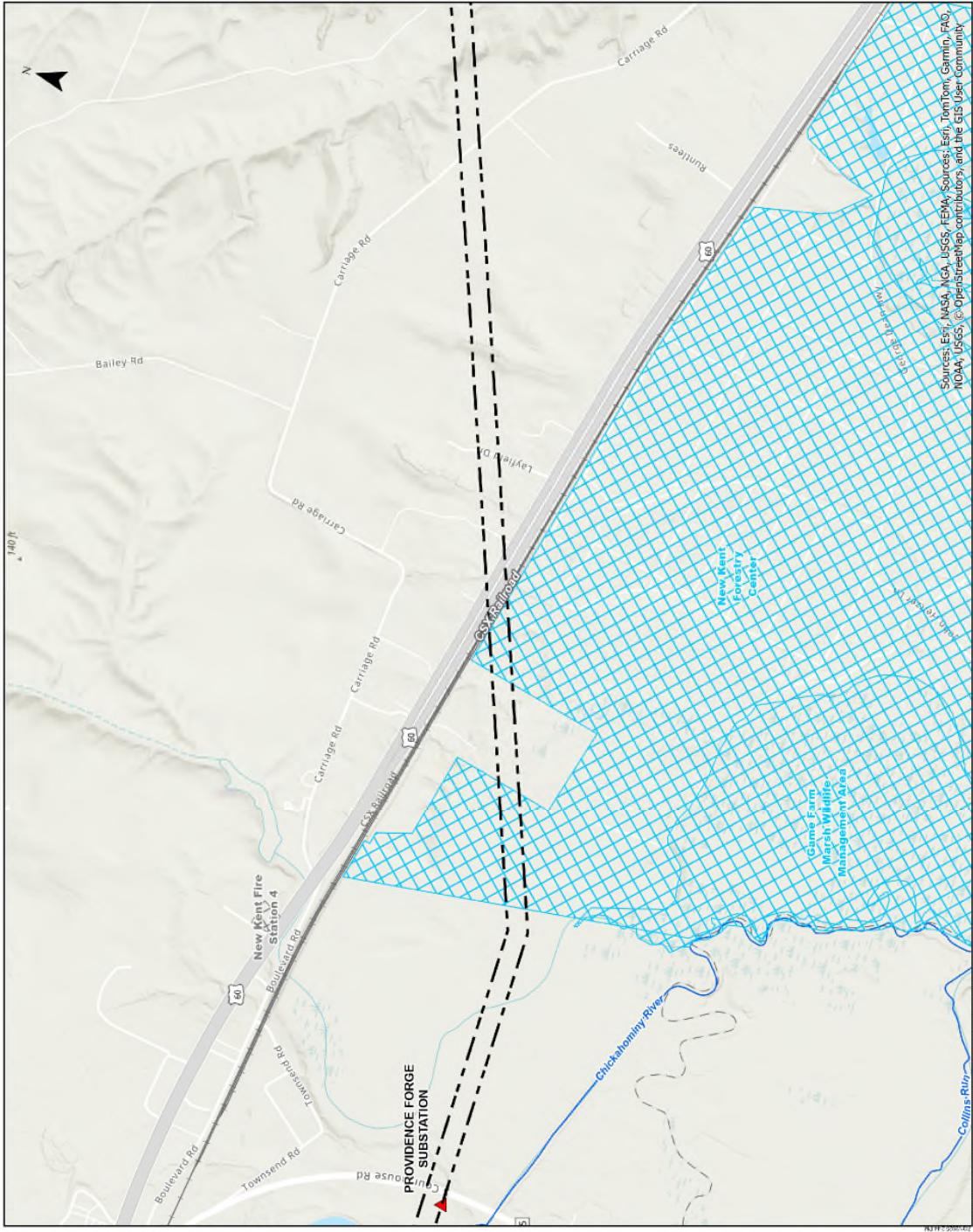
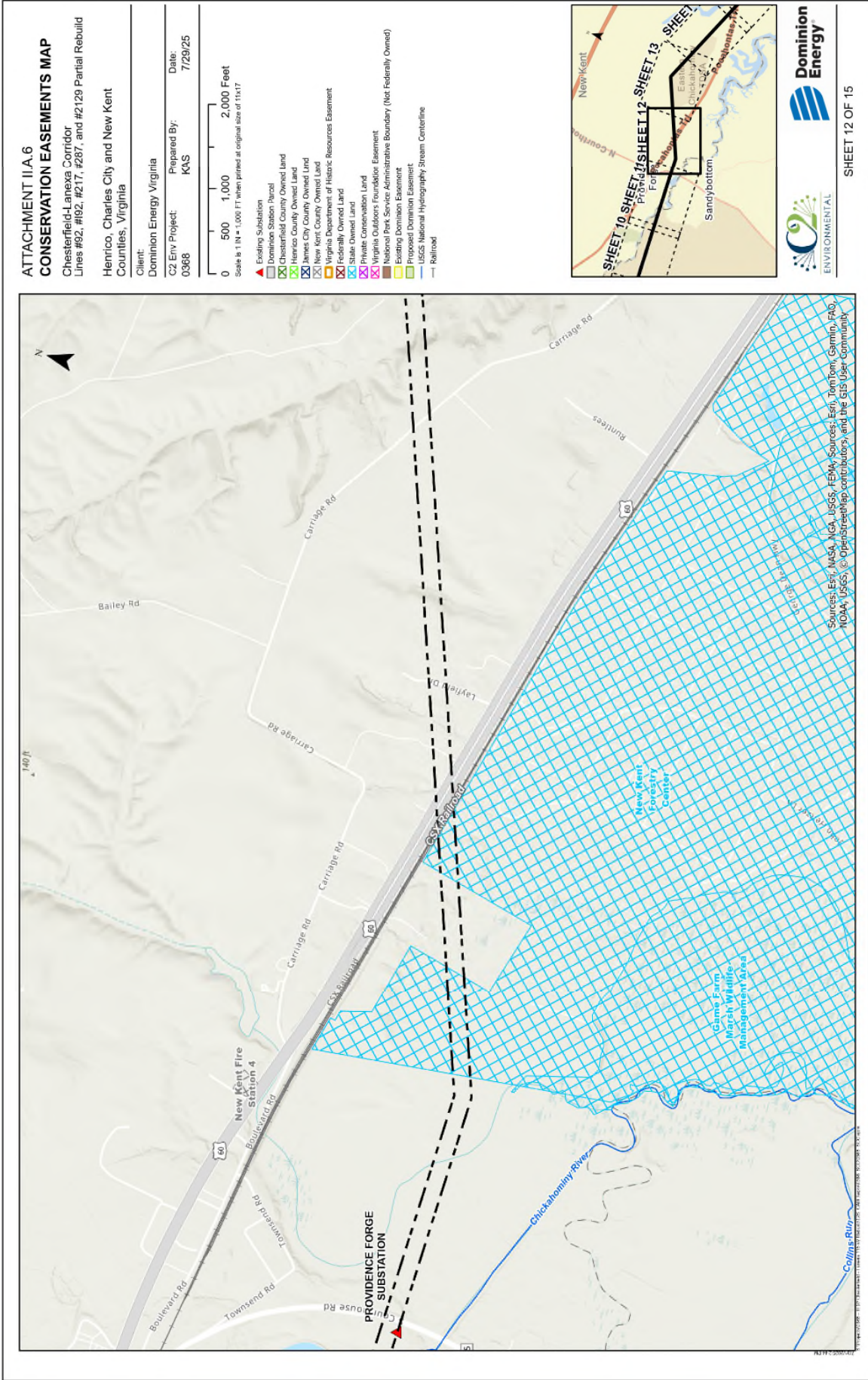
Sources: Esri, NASA, NGA, USGS, FEMA, Sources, Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



SHEET 9 OF 15







**ATTACHMENT II.A.6  
CONSERVATION EASEMENTS MAP**

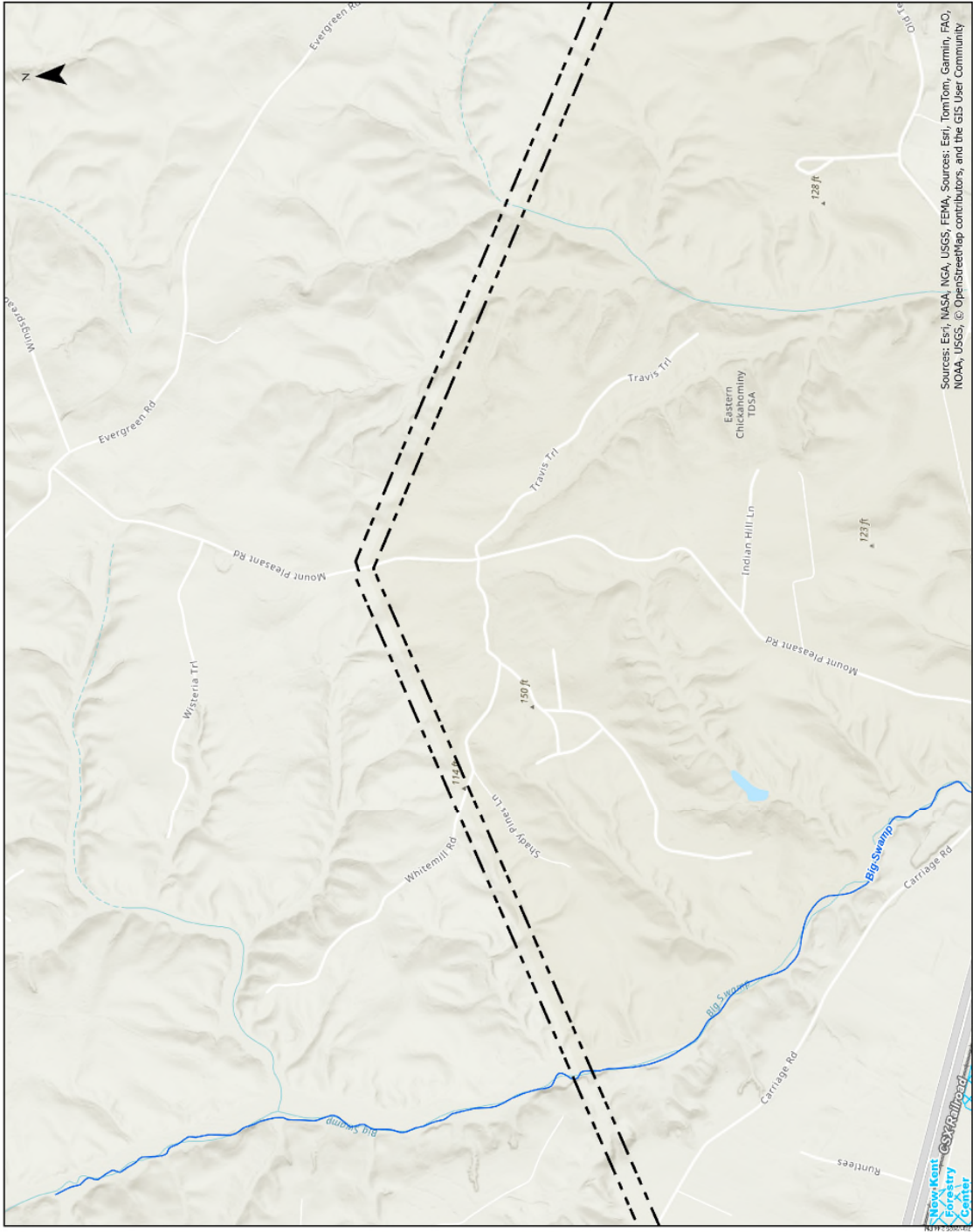
Chesterfield-Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client:  
Dominion Energy Virginia

C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25



- ▲ Existing Substation
- Dominion Station Parcel
- Chesterfield County Owned Land
- Henrico County Owned Land
- James City County Owned Land
- New Kent County Owned Land
- Original Easement of Historic Resources Easement
- Locally Owned Land
- State Owned Land
- Private Conservation Land
- Virginia Outdoors Foundation Easement
- National Park Service Administrative Boundary (Not Federally Owned)
- Existing Dominion Easement
- Proposed Dominion Easement
- USGS National Hydrography Stream Centerline
- Railroad



Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



SHEET 13 OF 15

**ATTACHMENT II.A.6**

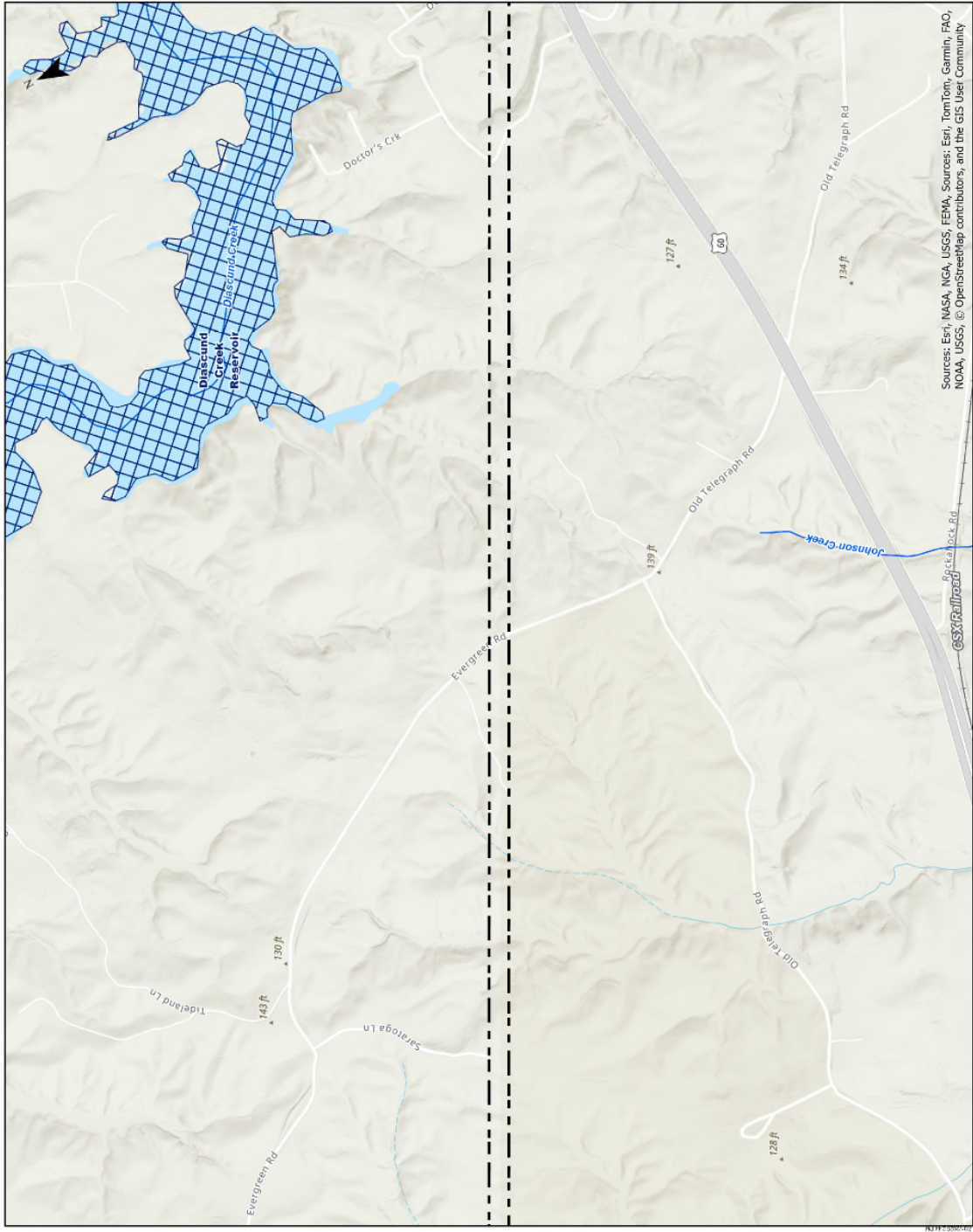
**CONSERVATION EASEMENTS MAP**

Chesterfield-Lanexa Corridor  
 Lines #92, #92, #217, #287, and #2129 Partial Rebuild  
 Henrico, Charles City and New Kent  
 Counties, Virginia

Client:  
 Dominion Energy Virginia  
 C2 Env Project: 0368  
 Prepared By: KAS  
 Date: 7/29/25



- ▲ Existing Substation
- Dominion Station Parcel
- Chesterfield County Owned Land
- Henrico County Owned Land
- James City County Owned Land
- New Kent County Owned Land
- Virginia Department of Historic Resources Easement
- Federally Owned Land
- Private Conservation Land
- Virginia Outdoors Foundation Easement
- National Park Service Administrative Boundary (Not Federally Owned)
- Existing Dominion Easement
- Proposed Dominion Easement
- USGS National Hydrography Stream Centerline
- Railroad



Sources: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



SHEET 14 OF 15

**ATTACHMENT II.A.6**

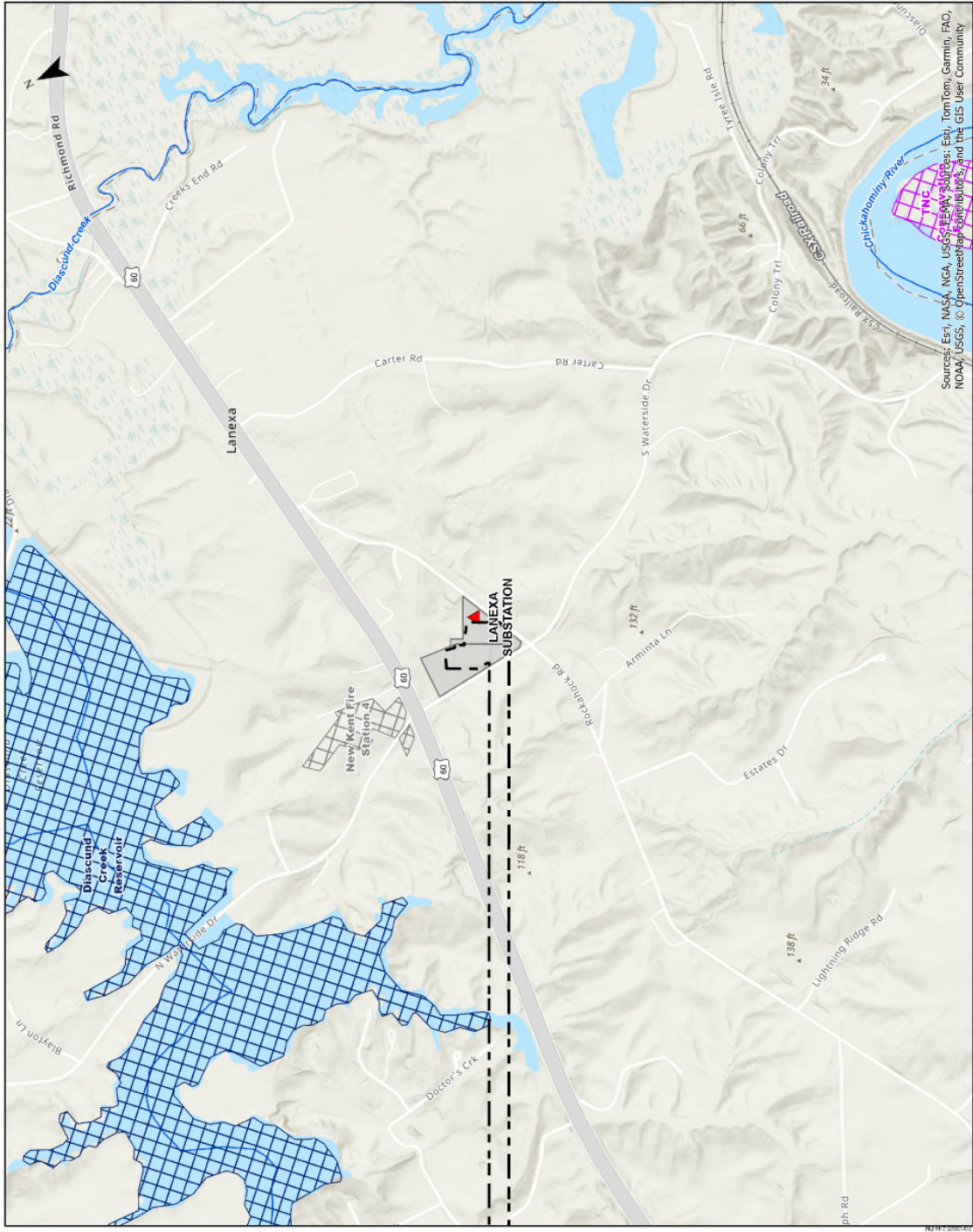
**CONSERVATION EASEMENTS MAP**

Chesterfield-Lanexa Corridor  
 Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
 Henrico, Charles City and New Kent  
 Counties, Virginia

Client:  
 Dominion Energy Virginia  
 C2 Env Project: K4S  
 Prepared By: K4S  
 Date: 7/29/25



- ▲ Existing Substation
- Dominion Station Parcel
- Chesterfield County Owned Land
- Henrico County Owned Land
- James City County Owned Land
- New Kent County Owned Land
- Virginia Department of Historic Resources Easement
- Federally Owned Land
- Private Land
- Virginia Conservation Land
- Virginia Outdoors Foundation Easement
- National Park Service Administrative Boundary (Not Federally Owned)
- Existing Dominion Easement
- Proposed Dominion Easement
- USGS National Hydrography Stream Centerline
- Railroad



Sources: Esri, NASA, NGA, USGS, FEMA, SRTM30plus, Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



SHEET 15 OF 15

## 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: With the exception of a small area of land (approximately 1.68 acres) around the Chickahominy Substation, the Rebuild Project will utilize existing right-of-way, which varies in width from 150 to 466.5 feet wide. As such, additional clearing within the existing rights-of-way is not necessary, but the existing rights-of-way are currently and will continue to be maintained for the operation of the existing transmission facilities. An estimated 0.04 acre of tree clearing will be required within the new right-of-way at Chickahominy Substation.

Trimming of tree limbs along the edge of the right-of-way may be conducted to support construction activities for the Rebuild 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 also 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 avoid land disturbance 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 Rebuild Project, the Company will restore the right-of-way utilizing site rehabilitation procedures outlined in the *Standards & Specifications for Erosion Stormwater Management* that was approved by the Virginia Department of Environmental Quality (“DEQ”). Time of year and weather conditions may affect when permanent stabilization takes place.

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

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way (“ROW”)

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

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

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

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

- Agriculture;
- Hiking Trails;
- Fences;
- Perpendicular Road Crossings;
- Perpendicular Utility Crossings;
- Residential Driveways; 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 transmission line rebuild projects begins with a review of the existing right-of-way. This approach generally minimizes impacts on the natural and human environments. This approach is also consistent with Attachment 1 of these Guidelines, which provides a tool routinely used by the Company in routing its transmission line projects. Specifically, this approach is consistent with Guideline #1, which states that existing rights-of-way should be given priority when adding new transmission facilities, and Va. Code §§ 56-46.1 and 56-259, which promote the use of existing rights-of-way for new transmission facilities. For the proposed Rebuild Project, the existing transmission corridor right-of-way that currently contains Lines #92, #192, #217, #287, and #2129 is adequate, with the exception of a small area of new right-of-way near the Chickahominy Substation needed to re-route the underground portion of Line #92 aboveground. Because the statutory preference given to the use of existing rights-of-way, and because additional costs and environmental impacts would be associated with the acquisition of and construction on new right-of-way, the Company did not consider any alternate routes where existing right-of-way is sufficient.

The Company considered removing and replacing the underground portion of Line #92, which would not require any additional right-of-way near the Chickahominy Substation. However, this option would cost significantly more than removing and re-routing the underground portion of Line #92 aboveground, which necessitates the approximately 1.68 acres of right-of-way. Specifically, re-routing the portion of Line #92 aboveground will cost approximately \$814,000, while the cost to keep this portion of Line #92 underground is estimated at \$11,056,749 (or over thirteen times more expensive).

See [Attachment II.A.6](#) for conservation easements crossed by the Rebuild Project.

As noted previously, these conservation easements were created after the establishment of the existing corridor.

**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 Rebuild Project in a manner that minimizes outage time, as described below. Assuming a final order from the Commission by June 2026, as requested in Section I.H of this Appendix, the Company estimates that the proposed Rebuild Project construction will commence in December 2026 and be completed by December 2028, which will require one outage on Line #92 (beginning in December 2026), one outage on Line #217 (beginning in September 2026), one outage on Line #287 (beginning in March 2027), and one outage on Line #2129 (beginning in February 2028).

Season	Work to Be Completed
Winter 2026	<ul style="list-style-type: none"> <li>• Wreck and rebuild line #217 and from Structure #217/7A–#217/13A</li> <li>• Wreck and rebuild line #287 from Structure #287/6–#287/13</li> </ul>
Winter 2027	<ul style="list-style-type: none"> <li>• Wreck and rebuild line #92 and #192 from Structure #92/5–#92/536</li> </ul>
Spring 2027	<ul style="list-style-type: none"> <li>• Wreck and rebuild line #92 and # 287 from Structure #92/536 to Turner Substation</li> <li>• Wreck and rebuild line #287 from Turner Substation to Chickahominy Substation</li> </ul>
Fall 2027	<ul style="list-style-type: none"> <li>• Wreck and rebuild line #92 from Turner Substation to Providence Forge Substation</li> </ul>
Spring 2028	<ul style="list-style-type: none"> <li>• Wreck and rebuild line #92 and # 2129 from Chickahominy to Lanexa Substation</li> </ul>

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

## II. DESCRIPTION OF THE PROPOSED PROJECT

### A. Right-of-way (“ROW”)

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

Response: Attachment 1 of the Guidelines provides a tool routinely used by the Company in routing its transmission line projects.

The Company utilized Guideline #1 by siting the Rebuild Project almost entirely within existing transmission line right-of-way corridor (to the extent permitted by the property interest involved, rights-of-way should be selected with the purpose of minimizing conflict between the rights-of-way and present and prospective uses of the land on which they are to be located. To this end, existing rights-of-way should be given the priority as the locations for additions to existing transmission facilities, and the joint use of existing rights-of-way by different kinds of utility services should be considered).

By utilizing the existing transmission corridor to the extent possible, the proposed Rebuild Project will minimize impact to any site listed on the National Register of Historic Places (“NRHP”). Thus, the Rebuild Project is consistent with Guideline #2 (where practical, rights-of-way should avoid sites listed on the NRHP). In any event, the Company will coordinate with the Virginia Department of Historic Resources (“VDHR”) regarding its plans prior to final engineering and construction of the Rebuild Project to avoid or minimize impacts. A Stage I Pre-Application Analysis prepared by Dutton + Associates on behalf of the Company was submitted to the VDHR on September 9, 2025, and is included with the DEQ Supplement as Attachment 2.I.1.

The Company has communicated with a number of local, state, and federal agencies prior to filing this Application consistent with Guideline #4 (where government land is involved the applicant should contact the agencies early in the planning process). In particular, the Company consulted with Henrico, Charles City, and New Kent Counties regarding the Rebuild Project. See Sections III and V 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 the clearing of transmission line rights-of-way, constructing facilities, and maintaining rights-of-way after construction. Moreover, secondary uses of rights-of-way consistent with the safe maintenance and operation of facilities are permitted, as noted in Section II.A.8.

## II. DESCRIPTION OF THE PROPOSED PROJECT

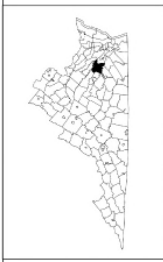
### A. Right-of-way (“ROW”)

12. a. **Detail counties and localities through which the line will pass. If any portion of the line will be located outside of the Applicant’s certificated service area: (1) identify each electric utility affected; (2) state whether any affected electric utility objects to such construction; and (3) identify the length of line(s) proposed to be located in the service area of an electric utility other than the Applicant; and**
- b. **Provide three (3) color copies of the Virginia Department of Transportation “General Highway Map” for each county and city through which the line will pass. On the maps show the proposed line and all previously approved and certificated facilities of the Applicant. Also, where the line will be located outside of the Applicant’s certificated service area, show the boundaries between the Applicant and each affected electric utility. On each map where the proposed line would be outside of the Applicant’s certificated service area, the map must include a signature of an appropriate representative of the affected electric utility indicating that the affected utility is not opposed to the proposed construction within its service area.**

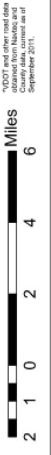
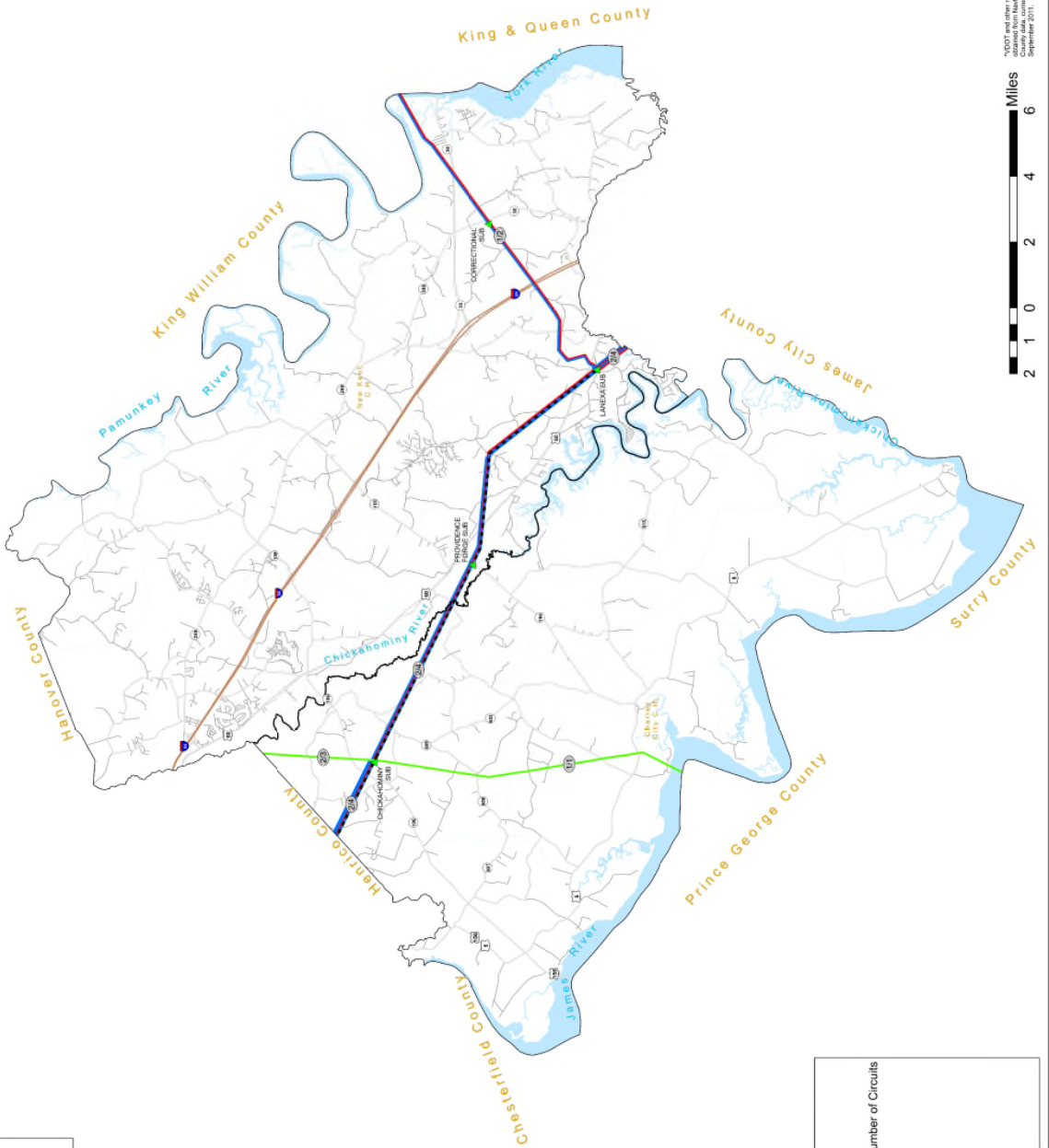
- Response:
- a. The proposed Rebuild Project traverses Henrico County for a total of approximately 11.2 miles, Charles City County for a total of approximately 8.3 miles, and New Kent County for a total of approximately 8.7 miles. The Rebuild Project is located entirely within the Company’s service territory.
  - b. Copies of the Virginia Department of Transportation (“VDOT”) “General Highway Map” for Henrico, Charles City, and New Kent Counties are marked as required and filed with the Application. A reduced copy of each map is provided as Attachments II.A.12.b.



# Charles City and New Kent Counties Road Map



This digital map depicts the Virginia Electric and Power Company's (VEPCO) proposed transmission lines and substations in the counties of Charles City and New Kent. The map is based on the Virginia Department of Transportation's (VDOT) data as of September 2011. The map is not intended to be used for any other purpose. The map is not intended to be used for any other purpose. The map is not intended to be used for any other purpose.



**Legend**

- Proposed Rebuild
- ⊙ Number of Lines of Structures/Number of Circuits
- △ Proposed Substation
- ▲ Existing Substation
- 115 KV
- 230 KV
- 500 KV
- ▭ Provider Service Territory
- ▭ VEPCO

# Charles City and New Kent

## **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: Lines #92, #217, #287, and #2129 will be designed and operated at 230 kV and will have a summer/winter transfer capability of 1572 MVA, except for Line #92, which will continue to operate at 115 kV until a future date. No voltage upgrades are anticipated.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### B. Line Design and Operational Features

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

Response: The proposed conductor for Lines #92, #192, #287, #217, and #2129 will be three-phase twin-bundled 768.2 ACSS/TW/HS conductor arranged as shown in Attachment II.B.3.b-p. The twin-bundled 768.2 ACSS/TW/HS conductors are the Company's standard for new 230 kV construction.

## **II. DESCRIPTION OF THE PROPOSED PROJECT**

### **B. Line Design and Operational Features**

- 3. With regard to the proposed supporting structures over each portion of the ROW for the preferred route, provide diagrams (including foundation reveal) and descriptions of all the structure types, to include:**
  - a. mapping that identifies each portion of the preferred route;**
  - b. the rationale for the selection of the structure type;**
  - c. the number of each type of structure and the length of each portion of the ROW;**
  - d. the structure material and rationale for the selection of such material;**
  - e. the foundation material;**
  - f. the average width at cross arms;**
  - g. the average width at the base;**
  - h. the maximum, minimum and average structure heights;**
  - i. the average span length; and**
  - j. the minimum conductor-to-ground clearances under maximum operating conditions.**

Response: See Attachment II.B.3.a, which provides maps that identify each portion of the preferred route, and Attachment II.B.3.b-p, which provides information in response to items b-j of part II.B.3.

**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield-Lanexa Corridor  
Lines #92, #127, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client: Dominion Energy Virginia  
CZ Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25

Scale is 1" = 3 MI when printed at original size of 11x17  
0 1.5 3 6 Miles

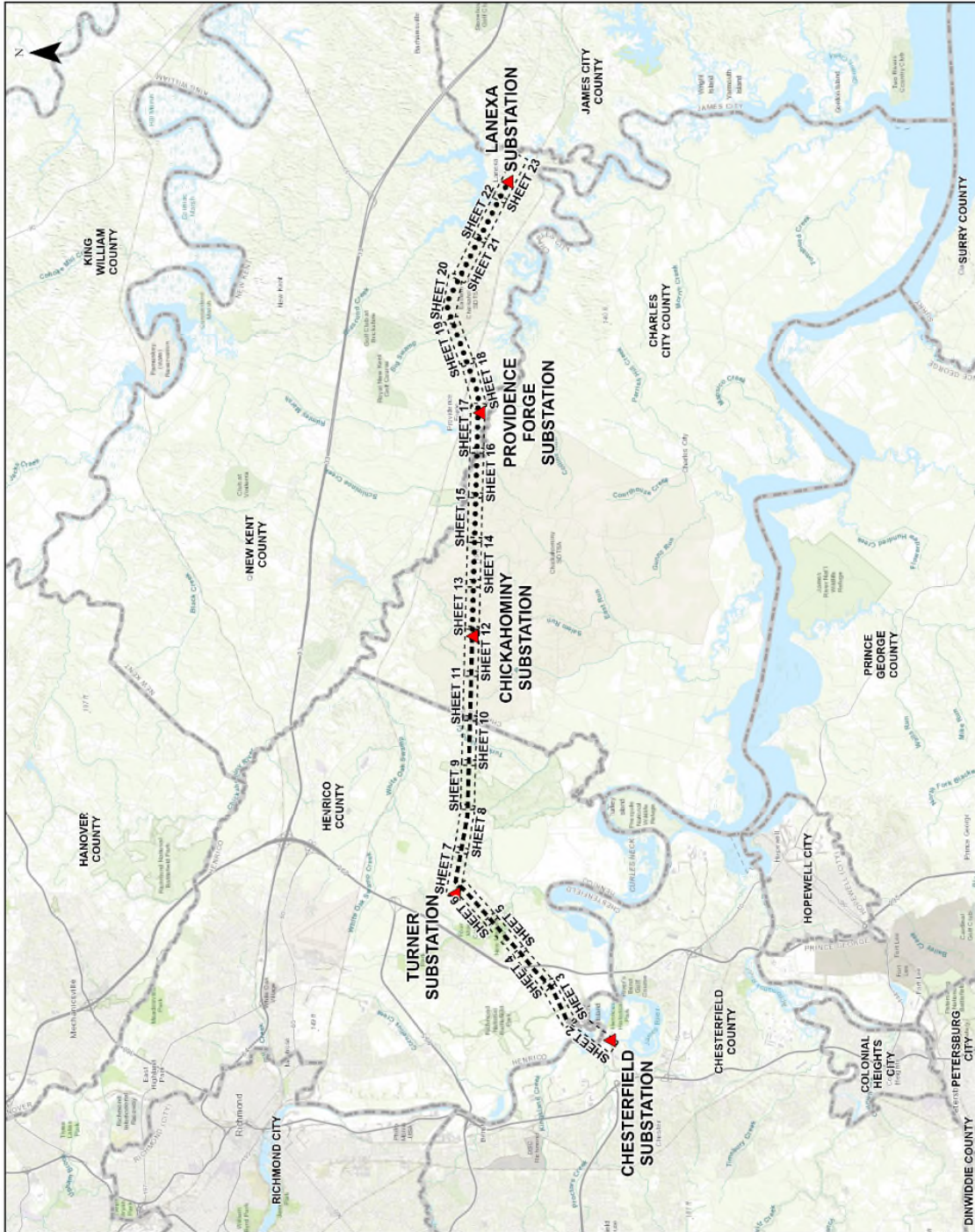
**SITE DATA**

- Partial Rebuild of Lines #287 and #217
- Partial Rebuild of Lines #92 and #192
- Partial Rebuild of Lines #92 and #287
- Partial Rebuild of Lines #92 and #2129
- Existing Substation
- Index Sheet

- Notes:
1. Base map from ESRI World Topographic Map
  2. Project right-of-way provided by Dominion Energy Virginia
  3. Wetlands provided by Virginia Department of Conservation and Recreation, U.S. Geological Survey Protected Areas Database of the U.S., and Department of Historic Resources Virginia Cultural Resources
  4. Railroads from Virginia Geographic Information Network
  5. Stream centerlines from U.S. Geological Survey National Hydrography Dataset



SHEET 1 OF 23



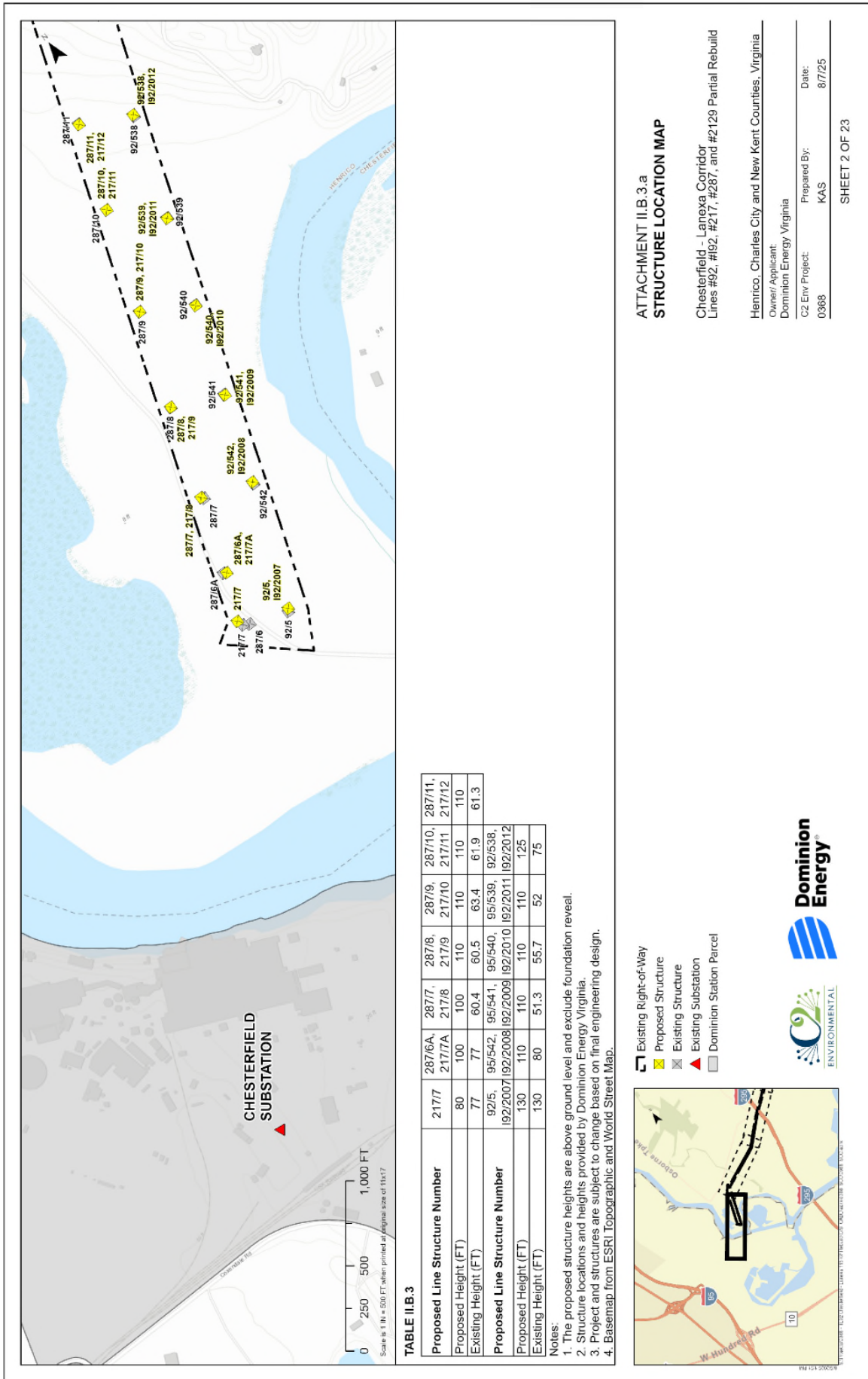


TABLE II.B.3

Proposed Line Structure Number	2177	287/6A, 2177A	287/7, 2177B	287/8, 2177C	287/9, 2177D	287/10, 2177E	287/11, 2177F
Proposed Height (FT)	80	100	100	110	110	110	110
Existing Height (FT)	77	77	60.4	60.5	63.4	61.9	61.3
Proposed Line Structure Number	92/5, 192/2007	92/5, 192/2008	92/5, 192/2009	92/5, 192/2010	92/5, 192/2011	92/5, 192/2012	
Proposed Height (FT)	130	110	110	110	110	125	
Existing Height (FT)	130	80	51.3	55.7	52	75	

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant: Dominion Energy Virginia  
CZ Env Project: 0368 Prepared By: KAS Date: 8/7/25





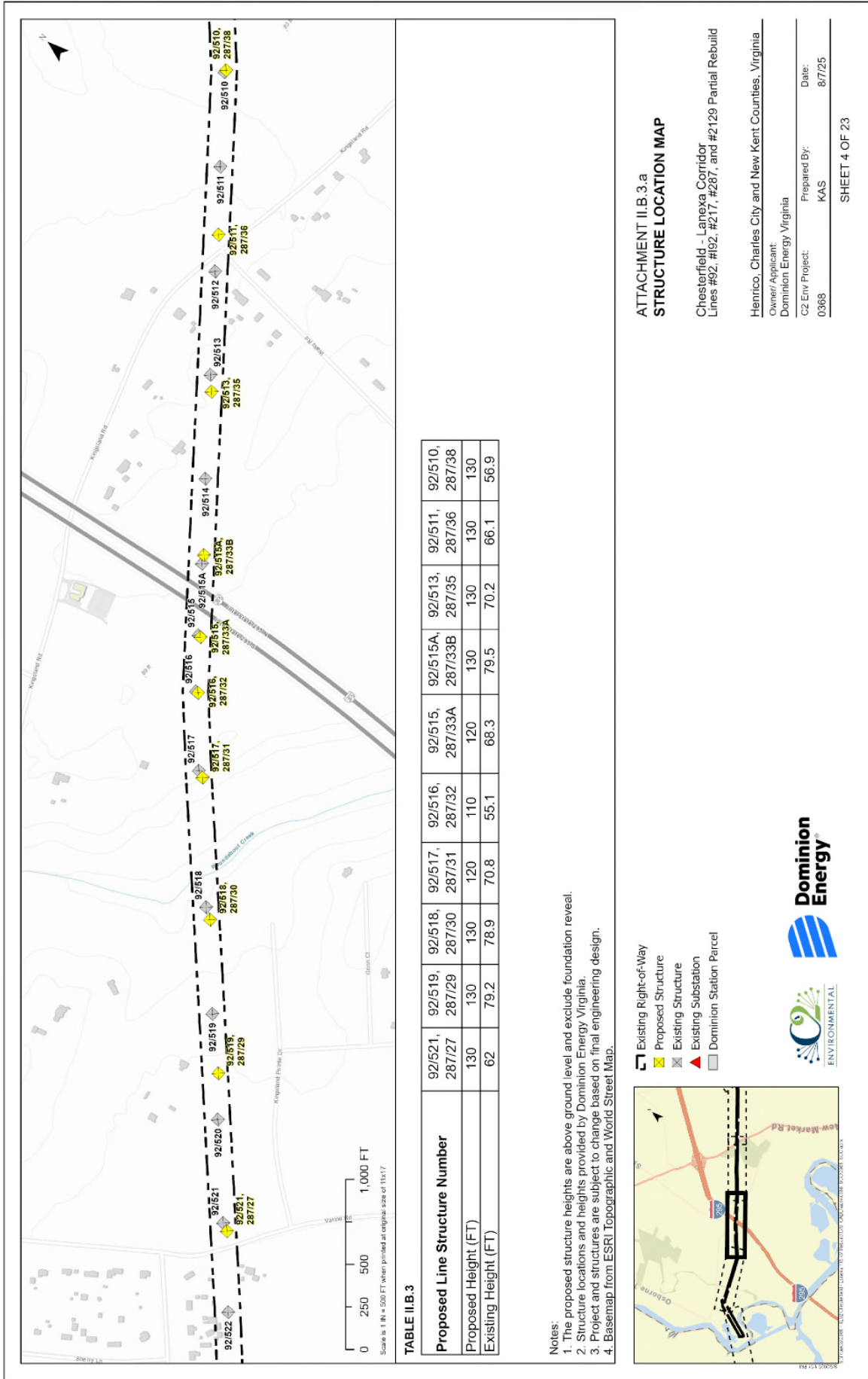


TABLE II.B.3

Proposed Line Structure Number	92/521, 287/27	92/519, 287/29	92/518, 287/30	92/517, 287/31	92/516, 287/32	92/515, 287/33A	92/515A, 287/33B	92/513, 287/35	92/511, 287/36	92/510, 287/38
Proposed Height (FT)	130	130	130	120	110	120	130	130	130	130
Existing Height (FT)	62	79.2	78.9	70.8	55.1	68.3	79.5	70.2	66.1	56.9

Notes:

1. The proposed structure heights are above ground level and exclude foundation reveal.
2. Structure locations and heights provided by Dominion Energy Virginia.
3. Project and structures are subject to change based on final engineering design.
4. Basemap from ESRI Topographic and World Street Map.



ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP

Chesterfield - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant:  
Dominion Energy Virginia

CZ Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25



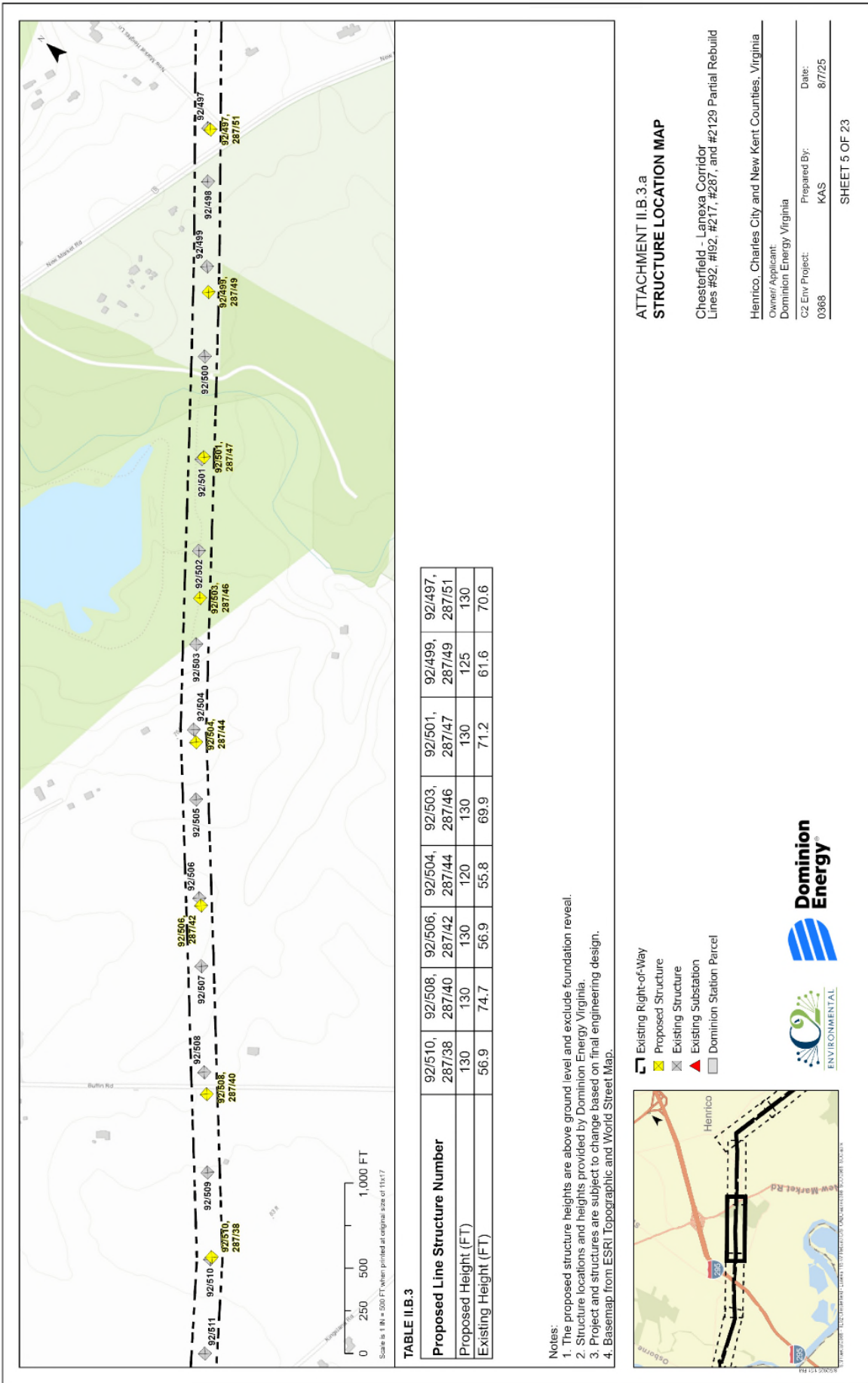


TABLE II.B.3

Proposed Line Structure Number	92/510, 287/38	92/508, 287/40	92/506, 287/42	92/504, 287/44	92/503, 287/46	92/501, 287/47	92/499, 287/49	92/497, 287/51
Proposed Height (FT)	130	130	130	120	130	130	125	130
Existing Height (FT)	56.9	74.7	56.9	55.8	69.9	71.2	61.6	70.6

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia

Owner/Applicant:  
Dominion Energy Virginia

CZ Env Project: 0368      Prepared By: KAS      Date: 8/7/25

SHEET 5 OF 23



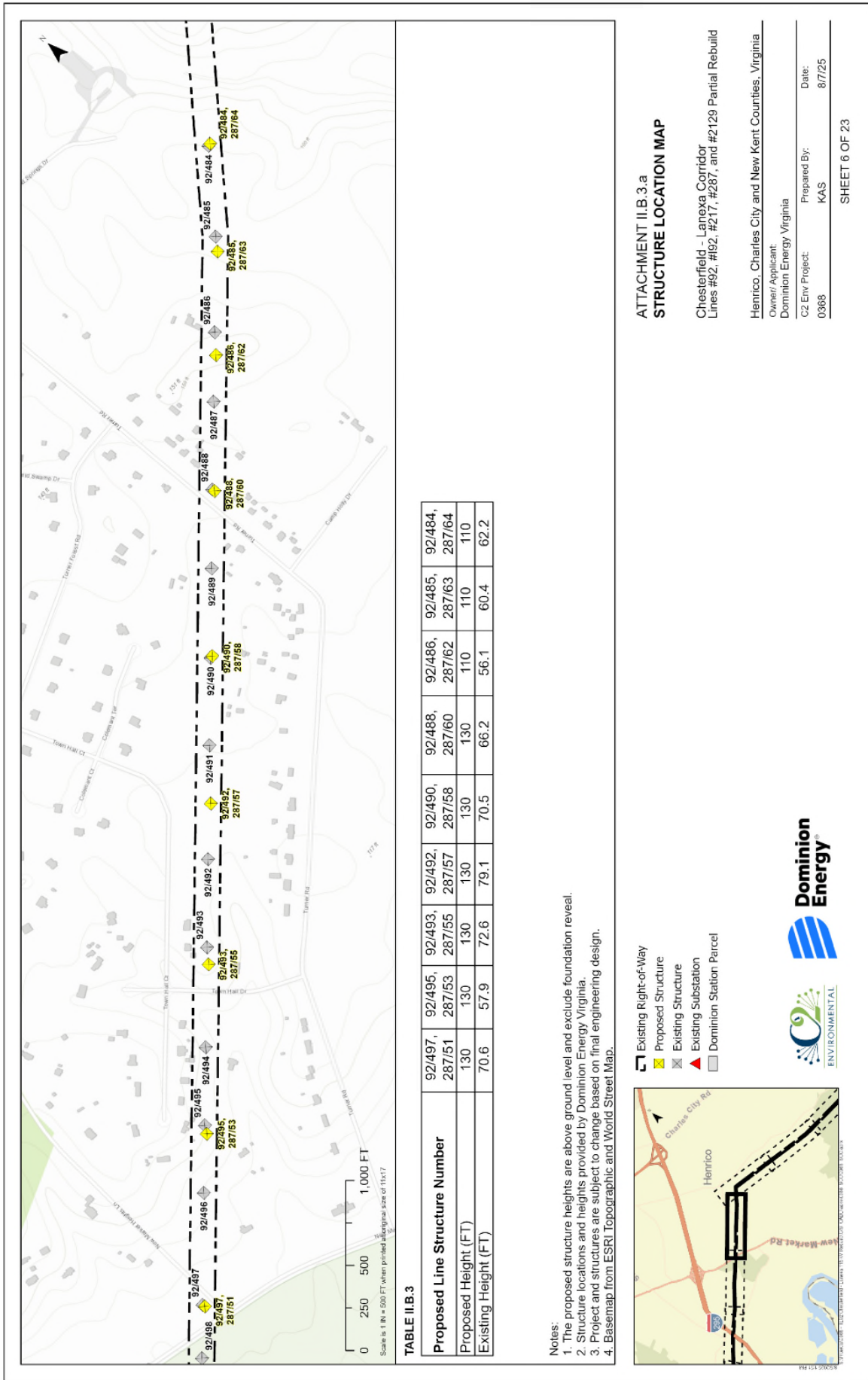


TABLE II.B.3

Proposed Line Structure Number	92/497, 287/51	92/495, 287/53	92/493, 287/55	92/492, 287/57	92/490, 287/58	92/488, 287/60	92/486, 287/62	92/485, 287/63	92/484, 287/64
Proposed Height (FT)	130	130	130	130	130	130	110	110	110
Existing Height (FT)	70.6	57.9	72.6	79.1	70.5	66.2	56.1	60.4	62.2

Notes:

1. The proposed structure heights are above ground level and exclude foundation reveal.
2. Structure locations and heights provided by Dominion Energy Virginia.
3. Project and structures are subject to change based on final engineering design.
4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel

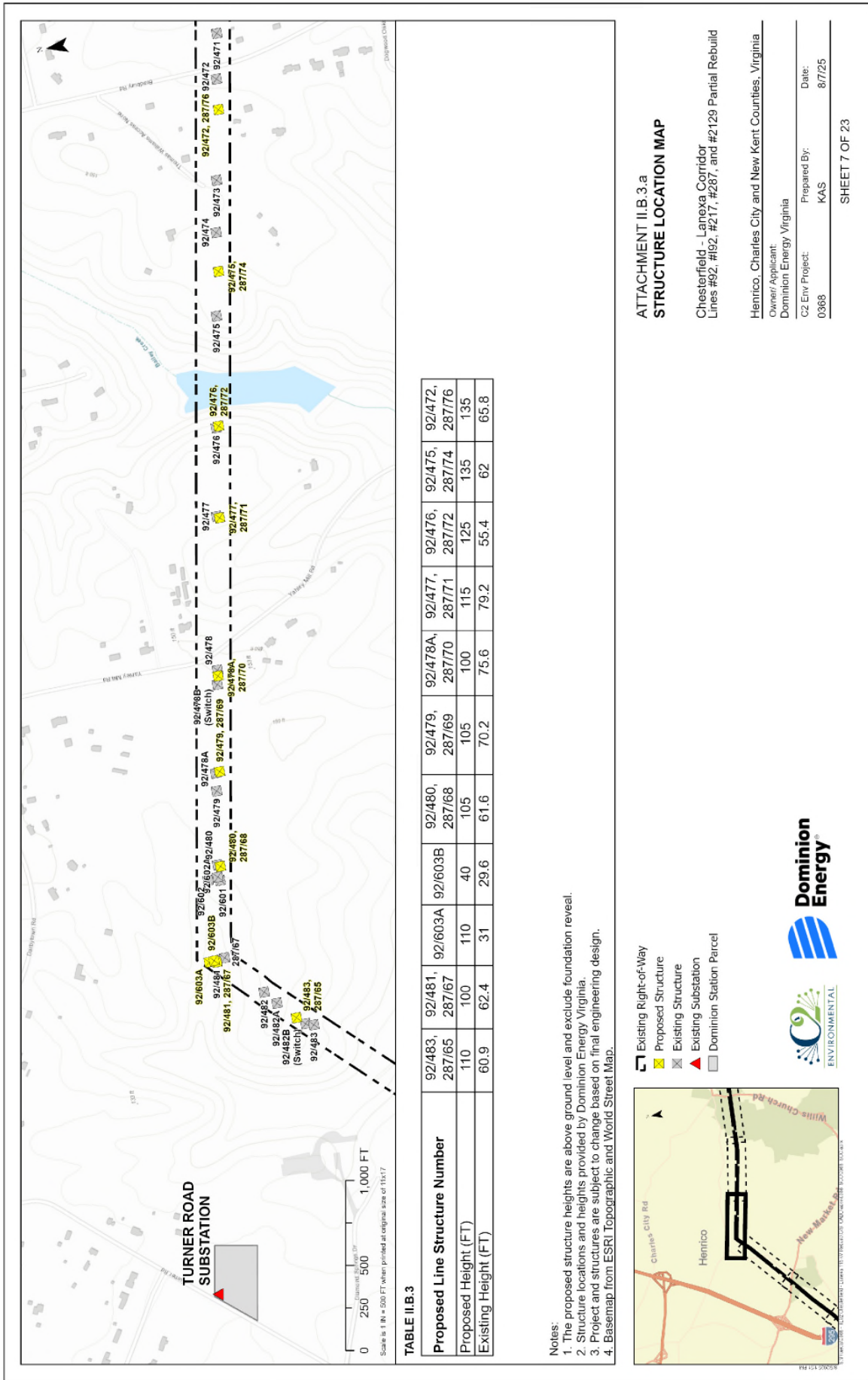


ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP

Chesterfield - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
 Owner/Applicant: Dominion Energy Virginia  
 CZ Env Project: 0368  
 Prepared By: KAS  
 Date: 8/7/25





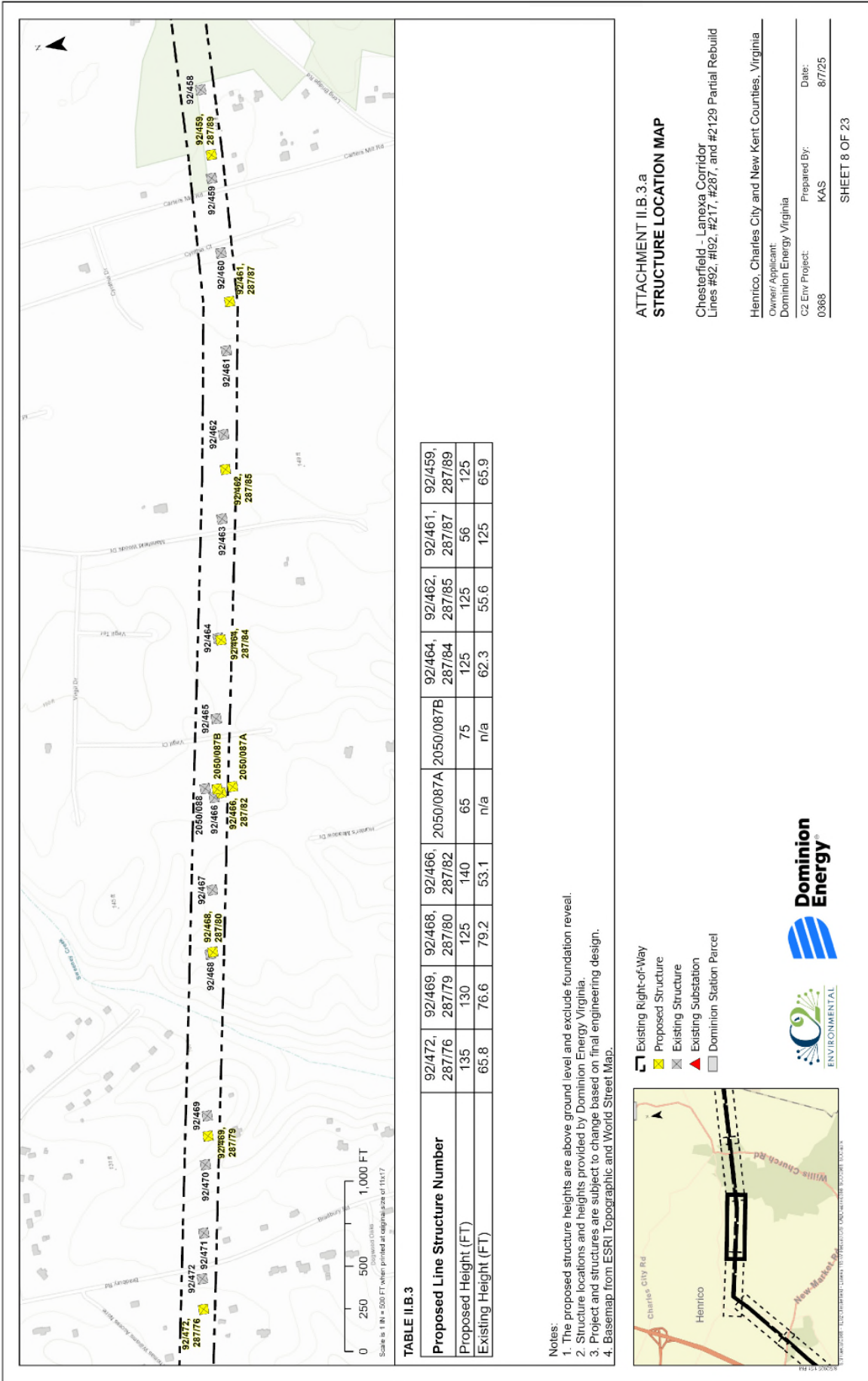
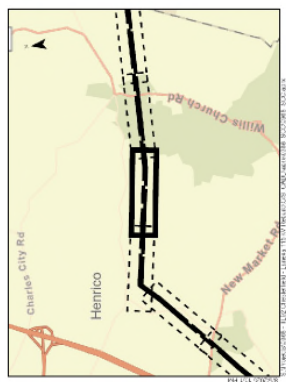


TABLE II.B.3

Proposed Line Structure Number	92/472, 287/76	92/469, 287/79	92/468, 287/80	92/466, 287/82	92/467, 287/80	92/468, 287/80	92/466, 287/82	92/464, 287/84	92/462, 287/85	92/461, 287/87	92/459, 287/89
Proposed Height (FT)	135	130	125	140	65	75	125	125	125	56	125
Existing Height (FT)	65.8	76.6	79.2	53.1	n/a	n/a	62.3	55.6	125	65.9	

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
 Owner/Applicant: Dominion Energy Virginia  
 CZ Env Project: 0368  
 Prepared By: KAS  
 Date: 8/7/25





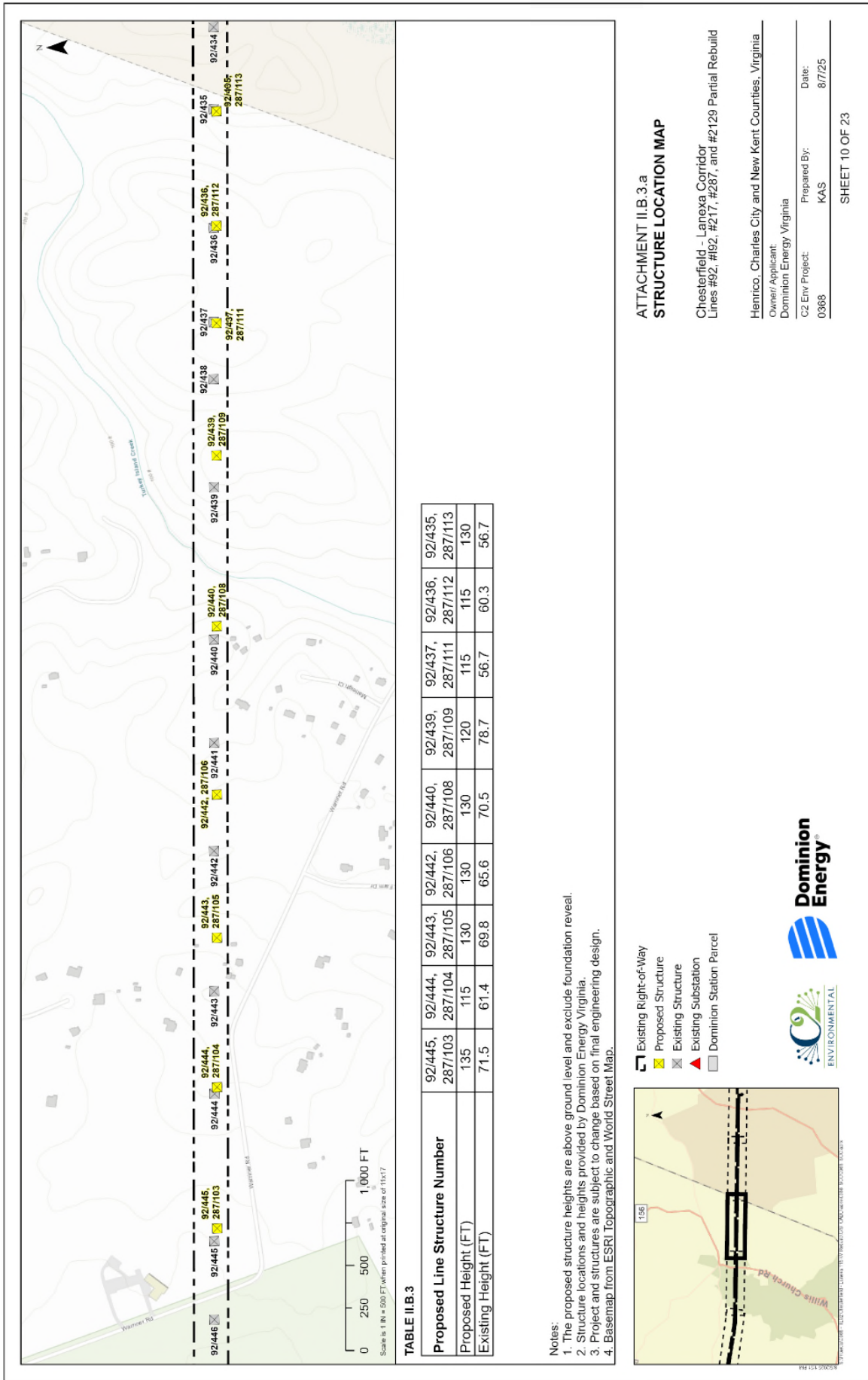
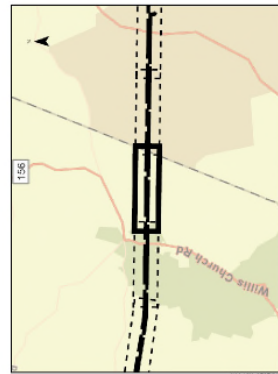


TABLE II.B.3

Proposed Line Structure Number	92/445, 287/103	92/444, 287/104	92/443, 287/105	92/442, 287/106	92/440, 287/108	92/439, 287/109	92/437, 287/111	92/436, 287/112	92/435, 287/113
Proposed Height (FT)	135	115	130	130	130	120	115	115	130
Existing Height (FT)	71.5	61.4	69.8	65.6	70.5	78.7	56.7	60.3	56.7

Notes:

1. The proposed structure heights are above ground level and exclude foundation reveal.
2. Structure locations and heights provided by Dominion Energy Virginia.
3. Project and structures are subject to change based on final engineering design.
4. Basemap from ESRI Topographic and World Street Map.



- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel

ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP

Chesterfield - Lanexa Corridor  
Lines #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
 Owner/Applicant: Dominion Energy Virginia  
 CZ Env Project: 0368  
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 Date: 8/7/25



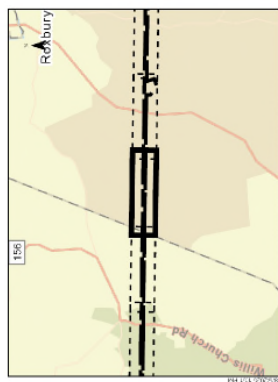


TABLE II.B.3

Proposed Line Structure Number	92/435, 287/113	92/432, 287/116	92/431, 287/115	92/430, 287/118	92/429, 287/120	92/428, 287/120	92/427, 287/124	92/426, 287/124	92/425, 287/124	92/424, 287/124	92/423, 287/125	92/422, 287/128	92/421, 287/128
Proposed Height (FT)	130	120	120	130	140	130	130	130	130	130	130	130	130
Existing Height (FT)	56.7	60.6	66.4	57.2	61.3	57.4	56.8	79.4	61.5				

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant: Dominion Energy Virginia  
CZ Env Project: 0368 Prepared By: KAS Date: 8/7/25



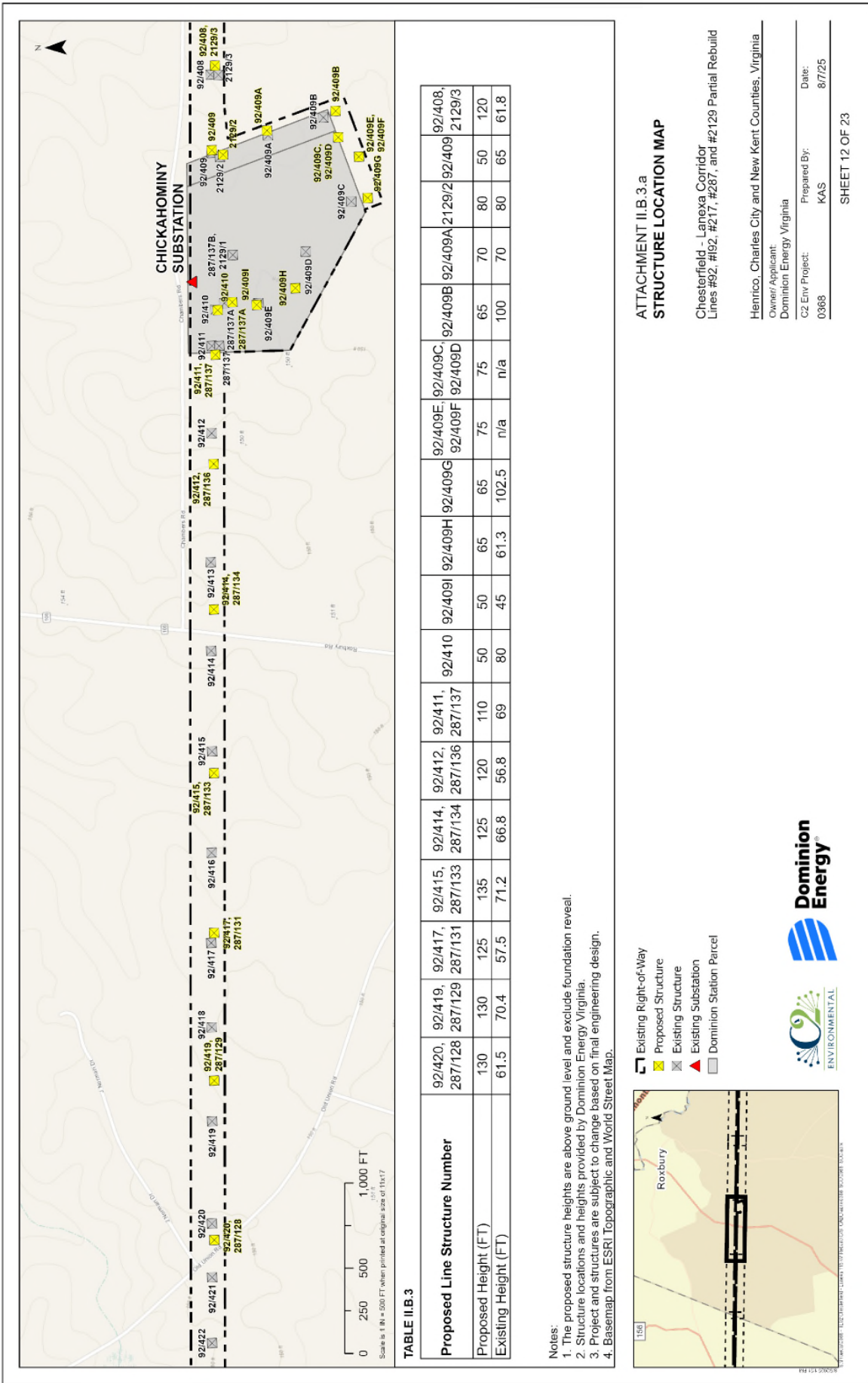
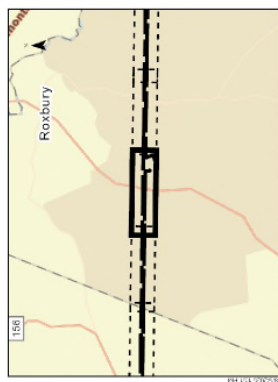


TABLE II.B.3

Proposed Line Structure Number	92/420, 287/128	92/419, 287/129	92/417, 287/131	92/415, 287/133	92/414, 287/134	92/412, 287/136	92/411, 287/137	92/410	92/409I	92/409H	92/409G	92/409E, 92/409C, 92/409F	92/409B	92/409A	2129/2	92/408, 2129/3
Proposed Height (FT)	130	130	125	135	125	120	110	50	50	65	65	75	65	70	80	120
Existing Height (FT)	61.5	70.4	57.5	71.2	66.8	56.8	69	80	45	61.3	102.5	n/a	75	70	80	65

- Notes:
- The proposed structure heights are above ground level and exclude foundation reveal.
  - Structure locations and heights provided by Dominion Energy Virginia.
  - Project and structures are subject to change based on final engineering design.
  - Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant: Dominion Energy Virginia  
CZ Env Project: 0368 Prepared By: KAS Date: 8/7/25





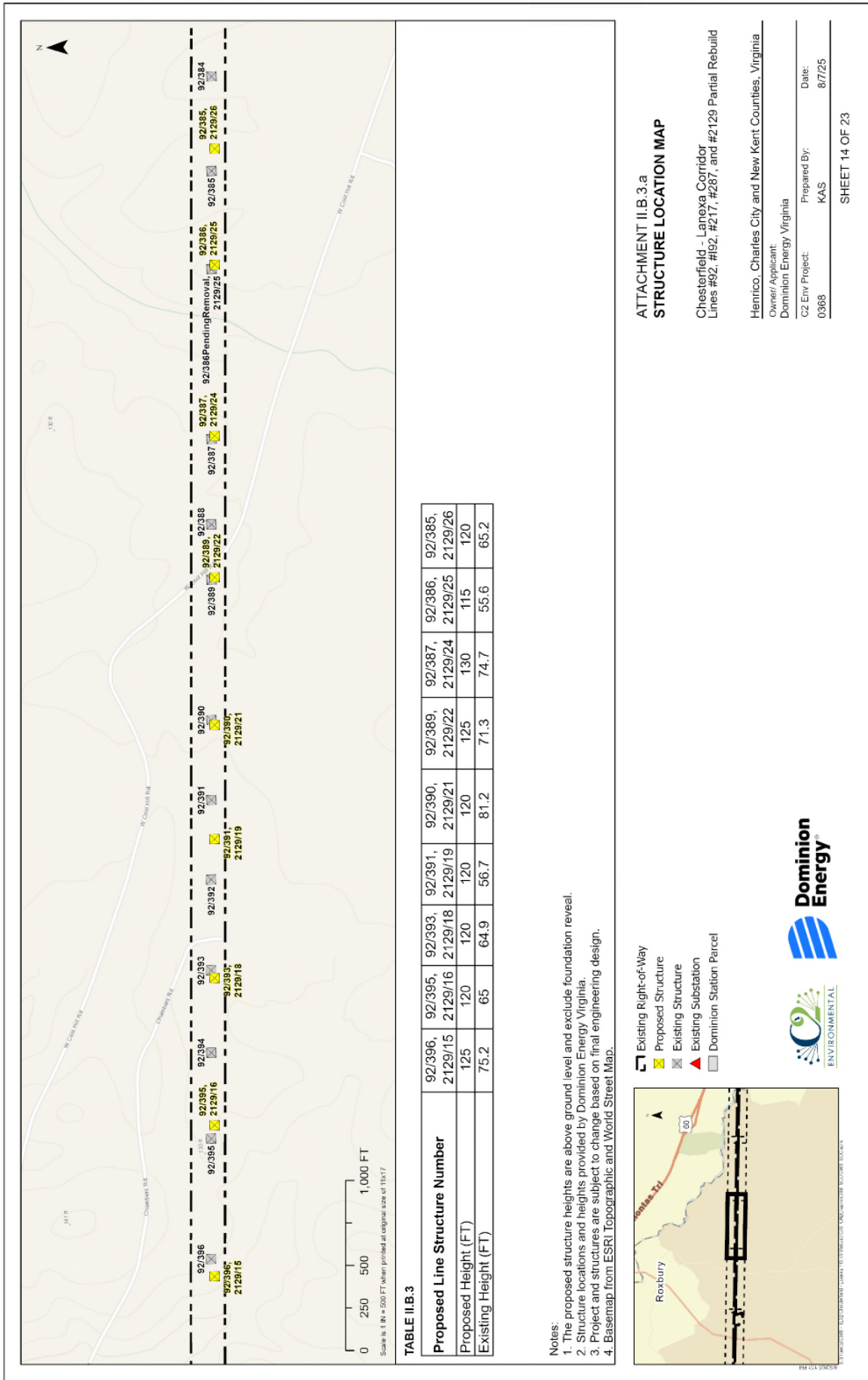
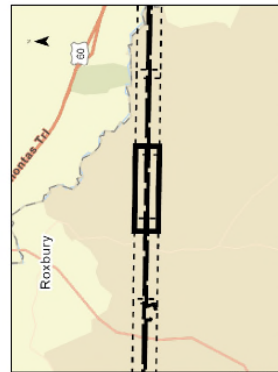


TABLE II.B.3

Proposed Line Structure Number	92/396, 2129/15	92/395, 2129/16	92/393, 2129/18	92/391, 2129/19	92/390, 2129/21	92/389, 2129/22	92/387, 2129/24	92/386, 2129/25	92/385, 2129/26
Proposed Height (FT)	125	120	120	120	120	125	130	115	120
Existing Height (FT)	75.2	65	64.9	56.7	81.2	71.3	74.7	55.6	65.2

Notes:

1. The proposed structure heights are above ground level and exclude foundation reveal.
2. Structure locations and heights provided by Dominion Energy Virginia.
3. Project and structures are subject to change based on final engineering design.
4. Basemap from ESRI Topographic and World Street Map.



- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel

ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP

Chesterfield - Lanexa Corridor  
Lines #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant:  
Dominion Energy Virginia

CZ Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25

SHEET 14 OF 23



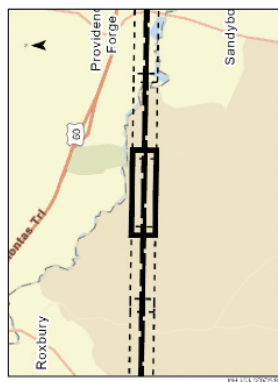


TABLE II.B.3

Proposed Line Structure Number	92/383, 2129/28	92/382, 2129/29	92/380, 2129/31	92/378, 2129/33	92/377, 2129/34	92/375, 2129/36	92/374, 2129/37	92/373, 2129/38	92/372, 2129/39
Proposed Height (FT)	135	120	120	110	110	110	105	135	120
Existing Height (FT)	77.6	56.8	66.4	59.8	84	65.2	65.8	71	79.5

Notes:  
 1. The proposed structure heights are above ground level and exclude foundation reveal.  
 2. Structure locations and heights provided by Dominion Energy Virginia.  
 3. Project and structures are subject to change based on final engineering design.  
 4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
 STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
 Lines #92, #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
 Owner/Applicant: Dominion Energy Virginia  
 CZ Env Project: 0368 Prepared By: KAS Date: 8/7/25



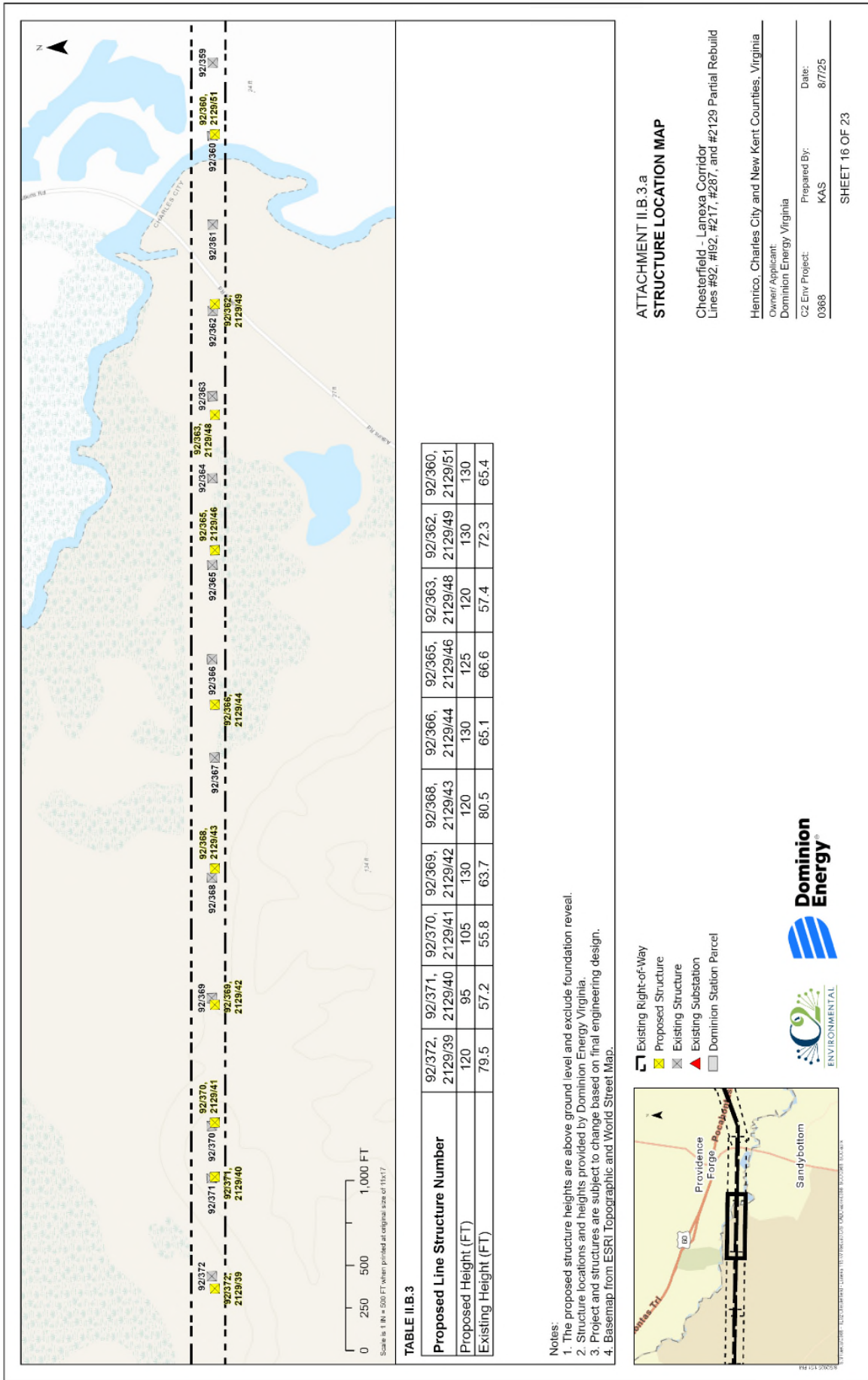
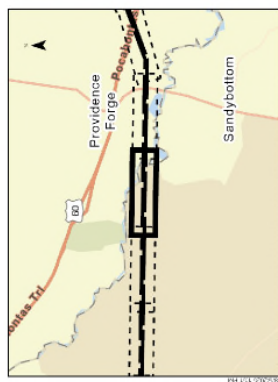


TABLE II.B.3

Proposed Line Structure Number	92/372, 2129/39	92/371, 2129/40	92/370, 2129/41	92/369, 2129/42	92/368, 2129/43	92/366, 2129/44	92/365, 2129/46	92/363, 2129/48	92/362, 2129/49	92/360, 2129/51
Proposed Height (FT)	120	95	105	130	120	130	125	120	130	130
Existing Height (FT)	79.5	57.2	55.8	63.7	80.5	65.1	66.6	57.4	72.3	65.4

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP

Chesterfield - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant: Dominion Energy Virginia  
CZ Env Project: 0368 Prepared By: KAS Date: 8/7/25



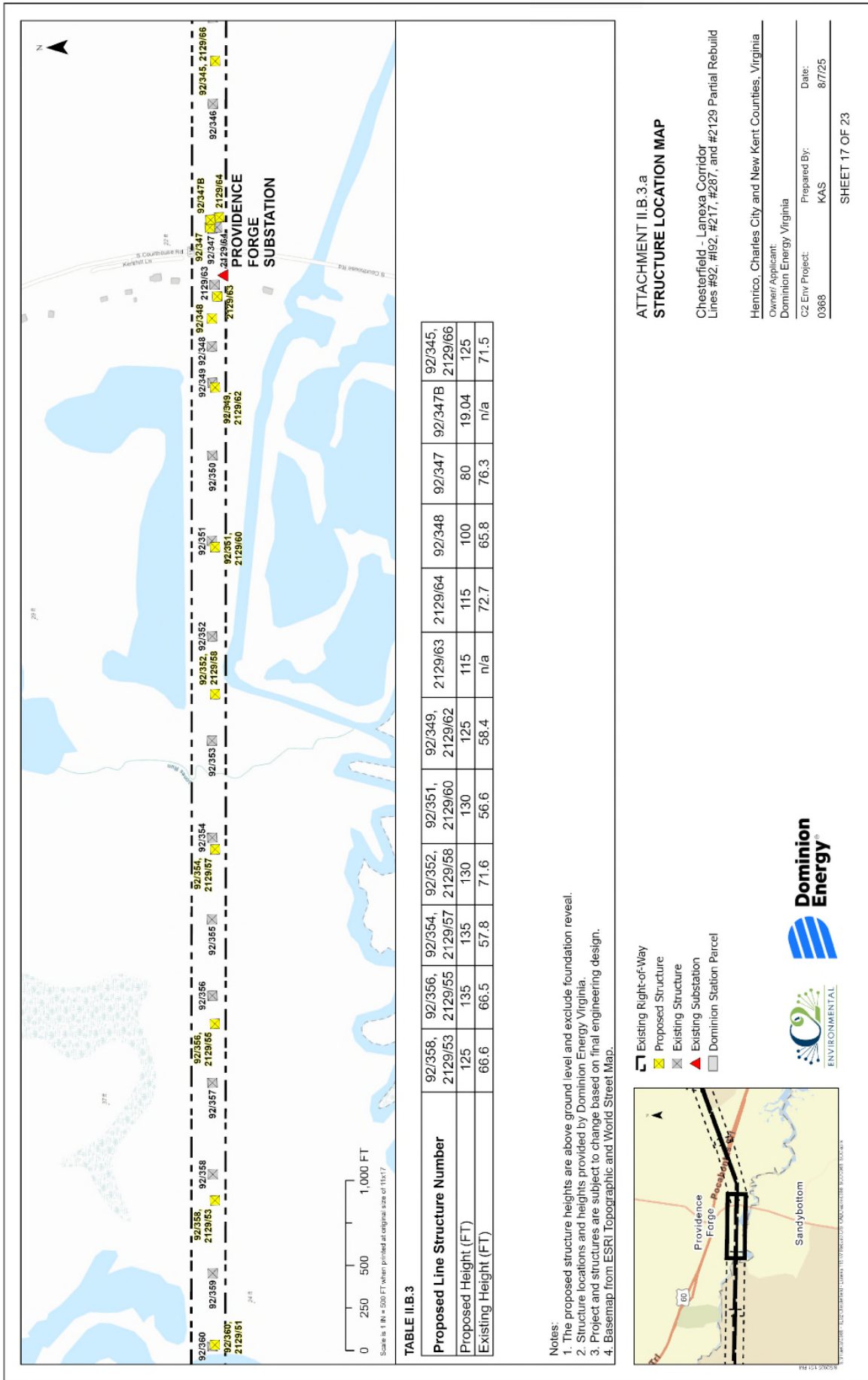
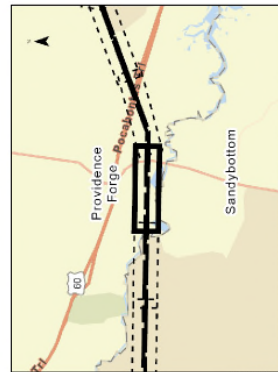


TABLE II.B.3

Proposed Line Structure Number	92/358, 2129/53	92/356, 2129/55	92/354, 2129/57	92/352, 2129/58	92/351, 2129/60	92/349, 2129/62	92/348, 2129/64	92/347, 2129/63	92/345, 2129/66
Proposed Height (FT)	125	135	135	130	130	125	115	115	125
Existing Height (FT)	66.6	66.5	57.8	71.6	56.6	58.4	72.7	76.3	71.5

Notes:

1. The proposed structure heights are above ground level and exclude foundation reveal.
2. Structure locations and heights provided by Dominion Energy Virginia.
3. Project and structures are subject to change based on final engineering design.
4. Basemap from ESRI Topographic and World Street Map.



- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel

ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP

Chesterfield - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant:  
Dominion Energy Virginia  
CZ Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25

SHEET 17 OF 23



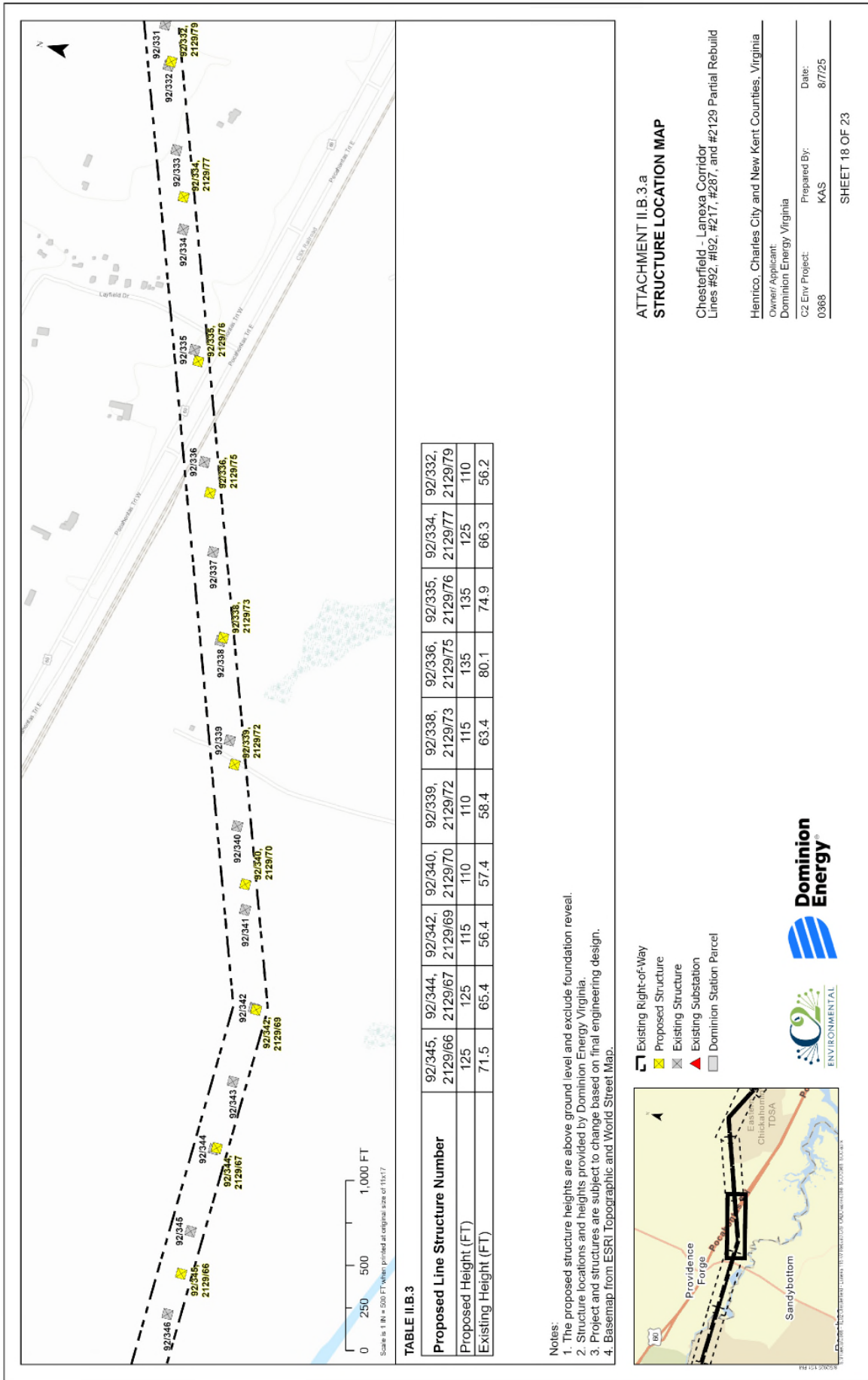
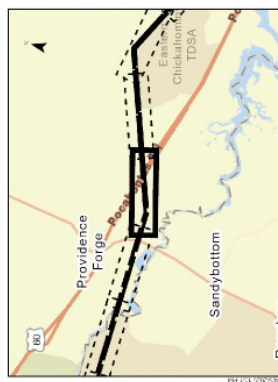


TABLE II.B.3

Proposed Line Structure Number	92/345, 2129/66	92/344, 2129/67	92/342, 2129/69	92/340, 2129/70	92/339, 2129/72	92/338, 2129/73	92/336, 2129/75	92/335, 2129/76	92/334, 2129/77	92/332, 2129/79
Proposed Height (FT)	125	125	115	110	110	115	135	135	125	110
Existing Height (FT)	71.5	65.4	56.4	57.4	58.4	63.4	80.1	74.9	66.3	56.2

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant: Dominion Energy Virginia  
CZ Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25



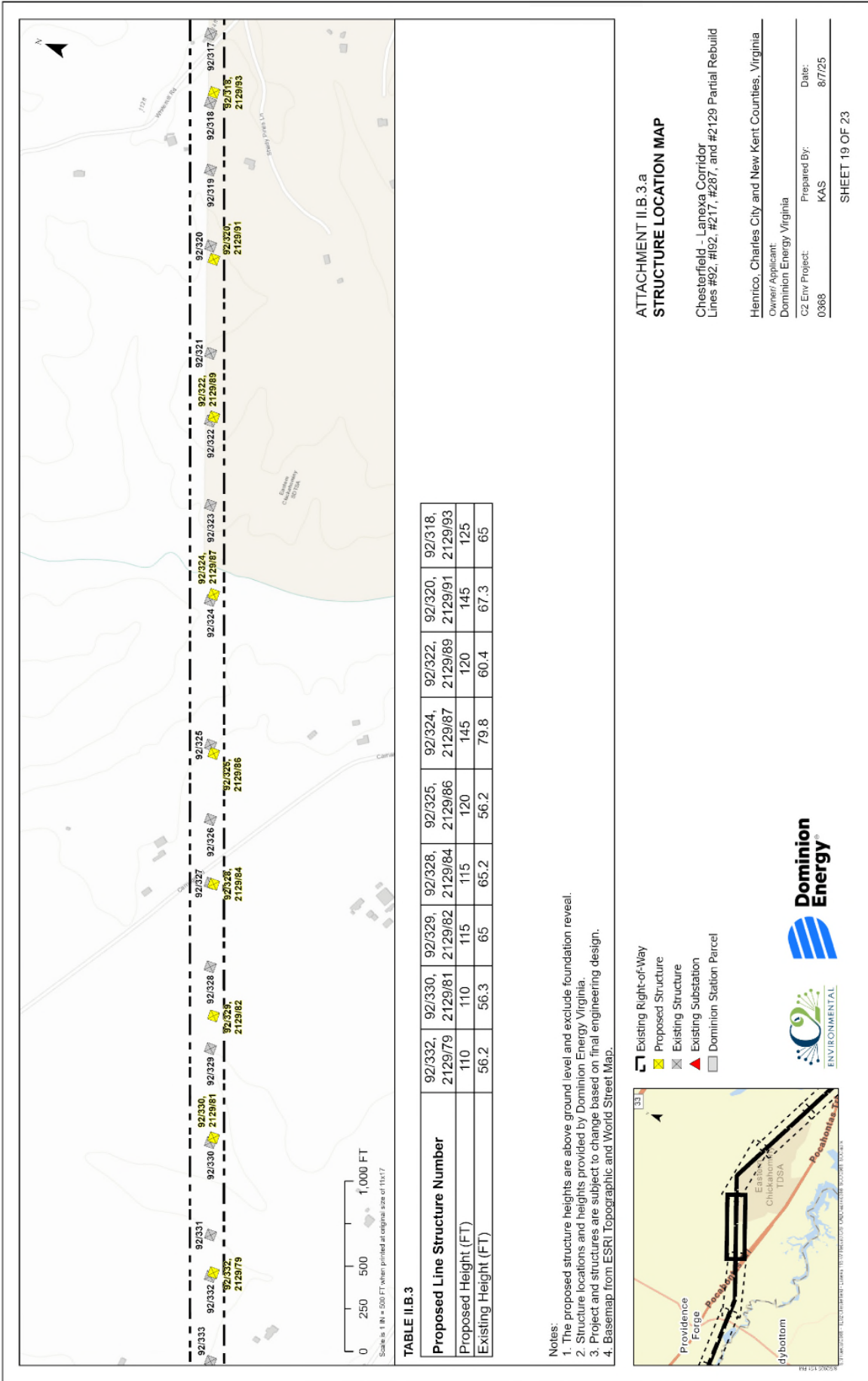
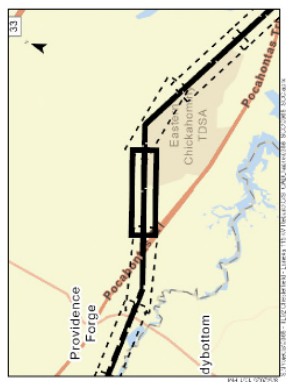


TABLE II.B.3

Proposed Line Structure Number	92/332, 2129/79	92/330, 2129/81	92/329, 2129/82	92/328, 2129/84	92/325, 2129/86	92/324, 2129/87	92/322, 2129/89	92/320, 2129/91	92/318, 2129/93
Proposed Height (FT)	110	110	115	115	120	145	120	145	125
Existing Height (FT)	56.2	56.3	65	65.2	56.2	79.8	60.4	67.3	65

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
 Owner/Applicant: Dominion Energy Virginia  
 C2 Env Project: 0368 Prepared By: KAS Date: 8/7/25  
 SHEET 19 OF 23



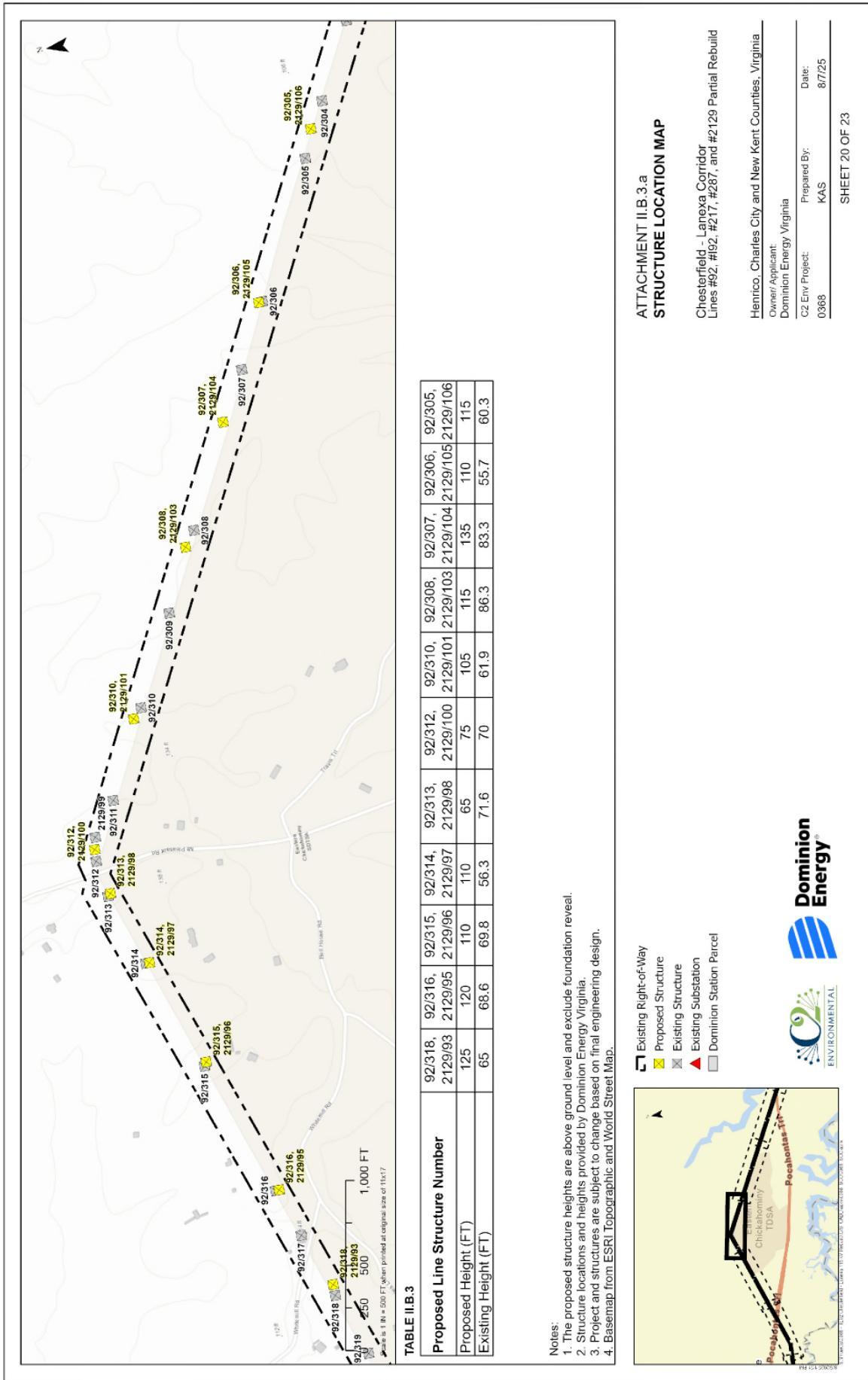
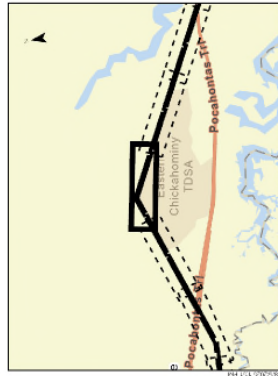


TABLE II.B.3

Proposed Line Structure Number	92/318, 2129/93	92/316, 2129/95	92/315, 2129/96	92/314, 2129/97	92/313, 2129/98	92/312, 2129/100	92/310, 2129/101	92/308, 2129/103	92/307, 2129/104	92/306, 2129/105	92/305, 2129/106
Proposed Height (FT)	125	120	110	110	65	75	105	115	135	110	115
Existing Height (FT)	65	68.6	69.8	56.3	71.6	70	61.9	86.3	83.3	55.7	60.3

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
 Owner/Applicant: Dominion Energy Virginia  
 CZ Env Project: 0368  
 Prepared By: KAS  
 Date: 8/7/25



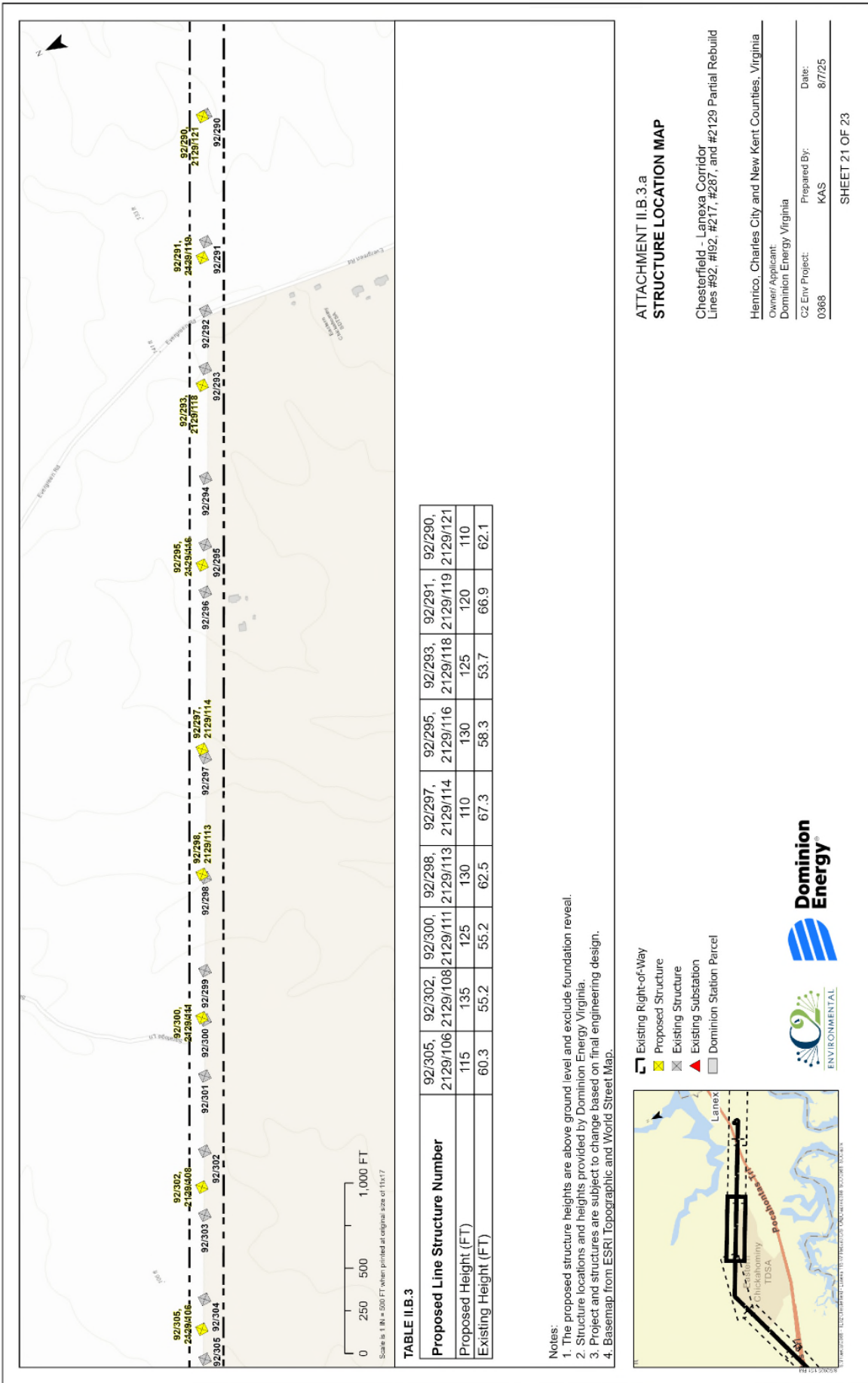
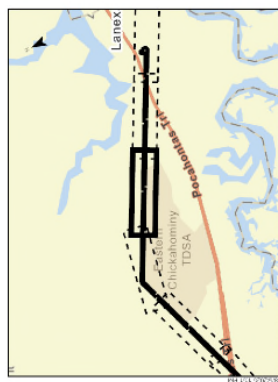


TABLE II.B.3

Proposed Line Structure Number	92/305, 2129/106	92/302, 2129/108	92/300, 2129/111	92/298, 2129/113	92/297, 2129/114	92/295, 2129/116	92/293, 2129/118	92/291, 2129/119	92/290, 2129/121
Proposed Height (FT)	115	135	125	130	110	130	125	120	110
Existing Height (FT)	60.3	55.2	55.2	62.5	67.3	58.3	53.7	66.9	62.1

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #92, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant: Dominion Energy Virginia  
CZ Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25



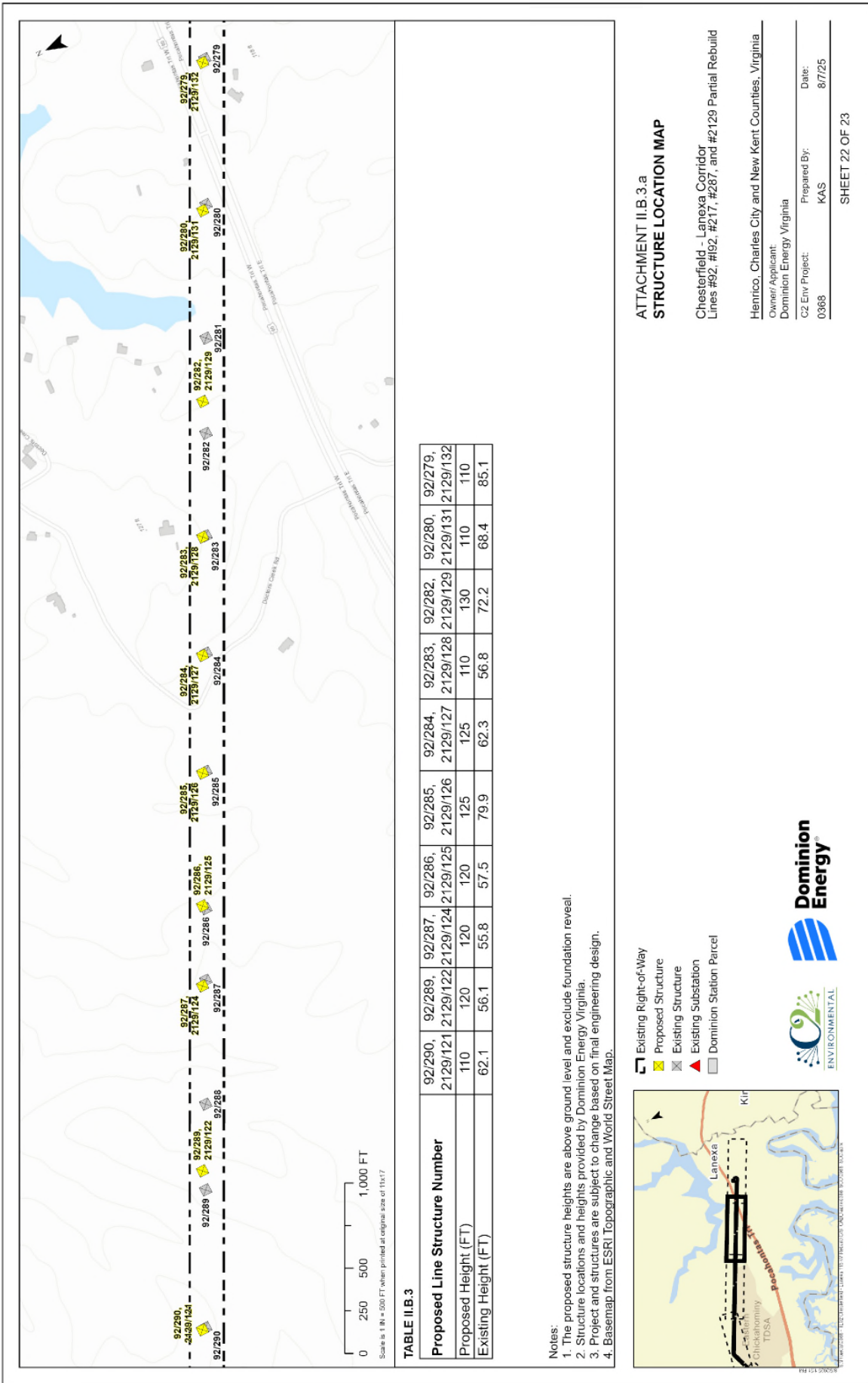
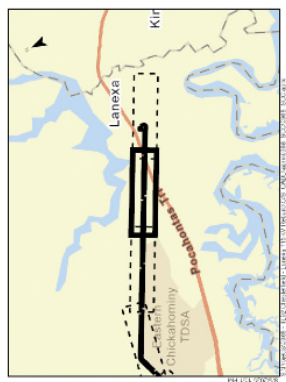


TABLE II.B.3

Proposed Line Structure Number	92/290, 2129/121	92/289, 2129/122	92/287, 2129/124	92/286, 2129/125	92/285, 2129/126	92/284, 2129/127	92/283, 2129/128	92/282, 2129/129	92/280, 2129/131	92/279, 2129/132
Proposed Height (FT)	110	120	120	120	125	125	110	130	110	110
Existing Height (FT)	62.1	56.1	55.8	57.5	79.9	62.3	56.8	72.2	68.4	85.1

- Notes:
1. The proposed structure heights are above ground level and exclude foundation reveal.
  2. Structure locations and heights provided by Dominion Energy Virginia.
  3. Project and structures are subject to change based on final engineering design.
  4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel



**ATTACHMENT II.B.3.a  
STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
Owner/Applicant: Dominion Energy Virginia  
CZ Env Project: 0368 Prepared By: KAS Date: 8/7/25



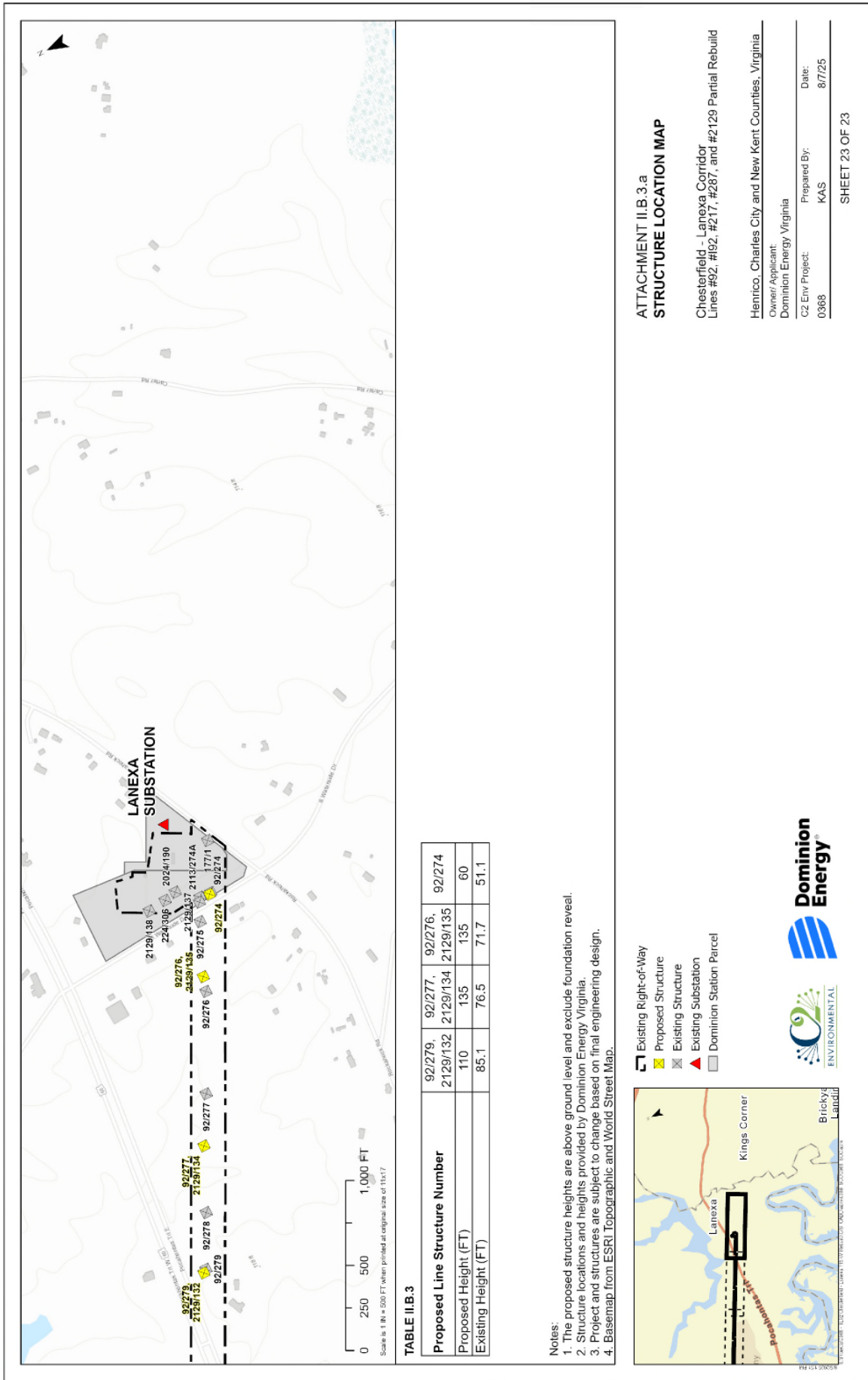
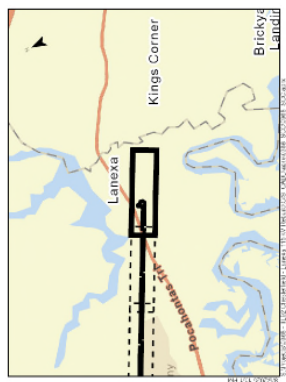


TABLE II.B.3

Proposed Line Structure Number	92/279, 2129/132	92/277, 2129/134	92/276, 2129/135	92/274
Proposed Height (FT)	110	135	135	60
Existing Height (FT)	85.1	76.5	71.7	51.1

Notes:  
 1. The proposed structure heights are above ground level and exclude foundation reveal.  
 2. Structure locations and heights provided by Dominion Energy Virginia.  
 3. Project and structures are subject to change based on final engineering design.  
 4. Basemap from ESRI Topographic and World Street Map.

- Existing Right-of-Way
- Proposed Structure
- Existing Structure
- Existing Substation
- Dominion Station Parcel

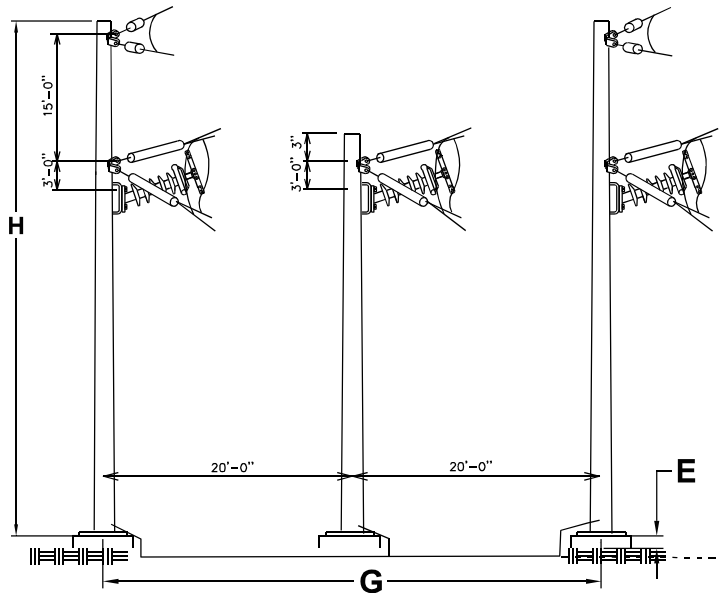


**ATTACHMENT II.B.3.a  
 STRUCTURE LOCATION MAP**

Chesterfield - Lanexa Corridor  
 Lines #92, #132, #217, #287, and #2129 Partial Rebuild

Henrico, Charles City and New Kent Counties, Virginia  
 Owner/Applicant: Dominion Energy Virginia  
 CZ Env Project: 0368  
 Prepared By: KAS  
 Date: 8/7/25




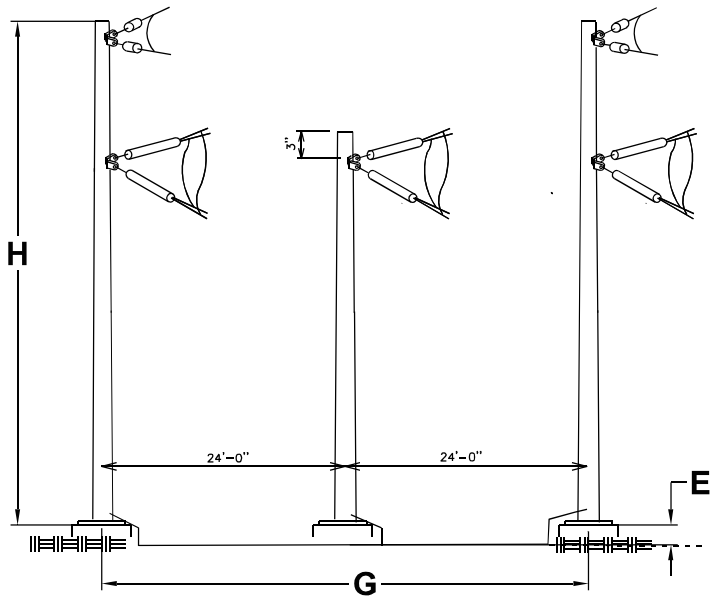


**230KV 3 POLE STEEL SC DDE MEDIUM ANGLE**

B. RATIONAL FOR STRUCTURE TYPE:	REQUIRED TO TURN ANGLES AND MAINTAIN CLEARANCE TO CROSSING CIRCUITS
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.32 MILES (5 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	N/A
G. AVERAGE WIDTH AT BASE:	40'
H. MINIMUM STRUCTURE HEIGHT:	50'
MAXIMUM STRUCTURE HEIGHT:	80'
AVERAGE STRUCTURE HEIGHT:	62'
I. AVERAGE SPAN LENGTH:	334'
J. MINIMUM CONDUCTOR TO GROUND:	28.9' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN

Electric Transmission	STRUCTURES	DRAWING NO.
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	217/7, 287/13, 92/410, 92/409I, 92/409H	Attachment II.B.3.b
		DRAWN MDF/OGG



**230KV 3 POLE STEEL SC DDE HEAVY ANGLE**

B. RATIONAL FOR STRUCTURE TYPE:	REQUIRED TO TURN ANGLES AND MAINTAIN CLEARANCE TO CROSSING CIRCUITS
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.28 MILES (1 STRUCTURE)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	N/A
G. AVERAGE WIDTH AT BASE:	48'
H. MINIMUM STRUCTURE HEIGHT:	50'
MAXIMUM STRUCTURE HEIGHT:	65'
AVERAGE STRUCTURE HEIGHT:	60'
I. AVERAGE SPAN LENGTH:	486'
J. MINIMUM CONDUCTOR TO GROUND:	31.9' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN

Electric Transmission

STRUCTURES  
92/409, 92/409B, 92/409G

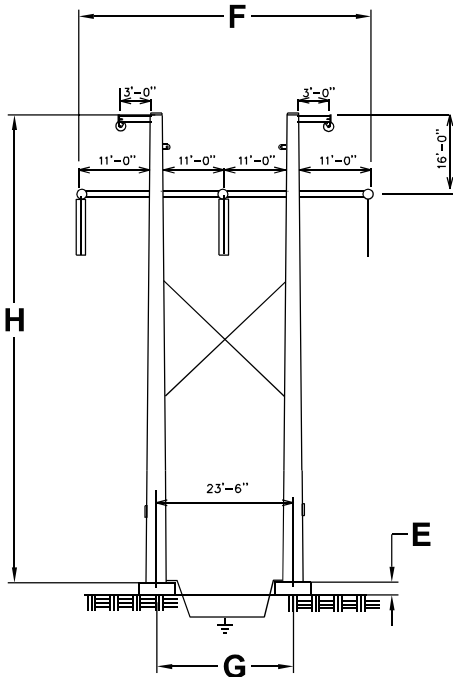
DRAWING NO.

Attachment II.B.3.c



Dominion Energy  
5000 Dominion Blvd.  
Glen Allen, VA 23060


DRAWN MDF/OGG

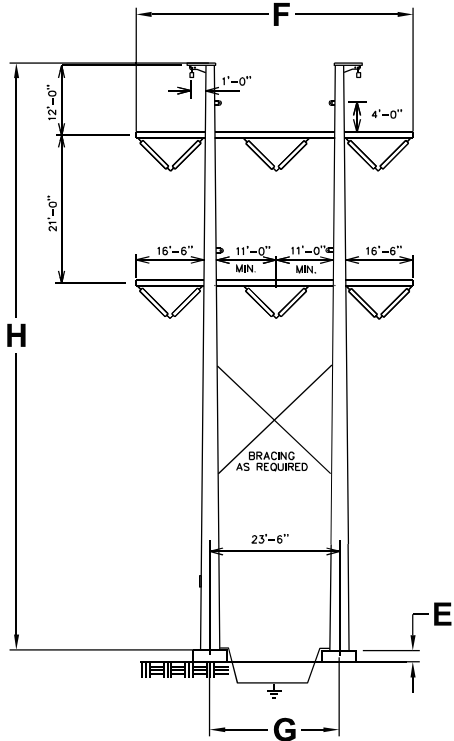


**230KV SC STEEL H-FRAME - DDE (0-15°)**

B. RATIONAL FOR STRUCTURE TYPE:	USED TO TURN A SLIGHT ANGLE, STRINGING
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.48 MILES (8 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHES EXISTING FINISH OF ADJACENT STRUCTURES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	44'
G. AVERAGE WIDTH AT BASE:	23.5'
H. MINIMUM STRUCTURE HEIGHT:	70'
MAXIMUM STRUCTURE HEIGHT:	100'
AVERAGE STRUCTURE HEIGHT:	80'
I. AVERAGE SPAN LENGTH:	362'
J. MINIMUM CONDUCTOR TO GROUND:	30.7' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN


Electric Transmission	STRUCTURES	DRAWING NO.
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	92/409A, 92/347, 287/14, 1217/13A, 287/2, 1217/7A 2050/087A, 2050/087B	Attachment II.B.3.d
		DRAWN MDF/OGG

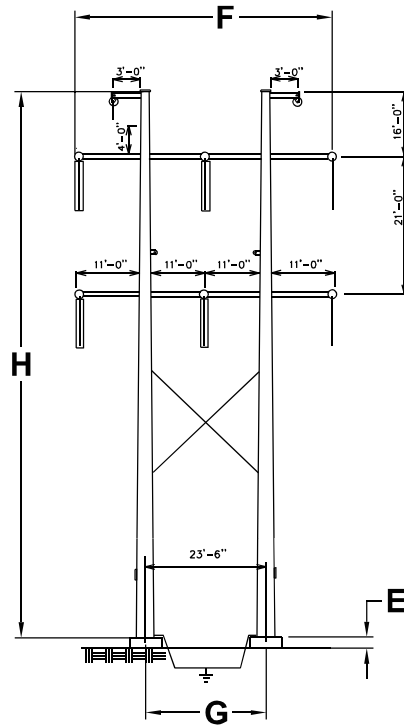


**230KV DC STEEL H-FRAME TANGENT V-STRING**

B. RATIONAL FOR STRUCTURE TYPE:	TO FACILITATE THE CROSSING OF 2 CIRCUITS
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.2 MILES (1 STRUCTURE)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	55'
G. AVERAGE WIDTH AT BASE:	23.5'
H. MINIMUM STRUCTURE HEIGHT:	105'
MAXIMUM STRUCTURE HEIGHT:	105'
AVERAGE STRUCTURE HEIGHT:	105'
I. AVERAGE SPAN LENGTH:	1055'
J. MINIMUM CONDUCTOR TO GROUND:	30.4' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN


Electric Transmission	STRUCTURES 92/310_2129/101	DRAWING NO. Attachment II.B.3.e
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060		DRAWN MDF/OGG

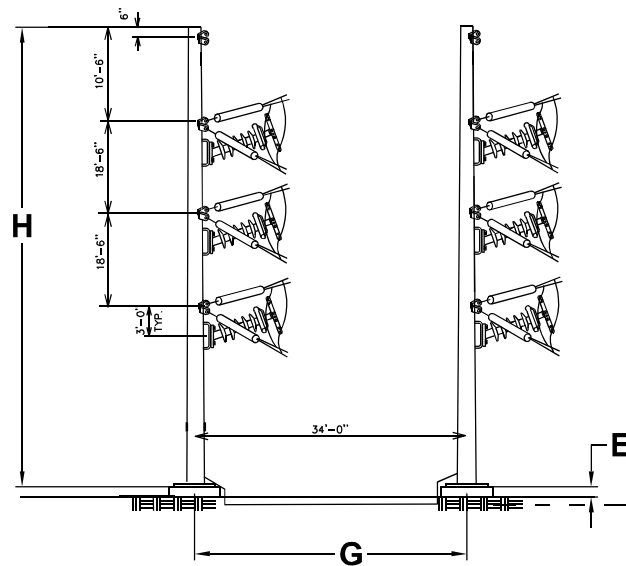


### 230KV DC STEEL H-FRAME DDE (0-15°)

B. RATIONAL FOR STRUCTURE TYPE:	VARIES. ROLLING CIRCUITS, ACCOMODATING SWITCH CONNECTIONS
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.38 MILES (3 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	44'
G. AVERAGE WIDTH AT BASE:	23.5'
H. MINIMUM STRUCTURE HEIGHT:	100'
MAXIMUM STRUCTURE HEIGHT:	110'
AVERAGE STRUCTURE HEIGHT:	107'
I. AVERAGE SPAN LENGTH:	671'
J. MINIMUM CONDUCTOR TO GROUND:	27.0' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN


Electric Transmission	STRUCTURES 92/532A_287/15A, 92/483_287/65, 92/478A_287/70	DRAWING NO. Attachment II.B.3.f
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060		DRAWN MDF/OGG

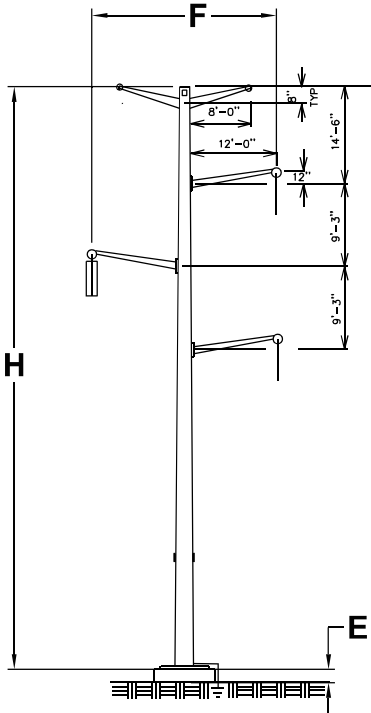


### 230KV DC WEATHERING STEEL 2-POLE DDE

B. RATIONAL FOR STRUCTURE TYPE:	TURNING ANGLES AND STRINGING
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.25 MILES (3 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	N/A
G. AVERAGE WIDTH AT BASE:	34'
H. MINIMUM STRUCTURE HEIGHT:	100'
MAXIMUM STRUCTURE HEIGHT:	145'
AVERAGE STRUCTURE HEIGHT:	116'
I. AVERAGE SPAN LENGTH:	438'
J. MINIMUM CONDUCTOR TO GROUND:	27.0' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN

Electric Transmission	STRUCTURES 92/533_287/15, 92/481_287/67, 287/6A_217/7A	DRAWING NO. Attachment II.B.3.g
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060		DRAWN MDF/OGG

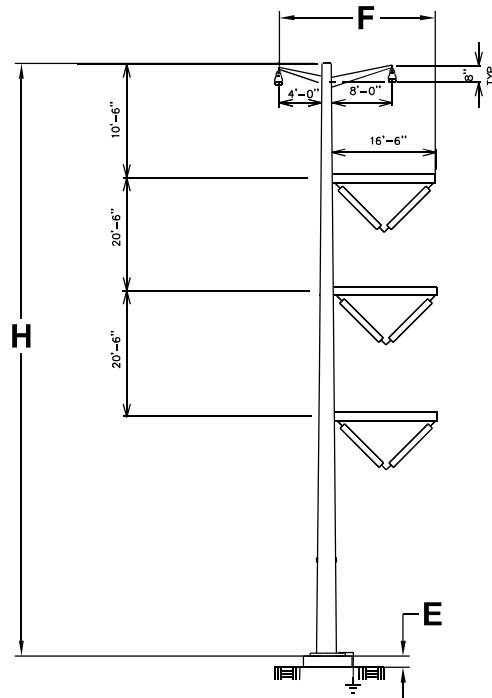


**230KV STEEL POLE - STAGGERED ARMS SINGLE CIRCUIT - DDE**

B. RATIONAL FOR STRUCTURE TYPE:	CONDENSED FRAMING FOR CIRCUIT CROSSING, STRINGING
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.1 MILES (1 STRUCTURE)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT DAVIT ARM:	24'
G. AVERAGE WIDTH AT BASE:	N/A
H. MINIMUM STRUCTURE HEIGHT:	65'
MAXIMUM STRUCTURE HEIGHT:	65'
AVERAGE STRUCTURE HEIGHT:	65'
I. AVERAGE SPAN LENGTH:	508'
J. MINIMUM CONDUCTOR TO GROUND:	25.3' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN

Electric Transmission	STRUCTURES 192/13	DRAWING NO. Attachment II.B.3.h
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060		DRAWN MDF/OGG

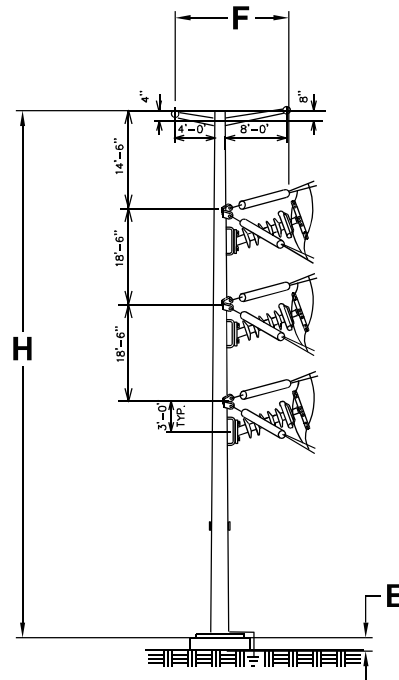


### 230KV STEEL SINGLE POLE STRUCTURE SINGLE CIRCUIT V-STRING

B. RATIONAL FOR STRUCTURE TYPE:	SPLIT CIRCUITS DUE TO ADJACENT CIRCUIT TAPPING INTO A SUBSTATION
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.09 MILES (1 STRUCTURE)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT DAVIT ARM:	20.5'
G. AVERAGE WIDTH AT BASE:	N/A
H. MINIMUM STRUCTURE HEIGHT:	115'
MAXIMUM STRUCTURE HEIGHT:	115'
AVERAGE STRUCTURE HEIGHT:	115'
I. AVERAGE SPAN LENGTH:	464'
J. MINIMUM CONDUCTOR TO GROUND:	43.3' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN


Electric Transmission	STRUCTURES 2129/63	DRAWING NO. Attachment II.B.3.i
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060		DRAWN MDF/OGG

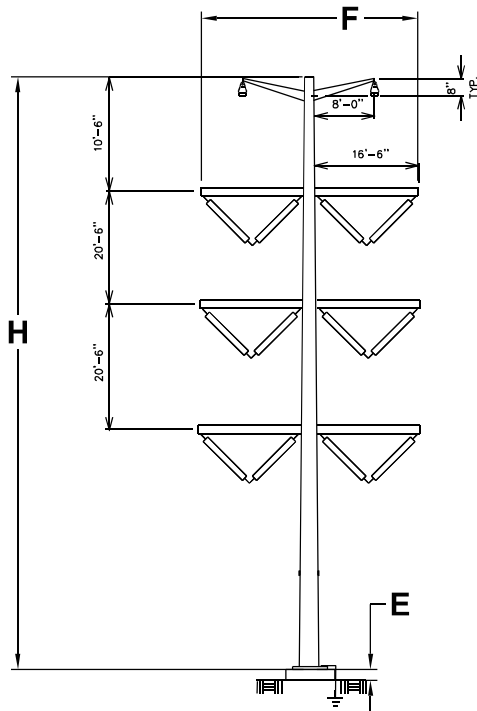


### 230KV STEEL POLE - NO ARMS SINGLE CIRCUIT - DDE 0°-75° ANGLE

B. RATIONAL FOR STRUCTURE TYPE:	STRINGING; CONDENSED FOOTPRINT
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.4 MILES (4 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT DAVIT ARM:	12'
G. AVERAGE WIDTH AT BASE:	N/A
H. MINIMUM STRUCTURE HEIGHT:	110'
MAXIMUM STRUCTURE HEIGHT:	115'
AVERAGE STRUCTURE HEIGHT:	109'
I. AVERAGE SPAN LENGTH:	534'
J. MINIMUM CONDUCTOR TO GROUND:	30.7' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN


Electric Transmission	STRUCTURES 217/13A, 2129/64, 92/348, 92/603A	DRAWING NO. Attachment II.B.3.j
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060		DRAWN MDF/OGG

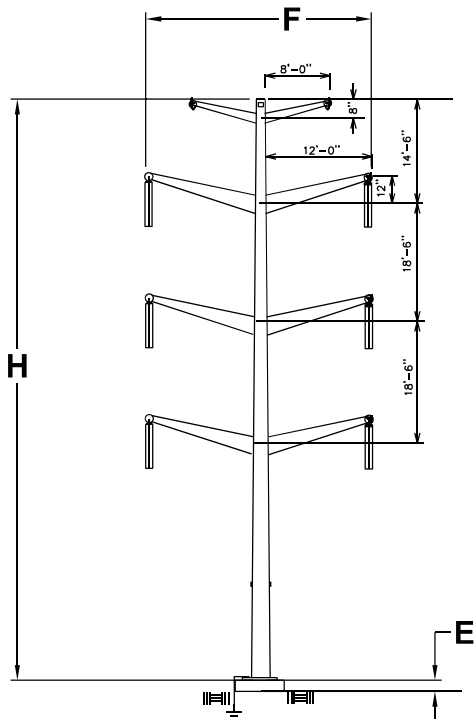


### 230 kV DC WEATHERING STEEL TANGENT MONOPOLE V-STRING

B. RATIONAL FOR STRUCTURE TYPE:	MAINTAINS A NARROW FOOTPRINT
C. LENGTH OF R/W (STRUCTURE QUANTITY):	24.8 MILES (157 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	33'
G. AVERAGE WIDTH AT BASE:	N/A
H. MINIMUM STRUCTURE HEIGHT:	95'
MAXIMUM STRUCTURE HEIGHT:	145'
AVERAGE STRUCTURE HEIGHT:	123'
I. AVERAGE SPAN LENGTH:	833'
J. MINIMUM CONDUCTOR TO GROUND:	26.3' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN

Electric Transmission	<b>STRUCTURES</b> 92/542_192/2008-92/537_192/2013, 92/532_287/16-92/524_287/23, 92/521_287/27-92/517_287/31, 92/515_287/33A, 92/515A_287/33B, 92/511_287/36-92/501_287/47, 92/497_287/51-92/484_287/64, 92/480_287/68, 92/479_287/69, 92/477_287/71-92/466_287/82, 92/464_287/84, 92/462_287/85, 92/459_287/89-92/445_287/103, 92/443_287/105-92/430_287/118, 92/426_287/122-92/412_287/136, 92/408_2129/3-92/391_2129/19, 92/389_2129/22-92/373_2129/38, 92/371_2129/40-92/360_2129/51, 92/356_2129/55-92/351_2129/60, 92/349_2129/62, 92/345_2129/66, 92/344_2129/67, 92/340_2129/70-92/329_2129/82, 92/325_2129/86-92/314_2129/97, 92/308_2129/103-92/295_2129/116, 92/291_2129/119-92/277_2129/134, 287/7_217/8-287/12_217/13	<b>DRAWING NO.</b>  Attachment II.B.3.k
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060	<b>DRAWN</b> MDF/OGG	




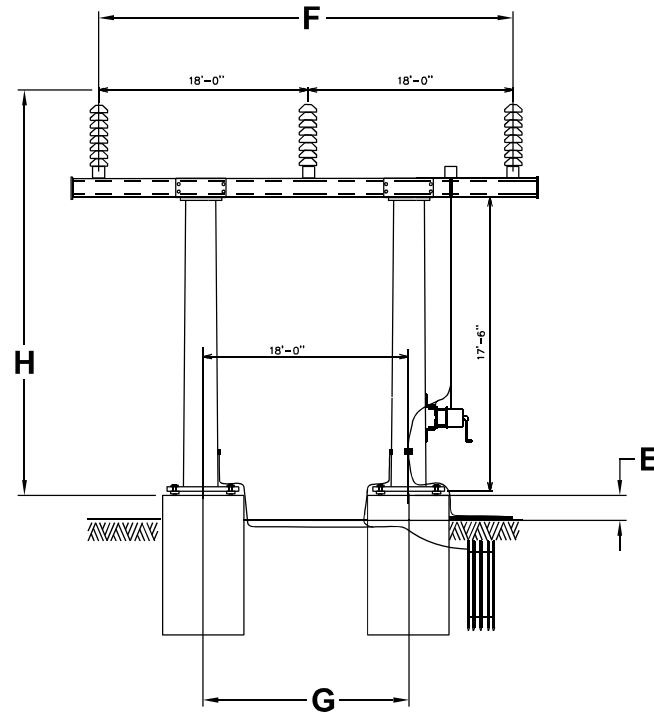
### 230KV DC WEATHERING STEEL DDE

B. RATIONAL FOR STRUCTURE TYPE:	DEADEND STRUCTURE FOR STRINGING AND ANGLES
C. LENGTH OF R/W (STRUCTURE QUANTITY):	2.4 MILES (17 STRUCTURES)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	24'
G. AVERAGE WIDTH AT BASE:	N/A
H. MINIMUM STRUCTURE HEIGHT:	100'
MAXIMUM STRUCTURE HEIGHT:	135'
AVERAGE STRUCTURE HEIGHT:	121'
I. AVERAGE SPAN LENGTH:	740'
J. MINIMUM CONDUCTOR TO GROUND:	25.5' (230KV AT MAXIMUM OPERATING TEMPERATURE)

**NOTES**

1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN

Electric Transmission	STRUCTURES 92/5_I92/2007, 92/536_I92/2014, 92/523_287/25, 92/499_287/49, 92/461_287/87, 92/444_287/104, 92/428_287/120, 92/411_287/137, 92/390_2129/21, 92/372_2129/39, 92/358_2129/53, 92/342_2129/69, 92/328_2129/84, 92/293_2129/118, 92/276_2129/135, 92/516_287/32, 92/513_287/35	DRAWING NO. Attachment II.B.3.1
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060		DRAWN MDF/OGG



## 230KV SELF SUPPORTING SWITCH STRUCTURE

B. RATIONAL FOR STRUCTURE TYPE:	PROVIDE SWITCHING AT PROVIDENCE FORGE
C. LENGTH OF R/W (STRUCTURE QUANTITY):	N/A (1 STRUCTURE)
D. STRUCTURE MATERIAL:	GALVANIZED STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING EXISTING
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	36'
G. AVERAGE WIDTH AT BASE:	18'
H. MINIMUM STRUCTURE HEIGHT:	39'
MAXIMUM STRUCTURE HEIGHT:	39'
AVERAGE STRUCTURE HEIGHT:	39'
I. AVERAGE SPAN LENGTH:	N/A
J. MINIMUM CONDUCTOR TO GROUND:	28' (230KV AT MAXIMUM OPERATING TEMPERATURE)

### NOTES

1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN

Electric Transmission

STRUCTURES  
92/347B

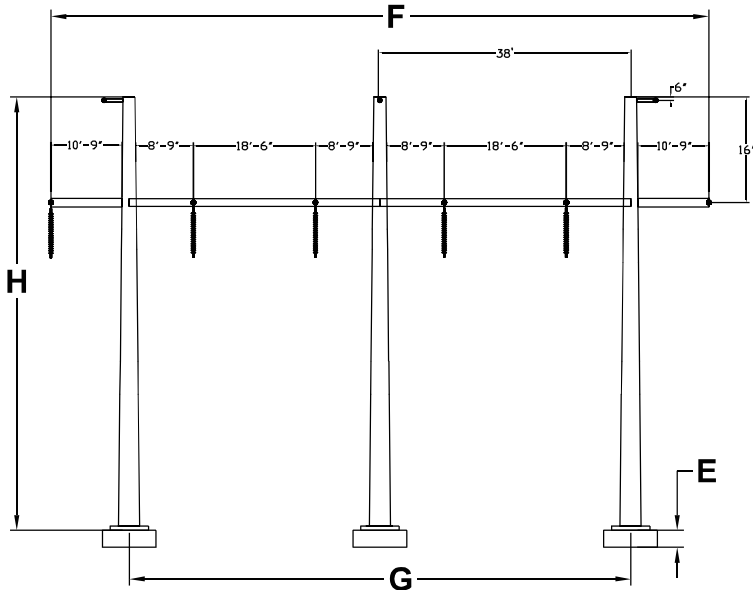
DRAWING NO.

Attachment II.B.3.m



Dominion Energy  
5000 Dominion Blvd.  
Glen Allen, VA 23060


DRAWN MDF/OGG

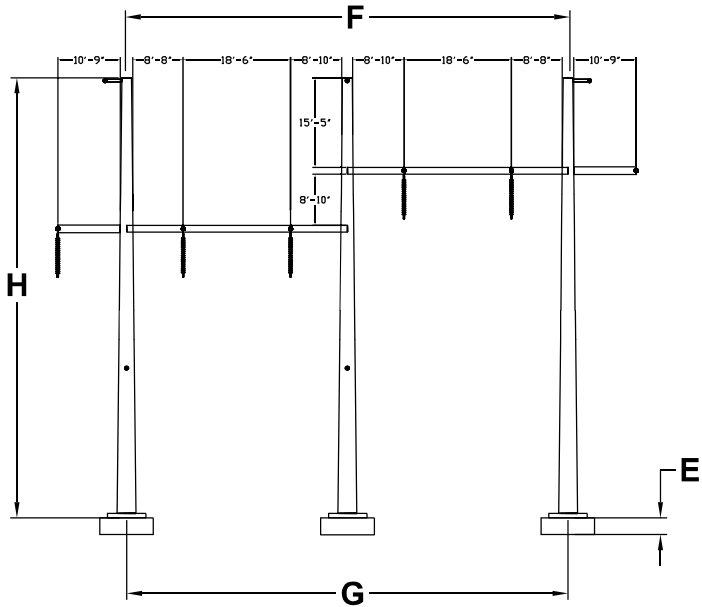


**CUSTOM 230KV DC STEEL, H-FRAME, DDE**

B. RATIONAL FOR STRUCTURE TYPE:	MAINTAIN CLEARANCE TO CROSSING CIRCUITS
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.05 MILES (1 STRUCTURE)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	100'
G. AVERAGE WIDTH AT BASE:	76'
H. MINIMUM STRUCTURE HEIGHT:	65'
MAXIMUM STRUCTURE HEIGHT:	65'
AVERAGE STRUCTURE HEIGHT:	65'
I. AVERAGE SPAN LENGTH:	274'
J. MINIMUM CONDUCTOR TO GROUND:	41.7' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN


Electric Transmission	STRUCTURES 92/313_2129/98	DRAWING NO. Attachment II.B.3.n
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060		DRAWN MDF/OGG

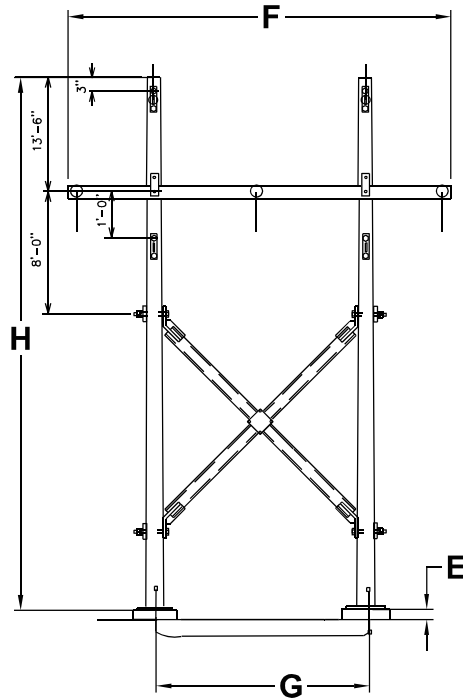


**CUSTOM 230KV DC STEEL, H-FRAME, STAGGERED ARMS, DDE**

B. RATIONAL FOR STRUCTURE TYPE:	MAINTAIN CLEARANCE TO CROSSING CIRCUITS, AID IN CIRCUIT TRANSPOSITION
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.15 MILES (1 STRUCTURE)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	100'
G. AVERAGE WIDTH AT BASE:	76'
H. MINIMUM STRUCTURE HEIGHT:	75'
MAXIMUM STRUCTURE HEIGHT:	75'
AVERAGE STRUCTURE HEIGHT:	75'
I. AVERAGE SPAN LENGTH:	802'
J. MINIMUM CONDUCTOR TO GROUND:	30.4' (230KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN

Electric Transmission	STRUCTURES 92/312_2129/100	DRAWING NO. Attachment II.B.3.o
 Dominion Energy 5000 Dominion Blvd. Glen Allen, VA 23060		DRAWN MDF/OGG



### 115KV SC STEEL H-FRAME - DDE (0-15°)

B. RATIONAL FOR STRUCTURE TYPE:	TERMINAL STRUCTURE IN A LOCATION TOO NARROW FOR A 230KV STRUCTURE
C. LENGTH OF R/W (STRUCTURE QUANTITY):	0.06 MILES (1 STRUCTURE)
D. STRUCTURE MATERIAL:	WEATHERING STEEL
RATIONAL FOR STRUCTURE MATERIAL:	MATCHING ADJACENT LINES
E. FOUNDATION MATERIAL:	CONCRETE DRILLED PIER FOUNDATION
AVERAGE FOUNDATIONAL REVEAL:	(SEE NOTE 4)
F. AVERAGE WIDTH AT CROSSARM:	30'
G. AVERAGE WIDTH AT BASE:	14.5'
H. MINIMUM STRUCTURE HEIGHT:	60'
MAXIMUM STRUCTURE HEIGHT:	60'
AVERAGE STRUCTURE HEIGHT:	60'
I. AVERAGE SPAN LENGTH:	318'
J. MINIMUM CONDUCTOR TO GROUND:	28.6' (115KV AT MAXIMUM OPERATING TEMPERATURE)

- NOTES**
1. INFORMATION ON DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL ENGINEERING
  2. INDIVIDUAL POLE HEIGHTS ABOVE GROUND MAY VARY SUBJECT TO FINAL LOCATION AND TERRAIN
  3. STRUCTURE HEIGHTS ARE MEASURED FROM STRUCTURE CENTERLINE
  4. MINIMUM FOUNDATION REVEAL SHALL BE 1.5', MAX REVEAL SUBJECT TO FINAL LOCATION AND TERRAIN

Electric Transmission

STRUCTURES  
92/274

DRAWING NO.

Attachment II.B.3.p



Dominion Energy  
5000 Dominion Blvd.  
Glen Allen, VA 23060

DRAWN MDF/OGG

## **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: Not applicable.

## II. DESCRIPTION OF THE PROPOSED PROJECT

### B. Line Design and Operational Features

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

Response: See Attachments II.B.3.a through II.B.3.p for existing and proposed structure locations and heights. The proposed approximate structure heights are from the conceptual design created to estimate the cost of the proposed Rebuild Project and are subject to change based on final engineering design. The approximate structure heights do not include estimated foundation reveal.

## 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] *Photographs for typical existing facilities to be removed.*

See Attachments II.B.6.a.i-xvii for representative photographs of typical existing structures.

[b] *Comparable photographs or representations for proposed structures.*

See Attachments II.B.6.b.i-xv for representative photographs of the proposed structures for the Rebuild Project.

[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.*

Visual simulations showing the appearance of the proposed transmission structures at identified historic locations within 1.0 mile of the Rebuild Project where the Rebuild Project will be visible are provided. See Attachment II.B.6.c for a map of the simulation locations and the existing views at the historic properties. These simulations were created using Geographic Information Systems modeling to depict whether the proposed structures will be visible from the identified historic property. The historic properties evaluated are described below. See also the Stage I Pre-Application Analysis Report provided as Attachment 2.I.1 of the DEQ Supplement.

VDHR #	Resource Name/ Address	Observation Point	Comments
018-0015	Mount Stirling (NRHP Listing)	1	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 1.
018-5004	Nance's Shop (Historic), Saint Mary's Church Battlefield (Current Name), Samaria Church (Historic)	2, 3	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 2 or 3.
020-0121	Osborne's Naval Battle (Site) (Historic)	4	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 4.

VDHR #	Resource Name/ Address	Observation Point	Comments
020-5319	Ware Bottom Church Battlefield (Historic)	5	Existing view of one structure on project alignment that will remain in place. No Anticipated visibility of new/replacement structures from OP 5.
020-5320	Drewry's Bluff (2nd) Battlefield (Historic), Fort Darling (Historic), Fort Drewry (Historic), Proctor's Creek Battlefield (Historic/Current)	n/a	No public access within one mile.
043-0033	Richmond National Battlefield Park (NRHP Listing)	6, 7, 11, 20, 21, 22	<p>No visibility of existing or proposed/replaced infrastructure associated with the project from OP 6, 7, or 11.</p> <p>Existing view of multiple structures and proposed/replacement structures adjacent to other existing structures to remain in place from OP 20.</p> <p>Existing view of one existing structure that will be removed and new view of top of one structure from OP 21.</p> <p>Existing view of conductor that will remain visible but higher from OP 22.</p>
043-0041	Bullington Plantation (Estate) (Historic/Current), Coxley (Historic), Farmers Rest (NRHP Listing), Henry Cox Home, 9341 Varina Rd (Historic/Location), Stennett Farm (Historic)	8	No visibility of existing infrastructure, but possible views of new transmission conductor (line) suspended over road from OP 8.
043-0074	Camp Hill Site (Current)	9	No visibility of existing infrastructure, but possible views of new transmission conductor (line) suspended over road from OP 9.
043-0307	Battle of Chaffin's Farm, New Market Road (Historic/Location), New Market Heights Battlefield (Historic/Current)	4, 6, 8, 9, 12, 16	<p>No visibility of existing or proposed/replaced infrastructure associated with the project from OP 4, 6, 12, or 16.</p> <p>No visibility of existing infrastructure, but possible views of new transmission conductor (line) suspended over road from OP 8 and 9.</p>
043-0308	Savage Station Battlefield (Historic/Current)	7, 11	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 7 and 11.

VDHR #	Resource Name/ Address	Observation Point	Comments
043-0741	Gravel Hill Community Center (Current), Gravel Hill School (NRHP Listing), Rosenwald School, 5417 Longbridge Road (Function/Location)	10	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 10.
043-0753	Glendale National Cemetery (NRHP Listing)	11	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 11.
043-5071	Darbytown & New Market Roads Battlefield (Historic), Fourmile Creek (Historic)	12	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 12.
043-5072	Alms House (Historic), Darbytown Road Battlefield (Historic)	12	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 12.
043-5073	Fair Oaks & Darbytown Road Battlefield (Historic)	8, 9, 13, 15, 16	No visibility of existing infrastructure, but possible views of new transmission conductor (line) suspended over road from OP 8 and 9.  No visibility of existing or proposed/replaced infrastructure associated with the project from OP 13, 15, or 16.
043-5074	First Deep Bottom Battlefield (Historic), Strawberry Plains (Historic)	7, 9, 10, 11, 12, 13, 14, 15	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 7, 10, 11, 12, 13, 14, or 15.  No visibility of existing infrastructure, but possible views of new transmission conductor (line) suspended over road from OP 9.
043-5077	Frazier's Farm (Historic), Glendale Battlefield (Current Name), Glendale Battlefield (Historic), Nelson's Farm (Historic)	7, 9, 10, 11, 12, 13, 14, 15	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 7, 10, 11, 12, 13, 14, or 15.  No visibility of existing infrastructure, but possible views of new transmission conductor (line) suspended over road from OP 9.
043-5078	Malvern Hill Battlefield (Current Name), Poindexter's Farm (Historic)	7, 10, 11	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 7, 10, or 11.

<b>VDHR #</b>	<b>Resource Name/ Address</b>	<b>Observation Point</b>	<b>Comments</b>
043-5080	Bailey's Creek (Historic), Fussell's Mill (Historic), Second Deep Bottom Battlefield (Historic)	7, 8, 9, 10, 12, 13, 14, 15, 16	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 7, 10, 12, 13, 14, 15, or 16.  No visibility of existing infrastructure, but possible views of new transmission conductor (line) suspended over road from OP 8 and 9.
043-5256	Fussells Mill Miller's House (Historic/Current)	15	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 15.
043-6124	House, 1573 Kingsland Road (Function/Location)	16	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 16.
063-0080	Indian Fields (Historic), Spring Hill (NRHP Listing), Springhill (Alternate Spelling)	17	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 17.
121-5134	Chesapeake and Ohio Railroad (Historic), CSX Railroad (Current Name)	18, 19	No visibility of existing or proposed/replaced infrastructure associated with the project from OP 18 or 19.

See Attachment III.B.4 for visual simulations and renderings of key locations evaluated.



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**115kV SC Weathering Steel Deadend H-Frame w/ Guys**  
Attachment II.B.6.a.i



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**115kV & 230kV SC Wood 3-Pole Deadend w/ Guys**  
Attachment II.B.6.a.ii



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**115kV & 230kV DC Weathering Steel 3-Pole H-Frame w/ Staggered Arms**  
Attachment II.B.6.a.iii



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**115kV SC Weathering Steel H-Frame**  
Attachment II.B.6.a.iv



Photograph provided by Dominion Energy



**Existing Structure Type:**  
115kV SC Wood 3-Pole Deadend w/ Guys & 230kV SC Wood 3-Pole Running Angle w/ Guys  
Attachment II.B.6.a.v



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**230kV SC Wood H-Frame**  
Attachment II.B.6.a.vi



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Photograph provided by Dominion Energy



**Existing Structure Type:**  
**115kV SC Spun Concrete Single Pole Deadend w/ Staggered Arms**  
Attachment II.B.6.a.vii



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**230kV DC Galvanized Steel Lattice Tower**  
Attachment II.B.6.a.viii



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**230kV SC Weathering Steel Single Pole Deadend w/o Arms**  
Attachment II.B.6.a.ix



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**230kV/115kV DC Wood 3-Pole Deadend H-Frame w/ Staggered Arms**  
Attachment II.B.6.a.x



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**115kV Galvanized Steel Switch Frame**  
Attachment II.B.6.a.xi



Photograph provided by Dominion Energy



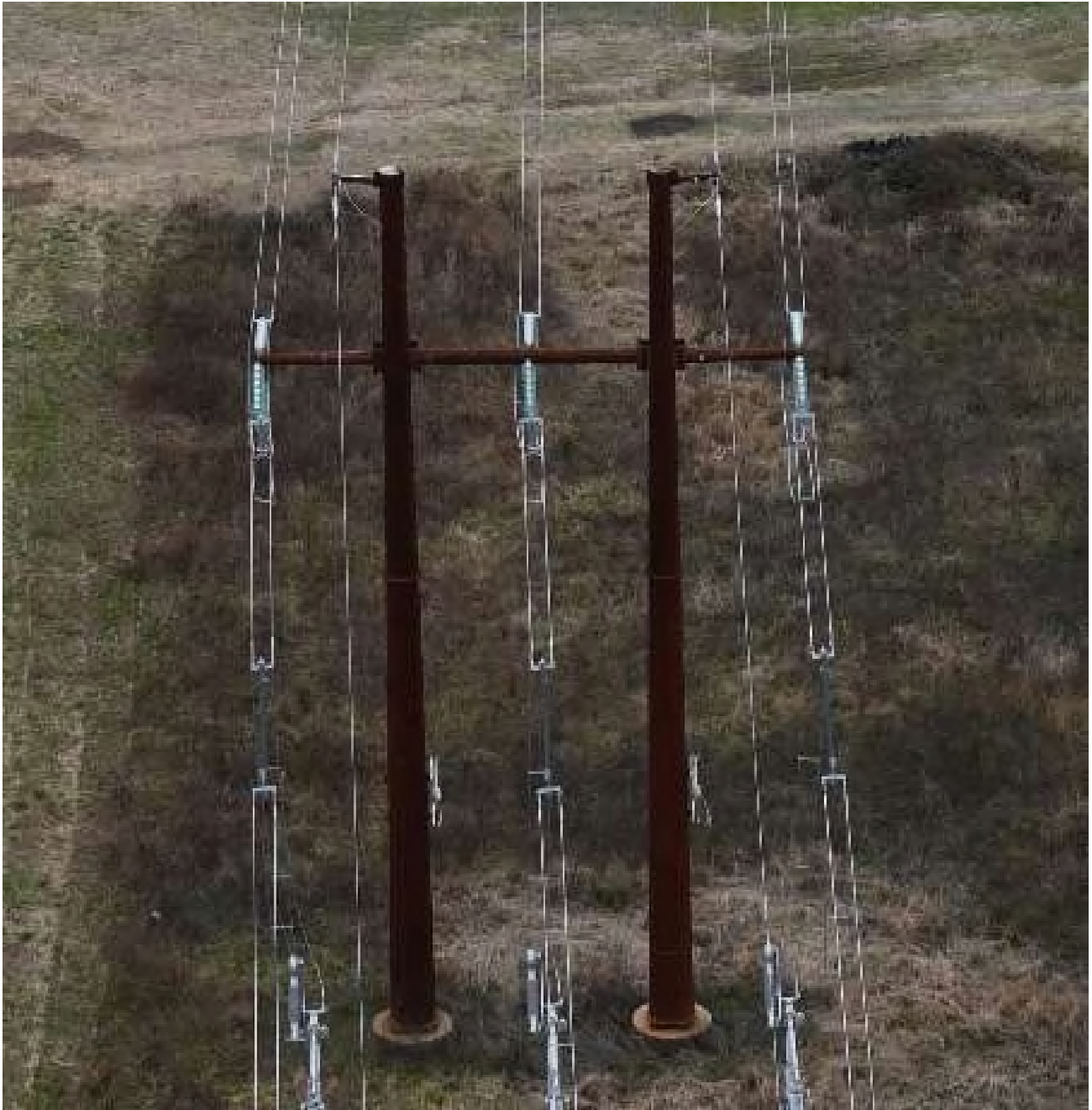
**Existing Structure Type:**  
**230kV SC Weathering Steel 3-Pole In-Line Deadend**  
Attachment II.B.6.a.xii



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**115kV SC Galvanized Single Pole Deadend w/ Transition to UG**  
Attachment II.B.6.a.xiii



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**230kV SC Weathering Steel Deadend H-Frame**  
Attachment II.B.6.a.xiv



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**230kV SC Weathering Steel H-Frame**  
Attachment II.B.6.a.xv



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**115kV SC Weathering Steel 3-Pole Deadend w/ Guys**  
Attachment II.B.6.a.xvi



Photograph provided by Dominion Energy



**Existing Structure Type:**  
**115kV SC Low Profile Self Supporting Switch**  
Attachment II.B.6.a.xvii



Photograph provided by Dominion Energy



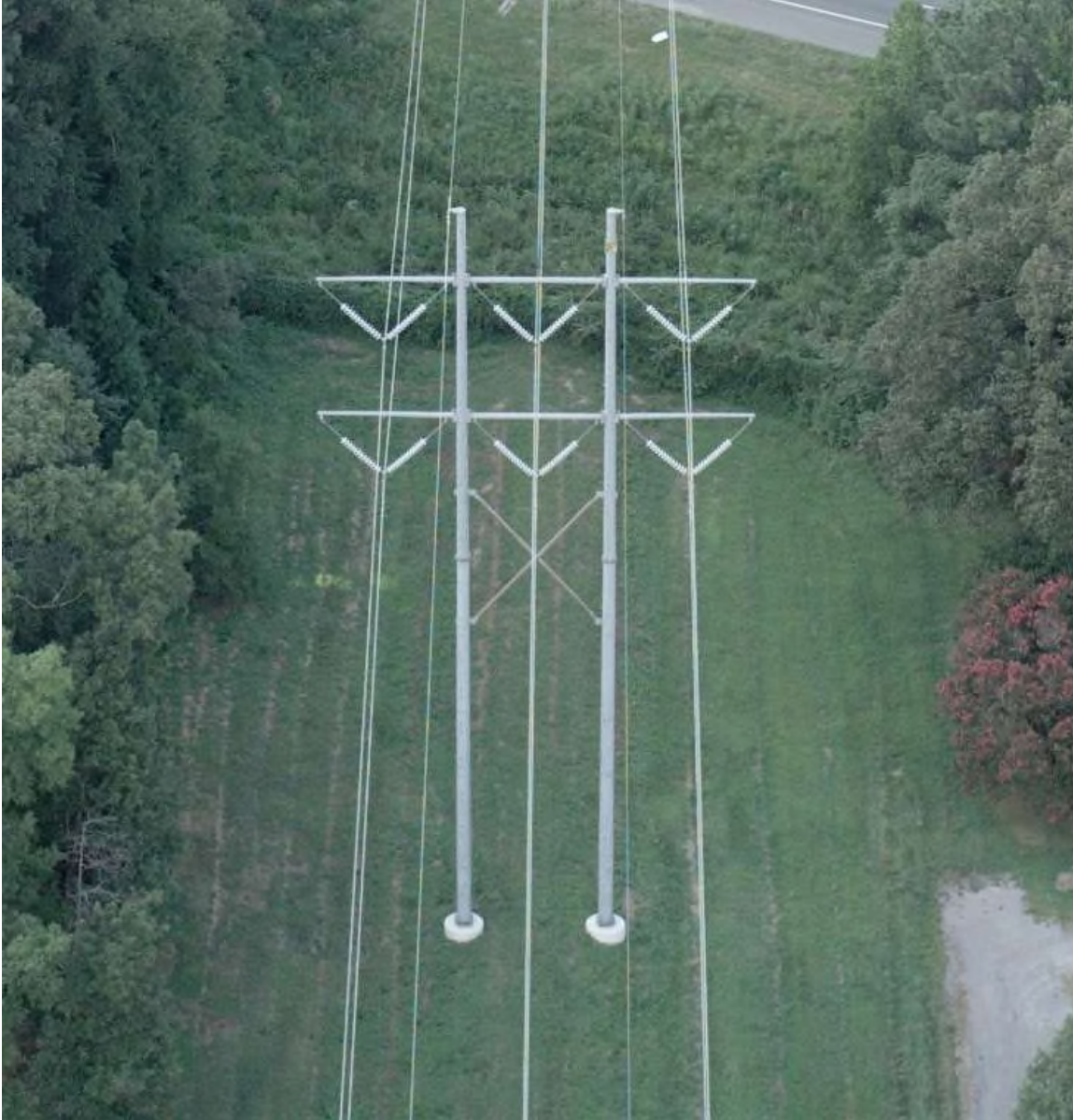
**Proposed Structure Type:**  
**230kV SC Weathering Steel 3-Pole Deadend**  
Attachment II.B.6.b.i



Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV SC Weathering Steel Deadend H-Frame**  
Attachment II.B.6.b.ii



\*Galvanized Steel Pole Depicted

Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV DC Weathering Steel H-Frame w/ V-Strings**  
Attachment II.B.6.b.iii



Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV DC Weathering Steel Deadend H-Frame**  
Attachment II.B.6.b.iv



\*Jumper Configuration may Vary

Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV DC Weathering Steel 2-Pole Deadend w/o Arms**  
Attachment II.B.6.b.v



Photograph provided by Dominion Energy



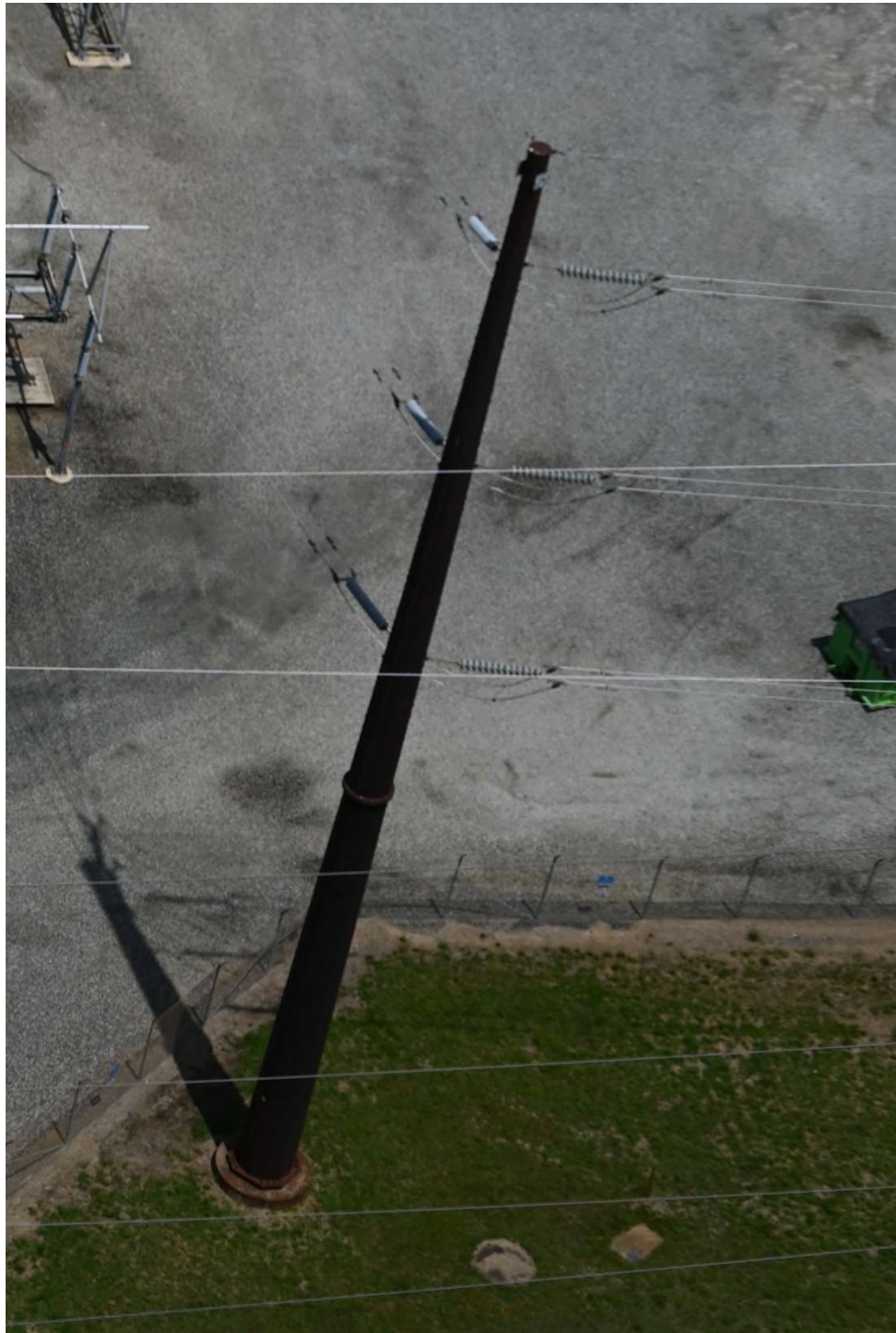
**Proposed Structure Type:**  
**230kV SC Weathering Steel Single Pole Deadend w/ Staggered Arms**  
Attachment II.B.6.b.vi



Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV SC Weathering Steel Single Pole w/ V-String**  
Attachment II.B.6.b.vii



Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV SC Weathering Steel Single Pole Deadend w/o Arms**  
Attachment II.B.6.b.viii



Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV DC Weathering Steel Single Pole w/ V-String**  
Attachment II.B.6.b.ix



Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV DC Weathering Steel Single Pole Deadend w/ Arms**  
Attachment II.B.6.b.x



Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV Galvanize Steel Self Supporting Switch**  
Attachment II.B.6.b.xi



\*Structure Foundation Type may Vary

Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV DC Weathering Steel 3-Pole Deadend H-Frame**  
Attachment II.B.6.b.xii



\*Structure Foundation Type may Vary

Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV DC Weathering Steel 3-Pole Deadend H-Frame w/ Staggered Arms**  
Attachment II.B.6.b.xiii



Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**115kV SC Weathering Steel Deadend H-Frame**  
Attachment II.B.6.b.xiv



Photograph provided by Dominion Energy



**Proposed Structure Type:**  
**230kV SC Weathering Steel Single Pole Deadend w/ Post Insulators**  
Attachment II.B.6.b.xv

**ATTACHMENT II.B.6.C  
HISTORIC PHOTO LOCATION MAP**

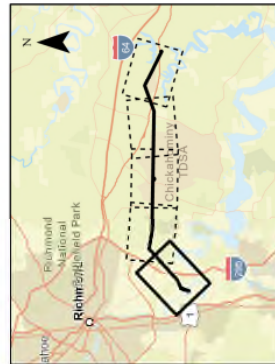
Chesterfield Laneys Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client: Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25

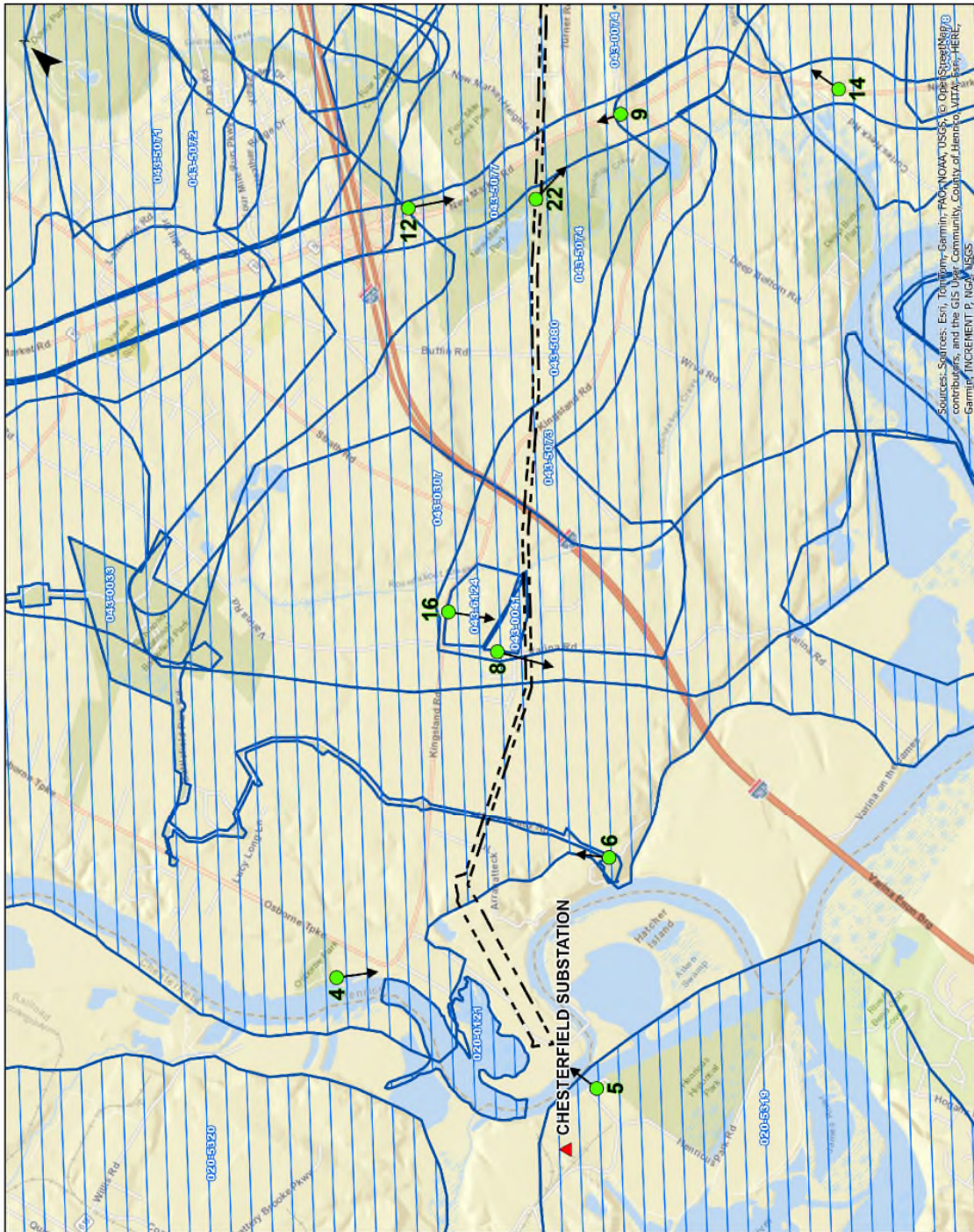


**SITE DATA**

- Proposed Project Area
- Existing Substation
- Viewpoint Location
- Approximate Simulation Direction
- Considered Historic Resources



SHEET 1 OF 5



Sources: Esri, TomTom, Garmin, FRC, NOAA, USGS, To One Street, Mapbox, contributors, and the GIS User Community, County of Henrico, Virginia, HERE, Garmin, INCREMENT P, Inc. 2025








**ATTACHMENT II.B.6.C  
HISTORIC PHOTO LOCATION MAP**

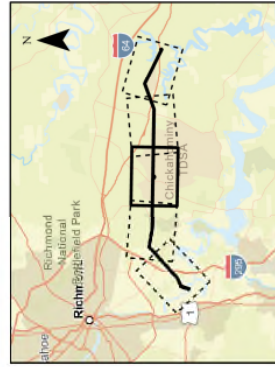
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Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client: Dominion Energy Virginia  
CZ Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25

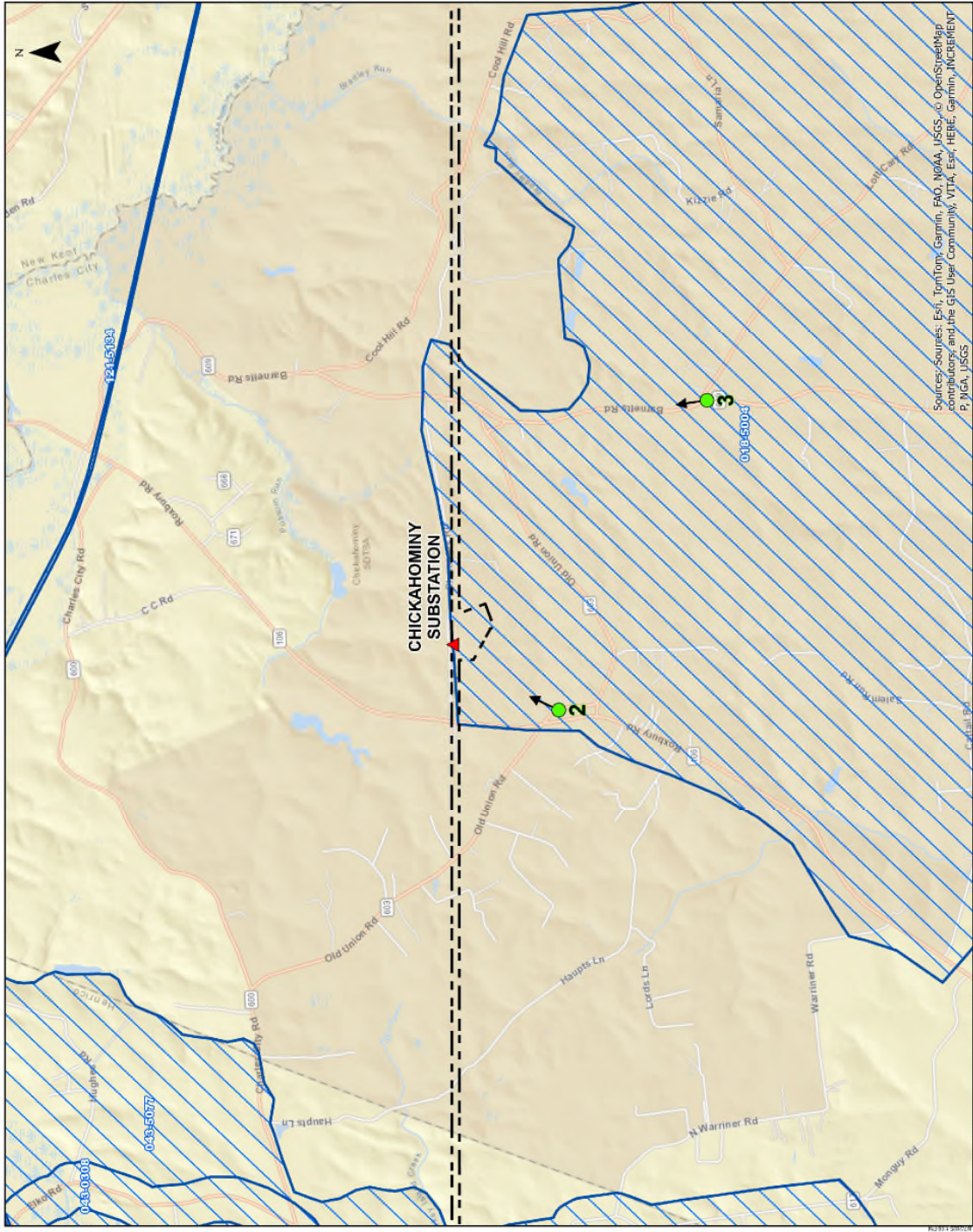
0 0.25 0.5 1 Miles  
Scale is 1 IN = 0.5 MI when printed at original size of 11x17

**SITE DATA**

-  Proposed Project Area
-  Existing Substation
-  Viewpoint Location
-  Approximate Simulation Direction
-  Considered Historic Resources



SHEET 3 OF 5



Sources: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, VITA, Esri, HERE, Garmin, INCREMENTAL, P, YAN, USGS






**ATTACHMENT II.B.6.C  
HISTORIC PHOTO LOCATION MAP**

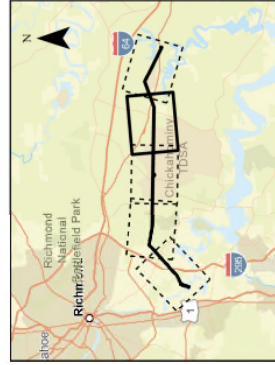
Chesterfield-Laneys Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client: Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25

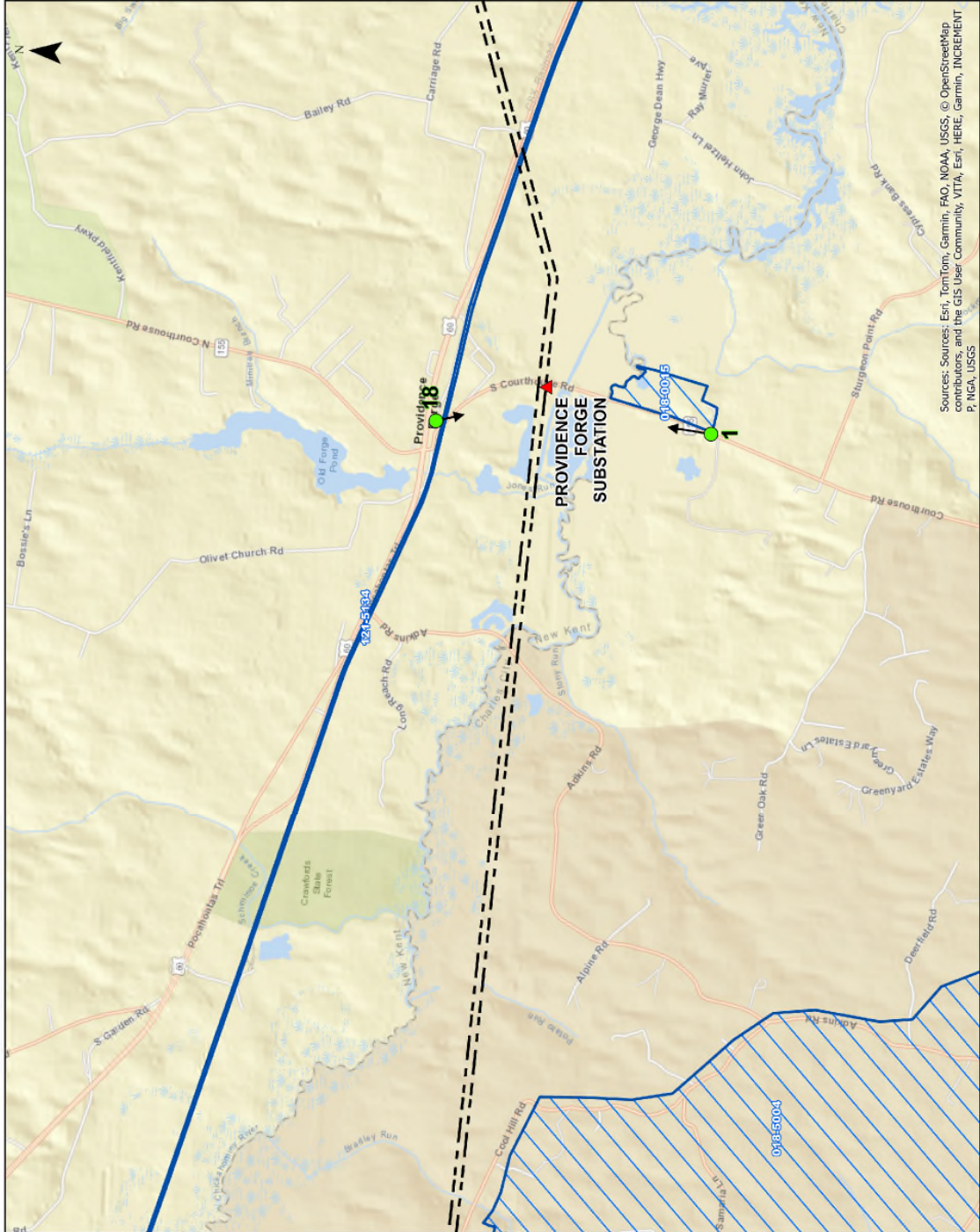
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**SITE DATA**

-  Proposed Project Area
-  Existing Substation
-  Viewpoint Location
-  Approximate Simulation Direction
-  Considered Historic Resources



SHEET 4 OF 5



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, VITA, Esri, HERE, Garmin, INCREMENT P, NGN, USGS

**ATTACHMENT II.B.6.C  
HISTORIC PHOTO LOCATION MAP**

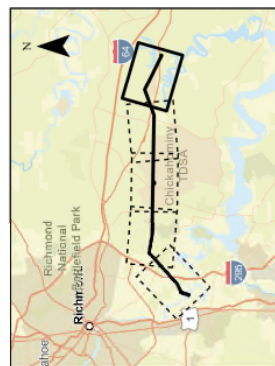
Chesterfield-Laneys Corridor  
Lines #92, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client: Dominion Energy Virginia  
CZ Env Project: 0368  
Prepared By: KAS  
Date: 8/7/25

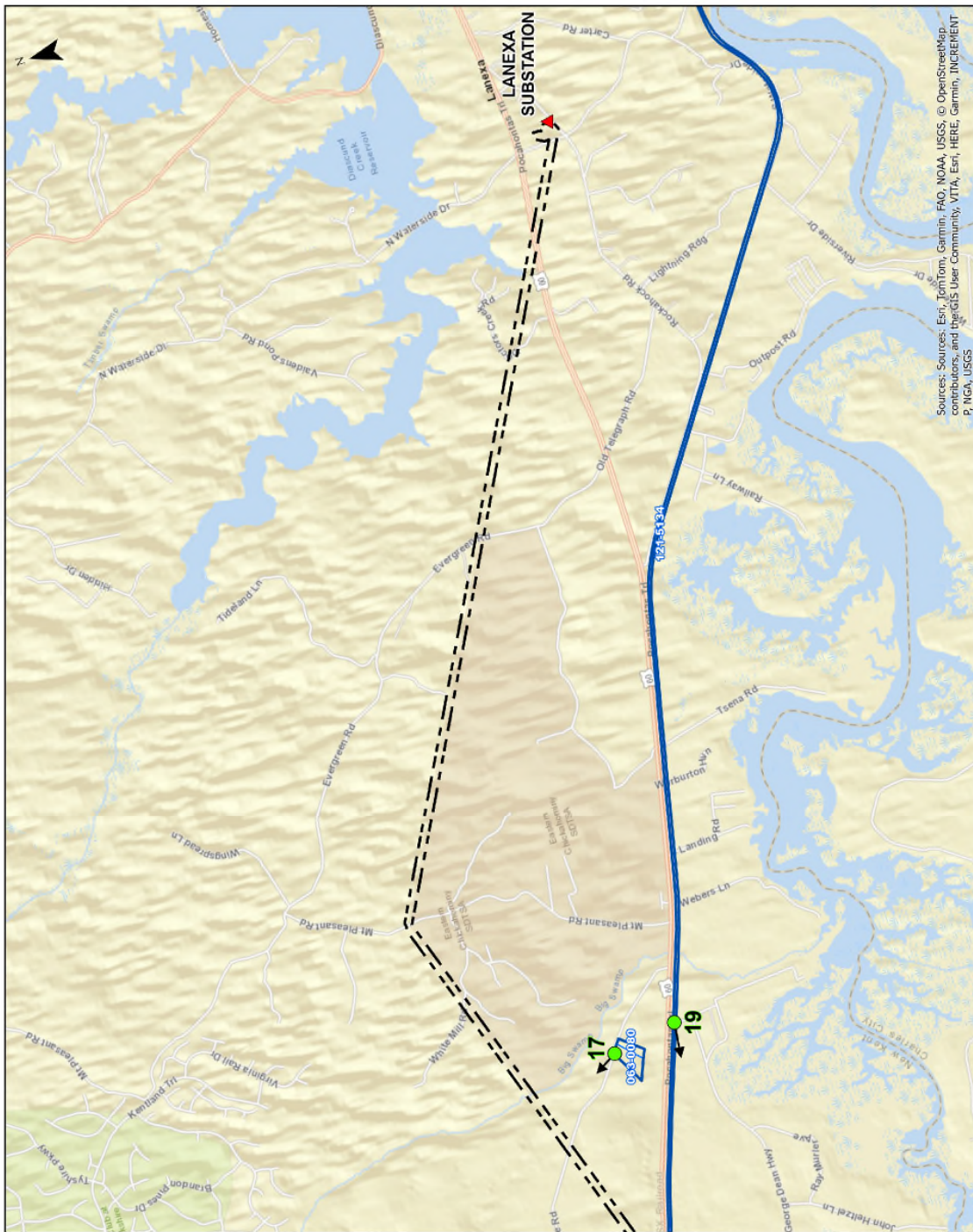
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**SITE DATA**

- Proposed Project Area
- Existing Substation
- Viewpoint Location
- Approximate Simulation Direction
- Considered Historic Resources



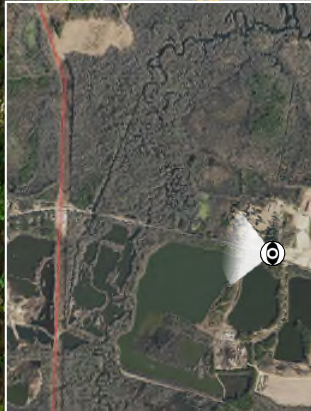
SHEET 5 OF 5



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, VITA, Esri, HERE, Garmin, INCREMENT P, NGN, USGS



<p><b>Dominion</b> Chesterfield-Lanexa</p>	<p><b>VS1</b></p>
<p>VIEW FROM MT STIRLING FARM RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	
<p>Timmons Group</p>	



<b>Dominion Chesterfield-Lanexa</b>	<b>VS1</b>
VIEW FROM MT STIRLING FARM RD	
TRANSMISSION LINE LOCATION	
HENRICO COUNTY, VA	

Timmons Group



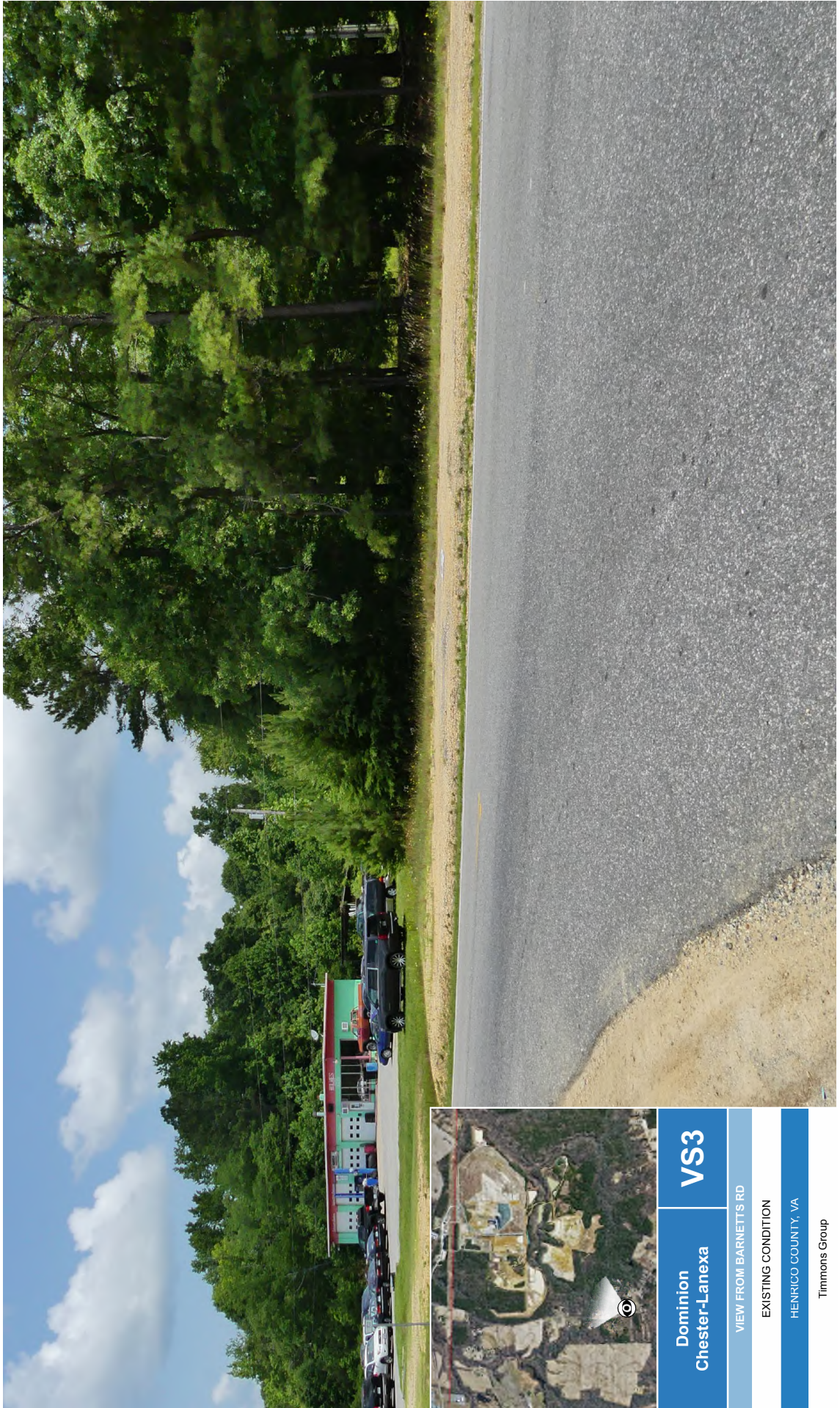
<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS2</b></p>
<p>VIEW FROM OLD UNION RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



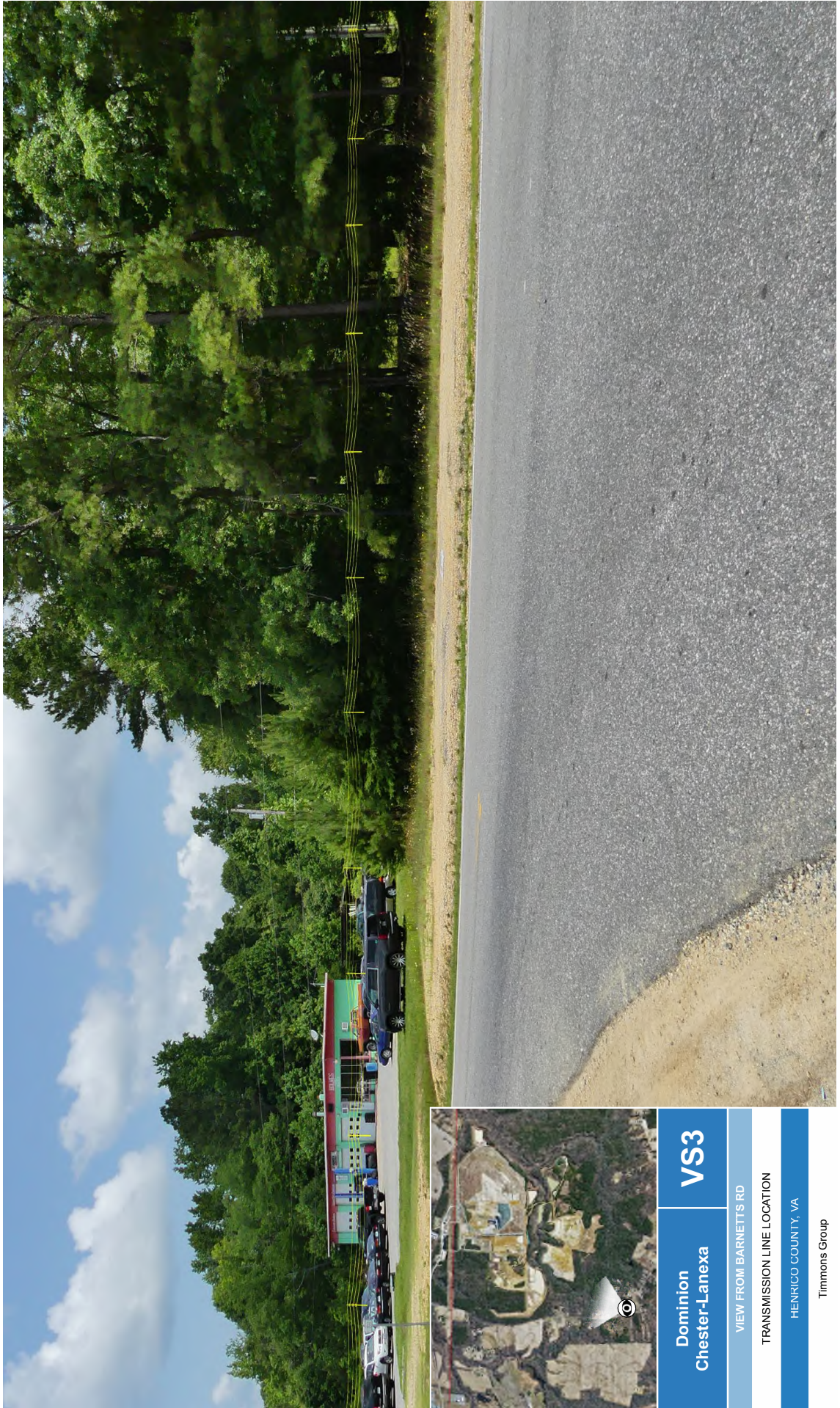
<b>Dominion Chester-Lanexa</b>	<b>VS2</b>
VIEW FROM OLD UNION RD	
TRANSMISSION LINE LOCATION	
HENRICO COUNTY, VA	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS3</b></p>
<p>VIEW FROM BARNETT'S RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p>Dominion Chester-Lanexa</p>	<p>VS3</p>
<p>VIEW FROM BARNETT'S RD</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p>Dominion Chester-Lanexa</p>	<p>VS4</p>
<p>VIEW FROM OSBOURNE TURNPIKE</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	
<p>Timmons Group</p>	



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS4</b></p>
<p>VIEW FROM OSBOURNE TURNPIKE</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	
<p>Timmons Group</p>	



<p>Dominion Chester-Lanexa</p>	<p>VS5</p>
<p>VIEW FROM COXENDALE RD</p>	
<p>EXISTING CONDITION HENRICO COUNTY, VA</p>	
<p>Timmons Group</p>	



<b>Dominion Chester-Lanexa</b>	<b>VS5</b>
VIEW FROM COXENDALE RD	
TRANSMISSION LINE LOCATION	
HENRICO COUNTY, VA	
Timmons Group	



Dominion Chester-Lanexa	VS6
VIEW FROM HOKE BRADY RD	
EXISTING CONDITION	
HENRICO COUNTY, VA	

Timmons Group



Dominion Chester-Lanexa	VS6
VIEW FROM HOKE BRADY RD	
TRANSMISSION LINE LOCATION	
HENRICO COUNTY, VA	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS7</b></p>
<p>VIEW FROM CHARLES CITY RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS7</b></p>
<p>VIEW FROM CHARLES CITY RD</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS8</b></p>
<p>VIEW FROM VARINA RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS8</b></p>
<p>VIEW FROM VARINA RD</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS9</b></p>
<p>VIEW FROM NEW MARKET RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	
<p>Timmons Group</p>	



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS9</b></p>
<p>VIEW FROM NEW MARKET RD</p>	
<p>T TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	
<p>Timmons Group</p>	



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS10</b></p>
<p>VIEW FROM LONGBRIDGE RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS10</b></p>
<p>VIEW FROM LONGBRIDGE RD</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



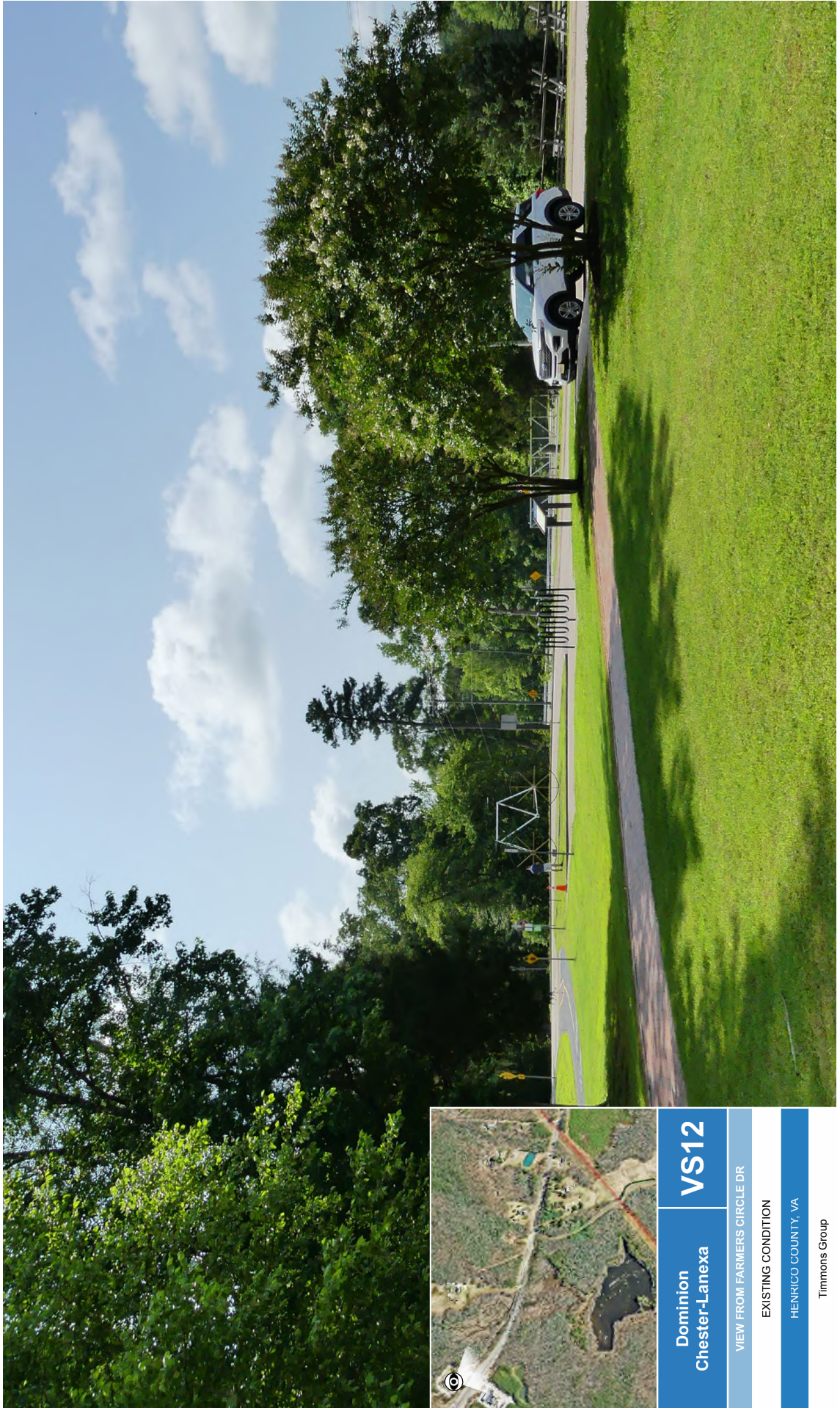
<b>Dominion Chester-Lanexa</b>	<b>VS11</b>
VIEW FROM WILLIS CHURCH RD	
EXISTING CONDITION	
HENRICO COUNTY, VA	

Timmons Group



<b>Dominion Chester-Lanexa</b>	<b>VS11</b>
VIEW FROM WILLIS CHURCH RD	
TRANSMISSION LINE LOCATION	
HENRICO COUNTY, VA	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS12</b></p>
<p>VIEW FROM FARMERS CIRCLE DR</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<b>Dominion Chester-Lanexa</b>	<b>VS12</b>
VIEW FROM FARMERS CIRCLE DR	
TRANSMISSION LINE LOCATION	
HENRICO COUNTY, VA	

Timmons Group



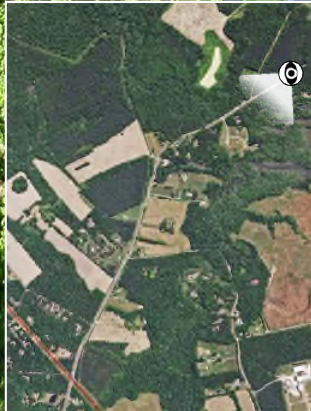
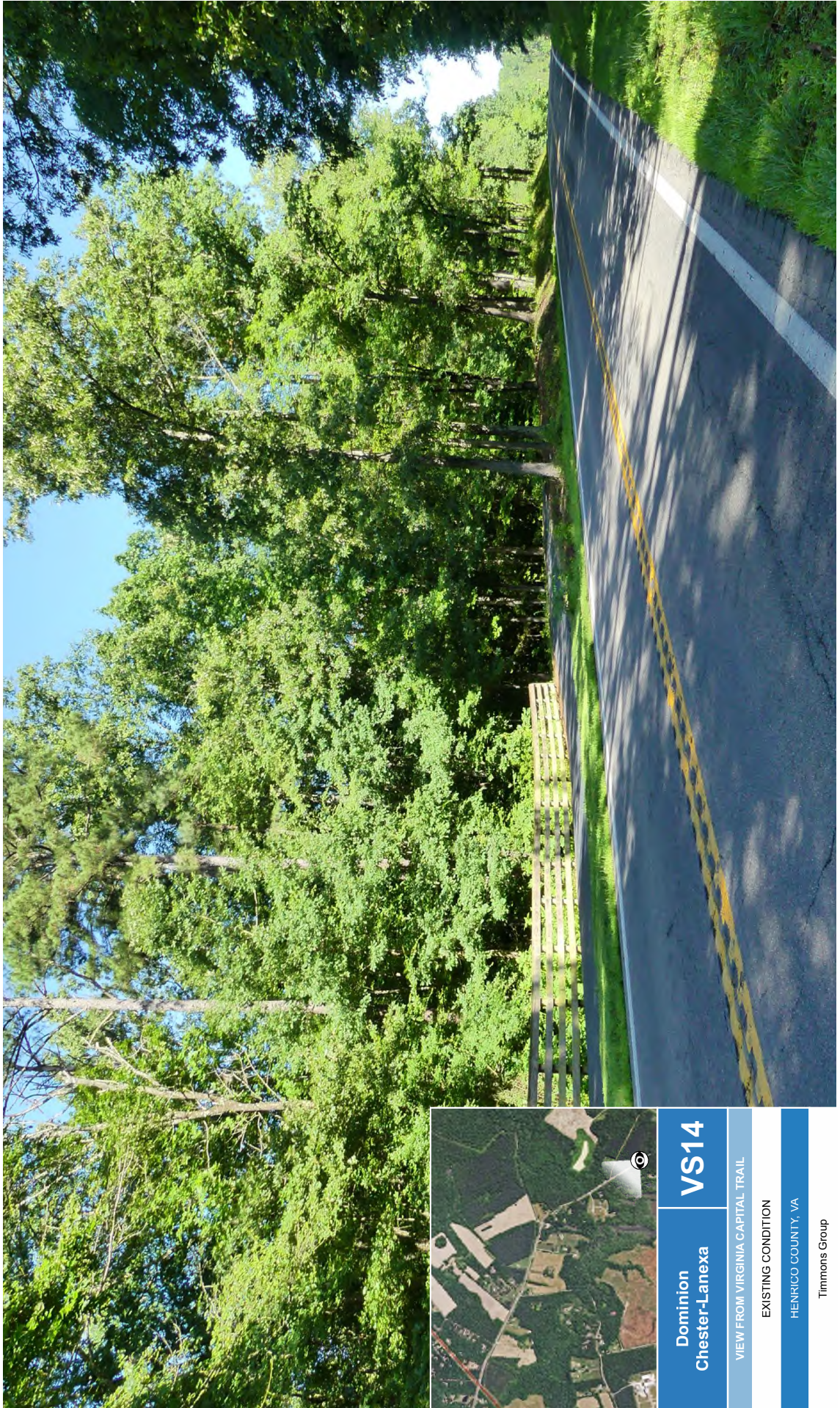
<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS13</b></p>
<p>VIEW FROM DARBYTOWN RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



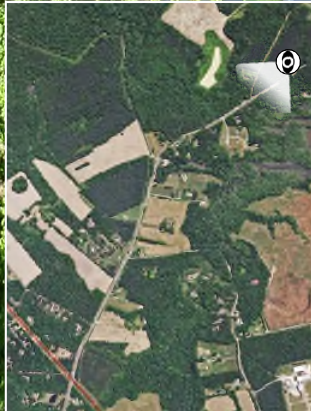
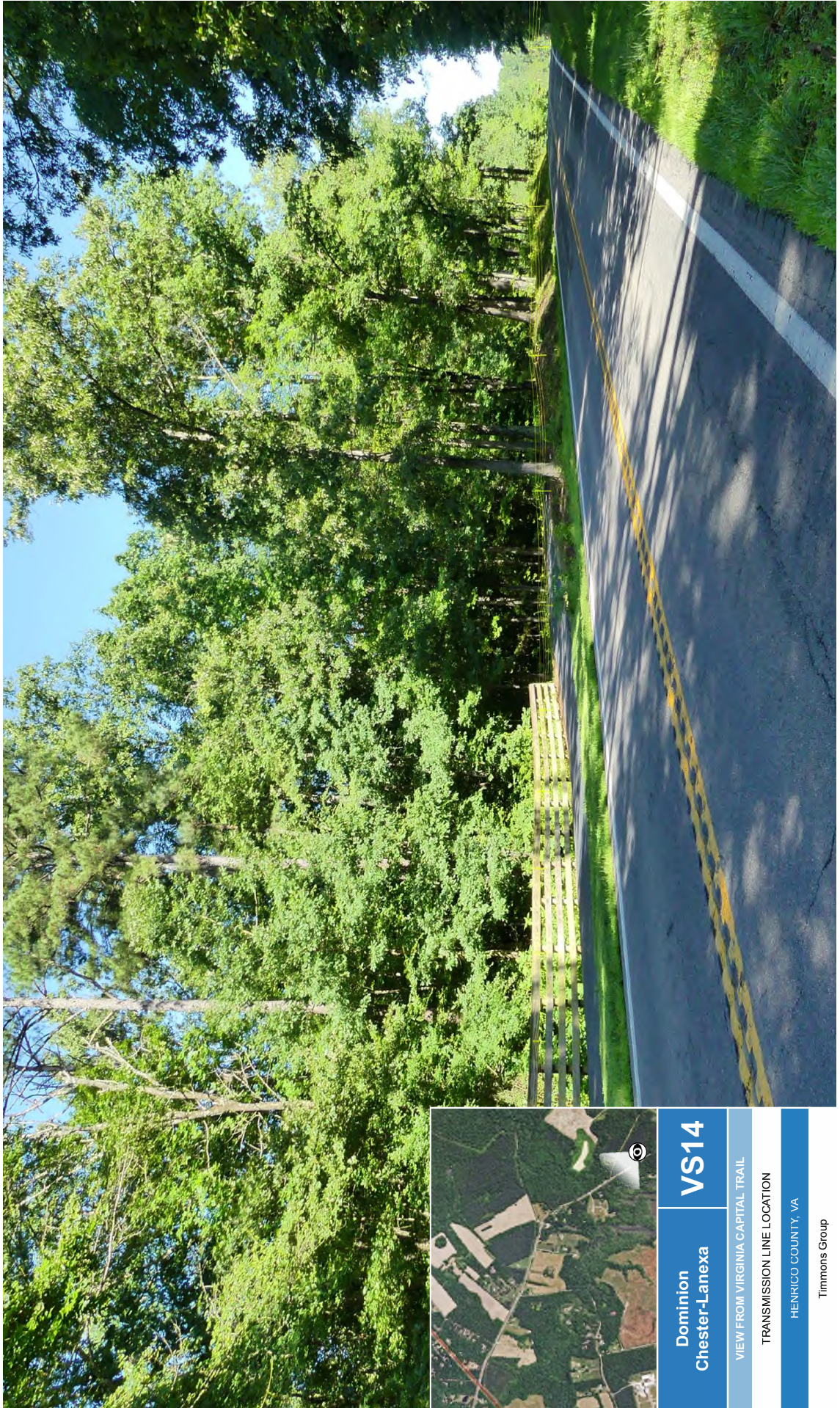
<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS13</b></p>
<p>VIEW FROM DARBYTOWN RD</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS14</b></p>
<p>VIEW FROM VIRGINIA CAPITAL TRAIL</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS14</b></p>
<p>VIEW FROM VIRGINIA CAPITAL TRAIL</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



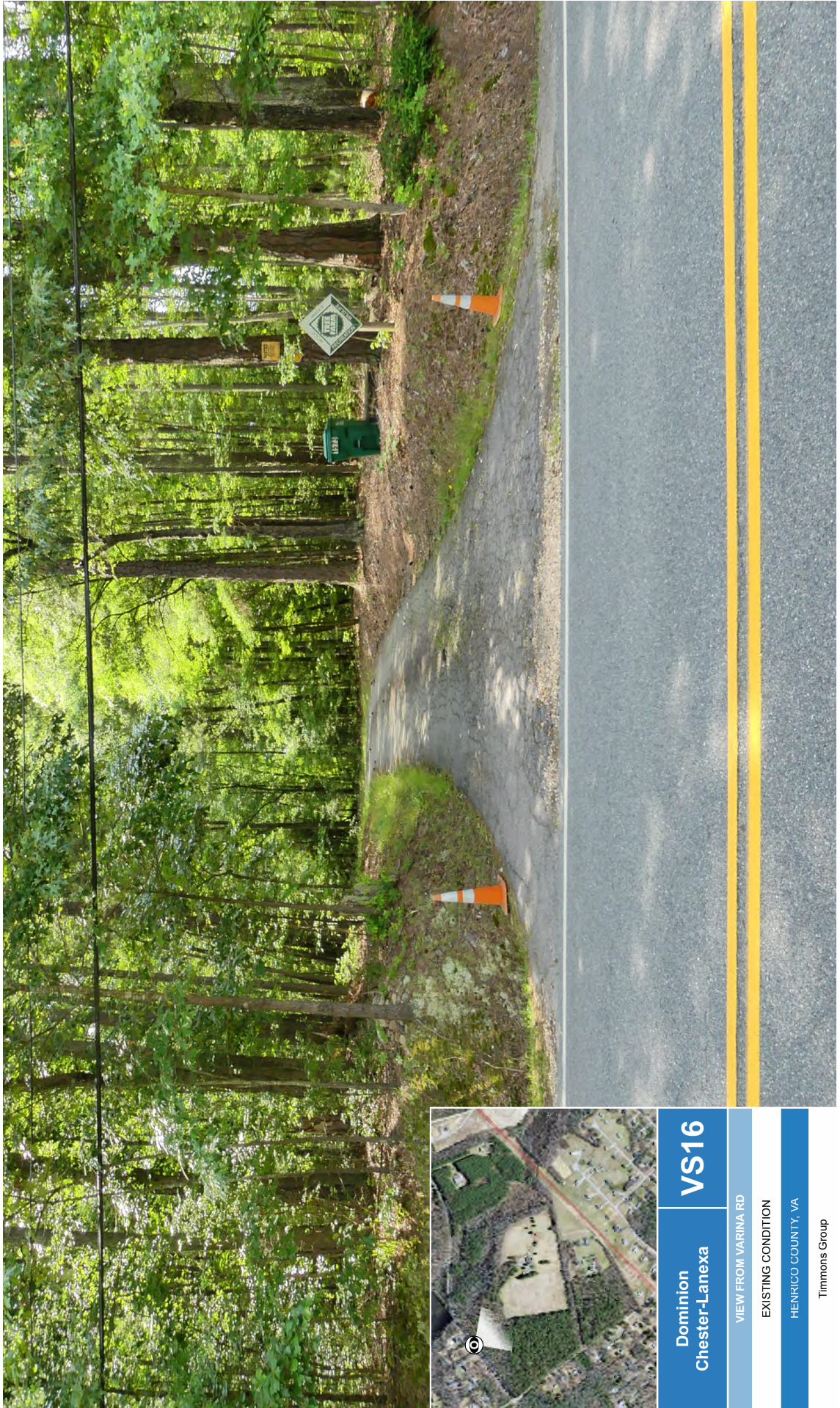
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<p>VIEW FROM YAHLEY MILL RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group

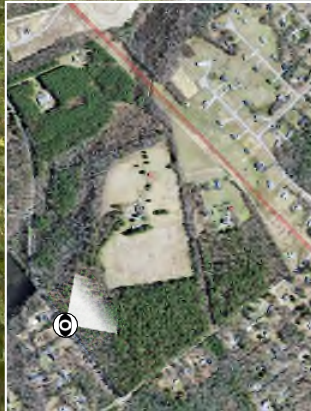
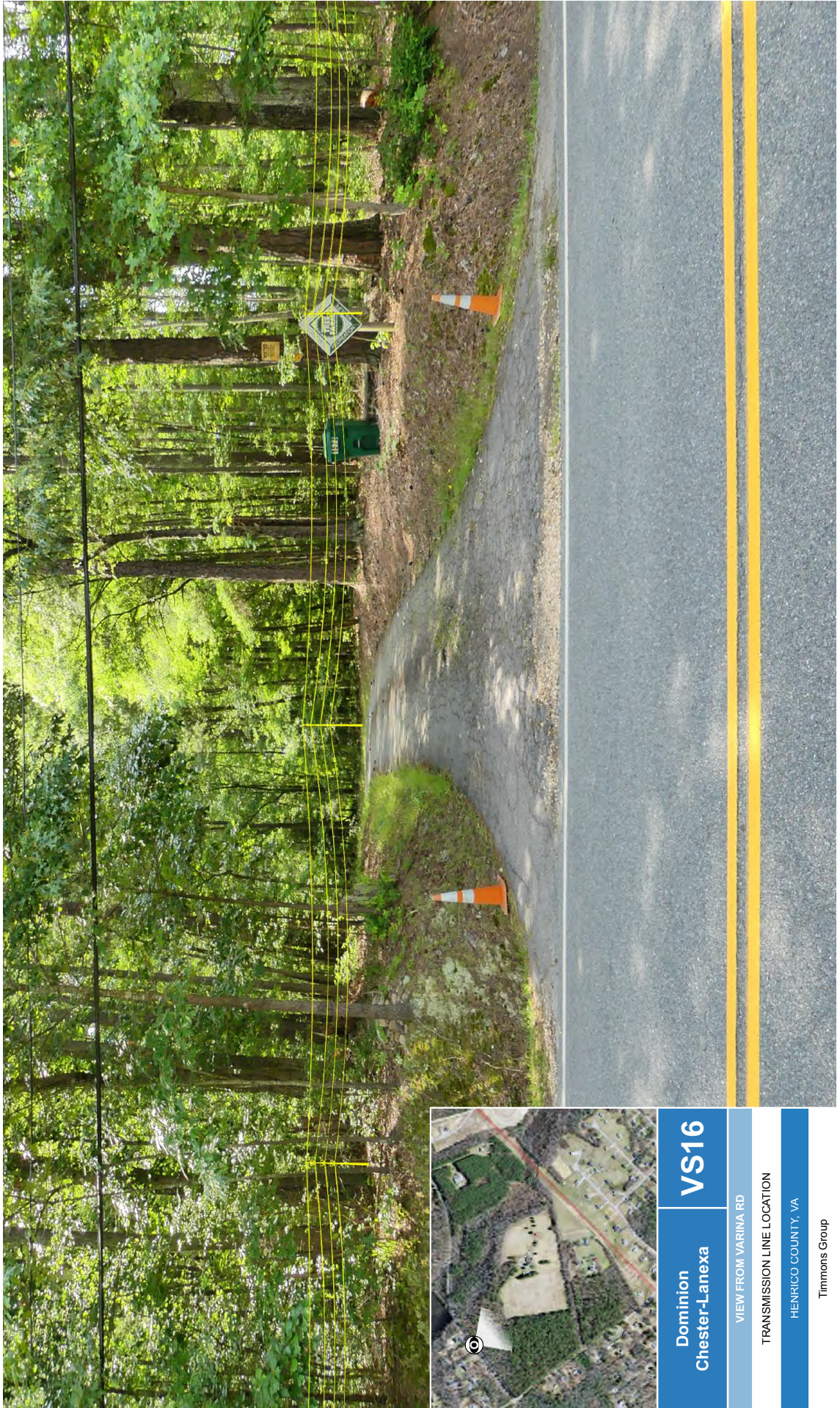


<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS15</b></p>
<p>VIEW FROM YAHLEY MILL RD</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	

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<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS16</b></p>
<p>VIEW FROM VARINA RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	
<p>Timmons Group</p>	



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS16</b></p>
<p>VIEW FROM VARINA RD</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS17</b></p>
<p>VIEW FROM CARRIAGE RD</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS17</b></p>
<p>VIEW FROM CARRIAGE RD</p>	
<p>TRANSMISSION LINE LOCATION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<b>Dominion Chester-Lanexa</b>	<b>VS18</b>
VIEW FROM S COURTHOUSE RD	
EXISTING CONDITION	
HENRICO COUNTY, VA	

Timmons Group



<b>Dominion Chester-Lanexa</b>	<b>VS18</b>
VIEW FROM S COURTHOUSE RD	
TRANSMISSION LINE LOCATION	
HENRICO COUNTY, VA	

Timmons Group



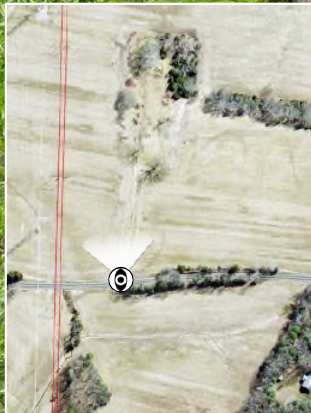
<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS19</b></p>
<p>VIEW FROM POCAHONTAS TRAIL</p>	
<p>EXISTING CONDITION</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



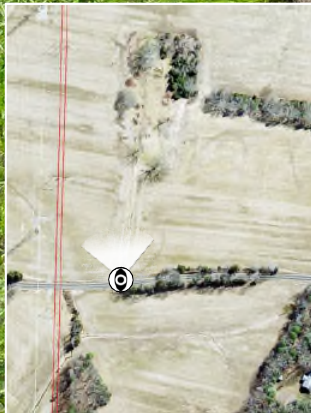
<b>Dominion Chester-Lanexa</b>	<b>VS19</b>
VIEW FROM POCAHONTAS TRAIL	
TRANSMISSION LINE LOCATION	
HENRICO COUNTY, VA	

Timmons Group



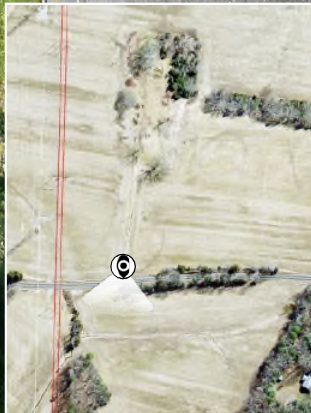
<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS20</b></p>
<p>VIEW FROM WILLIS CHURCH RD</p>	
<p>EXISTING CONDITIONS</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



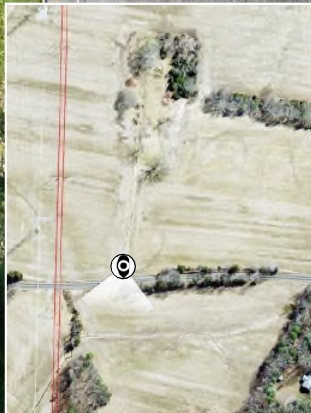
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<p>VIEW FROM WILLIS CHURCH RD</p>	
<p>EXISTING CONDITIONS</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group

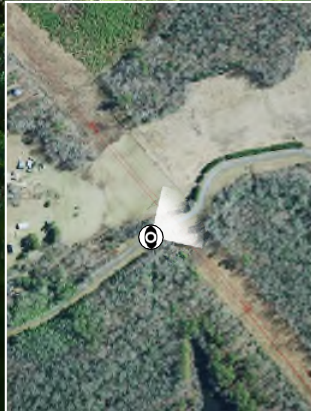


<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS21</b></p>
<p>VIEW FROM WILLIS CHURCH RD</p>	
<p>EXISTING CONDITIONS</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group

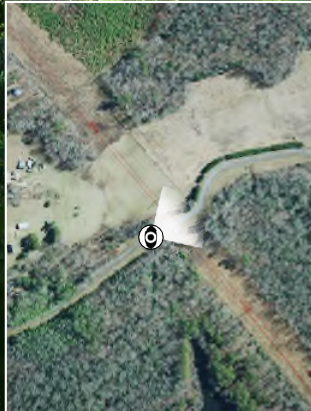


<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS21</b></p>
<p>VIEW FROM WILLIS CHURCH RD</p>	
<p>EXISTING CONDITIONS</p>	
<p>HENRICO COUNTY, VA</p>	
<p>Timmons Group</p>	



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS22</b></p>
<p>VIEW FROM NEW MARKET RD</p>	
<p>EXISTING CONDITIONS</p>	
<p>HENRICO COUNTY, VA</p>	

Timmons Group



<p><b>Dominion Chester-Lanexa</b></p>	<p><b>VS22</b></p>
<p>VIEW FROM NEW MARKET RD</p>	
<p>EXISTING CONDITIONS</p>	
<p>HENRICO COUNTY, VA</p>	

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## 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: There are no new substations, switching stations, or other ground facilities associated with the proposed Rebuild Project, nor are any of the impacted stations being expanded. In addition to the Rebuild Project, the following work will be performed:<sup>15</sup>

At Chesterfield 115 kV Substation, the Company will upgrade line leads.

At Chesterfield 230 kV Substation, the Company will upgrade terminal equipment and line leads.

At Providence Forge Substation, the Company will upgrade line switches.

At Chickahominy Substation, the Company will upgrade switches and traps.

At Lanexa Substation 230 kV yard, the Company will upgrade wave trap.

At Lanexa Substation 115 kV yard, the Company will upgrade line leads.

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<sup>15</sup> The proposed Rebuild Project includes transmission line termination work at existing Chesterfield 115 kV, Chesterfield 230 kV, Providence Forge, Chickahominy, and Lanexa Substations. A description of the station work is provided here for transparency. The work is within the Company's ordinary course, and the stations are subject to locality jurisdiction. See *BASF Corp. v. State Corp. Comm'n*, 289 Va. 375 (2015).

**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: The proposed Rebuild Project will be located within an existing transmission line right-of-way which spans approximately 28.2 miles from Structures #92/5 and #287/6 in Henrico County to the Lanexa Substation in New Kent County. The existing transmission line right-of-way to be utilized for the Rebuild Project will cross land largely characterized as agricultural, open, forested, wetlands, low to medium density residential, and developed. The Rebuild Project crosses a total of approximately 297 acres of prime farmland and approximately 134 acres of farmland of statewide importance. Agricultural uses are present within the existing right-of-way, and these activities have been occurring within the right-of-way where the existing transmission lines have been in operation since 1952. The proposed Rebuild Project may result in temporary impacts to farmland during construction but would not otherwise be expected to impact farmlands and would not alter the agricultural use. The Rebuild Project is within an existing transmission line right-of-way; therefore, no forested land is present, and no additional forestland clearing is anticipated. See Attachment III.A.1 for a map depicting prime farmland and farmland of statewide importance.

The Company reviewed the most recent aerial imagery available in Google Earth to identify residences in proximity to the Rebuild Project. A summary of the number of residences within 500, 250, and 100 feet of the Rebuild Project centerline is presented in the table below. No dwellings are located within the existing right-of-way.

<b>County/City</b>	<b>Dwellings Within 500 Feet of Centerline</b>	<b>Dwellings Within 250 Feet of Centerline</b>	<b>Dwellings Within 100 Feet of Centerline</b>
Henrico	183	72	7
Charles City	29	10	1
New Kent	39	11	0

For additional description of the character of the area that will be traversed by the Rebuild Project and the related impacts, see the DEQ Supplement, specifically as to land use (Sections 2.I and 2.L), wetlands (Section 2.D), forests (Section 2.L), agricultural lands (Section 2.L), historic resources (Section 2.I), and wildlife (Section 2.G and 2.K).

**ATTACHMENT III.A.1  
PRIME FARMLAND MAP**

Chesterfield - Lanexa Corridor  
Lines #92, #127, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client: Dominion Energy Virginia

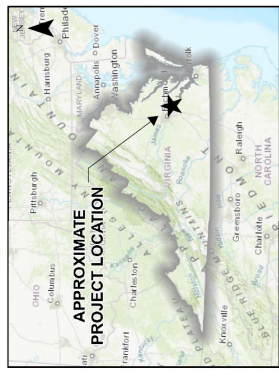
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/30/25

Scale is 1" = 3/4" MI when printed at original size of 11x17  
0 1.5 3 6 Miles

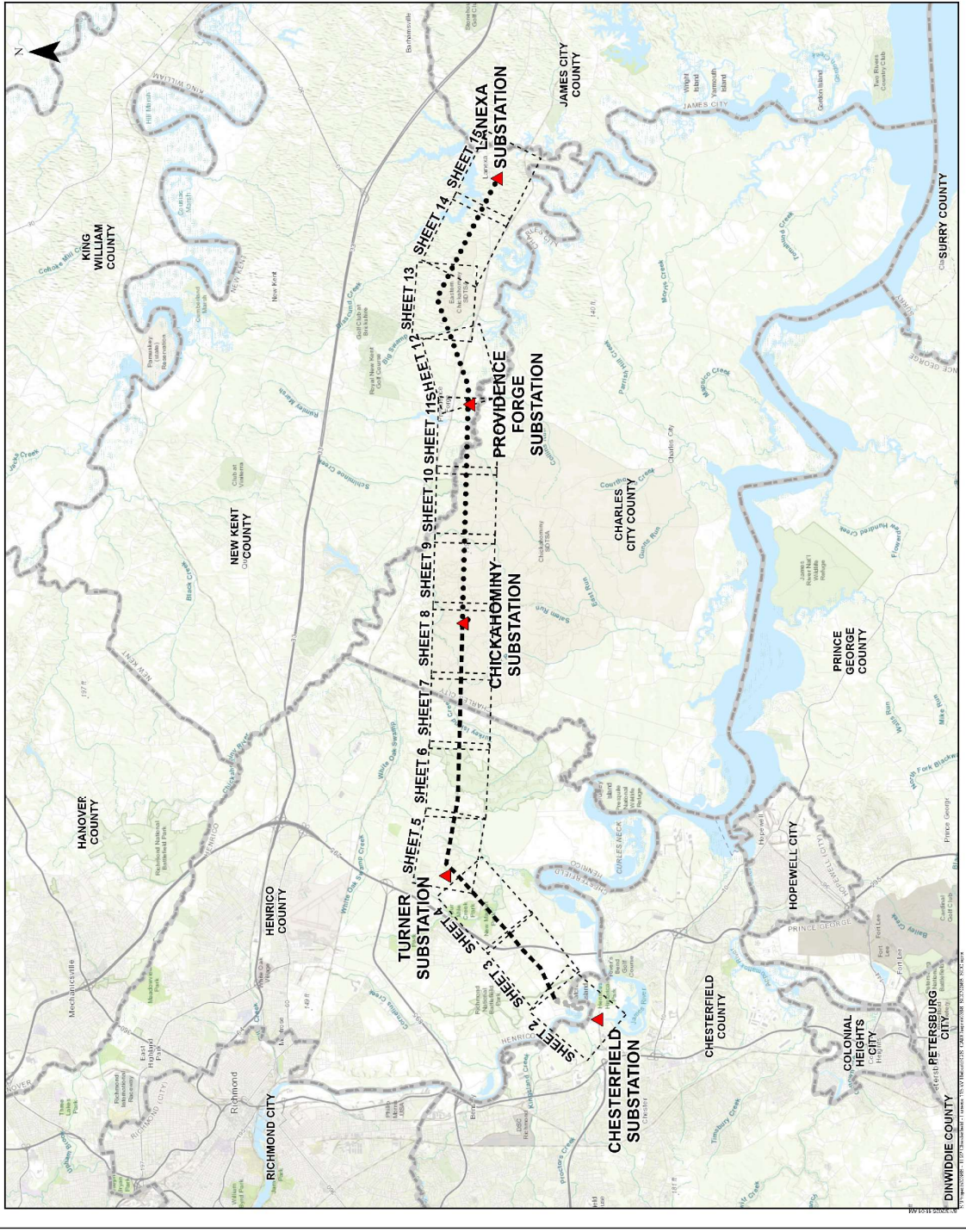
**SITE DATA**

- Partial Rebuild of Lines #287 and #217
- Partial Rebuild of Lines #92 and #192
- Partial Rebuild of Lines #92 and #287
- Partial Rebuild of Lines #92 and #2129
- ▲ Existing Substation
- - - Map Sheet

Notes:  
1. Basemap from ESH World Topographic Map  
2. Project right-of-way provided by Dominion Energy Virginia  
3. Stream centerlines from U.S. Geological Survey National Hydrography Dataset  
4. Stream centerlines from U.S. Geological Survey National Hydrography Dataset  
5. Farmland data from Natural Resources Conservation Service Soil Survey



SHEET 1 OF 15



**ATTACHMENT III.A.1  
PRIME FARMLAND MAP**

Chesterfield-Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

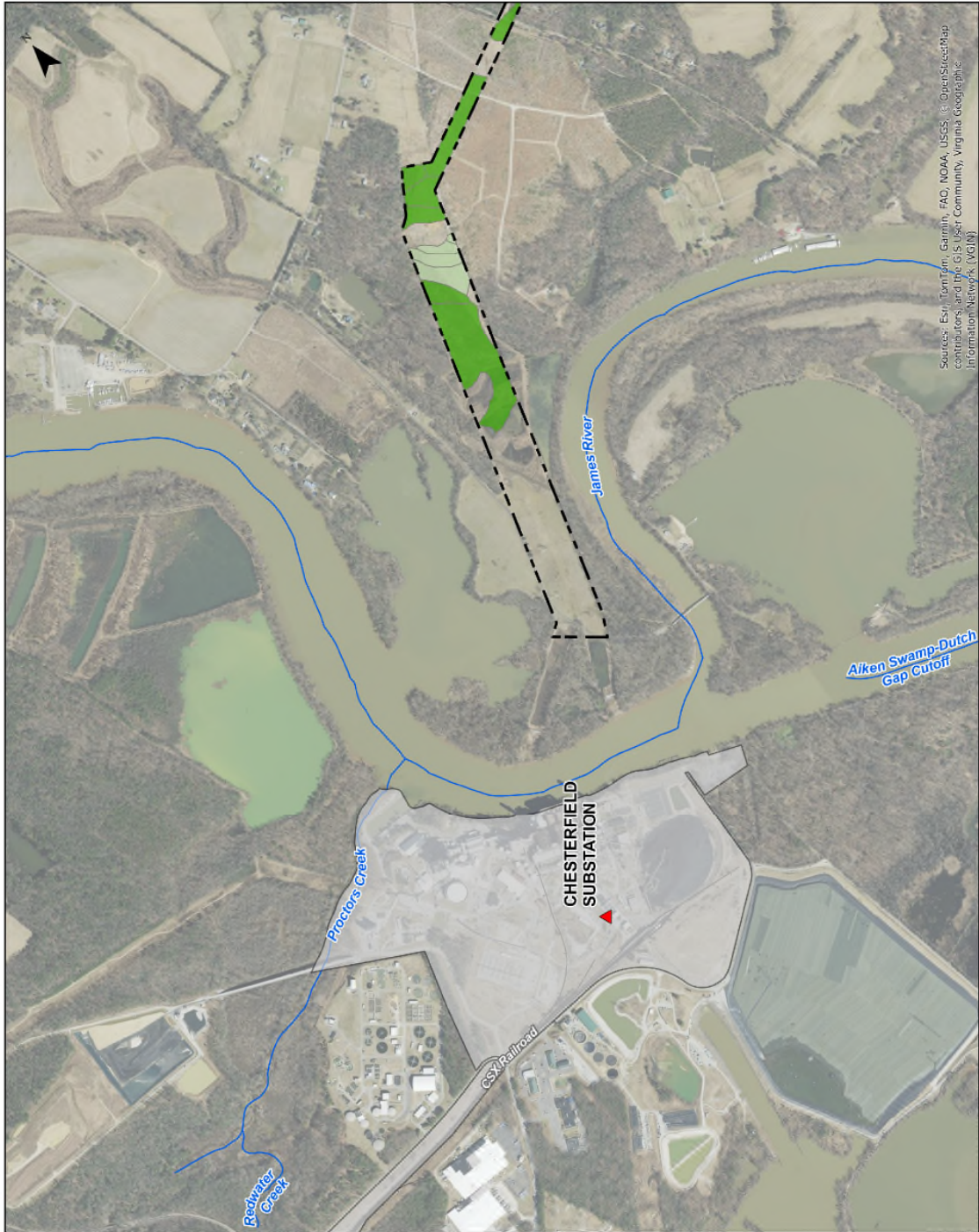
Client: Dominion Energy Virginia  
CZ Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25



- Proposed Project Area
- Existing Substation
- Dominion Station Parcel
- Prime Farmland
- Farmland of Statewide Importance
- Prime Farmland if Drained
- USGS National Hydrography Stream Centerline
- Railroad



SHEET 2 OF 15

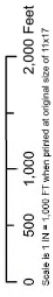


Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community, Virginia Geographic Information Network (VGIN)

**ATTACHMENT III.A.1  
PRIME FARMLAND MAP**

Chesterfield-Lanexa Corridor  
Lines #92, #192, #217, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

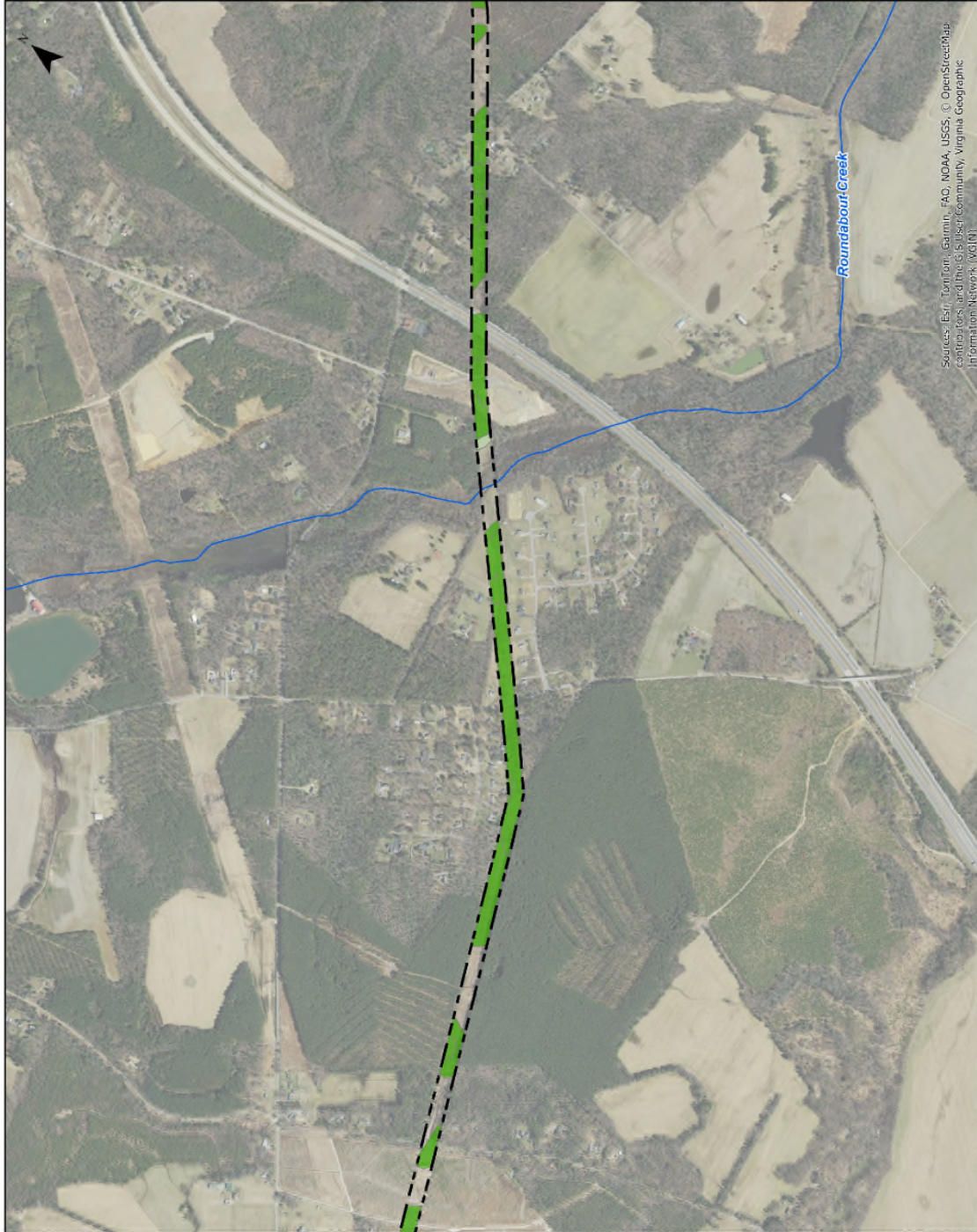
Client: Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25



- Proposed Project Area
- Existing Substation
- Dominion Station Parcel
- Prime Farmland
- Farmland of Statewide Importance
- Prime Farmland if Drained
- USGS National Hydrography Stream Centerline
- Railroad



SHEET 3 OF 15



Sources: Esri, TomTom, Garmin, FAD, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community, Virginia Geographic Information Network (VGIN)

**ATTACHMENT III.A.1  
PRIME FARMLAND MAP**

Chesterfield-Lanexa Corridor  
Lines #92, #92, #287, and #2129 Partial Rebuild  
Henrico, Charles City and New Kent  
Counties, Virginia

Client:  
Dominion Energy Virginia  
C2 Env Project: 0368  
Prepared By: KAS  
Date: 7/29/25



- Proposed Project Area
- Existing Substation
- Dominion Station Parcel
- Prime Farmland
- Farmland of Statewide Importance
- Prime Farmland if Drained
- USGS National Hydrography Stream Centerline
- Railroad



Sources: Esri, TomTom, Garmin, AAC, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community, Virginia Geographic Information Network (VGIN)

