County of Fairfax, Virginia
Planning Commission Meeting
July 9, 2025
Planning Commission Action

2232-2024-SU-00008 – TOWERVIEW SUBSTATION
(Sully District)

PLANNING COMMISSION RECOMMENDATIONS:

On July 9, 2025, the Planning Commission voted 10-0 (Commissioner Hancock was absent from the meeting. Commissioner Sargeant recused himself from the discussion and vote) to approve Application 2232-2024-SU-00008 based on the following findings and reasons:

- The proposal to construct an electrical substation facility to serve the electrical demands of the surrounding area and complement the existing adjacent Dominion substation to the east, located at 13921 Park Center Road, satisfies the criteria of general or approximate location, character, and extent of the adopted Comprehensive Plan, as specified in Section 15.2-2232 of the *Code of Virginia,* for the reasons set forth in the staff report dated June 25, 2025.

ATTACHED DOCUMENTS:
Staff Report dated June 25, 2025

CD

FAIRFAX COUNTY
PLANNING COMMISSION

June 25, 2025

PUBLIC HEARING
FOR
PLANNING DETERMINATION

Pursuant to
Va. Code Sec. 15.2 - 2232

Public Hearing Date: July 9, 2025 at 7:30 p.m.

Application Number:	**2232-2024-SU-00008**
Applicant:	**Dominion Energy**
Proposed Use:	Towerview Electrical Substation
Supervisor District:	Sully
Subject Property Tax Map ID:	24-2-((1))-11C2
Subject Property Address:	13921 Park Center Rd, Herndon, VA
Area of Subject Property:	3.79 acres
Application Accepted:	September 5, 2024. The Board of Supervisors extended the application deadline on October 22, 2024 to August 4, 2025 date, in order to allow the applicant and staff sufficient time to complete the 2232 review.
Recommendation:	In accordance with Va. Code Sec. 15.2-2232, as amended, staff recommends that the Planning Commission find that the proposal by Virginia Electric and Power Company, d/b/a Dominion Energy Virginia (Dominion) to construct a new substation facility at parcel number 24-2-((1))-11C2 in Herdon, VA **is substantially in accord** with provisions of the adopted Comprehensive Plan.

PLANNING DETERMINATION

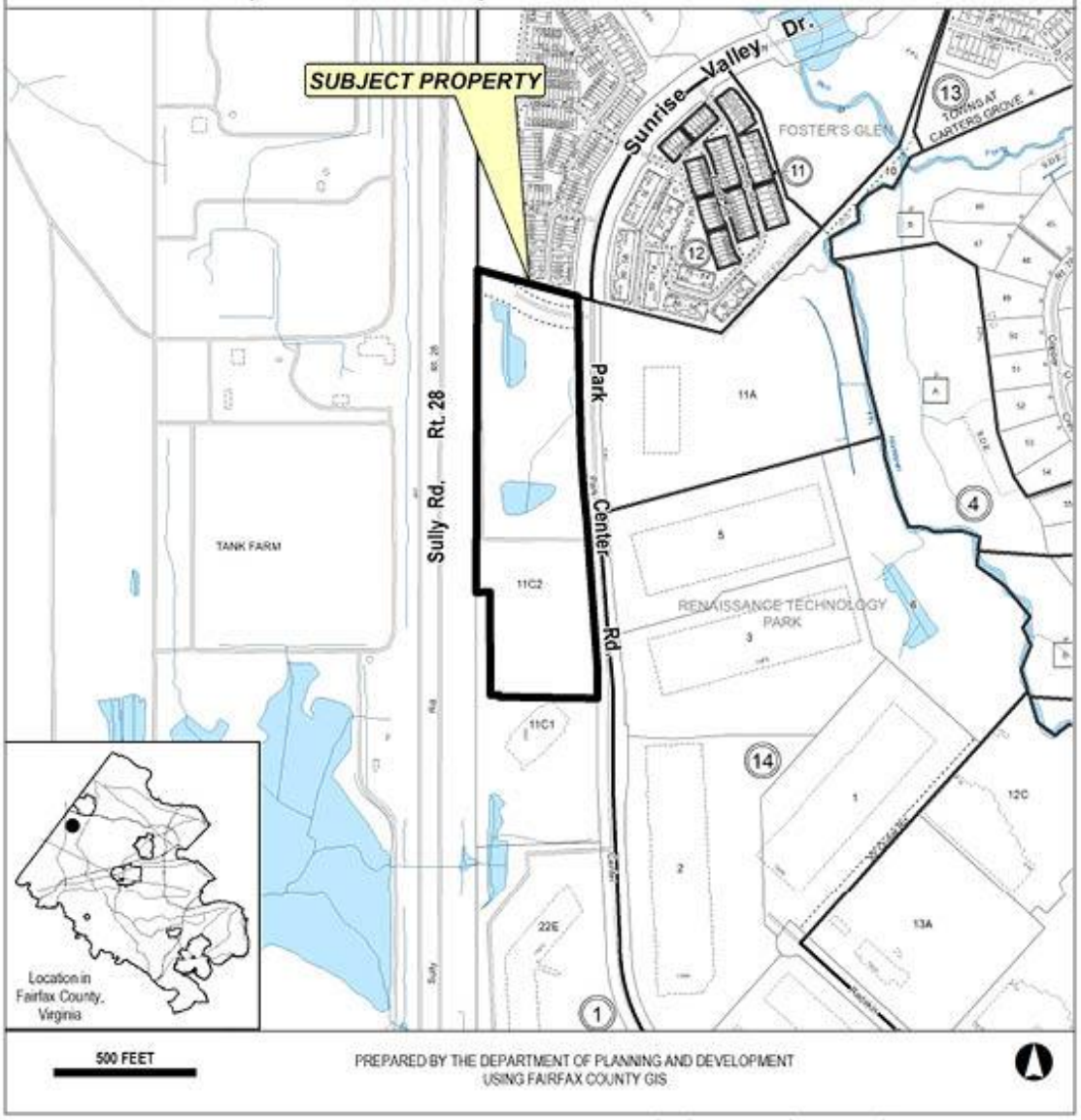
Section 15.2 -2232 of the Code of Virginia

Number: 2232-2024-SU-00008 **Acreage:** 3.79 Ac. **District:** Sully

Tax Map ID Number: 24-2 ((1)) 11C2 **Address:** 13921 Park Center Road Herndon, VA 20171

Planned Use: Office **Applicant:** Virginia Electric and Power Company, d/b/a Dominion Energy Virginia

Proposed Use: Public Facility



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APPLICATION

Proposal: Virginia Electric and Power Company, d/b/a Dominion Energy Virginia (Dominion) proposes to construct an electrical substation facility to serve the adjacent data center and electrical demands of the surrounding area.

Zoning District: I-5

Comprehensive Plan Map: Office

Existing Site Conditions and Surrounding Area

The subject site is approximately 3.79 acres and owned by Dulles Gateway Property Owner LP. The substation is proposed to be constructed on a portion of the property that has an approved Dulles Gateway site plan (SP-2023-00089) for a data center use. The subject parcel is currently vacant and consists of mostly open fields and some small area of trees near the center of the property. The site is bounded by Route 28 to the west, Park Center Road to the north and east, and to the south is an existing office building site that is proposed for demolition as part of the associated Dulles Gateway data center site plan. Further to the south are existing commercial office park uses. East of Park Center Road are existing data center and industrial office park uses. To the west of Route 28 is the Dulles Airport property. To the north of the site is the Fosters Glen single family residential development that is currently under construction. Figure 1 shows the existing subject property and surrounding uses from the northwest along Route 28.



Figure 1: View of the Subject Site from Route 28

Project Justification
The subject property and adjacent parcel to the south are planned for a data center use. The subject electrical substation will provide service to the proposed data center and will be connected to the electrical grid to meet energy demands of the surrounding area. The proposed substation is designed to initially meet loading requirements for the data center, but as area distribution load has and will likely continue to increase, Dominion plans to utilize reserve capacity to serve increased loads to the electrical grid. In addition to the data center there has been significant growth in residential, commercial and office uses in the surrounding area that require additional energy needs.

PROPOSED USE

Proposed Substation Facility
The site where the proposed substation will be located is zoned I-5. The I-5 zoning district permits the development of electrical substations by-right in the Zoning Ordinance, however, as substations are a public utility, a public facility review is required under Virginia Code Section 15.2-2232.

The proposed substation will be located on approximately 3.79 acres at the northern portion of the data center development, as shown in the Conceptual Plan Exhibit in Figure 2 and in more detail with the 2232 Site Plan Design in Figure 3. The location has been selected with minimal impacts on adjacent properties and will be set back over 100 feet from the Fosters Glen residential neighborhood to the north and will be landscaped and planted with substantial natural vegetation between the substation and residential use. To address visibility issues from Route 28 along the western boundary, taller evergreen tree species and other natural landscaping will be planted along the fence line. The taller evergreens trees and landscaping will provide the most suitable visual mitigation allowed within the constraints of the site and create enhanced landscaping to sufficiently screen the security fence along the western boundary.

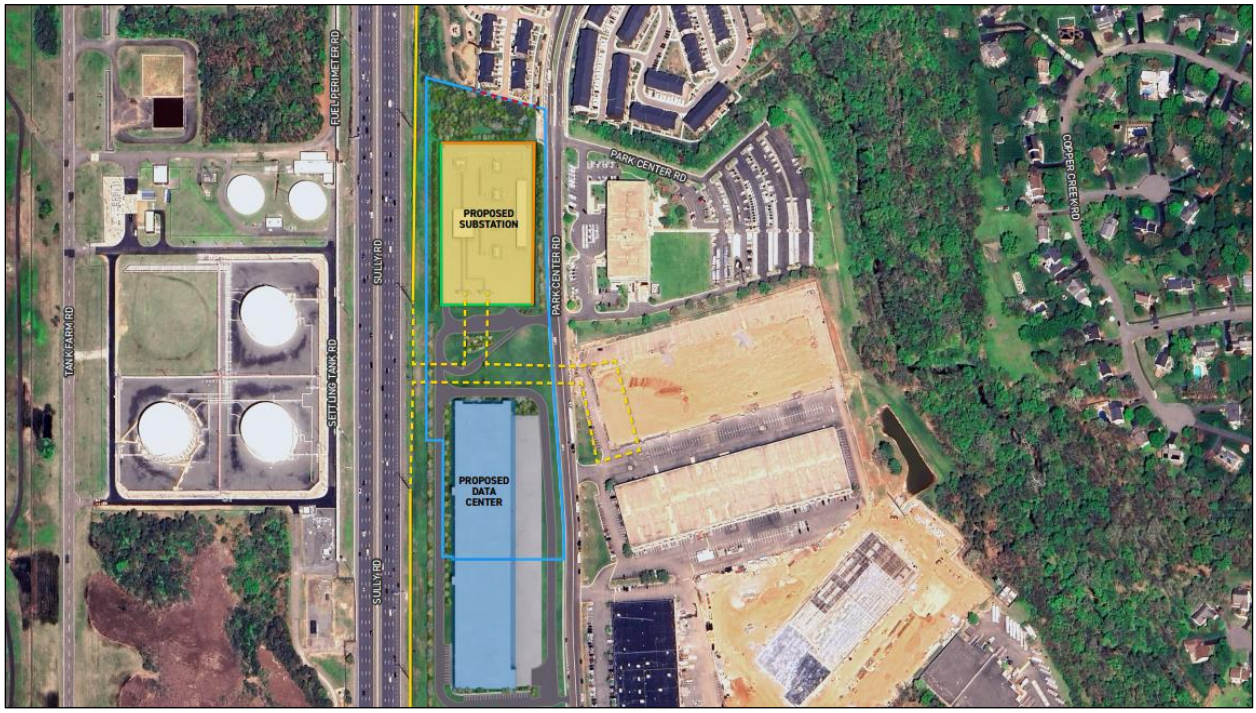


Figure 2: 2232 Conceptual Plan Exhibit

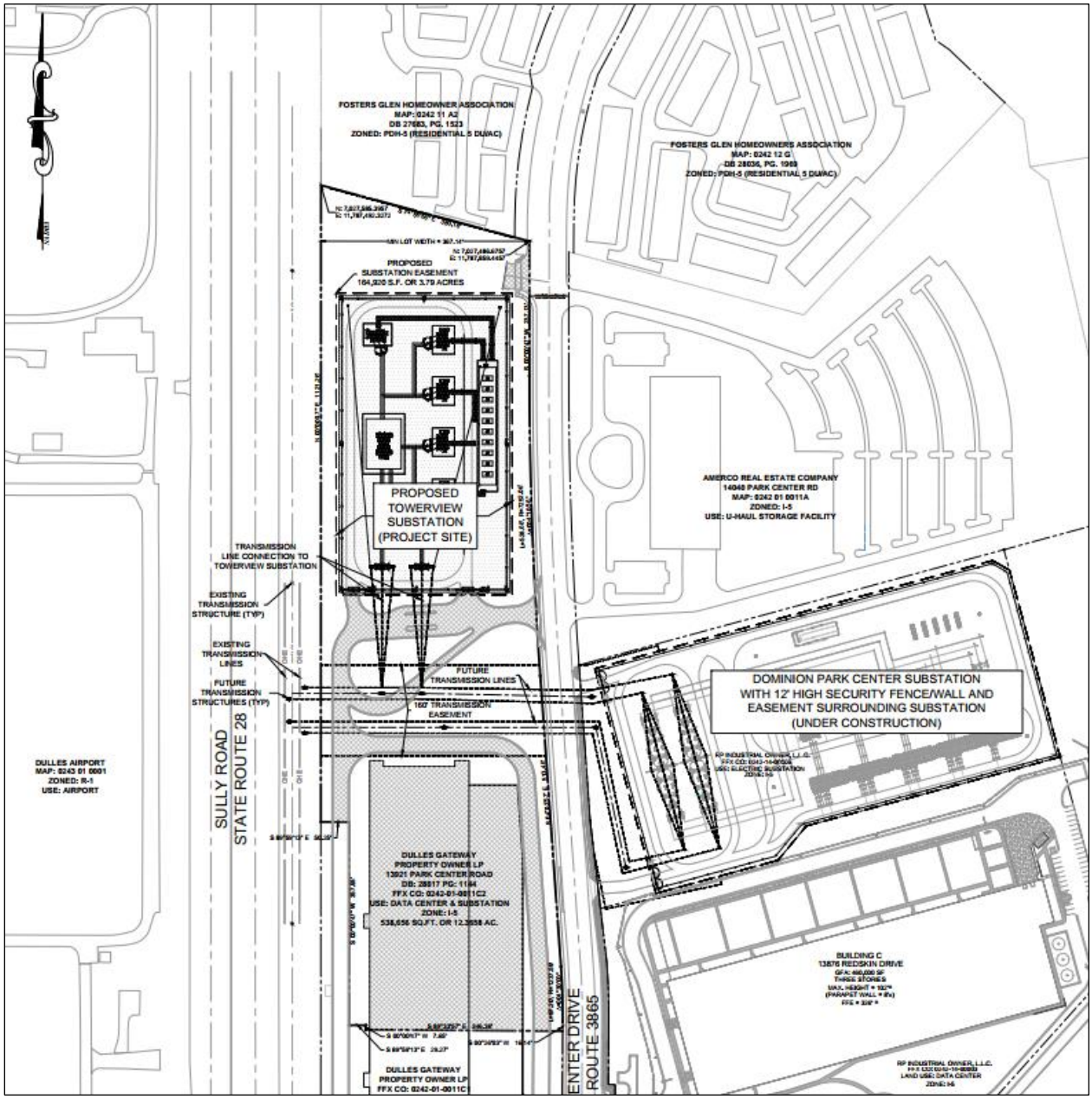


Figure 3: 2232 Site Plan Exhibit

Design and Architecture

The design and architecture of the electrical substation includes transformers, circuit breakers, and static poles. Heights of the equipment within the substation will generally be as follows, transformers (23'-28'); circuit breakers (17'-18'); static poles (75'); backbone structures (95'); and proposed security/screening wall (12'). Electrical transformers will be on-site and a

secondary containment perimeter will be designed and installed around each transformer. Figure 4 shows the conceptual design of the proposed substation, architectural wall and landscaping after ten years of growth along the frontage.



Figure 4: View of the Proposed Conditions/Rendering from Route 28

Hours of Operation, Maintenance and Personnel
The electrical substation will be functional and unmanned 24 hours a day, seven days a week. Monthly inspections and routine maintenance will be provided by Dominion technicians.

Service Area
The proposed substation will serve the adjacent data center and electrical demands of the surrounding area.

Access and Traffic Impacts
No significant traffic impacts are anticipated, as the facility is generally unstaffed. Access to the site will be off of Park Center Road.

Noise and Light Impacts
There are no anticipated noise or lighting impacts associated with the substation use. Substations have minimal noise generating uses and emitting sounds. Transformers are the source that generates noise ranging in decibel from 55-75 decibels (dBA), which will comply and meet the 55 dBA requirements of the Zoning Ordinance at the property lines.

The applicant has stated that the proposed lighting will be dark sky compliant and designed to minimize glare onto adjacent properties with the use of full cut-off LED lighting. The lighting proposed is minimal and provided for security and safety purposes. Noise and lighting impacts

will be minimized as the applicant will abide by the Fairfax County Noise Ordinance and Zoning Ordinance.

Visual Impacts, Landscaping and Screening

Visual mitigation has been incorporated into the proposal so the use is more compatible with the surrounding uses, particularly the residential uses to the north and Route 28 to the west. Landscape screening and buffers that vary in width are proposed along all four sides of the substation. To help minimize views, Dominion will install a 12 foot chain link mesh fence on the southern and western sides of the substation, where views of the substation from adjacent properties will be minimal. A 12 foot decorative pre-cast concrete wall will be installed along the eastern Park Center Road boundary, as well as the northern boundary facing the residential community.

The substation will be set back 100+ feet from the Fosters Glen residential development and separated by a substantial vegetated buffer to be planted by the data center developer as shown in Figure 5. The northern landscape buffer ranges in width from 115' to 195' and is fully planted with a mix of evergreen and deciduous trees and shrubs with heights that will range from 50'-100' at maturity. In addition, three tree save areas are preserved along the northern property line, closest to the residential community. Figure 6 illustrates these improvements as highlighted in green and the tree save in yellow. To the west, along Route 28, there are spacing and utility conflicts that do not allow the planting of taller trees. However, in coordination with the data center developer, Dominion has arranged to have the approved landscaping changed along the western boundary to allow taller evergreen species to be planted along the fence line. The taller evergreens will provide better visual mitigation and sufficiently hide the security fence to mitigate the viewshed from route 28. Dominion is also proposing both transmission and distribution enclosures which will house a substantial amount of substation equipment. This will allow a smaller footprint for the substation, and will greatly mitigate views of the substation, as equipment will now be replaced with more attractive enclosures compatible with the future data center buildings.



Figure 5: Viewpoint/Rendering from the Fosters Glen residential neighborhood from the south towards the proposed substation



Figure 6: Landscape plan exhibiting the planned vegetation and trees (highlighted in green, tree save in yellow)

Environmental

The stormwater management for the overall property is part of the approved Dulles Gateway site plan (SP-2023-00089). The approved Site Plan anticipated all proposed impervious area within the proposed substation as part of the stormwater management/best management practices (SWM/BMP) design. The approved SWM/BMP design incorporates environmental site design

features such as a bio-retention facility located north of the substation with a heavy landscape buffer and tree save areas on the north side to help meet county requirements for both water quantity and quality. There are no other known environmental impacts associated with development of the substation, and no mapped Resource Protection Areas (RPA), floodplains, or Environmental Quality Corridors (EQC) on the subject property. Electrical transformers will be onsite, however, a secondary oil containment perimeter will be designed and installed around each transformer. Also adjacent to the residential neighborhood, three tree save areas are preserved along the northern property line.

Alternative Sites
The proposed site was selected due to its proximity to the adjacent planned data center. The proposed substation will directly serve the data center development and surrounding areas, while being placed in a largely industrial area. Additionally, minimal distance is needed for new transmission line connections as the substation use is located adjacent to existing transmission lines along Route 28.

DESCRIPTION OF SURROUNDING AREA

LOCATION: The site is bounded by Route 28 to the west, industrial/office uses to the east, office to the south, and residential uses to the north.

CHARACTER: Undeveloped

Planned Land Uses Adjacent to Subject Property

- Subject Property – Office
- North – Office
- East – Industrial
- South – Office
- West – Public Facilities

COMPREHENSIVE PLAN

COMPREHENSIVE PLAN MAP: Office

The proposed site is in Area III, Dulles Suburban Center, Land Unit D-2 of the Comprehensive Plan.

An assessment of this proposal for substantial conformance with current land use recommendations of the Comprehensive Plan ("the Plan") is guided by the following citations:

Area Plan:

FAIRFAX COUNTY COMPREHENSIVE PLAN, Area III, 2017 Edition Dulles Suburban Center Amended through 9-24-2024, Page 36

"Public Facilities"

Existing public facilities located within the Dulles Suburban Center and those for which a future need has already been identified and prior approval received are included on Figure 7. Major expansions of existing facilities (with the exception of federal or state facilities) or uses of land that are distinctly different than the use of the public facility must be considered by the county Planning Commission through provisions outlined in Section 15.2-2232 of the Code of Virginia. For these existing facilities minor expansions which are in keeping with the character of the facility may be considered in conformance with the Plan.

• An adequate water supply and water distribution system should be provided for fire protection services.

• The Regional Stormwater Management Plan should be implemented as identified by the Department of Public Works and Environmental Services.

Additional public facilities may be identified as future needs in the Suburban Center. Such facilities are included for informational purposes and in most cases will require a 2232 Review public hearing before the county Planning Commission prior to being established unless they are specifically identified in the Plan text. Those facilities for which a specific location for future construction has been identified are also listed in the land unit recommendations and are considered a feature of the Comprehensive Plan upon review of the Planning Director and concurrence by the Planning Commission. If a feature shown determination is made, these projects will not require a future 2232 Review public hearing.

FAIRFAX COUNTY COMPREHENSIVE PLAN, 2017 Edition POLICY PLAN Public Facilities Amended through 5-7-2024, Pages 2–4:

COUNTYWIDE OBJECTIVES AND POLICIES

The following general objectives apply to the county's public facility planning effort as a whole and specific functional program areas in particular. These objectives should be viewed as the key principles for establishing a facility network which is responsive to the county's ability to pay, community expectations, the public health, safety and general welfare, and neighborhood and land use considerations.

Objective 1: Locate new facilities where access is convenient for residents and the requirements to provide the service or function are met.

Policy a. Site facilities appropriately to the area they are intended to serve.

Policy b. Reduce service area overlap between similar facilities¬¬, unless overlap is necessary to correct service deficiencies .

Policy c. Site facilities in accordance with locational standards that maintain accepted levels of service while reducing duplication or underutilization.

Objective 2: Plan, fund, construct and maintain facilities in accord with expected levels of service objectives and fiscal limitations.

Policy d. Follow adopted public facility standards to identify facility requirements associated with level of need, appropriate quantity and size, and relationship to population.

Objective 3: Balance the provision of public facilities with growth and development.

Policy a. Construct new facilities or expansions of existing facilities, where appropriate in size and quantity consistent with projected needs.

Objective 4: Consider the impact of public facilities on adjacent planned and existing land uses.

Policy a. Locate public facilities in areas of compatible land use when possible, if service efficiency and cost effectiveness can be achieved. Siting facilities in areas of different land uses is acceptable and at times required, to provide centrally located public facilities which are critical to the public interest.

Policy b. Design facilities to celebrate and enhance the community identity and existing or planned character of the surrounding area.

Policy c. Ensure that public facilities are properly screened and buffered in order to mitigate visual impact on adjacent planned development of a different use or nature.

Policy d. Ensure that site size and development conforms with all requirements of the Fairfax County Zoning Ordinance and exceeds site acreage requirements, as possible, to achieve maximum compatibility with surrounding land uses.

FAIRFAX COUNTY COMPREHENSIVE PLAN, 2017 Edition POLICY PLAN Public Facilities Amended through 5-7-2024, Pages 34-35:

"ELECTRICAL AND LAND-LINE UTILITY SERVICES"

INTRODUCTION

Electrical and land-line utility services include electrical, communication and cable facilities, which are provided through a wired infrastructure and viewed, for the most part, as absolute necessities. The need for electrical, communication, and cable facilities accelerates commensurate with development. As the need for sites increases, so does the scarcity of appropriate land for construction of these facilities. The objectives and policies set forth in this section provide guidance on siting and design issues and are to be used in evaluating land use applications. They should not be interpreted as superseding or amending any requirements of the Zoning Ordinance or other local, state and federal law pertaining to these issues.

Objective 43: Locate electrical and land-line service facilities to provide maximum service levels as unobtrusively as possible.

Policy a. Avoid areas of environmental sensitivity.

Policy b. Collocate facilities such as distribution and transmission poles, switching and hub centers and electrical substations whenever feasible and appropriate to minimize visual and neighborhood impacts .

Policy e. Locate future switching and hub centers, equipment areas, and electrical substations on sites, which shield nearby residences from noise, while affording privacy and safety.

Policy f. Construct underground transmission and distribution lines, whenever possible, along existing or planned utility or road rights of way, preferably on lot lines which will least disturb future development of the site.

Policy g. Locate future above-ground transmission and distribution lines along railroad rights-of-way, where possible, and when in keeping with adjacent development. Placement of transmission lines should not compromise the objectives of the Comprehensive Plan. Visual impact should be a key element in the evaluation of proposed transmission line locations.

Policy h. Regulate new development where permissible to minimize unnecessary human exposure to unhealthful impacts of low-level electromagnetic fields from electrical transmission lines.

Objective 44: Meet service area requirements with a minimum of facilities and ensure that those facilities are designed to minimize impacts on adjacent properties.

Policy a. Provide justification for the proposed facility's need. Specify alternative actions and justify why the proposed location and type of facility is the least disruptive.

Policy b. Mitigate the visual impact of switching and hub centers, equipment areas and electrical substations from adjacent development. Land with existing mature vegetation is preferable, as are access roads which obscure entrances, berms which provide screening, and slopes that provide localized lower elevations.

Policy c. Locate transmission and distribution lines underground, whenever possible.

Policy d. Conceal, screen or site ground transformers and distribution boxes to reduce their visual presence and potential for clutter.

Policy e. Provide for the appropriate screening and buffering of proposed facilities.

Policy f. Design and site proposed facilities to preserve areas necessary for future right of way dedication and ancillary easements for construction of road improvements.

Policy g. Provide safety measures in design and construction of towers used to support electrical and land-line utility services. Provide a fall radius of at least one third the height of guyed towers.

Policy h. Avoid interference with radio, television, and telecommunications receivers of the public.

Policy i. Assure that radiation levels, individually and cumulatively, will be maintained at acceptable levels.

STAFF ANALYSIS

Review agencies have provided comments for the 2232 Review. Below are outstanding issues that have been determined during the review of the 2232 application.

Fairfax County Department of Transportation (FCDOT)

FCDOT has noted that a shared use path should be constructed along the entirety of the site's frontage on Park Center Road in accordance with VDOT standards consisting of an 8-foot wide landscape buffer, a 10-foot wide asphalt path, and a one foot buffer within the public right-of-way. This is based on the Countywide Trails Plan which recommends a shared use path along the east side of Route 28. The approved site plan currently depicts a 6-foot wide sidewalk along the frontage of the site along Park Center Drive. A minor revision to the site plan is required and there will be an additional opportunity for FCDOT and LDS staff to provide comments if a shared use path is considered in the future or an alternative is provided that could retain the existing sidewalk or require a waiver.

CONFORMANCE WITH THE COMPREHENSIVE PLAN

Va. Code Sec. 15.2-2232, as amended, requires the Planning Commission to determine whether the general or approximate location, character, and extent of the proposed facility, as amended, are substantially in accord with the adopted Comprehensive Plan.

Location

The site is zoned to the I-5 District and is planned at the baseline level in the Comprehensive Plan for Office. The Zoning Ordinance permits the by-right development of electrical substations in the I-5 District aligning with Objective 4, Policy (d) of the Public Facilities Element of the Policy Plan (PFEPP). The electrical substation facility is proposed to serve the adjacent data center and other surrounding area uses. The proposed site meets the site selection criteria for an electrical substation, in conformance with Plan guidelines regarding locational standards for siting facilities and in accordance with reducing service overlap. The proposed substation is designed to initially meet loading requirements for the data center complex, as well as future energy demands through the use of reserve capacity generated by the substation, aligning with Objective 1, Policies (a), (b), and (c), Objective 4, Policy (a) and Objective 44, Policy (a) of the PFEPP. The location selected for the substation within the overall data center site, along with the 12' chain mesh fence, landscape screening and the data center buildings will provide a buffer from the other surrounding uses, therefore aligning to Objective 4, Policy (c) and Objective 43, Policy (d) and (e) of the PFEPP. The proposed substation location is adjacent to an existing transmission line that will utilize new tower additions and is adjacent to the proposed data center complex, as well as existing data centers, aligning with Objective 43, Policies (a) and (j) of the PFEPP. The proposed location also avoids areas of environmental sensitivity aligning with Objective 43, Policy (a) of the PFEPP.

Character
The surrounding area features a mix of uses, including the Dulles Airport, commercial, industrial, and office uses. The proposed substation is consistent and compatible with the character of these uses with some visual mitigation efforts. The substation's architectural wall, proposed landscaping, tree save, and setbacks from adjacent properties effectively mitigate for visual impacts, meeting Objective 44, Policies (b) and (d). With the existing, zoned and planned uses in this land unit of the Dulles Suburban Center, a substation can be an optimal use along the Route 28 corridor where there are existing electrical transmission lines, while also blending into the character at this portion of the site, immediate to an existing data center to the east and an incoming data center to the south.

The substation's architectural wall, landscaping, and setbacks from adjacent properties effectively mitigate for visual impacts. The buffer on the northern side of the property, adjacent to the residential community, exceeds the Zoning Ordinance requirements, and ranges in width from 115' to 195' wide and is planted with a mix of evergreen and deciduous trees and shrubs with heights that will range from 50'- 100' at maturity. There will also be a board-on-board fence on the side of the buffer facing the residential properties, and a 12' precast concrete decorative wall to provide more effective screening and be more visually appealing, aligning with Objective 44, Policies (b) and (d) of the PFEPP. Existing trees along the northern boundary will be preserved. Additional landscaping and fencing along the north and west sides of the site will provide visual screening to the proposed substation, therefore aligning with Objective 44, Policies (d) and (e) of the PFEPP and minimizing visual impacts. To mitigate the visual impact from Route 28 with enhanced screening and to make the substation more aesthetically pleasing so close to the roadway, Dominion is proposing extensive landscaping along the western boundary of the site to allow taller evergreen species to be planted along the fence line. The taller evergreens will provide better visual mitigation and create a wall of landscaping to sufficiently hide the security fence along the western boundary aligning with Objective 4, Policy (d) and Policy (c) of the PFEPP. The visual impact on adjacent properties is mitigated with appropriate site design, screening, and landscaping design techniques, aligning with Objective 44, Policy (b) of the PFEPP.

Extent
The proposed substation will address future electrical demands associated with the development of the data center complex, along with future growth and energy needs to the surrounding area, in accordance with Objective 3 of the PFEPP, to balance the provision of public facilities with growth and development. The substation will be set back over 100 feet from the residential neighborhood to the north to minimize noise and light impacts on adjacent properties and will be landscaped and planted with substantial natural vegetation between the residential use. There are no significant traffic impacts, the substation is unmanned and will have bi-monthly to monthly

maintenance and inspection visits. The proposed location avoids longer transmission line connections to an alternative site, therefore aligning with Objective 44, Policy (a) of the PFEPP. The proposed substation will not interfere with radio, television, and telecommunications receivers to the public. The applicant stated that the proposed substation will not emit unacceptable electromagnetic field levels either individually or cumulatively beyond the area of the substation, aligning to Objective 44, Policies (g), (h) and (i) of the PFEPP.

CONCLUSION AND RECOMMENDATIONS

The subject proposal by Dominion Energy to construct an electrical substation facility, located at Tax Map Parcel 24-2-((1))-11C2, satisfies the criteria of general or approximate location, character, and extent as specified in VA. Code Sec. 15.2-2232, as amended. Staff recommends the Planning Commission find the subject application 2232-2024-SU-00008 to be substantially in accord with provisions of the adopted Comprehensive Plan.

List of Attachments

Attachment A – Code of Virginia 15.2.2232 (Pages 1-3)

Attachment B – Statement of Justification and Application Materials (Pages 4-26)

Attachment C – Agency Review (Pages 27-30)

Code of Virginia
Title 15.2. Counties, Cities and Towns Subtitle II. Powers of Local Government
Chapter 22. Planning, Subdivision of Land and Zoning Article 3. The Comprehensive Plan

§ 15.2-2232. Legal status of plan

A. Whenever a local planning commission recommends a comprehensive plan or part thereof for the locality and such plan has been approved and adopted by the governing body, it shall control the general or approximate location, character and extent of each feature shown on the plan. Thereafter, unless a feature is already shown on the adopted master plan or part thereof or is deemed so under subsection D, no street or connection to an existing street, park or other public area, public building or public structure, public utility facility or public service corporation facility other than a railroad facility or an underground natural gas or underground electric distribution facility of a public utility as defined in subdivision (b) of § 56-265.1 within its certificated service territory, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being substantially in accord with the adopted comprehensive plan or part thereof. In connection with any such determination, the commission may, and at the direction of the governing body shall, hold a public hearing, after notice as required by § 15.2-2204. Following the adoption of the Statewide Transportation Plan by the Commonwealth Transportation Board pursuant to § 33.2-353 and written notification to the affected local governments, each local government through which one or more of the designated corridors of statewide significance traverses, shall, at a minimum, note such corridor or corridors on the transportation plan map included in its comprehensive plan for information purposes at the next regular update of the transportation plan map. Prior to the next regular update of the transportation plan map, the local government shall acknowledge the existence of corridors of statewide significance within its boundaries.

B. The commission shall communicate its findings to the governing body, indicating its approval or disapproval with written reasons therefor. The governing body may overrule the action of the commission by a vote of a majority of its membership. Failure of the commission to act within 60 days of a submission, unless the time is extended by the governing body, shall be deemed approval. The owner or owners or their agents may appeal the decision of the commission to the governing body within 10 days after the decision of the commission. The appeal shall be by written petition to the governing body setting forth the reasons for the appeal. The appeal shall be heard and determined within 60 days from its filing. A majority vote of the governing body shall overrule the commission.

C. Widening, narrowing, extension, enlargement, vacation or change of use of streets or public areas shall likewise be submitted for approval, but paving, repair, reconstruction, improvement, drainage or similar work and normal service extensions of public utilities or public service corporations shall not require approval unless such work involves a change in location or extent

of a street or public area.

D. Any public area, facility or use as set forth in subsection A which is identified within, but not the entire subject of, a submission under either § 15.2-2258 for subdivision or subdivision A 8 of § 15.2-2286 for development or both may be deemed a feature already shown on the adopted master plan, and, therefore, excepted from the requirement for submittal to and approval by the commission or the governing body; provided, that the governing body has by ordinance or resolution defined standards governing the construction, establishment or authorization of such public area, facility or use or has approved it through acceptance of a proffer made pursuant to § 15.2-2303.

E. Approval and funding of a public telecommunications facility on or before July 1, 2012, by the Virginia Public Broadcasting Board pursuant to Article 12 (§ 2.2-2426 et seq.) of Chapter 24 of Title 2.2 or after July 1, 2012, by the Board of Education pursuant to § 22.1-20.1 shall be deemed to satisfy the requirements of this section and local zoning ordinances with respect to such facility with the exception of television and radio towers and structures not necessary to house electronic apparatus. The exemption provided for in this subsection shall not apply to facilities existing or approved by the Virginia Public Telecommunications Board prior to July 1, 1990. The Board of Education shall notify the governing body of the locality in advance of any meeting where approval of any such facility shall be acted upon.

F. On any application for a telecommunications facility, the commission's decision shall comply with the requirements of the Federal Telecommunications Act of 1996. Failure of the commission to act on any such application for a telecommunications facility under subsection A submitted on or after July 1, 1998, within 90 days of such submission shall be deemed approval of the application by the commission unless the governing body has authorized an extension of time for consideration or the applicant has agreed to an extension of time. The governing body may extend the time required for action by the local commission by no more than 60 additional days. If the commission has not acted on the application by the end of the extension, or by the end of such longer period as may be agreed to by the applicant, the application is deemed approved by the commission.

G. A proposed telecommunications tower or a facility constructed by an entity organized pursuant to Chapter 9.1 (§ 56-231.15 et seq.) of Title 56 shall be deemed to be substantially in accord with the comprehensive plan and commission approval shall not be required if the proposed telecommunications tower or facility is located in a zoning district that allows such telecommunications towers or facilities by right.

H. A solar facility subject to subsection A shall be deemed to be substantially in accord with the comprehensive plan if (i) such proposed solar facility is located in a zoning district that allows such solar facilities by right; (ii) such proposed solar facility is designed to serve the electricity or thermal needs of the property upon which such facility is located, or will be owned or operated by an eligible customer-generator or eligible agricultural customer-generator under § 56-594 or 56-594.01 or by a small agricultural generator under § 56-594.2; or (iii) the locality waives the requirement that solar facilities be reviewed for substantial accord with the comprehensive plan. All other solar facilities shall be reviewed for substantial accord with the

comprehensive plan in accordance with this section. However, a locality may allow for a substantial accord review for such solar facilities to be advertised and approved concurrently in a public hearing process with a rezoning, special exception, or other approval process.

Code 1950, §§ 15-909, 15-923, 15-964.10; 1958, c. 389; 1960, c. 567; 1962, c. 407, § 15.1-456; 1964, c. 528; 1966, c. 596; 1968, c. 290; 1975, c. 641; 1976, c. 291; 1978, c. 584; 1982, c. 39; 1987, c. 312; 1989, c. 532; 1990, c. 633; 1997, cc. 587, 858;1998, c. 683;2007, c. 801;2009, cc. 670, 690; 2012, cc. 803, 835;2016, c. 613;2018, cc. 175, 318;2020, c. 665.

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired

Dominion Virginia Energy - Towerview Substation
Public Facility Review
Statement of Justification

January 17, 2025

Pursuant to Section 15.2-2232 of the Code of Virginia, the Virginia Electric and Power Company, d/b/a Dominion Energy Virginia ("Dominion"), hereby requests a 15.2-2232 determination that the location, character, and extent of a proposed electric substation is in accordance with the County's Comprehensive Plan. The proposed substation will be constructed on a portion of property to be developed with the Dulles Gateway data center project, further identified as Tax Map No. 24-2-((1))-11C2 (the "Property"). The Property is in the Sully District and zoned I-5. It is located within the Airport Noise Impact and Water Supply Protection overlay district. The I-5 zoning district permits development of electrical substations by-right; however, because it is a public utility, a public facility review is required.

A. DESCRIPTION OF PROPOSED USE

1. Project Description: The proposed substation will be located on approximately 3.79 acres at the northern portion of the data center development. The area is surrounded by Dulles Airport, Route 28, data center, public utility, and a residential development.

   Heights of the equipment within the substation shall generally be as follows: Transformers (25''), Distribution GIS Enclosure (27'), Transmission GIS Enclosure (45'), Static Poles (70'), backbone structures (75'), and proposed security fence (12').

2. Area Served by Proposed Use: The proposed substation will directly serve the data centers buildings to be constructed on the Property, as well as future electrical demand for the overall area.

3. Maintenance Requirements and Frequency: The proposed substation will be unmanned. Once constructed, the substation will be visited 1 to 2 times per month for maintenance requirements.

B. REQUIREMENT FOR PROPOSED USE

1. Why New Facility is Needed: The site and adjacent properties are either under site plan review or under construction for data center development. The Property owner has provided the land area to Dominion for development of the substation which will directly serve the data center buildings, as well as future electrical need for the area.

Further, over the last decade, this area of the County has experienced not only an increase in high-tech businesses, but also a rise in commercial, office, and residential development. Given the extent of the future data center demand from the Property, as well as overall area growth, there is immediate need for the new substation. The Property owner has provided the much-needed land to construct the substation; thus, ensuring Dominion will be able to continue to provide reliable electrical service to the surrounding development, communities, and businesses.

2. Why Proposed Location is Best for the Proposed Use: The proposed location is ideal to directly serve the future data center complex which has substantial and individualized power needs, while located on property with minimal impacts on adjacent properties.

   To the west, across Route 28, the substation will be next to the Dulles Airport property and fuel tank farm. To the south and east, across Park Center Road is data center and commercial development. To the north, is the Fosters Glen residential development.

3. Why the proposed location and type of facility is the least disruptive alternative:

   Given the above, the proposed location is the least disruptive alternative. As noted, the substation will directly serve the Property's data center development and is placed on the industrial-zoned Property in a manner with least impact on adjacent properties. Further, because it is located adjacent to the existing transmission line corridor along Route 28, as well as lines running through the Property, minimal distance is needed for new transmission line connections into the proposed substation.

C. ANTICIPATED IMPACTS/MITIGATION

1. Visual: The new substation will be mitigated to the maximum extent possible to be compatible with the data center, airport, highway, commercial, and residential uses immediately surrounding the proposed substation. Visual impacts are mitigated as follows:

   - Views of the substation will be mitigated by variable width landscape buffers provided by the data center developer along all four sides of the substation. To help minimize views, Dominion will install a 5/8 inch, 12 foot chain link mesh fence on the southern and western sides of the substation, where views of the substation from adjacent properties will be minimal. A 12 foot decorative pre-cast concrete wall be installed along the eastern Park Center Road boundary, as well as the northern boundary facing the residential community.
   - The substation will be set back 100+ feet from the Fosters Glen residential development and separated by a substantial vegetated buffer to be planted by the data center developer. The northern landscape buffer ranges in width from 115' to 195' and is fully planted with a mix of evergreen and deciduous trees and shrubs with mature heights that will range from 50'- 100' at maturity. In

addition, three (3) tree save areas are preserved along the northern property line, closest to the residential community.

- Most importantly, Dominion is proposing both transmission and distribution GIS enclosures which will house a substantial amount of substation equipment. The benefits are twofold. First, it will allow a smaller footprint for the substation, and second, it will greatly mitigate views of the substation, as equipment will now be replaced with more attractive enclosures compatible with the future data center buildings.

2. Noise and Light: There are no anticipated noise or lighting impacts associated with the substation. Substations are not considered a noise generating use, and sound originating from a substation is generally minimal. Transformers within a substation are considered the noise sources and range in decibel levels depending upon manufacturer; however, generally, readings range between approximately 55-75 decibels (dBA) at the source. As such, decibel levels at the property lines are expected to fully meet 55 dBA zoning ordinance requirements. In addition, the overall area contains high noise-generating uses such as Dulles Airport and Route 28, and any sound emitting from the substation will blend in with ambient sound levels.

   Since this is an unmanned facility, proposed lighting is minimal except for security and safety purposes, and the substation lighting will meet Zoning Ordinance requirements. Lighting shall be dark sky compliant and designed to minimize glare onto adjacent properties with the use of full cut-off LED lighting. Comprehensive Plan policy to avoid nuisance aspects of unfocused light emissions will be achieved.

3. Air and Water Quality: Air quality standards will not be impacted with this project. Further, stormwater management for the overall property is part of the Dulles Gateway site plan (#SP-2023-0089) and is approved. The approved Site Plan anticipated all proposed impervious area within the proposed substation. The approved SWM/BMP design incorporates environmental site design features such as a bio-retention facility located north of the substation with a heavy landscape buffer and tree save areas on the north side to help meet County requirements for both water quantity and water quality.

4. Environmental: There are no other known environmental impacts associated with development of the substation. Electrical transformers will be onsite; however, a secondary oil containment perimeter will be designed and installed around each transformer.

5. Transportation (including trip generation): Once constructed, there will be no increase in, or impacts to, vehicular traffic for the site. The site is expected to be visited by Dominion employees one to two times per month for maintenance purposes.

6. Mitigation Measures as applicable for 1 through 5: See mitigation description in 1 through 5 above.

D. CONFORMANCE WITH COMPREHENSIVE PLAN AND OTHER STANDARDS

1. Comprehensive Plan Policies and Guidelines Supporting the Proposal: The subject Property is located within Land Unit D-2 of the Dulles Suburban Center. This land unit is planned for office use at an intensity up to .50 FAR as a transition between the office use to the south and the planned uses to the north. The proposed substation and future data center campus are being developed on the Property as by-right uses. The proposed substation is consistent with the Fairfax County Comprehensive Plan and located on a property to be developed with data center campus. The substation will directly serve the data center and surrounding area; thus, supporting future business and economic development activity in the area.

   Further, the Comprehensive Plan language encourages high quality design because of its visibility along Route 28. As noted above, Dominion has mitigated views of the substation to the maximum extent possible with significant landscaping proposed around the perimeter of the site, a combination of 12' decorative pre-cast concrete wall and perimeter fencing, as well as enclosing much of the standard substation equipment within GIS buildings.

2. Relevant standards/criteria supporting the facility and location: In general, Fairfax County recognizes the importance of strengthening its economic development goals, and the proposed substation will directly serve in providing the necessary infrastructure to meet these goals. The County's Policy Plan outlines several criteria for public utilities, and the proposed substation meets the criteria as follows:

   Objective 3, Policy a. of the Public Facilities element of the Policy Plan recommends constructing new facilities of a size and quantity which is consistent with projected population needs. Further, Objective 1, Policy a, recommends siting facilities appropriately to the area they are intended to serve. The proposed substation is designed to initially meet loading requirements for the data center campus, but as area distribution load increases external to the data center campus, Dominion will utilize reserve capacity within the station to serve this increased load. As such, Policy Plan objectives are met in that the proposed facility has been adequately sited to serve the immediate energy need, as well as the area it is intended to serve.

   Objective 43 – The proposed substation is at an ideal location to provide maximum service levels as unobtrusively as possible, serve a new data center for the County, as well as provide electrical service for the surrounding area. Policy objectives are met as follows:

   - Areas of environmental sensitivity are avoided. [Policy a]
   - Co-location goals are achieved by placing the proposed substation on property it will directly serve.

- The substation is constructed on adequate acreage for a full and maximum 300 mW facility. As noted herein, the substation will be adequately screened by a solid, decorative wall, fencing and landscaping. [Policy d]
- The proposed substation and transmission line tap connection is located on industrially zoned, I-5, property, and will be adequately screened from adjacent uses. [Policy j]

Objective 42 – The proposed substation will help to meet service area requirements and is designed to minimize impacts on adjacent properties. Policy objectives are met as follows:

- As noted above, the immediate need for the substation is to serve the future data center buildings, and the much-needed land area for the substation has been provided by the data center developer. As such, it is the most appropriate site in that it will directly serve the data center uses and will not require a different property within the area to serve it. This avoids additional construction and visual impacts on adjacent properties, as well as avoids longer transmission line connections to an alternative site. [Policy a]
- The visual impact on adjacent properties is mitigated with appropriate site design, screening, and landscaping design techniques. [Policy b]
- All towers will be non-guyed and will be engineered steel structures anchored to appropriately sized concrete foundations. Structures will also be designed using area wind and ice loading specifications. As such, appropriate safety measures will be implemented. [Policy g]
- The proposed substation does not interfere with radio, television, or telecommunication receivers to the public. [Policy h]
- The proposed substation will not emit unacceptable emf levels either individually or cumulatively beyond the area of the substation. EMF levels dissipate quickly the further the distance from the source. [Policy i]

E. ALTERNATIVE SITES CONSIDERED FOR THE USE

1. Other Properties: No other properties were considered for this application. The land was provided by the Property owner to directly serve its data center use.

2. Other Locations on the Subject Property: No other locations were considered on the subject Property.

3. Reasons for Rejecting Each Alternative Location: n/a

F. CONCLUSION:

As required by Section 15.2-2232 of the Code of Virginia, the location, character, and extent of the proposed public facility must be compatible with the locational guidelines and recommendations established in Fairfax County's Comprehensive Plan. The criteria have been met as follows:

Location - The proposed substation is located on industrial-zoned land and is by-right in the I-5 zoning district. It will be designed in a manner which causes the least visual impact and will directly serve surrounding uses. As such, the proposed use is harmonious with and will not adversely affect the use or development of neighboring properties.

Character – The character of the proposed substation is compatible with the future data center buildings, which it will directly serve, as well as the highway, airport, commercial and office uses directly adjacent to the substation area.

Extent - The proposed substation will meet future electrical demand resulting from immediate and projected growth in this area of the County, and no adverse impacts are anticipated from the proposed facility.

The proposed substation is a by-right public utility and is necessary to support future electrical demand. With approval of the requested Public Facility Review, the proposal will conform to all applicable ordinances, regulations, standards, and conditions. Furthermore, the proposed use conforms to the Zoning Ordinance and the recommendations of the Comprehensive Plan. Therefore, for the reasons set forth herein, Dominion respectfully requests the approval of this application.

Sheet List Table	
Sheet Number	Sheet Title
1	COVER
2	OVERALL MAP
3	EXISTING CONDITIONS
4	SITE PLAN
5	LANDSCAPE PLAN
6	LANDSCAPE PLANT SCHEDULE AND FENCE/WALL DETAIL
7	STREET VIEW SECTIONS

SCREENING REQUIREMENTS FOR UTILITY FACILITY, LIGHT

ADJACENT LAND USE	TRANSITIONAL SCREENING REQUIRED	TRANSITIONAL SCREENING PROVIDED
NORTH: TOWNHOMES (RESIDENTIAL)	TYPE 2 BARRIER D OR E	12' SCREENING WALL W/ LANDSCAPING* 6' SOLID WOOD FENCE AT PROPERTY LINE W/ LANDSCAPING BUFFER*
EAST: U-HAUL STORAGE (INDUSTRIAL)	NONE	12' SCREENING WALL W/ LANDSCAPING*
SOUTH: DATA CENTER (INDUSTRIAL)	NONE	12' HIGH 5/8" MESH CHAIN LINK SECURITY FENCE
WEST: AIRPORT	NONE	12' HIGH 5/8" MESH CHAIN LINK SECURITY FENCE W/ 10' LANDSCAPE BUFFER*

*LANDSCAPING REQUIREMENTS BEING PROVIDED UNDER SP2023-00089.

SITE DATA

- PARCEL AREA: 538,656 S.F. or 12.3658 ACRES
- PROPOSED SUBSTATION AREA: 164,920 S.F. OR 3.79 ACRES
- PROPOSED USE: ELECTRIC SUBSTATION AND DATA CENTER
- ZONING: I-5

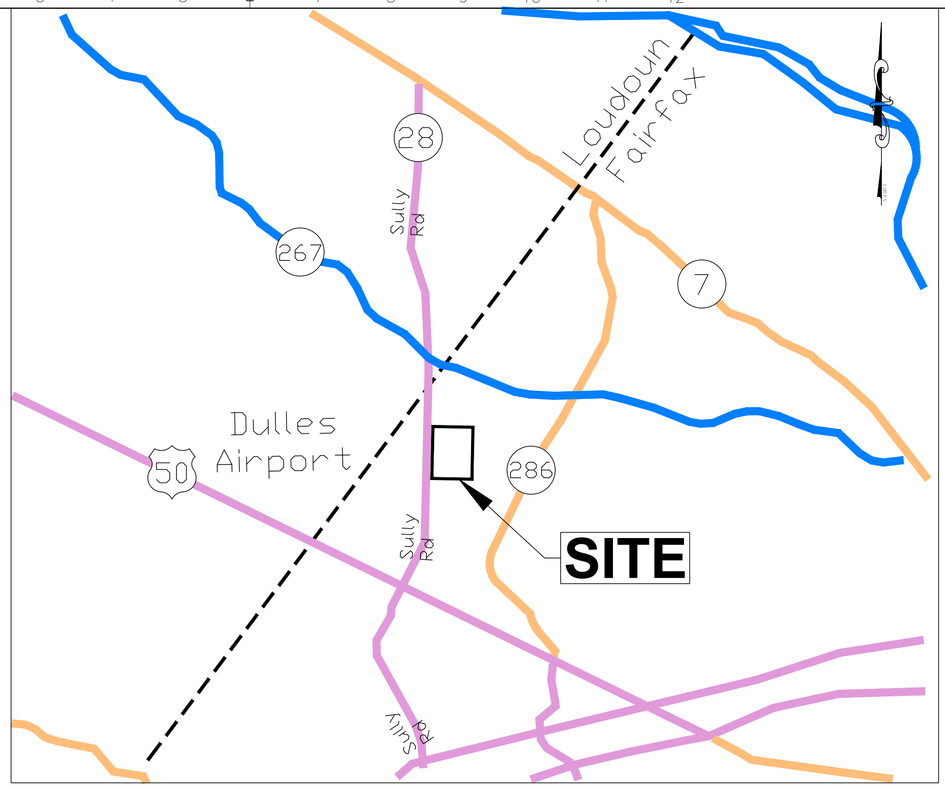
I-5 ZONING LOT AND BUILDING STANDARDS

	REQUIRED	PROVIDED
- MIN LOT AREA:	20,000 SF	538,656 SF
- MIN LOT WIDTH:	100'	+/-367.14'
- MIN LANDSCAPED OPEN SPACE:	15% (1.85 AC)	37% (+/- 4.53 AC)
-BUILDING HEIGHT MAX:	75'	N/A*

*NO HABITABLE BUILDINGS PROPOSED

BUILDING SETBACKS

	REQUIRED	PROVIDED
- FRONT:	40'	40'
- SIDE:	NO REQUIREMENT	
- REAR:	NO REQUIREMENT	



2232 APPLICATION
TOWERVIEW SUBSTATION

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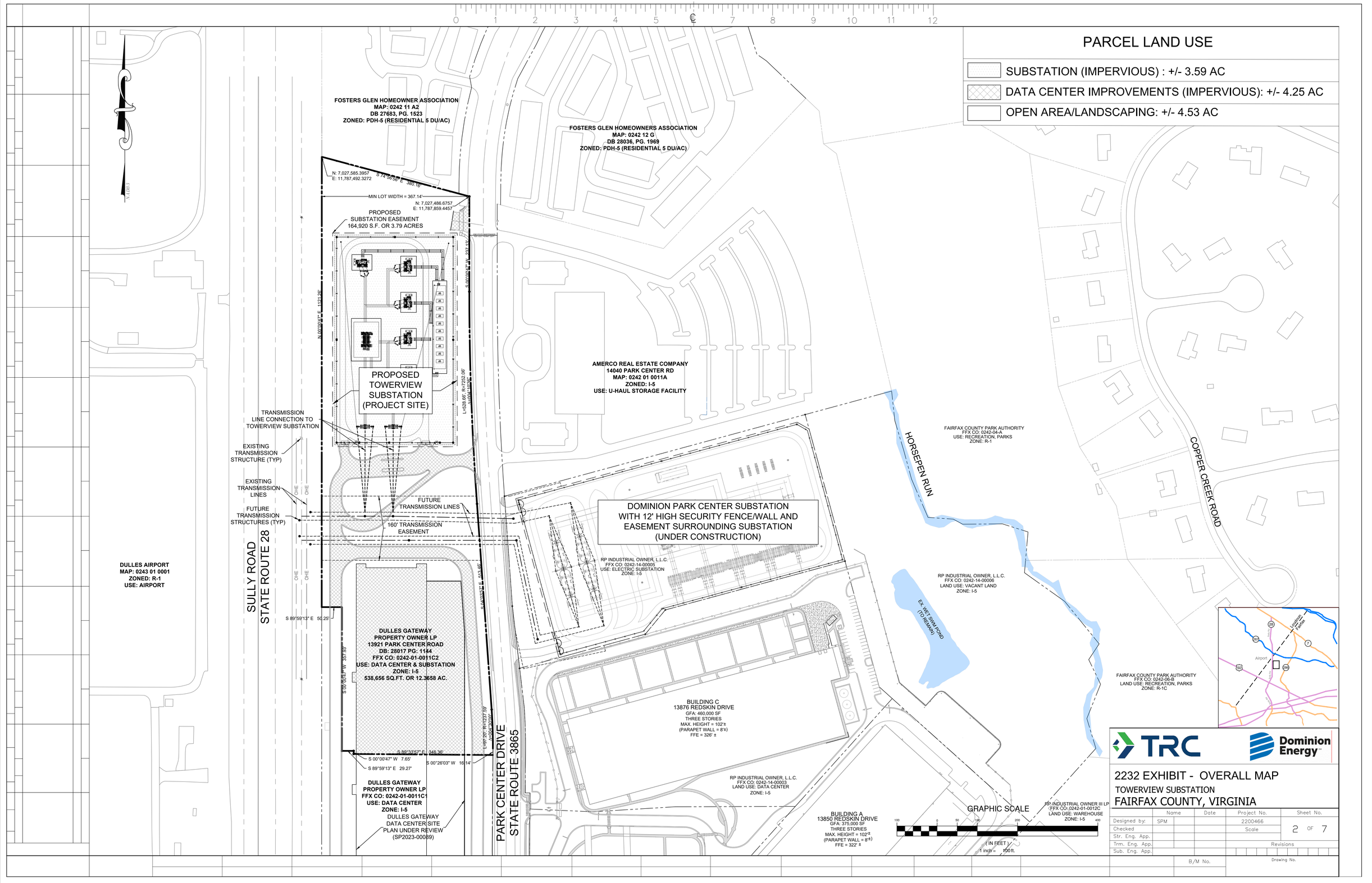
Towerview Substation
13921 Park Center Road
Sully District
Fairfax County, Virginia
August 28, 2024
REV January 6, 2025

TRC | Dominion Energy

2232 EXHIBIT - COVER
TOWERVIEW SUBSTATION
FAIRFAX COUNTY, VIRGINIA

	Name	Date	Project No.	Sheet No.
Designed by:	SPM		2200466	1 OF 7
Checked			Scale	
Str. Eng. App.				
Trm. Eng. App.			Revisions	
Sub. Eng. App.				

B/M No. | Drawing No.


PARCEL LAND USE
SUBSTATION (IMPERVIOUS) : +/- 3.59 AC
DATA CENTER IMPROVEMENTS (IMPERVIOUS): +/- 4.25 AC
OPEN AREA/LANDSCAPING: +/- 4.53 AC
FOSTERS GLEN HOMEOWNER ASSOCIATION
MAP: 0242 11 A2
DB 27683, PG. 1523
ZONED: PDH-5 (RESIDENTIAL 5 DU/AC)
FOSTERS GLEN HOMEOWNERS ASSOCIATION
MAP: 0242 12 G
DB 28036, PG. 1969
ZONED: PDH-5 (RESIDENTIAL 5 DU/AC)
N: 7,027,585.3957
E: 11,787,492.3272
S 74°36'38" E 360.78'
MIN LOT WIDTH = 367.14'
N: 7,027,486.6757
E: 11,787,859.4457
PROPOSED
SUBSTATION EASEMENT
164,920 S.F. OR 3.79 ACRES
S 89°00'47" W 231.43'
N 00°00'47" E 1121.26'
PROPOSED
TOWERVIEW
SUBSTATION
(PROJECT SITE)
L=528.66' R=7252.06'
Δ=04°10'26"
AMERCO REAL ESTATE COMPANY
14040 PARK CENTER RD
MAP: 0242 01 0011A
ZONED: I-5
USE: U-HAUL STORAGE FACILITY
TRANSMISSION
LINE CONNECTION TO
TOWERVIEW SUBSTATION
EXISTING
TRANSMISSION
STRUCTURE (TYP)
EXISTING
TRANSMISSION
LINES
FUTURE
TRANSMISSION
STRUCTURES (TYP)
OHE
FUTURE
TRANSMISSION LINES
160' TRANSMISSION
EASEMENT
DOMINION PARK CENTER SUBSTATION
WITH 12' HIGH SECURITY FENCE/WALL AND
EASEMENT SURROUNDING SUBSTATION
(UNDER CONSTRUCTION)
RP INDUSTRIAL OWNER, L.L.C.
FFX CO: 0242-14-00005
USE: ELECTRIC SUBSTATION
ZONE: I-5
FAIRFAX COUNTY PARK AUTHORITY
FFX CO: 0242-04-A
USE: RECREATION, PARKS
ZONE: R-1
HORSEPEN RUN
COPPER CREEK ROAD
RP INDUSTRIAL OWNER, L.L.C.
FFX CO: 0242-14-00006
LAND USE: VACANT LAND
ZONE: I-5
EX. WET SWM POND
(TO REMAIN)
DULLES AIRPORT
MAP: 0243 01 0001
ZONED: R-1
USE: AIRPORT
SULLY ROAD
STATE ROUTE 28
S 89°59'13" E 50.25'
DULLES GATEWAY
PROPERTY OWNER LP
13921 PARK CENTER ROAD
DB: 28017 PG: 1144
FFX CO: 0242-01-0011C2
USE: DATA CENTER & SUBSTATION
ZONE: I-5
538,656 SQ.FT. OR 12.3658 AC.
S 00°00'47" W 357.65'
S 89°33'57" E 349.36'
S 00°26'03" W 16.14'
S 89°59'13" E 29.27'
L=97.20' R=1237.59'
Δ=04°30'00"
S 01°05'57" E 513.46'
DULLES GATEWAY
PROPERTY OWNER LP
FFX CO: 0242-01-0011C1
USE: DATA CENTER
ZONE: I-5
DULLES GATEWAY
DATA CENTER SITE
PLAN UNDER REVIEW
(SP2023-00089)
PARK CENTER DRIVE
STATE ROUTE 3865
BUILDING C
13876 REDSKIN DRIVE
GFA: 460,000 SF
THREE STORIES
MAX. HEIGHT = 102'±
(PARAPET WALL = 8'±)
FFE = 326' ±
RP INDUSTRIAL OWNER, L.L.C.
FFX CO: 0242-14-00003
LAND USE: DATA CENTER
ZONE: I-5
BUILDING A
13850 REDSKIN DRIVE
GFA: 375,000 SF
THREE STORIES
MAX. HEIGHT = 102'±
(PARAPET WALL = 8'±)
FFE = 322' ±
RP INDUSTRIAL OWNER III LP
FFX CO: 0242-01-0012C
LAND USE: WAREHOUSE
ZONE: I-5
FAIRFAX COUNTY PARK AUTHORITY
LAND USE: RECREATION, PARKS
ZONE: R-1C
GRAPHIC SCALE
100 0 50 100 200 400
IN FEET
1 inch = 100 ft.
Loudoun
Fairfax
Airport
TRC
Dominion Energy
2232 EXHIBIT - OVERALL MAP
TOWERVIEW SUBSTATION
FAIRFAX COUNTY, VIRGINIA
Designed by: SPM
Checked
Str. Eng. App.
Trm. Eng. App.
Sub. Eng. App.
Name
Date
Project No. 2200466
Scale
Sheet No. 2 OF 7
Revisions
B/M No.
Drawing No.

SULLY ROAD - RTE. 28
(VARIABLE WIDTH ROW)
POSTED SPEED - 55 MPH

VARIABLE

NAD83

STR. #2008-102

STR. #2008-103

N: 7,027,585.3957
E: 11,787,492.3272

ELECTRIC TRANSFORMER (2)

N 00°00'47" E 1121.26'

EXISTING WATER AND INGRESS/EGRESS EASEMENTS TO BE VACATED

EXISTING STORM SEWER TO BE REMOVED AND ALL EXISTING DRAINAGE EASEMENTS TO BE VACATED INSIDE PROPOSED SUBSTATION EASEMENT

EX. 15' VEPCO EASEMENT DB. 6185 PG. 987

EXISTING SITE VEGETATION TO BE RETAINED (TYP)

EX. 15' FCWA EASEMENT DB.10165, PG. 946

EX. 24' INGRESS/EGRESS EASEMENT DB. 10134, PG. 963

EX. 15' PRIVATE STORM DRAIN EASEMENT DB. 10985, PG. 1002

75' BRL

EX. PRIVATE STORM DRAIN EASEMENT DB. 10985, PG. 1002

EX. 15' VEPCO EASEMENT DB. 6185 PG. 987

EX. 10' SANITARY SEWER EASEMENT DB. 6362 PG. 1072

ACCESS EASEMENT DB. 6362 PG. 1072

FOSTERS GLEN HOMEOWNER ASSOCIATION
MAP: 0242 11 A2
DB 27683, PG. 1523
ZONED: PDH-5 (RESIDENTIAL 5 DU/AC)

EXISTING ROAD, LIGHTS AND STORM SYSTEM TO BE REMOVED AND ABANDONED IN PLACE. EASEMENTS TO BE MODIFIED/VACATED.

EXISTING SITE CONTOURS

DULLES GATEWAY
PROPERTY OWNER LP
13921 PARK CENTER ROAD
DB: 28017 PG: 1144
FFX CO: 0242-01-0011C2
USE: DATA CENTER & SUBSTATION
ZONE: I-5
538,656 SQ.FT. OR 12.3658 AC.

PROPOSED SUBSTATION EASEMENT

EXISTING SITE VEGETATION TO BE REMOVED (TYP)

EX. 15' FCWA EASEMENT DB. 6401 PG. 1372

EX. 10' STORM SEWER EASEMENT DB. 6362 PG. 1072

EX. 15' FCWA EASEMENT DB. 6362 PG. 1072

ASPHALT

S 74°58'56" E 390.16'

EXISTING SANITARY SEWER EASEMENT TO BE VACATED

EX. 10' SANITARY SEWER EASEMENT DB. 10134, PG. 963

EXISTING INGRESS/EGRESS EASEMENT TO BE VACATED

EXISTING WATER AND ELECTRIC EASEMENTS TO BE VACATED

75' BRL

EX. 10' VEPCO EASEMENT DB. 10346, PG. 498

40' BRL

EX. 24' INGRESS/EGRESS EASEMENT DB. 10134, PG. 963

EX. 15' FCWA EASEMENT DB.10165, PG. 946

15" RCP @ 0.80%

42" RCP @ 0.80%

L=528.66', R=7252.06', Δ=004°10'36"

S 00°00'47" W 237.13'

#17

#16

NP

NP

EXISTING STREET LIGHT TO BE RELOCATED

NO PARKING SIGNS TO BE RELOCATED

UNDERGROUND ELECTRIC (TYP.)

UNDERGROUND GASLINE (TYP.)

UNDERGROUND COMMUNICATION (TYP.)

STREETLIGHT

PARK CENTER ROAD - ROUTE 3865
POSTED SPEED - 35 MPH
70' RIGHT-OF-WAY

END STATE MAINTENANCE PER VDOT PERMIT DEPT.

EX. 40' R TEMPORARY TURN AROUND EASEMENT DB. 19166 PG. 365

N: 7,027,486.6757
E: 11,787,859.4457

15" RCP @ 2.50%

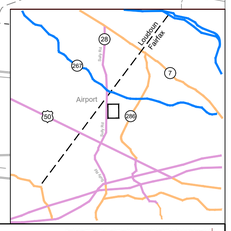
24" RCP @ 13.15%

ASPHALT

AMERCO REAL ESTATE COMPANY
14040 PARK CENTER RD
MAP: 0242 01 0011A
ZONED: I-5
USE: U-HAUL STORAGE FACILITY

FOSTERS GLEN
HOMEOWNERS ASSOCIATION
MAP: 0242 12 G
DB 28036, PG. 1969
ZONED: PDH-5 (RESIDENTIAL 5 DU/AC)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.



NOTES

1. PROPERTY LOCATED AT 13921 PARK CENTER ROAD (FFX CO: 0242-01-0011C2) IS RECORDED UNDER INSTRUMENT DB. 28017 PG. 1144. TOTAL PARCEL SITE AREA = 538,656 S.F. OR 12.3658 ACRES.
2. PROPOSED SUBSTATION EASEMENT AREA = 164,920 S.F. OR 3.79 ACRES.
3. NO EXISTING WATER OR SEWER CONNECTIONS ON EXISTING SITE AND NONE ARE PROPOSED.
4. ALL SUBSTATION EQUIPMENT SUBJECT TO FINAL DESIGN.
5. SUBSTATION STORMWATER MANAGEMENT WILL BE COVERED THROUGH PROPOSED SITE IMPROVEMENTS SHOWN ON DALLAS GATEWAY SITE PLAN.
6. EXISTING EASEMENTS WILL BE REVISED OR VACATED AS NECESSARY FOR SITE DEVELOPMENT PURPOSES.
7. THIS PROPOSED SUBSTATION IS LOCATED IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE O.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON FEMA PANEL #51059C0110E, EFFECTIVE DATE: SEPTEMBER 17, 2010.

TRC

Dominion Energy

2232 EXHIBIT - EXISTING CONDITIONS

TOWERVIEW SUBSTATION
FAIRFAX COUNTY, VIRGINIA

	Name		Date	Project No.	Sheet No.
Designed by:	SPM			2200466	
Checked				Scale	3 OF 7
Str. Eng. App.					
Trm. Eng. App.				Revisions	
Sub. Eng. App.					

B/M No.

Drawing No.

SULLY ROAD - RTE. 28
(VARIABLE WIDTH ROW)
POSTED SPEED - 55 MPH

VARIABLE

STR. #2008-102

STR. #2008-103

N: 7,027,585.3957
E: 11,787,492.3272

ELECTRIC TRANSFORMER (2)

PROPOSED BRIDGING SWITCH EASEMENT

N 00°00'47" E 1121.26'

PROPOSED SECTOR CABINET EASEMENT

EX. 15' VEPCO EASEMENT DB. 6185 PG. 987

PROPOSED SUBSTATION EASEMENT OFFSET 10' FROM SUBSTATION FENCE

SUBSTATION GRAVEL 5' FROM SUBSTATION WALL/FENCE AROUND ENTIRE SUBSTATION.

+/- 15' SUPER POST (TYP.)

PROPOSED 10' ELECTRIC DISTRIBUTION EASEMENT

EXISTING SITE VEGETATION TO BE RETAINED (TYP)

12' HIGH 5/8" MESH CHAIN LINK SECURITY FENCE

(1) VEHICLE GATE

ASPHALT PAVED ENTRANCE

STATIC POLE AND WIRE HEIGHT: +/- 70'
75' BRL

12' HIGH DECORATIVE SCREENING WALL

(1) PEDESTRIAN GATE

GRAVEL OVER ENTIRE SUBSTATION SURFACE

TRANSMISSION GIS ENCLOSURE HEIGHT: +/- 45'

CONCRETE FOUNDATION (TYP)

PROPOSED SITE CONTOURS

PROPOSED TRANSMISSION LINES

(2) BACKBONE STRUCTURES HEIGHT: +/- 75'

(5) TRANSFORMERS HEIGHT: +/- 25'

GAS INSULATED AERIAL BUS (TYP.) HEIGHT: 20'-30'

PROPOSED DOMINION TOWERVIEW SUBSTATION WITH 12' HIGH SECURITY FENCE/WALL AND EASEMENT SURROUNDING SUBSTATION

EXISTING SITE CONTOURS

PROPOSED SWM FACILITIES PROVIDED UNDER DULLES GATEWAY PLANS SP2023-00089
BIORETENTION 12

FOSTERS GLEN HOMEOWNER ASSOCIATION
MAP: 0242 11 A2
DB 27683, PG. 1523
ZONED: PDH-5 (RESIDENTIAL 5 DU/AC)

12' HIGH 5/8" MESH CHAIN LINK SECURITY FENCE

ASPHALT PAVED ENTRANCE

AERIAL BUS (TYP.) HEIGHT: 20'-30'

(1) VEHICLE GATE
(1) PEDESTRIAN GATE

DULLES GATEWAY PROPERTY OWNER LP
13921 PARK CENTER ROAD
DB: 28017 PG: 1144
FFX CO: 0242-01-0011C2
USE: DATA CENTER & SUBSTATION
ZONE: I-5
538,656 SQ.FT. OR 12.3658 AC.

DISTRIBUTION GIS AND CAP BANK ENCLOSURE HEIGHT: +/- 27'

75' BRL

PROPOSED SITE IMPROVEMENTS AND SWM FACILITIES PROVIDED UNDER DULLES GATEWAY PLANS SP2023-00089

GRAVEL OVER ENTIRE SUBSTATION SURFACE

STATIC POLE AND WIRE HEIGHT: +/- 70'
40' BRL

UNDERGROUND SYSTEMS PRIVATE AND SHALL BE PRIVATELY MAINTAINED

12' HIGH DECORATIVE SCREENING WALL

PROPOSED SUBSTATION EASEMENT OFFSET 10' FROM SUBSTATION FENCE

STOP SIGN

L=528.66', R=7252.06', Δ=004°10'36"

S 00°00'47" W 237.13'

PROP 5' SIDEWALK

PROPOSED 10' ELECTRIC DISTRIBUTION EASEMENT

RELOCATED STREET LIGHT (TYPE A)

RELOCATED NO PARKING SIGNS (TYP)

PARK CENTER ROAD - ROUTE 3865
POSTED SPEED - 35 MPH
70' RIGHT-OF-WAY

END STATE MAINTENANCE PER VDOT PERMIT DEPT.

EX. 40' R TEMPORARY TURN AROUND EASEMENT DB. 19146 PG. 361

N: 7,027,486.6757
E: 11,787,859.4457

STD VDOT TYPE III BARRICADE

PROPOSED 6' SOLID BOARD-ON-BOARD FENCE ON NORTHERN BOUNDARY BY OTHERS (TO BE FIELD-LOCATED AROUND EX. TREES)

S 74°58'55" E 380.16'

+/-10%

AMERCO REAL ESTATE COMPANY
14040 PARK CENTER RD
MAP: 0242 01 0011A
ZONED: I-5
USE: U-HAUL STORAGE FACILITY

FOSTERS GLEN HOMEOWNERS ASSOCIATION
MAP: 0242 12 G
DB 28036, PG. 1969
ZONED: PDH-5 (RESIDENTIAL 5 DU/AC)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

NOTES

1. PROPERTY LOCATED AT 13921 PARK CENTER ROAD (FFX CO: 0242-01-0011C2) IS RECORDED UNDER INSTRUMENT DB. 28017 PG. 1144. TOTAL PARCEL SITE AREA = 538,656 S.F. OR 12.3658 ACRES.
2. PROPOSED SUBSTATION EASEMENT AREA = 164,920 S.F. OR 3.79 ACRES.
3. NO EXISTING WATER OR SEWER CONNECTIONS ON EXISTING SITE AND NONE ARE PROPOSED.
4. ALL SUBSTATION EQUIPMENT SUBJECT TO FINAL DESIGN.
5. SUBSTATION STORMWATER MANAGEMENT WILL BE COVERED THROUGH PROPOSED SITE IMPROVEMENTS SHOWN ON DALLAS GATEWAY SITE PLAN, SP2023-00089.
6. EXISTING EASEMENTS WILL BE REVISED OR VACATED AS NECESSARY FOR SITE DEVELOPMENT PURPOSES.
7. THIS PROPOSED SUBSTATION IS LOCATED IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE O.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON FEMA PANEL #51059C0110E, EFFECTIVE DATE: SEPTEMBER 17, 2010.

TRC

Dominion Energy

2232 EXHIBIT - SITE PLAN

TOWERVIEW SUBSTATION

FAIRFAX COUNTY, VIRGINIA

	Name		Date	Project No.	Sheet No.
Designed by:	SPM			2200466	4 OF 7
Checked				Scale	
Str. Eng. App.				Revisions	
Trm. Eng. App.					
Sub. Eng. App.					
			B/M No.	Drawing No.	

PROPOSED LANDSCAPING ALONG ROUTE 28 (WEST)
(HEIGHT AT PLANTING)
133 TREES:
41 (JP) PRINCETON SENTRY EASTERN REDCEDAR - 6'
92 (TN) DARK AMERICAN ARBORVITAE - 6'

SULLY ROAD - RTE. 28
(VARIABLE WIDTH ROW)
POSTED SPEED - 55 MPH

VARIABLE

STR. #2008-102

STR. #2008-103

N: 7,027,585.3957
E: 11,787,492.3272

ELECTRIC TRANSFORMER (2)

SEE SECTION VIEW A-A ON SHEET 7

N 00°00'47" E 1121.26'

EX. 15' VEPCO EASEMENT DB. 6184 PG. 98

SLOT OR CABINET EASEMENT

TREE SAVE AREA = 1,470 SF

TREE SAVE AREA = 890 SF

12' HIGH 5/8" MESH CHAIN LINK SECURITY FENCE

75' BRL

PROPOSED DOMINION TOWERVIEW SUBSTATION WITH 12' HIGH SECURITY FENCE/WALL AND EASEMENT SURROUNDING SUBSTATION

12' HIGH DECORATIVE SCREENING WALL

PROPOSED LANDSCAPING PROVIDED BY OTHERS PER SP2023-00089

DULLES GATEWAY PROPERTY OWNER LP
13921 PARK CENTER ROAD
DB: 28017 PG: 1144
FFX CO: 0242-01-0011C2
USE: DATA CENTER & SUBSTATION
ZONE: I-5
538,656 SQ.FT. OR 12.3658 AC.

12' HIGH 5/8" MESH CHAIN LINK SECURITY FENCE

FOSTERS GLEN HOMEOWNER ASSOCIATION
MAP: 0242 11 A2
DB 27683, PG. 1523
ZONED: PDH-5 (RESIDENTIAL 5 DU/AC)

PROPOSED SHRUB LANDSCAPING ALONG PARK CENTER (EAST)
(HEIGHT AT PLANTING)
60 SHRUBS:
9 (VP) BLACKHAW VIBURNUM - 24-36"
6 (MC) WAX MYRTLE - 24-36"
10 (IV) YAUPON HOLLY - 24-36"
10(CF) SWEETSHRUB - 24-36"
5 (RP) ROSESHELL AZALEA - 24-36"
10 (JG) GREY OWL EASTERN REDCEDAR - 24-36"
5 (VN) POSSUMHAW VIBURNUM - 24-36"
5 (LF) DROOPING LEUCOTHOE - 24 - 36"

PROPOSED TREE LANDSCAPING ALONG PARK CENTER (EAST)
(HEIGHT AT PLANTING)
37 TREES:
1 (QR) RED OAK - 8-10'
5 (PT) LOBLOLLY PINE - 8'
12 (JP) PRINCETON SENTRY EASTERN REDCEDAR - 6'
6 (TN) DARK AMERICAN ARBORVITAE - 6'
7 (TA) AMERICAN LINDEN - 8-10'
3 (MV) SWEETBAY MAGNOLIA - 8-10'
3 (JV1) EASTERN REDCEDAR - 8-10'

PROPOSED 6' SOLID BOARD-ON-BOARD FENCE ON NORTHERN BOUNDARY BY OTHERS (TO BE FIELD-LOCATED AROUND EX. TREES).

12' HIGH DECORATIVE SCREENING WALL

40' BRL

UNDERGROUND SYSTEM IS PRIVATE AND SHALL BE PRIVATELY MAINTAINED

STOP SIGN

S 00°00'47" W 237.13'

PROP'D SIDEWALK

SEE SECTION VIEW B-B ON SHEET 7

END STATE MAINTENANCE PER VDOT PERMIT DEPT.

EX. 40' R TEMPORARY TURN AROUND EASEMENT DB. 19166 PG. 381

N: 7,027,486.6757
E: 11,787,859.4457

STD VDOT TYPE III BARRICADE

UNDERGROUND ELECTRIC (TYP.)

UNDERGROUND COMMUNICATION (TYP.)

UNDERGROUND GASLINE (TYP.)

STREETLIGHT

PARK CENTER ROAD - ROUTE 3865
POSTED SPEED - 35 MPH
70' RIGHT-OF-WAY

LANE

35 MPH

ASPHALT

AMERCO REAL ESTATE COMPANY
14040 PARK CENTER RD
MAP: 0242 01 0011A
ZONED: I-5
USE: U-HAUL STORAGE FACILITY

FOSTERS GLEN HOMEOWNERS ASSOCIATION
MAP: 0242 12 G
DB 28036, PG. 1969
ZONED: PDH-5 (RESIDENTIAL 5 DU/AC)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

NOTES
1. **ACTUAL PLANT PLACEMENT MAY VARY DUE TO FIELD CONDITIONS AT THE TIME OF PLANTING, HOWEVER, ALL PLANTINGS MUST BE OFFSET A MINIMUM OF 5FT FROM THE EDGE OF ALL RECORDED EASEMENTS.**
2. **THE REQUIRED 10% SITE COVERAGE (1.24 AC) OF 10-YEAR TREE CANOPY COVERAGE WILL BE PROVIDED THROUGH EXISTING TREE COVERAGE, PROPOSED BUFFER TREE PLANTINGS AND FUTURE SITE LANDSCAPING TO BE FINALIZED THROUGH SITE PLAN SP2023-00089.**
3. **ALL TREES WITHIN OVERHEAD TRANSMISSION OR DISTRIBUTION CORRIDORS MUST BE LIMITED IN HEIGHT TO 10FT.**
4. **LANDSCAPE SPECIES AND FINAL DESIGN IS SUBJECT TO FAIRFAX SITE PLAN APPROVAL.**

TRC

Dominion Energy

2232 EXHIBIT - LANDSCAPE PLAN

TOWERVIEW SUBSTATION
FAIRFAX COUNTY, VIRGINIA

	Name	Date	Project No.	Sheet No.
Designed by:	SPM		2200466	5 OF 7
Checked			Scale	
Str. Eng. App.				
Trm. Eng. App.			Revisions	
Sub. Eng. App.				

B/M No.

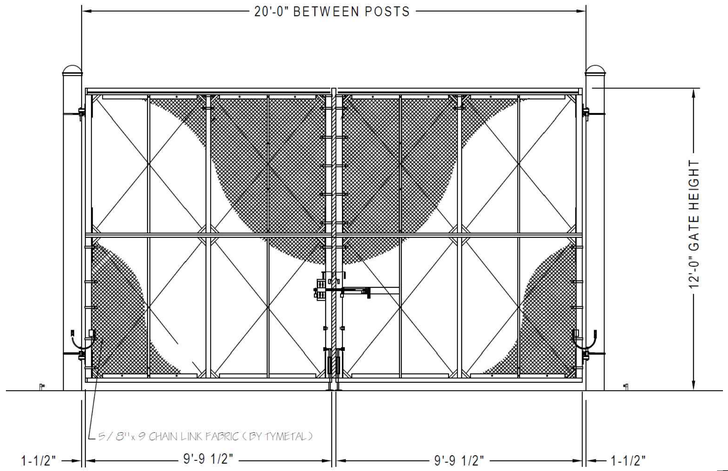
Drawing No.

PROPOSED PLANT SCHEDULE FOR WHOLE PARCEL

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SF	QTY
CATEGORY I EVERGREEN						
	JP	Juniperus virginiana 'Princeton Sentry' / Princeton Sentry Eastern Redcedar	6` Ht.	B&B	40 SF	64
	TN	Thuja occidentalis 'Dark Green' / Dark American Arborvitae	6` Ht.	B&B	40 SF	102
CATEGORY II DECIDUOUS						
	AL	Amelanchier laevis / Allegheny Serviceberry	2" Cal.	B&B	100 SF	14
	MV	Magnolia virginiana / Sweetbay Magnolia	2" Cal.	B&B	100 SF	11
	OA	Oxydendrum arboreum / Sourwood Tree	2" Cal.	B&B	100 SF	12
CATEGORY II EVERGREEN						
	CT	Chamaecyparis thyoides / Atlantic White Cypress	8` Ht.	B&B	100 SF	9
	IO	Ilex opaca / American Holly	8` Ht.	B&B	100 SF	7
	IO1	Ilex opaca / American Holly	8` Ht.	B&B	100 SF	5
	JV	Juniperus virginiana / Eastern Redcedar	8` Ht.	B&B	100 SF	18
	JV1	Juniperus virginiana / Eastern Redcedar	8` Ht.	B&B	100 SF	15
CATEGORY III DECIDUOUS						
	BN	Betula nigra / River Birch Multi-Trunk	2" Cal.	B&B	150 SF	11
	CO1	Celtis occidentalis / Common Hackberry	2" Cal.	B&B	150 SF	3
	CO	Celtis occidentalis / Common Hackberry	2" Cal.	B&B	150 SF	17
	NS1	Nyssa sylvatica / Tupelo	2" Cal.	B&B	150 SF	3
	NS	Nyssa sylvatica / Tupelo	2" Cal.	B&B	150 SF	15
CATEGORY III EVERGREEN						
	PE	Pinus echinata / Short Leaf Pine	8` Ht.	B&B	150 SF	10
	PE1	Pinus echinata / Short Leaf Pine	8` Ht.	B&B	150 SF	6
CATEGORY IV DECIDUOUS						
	FG	Fagus grandifolia / American Beech	2" Cal.	B&B	200 SF	18
	GB1	Ginkgo biloba / Maidenhair Tree	2" Cal.	B&B	200 SF	21
	LT1	Liriodendron tulipifera / Tulip Poplar	2" Cal.	B&B	200 SF	2
	LT	Liriodendron tulipifera / Tulip Poplar	2" Cal.	B&B	200 SF	23
	QA1	Quercus alba / White Oak	2" Cal.	B&B	200 SF	1
	QA	Quercus alba / White Oak	2" Cal.	B&B	200 SF	18
	QP	Quercus phellos / Willow Oak	2" Cal.	B&B	200 SF	16
	QP1	Quercus phellos / Willow Oak	2" Cal.	B&B	200 SF	3
	QR	Quercus rubra / Red Oak	2" Cal.	B&B	200 SF	23
	TA	Tilia americana / American Linden	2" Cal.	B&B	200 SF	10
	TA1	Tilia americana / American Linden	2" Cal.	B&B	200 SF	6
CATEGORY IV EVERGREEN						
	PR1	Pinus rigida / Pitch Pine	8` Ht.	B&B	200 SF	3
	PR	Pinus rigida / Pitch Pine	8` Ht.	B&B	200 SF	11
	PT	Pinus taeda / Loblolly Pine	8` Ht.	B&B	200 SF	14

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER		QTY
SHRUBS						
	AP	Aronia x prunifolia / Purple Fruited Chokeberry	3 gal.	Pot		20
	CF	Calycanthus floridus / Sweetshrub	3 gal.	B&B		60
	CC	Cephalanthus occidentalis / Buttonbush	3 gal.	Pot		15
	CH	Cornus sericea 'Hedgerow's Gold' / Hedgerow's Gold Twig Dogwood	3 gal.	Pot		24
	IG	Ilex glabra / Inkberry Holly	3 gal.	B&B		12
	IV	Ilex vomitoria / Yaupon Holly	3 gal.	Pot		60
	JG	Juniperus virginiana 'Grey Owl' / Grey Owl Eastern Redcedar	3 gal.	Pot		80
	LF	Leucothoe fontanesiana / Drooping Leucothoe	3 gal.	Pot		61
	MC	Myrica cerifera / Wax Myrtle	3 gal.	Pot		48
	RP	Rhododendron prinophyllum / Roseshell Azalea	3 gal.	B&B		55
	SC	Sambucus canadensis / American Elderberry	3 gal.	Pot		26
	VN	Viburnum nudum / Possumhaw	3 gal.	B&B		71
	VP	Viburnum prunifolium / Blackhaw Viburnum	3 gal.	Pot		48

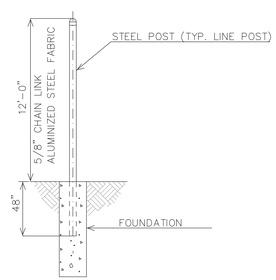
PROPOSED LANDSCAPING TO BE PROVIDED BY OTHERS PER SP2023-00089



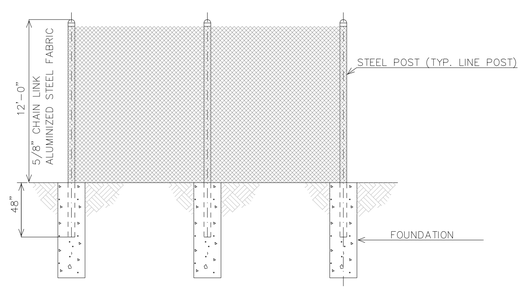
TYPICAL 12' HIGH 20' WIDE SECURITY GATE FACING SOUTH



TYPICAL 12' HIGH PRE-CAST DECORATIVE PRINT WALL FACING NORTH AND EAST ALONG PARK CENTER DRIVE



FENCE DETAIL
FOR ILLUSTRATIVE PURPOSES ONLY



FENCE ELEVATION
FOR ILLUSTRATIVE PURPOSES ONLY

TYPICAL 12' HIGH 5/8" MESH PANEL SECURITY FENCE FACING WEST AND SOUTH

TRC

Dominion Energy

2232 EXHIBIT - LANDSCAPE PLANT SCHEDULE AND FENCE/WALL DETAIL

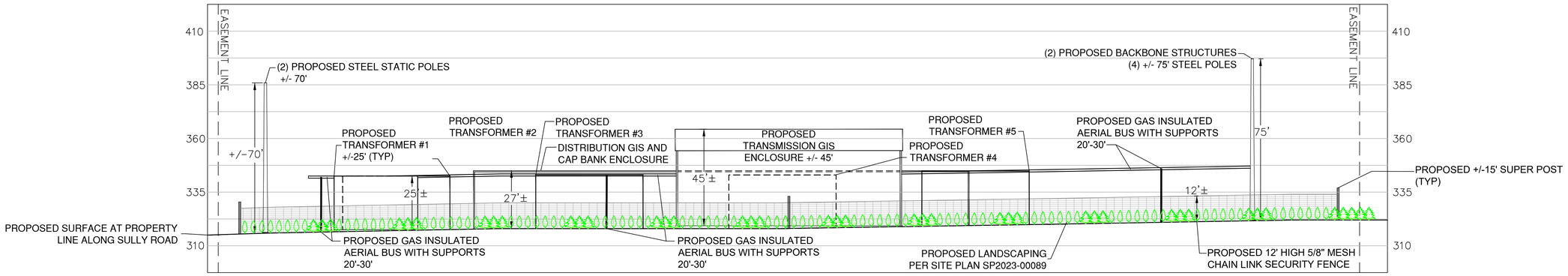
TOWERVIEW SUBSTATION

FAIRFAX COUNTY, VIRGINIA

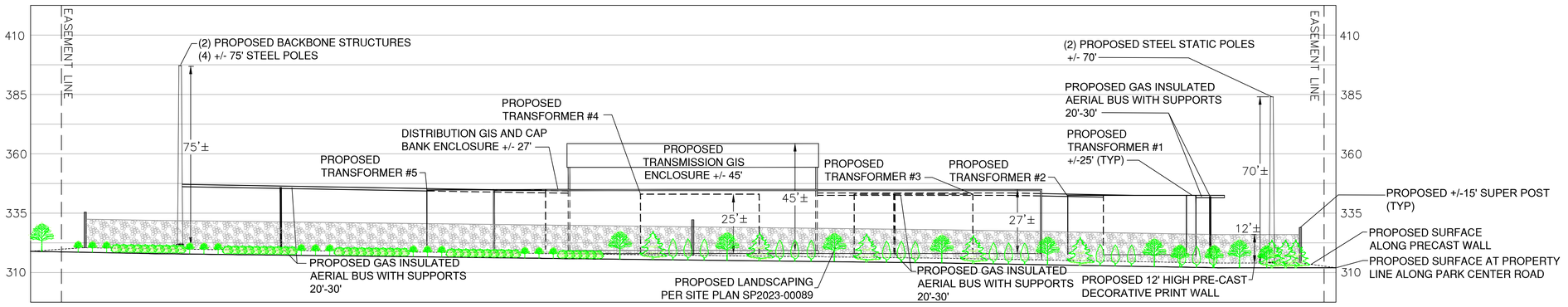
	Name	Date	Project No.	Sheet No.
Designed by:	SPM		2200466	6 OF 7
Checked			Scale	
Str. Eng. App.				
Trm. Eng. App.			Revisions	
Sub. Eng. App.				

B/M No.

Drawing No.



PROPOSED PROFILE VIEW FROM SULLY ROAD (ROUTE 28) - SECTION A-A



PROPOSED PROFILE VIEW FROM PARK CENTER ROAD - SECTION B-B

GRAPHIC SCALE

25 0 25 50 100

(IN FEET)
1 inch = 25 ft.

TRC

Dominion Energy

2232 EXHIBIT - PARK CENTER DRIVE
AND SULLY ROAD SECTION VIEWS
TOWERVIEW SUBSTATION
FAIRFAX COUNTY, VIRGINIA

	Name	Date	Project No.	Sheet No.
Designed by:	SPM		2200466	7 OF 7
Checked			Scale	
Str. Eng. App.				
Trm. Eng. App.			Revisions	
Sub. Eng. App.				

B/M No.

Drawing No.

TOWERVIEW
Substation Project

Project Overview Map

- Existing Transmission Line
- Proposed Transmission Line
- 12′ Chain Link Fence
- 7′ Wood Panel Fence
- Proposed Substation
- Proposed Data Center
- Project Area
- 12′ Wall

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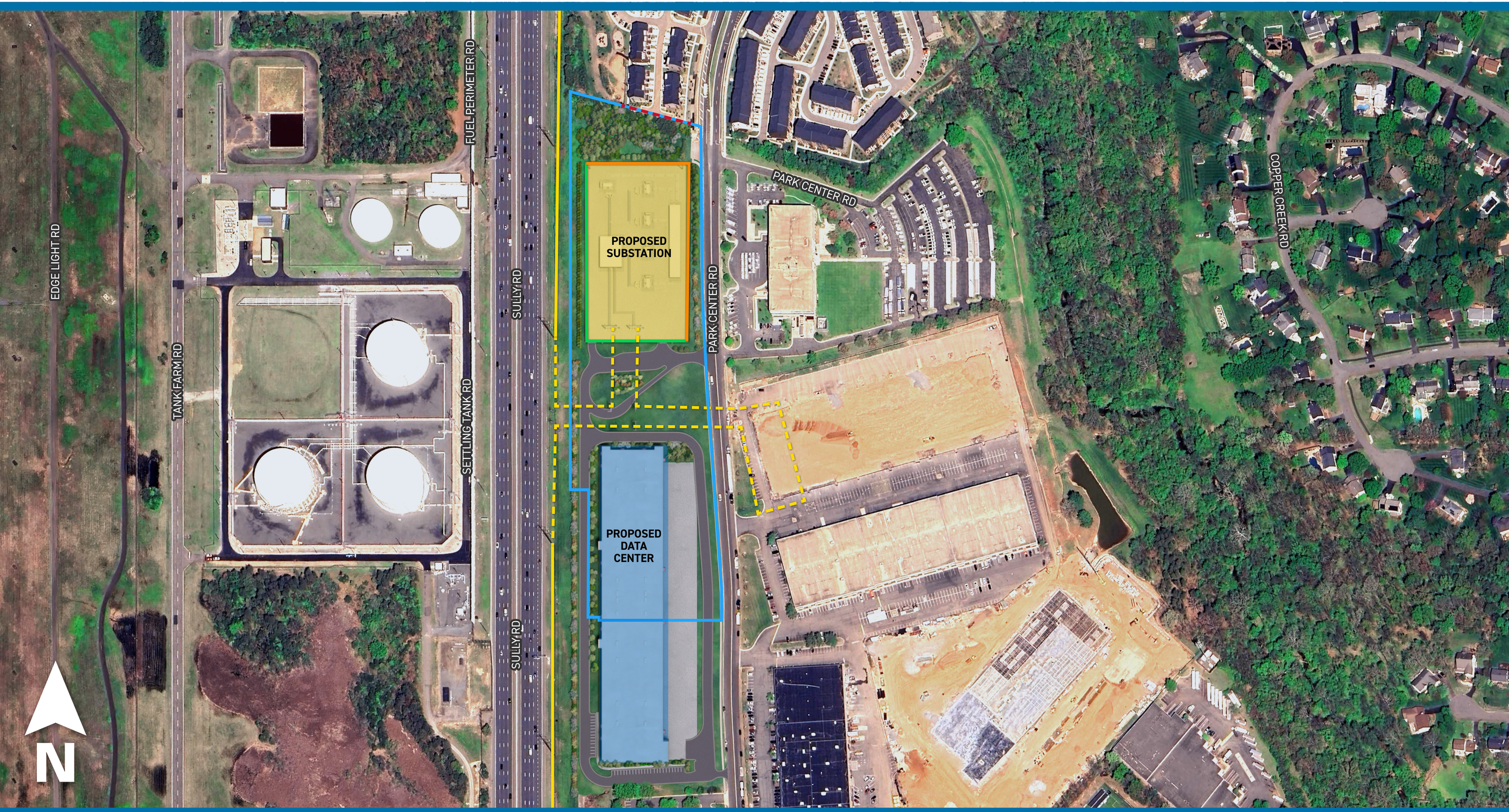

Attachment B

TOWERVIEW
Substation Project

Photo Viewpoint Location Map

- Existing Transmission Line
- Proposed Transmission Line
- 12′ Chain Link Fence
- 7′ Wood Panel Fence
- Proposed Substation
- Proposed Data Center
- Project Area
- 12′ Wall
- 1 Viewpoint Location

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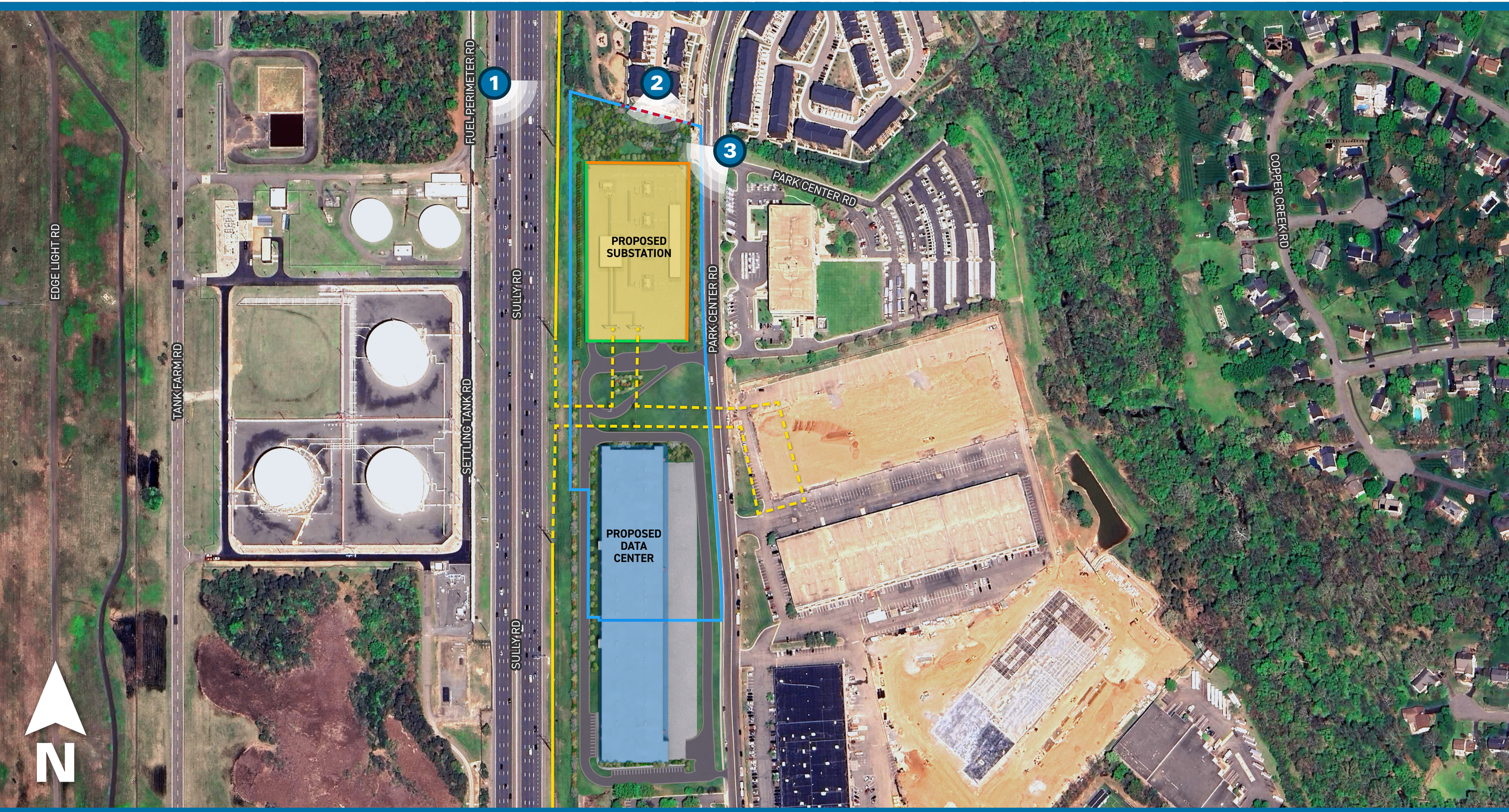

TOWERVIEW
Substation Project

Landscape Plan

- Proposed Vegetation
- Existing Vegetation to Remain

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TOWERVIEW
Substation Project

Landscape Plan

- Proposed Vegetation
- Existing Vegetation to Remain

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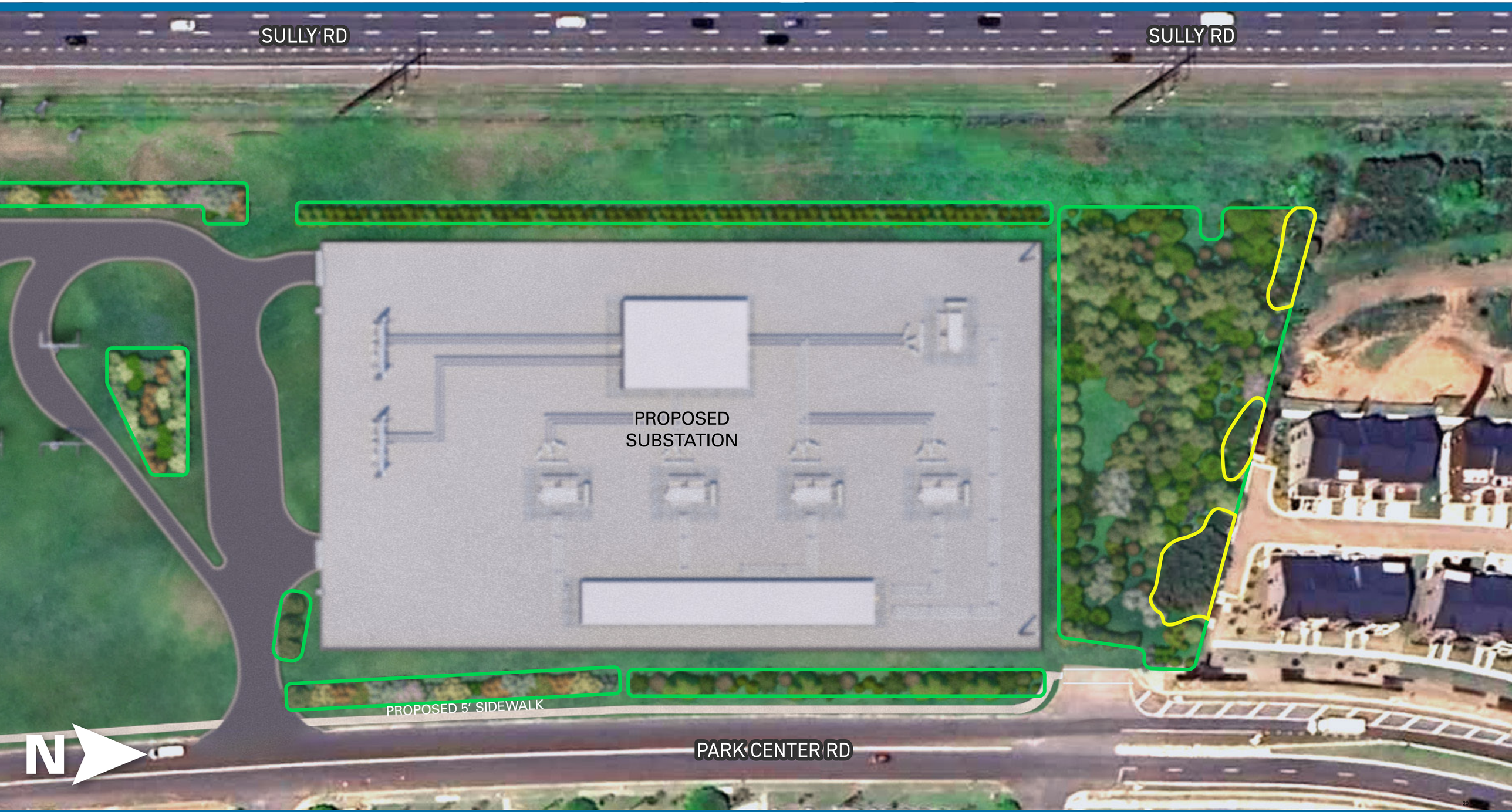
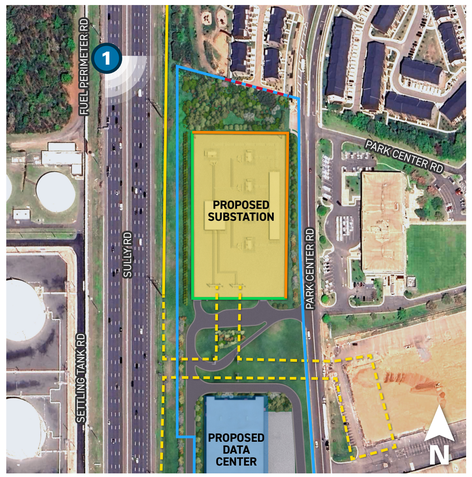


TOWERVIEW
Substation Project

Viewpoint 1

Date: 9/15/2024 **Time:** 4:07 pm

Viewing Direction: Southeast



- Existing Transmission Line
- Proposed Transmission Line
- 7' Wood Panel Fence
- 12' Chain Link Fence
- Project Area
- Proposed Substation
- Proposed Data Center
- 12' Wall
- 1 Viewpoint Location

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

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EXISTING CONDITIONS



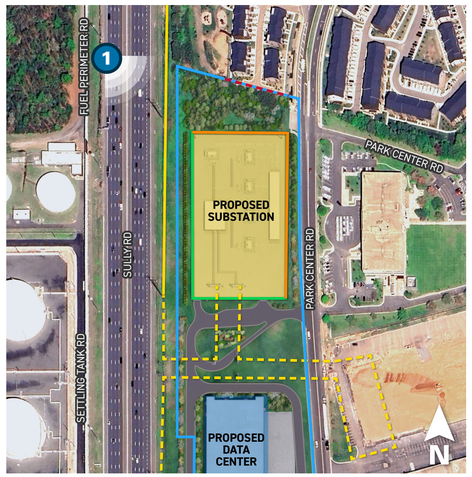
PROPOSED CONDITIONS **INITIAL PLANTING**

TOWERVIEW
Substation Project

Viewpoint 1

Date: 9/15/2024 **Time:** 4:07 pm

Viewing Direction: Southeast



- Existing Transmission Line
- Proposed Transmission Line
- 7' Wood Panel Fence
- 12' Chain Link Fence
- Project Area
- Proposed Substation
- Proposed Data Center
- 12' Wall
- 1 Viewpoint Location

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

Dominion Energy®



EXISTING CONDITIONS



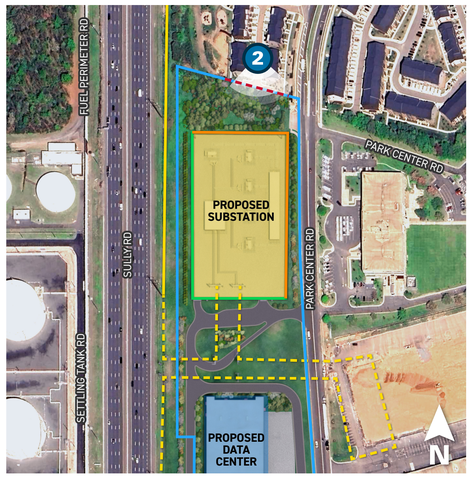
PROPOSED CONDITIONS **10-YEAR GROWTH**

TOWERVIEW
Substation Project

Viewpoint 2

Date: 9/15/2024 **Time:** 2:52 pm

Viewing Direction: South



- Existing Transmission Line
- Proposed Transmission Line
- 7' Wood Panel Fence
- 12' Chain Link Fence
- Project Area
- Proposed Substation
- Proposed Data Center
- 12' Wall
- 2 Viewpoint Location

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

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EXISTING CONDITIONS



PROPOSED CONDITIONS **INITIAL PLANTING**

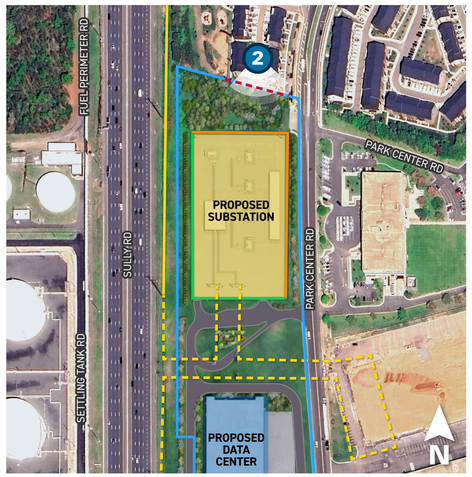
Attachment B

TOWERVIEW
Substation Project

Viewpoint 2

Date: 9/15/2024 **Time:** 2:52 pm

Viewing Direction: South



- Existing Transmission Line
- Proposed Transmission Line
- 7' Wood Panel Fence
- 12' Chain Link Fence
- Project Area
- Proposed Substation
- Proposed Data Center
- 12' Wall
- 2 Viewpoint Location

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

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EXISTING CONDITIONS



PROPOSED CONDITIONS **10-YEAR GROWTH**

TOWERVIEW
Substation Project

Viewpoint 3

Date: 8/20/2024 **Time:** 7:52 am **Viewing Direction:** Southwest

- Existing Transmission Line
- Proposed Transmission Line
- 7' Wood Panel Fence
- 12' Chain Link Fence
- Proposed Substation
- 12' Wall
- Viewpoint Location
- Project Area



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

Dominion Energy®



EXISTING CONDITIONS



PROPOSED CONDITIONS | INITIAL PLANTING

TOWERVIEW
Substation Project

Viewpoint 3

Date: 8/20/2024 **Time:** 7:52 am **Viewing Direction:** Southwest

- Existing Transmission Line
- Proposed Transmission Line
- 7' Wood Panel Fence
- 12' Chain Link Fence
- Proposed Substation
- 12' Wall
- Viewpoint Location
- Project Area

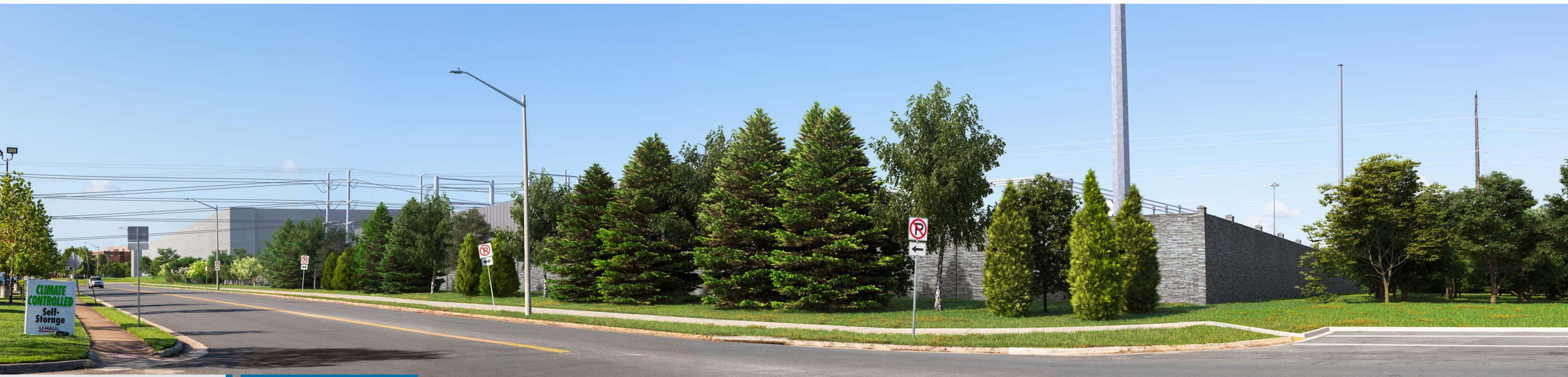


Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

Dominion Energy®



EXISTING CONDITIONS



PROPOSED CONDITIONS **10-YEAR GROWTH**

Towerview Substation – Public Facility Review 2232 Referral Comments

PFR Application No. 2232-2024-SU-00008

	Staff Comments (1st Referral)	Applicant Responses – January 17, 2025	Notes
Department of Planning and Development - Zoning Administration Division (ZAD) Memo dated 11-15-24 (Updated Memo)			
1 ZAD	The plan and Statement of Justification for the substation indicate that there will be GIS (gas insulated) and cap bank enclosures to mitigate the visual impacts of the equipment; however, architectural depictions of the enclosures have not been provided. Elevations and/or renderings should be provided to include the materials and design of the enclosures.	**The GIS enclosures for the electrical equipment will be pre-engineered commercial metal structures. Each GIS enclosure will be designed to coordinate aesthetically with the on-site data center buildings. The attached renderings provide visual simulations of the enclosures from the east and west vantage points.**	
2 ZAD	Under the current Zoning Ordinance, subsection 5108.3 of the Zoning Ordinance requires street frontage landscaping along Park Center Road. Street frontage landscaping consists of a 10' wide landscaping strip with at least one tree per 30 linear feet. The plan shows that landscaping is proposed along only a portion of Park Center Road. It is noted that this was not a requirement when the site plan was accepted.	**As noted, the data center site plan is grandfathered to the previous zoning ordinance provisions that do not require street frontage landscaping. There is underground utility infrastructure impacting the frontage; however, additional trees and/or shrubs have been added where feasible. We have coordinated with the developer, and a total of 60 shrubs and 37 trees are now proposed along the Park Center Road frontage. Please see revised 2232 Plan.**	
Environmental Policy and Plan Development Branch – Department of Planning and Development (DPD-PD) Memo dated 11-15-24 (Updated Memo)			
1 DPD-PD	Any new development or redevelopment should apply Low Impact Development (LID) techniques and pursue commitments to: reduce stormwater runoff volumes and peak flows; increase groundwater recharge; increase preservation of undisturbed areas; and improve water quality. The Dulles Suburban Center has specific stormwater management approaches for projects proposing over one acre of disturbance with a focus on runoff reduction measures and LIDs.	**Stormwater management for the overall property is part of the Dulles Gateway site plan (#SP-2023-0089) and is approved. The final approved Site Plan anticipated all proposed impervious area within the proposed substation. The approved SWM/BMP design incorporates environmental site design features such as a bio-retention facility located north of the substation with a heavy landscape buffer on the north side to help meet County requirements for both water quantity and water quality.**	
2 DPD-PD	Acknowledgement of stormwater regulations are noted in the Statement of Justification. A future submission should include a narrative of how Comprehensive Plan guidance (Dulles Suburban Center Area-Wide section and Environment element of the Policy Plan) would be met.	**Stormwater management for the overall substation property is part of the approved Dulles Gateway Site Plan (#SP-2023-0089). The Statement of Justification has been revised to note the County's approval of the provided stormwater management measures.**	
3 DPD-PD	Additional tree and/or shrub plantings should be considered where feasible along the western edge of the project area for screening/buffering purposes. The decorative wall should be extended to other sides of the project area, particularly the northern and eastern sides.	**As suggested, the following changes have been made to improve the visual buffers:** **The decorative wall has now been extended along the north side of the substation to provide further visual mitigation for the residential community to the north.** **We have coordinated with the data center developer, and a total of 60 shrubs and 37 trees are now proposed along the Park Center Road frontage.** **To the west, along Route 28, there are spacing and utility conflicts that do not allow the planting of taller trees. However, in coordination with the data center developer, Dominion has arranged to have the approved landscaping changed along the western boundary to allow taller evergreen species to be planted along the fence line. The taller evergreens will provide better visual mitigation and sufficiently hide the security fence.** **On the south side of the substation, at the site entrance along Park Center Road, 4 trees have been added to provide better visual mitigation for those traveling northbound on Park Center Road.**	

	Staff Comments (1st Referral)	**Applicant Responses – January 17, 2025**	**Notes**
4 DPD-PD	Some noise may be generated from the proposed substation because of its operations. The applicant should demonstrate that the use would meet the County's noise ordinance requirements as stipulated in the Zoning Ordinance.	**Substations are not considered significant sound generating uses, and sound originating from a substation is generally minimal. The nearest residential use is 100+ feet away, with a substantial landscape buffer and precast concrete wall in between the two uses. In addition, the overall area contains high noise-generating uses such as the Dulles Airport and Route 28, and any minimal sound emitting from the substation will blend in with ambient sound levels.** **For context, there are numerous substations within Fairfax County that are surrounded by residential homes or uses at much closer distances than what is proposed at this facility. Transformers are considered the noise sources within a substation and range in decibel levels depending upon manufacturer; however, generally, readings range between approximately 55-75 decibels at the source. In other words, immediately adjacent to the transformers. The nearest residential property line to the proposed transformers is approximately 200 feet away, and decibel levels at the property line are expected to fully meet zoning ordinance requirements.**	
5 DPD-PD	Please ensure development meets the lighting requirements as stipulated in the Zoning Ordinance.	**Since this is an unmanned facility, proposed lighting is minimal except for security and safety purposes at the GIS enclosure doors only and will meet Zoning Ordinance requirements. Light fixtures will be used that minimize glare onto adjacent properties with the use of full cut-off LED lighting.**	
Forest Conservation Branch (FCON) – Site Development & Inspections Division (SDID) Memo dated 11/15/24 (Updated Memo)			
1 FCON/ SDID	Comment: The examination of the required transitional screening and barrier requirements has not been provided in the submission. Recommendation: The applicant should provide the required transitional screening and barrier requirements for the proposed substation.	**The landscape plan that is part of the Dulles Gateway site plan (#SP-2023-0089) is shown on sheets 5 and 6 of the 2232 plan and meets or exceeds Zoning Ordinance requirements. In response to County comments, we have worked with the developer to enhance the screening for the substation.** **To the east, south, and west, the area of the substation is bordered by industrial, data center, highway, and airport uses. Table 5108.2 indicates that no transitional screening or barrier is required to the east and south because of like industrial zoning. To the west, it is residentially zoned land, but developed with highway and airport uses. It is noted that the residual R-1 zoning to the west is left over from the original airport development, which is exempt from local zoning regulations. Despite no transitional screening requirements for the use, the western and eastern sides of the substation have been planted to the greatest extent possible for maximum visual mitigation. The southern side of the site is facing the data center buildings and impacted by transition lines entering the site and the data center access roads. In response to comments, four trees have been added at the southeast corner.** **To the north, the site is adjacent to residential development. As shown on the Dulles Gateway site plan (#SP-2023-0089) and included on Sheets 5 and 6 of the 2232 plan, an extensive transitional screening buffer is provided on the north side of the site ranging in width from 115' to 195' and is fully planted with a mix of evergreen and deciduous trees and shrubs with mature heights that will range from 50'- 100' at maturity. In addition, three (3) tree save areas are preserved within the landscape buffer, along the northern property line closest to the residential community. The proposed northern landscape buffer greatly exceeds the Type 2 transitional screening requirements of the Zoning Ordinance.** **Further, the site meets or exceeds barrier requirements. On the north side, the data center developer is providing a 6' board-on-board fence on the northernmost boundary of the property, adjacent to the residential townhomes, which meets Barrier E requirements. Dominion is also providing an additional barrier on the north side of the substation pad site which consists of a solid, 12' decorative pre-cast concrete wall meeting Barrier D requirements. With two barriers provided, the north side of the site exceeds zoning ordinance requirements.** **Although there are no barrier requirements on the east, south, and western sides, Dominion is providing a 12' security fence along the southern and western boundaries which, as well as a solid 12' precast concrete decorative wall along the eastern side of the substation.**	

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Transportation Planning Division (FCDOT) Memo dated 11/15/24 (Updated Memo)			
1 FCDOT	The applicant should accommodate and construct a shared use path along the entirety of the site's frontage on Park Center Road in accordance with VDOT standards consisting of an 8-foot wide landscape buffer, a 10-foot wide asphalt path, and a one- foot buffer within the public right-of-way, per the Countywide Trails Plan. The provision of this facility would be in accordance with the plan as there is an existing shared use path along the Park Center Road/Sunrise Valley Drive extension frontage of the adjacent parcel to the north constructed under an approved rezoning application (RZ-2017-MD-027, Horsepen Run, LLC.	**The Countywide Trails Plan does not show a trail along Park Center Road. Further, as part of the data center's site plan for the Dulles Gateway property (#SP-2023-0089, approved on 12-3-24), the County approved a new five-foot-wide concrete sidewalk along Park Center Road to accommodate pedestrians.**	
2 FCDOT	There is an existing curb cut at the north end of the site where stormwater management (SWM) facilities are proposed to be located. The applicant should replace this curb cut with a constructed mountable curb in order to maintain as much of the off-road design of the shared use path along the roadway as possible to enhance pedestrian safety given vehicle trips to access these SWM facilities are anticipated to be infrequent.	**The area of the curb cut is not a part of Dominion's lease area. It is the applicant's understanding this was a former VDOT roadway that has been abandoned, but is part of a public improvement plan related to the Fosters Glen roadway improvements.**	
Department of Planning and Development - Public Facilities and Plan Development Branch (PFPD) Memo dated 11/15/24 (Updated Memo)			
1 PFPD	The screening does not look aesthetically pleasing as the proposed facility is so close to the roadway. Per Objective 44, Policy e of the PFEPP. There is not much room between highway 28 and the use therefore the type of screening is key. How will visibility issues from highway 28 be addressed and mitigated? Can more trees be strategically placed within the small buffer area where the 12-foot wall may not be sufficient? Per Objective 4, Policy c of the Public Facilities Element of the Policy Plan (PFEPP).	**As noted, to the west, along Route 28, there are spacing and utility conflicts that do not allow the planting of taller trees. However, in coordination with the property owner, Dominion has arranged to have the approved landscaping changed along the western boundary to allow taller evergreen species to be planted along the fence line. The taller evergreens will provide better visual mitigation and create a wall of landscaping to sufficiently hide the security fence along the western boundary. Please see the attached visual renderings which provide visual simulations of the revised landscaping.**	
2 PFPD	Please provide landscape plan, aerials of the proposed site and the adjacent uses from a bird's eye view.	**The landscape plan is shown on sheets 5 and 6 of the 2232 plan. An aerial of the site and adjacent uses have been included in the attached exhibits.**	
3 PFPD	Please provide more graphics/illustrations.	**Graphics and illustrations are included in the attached exhibits.**	
4 PFPD	Is this the best place for the proposed development, can it be located somewhere closer to the data center? Per Objective 1, Policy a of the PFEPP.	**The substation pad site cannot be moved closer to the data center buildings due to internal roadways and transmission lines that enter the site.**	
5 PFPD	Please expand on why the proposed development cannot be screened more. How will you ensure that it looks and blends in with the character of the road and residential uses to the northeast of the site. Per Objective 44, Policy b of the PFEPP.	**The subject property is zoned I-5, Industrial, and the property immediately across the road is also zoned I-5. Historically, the character of the area has been developed with industrial warehouse uses since the 80's. That said, with the new residential community to the north of this site, the substation has been intentionally designed to look and blend with the mixed character of the area that includes the industrial, data center, and residential uses. For example, Dominion is proposing a 12-foot decorative wall on the eastern and northern sides of the site to provide a more aesthetically pleasing look for the screening barrier. Also, as noted in the statement of justification, because this is a smaller substation site, GIS enclosures are provided for much of the substation equipment which also serves to shield views of equipment.** **Screening for the overall property is provided by the data center site plan and is in accordance with the zoning regulations. It is important to note the landscape plan provides for a substantial buffer on the northern side of the property, adjacent to the residential community, which greatly exceeds zoning ordinance requirements. The northern buffer ranges in width from 115' to 195' wide and is planted with a**	

	Staff Comments (1st Referral)	**Applicant Responses – January 17, 2025**	**Notes**
		mix of evergreen and deciduous trees and shrubs with mature heights that will range from 50'- 100' at maturity. The developer is also proposing a board-on-board fence on the side of the buffer facing the residential properties. Along Park Center Road and the northern side of the substation, Dominion is proposing a 12' precast concrete decorative wall to provide more effective screening and be more visually appealing. In addition, with this submission, the landscaping has been revised to better screen the site.	
6 PFPD	Please provide elevations and other renderings showing how the proposed development will be restricted from view from the surrounding uses, particularly from highway 28.	**See attached renderings.**	
7 PFPD	Please expand on the justification for the proposed development per Objective 3, Policy a of the PFEPP, and the timing Per Objective 3, Policy e of the PFEPP. Are current electrical needs not being sufficiently met? Per Objective 44, Policy a of the PFEPP. Can you please provide data exhibiting the growth that has occurred in the specific area and the projected growth of the area that would be served to meet the growing electrical needs. What is the timeframe in mind for this proposed development to meet the demand? Per Objective 3, Policy e of the PFEPP.	**<u>Objective 3, Policy a</u> - Construct new facilities or expansions of existing facilities, where appropriate, in size and quantity consistent with projected needs.** **<u>Objective 3, Policy e</u> - Designate and reserve future public facility sites that will be required for future growth and development.** **<u>Objective 44, Policy a</u> - Provide justification for the proposed facility's need. Specify alternative actions and justify why the proposed location and type of facility is the least disruptive.** **RESPONSE: The proposed substation is designed to initially meet loading requirements for the data center campus, but as area distribution load have and continue to increase, external to the data center campus, Dominion will utilize reserve capacity within the station to serve this increased load. All substations are connected to Dominion's energy grid. To date, energy demands in this area of the County are met with existing infrastructure, and DEV has not identified the need to install distribution facilities to utilize this reserve capacity. However, economic growth, population growth, increased use of technology from both residential homes and commercial businesses contribute to increased energy consumption. In general, new developments such as the Fosters Glen community immediately north of this site increase energy demand. In addition, the proposed substation is necessary to maintain the available capacity at other area substations. As such, Objective 1, Policies a, and Objective 3, Policy a, are met in that the proposed facility is appropriately located to serve the immediate energy need, as well as the area it is intended to serve.**	
8 PFPD	Can you please show exhibits of the vegetated buffer that is proposed to separate the development and the residential subdivision to the northeast.	**The landscape plan is shown on sheets 5 and 6 of the 2232 plan. Further, exhibits are included with this submission that show the extensive buffer that separates the substation and the residential subdivision to the north.**	
9 PFPD	People will be concerned with the magnetic fields from the proposed development. What is being done to minimize unnecessary human exposure. Per Objective 43, Policy h and Objective 44, Policy i of the PFEPP.	**<u>Objective 43, Policy h</u> - Regulate new development where permissible to minimize unnecessary human exposure to unhealthful impacts of low-level electromagnetic fields (EMF) from electrical transmission lines.** **<u>Objective 44, Policy i</u> - Assure that radiation levels, individually and cumulatively, will be maintained at acceptable levels.** **Response: EMF, at various frequencies, is naturally present everywhere in the environment. It is also created whenever an electrical current is used. It is not only found near transmission and distribution lines, but also in homes, workplaces, schools, etc. Generally, EMF is levels are associated with the currents in transmission and distribution lines, and EMF levels dissipate quickly the further the distance from the source. It is not anticipated the substation equipment will exceed acceptable emf levels beyond the fence line of the substation. More information may be found on Dominion's website. It includes additional links and brochures that further explain EMF and provides measurements and descriptions of how EMF levels are found in human environments and EMF levels. A link is below:** **https://www.dominionenergy.com/projects-and-facilities/electric-projects/emf** .	