



APPLICATION ACCEPTED: June 3, 2010  
PLANNING COMMISSION: December 2, 2010  
BOARD OF SUPERVISORS: Not yet scheduled

# County of Fairfax, Virginia

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November 18, 2010

## STAFF REPORT

**APPLICATION SEA 85-D-033-03**  
**(Concurrent w/2232- D10-12)**

### DRANESVILLE DISTRICT

**APPLICANT:** Virginia Electric and Power Company D/B/A  
Dominion Virginia Power

**PRESENT ZONING:** R-1

**PARCEL:** 40-3 ((1)) 86 pt.

**ACREAGE:** 1.37 acres (59,677 SF)

**FLOOR AREA RATIO:** 0.009

**PLAN MAP:** Public Facilities, Governmental and  
Institutional

**SE CATEGORY:** Category 1: Light Public Utility Uses

**PROPOSAL:** The applicant has filed for review by the Planning Commission to determine whether a proposed electric substation satisfies the criteria of location, character, and extent pursuant to Sect. 15.2-2232 of the Code of Virginia and requests to amend SE 85-D-033, previously approved for WMATA facilities, to permit the addition of a Dominion Virginia Power electric substation and associated site modifications.

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St.Clair Williams

Department of Planning and Zoning  
Zoning Evaluation Division  
12055 Government Center Parkway, Suite 801  
Fairfax, Virginia 22035-5509  
Phone 703-324-1290 FAX 703-324-3924  
[www.fairfaxcounty.gov/dpz/](http://www.fairfaxcounty.gov/dpz/)



## STAFF RECOMMENDATIONS:

Staff recommends that the Planning Commission find that the facility proposed under 2232-D10-12 does satisfy the criteria of location, character, and extent as specified in Sect. 15.2-2232 of the Code of Virginia and is substantially in accord with the provisions of the Comprehensive Plan.

Staff recommends approval of SEA 85-D-033-03, subject to the development conditions contained in Appendix 1.

Staff recommends approval of the modification of the transitional screening and waiver of the barrier requirements in favor of that shown on the SEA Plat.

Staff recommends approval of a deviation of the tree preservation target in favor of the development conditions and that shown on the SEA Plat.

Staff recommends approval of a waiver of the Comprehensive Plan trail requirement along Idylwood Road.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application.

For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.

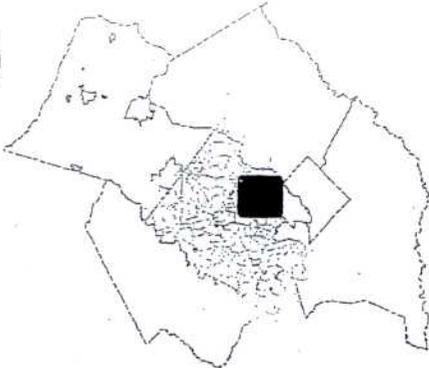
O:\SWILLI\SEA\SEA 85-D-033-03 Dominion VA Power\Staff Report\Draft Staff Report.doc



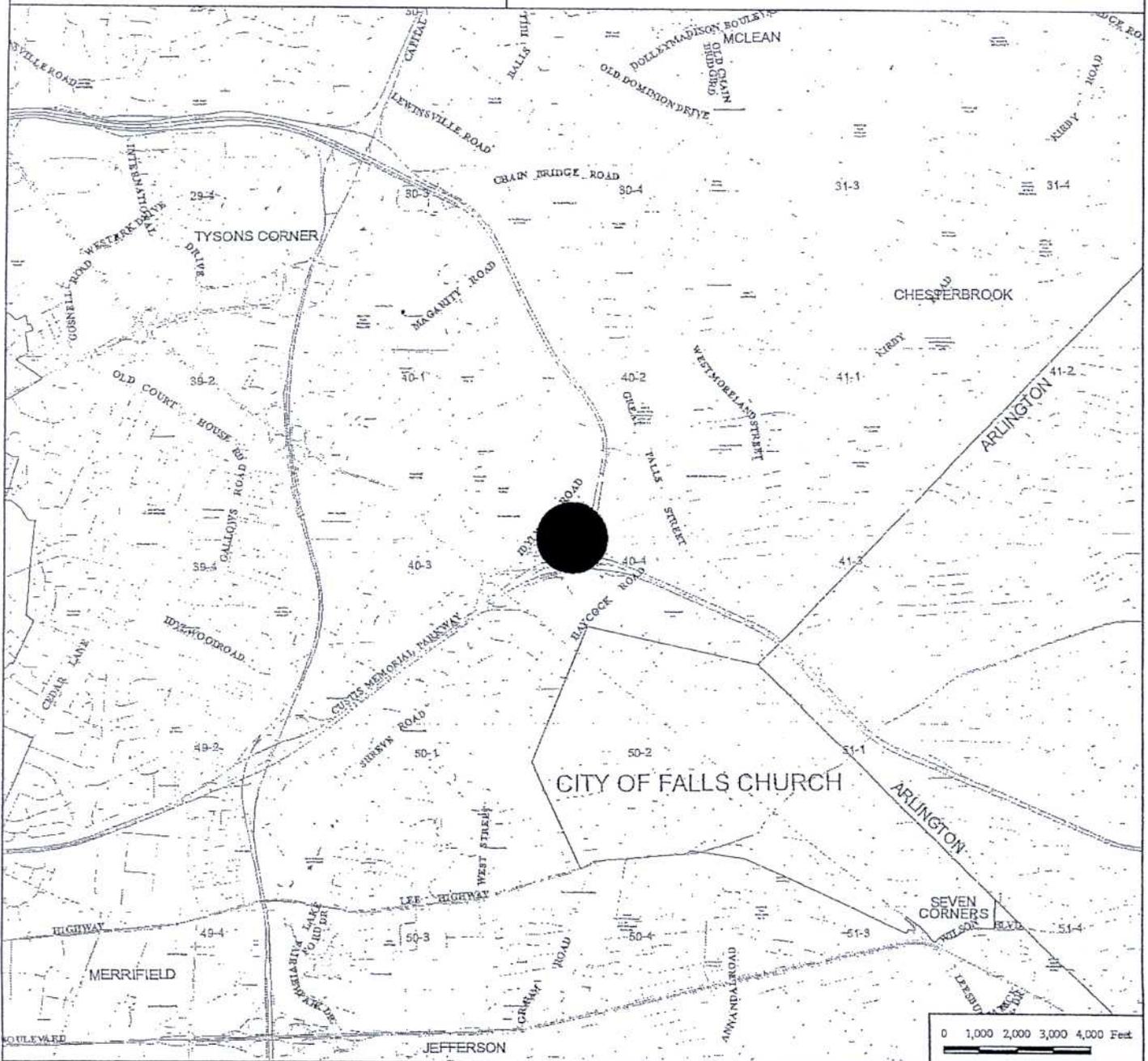
Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 7 days advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

# Special Exception Amendment

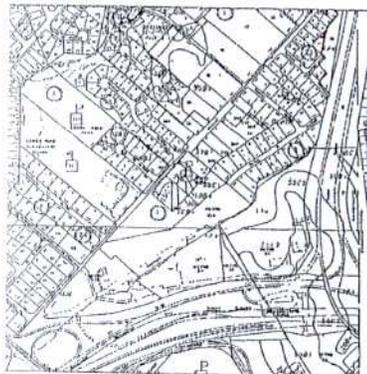
SEA 85-D-033-03



Accepted: 06/03/2010  
Proposed: AMEND SE 85-D-033 PREVIOUSLY APPROVED FOR WMATA FACILITIES TO PERMIT ELECTRIC SUB STATION AND SITE MODIFICATIONS  
Area: 1.37 AC OF LAND; DISTRICT - DRANESVILLE  
Zoning Dist Sect: 03-0104  
Art 9 Group and Use: 1-01 4-05  
Located: WEST SIDE OF DULLES ACCESS ROAD AND NORTH OF CURTIS MEMORIAL PARKWAY - WEST FALLS CHURCH RAIL YARD  
Zoning: R-1  
Plan Area: 2  
Overlay Dist:  
Map Ref Num: 040-3- /01/ /0086 pt.







SOILS MAP SCALE: 1" = 500'

**SOILS LEGEND**  
 1A+ MIXED ALLUVIAL LAND  
 10B+ GLENVILLE SILT LOAM  
 S5B1 GLENVILLE SILT LOAM, UNROLLING PHASE  
 S5C2 GLENVILLE SILT LOAM, ROLLING PHASE

AREA SUBJECT OF  
 SPECIAL EXCEPTION  
 APPLICATION

COMPREHENSIVE PLAN MAJOR TRAIL  
 WAIVED BY B.O.S. ON FEBRUARY 23, 2010  
 WITH SEA 85-D-033-02

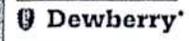
NOT PART OF  
 APPLICATION

REQUIRED COMPREHENSIVE  
 PLAN MINOR TRAIL

EXISTING SERVICE  
 AND INSPECTION  
 W/SP BUILDING

REQUIRED COMPREHENSIVE  
 PLAN MAJOR TRAIL

REQUIRED COMPREHENSIVE  
 PLAN MAJOR TRAIL



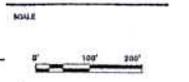
Dewberry & Davis, Inc.  
 1144 Franklin Street  
 Suite 1000, Fairfax Station  
 P.O. Box 400, 22031  
 Loudoun County, Virginia  
 www.dewberry.com



**DOMINION VIRGINIA POWER**  
 Redfield Substation at  
 West Falls Church Metro Yard  
 SPECIAL EXCEPTION PLAT  
 Z232 PLAN  
 DANVILLE DISTRICT  
 HANOVER COUNTY, VIRGINIA



NO PLAN



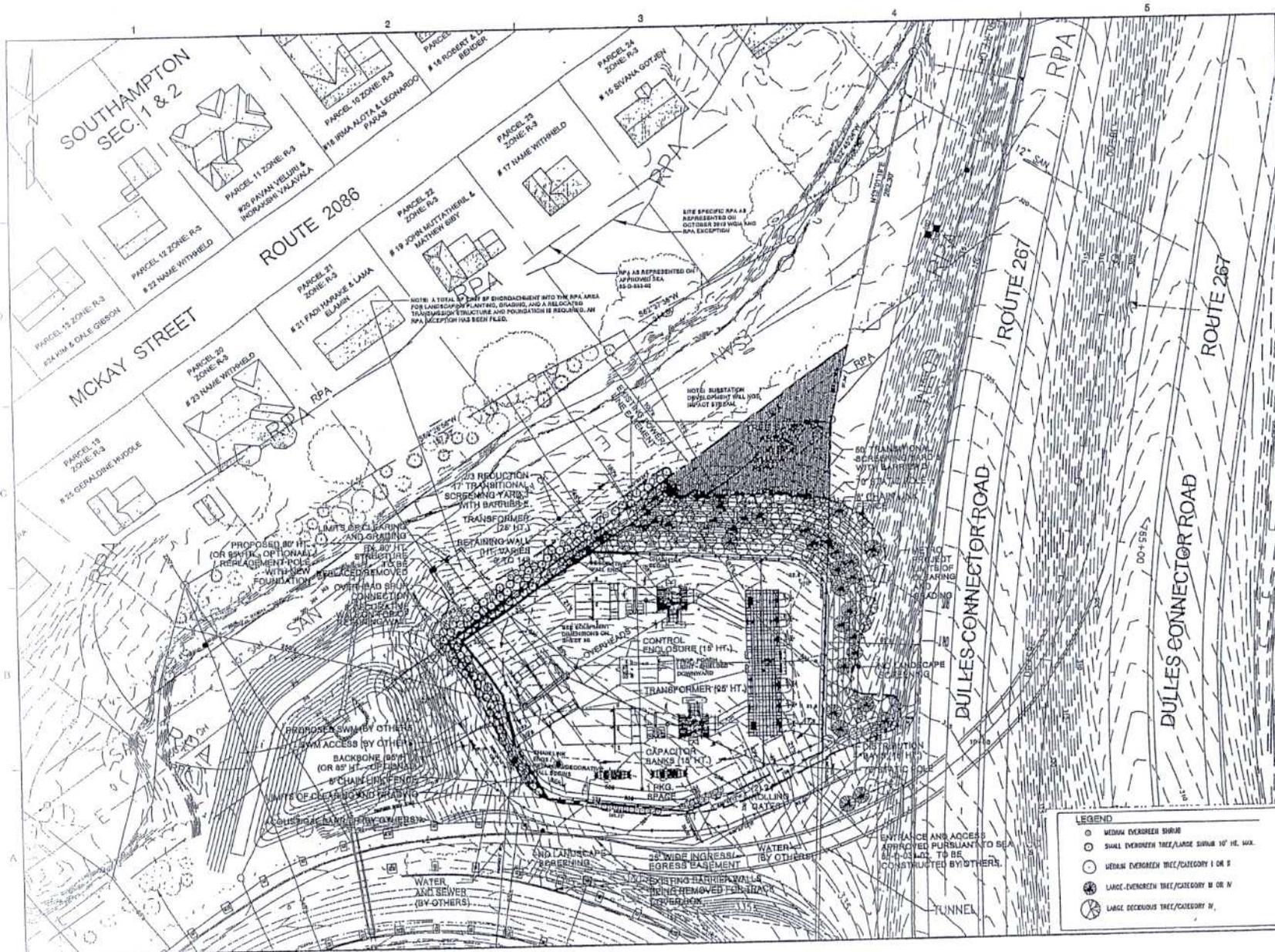
No.	DATE	BY	Description
2	10.16.10	JWC	
1	08.30.10	JWC	

REVISIONS  
 DRAWN BY DJB  
 APPROVED BY KMW  
 CHECKED BY KMW  
 DATE February 3, 2010

TITLE  
**SPECIAL EXCEPTION  
 PLAT**

PROJECT NO. 50011138

2



Dewberry & Davis, Inc.  
 1000 N. Glebe Road, Suite 1000  
 Arlington, VA 22202  
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 Fax: 703.241.1001  
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**DOMINION VIRGINIA POWER**  
 Redfield Substation at  
 West Falls Church Metro Yard  
**SPECIAL EXCEPTION PLAN**  
 2222 PLAN  
 JAMES HILLERICH, PE  
 PROFESSIONAL ENGINEER  
 VIRGINIA



SCALE  
 0' 30' 60'

REV	DATE	BY	DESCRIPTION
1	10.18.10	JAH	
1	02.16.10	JAH	

APPROVED BY: SAB  
 CHECKED BY: SHW  
 DATE: February 3, 2010

**SPECIAL EXCEPTION PLAN - 30 SCALE**

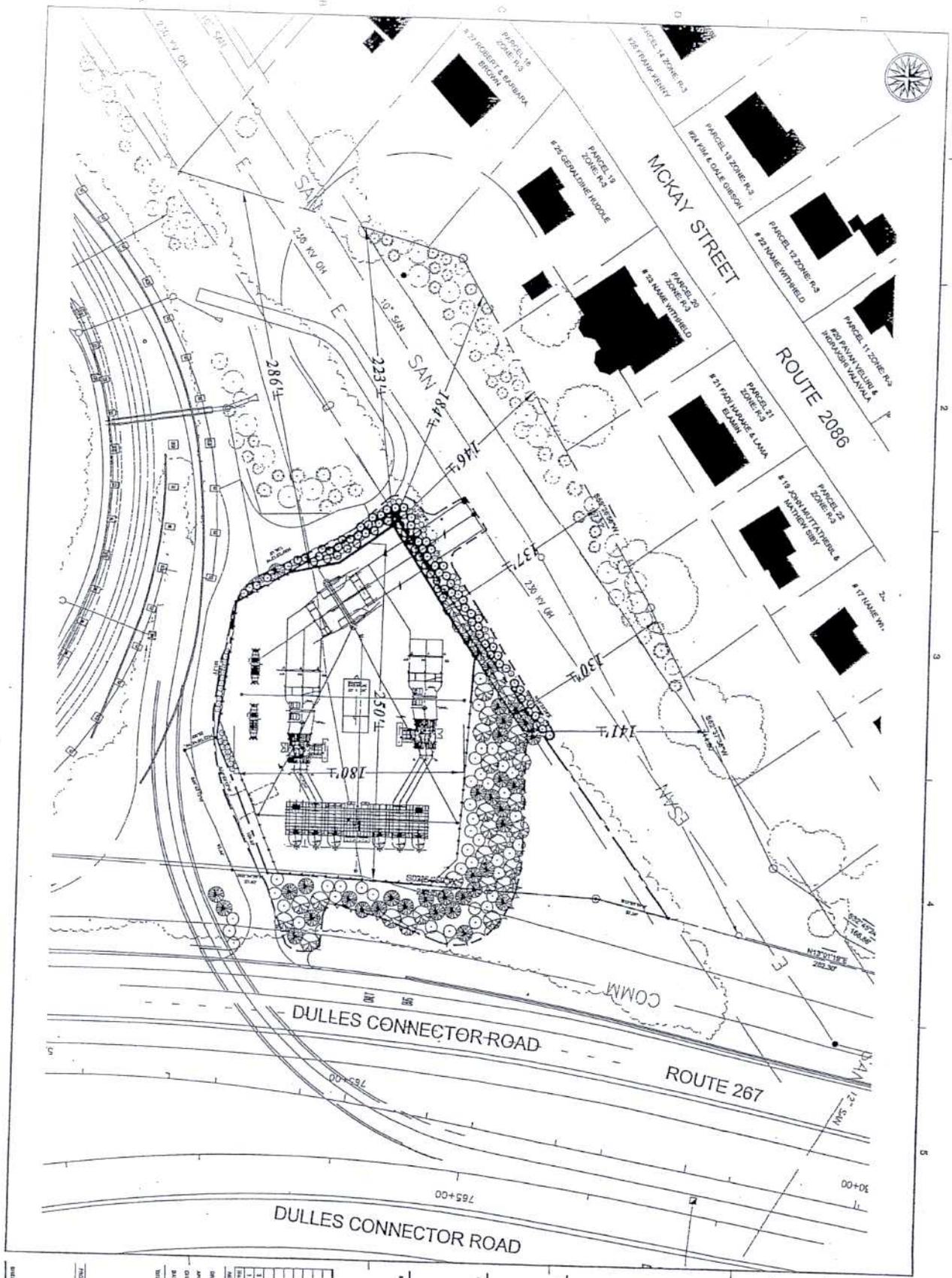
PROJECT NO. 50011138

**3**

SHEET NO. 3 OF 4  
 M-10750

**LEGEND**

- MEDIUM EVERGREEN SHrub
- SMALL EVERGREEN TREE/LARGE SHRUB 10' Ht. MAX.
- MEDIUM EVERGREEN TREE/CATEGORY I OR II
- ⊗ LARGE EVERGREEN TREE/CATEGORY III OR IV
- ⊗ LARGE DECIDUOUS TREE/CATEGORY V



SHEET NO. M-10730  
 3A  
 S.A. OF 4

DIMENSION PLAN  
 FROM ADJACENT  
 PROPERTIES  
 5/20/11

NO.	DATE	BY	REVISION
1	11/11/11	AS	ISSUED FOR PERMIT
2	02/21/12	AS	REVISED TO REFLECT
3	07/17/12	AS	REVISED TO REFLECT

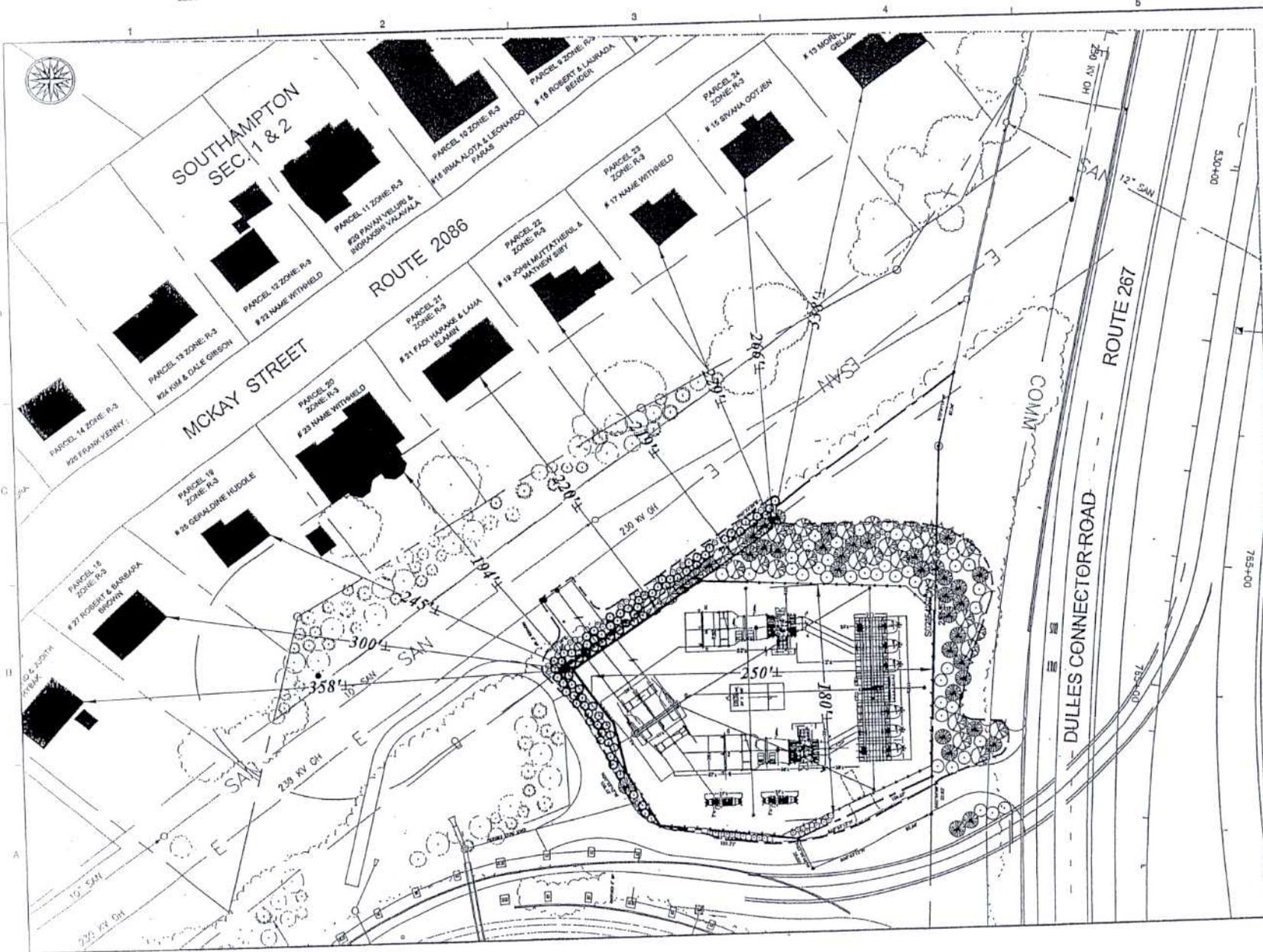


SCALE  
 1" = 20'  
 DATE  
 05/20/11

DOMINION VIRGINIA POWER  
 Redfield Substation at  
 West Falls Church Metro Yard  
 SPECIAL EXCEPTION PLAT  
 2232 PLAN  
 DUMFRIESVILLE DISTRICT  
 FAIRFAX COUNTY, VIRGINIA



Dewberry  
 Dominion



**Dewberry**

Dewberry & Davis, Inc.  
 1500 North Star  
 Suite 1000, Fairfax Station  
 Project: West Falls Church Metro Yard  
 File No: 000000  
 Date: 02/03/10

**Dominion**

**DOMINION VIRGINIA POWER**  
 Restfield Substation at  
 West Falls Church Metro Yard  
 SPECIAL EXCEPTION PLAT  
 2232 PLAT  
 FARMERS COUNTY, VIRGINIA



KEY PLAN



No.	Date	By	Description
1	02-20-10	AWW	REV SUBSET
2	10-16-10	JUC	

DRAWN BY: DAB  
 APPROVED BY: AWW  
 CHECKED BY: AWW  
 DATE: February 3, 2010

**TITLE**  
 DIMENSION PLAN  
 FROM ADJACENT  
 RESIDENCES  
 & EQUIPMENT

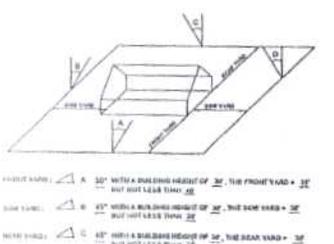
PROJECT NO. 50011136

**3B**

SHEET NO. 3B of 4  
 M-10760

**NOTES:**

1. THE PROPERTY THAT IS THE SUBJECT OF THIS SPECIAL EXCEPTION PLAN IS SHOWN ON THE FAIRFAX COUNTY ZONING MAP AS PART OF PARCELS 48-0-10-01 AND IS ZONED R-1. PARCELS 48-0-10-01-02 HAS A TOTAL ACRESAGE OF 13.88 ACRES.
2. THE TOTAL LAND AREA OF THIS SPECIAL EXCEPTION APPLICATION IS APPROXIMATELY 1.372 ACRES.
3. THIS SPECIAL EXCEPTION PLAN ACCOMPANIES AN APPLICATION TO PERMIT THE INSTALLATION OF AN ELECTRICAL SUBSTATION.
4. THE BOUNDARY INFORMATION SHOWN HEREON IS ESTABLISHED TO INCLUDE ALL THE FACILITIES SUBJECT TO THIS SPECIAL EXCEPTION.
5. THE TOPOGRAPHY SHOWN HEREON IS AT A CONTOUR INTERVAL OF ONE (1) FOOT FROM SURVEY INFORMATION PROVIDED BY AERIAL PHOTO MAPPING PREPARED AND PROVIDED BY VARGIE, LLC, HERRINGTON, VIRGINIA, COPYRIGHT 2002 AND FROM SUPPLEMENTAL FIELD SURVEYS PERFORMED BY DEWBERRY AND DAVIS AND KELLY IN 2001.
6. SHORING YARD REQUIREMENTS FOR ALL OTHER STRUCTURES IN THE R-1 DISTRICT ARE AS FOLLOWS:  
 FRONT: CONTROLLED BY A 30° ANGLE OF BULK PLANE, BUT NOT LESS THAN 40 FEET.  
 SIDE: CONTROLLED BY A 45° ANGLE OF BULK PLANE, BUT NOT LESS THAN 30 FEET.  
 REAR: CONTROLLED BY A 45° ANGLE OF BULK PLANE, BUT NOT LESS THAN 10 FEET.
7. AS STATED IN SECT. 9-408 AND 9-409 OF THE FAIRFAX COUNTY ZONING ORDINANCE THIS USE HEREIN DOES NOT COMPLY WITH THE BULK REGULATIONS OR THE MINIMUM LOT SIZE REQUIREMENTS OF THE ZONING DISTRICT IN WHICH THE USE IS LOCATED.
8. SANITARY SEWER AND PUBLIC WATER ARE AVAILABLE BUT WILL NOT BE USED.
9. THERE IS NO FLOODPLAIN OR ENVIRONMENTAL QUALITY CONSIDERATION (EQC) ON THE SUBJECT PROPERTY.
10. THERE IS A KERMICAN PROTECTION AREA (KPA) WITHIN THIS PROPERTY AS SHOWN HEREON AND IS BARRIED ON FAIRFAX COUNTY REGULATION (REVISED 8/1/01) AND PREPARED BY THE DEPARTMENT OF INFORMATION TECHNOLOGY, INTERURBAN SERVICE DIVISION-GEOSPATIAL INFORMATION SERVICES. ENCUMBRANCE NOTED ON THE KPA IS SHOWN HEREON. AN RPA EXCEPTION HAS BEEN REQUESTED.
11. STORMWATER MANAGEMENT IS IN THE FORM OF A DRY POND, PROVIDED AS PART OF FAIRFAX COUNTY SPECIAL EXCEPTION PLAN #1102341.
12. A STATEMENT CONCERNING OWNERSHIP OF THE PROPERTY AND THE NATURE OF THE APPLICANT'S INTEREST IN SAME IS ON THE AFFIDAVIT WHICH IS PREPARED SEPARATELY.
13. THERE ARE EXISTING UTILITY EASEMENTS HAVING A WIDTH OF TWENTY-FIVE (25) FEET OR MORE SHOWN ON THE GRAPHIC. THE LOCATION OF THE EASEMENTS SHOWN HEREON ARE TAKEN FROM TAX RECORDS AND/OR DEEDS AND OTHER PUBLIC INFORMATION. THERE ARE NO MAJOR UNDERGROUND EASEMENTS, IN EXCESS OF 31 FEET, LOCATED ON THIS PROPERTY.
14. PURSUANT TO PAR. 14 OF SECT. 13-181 OF THE ZONING ORDINANCE A MODIFICATION OF THE TRANSITIONAL SCREENING AND BARRIER REQUIREMENTS ARE HEREBY REQUESTED IN FAVOR OF THAT SHOWN HEREON.
15. THE COMPREHENSIVE PLAN TRAIL MAP SHOWS MAJOR PAVED TRAILS ALONG THE SCITE BOUNDARY OF HAYWOOD ROAD AND ACCESSING THE EXISTING SERVICE AND INSPECTION BUILDING ON THE METRO PROPERTY. A WAIVER OF THE TRAIL REQUIREMENTS IS HEREBY REQUESTED.
16. BASED ON HISTORICAL AND ARCHAEOLOGICAL INVESTIGATIONS PERFORMED BY THE FHS, THERE ARE NO GRAVES LOCATED ON THIS SUBJECT PROPERTY.
17. EXCEPT AS QUALIFIED ABOVE, THE PROPOSED DEVELOPMENT CONFORMS TO ALL CURRENT APPLICABLE LAND DEVELOPMENT ORDINANCES AND ADJUTIVE STANDARDS.
18. A DEVIATION FROM THE TREE PRESERVATION TARGET IS BEING REQUESTED. SEE DETAIL THIS SHEET.



**ANGLE OF BULK PLANE FOR R-1 DISTRICT**  
 MINIMUM REQUIRED YARD FOR R-1 DISTRICT

**TABULATION FOR SUBSTATION SPECIAL EXCEPTION AREA:**

EXISTING/PROPOSED ZONING	R-1
TOTAL LAND AREA	1.372 AC
MAXIMUM FLOOR AREA RATIO PERMITTED	0.17
PROPOSED FLOOR AREA RATIO	0.08
MAXIMUM GROSS FLOOR AREA PERMITTED	231,302 SF
PROPOSED GROSS FLOOR AREA	110,287 SF
PARKING SPACES REQUIRED/PROVIDED	1 SPACE
MAXIMUM BUILDING HEIGHT PERMITTED	40 FT
MAXIMUM BUILDING HEIGHT PROPOSED	30 FT
OPEN SPACE REQUIRED (2%)	27.4 AC
OPEN SPACE PROVIDED (24%)	0.334 AC
DISTURBED AREA - WITHIN SITE AREA	1.124 AC
DISTURBED AREA - OUTSIDE SITE AREA	0.294 AC
TREE COVER REQUIRED	30%
TREE COVER PROVIDED	30%

**Dewberry** 3000 Lakeside Drive, Suite 200, Fairfax, VA 22031  
 703.441.1000  
 www.dewberry.com

October 15, 2010

James Perkins, Director  
 Fairfax County Department of Public Works and Environmental Services  
 12011 Government Center Parkway  
 Suite 400  
 Fairfax, VA 22031

RE: Permit for a Tree Preservation Target Database  
 The Map # 9-113 (P) 2010

Dear Mr. Perkins:

This site has been used as a support for a database from the Tree Preservation Target as provided for in the provisions set forth in both 12-401 of the Public Facilities Manual (PFM). The proposed development program to be located on the property referenced in 08-11018 (P) Plan, is to be located on the west side of Dulles Commerce Road (Route 287) and is part of West Falls Church Metro Yard, is in the subject of Special Exception application 100-1100041.

The property is currently zoned as R-1 District and is subject of a Special Exception, a copy of which is attached for your reference. The pending Special Exception has been filed to allow for installation of an electrical substation on the site.

Based on the provisions set forth in Sect. 12-401 of the PFM and more particularly the tabulation set forth in Table 12.3, any symbols, (T) are used to the applicable Tree Preservation Target.

A deviation from the Tree Preservation Target requested is requested, for as demonstrated by the attached copy of the proposed development program, the study and grading, and position of utility for the development program for an electrical substation will preclude the accommodation of the Tree Preservation Target. It is our judgment that the proposed development program is a reasonable development program for the subject property which is used in the R-1 District. It is requested to the extent, it is noted that the 10-year Tree Canopy Requirement of 30% will be met through the planting of new trees.

We trust that this statement is sufficient to request an exception from the Tree Preservation Target for the development program proposed for the subject property. Should you have any questions or need for additional information, please contact us at 703-441-0111 or [info@dewberry.com](mailto:info@dewberry.com).

Sincerely,  
 James M. Cox  
 Senior Landscape Architect  
 114 Coastal Avenue  
 Norfolk, VA 23510

**FOR INFORMATION PURPOSES ONLY**  
 TABULATION FROM SEA 85-D-033-02

EXISTING/PROPOSED ZONING	R-1 AND R-2
TOTAL LAND AREA	28.16 AC
R-1	25.98 AC
R-2	2.18 AC
MAXIMUM FLOOR AREA RATIO PERMITTED	0.20
PROPOSED FLOOR AREA RATIO	0.17
MAXIMUM GROSS FLOOR AREA PERMITTED	567,280 SF
PROPOSED GROSS FLOOR AREA	475,800 SF
TOTAL PARKING SPACES PROVIDED	150 SPACES
EXISTING PARKING SPACES	131 SPACES
PROPOSED PARKING SPACES	31 SPACES
MAXIMUM BUILDING HEIGHT PERMITTED	40 FT
MAXIMUM BUILDING HEIGHT PROPOSED	30 FT
OPEN SPACE REQUIRED (2%)	0.56 AC
OPEN SPACE PROVIDED (47%)	17.28 AC
TREE COVER REQUIRED	30%
TREE COVER PROVIDED	31.3%

**EXISTING VEGETATION INVENTORY**

KEY	COVER TYPE	PRIMARY SPECIES	SUCCESIONAL STAGES	CONDITION	ACRES
B	BOTTOMLAND FOREST	OAK, MAPLE, POPLAR	N/A	GOOD TO FAIR	1.37 AC
				TOTAL ACRES	1.37 AC

**TABLE 12.3 TREE PRESERVATION TARGET CALCULATION**

	PERCENTAGE	ACRES
A. TREE PRESERVATION TARGET FOR DISTRICT 2001 SURVEY FROM DISTRICT 2001 SURVEY	30%	0.41 AC
B. PERCENTAGE OF AREAS WITH AREAS COVERED BY EXISTING TREE CANOPY	30%	0.41 AC
C. PERCENTAGE OF AREAS WITH TREE CANOPY REMOVED FOR USE	70%	0.96 AC
D. PERCENTAGE OF THE TREE CANOPY REMOVED FOR USE THAT WILL BE REPLACED BY NEW PLANTINGS	100%	0.96 AC
E. ADJUSTED PERCENTAGE OF AREAS COVERED BY TREE CANOPY	30%	0.41 AC
F. TREE PRESERVATION TARGET REMAINING TO BE MET	0%	0.00 AC

**Tree Canopy Tabulation**

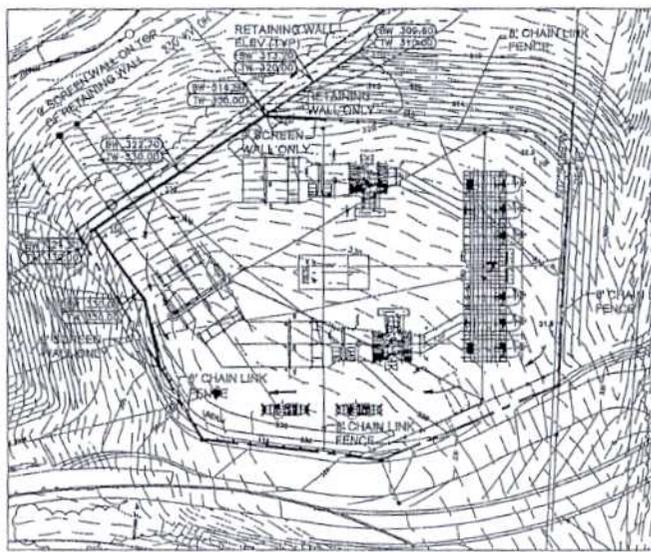
SITE AREA	51,877 SF
TREE CANOPY REQUIRED (30%)	17,800 SF
AREA OF EXISTING TREES TO REMAIN IN RPA	4,300 SF
X 1.00	4,300 SF
AREA OF EXISTING TREES TO REMAIN IN RPA	3,100 SF
X 1.25	3,875 SF
AREA OF PROPOSED LANDSCAPING (within site area)	3,800 SF
approx 92 Cal. IV dog trees @ 800 SF	4,400 SF
approx 20 Cal. B & IV magnolia trees @ 175 SF (each)	3,500 SF
approx 20 Cal. I & II magnolia trees @ 75 SF (each)	1,500 SF
TOTAL TREE CANOPY PROVIDED (30%)	17,800 SF

**LANDSCAPE TABULATIONS**

THE TREE CANOPY TABULATIONS ARE PRELIMINARY. THE TABULATIONS ARE INTENDED TO REFLECT THE UNPAVED LANDSCAPE AND CANOPY REQUIREMENTS FOR THE PROPOSED DEVELOPMENT PROGRAM. FINAL CALCULATIONS WILL BE PROVIDED WITH THE SCHEMATIC OF LANDSCAPE AND CIVIL, ENGINEERING AT THE END OF SITE PLAN PREPARATION.

NOTES: THE SITE PLAN INDICATES TREES REMOVED FOR NEW UTILITY INSTALLATION. TREES MAY BE REPLACED AT CONSTRUCTION THROUGH THE LANDSCAPE REQUIREMENT WITHIN ANY OTHER TREE COVER NOT BE CLAIMED FOR EXISTING TREES WITH LANDSCAPE INSTALLATION.

**EXISTING VEGETATION MAP** Scale: 1"=50'



**PROPOSED GRADING DETAIL** Scale: 1"=30'

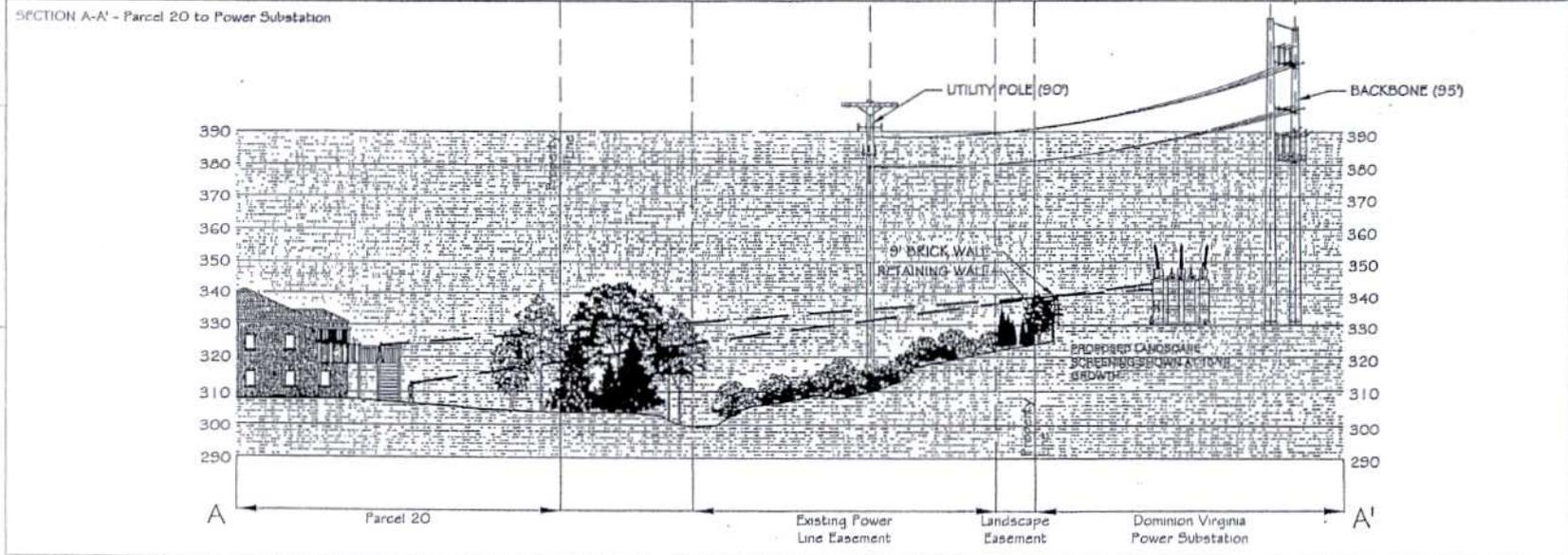
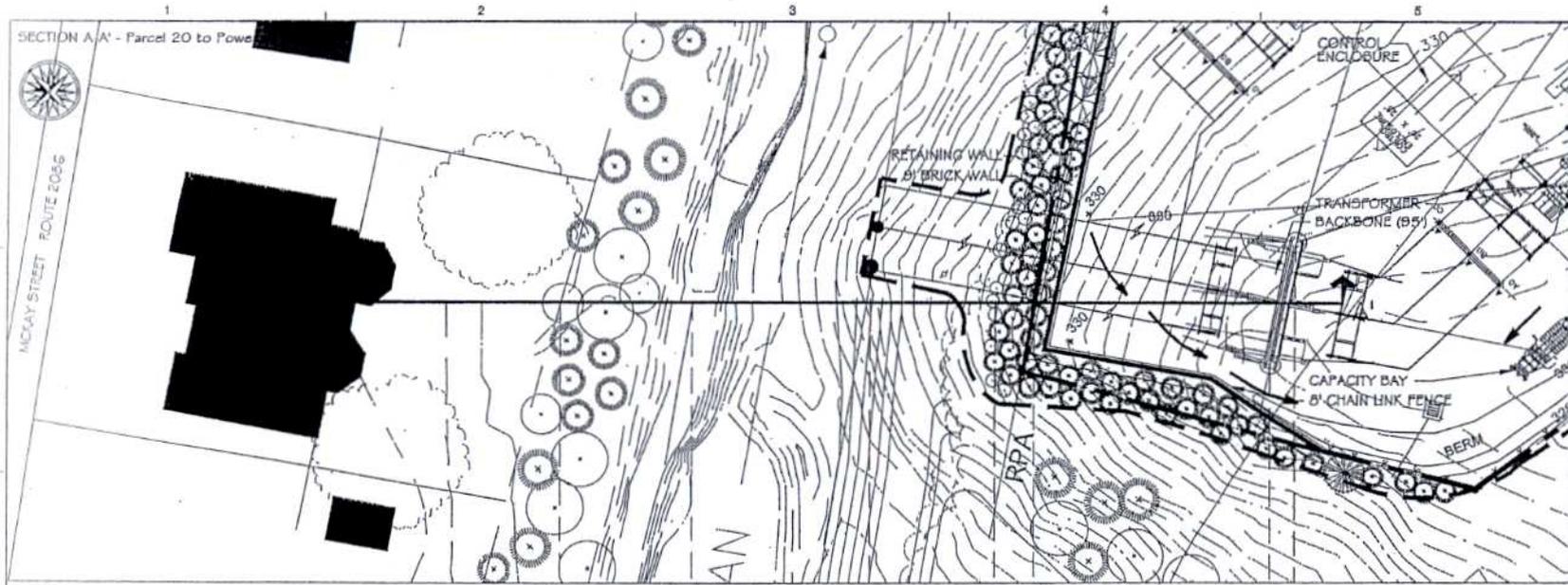
**Dewberry**  
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 1000 Lakeside Drive  
 Suite 200, Fairfax, VA 22031  
 703.441.1000  
 www.dewberry.com

**Dominion**  
 DOMINION VIRGINIA POWER  
 Redfield Substation at  
 West Falls Church Metro Yard  
 SPECIAL EXCEPTION PLAN  
 2232 PLAN  
 UNIMMEDIATE CONSENT  
 FAIRFAX COUNTY, VIRGINIA

PROJECT NO. 80011135

4

SHEET NO. 4 OF 4  
 M-10750



**Dewberry**  
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 703-261-1000  
 www.dewberry.com

**Dominion**

**DOMINION VIRGINIA POWER**  
 Redfield Substation at  
 West Falls Church Metro Yard  
 SPECIAL EXCEPTION PLAN  
 2232 PLAN  
 FARMHILLS DISTRICT  
 FAIRFAX COUNTY, VIRGINIA



REV PLAN



NO.	DATE	BY	DESCRIPTION
1	08.30.18	JAC	NEW SHEET
2	10.18.18	JAC	

DESIGN BY: JAC  
 APPROVED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

TITLE  
 Dominion Virginia  
 Power Substation  
 Section A-A' - Parcel 20  
 to Power Substation

PROJECT NO.

4A



A GLOSSARY OF TERMS FREQUENTLY  
USED IN STAFF REPORTS WILL BE  
FOUND AT THE BACK OF THIS REPORT

## DESCRIPTION OF THE APPLICATION

The applicant, Metropolitan Washington Airports Authority (MWAA) and the Virginia Department of Rail and Public Transportation (DRPT), seek a Special Exception Amendment for light public utility uses in order to permit site improvements associated with the development and operation of a Dominion Virginia Power (DVP) electric substation. The proposed use will operate in addition to the previously approved WMATA facility use within the West Falls Church Rail Yard. The proposed improvements include:

- Two 25-foot high 84 megavolt ampere (MVA) distribution transformers and related distribution circuits:
- One 15-foot high unmanned control enclosure:
- Two capacitor banks (15 feet in height):
- 70-foot tall Static Pole:
- Backbone (95 feet in height)
- Retaining Wall (up to 14 feet in height)

The proposed use would operate 24 hours per day, 7 days per week and proposes no permanent employees. Site inspection and maintenance personnel will visit the site approximately 1 to 2 times per month.

## WAIVERS/MODIFICATIONS

The applicant seeks the following waivers and modifications:

- Modification of the transitional screening and barrier requirements in favor of that shown on the SE Plat.
- Waiver of the Comprehensive Plan Trails Map recommendation to install a major paved trail shown along the south side of Idylwood Road and accessing the existing service and inspection building on the Metro property.

Copies of the proposed development conditions, applicant's affidavit, and applicant's statement of justification are contained in Appendices 1-3 of this report.

## LOCATION AND CHARACTER

The site is located in the northeast portion of the West Falls Church Rail Yard, on the south side of Idylwood Road, north of I-66 and west of the Dulles Airport Access Road (DAAR). The subject site contains mature deciduous tree cover.

The following chart identifies the uses located around the site.

SURROUNDING AREA DESCRIPTION			
Direction	Use	Zoning	Plan
North	West Falls Church Rail Yard	R-1	Public Facilities, Governmental & Institutional
South	West Falls Church Rail Yard	R-1	Public Facilities, Governmental & Institutional
East	Residential; Single-family detached (Southampton Subdivision)	R-2	Residential; 2-3 du/ac
West	West Falls Church Rail Yard	R-1	Public Facilities, Governmental & Institutional

## BACKGROUND

### Site History (See Appendix 4)

On July 29, 1985, the Board of Supervisors approved SE 85-D-033 to permit the addition of a maintenance building to the existing Washington Metropolitan Area Transit Authority (WMATA) facilities. Copies of the previously approved development conditions are contained in Appendix 4.

On September 29, 1986, the Board of Supervisors approved SEA 85-D-033, to amend SE 85-D-033 to permit the addition of acoustical barriers to the existing WMATA facilities. Copies of the previously approved development conditions are contained in Appendix 4.

On February 23, 2010, the Board of Supervisors approved SEA 85-D-033-02, to amend SE 85-D-033 to permit site improvements to the existing West Falls Church Service and Inspection Yard (WFC Yard). Copies of the previously approved development conditions are contained in Appendix 4.

## COMPREHENSIVE PLAN PROVISIONS

<b>Plan Area:</b>	II
<b>Planning Sector:</b>	M2 Pimmitt Community Planning Sector
<b>Plan Map:</b>	Public Facilities, Governmental & Institutional
<b>Plan Text:</b>	

On page 91 of the Fairfax County Comprehensive Plan, 2007 Edition, Area II McLean Planning District, Amended through 8-6-2007, M2-Pimmit Community Planning Sector, it states:

### *Land Use*

*A portion of the West Falls Church Transit Station Area is located in this planning sector. Recommendations for this area are found in the section of the Plan entitled "West Falls Church Transit Station Area."*

*The Pimmit sector is largely developed as single-family residential neighborhoods. Infill development in that sector should be of a compatible use, type and intensity in accordance with the guidance provided by the Policy Plan under Land Use Objectives 8 and 14.*

*Where substantial parcel consolidation is specified, it is intended that such consolidations will provide for projects that function in a well-designed, efficient manner and provide for the development of unconsolidated parcels in conformance with the Area Plan.*

*Figure 18 indicates the geographic location of land use recommendations for this sector. Where recommendations are not shown on the General Locator Map, it is so noted.*

1. *To preserve the stable residential portions of the sector, infill should be residential in nature and compatible with existing development. Specifically,*
  - a. *Low density residential infill should be continued northwest of Idylwood Road, between Route 7 and Great Falls Street, to preserve the character of the neighborhood, which is planned for development at 2-3 dwelling units per acre.*
  - b. *The single-family residences with access to Route 7, adjacent to the Reddfield community and northwest of Idylwood Road, are planned for residential use at 2-3 dwelling units per acre. A service road should connect to Idylwood Road as far away from Route 7 as possible. Buffering should be included along Route 7 as well as between new development and the Reddfield community.*

2. *The area located southeast of Idylwood Road, west of the Dulles Airport Access Road and north of the West Falls Church Transit Station Area, is planned for 2-3 dwelling units per acre with the exception of Mount Royal Park which is located to the west of the single-family housing. The single-family dwellings should have landscaped buffering from noise and non-residential uses with appropriate pedestrian and vehicular access.*

## ANALYSIS

### Special Exception Amendment Plat (Copy at front of staff report)

**Title of SEA Plat:** Dominion Virginia Power – Reddfield Substation at West Falls Church Metro Yard

**Prepared By:** Dewberry & Davis, LLC

**Original and Revision Dates:** February 3, 2010  
as revised through October 15, 2010.

The Special Exception Amendment Plat consists of 8 sheets.

- **Sheet 1** is a title sheet, and includes vicinity map and a sheet index.
- **Sheet 2** shows the proposed layout at a scale of 1"=100'
- **Sheet 3** shows the proposed layout at a scale of 1"=30'
- **Sheet 3A** shows the dimensions from the adjacent property lines
- **Sheet 3B** shows the dimensions from the adjacent dwellings and structures
- **Sheet 4** includes the general notes, tabulations, existing vegetation map and tree preservation target calculation
- **Sheet 4A** shows the cross-section view from adjacent parcel 20
- **Sheet 4B** shows the cross-section view from adjacent parcels 21 and 22

**Site Layout:** The proposed site layout depicts a Dominion Power substation, consisting of two distribution transformers (25' in height) in the central portion of the application property, along with the related distribution circuits and distribution bays (15' in height). Two capacitor banks (15' in height); a control enclosure 15' in height with porch light; two static poles (70' in height), and a backbone structure (95' in height) are also depicted on the SEA Plat. An existing transmission pole (90' in height) in the power line easement is shown to be replaced with a new 90' transmission pole to provide an overhead spur connection between the transmission line and backbone.

**Access and Parking:** Access to the substation is shown to be provided via a proposed access road from the Dulles Airport Access Road (DAAR). The location of access road has been reviewed and approved by the Commonwealth Transportation Board (*See Appendix 4, Attachment 9*). One parking space is shown to be provided for site inspection and maintenance personnel who will visit the site approximately 1 to 2 times per month.

**Open Space and Landscaping:** The applicant proposes 26% (0.36 acres) of open space on the application property. The SEA Plat depicts proposed landscaping along portions of the northern boundary of the application property. A 7,300 SF tree-save area is shown to be provided to the north of the proposed substation; and transitional screening is shown to be provided between the proposed substation and tree-save area, as well as along the northern and western boundaries of the proposed substation. In addition, supplemental planting is shown to be provided along the northern boundary of the proposed substation.

#### **Land Use / 2232 Analysis (Appendix 5)**

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

#### **Location:**

Dominion states that the proposed site conforms to its site selection criteria for a substation, in conformance with Plan guidelines regarding locational standards in siting facilities. The applicant states that the proposed substation is needed at the Rail Yard to provide electrical power needs for Metro's Silver Line, and for new, more reliable service to accommodate growth in the surrounding area, consistent with Plan recommendations regarding the co-location of public facilities, and the location of facilities in relation to the area to be served. Access will be directly from the Dulles Airport Connector Road, consistent with Plan guidelines. DVP's investigation of alternate sites concluded each presented its own constraints on its use as a substation. Although the proposed facility will have a visual impact on some nearby residential properties, as discussed below, staff believes that the site selected by Dominion conforms with Plan recommendations that locating public facilities near an area of different land use is acceptable to provide a centrally located site for a facility that is critical to the public interest, in this case public transit. The proposed location also conforms with Plan guidelines to construct electrical services in residential areas only when other, more suitable land uses are not available. Due to the clearing necessary to construct the facility, the applicant will seek approval to deviate from or modify County requirements for tree preservation, tree canopy, and transition yard screening. However, the proposed facility will not be located in an environmentally sensitive area.

**Character:**

Mature tree cover on the site offer screening opportunities. However, given the clearing requirements for the proposed facility and the adjacent stream restoration project, as well as the site's physical constraints and the planting restrictions in the adjoining transmission easement, staff recognizes that the proposed facility will have a visual impact on several nearby residential properties. Despite the screening challenges, staff believes that the proposal will minimize the visual impact on adjacent properties to the extent practical. The substation will be located the maximum distance (between 190' – 350') from the nearest houses north of the transmission easement. Existing trees behind properties at the western and eastern ends of McKay Street should provide a buffer between those properties and the substation. A 7,300 square-foot tree save area north of the substation, bolstered by landscape planting north of the facility, should provide a visual buffer for properties on the east end of McKay Street. Landscape planting in front of the retaining wall on the northwest side of the facility will mitigate the wall's visual impact, and a decorative screen wall atop the retaining wall should help screen views of the substation. Additional landscape screening will be provided as part of both the off-site stream restoration project and the Rail Yard improvements. The applicant also proposes off-site landscaping on individual residential properties (with owner's acceptance) to mitigate the facility's visual impact. Site clearing will be limited to that necessary to construct the proposed facility, thus preserving as much existing vegetation as possible for screening purposes. The proposed facility will be compatible in character with the Rail Yard located on the adjacent property, which is planned for public facilities, governmental and institutional use. By replacing an existing transmission pole with a new pole of equal height, there will be no need for a new pole in the transmission easement, consistent with Plan guidelines.

**Extent:**

The proposed substation will address future electrical demands associated with the redevelopment of Tysons Corner and older residential neighborhoods, with growing businesses, with the use of new electronic technologies by business and residential users, and with growth in nearby service areas, which conform with Plan recommendations to balance the provision of public facilities with growth and development. In addition, the proposed facility will provide electrical load relief and emergency support for nearby substations by decreasing each one's service area, consistent with Plan guidelines to reduce overlap unless necessary to correct service deficiencies. Dominion states that the proposed substation will minimize service interruptions and ensure prompt restoration of power after an outage, and will provide adequate back up when adjacent service areas experience outages. The applicant states that the electromagnetic field generated by the substation will fall very quickly to levels well below acceptable standards at the substation's property line, in conformance with Plan objectives. Dominion also states that the facility will not interfere with radio, television, or telecommunications receivers, and will comply with Fairfax County's noise regulations. Dominion states that the size of the proposed facility is the minimal needed to serve its needs. In addition, by making use of an adjoining stormwater management facility to be constructed with the Rail Yard

improvements, the size of the proposed facility (and the extent of clearing) will be minimized, consistent with the Plan's co-location guidelines as related to economies of scale. Finally, the proposed substation will have no impact on heritage resources.

### **2232: Conclusion / Recommendation**

Staff concludes that the subject proposal, as amended, by DVP, to construct and operate an electric substation on property known as the West Falls Church Rail Yard, satisfies the criteria of location, character, and extent as specified in Va. Code Sec. 15.2-2232, as amended. Staff therefore recommends that the Planning Commission find the subject Application 2232-D10-12, as amended, substantially in accord with provisions of the adopted Comprehensive Plan.

### **Environmental Analysis**

#### **Issue: Tree preservation**

Staff from the Environment and Development Review Branch of the Department of Planning and Zoning, Planning Division recommended that the applicant work with DPWES Urban Forestry Management Branch to identify opportunities for tree preservation.

#### **Resolution:**

The SEA Plat depicts a 7,300 SF tree save area in the northern most portion of the application property. This tree save area will provide a buffer between the proposed substation and adjacent Lots 24 and 25 to the north of the site. Due to a 100-foot wide power line easement to the north of the tree save area, additional opportunities for tree save were constrained. Staff believes that this issue has been addressed.

### **Stormwater Management /Best Management Practices Analysis**

#### **Issue: Resource Protection Area (RPA)**

A RPA is located in the northeastern portion of the subject property. The application depicts an encroachment of 4,320 square feet into the RPA, for the purpose of the planting of landscaping for the transitional screening area, and the installation of the foundation for a relocated transmission structure. Any encroachment into the RPA requires approval of an exception [Chesapeake Bay Preservation Ordinance (CBPO), Sect. 118-6-9].

#### **Resolution:**

DPWES staff determined that the construction, installation, operation, and maintenance of appurtenant structures to electric transmission lines are activities which are exempt from the CBPO [Sect. 118-5-2(a)]. Therefore, this issue has been addressed.

**Issue: Stormwater Management (SWM) / Best Management Practices (BMP)**

DPWES staff noted that unless waived, stormwater detention and water quality controls is required for the site, and required water quality controls and related channel improvements are subject to CBPO requirements. Furthermore, during site plan review, the applicant must demonstrate that the underground detention facility proposed within the dry pond shown to be constructed adjacent to substation will not compromise pond's stability. In addition, a floodplain study will be required to delineate the boundary of minor floodplain on the site.

**Resolution:**

The application property will be served by a stormwater management pond approved with SEA 85-D-033-02, which permitted site modifications to the West Falls Church Rail Yard. The Virginia Department of Conservation and Recreation (DCR) was designated to be responsible for review and approval all stormwater management plans, erosion and sediment control plans, land disturbing activity and construction within Chesapeake Bay Preservation areas for SEA 85-D-033-02 and all applications associated with the Metrorail extension. Therefore, the applicant will be required to demonstrate that all the required approvals have been obtained, at the time of site plan review. Staff has proposed a development condition that will require the applicant to provide documentation of the required DCR approvals to DPWES prior to the construction of any of the improvements proposed with this application. In addition, staff has proposed a development condition to ensure that a floodplain study shall be submitted by the applicant prior to site plan approval. Therefore, this issue has been addressed.

**Urban Forest Management Division (UFMD) Analysis**

The Urban Forest Management Division (UFMD) review of this application raised comments regarding various aspects of the proposed development. These comments included request for the applicant to provide a request and justification for a deviation from the Tree Preservation Target level; provide the preliminary 10-year tree canopy calculations to demonstrate compliance with the Tree Conservation Ordinance, and provide a justification for the requested modification of the transitional screening and barrier requirements. In addition, UFMD staff noted that adequate measures for tree preservation and protection throughout the development process should be provided.

The applicant has revised the application to provide a request and justification for a deviation from the Tree Preservation Target level, provide the preliminary 10-year tree canopy calculations, and provide a justification for the requested modification of the transitional screening and barrier requirements. Based on the justification provided by the applicant, staff is not opposed to a deviation from the tree preservation target value. In addition, staff has proposed a development condition to ensure that adequate tree preservation and protection measures will be provided on the site through all phases of development. With the adoption of the development conditions, this issue will be addressed.

### Transportation Analysis

The Fairfax County Department of Transportation (FCDOT) has reviewed the subject application and has no objection to the approval of the application.

### Fairfax County Park Authority (FCPA) Analysis

The FCPA reviewed the proposal and determined that this application bears no adverse impact on land or resources of the Park Authority.

## ZONING ORDINANCE PROVISIONS

While Category 1 special exception uses do not have to comply with the lot size requirements or the bulk regulations set forth for the zoning district in which located, the proposed application is in conformance with the R-1 District bulk standards,

Bulk Standards R-1		
Standard	Required	Provided
Min. District Size	1.0 acres	1.37 acres
Max. Bldg. Height	60 ft. (non single-family dwellings)	30 ft.
Min. Front Yard	50° angle of bulk plane, but not less than 40 ft.	69 ft.
Min. Side Yard	45° angle of bulk plane, but not less than 20 ft.	130 ft.
Min. Rear Yard	45° angle of bulk plane, but not less than 25 ft.	223 ft.
Max. FAR	0.15	0.009
Max. GFA	347,302 SF	560 SF
Min. Open Space	N/A	26% (0.36 acres)
Tree Cover	30%	30%
Parking	1 space/1.5 employees + 1 space/company vehicle = 1 space	1 space

### Waivers/Modifications

Modification of the transitional screening and waiver of the barrier requirements in favor of that shown on the SEA Plat.

Section 13-301 of the Zoning Ordinance requires transitional screening and/or barriers for light public utility uses adjacent to all residential uses. UFMD has determined that Transitional Screening 3 (an unbroken strip of open space a minimum of fifty feet wide) and Barriers D (a 42-48 inch chain link fence), E (a 6-foot high wall, brick or architectural block faced), or F (a 6-foot high solid wood or otherwise architecturally solid fence) are required along the northern boundary of the subject site.

The applicant has requested a modification of the transitional screening requirement along the northern boundary of the subject site, in favor of that shown on the SEA Plat. Par. 14 of Sect. 13-305 states that the transitional screening requirements may be waived or modified for any public use when such use has been specifically designed to minimize adverse impact on adjacent properties. A 100-foot wide Virginia Power easement crosses the northern area of the site. This easement prohibits the provision of the full transitional screening required at the northeast portion of the site. The SEA Plat depicts a 17-foot wide unbroken strip of open space (2/3 reduction) with Barrier E, along the northern boundary of the site, just south of the 100-foot wide power easement. A tree save area is also shown to be provided in the northeastern portion of the site. Based on the transitional screening and barrier shown on the SEA Plat and the planting restrictions of the 100-foot-wide power easement, staff has no objections to the modification request.

#### Waiver of the Comprehensive Plan Trails requirement.

The applicant also requests a modification of the required Major Paved Trail (8-foot wide asphalt) shown along the south side of Idylwood Road and accessing the existing service and inspection building on the Metro property. Pedestrian access is not proposed to the substation. Due to the security measures required for the site, a pedestrian connection to offsite properties is not permitted by WMATA. Therefore, staff supports the request for a waiver of the trail requirement in favor of what is shown on the SE Plat.

### **OTHER ZONING ORDINANCE REQUIREMENTS:**

#### **Special Exception Requirements (See Appendix 6)**

##### General Standards (Sect. 9-006)

Par. 1 requires that the proposed use be in harmony with the Comprehensive Plan. As described in the Land Use Analysis section, the Comprehensive Plan designates the subject property as planned for public facility use. Staff believes that the application presents no land use issues. Therefore, this Standard has been met.

Par. 2 requires that the proposed use be in harmony with the purpose and intent of the applicable zoning district regulations. The application satisfies all applicable

Zoning Ordinance provisions and electric substations and distribution centers including transformer stations are permitted in the R-1 district with the approval of a special exception. With the approval of this amendment request, this standard would be met.

Par. 3 requires that the proposed use be harmonious with and not adversely affect the use or development of neighboring properties in accordance with applicable zoning district regulations and the adopted Comprehensive Plan. It further states that the location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof. The application proposes site improvements to the existing West Falls Church Rail Yard. The proposed structures on the site are in conformance with the bulk standards for the R-1 District. The applicant requests a modification of the transitional screening and waiver of the barrier requirements for the portions of the site that abut residential properties in favor of that shown on the SEA Plat due to an 100-foot wide power easement that encumbers the northern portion of the property. The SEA Plat depicts a 17-foot wide unbroken strip of open space (2/3 reduction) with Barrier E, along the northern boundary of the site, just south of the 100-foot wide power easement. With the approval of the requested modification and waiver, this standard will be met.

Par. 4 states that the proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood. The only vehicular and pedestrian traffic associated with the site would be that of site inspection and maintenance personnel, approximately 1 to 2 times per month. As noted earlier, the applicant has requested a waiver of the trail requirement through the rail yard due to the security and safety issues such a trail would pose. Therefore, this standard has been met.

Par. 5 states that in addition to the standards which may be set forth in this Article for a particular category or use, the Board may require landscaping and screening in accordance with the provisions of Article 13. The application requests a modification of the transitional screening and waiver of the barrier requirements for the portions of the site that abut residential properties due to an 100-foot wide power easement that encumbers the northern portion of the property which prohibits the provision of the full transitional screening required at that portion of the site, in favor of that shown on the SEA Plat. Staff recommends approval of the modification and waiver requests. With the approval of the modification and waiver requests, this standard will be met.

Par. 6 states that open space should be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located. There is no open space requirement in the R-1 District, however, the applicant proposes 26% (0.36 acres) of open space with the proposed development; therefore, this standard has been met.

Par. 7 states that adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. As previously discussed, the application proposes that there will be no permanent employees on the site, and site inspection and maintenance personnel will visit the site approximately 1 to 2 times per month. As a result, the application proposes one parking space on the site. Stormwater management requirements for the site will be met via a stormwater management pond approved with SEA 85-D-033-02. Therefore, this standard has been met.

Par. 8 states that signs shall be regulated by the provisions of Article 12; however, the Board may impose more strict requirements for a given use than those set forth in this Ordinance. No new signs are proposed with this application; therefore, this standard will be met.

#### 9-104 Standards for all Category 1Uses

Par.1 states that Category 1 special exception uses shall not have to comply with the lot size requirements or the bulk regulations set forth for the zoning district in which located. The proposed application is in conformance with the bulk standards.

Par. 2 states no land or building in any district, except the I-5 and I-6 District shall be used for the storage of materials or equipment, or for the repair or servicing of vehicles or equipment, or for the parking of vehicles except those needed by employees connected with the operation of the immediate facility. There is no storage of equipment, vehicle repair or parking of vehicles not associated with the substation proposed with this application; therefore, this standard has been met.

Par. 3 states that in the case of electric transformer stations and telecommunication central offices, there shall be a finding that there is no alternative site available in a C or I district within a distance of one (1) mile, unless there is a substantial showing that it is impossible for satisfactory service to be rendered from an available location in such C or I district. The applicant states that the proposed substation is needed at the Rail Yard to provide electrical power needs for Metro's Silver Line, and for new, more reliable service to accommodate growth in the surrounding area, consistent with Plan recommendations regarding the co-location of public facilities, and the location of facilities in relation to the area to be served. The applicant's investigation of alternate sites concluded that each alternate location presented constraints on its use as a substation. Although the proposed facility will have a visual impact on some nearby residential properties, the site conforms with the Comprehensive Plan recommendation that the locating of public facilities near an area of different land use is acceptable to provide a centrally located site for a facility that is critical to the public interest. The proposed location also conforms with Plan guidelines to construct electrical services in residential areas only when other, more suitable land uses are not available.

Par. 4 states that before establishment, all uses, including modifications or alterations to existing uses, except regional non-rail transit facilities and electrically-powered regional rail transit facilities operated by WMATA, shall be subject to the provisions of Article 17, Site Plans

### **Summary of Zoning Ordinance Provisions**

All applicable standards have been satisfied with the plat and the proposed development conditions.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Staff Conclusions**

Staff finds this application for a DVP electric substation, is in harmony with the Comprehensive Plan and in conformance with the applicable Zoning Ordinance Provisions.

### **Recommendations**

Staff recommends that the Planning Commission find that the facility proposed under 2232-D10-12 does satisfy the criteria of location, character, and extent as specified in Sect. 15.2-2232 of the Code of Virginia and is substantially in accord with the provisions of the Comprehensive Plan.

Staff recommends approval of SEA 85-D-033-03, subject to the development conditions contained in Appendix 1.

Staff recommends approval of the modification of the transitional screening and waiver of the barrier requirements in favor of that shown on the SEA Plat.

Staff recommends approval of a deviation of the tree preservation target in favor of the development conditions and that shown on the SEA Plat.

Staff recommends approval of a waiver of the Comprehensive Plan trail requirement along Idylwood Road.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application.

## APPENDICES

1. Draft Development Conditions
2. Affidavit
3. Statement of Justification
4. Previously Approved Development Conditions
5. Land Use/2232 Analysis; includes:
  - Attachment 1 - Statement of Justification
  - Attachment 2 – Project Description
  - Attachment 3 - Historic Resource Analysis
  - Attachment 4 - Environmental Analysis
  - Attachment 5 – DPWES Analysis
  - Attachment 6 – Urban Forest Management Analysis
  - Attachment 7 – Park Authority Analysis
  - Attachment 8 – Fire and Rescue Analysis
  - Attachment 9 - Transportation Analysis
  - Attachment D – Communication Analysis
6. Applicable Zoning Ordinance Standards
7. Glossary

## PROPOSED DEVELOPMENT CONDITIONS

SEA 85-D-033-03

November 18, 2010

If it is the intent of the Board of Supervisors to approve SEA 85-D-033-03 located at Tax Map 40-3 ((1)) 86 pt., to permit site improvements associated with the development and operation of a Dominion Virginia Power electric substation pursuant to Sect. 3-104 of the Fairfax County Zoning Ordinance, staff recommends that the Board condition the approval by requiring conformance with the following development conditions. These conditions shall be in addition to conditions previously approved pursuant to SEA 85-D-033-02, which remain in effect.

1. This Special Exception Amendment is granted for, and runs with the land indicated in this application and is not transferable to other land.
2. This Special Exception Amendment is granted only for the purpose(s), structure(s) and/or use(s) indicated on the special exception plat approved with the application, as qualified by these development conditions.
3. Any plan submitted pursuant to the special exception amendment shall be in substantial conformance with Special Exception Amendment (SEA) Plat entitled "Dominion Virginia Power – Reddfield Substation at West Falls Church Metro Yard," prepared by Dewberry & Davis, LLC dated February 3, 2010 as revised through October 15, 2010, and these conditions. Minor modifications to the approved special exception amendment may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.
4. The application property shall not be used for the storage of materials or equipment, the repair or servicing of vehicles or equipment, or the parking of vehicles except those in use by employees working at the site.
5. A floodplain study shall be submitted to DPWES to delineate the boundary of the minor floodplain on the site, as determined by DPWES, prior to site plan approval, associated with this application.
6. The applicant shall submit documentation to the Department of Public Works and Environmental Services (DPWES) that demonstrates that all required Virginia Department of Conservation and Recreation (DCR) approvals for the stormwater management pond serving the site, have been obtained for the subject site, prior to any construction associated with this application,
7. Stormwater Management, Best Management Practices, and adequate outfall measures shall be provided in accordance with the Public Facilities Manual (PFM), as determined by DPWES.
8. All new lighting shall conform to the provisions of Part 9 of Article 14 of the Zoning Ordinance.

9. A tree preservation plan shall be submitted as part of the first and all subsequent site plan submissions as follows.
- A. Tree Preservation: A Tree Preservation Plan and Narrative shall be submitted as part of the first and all subsequent site plan submissions. The preservation plan and narrative shall be prepared by a Certified Arborist or a Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES. The tree preservation plan shall consist of a tree survey that includes the location, species, size, crown spread and condition rating percentage of all trees 10 inches in diameter and greater, and 25 feet to either side of the limits of clearing and grading shown on the SEA for the entire site. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the SEA, and those additional areas in which trees can be preserved as a result of final engineering. The condition analysis ratings shall be prepared using methods outlined in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan.
  - B. Tree Preservation Walk-Through. A certified arborist or registered consulting arborist shall be retained, and the limits of clearing and grading shall be marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's Certified Arborist or Registered Consulting Arborist shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made, if any, to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions.
  - C. Limits of Clearing and Grading. The limits of clearing and grading shall be in substantial conformance with the limits of clearing and grading shown on the SEA Plat, subject to allowances specified in these development conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the SEA, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the

limits of clearing and grading that must be disturbed for such trails or utilities.

- D. Tree Preservation Fencing: All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the "Root Pruning" development condition below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the direct supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES.

- E. Root Pruning. The roots shall be pruned, as needed to comply with the tree preservation requirements of these development conditions. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the submitted plan. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:
- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.
  - Root pruning shall take place prior to any clearing and grading, or demolition of structures.
  - Root pruning shall be conducted with the supervision of a certified arborist.
  - An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.

- F. Site Monitoring. During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as per specific development conditions and as approved by the UFMD. The Applicant shall retain the services of a Certified Arborist or Registered Consulting Arborist to monitor all construction and demolition work adjacent to any vegetation to be preserved and tree preservation efforts in order to ensure conformance with all tree preservation development conditions, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the Non-Residential Use Permit through established procedures, and this Special Exception Amendment shall not be valid until this has been accomplished.

The approval of this special exception does not interfere with, abrogate or annul any easement, covenants, or other agreements between parties, as they may apply to the property subject to this application.

Pursuant to Section 9-015 of the Zoning Ordinance, this Special Exception Amendment shall automatically expire, without notice, thirty (30) months after the date of approval unless, at a minimum, the use has been established or construction of the service and inspection annex building has commenced and been diligently prosecuted. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the Special Exception Amendment. The request must specify the amount of additional time requested, the basis for the amount of time requested, and an explanation of why additional time is required.

SPECIAL EXCEPTION AFFIDAVIT

DATE: OCT 25 2010  
(enter date affidavit is notarized)

I, Sheri L. Akin, do hereby state that I am an  
(enter name of applicant or authorized agent)

(check one)       applicant  
                          applicant's authorized agent listed in Par. 1(a) below      108796a

in Application No.(s): SEA 85-D-033-03  
(enter County-assigned application number(s), e.g. SE 88-V-001)

and that, to the best of my knowledge and belief, the following information is true:

1(a). The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS, and LESSEES** of the land described in the application,\* and, if any of the foregoing is a **TRUSTEE,\*\*** each **BENEFICIARY** of such trust, and all **ATTORNEYS** and **REAL ESTATE BROKERS**, and all **AGENTS** who have acted on behalf of any of the foregoing with respect to the application:

(NOTE: All relationships to the application listed above in **BOLD** print are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in <b>BOLD</b> above)
Virginia Electric and Power Company d/b/a Dominion Virginia Power Agent: David L. Emigh Carolyn J. Moss Jerry (nmi) Espigh Jean I. Payne Daniel J. Doody	2400 Grayland Avenue Richmond, VA 23220	Applicant/Contract Purchaser of Tax Map No. 40-3 ((1)) 86
Washington Metropolitan Area Transit Authority (WMATA) Agent: Anabela (nmi) Talaia	600 - 5th Street, NW Washington, DC 20001	Title Owner of Tax Map No. 40-3 ((1)) 86
Dewberry & Davis LLC Agent: Kenneth W. Wagner Kyle E. LaClair Keith A. Scholten	4180 Innslake Drive Richmond, VA 23060	Engineers/Agent

(check if applicable)       There are more relationships to be listed and Par. 1(a) is continued on a "Special Exception Attachment to Par. 1(a)" form.

\* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.  
\*\* List as follows: Name of trustee, Trustee for (name of trust, if applicable), for the benefit of: (state name of each beneficiary).

Special Exception Attachment to Par. 1(a)

DATE: OCT 25 2010  
(enter date affidavit is notarized)

108796a

for Application No. (s): SEA 85-D-033-03  
(enter County-assigned application number (s))

**(NOTE):** All relationships to the application are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel (s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in <b>BOLD</b> above)
McGuireWoods LLP Agent: Scott E. Adams Carson Lee Fifer, Jr. David R. Gill Jonathan P. Rak Gregory A. Riegle Mark M. Viani Kenneth W. Wire Sheri L. Akin Lisa M. Chiblow Lori R. Greenlief	1750 Tysons Boulevard, Suite 1800 McLean, VA 22102	Attorney/Agent Attorney/Agent Attorney/Agent Attorney/Agent Attorney/Agent Attorney/Agent Attorney/Agent Planner/Agent Planner/Agent Planner/Agent

4 (check if applicable)

There are more relationships to be listed and Par. 1(a) is continued further on a "Special Exception Attachment to Par. 1(a)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: OCT 25 2010  
(enter date affidavit is notarized)

108796a

for Application No. (s): SEA 85-D-033-03  
(enter County-assigned application number(s))

1(b). The following constitutes a listing\*\*\* of the SHAREHOLDERS of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders:

(NOTE: Include SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES, and REAL ESTATE INVESTMENT TRUSTS herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name and number, street, city, state, and zip code)

Virginia Electric and Power Company  
d/b/a Dominion Virginia Power  
2400 Grayland Avenue  
Richmond, VA 23220

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial and last name)

(check if applicable)  There is more corporation information and Par. 1(b) is continued on a "Special Exception Affidavit Attachment 1(b)" form.

\*\*\* All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. *In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.* Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Special Exception Attachment to Par. 1(b)

DATE: OCT 25 2010  
(enter date affidavit is notarized)

108796a

for Application No. (s): SEA 85-D-033-03  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)  
Washington Metropolitan Area Transit Authority (WMATA)  
600 - 5th Street, NW  
Washington, DC 20001

**DESCRIPTION OF CORPORATION:** (check one statement)  
 There are 10 or less shareholders, and all of the shareholders are listed below.  
 There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.  
 There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)  
Washington Metropolitan Area Transit Authority (WMATA) is a governmental entity, not a corporation

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)  
Dewberry & Davis LLC  
4180 Innslake Drive  
Richmond, VA 23260

**DESCRIPTION OF CORPORATION:** (check one statement)  
 There are 10 or less shareholders, and all of the shareholders are listed below.  
 There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.  
 There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)  
The Dewberry Companies LC  
James L. Beight  
Dennis M. Couture

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

Special Exception Attachment to Par. 1(b)

DATE: OCT 25 2010  
(enter date affidavit is notarized)

108796a

for Application No. (s): SEA 85-D-033-03  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

The Dewberry Companies LC  
8401 Arlington Boulevard  
Fairfax, VA 22031

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

Sidney O. Dewberry	The Michael S. Dewberry Credit Shelter
Barry K. Dewberry	Trust u/a/d 11/23/05 (f/b/o Michael S.
Karen S. Grand Pre	Dewberry II and 3 minor children of
Thomas L. Dewberry	Michael S. Dewberry)

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: OCT 25 2010  
(enter date affidavit is notarized)

108796 a

for Application No. (s): SEA 85-D-033-03  
(enter County-assigned application number(s))

1(c). The following constitutes a listing\*\*\* of all of the PARTNERS, both GENERAL and LIMITED, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, and number, street, city, state, and zip code)  
McGuireWoods LLP  
1750 Tysons Boulevard, Suite 1800  
McLean, VA 22102

(check if applicable)  The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. General Partner, Limited Partner, or General and Limited Partner)

Equity Partners of McGuireWoods LLP

- |                         |                       |                       |
|-------------------------|-----------------------|-----------------------|
| Alphonso, Gordon R.     | Beil, Marshall H.     | Buchan, Jonathan E.   |
| Anderson, Arthur E., II | Belcher, Dennis I.    | Busch, Stephen D.     |
| Anderson, Mark E.       | Bell, Craig D.        | Cabaniss, Thomas E.   |
| Andre-Dumont, Hubert    | Beresford, Richard A. | Cacheris, Kimberly Q. |
| Bagley, Terrence M.     | Bilik, R. E.          | Cairns, Scott S.      |
| Barger, Brian D.        | Blank, Jonathan T.    | Capwell, Jeffrey R.   |
| Barnum, John W.         | Boland, J. W.         | Cason, Alan C.        |
| Barr, John S.           | Brenner, Irving M.    | Chaffin, Rebecca S.   |
| Becker, Scott L.        | Brooks, Edwin E.      | Cobb, John H.         |
| Becket, Thomas L.       | Brown, Thomas C., Jr. | Cogbill, John V., III |

(check if applicable)  There is more partnership information and Par. 1(c) is continued on a "Special Exception Affidavit Attachment to Par. 1(c)" form.

\*\*\* All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. *In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed. Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.*

Special Exception Attachment to Par. 1(c)

DATE: OCT 25 2010  
(enter date affidavit is notarized)

108796a

for Application No. (s): SEA 85-D-033-03  
(enter County-assigned application number (s))

**PARTNERSHIP NAME & ADDRESS:** (enter complete name & number, street, city, state & zip code)

McGuireWoods LLP  
1750 Tysons Boulevard, Suite 1800  
McLean, VA 22102

(check if applicable)  The above-listed partnership has no limited partners.

**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g., General Partner, Limited Partner, or General and Limited Partner)

- |                               |                           |                            |
|-------------------------------|---------------------------|----------------------------|
| Covington, Peter J.           | Goldstein, Philip (nmi)   | Krueger, Kurt J.           |
| Cramer, Robert W.             | Grant, Richard S.         | Kutrow, Bradley R.         |
| Cromwell, Richard J.          | Greenberg, Richard T.     | La Fratta, Mark J.         |
| Culbertson, Craig R.          | Grieb, John T.            | Lias-Booker, Ava E.        |
| Cullen, Richard (nmi)         | Harmon, Jonathan P.       | Lieberman, Richard E.      |
| de Cannart d'Hamale, Emmanuel | Harmon, T. C.             | Little, Nancy R.           |
| De Ridder, Patrick A.         | Hartsell, David L.        | Long, William M.           |
| Dickerman, Dorothea W.        | Hayden, Patrick L.        | Manning, Amy B.            |
| DiMattia, Michael J.          | Hayes, Dion W.            | Marianes, William B.       |
| Dooley, Kathleen H.           | Heberton, George H.       | Marks, Robert G.           |
| Dorman, Keith A.              | Horne, Patrick T.         | Marshall, Gary S.          |
| Downing, Scott P.             | Hosmer, Patricia F.       | Marshall, Harrison L., Jr. |
| Edwards, Elizabeth F.         | Hutson, Benne C.          | Marsico, Leonard J.        |
| Ensing, Donald A.             | Isaf, Fred T.             | Martin, Cecil E., III      |
| Ey, Douglas W., Jr.           | Jackson, J. B.            | Martin, George K.          |
| Feller, Howard (nmi)          | Jarashow, Richard L.      | Martinez, Peter W.         |
| Fennebresque, John C.         | Johnston, Barbara C.      | Mason, Richard J.          |
| Foley, Douglas M.             | Kanazawa, Sidney K.       | Mathews, Eugene E., III    |
| Fox, Charles D., IV           | Kannensohn, Kimberly J.   | Mayberry, William C.       |
| France, Bonnie M.             | Katsantonis, Joanne (nmi) | McCallum, Steven C.        |
| Freedlander, Mark E.          | Keenan, Mark L.           | McDonald, John G.          |
| Freeman, Jeremy D.            | Kennedy, Wade M.          | McElligott, James P.       |
| Fuhr, Joy C.                  | Kilpatrick, Gregory R.    | McFarland, Robert W.       |
| Gibson, Donald J., Jr.        | King, Donald E.           | McIntyre, Charles W.       |
| Glassman, Margaret M.         | King, Sally D.            | McLean, J. D.              |
| Glickson, Scott L.            | Kittrell, Steven D.       | McRill, Emery B.           |
| Gold, Stephen (nmi)           | Kratz, Timothy H.         | Muckenfuss, Robert A.      |

(check if applicable)  There is more partnership information and Par. 1(c) is continued further on a "Special Exception Attachment to Par. 1(c)" form.

Special Exception Attachment to Par. 1(c)

DATE: OCT 25 2010  
(enter date affidavit is notarized)

108796a

for Application No. (s): SEA 85-D-033-03  
(enter County-assigned application number (s))

**PARTNERSHIP NAME & ADDRESS:** (enter complete name & number, street, city, state & zip code)

McGuireWoods LLP  
1750 Tysons Boulevard, Suite 1800  
McLean, VA 22102

(check if applicable)  The above-listed partnership has no limited partners.

**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g., General Partner, Limited Partner, or General and Limited Partner)

Muir, Arthur B.  
Murphy, Sean F.  
Neale, James F.  
Nesbit, Christopher S.  
O'Grady, Clive R.  
O'Grady, John B.  
O'Hare, James P.  
Oakey, David N.  
Oostdyk, Scott C.  
Padgett, John D.  
Pankey, David H.  
Parker, Brian K.  
Phears, H. W.  
Plotkin, Robert S.  
Potts, William F., Jr.  
Pryor, Robert H.  
Pusateri, David P.  
Rak, Jonathan P.  
Rakison, Robert B.  
Reid, Joseph K., III  
Richardson, David L.  
Riegler, Gregory A.  
Riley, James B., Jr.  
Riopelle, Brian C.

Roberts, Manley W.  
Robinson, Stephen W.  
Rogers, Marvin L.  
Rohman, Thomas P.  
Rosen, Gregg M.  
Rust, Dana L.  
Satterwhite, Rodney A.  
Scheurer, P. C.  
Schewel, Michael J.  
Schill, Gilbert E., Jr.  
Schmidt, Gordon W.  
Sellers, Jane W.  
Shelley, Patrick M.  
Simmons, L. D., II  
Simmons, Robert W.  
Skinner, Halcyon E.  
Slone, Daniel K.  
Spahn, Thomas E.  
Spitz, Joel H.  
Stallings, Thomas J.  
Steen, Bruce M.  
Stein, Marta A.  
Stone, Jacquelyn E.  
Swan, David I.

Tackley, Michael O.  
Tarry, Samuel L., Jr.  
Thornhill, James A.  
Van der Mersch, Xavier G.  
Vaughn, Scott P.  
Vick, Howard C., Jr.  
Viola, Richard W.  
Wade, H. L., Jr.  
Walker, John T., IV  
Walsh, James H.  
Watts, Stephen H., II  
Werlin, Leslie M.  
Westwood, Scott E.  
Whelpley, David B., Jr.  
White, H. R., III  
White, Walter H., Jr.  
Wilburn, John D.  
Williams, Steven R.  
Wilson, Ernest G.  
Wilson, James M.  
Wren, Elizabeth G.  
Young, Kevin J.  
Younger, W. C.

(check if applicable)  There is more partnership information and Par. 1(c) is continued further on a "Special Exception Attachment to Par. 1(c)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: OCT 25 2010  
(enter date affidavit is notarized)

108796a

for Application No. (s): SEA 85-D-033-03  
(enter County-assigned application number(s))

1(d). One of the following boxes must be checked:

In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\*** of the land:

Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\*** of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on the line below.)

NONE

(check if applicable)  There are more interests to be listed and Par. 2 is continued on a "Special Exception Attachment to Par. 2" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: OCT 25 2010  
(enter date affidavit is notarized)

108796a

3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than \$100, singularly or in the aggregate, with any of those listed in Par. 1 above.

**EXCEPT AS FOLLOWS:** (NOTE: If answer is none, enter "NONE" on line below.)

Supervisor Catherine Hudgins is a Principal Director for the Washington Metropolitan Area Transit Authority (WMATA).  
Supervisor Jeffrey McKay is an Alternate Director for the Washington Metropolitan Area Transit Authority (WMATA).  
Carson Lee Fifer, Jr. of McGuireWoods LLP donated in excess of \$100 to Sharon Bulova.  
Jonathan P. Rak of McGuireWoods LLP donated in excess of \$100 to Sharon Bulova.  
Gregory A. Riegle of McGuireWoods LLP donated in excess of \$100 to Sharon Bulova.

**NOTE:** Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) [ ] There are more disclosures to be listed and Par. 3 is continued on a "Special Exception Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature:

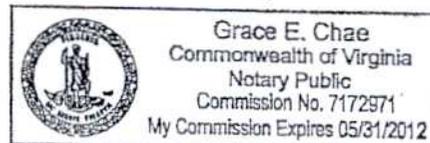
(check one) Sheri L. Akin  
[ ] Applicant [x] Applicant's Authorized Agent

Sheri L. Akin, Land Use Planner  
(type or print first name, middle initial, last name, and & title of signee)

Subscribed and sworn to before me this 25<sup>th</sup> day of October 2010, in the State/Comm. of Virginia, County/City of Fairfax.

Grace E. Chae  
Notary Public

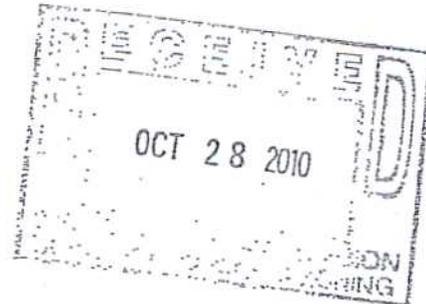
My commission expires: 5/31/2012



DOMINION VIRGINIA POWER  
REDDFIELD UTILITY SUBSTATION

STATEMENT OF JUSTIFICATION

March 22, 2010  
*Revised August 19, 2010*  
*Revised October 27, 2010*



**I. INTRODUCTION**

Pursuant to Section 9-101 of the Fairfax County Zoning Ordinance dated August 14, 1978, as amended (the "Ordinance"), and 15.2-2232 of the Code of Virginia, the Virginia Electric and Power Company, d/b/a Dominion Virginia Power (the "Applicant" or "Dominion"), as the contract purchaser of the subject property, hereby requests Special Exception and 15.2-2232 approval to permit the development and operation of an electric substation on property known as the West Falls Church Rail Yard. The property is identified as a portion of Tax Map Reference Number 40-3-((1))-86 which is located and developed with an existing storage and service yard owned and operated by the Washington Metropolitan Area Transit Authority (WMATA) (the "Property"). The Property is located in the Dranesville District and is zoned R-1, Residential District, One Dwelling Unit/Acre.

**II. BACKGROUND:**

This substation facility is needed to provide power to the rapid rail transit system known as the Metro Silver Line currently under construction in Tysons Corner and projected through to the Dulles Airport. From its proposed location within the WMATA rail yard, the substation will provide power for the Tysons Central 123, Tysons Central 7, and Tysons East Metro Stations, as well as provide power for rail service along the Silver Line.

In addition, due to the area's growth of electric demand - per house usage growth, commercial and office demand, and the overall area's new construction growth - the proposed utility substation is necessary to continue to provide reliable electrical service for Fairfax County. The area has seen a dramatic increase in annual electrical demand in recent years, and significant increases are expected for future years. The proposed Reddfield substation will provide electrical service for the Magarity Road, Route 123, Great Falls Street, Kirby Road, Idylwood, Pimmit Hills, and Western McLean areas. Further, with the addition of this substation, Reddfield will help support and relieve the load demand and provide emergency support for approximately four other existing Dominion substations in the area.

If Reddfield is not constructed, power for the Silver Line will be delayed. In addition, reliable electrical service for this portion of Fairfax County will be diminished. In the future, without a new substation in this area, Dominion will be unable to provide adequate back-up electrical feeds to areas where outages occur, resulting in more frequent and longer outages to customers.

The proposed Reddfield Utility Substation's function will be to convert electric power from a 230kV existing transmission line to a 34.5 kV that is usable by Metro, individual homes, businesses, and institutions. The source of power to this substation will be supplied by the existing transmission line immediately adjacent to proposed substation. The Reddfield Utility Substation is merely the connection between the power source and the actual users. Its function is focused on the future Metro Silver Line expansion and the homes and businesses in the immediate area.

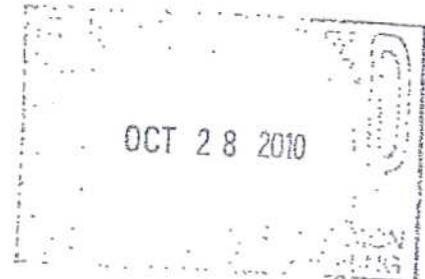
### III. DESCRIPTION OF PROPOSAL

The subject property will be developed with an electrical distribution substation consisting of two (2) 84 megavolt ampere (MVA) distribution transformers and related distribution circuits. Each transformer provides for three electric circuits. The Applicant proposes to construct the first transformer in the immediate future which will provide power for the Silver Line and area load demand. One circuit on the first transformer will supply power for the Silver Line, and the two remaining circuits will be for area load demand. The second transformer will be constructed in the future as electrical demand dictates the need. The layout, subject to final engineering, is shown generally on the Special Exception plat.

#### SECTION 9-011 OF THE FAIRFAX COUNTY ZONING ORDINANCE:

The following information is provided pursuant to Section 9-011 of the Fairfax County Zoning Ordinance:

- A. Type of operation: Electric Substation
- B. Hours of operation: 24 hours/day
- C. Estimated number of patrons: None
- D. Proposed number of employees: No permanent employees are proposed. The facility will be visited approximately 1 to 2 times per month by Dominion personnel for site inspection purposes, and for any needed repairs or alterations.
- E. Estimate of traffic impact: Given the minimal occurrence of site visits, traffic is not an issue.
- F. Vicinity or general area to be served by the use: The use will serve a specific service area within approximately 3 to 4 miles.
- G. Architectural compatibility: There are no buildings associated with the substation, except an unmanned control enclosure. The proposed substation equipment will be surrounded by fencing and a screening wall. The substation itself is compatible with the existing West Falls Church Rail Yard.
- H. Hazardous and toxic substances: There are no current or proposed hazardous or toxic substances proposed with the project, and the site will fully comply with all County, state, and federal environmental regulations.



- I. Statement of conformance: To the best of the Applicant's knowledge, the proposed use conforms to the provisions of all applicable ordinances, regulations, adopted standards, and any applicable conditions.

OCT 28 2010

SECTION 9-006 OF THE FAIRFAX COUNTY ZONING ORDINANCE:

1. The proposed use at the specified location shall be in harmony with the adopted comprehensive plan.

**RESPONSE:** The proposed use at this location is in harmony with the adopted Comprehensive Plan. The Plan map shows the property as planned for public facilities, government and institutional use. Language within both the West Falls Church Transit Station Area section and the M2 Pimmit Community Planning Sector of the McLean Planning District within Area II acknowledges the location of the metro rail storage and maintenance yard. The proposed substation is consistent with and will be an integral part of the functions of the existing rail yard facility by providing power for the new Metro Silver Line. Further, in addition to the operating rail yard, an existing Dominion Power transmission line currently runs through the WMATA property, adjacent to the proposed substation site, allowing the Applicant immediate access to its power source. Consequently, this site will be fully consistent with Objective 4, Policy b, of the Policy Plan in that co-location objectives are being met. Further, the utility substation will be consistent with the industrial, public facility, and institutional nature of this site.

In addition to providing power for the Silver Line, the new substation will support and provide general electric service to the surrounding area. Substations are rarely recommended in the Comprehensive Plan for sites-specific properties. As such, a Section 15.2-2232 review is being requested by the Applicant to determine the appropriateness of its location, character, and extent. The objectives of the Policy Plan are met as follows:

The proposed use meets the objectives for Public Facilities outlined in the Comprehensive Plan. Objective-1 states that new facilities shall provide convenient service to the greatest number of people or service consumers and users. A substation at this location will serve not only a specific user – in this case, the new Metro Silver Line – but it will also provide electric service to an area of need and will reduce electric load on existing substations. For instance, Policy b of Objective 1 recommends that new facilities reduce service area overlap between like facilities unless overlap is necessary to correct service deficiencies. In this case, overlap is necessary in order to both enhance service and correct service deficiencies. The addition of the Reddfield substation will serve three important functions in this regard. First, it will provide significant load relief for the existing Idylwood, Great Falls, Swinks Mill, and Falls Church substations. Second, it will address potential service deficiencies by providing emergency support when adjacent service areas experience outages or need backup. Third, it will create a new, more reliable service area for Magarity Road, Route 123, Great Falls Street, Kirby Road, Idylwood, Pimmit Hills, and Western McLean. As such, a new substation at this strategic location will provide valuable infrastructure to not only the Silver Line, but also the community as a whole.

Objective 4 states that new facilities should mitigate impact on adjacent planned and existing land uses. The co-location element of this proposal is critical in meeting this objective. As stated above, the site is currently operated as a rail yard, with an existing Dominion Power transmission line

running through it. The Applicant will have immediate access to its transmission line, as well as a direct connection to the Metro Silver Line. As further outlined in the Applicant's Alternate Substation Sites Evaluation, there are no other properties in the area that have the benefits of this site. The surrounding area is primarily developed with residential neighborhoods, and any other location would place a new substation in close proximity to residential homes. Because of this property's size, it allows a substation to be constructed at the greatest distance from residential homes as possible. Further, any alternate location would create a great disturbance to roadways and residential properties in order to connect to either the Silver Line or existing transmission line. An added benefit to this site is that a large tree save area will be retained, thus shielding the views of several residential neighbors. Although, views of the substation cannot be completely blocked for the remaining neighbors, a retaining wall, screening fence, and on-site landscaping, plus off-site landscaping, will be added to buffer views of the substation.

Objectives 5, 40 and 41 state that sites should be acquired that are appropriate for a facility's specific purposes, meet service area requirements with a minimum of facilities, and be designed to minimize impacts on adjacent properties as unobtrusively as possible. The proposed site meets several of these criteria. First, access will be solely from the Dulles Connector Road. As such, no residential streets will be used for access, thus reducing impact. Second, because of the co-location aspect of the site, the proposed substation will be constructed to meet both short-term and long-term needs for the provision of electrical power to the Silver Line and overall community. An added benefit of this site is that the WMATA rail yard is in the process of expanding and installing a new stormwater management facility which the substation will be able to utilize. Because of this, the Applicant will not need to acquire additional square footage for the provision of its own stormwater management system. Thus, it will be able to construct a substation facility at a minimal size, yet provide the needed level of service. In addition, public water and sewer is not needed for the operation of the substation; however, both are available at the rail yard facility. Further, the site has mature vegetation that will provide a significant natural buffer for a portion of the facility. Because this site is located on WMATA property, the Applicant will be able to provide off-site landscaping at both the outer edges of the WMATA property, as well as on individual residential properties (if so agreed). Substations do not interfere with public radio, television, or telecommunications receivers and will have no impact in this regard. Lastly, the proposed substation will not augment Electromagnetic Fields ("EMF") in this area. Please refer to the EMF Information Packet submitted separately with this application.

2. The proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations.

RESPONSE: The proposed use is in harmony with the general purpose and intent of the applicable zoning district regulations as discussed above. An electric substation is a permitted use within the R-1 District with special exception approval.

3. The proposed use shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof.

RESPONSE: The site is surrounded by the existing metro rail storage and maintenance yard and the Dulles Access Road. To the north and northwest, the site is bordered by the existing Dominion Power transmission line and 100 foot wide easement. Beyond that is a residential neighborhood known as Southhampton. The proposed substation will minimally affect neighboring properties and will not hinder or discourage the appropriate development and use of adjacent land and/or buildings or impair the value thereof. On the portions of the property facing the residential neighbors, the substation will be screened by a 0-14 foot retaining wall, 8-foot screening fence, and landscaped buffer. Further, a 7,300 square foot tree save area is reserved. Prior to submitting this application, neighbors inquired about the impact of electromagnetic fields (EMF) originating from the substation. Although EMF, at various frequencies, is naturally present in the environment, EMF is also created whenever an electrical appliance is used. EMF is emitted from transmission lines, distribution lines, and substations. The level of EMF that is emitted from these sources will dissipate or "fall off" very quickly. In order to educate neighbors on EMF, Dominion invited neighbors and community representatives to the Swinks Mill substation located in Great Falls, Virginia. Swinks Mill is an existing substation that is comparable in size to the proposed Reddfield substation. In addition, it is located within a residential neighborhood. The purpose of the site visit was to demonstrate that EMF emitted from the proposed substation would dissipate to well below acceptable standards at the substation's property lines. EMF readings conducted at this visit showed that although discernable levels of EMF were recorded immediately adjacent to equipment, the readings quickly fell off at the fence surrounding the equipment, and then continued to drop significantly to very low levels at the property lines. As a result of this demonstration, it is the Applicant's understanding any neighbor concerns regarding EMF impacts have been assuaged.

4. The proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.

RESPONSE: There is no pedestrian traffic associated with this use. Vehicular traffic will be minimal. The site is expected to be visited by Dominion employees one to two times per month. The only access to these facilities will be from the Dulles Access Road.

5. In addition to the standards which may be set forth in this Article for a particular category or use, the Board shall require landscaping and screening in accordance with the provisions of Article 13.

RESPONSE: The Applicant proposes landscaping, buffering and screening in accordance with Article 13.

6. Open space shall be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.

RESPONSE: In accordance with the Zoning Ordinance regulations, zero percent (0%) is required, but twenty-six percent (26%) of open space is provided on the site.

7. Adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking and loading requirements shall be in accordance with the provisions of Article 11.

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RESPONSE: The proposed substation will be unmanned, but there will be an area in the substation available for the occasional Dominion vehicle or vehicles visiting the site. In addition, adequate outfall and stormwater management will be provided by the Metro Yard Project Expansion and are part of the previous Fairfax County Special Exception Application SEA 85-D-033-02 and is referenced in this Special Exception plan package in Sheets 5 through 9.

8. Signs shall be regulated by the provisions of Article 12; however, the Board may impose more strict requirements for a given use than those set forth in this Ordinance.

RESPONSE: Minimal signage is proposed. There will be standard signage indicating no access and warning of high electric power. In addition, a sign with Dominion Power contact information will be posted.

SECTION 9-104 OF THE FAIRFAX COUNTY ZONING ORDINANCE:

Section 9-104(3) states that if the proposed location of a Category 1 use is an R district, there shall be a finding that there is no alternative site available for such use in a C or I district within 500 feet of the proposed location; except that in the case of electric transformer stations and telecommunications central offices, there shall be a finding that there is no alternative site available in a C or I district within a distance of one (1) mile, unless there is a substantial showing that it is impossible for satisfactory service to be rendered from an available location in such C or I district.

RESPONSE: Dominion's primary need is to place its substations as close to its existing transmission lines as possible. If a substation is placed on property not adjacent to an existing power line, construction of a new, high-voltage transmission line would be necessary to supply the power source to the substation. A new, connecting transmission line would necessitate condemnation or purchase of a larger land area and would disturb larger tracks of land, homes, businesses, and roadways, as well as require State Corporation Commission review and approval.

Despite the foregoing, in response to Section 9-104, the Applicant has reviewed available commercial or industrial properties within one (1) mile of the proposed site. Attached to this Statement of Justification is a list of approximately 80 parcels located within one (1) mile of the proposed site that are zoned either commercial or industrial. For a typical substation of this size, Dominion needs a certain amount of area (approximately 2 acres) in order to construct the substation and install the required screening and storm water management. As noted on the attached list, most of the parcels within one (1) mile are developed and are too small to meet Dominion's size requirements. The attached list provides a brief description of why each parcel is not suitable for Dominion's purposes.

In addition, Dominion reviewed several residentially zoned sites before deciding upon the current location. The attached list provides a brief summary of why each residential parcel was not chosen.

SECTION 15.2-2232 OF THE CODE OF VIRGINIA:

The development and operation of an electric substation on the West Falls Church Rail Yard property is appropriate in terms of location, character, and extent.

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First, the location is appropriate in that the subject property is planned for public facilities, government and institutional use. The text within both the West Falls Church Transit Station Area section and the M2 Pimmit Community Planning Sector of the McLean Planning District within Area II acknowledges the location of the metro rail storage and maintenance yard. Further, an existing Dominion Power transmission line exists on the overall WMATA property, adjacent to the proposed substation site. The proposed substation is a public use and will not affect the current use's conformance with Plan language and the Plan designation. Additionally, the location of a substation on the subject property meets several Policy Plan objectives as noted in the §9-006 Section of this Statement. It meets co-location objectives for public facilities; it will be in a strategic location within the overall utility system that provides an adequate level of service to a the current and future need; and it will provide service with minimum impact on adjacent properties. Further, its location will be at the greatest distance from residential neighbors of all possible sites, will allow for preservation of a large tree save area, and will allow for additional on and off-site landscaping in effective locations.

Second, the character of the substation is consistent with the existing metro rail yard and public utility uses. In fact, the proposed substation will directly serve WMATA by providing power for the future Metro Silver Line. Further, the substation site is currently adjacent to the existing Dominion power transmission line. As such, the addition of a substation is in keeping with the current character of the site.

Third, the proposed size of the substation is the minimal necessary to serve the Metro Silver Line and to meet the demand for power of the residences, businesses, and institutions in the service area. An added benefit of this site is that the WMATA rail yard is in the process of expanding its facility and is installing a new stormwater management facility and an access road to it, both of which the substation will be able to utilize. Because of this, the Applicant will not need to acquire additional square footage for the provision of its own access and stormwater management facility. Thus, it will be able to construct a substation facility to the smallest size necessary, yet provide the adequate level of service. No other alternate site in the surrounding area would have this benefit. Further, to the south and west, the area of the proposed substation is surrounded by the existing metro rail storage and maintenance yard. The Dulles Access Road borders the site to the east, and to the north, the site is bordered by the existing Dominion Power transmission line and easement. Beyond the transmission line easement is the only residential neighborhood. A retaining wall, landscaping and barrier will be provided to screen the substation. Further, because of the substation's location, additional landscaped screening potential exists at the outer edge of the WMATA property, as well as off-site on the residential properties. For these reasons, the extent of the proposal is the minimal required in order to serve its purpose, and afford the best opportunity for reducing impacts on the community.

The Applicant initially reviewed various alternate sites in determining a feasible location for a substation, as well as reviewed numerous alternate sites at the request of the community and County Staff. Please reference the Alternate Substation Site Evaluation submitted with this application. Based upon these findings, there is no other location that will meet the needs for providing this necessary County infrastructure, while at the same time having the minimal impact on adjacent properties.

#### IV. MODIFICATION REQUEST

Pursuant to Section 13-305, the Applicant requests a modification of the transitional

OCT 28 2010

2232-D10-11

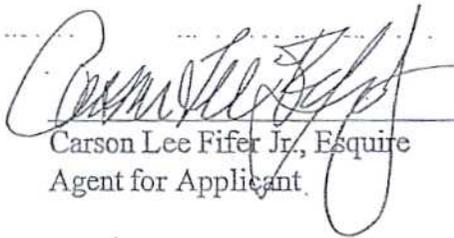
screening requirement on the northern portion of the special exception area facing the residential neighbors. A portion of the vegetation within the transitional screening area must be restricted in height due to its location beneath Dominion's electrical conductor mainline and tap line. For protection and maintenance of the power lines, Dominion's vegetation management requirements allow for a maximum plant height of 10 feet underneath a mainline and 15 feet underneath a tap line. Section 13-305(3) states that the transitional screening may be modified when the building, a barrier and/or the land between that building and the property has been specifically designed to minimize adverse impact through a combination of architectural and landscaping techniques. In order to minimize views of the substation, the Applicant is constructing a retaining wall and screening fence to shield views of the substation. In addition, the Applicant intends to provide off-site landscaping on individual residential properties (in coordination with each landowner) to shield views of the substation. Further, in connection with the prior WMATA Rail Yard application, a variable width landscape buffer is being provided by WMATA along the actual property lines between the subject property and the residential properties. This landscape buffer will provide additional buffer for the substation.

V. CONCLUSION

The above-described application proposes a necessary public utility facility that will provide needed electrical service in Fairfax County and meets the standards for approval. With approval of the requested Special Exception and Section 15.2-2232 application, the proposal will conform to the provisions of 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, the Applicant respectfully requests the approval of these applications.

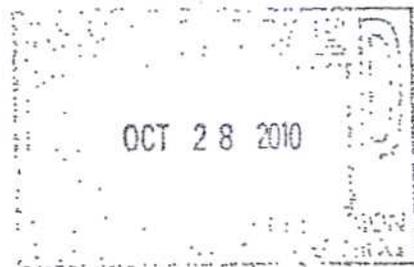
Respectfully submitted,

McGUIREWOODS LLP



Carson Lee Fifer Jr., Esquire  
Agent for Applicant

V1026136112





# County of Fairfax, Virginia

*To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County*

February 24, 2010

Mr. Jonathan P. Rak  
 McGuire Woods LLP  
 1750 Tysons Boulevard, Suite 1800  
 McLean, VA 22102

Re: Special Exception Amendment Application SEA 85-D-033-02

Dear Mr. Rak:

At a regular meeting of the Board of Supervisors held on February 23, 2010, the Board approved Special Exception Amendment Application SEA 85-D-033-02 in the name of Metropolitan Washington Airports Authority in coordination with the Virginia Department of Rail and Public Transportation on behalf of Washington Metropolitan Area Transit Authority (WMATA). The subject property is located at 7305 M Idylwood Road on approximately 39.16 acres of land zoned R-1, R-2, and HC in the Dranesville District [Tax Map 40-1 ((1)) 25B; 40-3 ((1)) 85, 86, 91A, and 93B]. The Board's action amends Special Exception Application SE 85-D-033, previously approved for a WMATA facilities to permit electrically powered regional rail transit facility (rail yard and accessory uses) and associated modifications to site design and development conditions pursuant to Sections 3-104 and 3-204 of the Fairfax County Zoning Ordinance, by requiring conformance with the following development conditions which supersede all previous development conditions; conditions carried forward unchanged from previous approvals are marked with an asterisk (\*):

1. This Special Exception Amendment is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This Special Exception Amendment is granted only for the purpose(s), structure(s) and/or use(s) indicated on the special exception plat approved with the application, as qualified by these development conditions.
3. Any plan submitted pursuant to the special exception amendment shall be in substantial conformance with Special Exception Amendment (SEA) Plat entitled "West Falls Church Yard, Dulles Corridor Metrorail Project", prepared by Dewberry & Davis, LLC with sheets 1 through 10 dated July 15, 2008 as revised through April 2, 2009 and sheet 11 dated September 30, 2009, and these conditions. Minor modifications to the approved special exception amendment may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.

Office of the Clerk to the Board of Supervisors  
 12000 Government Center Parkway, Suite 533  
 Fairfax, Virginia 22035

Phone: 703-324-3151 ♦ Fax: 703-324-3926 ♦ TTY: 703-324-3903

Email: [clerktothebos@fairfaxcounty.gov](mailto:clerktothebos@fairfaxcounty.gov)

<http://www.fairfaxcounty.gov/bosclerk>

4. Landscaping of the parking lot and around the building that is being built shall be provided and maintained as submitted with SE 85-D-033.\*
5. Landscaping to soften the visual impact of the acoustical barrier shall be provided and maintained. The applicant shall coordinate with the Urban Forest Management Division (UFMD) to provide a landscape plan and to replace any vegetation shown on the landscape plan that dies.\*
6. The ingress/egress access point to the subject property at the west end of McKay Street shall be closed to traffic except for emergency and maintenance access. Landscaping shall be provided and maintained in this location.
7. The installation of a track cover box as shown on the SEA Plat and as required by the Federal Transit Administration Record of Decision, as amended, shall be completed prior to the issuance of a new Non-Residential Use Permit for the West Falls Church rail yard. A noise study shall be submitted to the Zoning Administrator prior to the issuance of the new Non-RUP-for the West Falls Church rail yard to demonstrate that wheel squeal from the rail yard at the property lines of abutting residential uses does not exceed a noise level of 55 dBA Lmax.
8. The maximum stationary noise level generated by the rail yard at the property lines of abutting residential property shall be in accordance with the Noise Ordinance, except as may be permitted in accordance with Article 6 of the Noise Ordinance. A noise study for the rail yard shall be performed by MWAA and submitted by the applicant to the Zoning Administrator prior to the issuance of the new Non-RUP to demonstrate compliance with the Noise Ordinance, and also when deemed necessary by the Zoning Administrator as evidenced by the receipt of noise complaints associated with the site. If a noise study does not demonstrate compliance with the Noise Ordinance additional noise attenuation and mitigation measures shall be implemented in order to achieve compliance with the Noise Ordinance as determined by the Zoning Administrator.
9. To ensure that there is a forum for on-going discussion with the adjacent residential community, the applicant shall meet with a Communications Committee comprised of representatives of nearby homeowners and/or civic associations at the discretion of the Communications Committee but not more than twice a year. In addition, a dedicated telephone contact number for the West Falls Church rail yard shall be established and provided to the Dranesville District Supervisor's office, to the members of the Communications Committee to report concerns regarding the operation of the West Falls Church rail yard. The dedicated telephone contact number shall be provided by the applicant prior to the issuance of a Non-Residential Use Permit for the West Falls Church rail yard and updated as necessary. Monitoring of the telephone contact line shall be performed on a daily basis and all calls shall be responded to within one business day.

10. Erosion and Sediment control plans shall be implemented as determined by DCR. The stricter of the state or Fairfax County standards shall be applied by the state reviewing body.
11. Prior to any construction associated with this application, the applicant shall submit documentation to the Department of Public Works and Environmental Services (DPWES) that demonstrates that all required Virginia Department of Conservation and Recreation (DCR) approvals have been obtained for the subject site.
12. Prior to the issuance of the new Non-RUP for the West Falls Church rail yard, a parking tabulation for the subject site shall be submitted to DPWES for review and approval, to demonstrate that adequate parking has been provided for the site.
13. All new lighting shall conform to the provisions of Part 9 of Article 14 of the Zoning Ordinance. Any new outdoor lighting fixtures installed on the site shall not exceed 30 feet in height, shall be of low glare design with cutoff optics and shall focus directly onto the subject property.
14. Stormwater Management, Best Management Practices, and adequate outfall measures shall be provided in substantial conformance with Sheet 11 of the SEA Plat, as determined by DCR.
15. Construction traffic shall not use McKay Street to access the application property, except for access to provide the stream restoration improvements shown on Sheet 11 of the SEA Plat. All construction personnel, including contractors, shall be informed of this restriction. The McKay Street and Eastman Drive right-of ways shall not be used for the staging of construction vehicles or the storage of construction materials.
16. All employees, contractors and subcontractors working on the application property shall be instructed both verbally and in writing that they should drive slowly and stay alert when in the proximity of McKay Street in order to protect children.
17. Construction of the improvements associated with this special exception amendment application shall not be permitted on the application property between the hours of 9:00 P.M. and 7:00 A.M, Monday through Saturday. These hours shall also apply to Sundays and Federal holidays except that work shall not commence prior to 9:00 A.M.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the Non-Residential Use Permit through established procedures, and this Special Exception shall not be valid until this has been accomplished.

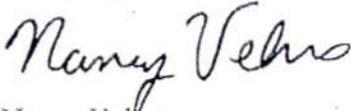
The approval of this special exception does not interfere with, abrogate or annul any easement, covenants, or other agreements between parties, as they may apply to the property subject to this application.

Pursuant to Section 9-015 of the Zoning Ordinance, this Special Exceptions shall automatically expire, without notice, thirty (30) months after the date of approval unless, at a minimum, the use has been established or construction of the service and inspection annex building has commenced and been diligently prosecuted. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the Special Exception. The request must specify the amount of additional time requested, the basis for the amount of time requested, and an explanation of why additional time is required.

**The Board also:**

- Modified the transitional screening requirements and waiver of the barrier requirements along the northern property line in favor of that shown on the SEA Plat.
- Waived the Comprehensive Plan trail requirement along Idylwood Road.

Sincerely,



Nancy Velhrs  
Clerk to the Board of Supervisors  
NV/ph

Cc: Chairman Sharon Bulova  
Supervisor John Foust, Dranesville District  
Janet Coldsmith, Director, Real Estate Division, Dept. of Tax Administration  
Regina Coyle, Director, Zoning Evaluation Division, DPZ  
Diane Johnson-Quinn, Deputy Zoning Administrator, Dept. of Planning and Zoning  
Angela K. Rodeheaver, Section Chief, Transportation, Planning Division  
Eric Teitelman, Capital Projects and Operations Div., Dept. of Transportation  
Ken Williams, Plans & Document Control, ESRD, DPWES  
Department of Highways-VDOT  
Sandy Stallman, Park Planning Branch Manager, FCPA  
Charlene Fuhrman-Schulz, Development Officer, DHCD/Design Development Division  
District Planning Commissioner  
Karyn Moreland, Chief Capital Projects Sections, Dept. of Transportation



COMMONWEALTH OF VIRGINIA  
COUNTY OF FAIRFAX

4100 CHAIN BRIDGE ROAD  
FAIRFAX, VIRGINIA 22030



October 7, 1986

Mr. Homer Chen  
Washington Metropolitan Area  
Transit Authority - WMATA  
600 Fifth Street, Northwest  
Washington, D. C. 20001

Re: Special Exception Amendment  
Number SEA 85-D-033-1

Dear Mr. Chen:

At a regular meeting of the Board of Supervisors held on September 29, 1986, the Board approved Special Exception Amendment Number SEA 85-D-033-1, in the name of Washington Metropolitan Area Transit Authority - WMATA, located at Tax Map 40-1 ((1)) 25B and 40-3 ((1)) 85, 86, and 93B for addition of acoustical barriers pursuant to Sections 3-104 and 3-204 of the Fairfax County Zoning Ordinance, by requiring conformance with the following development conditions:

1. This Special Exception Amendment is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This Special Exception Amendment is granted only for the purpose(s), structure(s) and/or use(s) indicated on the Special Exception Amendment Plat approved with the application, as qualified by these development conditions.
3. This Special Exception Amendment is subject to the provisions of Article 17, Site Plans. Any plan submitted pursuant to this Special Exception Amendment shall be in substantial conformance with the approved Special Exception Amendment Plat and these conditions.

October 7, 1986  
SEA 85-D-033-1

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4. Landscaping of the parking lot and around the building that is being built shall be provided as submitted with SE 85-D-033.
5. Landscaping to soften the visual impact of the barrier shall be provided. The applicant shall coordinate with the Department of Environmental Management and Office of Comprehensive Planning to provide a landscape plan.
6. If the Washington Metropolitan Area Transit Authority (WMATA) ingress/egress access point at the end of McKay Street is not intended for future use, the access point shall be closed and a landscaped berm shall be provided in this location.
7. Noise measurements shall be taken during the hours of peak activity on the site. The maximum noise level generated by this facility shall not exceed 55 dBA Ldn off-site.
8. Prior to beginning construction, the applicant will consult with the Lemon Road Citizens Association concerning the final design of the barriers.
9. Under Section 9-015 of the Zoning Ordinance, this Special Exception Amendment shall automatically expire, without notice, six (6) months after the approval date of the Special Exception Amendment, unless construction of the acoustical barriers has been completed, or unless additional time is approved by the Board of Supervisors because of the occurrence of conditions unforeseen at the time of approval of this Special Exception Amendment. A request for additional time shall be justified in writing, and must be filed with the Zoning Administrator prior to the expiration date.
10. WMATA will add \$50,000 of additional landscaping as approved by the WMATA Board for additional buffering.
11. A reasonable extension of the noise wall will be permitted without the requirement of a Special Exception Amendment.

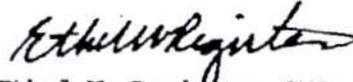
October 7, 1986  
SEA 85-D-033-1

-3-

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be himself responsible for obtaining the required Non-Residential Use Permit through established procedures, and this Special Exception Amendment shall not be valid until this has been accomplished.

If you have any questions concerning this Special Exception Amendment, please give me a call.

Very truly yours,



Ethel W. Register, CMC, Agency Director  
Office of The Clerk to the Board

EWR/ns

cc: Lurty C. Houff, Jr.  
Real Estate Division  
Gilbert R. Knowlton, Deputy  
Zoning Administrator  
Donald D. Smith  
Permit, Plan Review Branch  
Barbara A. Byron, Director  
Zoning Evaluation Division



COMMONWEALTH OF VIRGINIA  
COUNTY OF FAIRFAX

4100 CHAIN BRIDGE ROAD  
FAIRFAX, VIRGINIA 22030



August 7, 1985

John S. Egbert  
Assistant General Manager  
Department of Design, Construction  
and Facilities Maintenance  
600 Fifth Street, N.W.  
Washington, D.C. 20001

Re: Special Exception  
Number SE 85-D-033

Dear Mr. Egbert:

At a regular meeting of the Board of Supervisors held on July 29, 1985, the Board approved Special Exception Number SE 85-D-033, in the name of Washington Metropolitan Area Transit Authority (WMATA), located as Tax Map 40-1((1)) 25B and 40-3((1)) 85, 86, and 93B for addition of maintenance building to the existing WMATA facilities pursuant to Sections 3-104 and 2-104 of the Fairfax County Zoning Ordinance, by requiring conformance with the following development conditions:

1. This Special Exception is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This Special Exception is granted for the purpose(s), structure(s) and/or use(s) indicated on the Special Exception Plat approved with the application, as qualified by these development conditions.
3. Landscaping of the parking lot and around the building will be provided as shown on the Preliminary Site Plan submitted with the application.

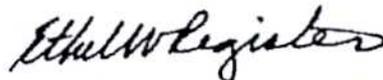
August 7, 1985

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be himself responsible for obtaining the required Non-Residential Use Permit through established procedures, and this Special Exception shall not be valid until this has been accomplished.

Under Section 9-015 of the Zoning Ordinance, this Special Exception shall automatically expire, without notice, eighteen (18) months after the approval date of the Special Exception unless the activity authorized has been established, or unless construction has commenced, and is diligently pursued, or unless additional time is approved by the Board of Supervisors because of the occurrence of conditions unforeseen at the time of the approval of this Special Exception. A request for additional time shall be justified in writing, and must be filed with the Zoning Administrator prior to the expiration date.

If you have any questions concerning this Special Exception, please give me a call.

Very truly yours,



Ethel Wilcox Register, CMC  
Clerk to the Board of Supervisors

EWR/lc

cc: Samuel A. Patteson, Jr.  
Supervisor of Assessments  
✓ Gilbert R. Knowlton, Deputy  
Zoning Administrator  
Wallace S. Covington, Jr., Chief  
Permit, Plan Review Branch  
Richard D. Faubion, Director  
Zoning Evaluation Division  
Ted Austell, III  
Executive Assistant to the County Executive

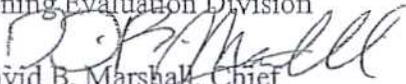


# County of Fairfax, Virginia

## MEMORANDUM

DATE: November 8, 2010

**TO:** Regina C. Coyle, Director  
Zoning Evaluation Division

**FROM:**   
David B. Marshall, Chief  
Facilities Planning Branch, Planning Division

**SUBJECT:** Section 15.2-2232 Review  
Application 2232-D10-12 (concurrent with SEA 85-D-033-03)  
Applicant: Virginia Electric and Power Company  
Subject Property: Tax Map 40-3 ((1)) 86 pt.

In accordance with the Standard Operating Procedures approved by the Board of Supervisors on July 25, 1994, which provide guidance to Department of Planning and Zoning ("DPZ") staff regarding the review of public facility projects pursuant to Va. Code Sec. 15.2-2232, the Facilities Planning Branch of the Planning Division offers the following comments on the proposed electric substation.

### APPLICANT PROPOSAL

*Attachment 1*

#### PROJECT SUMMARY DESCRIPTION

The applicant, Virginia Electric and Power Company, d/b/a Dominion Virginia Power ("Dominion" or "DVP"), proposes to develop and operate an electric substation ("Reddfield substation") on the West Falls Church Rail Yard ("Rail Yard") property, as described in Application 2232-D10-12 (received March 22, 2010; revised through October 28, 2010), shown on drawings entitled "Dominion Virginia Power - Reddfield Substation at West Falls Church Metro Yard" (dated February 3, 2010; revised October 15, 2010). Dominion states that the proposed facility is needed to provide electric power to the Washington Metropolitan Area Transit Authority's ("Metro") Silver Line currently under construction, and to continue to provide reliable electrical service for the surrounding area. The proposed facility is summarized below (see application and drawings in *Attachment 1* for detailed description of proposal; all dimensions and areas are approximate):

Department of Planning and Zoning  
Planning Division  
12055 Government Center Parkway, Suite 730  
Fairfax, Virginia 22035-5509  
Phone 703-324-1380  
Fax 703-324-3056  
[www.fairfaxcounty.gov/dpz/](http://www.fairfaxcounty.gov/dpz/)



**Location:** Northeast corner of Rail Yard; located west of the Dulles Airport Connector Road ("Connector Road"), north of Interstate 66, and south of residential properties on McKay Street.

**Site:** 1.37-acre hillside between Rail Yard to south and abutting 100' wide transmission line easement to north; mature deciduous tree cover; stormwater management facility to west of subject property; existing stream to north between subject property and residential properties (construction of the stormwater management facility and of the stream's restoration is associated with the Rail Yard improvements approved under Special Exception Amendment SEA 85-D-033-02, and is not part of the subject application).

**Facility:** two 25' tall distribution transformers and related distribution circuits (first transformer to be constructed in immediate future to serve the Silver Line, 3 Metro stations, and local area load demands; second transformer to be constructed in future based on need); 15' tall distribution bays; two 15' tall capacitor banks; 15' tall control enclosure with porch light; two 70' tall static poles; 95' tall backbone structure; existing 90' tall transmission pole to be replaced by new 90' transmission pole to provide overhead spur connection between transmission line and backbone (option: 85' tall backbone and taller replacement pole, with height of pole to be determined by Dominion); public water and sewer available; retaining wall (up to 14' tall) on west and northwest sides, with 9' tall decorative wall on top; 8' tall chain link fence enclosing substation.

**Screening:** 7,300 square-foot tree-save area north of substation; transitional yard screening between substation and tree-save area, and on north and west sides of substation; supplemental planting around substation; with owner's agreement, applicant proposes landscape screening on residential properties along McKay Street; measures will be provided to assure adequate tree preservation and protection throughout the development process; however, applicant requests deviation from Tree Preservation Target, and requests modification of transitional yard screening requirements on northern portion of the site.

**Access:** gated entrance on access road from Connector Road, for use by Dominion and emergency vehicles (DVP will work with Fairfax County Fire & Rescue Department to develop Emergency Response Plan for the substation).

**Operations:** 24 hours/day; unmanned; routine visit 2 times/month for inspection or repair.

**Service Area:** Metro Silver Line; provide significant load relief for DVP's existing Idylwood, Great Falls, Swinks Mill, and Falls Church substations; addresses potential service deficiencies by providing emergency support to adjacent service areas during outages; creates a new service area for Magarity Road, Route 123, Great Falls Street, Kirby Road, Idylwood Road, Pimmit Hills, and western McLean to provide more reliable service.

**Alternates:** applicant evaluated alternate locations, based on its general standards for identifying potential substation sites: 1). close proximity to the service need; 2). four-acre site; 3). adjacency or close proximity to transmission lines; 4). minimum 180' x 250' configuration; 5). accessible at all times for DVP work crews; 6). easement from substation to service area. DVP investigated 15 sites adjacent or close to the transmission line, and reviewed 70 commercial and industrial properties located within one mile of the subject site. The applicant states that each presented its own constraints for use as a substation (see Memorandum "Alternate Substation Sites Evaluation," dated October 26, 2010, in *Attachment 1* for details of alternate sites and reasons they were not feasible).

## STAFF PLANNING ANALYSIS

Subject property is in the M2-Pimmit Community Planning Sector / McLean Planning District of Area II, and is zoned R-1. The Comprehensive Plan map shows that the subject property is

planned for public facilities, while the area immediately to the north is planned for residential use at 2-3 dwelling units per acre ("du/ac"), the area immediately to the east is planned for public right-of-way for the Connector Road, the area further east is planned for residential use at 2-3 du/ac, the area immediately to the south is planned for public right-of-way for Interstate 66, the area further south is planned for public facilities and mixed use, and the area immediately to the west is planned for public park use. An assessment of the proposal for substantial conformance with the Comprehensive Plan ("the Plan") has been guided by the following Plan citations:

#### AREA PLAN:

Fairfax County Comprehensive Plan, Area II, 2007 Edition; McLean Planning District, as amended through March 9, 2010; M2-Pimmit Community Planning Sector, RECOMMENDATIONS, pages 95 and 98:

##### "Land Use

2. The area located southeast of Idylwood Road, west of the Dulles Airport Access Road and north of the West Falls Church Transit Station Area, is planned for 2-3 dwelling units per acre with the exception of Mount Royal Park which is located to the west of the single-family housing. The single-family dwellings should have landscaped buffering from noise and non-residential uses with appropriate pedestrian and vehicular access.

##### Heritage Resources

... Any development or ground disturbance in this sector, both on private and public land, should be preceded by heritage resource studies, and alternatives should be explored for the avoidance, preservation or recovery of significant heritage resources that are found. ..."

#### POLICY PLAN:

Fairfax County Comprehensive Plan, Policy Plan, 2007 Edition; Public Facilities, COUNTYWIDE OBJECTIVES AND POLICIES, as amended through January 10, 2005; pages 2-4:

**"Objective 1: Locate new facilities to provide convenient service to the greatest number of people or service consumers and users.**

- Policy a. Site facilities appropriately to the area they are intended to serve.
- Policy b. Reduce service area overlap between like 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.

Policy d. Ensure that minimum populations or service thresholds are projected to be met before facility construction is undertaken. . . .

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

Policy a. Construct new facilities in size and quantity which is consistent with projected population needs. . . .

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

Policy a. Locate public facilities in areas of compatible land use, 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 as long as the integrity of the Comprehensive Plan is not impinged. . . .

**Objective 5: Acquire sites which are appropriate for the facility's specific purpose. Apply acceptable criteria when evaluating public facility sites.**

Policy a. Consider accessibility in siting facilities. In general, public facilities should have access to primary arterial roadways. . . .

Policy e. Locate, as possible, facilities on sites with public water and sewer.”

Fairfax County Comprehensive Plan, Policy Plan, 2007 Edition; Public Facilities, **ELECTRICAL AND LAND-LINE UTILITY SERVICES**, as amended through January 10, 2005; pages 33 – 37:

**“Objective 40: 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, . . . and electrical substations whenever feasible and appropriate to minimize visual and neighborhood impacts.

Policy c. Plan for existing and future needs of facilities in conjunction with emerging development designs. . . .

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

**Objective 41:** 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 . . . 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 e. Provide for the appropriate screening and buffering of proposed facilities..

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:** See *Attachments 2 – 9* for detailed comments.

**Department of Planning and Zoning**

*Attachments 2, 3, and 4*

- Findings – Zoning Administration Division / Ordinance Administration Branch
  - Approval of a Category 1 Special Exception is required.
- Findings – Planning Division / Historic Preservation
  - No action concerning heritage resources is required.
- Findings – Planning Division / Environment and Development Review Branch
  - Identify opportunities for tree preservation.
  - Look for opportunities to reduce encroachment into the Resource Protection Area, and to mitigate disturbance with restoration.

**Department of Public Works and Environmental Services**

*Attachments 5 and 6*

- Findings – Land Development Services/ Environmental & Site Review Division
  - Appurtenant structures to electric transmission lines are exempt from the Chesapeake Bay Preservation Ordinance.
  - Floodplain study and stormwater detention are required.
- Findings – Land Development Services/ Urban Forest Management Division
  - Provide a deviation from Tree Preservation Target level, and provide preliminary 10-year tree canopy calculations.
  - Provide justification for transitional yard screening and barrier modification requests.
  - Include measures to assure adequate tree preservation and protection.

**Fairfax County Park Authority ("FCPA")**

*Attachment 7*

- Findings – Planning & Development Division / Park Planning Branch
  - Application bears no adverse impact on FCPA land or resources.

**Fairfax County Fire and Rescue Department**

*Attachment 8*

- Findings – Information Technology Department
  - Coordinate with City of Falls Church regarding dead-end water main extension.
  - Show vehicle clearances at entrance, and access to fire hydrants.

**Fairfax County Department of Transportation**

*Attachment 9*

- Findings – Site Analysis Section
  - Access from Connector Road should be constructed as approved by Commonwealth Transportation Board and VDOT, in accordance with all VDOT requirements.

**CONFORMANCE WITH THE COMPREHENSIVE PLAN**

*Attachment 10*

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

**Location**

Dominion states that the proposed site meets its site selection criteria for a substation, in conformance with Plan guidelines regarding locational standards in siting facilities. The applicant states that the proposed substation is needed at the Rail Yard to provide electrical power for Metro's Silver Line, and for new, more reliable electrical service to accommodate growth in the surrounding area, which conforms with Plan recommendations regarding the co-location of public facilities, and the location of facilities in relation to the area to be served. Direct access will be from the Connector Road, consistent with Plan guidelines. From its investigation of alternate sites, DVP concluded that each one presented its own constraints for use as a substation, and that no alternate location would meet its needs while having minimal impact on nearby properties. Although the proposed facility will have a visual impact on some nearby residential properties, as discussed below, staff believes that the site selected by Dominion conforms with Plan recommendations that locating public facilities near an area of different land use is acceptable to provide a centrally located site for a facility that is critical to the public interest, in this case public transit and electrical service. The proposed location also conforms with Plan guidelines to avoid areas of environmental sensitivity. Staff notes however that, due to site and development restrictions, the applicant seeks approval to deviate from County requirements for tree preservation target and to modify requirements for transitional yard screening.

**Character**

Mature tree cover on the site offers potential screening opportunities. However, given the clearing required for both the proposed facility and adjacent stream restoration project, as well as the site's physical constraints and the planting restrictions in the adjoining transmission easement, staff recognizes that the proposed facility will have a visual impact on several nearby residential properties. Notwithstanding the screening challenges, staff believes that the proposed

facility's visual impact on adjacent properties will be minimized to the extent practical. The substation will be located the maximum distance possible (between 190' - 350') from the nearest houses north of the transmission easement. Existing trees on properties at the western and eastern ends of McKay Street should buffer those properties from the substation, and a 7,300 square-foot tree save area, bolstered by landscape planting north of the substation, should provide additional buffer for properties on the east end of McKay Street. Landscaping in front of the retaining wall should mitigate its visual impact, and a decorative screen wall atop the retaining wall should further help screen the substation. Additional landscape screening will be provided along the stream as part of both the off-site stream restoration project and the Rail Yard improvements. The applicant also proposes to provide off-site landscaping on individual residential properties (with owner's agreement) to mitigate the facility's visual impact. Site clearing will be limited to that necessary to construct the proposed facility, thus preserving as much existing vegetation as possible for screening purposes. The character of the proposed substation will be compatible with the Rail Yard, which is planned for public facilities, governmental and institutional use.

#### **Extent**

The proposed substation will address future electrical demands associated with the redevelopment of Tysons Corner and older residential neighborhoods, along with growth in nearby service areas, in accordance with Plan recommendations to balance the provision of public facilities with growth and development. In addition, the proposed substation will provide electrical load relief and emergency support for nearby substations by decreasing each one's service area, consistent with Plan guidelines to reduce overlap unless necessary to correct service deficiencies. DVP states that the electromagnetic field generated by the substation will fall to levels well below acceptable standards at the substation's property line, in conformance with Plan objectives, and will not interfere with radio, television, or telecommunications receivers. Dominion states that the size of the proposed facility is the minimal needed to serve its needs and, by making use of an adjoining stormwater management facility to be constructed with the Rail Yard improvements, the size of the proposed substation (and the extent of its related clearing) will be minimized, consistent with the Plan's colocation guidelines. Finally, the proposed substation will have no impact on heritage resources.

#### **CONCLUSION AND RECOMMENDATIONS**

Staff concludes that the subject proposal, as amended, by Virginia Electric and Power Company, to develop and operate an electric substation on the West Falls Church Rail Yard, satisfies the criteria of location, character, and extent as specified in Va. Code Sec. 15.2-2232, as amended. Staff therefore recommends that the Planning Commission find the subject Application 2232-D10-12, as amended, substantially in accord with provisions of the adopted Comprehensive Plan.

DBM/DSJ  
Attachments (10)

ATTACHMENT 1

**COUNTY OF FAIRFAX, VIRGINIA**  
**APPLICATION FOR DETERMINATION**  
**PURSUANT TO**  
**SECTION 15.2-2232 OF THE CODE OF VIRGINIA**  
 Application Number: 2232-D10-12  
(assigned by staff)

The application contains three parts: I. Application Summary; II. Statement of Justification; and III. Telecommunication Proposal Details. Please do not staple, bind or hole-punch this application. Please provide at least one copy of all pages, including maps and drawings, on 8.5 x 11 inch paper.

(Please Type or Print All Requested Information)

**PART I: APPLICATION SUMMARY**



**ADDRESS OF PROPOSED USE**

Street Address Idylwood Road  
City/Town Falls Church, VA Zip Code 22043

**APPLICANT(S)**

Name of Applicant Virginia Electric and Power Company  
d/b/a Dominion Virginia Power  
Street Address 2400 Grayland Avenue  
City/Town Richmond State VA Zip Code 23220  
Telephone Number: Work (804) 257-4806 Fax ( ) \_\_\_\_\_  
E-mail Address n/a

Name of Applicant's Agent/Contact (if applicable) Carson Lee Fifer, Esquire  
Sheri L. Akin, Land Use Planner  
Agent's Street Address McGuireWoods LLP  
1750 Tysons Blvd., Suite 1800  
City/Town McLean State VA Zip Code 22102  
Telephone: Work (703) 712-5343 (CLF)  
(703) 712-5483 (SLA) Fax ( ) \_\_\_\_\_

**PROPOSED USE**

Street Address Idylwood Road, Falls Church, VA

Fairfax Co. Tax Map and Parcel Number(s) 40-3 ((1)) 86

Brief Description of Proposed Use Virginia Power Electric Substation

Please see attached Statement of Justification



Total Area of Subject Parcel(s) 15.08 acres (acres or square feet)

Portion of Site Occupied by Proposed Use 1.37 acres (acres or square feet)

Fairfax County Supervisor District Dranesville

Planned Use of Subject Property (according to Fairfax County Comprehensive Plan)

Zoning of Subject Property R-1

List all applicable Proffer Conditions, Development Plans, Special Exceptions, Special Permits or Variances previously approved and related to this site

SEA 85-D-033-02

**PROPERTY OWNER(S) OF RECORD**

Owner Washington Metropolitan Area Transit Authority

Street Address 600 - 5th Street, NW

City/Town Washington State DC Zip Code 20001

*PART II*, entitled "Statement of Justification," pages 4 through 6, shall be completed by all applicants and included as part of the application. *PART III*, entitled "Telecommunication Proposal Details," pages 7 through 9, also shall be completed and included for all proposed telecommunication uses.

Name of Applicant or Agent Carson Lee Fifer, Jr., Esquire  
Signature of Applicant or Agent *Carson Lee Fifer, Jr.* AGENT  
Date 10-27-10

\*\*\*\*\*

*Please do not staple, bind or hole-punch this application. Please provide at least one copy of all pages, including maps and drawings, on 8.5 x 11 inch paper.*

**Submit completed application to:**

Fairfax County  
Department of Planning and Zoning, Planning Division  
Herrity Building  
12055 Government Center Parkway, Suite 730  
Fairfax, Virginia 22035



\*\*\*\*\*

<b>FOR STAFF USE ONLY</b>	
Date application received:	<u>3/22/10</u>
By:	_____
Additional information requested to complete application:	
_____	
_____	
Date application accepted:	<u>7/16/10</u>
By:	_____



1000 Top of the World  
Suite 1100  
McLean, VA 22102-4215  
Phone: 703.712.5000  
Fax: 703.712.5050  
www.mcguirewoods.com

Sheri L. Akin  
Direct: 703.712.5483

McGUIREWOODS

sakin@mcguirewoods.com  
Direct Fax: 703.712.5050

October 27, 2010

BY COURIER

Mr. St. Clair Williams  
County of Fairfax  
Office of Zoning Evaluation  
Suite 801  
12055 Government Center Parkway  
Fairfax, Virginia 22035



Re: Dominion Virginia Power – Reddfield Utility Substation  
Tax Map Nos. 40-3-((1))-86  
SEA 85-D-033-03

Dear St. Clair:

On behalf of our client, Dominion Virginia Power ("Dominion"), this letter is in response to County comments regarding the above-referenced Special Exception Amendment application. In addition, the following documents are enclosed for your review:

1. Twelve (12) copies of the Special Exception Amendment/2232 Plat ("SEA Plat") revised pursuant to County comments.
2. Two (2) copies of redline SEA Plat.
3. Two (2) copies of the 8 1/2 x 11 reduction of the SEA Plat.
4. Twelve (12) copies of the revised Statement of Justification.
5. Four (4) copies of letter to Chief Ronald L. Mastin, Fairfax County Fire and Rescue Department, dated October 27, 2010.
6. Four (4) copies of the Fire Safety Review Comments, along with fire truck turning simulations.
7. Four (4) copies of the revised Alternate Site Memorandum dated October 26, 2010. Three (3) additional sites were added (Tabs 13, 14 & 15) at the request of neighbors, Supervisor Foust's office, and David Jillson.
8. Two (2) copies of 2005 e-mail correspondence discussing the location of the substation.
9. Two (2) copies of the Statement of Ownership/Authorization from WMATA dated January 12, 2010, authorizing Dominion's use of the subject property and submission of the SEA application.
10. Two (2) copies of sample retaining wall/screening pictures.
11. Two (2) copies of the revised Section 2232 Application form.

Written responses to various comments are as follows:

FOREST CONSERVATION MEMORANDUM DATED SEPTEMBER 27, 2010

1. **Recommendation:** A deviation from the Tree Preservation Target should be provided on the SEA Plat and 2232 Plan that states one or more of the justifications listed in PFM 12-0507.3 along with a narrative that provides a site-specific explanation of why the Tree Preservation Target cannot be met.

In addition, development condition language containing a directive from the Board of Supervisors to the Urban Forest Management Division, DPWES, or Director of DPWES to permit a deviation from the Tree Preservation Target percentage should be provided.

Applicant Response: A justification statement and note for deviation from the recommended "tree preservation target" has been added to sheet 4 of the plan.

2. **Recommendation:** As previously suggested, preliminary 10-year tree canopy calculations in accordance with PFM 12-0510 and PPM Table 12.12 should be provided on the SEA demonstrating how Article 2 of the Tree Conservation Ordinance, 10-year tree canopy requirements will be met.

Applicant Response: Landscaping, tree coverage and associated calculations have been updated on sheets 3 and 4 of the plan.

3. **Recommendation:** The transitional screening and barrier modification request should include justification based on section 13-305 of the Zoning Ordinance for the reduced height of the proposed plants within the transitional screening yard below the electrical conductor mainline and tap lines.

Applicant Response: The transitional screening and barrier modification request has been added to the Statement of Justification.

4. **Recommendation:** The transitional screening and barrier modification request should include justification based on section 13-305 of the Zoning Ordinance for locating a portion of the transitional screening yard within an existing public utility easement which is contrary to what is stated in PPM 12-0514.6B.

Applicant Response: After reviewing the PFM, it appears that trees may be planted within existing or proposed public utility easements as long as a letter of permission from the easement owner is obtained (PFM 12-0514.6C). In this case, the Applicant is the easement owner.

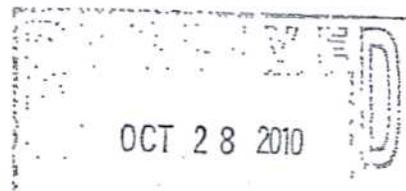
[#5 was omitted in numbering of comments]

6. Recommendation: Recommend the following development conditions to ensure effective tree preservation:

Tree Preservation: "The applicant shall submit a Tree Preservation plan as part of the first and all subsequent site plan submissions. The preservation plan shall be prepared by a professional with experience in the preparation of tree preservation plans, such as a Certified Arborist or Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES.

The tree preservation plan shall consist of a tree survey that includes the location, species, size, crown spread and condition rating percentage of all trees 10 inches in diameter and greater, and 25 feet to either side of the limits of clearing and grading shown on the SEA for the entire site. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the SEA and those additional areas in which trees can be preserved as a result of final engineering. The condition analysis ratings shall be prepared using methods outlined in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan."

Tree Preservation Walk-Through. "The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's Certified Arborist or Registered Consulting Arborist shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made, if any, to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions:"



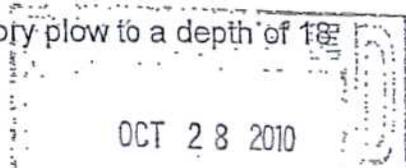
Limits of Clearing and Grading. "The Applicant shall conform strictly to the limits of clearing and grading as shown on the SEA, subject to allowances specified in these development conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the SEA, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities."

Tree Preservation Fencing: "All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the "Root Pruning" proffer below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the direct supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES."

Root Pruning. "The Applicant shall root prune, as needed to comply with the tree preservation requirements of these development conditions. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the submitted plan. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.



OCT 28 2010

- Root pruning shall take place prior to any clearing and grading, or demolition of structures.
- Root pruning shall be conducted with the supervision of a certified arborist.
- An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete."

Site Monitoring. "During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as per specific development conditions and as approved by the UFMD. The Applicant shall retain the services of a Certified Arborist or Registered Consulting Arborist to monitor all construction and demolition work adjacent to any vegetation to be preserved and tree preservation efforts in order to ensure conformance with all tree preservation development conditions, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES."

Applicant Response: The Applicant is in agreement with the tree preservation conditions.

#### **FIRE and RESCUE DEPARTMENT COMMENTS IN E-MAIL DATED SEPTEMBER 27, 2010**

1. **Not adequate – Sheet 3 labels “water and sewer (by others).” Provide evidence that Falls church Public Utilities has seen and agreed to this claimed dead-end water main extension. Show clearly how fire vehicles can access a hydrant so far removed from the road entry to the site. Once does not drive past the fire to get to the hydrant.**

Applicant Response: The water and sewer adjacent to the proposed substation (along the access road and Dulles Connector Road) is part of the West Falls Church Metro Expansion project for WMATA. The location and design was coordinated by WMATA through BCOM (Bureau of Capital Outlay Management). A copy of the Fire Safety Review Comments are attached. There are two fire hydrants adjacent to the site - one at the entrance off of the Dulles Connector Road and one near the stormwater management pond. The site fire hydrant coverage is best reached from the hydrant near the Dulles Connector Road entrance. Two fire truck turning simulations are included to show fire truck access on and off the site.

2. **Not adequate – Sheets 4, 4A, 4B do not show vehicle clearances at proposed entry gate area and do not show any hydrant at accessible area near or proximate to vehicle entry gate. Show clearly how fire vehicles can access and leave the site.**

OCT 28 2010

Applicant Response: Two fire truck turning simulations are included to show fire truck access on and off the site. In addition, because substations contain energized high-voltage electrical equipment, Dominion Power has certain protocol for safety responses at their substations. Please see the attached letter to Chief Ronald L. Mastin dated October 27, 2010.

**APPLICATION COMMENTS PROVIDED BY ST. CLAIR WILLIAMS AT MEETING  
DATED OCTOBER 1, 2010:**

1. Staff requested a copy of the WMATA Stream Restoration Plan.

Applicant Response: The Applicant is not authorized to provide a copy of WMATA's Stream Restoration Plan. A request should be made to WMATA or DTP directly.

2. Staff recognizes the limitations of the site for the plantings along the screening. However, they have asked if there is anything else possible that Dominion is able to do in order to screen the substation.

Applicant Response: In coordination with each residential landowner along McKay Street, the Applicant has offered to meet with each landowner to discuss landscaping on their properties in order to shield views of the substation. The Applicant has offered to install any agreed to landscaping on each landowner's lot at the Applicant's sole expense. In addition, in order to further shield views of the substation equipment, the Applicant has increased the wall height from 8 feet to 9 feet.

As an option, the Applicant is also offering to lower the substation's currently proposed 95' backbone structure to 85'. However, in order to achieve this, the transmission pole located within the existing transmission line easement would need to be raised. The Applicant is currently determining how much the pole will need to be raised. Also, this option will be decided upon by the McKay Street neighbors in conjunction with the McLean Citizen's Association. This option has been added to the SEA Plat.

3. Possible language for the off-site landscaping condition.

Applicant Response: The Applicant suggests the following development condition related to off-site landscaping:

Off-Site Landscaping – The Applicant will work with each residential landowner (who will have views of the substation) along McKay Street and Eastman Drive regarding installation of off-site landscaping to block views of the substation. The quantity, location, species, and type of landscaping will be coordinated and negotiated with each individual landowner. Dominion will establish a two year maintenance agreement with a professional landscaper to assure the viability of such plantings. Following the two year maintenance period, the individual landowner will be responsible for maintenance of the plantings. Should an act of nature, such a hurricane or tornado, destroy said planting(s),

OCT 28 2010

the Applicant will replace the planting(s) at no cost to the landowner for a period of five (5) years.

**APPLICATION COMMENTS PROVIDED BY DAVID JILLSON AND ST. CLAIR WILLIAMS AT MEETING DATED OCTOBER 1, 2010:**

1. David Jillson is working with Ben Wiles regarding the tie-in question. Whatever gets worked out, we should make sure David Jillson is aware of WMATA's/MWAA's comments to Supervisor Foust.

Applicant Response: Only WMATA and/or MWAA can provide definitive confirmation of the necessary tie-in point. The Applicant has been advised that the tie-in had to be at the West Falls Church Rail Yard site and that WMATA has engineered its facilities in that expectation.

2. Documentation providing evidence of earlier conversations with prior Supervisor regarding selection of site for substation.

Applicant Response: Please see the attached e-mails from Karen Consiglio of Dulles Metro. The first e-mail is dated 10/27/05 and discusses the results of a meeting with the Dranesville Supervisor. The second e-mail is dated 11/1/05 and discusses the footprint of the proposed substation. The third e-mail is dated 12/5/05 which discusses a 2005 public information meeting showing the substation.

3. David Jillson asked if we could review an additional area along Route 66 as a possible alternate site (Barbour Road, Leighton Drive, and Route 66).

Applicant Response: The alternate area suggested would not be appropriate for the substation. It is too narrow, and an exiting transmission line takes up most of the space. The largest (widest) area located at the southeast corner of Barbour Road and the Leighton Drive cul-de-sac is approximately 150 x 60 feet. The rest of the area is narrower than that. Additionally, it is very close to Route 66 with a steep slope dropping to this highway. Residential homes are in very close proximity, and even if a substation could be constructed, there would be no area to provide screening. Please reference the revised Alternate Site Memorandum dated October 26, 2010 (enclosed), which describes this site, as well as two additional sites suggested by Leslie Gelman and Supervisor Foust's office.

4. Revise Statement of Justification to explain the proposed transformers and circuits. For example, how many transformers will be constructed, how many circuits will there be on each transformer, and what the circuits will be used for.

Applicant Response: The Applicant proposes to construct two transformers at the proposed substation. Each transformer provides for three electric circuits. The Applicant proposes to construct the first transformer in the immediate future which will provide power for the Silver Line and three (3) metro stations, and will also service local area load demand. The first circuit on the first transformer will supply power for the

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October 27, 2010

Page 8

Silver Line and three (3) metro stations, and the two remaining circuits on the first transformer will be for local area load demand. The second transformer will be constructed sometime in the future as electrical demand dictates the need. The Statement of Justification has been revised to clarify build-out of the substation.

6. Remove sheets from SEA/2232 Plat that show WMATA's stormwater information.

Applicant Response: WMATA's stormwater management reference sheets have been removed from the plans.

7. Submit the RPA Exception Application.

Applicant Response: The RPA Exception Application was submitted to DPWES on October 13, 2010. A copy is attached for your reference.

Thank you for your assistance with this matter.

Sincerely,

  
Sheri L. Akin  
Land Use Planner

cc: Mr. David Emigh, Dominion Virginia Power  
Carson Lee Fifer Jr, Esquire, McGuireWoods LLP  
Planning Commissioner Jay Donahue – Dranesville District  
Supervisor John W. Foust – Dranesville District  
Mr. David Jillson, Fairfax County Planning

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McGUIREWOODS

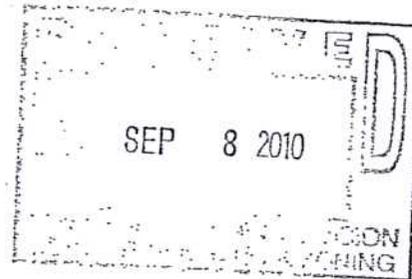
sakin@mcguirewoods.com  
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2232-DIO-12

September 3, 2010

BY COURIER

Mr. St. Clair Williams  
County of Fairfax  
Office of Zoning Evaluation  
Suite 801  
12055 Government Center Parkway  
Fairfax, Virginia 22035



RECEIVED  
Department of Planning & Zoning

SEP 07 2010

Zoning Evaluation Division

Re: Dominion Virginia Power – Reddfield Utility Substation  
Tax Map Nos. 40-3-((1))-86  
SEA 85-D-033-03

Dear St. Clair:

On behalf of our client, Dominion Virginia Power ("Dominion"), this letter is in response to County comments regarding the above-referenced Special Exception Amendment application. In addition, the following documents are enclosed for your review:

1. Twelve (12) copies of the Special Exception Amendment/2232 Plat ("SEA Plat") revised pursuant to County comments.
2. Two (2) copies of the 8 1/2 x 11 reduction of the SEA Plat.
2. Twelve (12) copies of the revised Statement of Justification.
3. Twelve (12) copies of the Alternate Sites Memorandum.
4. Twelve (12) sets of the additional photographs from adjacent properties, along with revised Photo Location Maps.
5. Twelve (12) copies of the Resolution of the Commonwealth Transportation Board dated April 19, 2007, granting access off of the Dulles Connector Road (Route 267), along with copy of VDOT recommendation of approval dated April 1, 2007.
6. Twelve (12) copies of sample retaining wall/fencing pictures.
7. Twelve (12) copies of the EMF Information Packet.

Written responses to various comments are as follows:

HISTORIC PRESERVATION MEMORANDUM DATED AUGUST 6, 2010

**Finding:** The subject property is not included within the boundaries of a Fairfax County Historic Overlay District, is not listed on the Fairfax County Inventory of Historic Sites or the National Register of Historic Places or documented in the historic structures survey file. There are no properties in the immediate vicinity of the property which is the subject

of this application that are within the boundaries of a Fairfax County Historic Overlay District, listed on the Fairfax County Inventory of Historic Sites or the National Register of Historic Places or documented in the historic structures survey file that would be negatively impacted by the proposed electric distribution and transmission substation.

**Recommendation:** No action concerning heritage resources is required.

Applicant Response: n/a

**FOREST CONSERVATION MEMORANDUM DATED JULY 21, 2010**

1. **Recommendation:** The applicant should provide an EVM that includes all of the elements found in PFM 12-0505 including an accurate depiction of the location of the outer dripline of the existing canopy at time of plat submission.

Applicant Response: More detailed information has been compiled since the first submission of this project. The EVM, including the tree preservation target calculations and tree canopy calculations to address all elements of the design manual PFM 12-0505 has been updated accordingly on Sheet 4 of the SEA Plat.

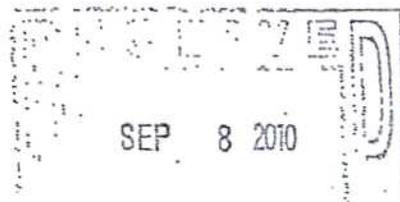
2. **Recommendation:** The information included in the EVM should be utilized to provide a Tree Preservation Target level in accordance with PFM 12-0507. The Tree Preservation Target Calculations and Statement should be provided as shown in PFM Table 12.3. In addition, preliminary 10-year tree canopy calculations in accordance with PFM 12-0510 and PFM Table 12.12 should be provided on the SEA demonstrating how Article 2 of the Tree Conservation Ordinance, 10-year tree canopy requirements will be met.

Applicant Response: The tree preservation target calculations, and tree canopy calculations have been added to Sheet 4 of the SEA Plat. Please note that this application DOES NOT meet the tree preservation target. A deviation letter will be filed at the time of Site Plan submission due to limited space on the site. There is no ability to adjust the layout of the equipment or usable area of the substation. Given these site constraints, no additional tree preservation can be provided.

3. **Recommendation:** Trees proposed to be planted should be identified as Category I, II, III, or IV evergreen trees and/or Category I, II, III, or IV deciduous trees.

Applicant Response: The trees categories have been updated as suggested by revising the Legend on Sheet 3 of the SEA Plat.

4. **Recommendation:** Labels should be provided that identifies the location and width of all transitional screening yards required by Article 13 of the Zoning Ordinance.



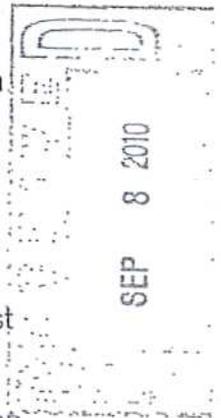
Applicant Response: The variations in the transitional screening boundaries have been identified and labeled for clarification on Sheet 3 of the SEA Plat. A transitional screening modification is requested. As part of the modification, the 50-foot wide screening has been reduced to 17 feet on the northwest and west sides of the substation due to the existing transmission line easement and SWM access road being constructed by WMATA. The north side of the substation will retain the 50-foot wide screening adjacent to the residences. The east, south, and southeast sides of the substation are adjacent to the Dulles Connector road and the Metro Yard. Therefore, no screening was provided except landscaping on those sides, which minimizing any impacts to those uses.

5. **Recommendation:** No easements shall exist or be proposed within a transitional screening yard. The transitional screening yard should be relocated outside the existing power line easement.

Applicant Response: The transitional screening is located within the existing overhead transmission easement. This is because space is limited on this site. There is no ability to adjust the layout of the equipment or usable area of the substation. Given these site constraints no additional landscape buffer area outside of the existing transmission easement area can be provided. A modification to the transitional screening buffer had been requested.

- 6i. **Recommendation:** The applicant should provide the maintenance requirements/restrictions regarding the height and spread of vegetation located within and adjacent to the 100-foot wide power line easement and the vegetation located below the power lines of the overhead spur connection.

Applicant Response: The transmission line corridor and tap line that will support the Reddfield substation site are 230 kV. As such, maintenance of this line and tap fall under FAC-003-1, the federal standard in place to help ensure that vegetation related outages do not occur. Under Dominion Virginia Power's TVMP (Transmission Vegetation Management Program), there are established minimum distances that must be maintained between the vegetation and the transmission line in order to remain in compliance with FAC-003-1. Based on the height of conductor at maximum sag for these spans, the height of vegetation is limited to 10 ft. height beneath the conductor on the main line and 15 ft. height on the tap line. Species that exceed these heights may be targeted for removal. The evergreen holly and shrub base noted on the SEA Plat beneath the tap line were selected because they mature within the allowable heights. Additionally, the medium canopy trees adjacent to the easement area were specifically chosen for their full crowns with limited reach.



- 6ii. **Recommendation:** Staff from the Urban Forest Management Division recommends the proposed site be reconfigured to accommodate the full 50-foot transitional screening yard at the northwest, southwest and east boundaries of the site to minimize the impact on the adjacent residential properties.

Applicant Response: A transitional screening modification was requested. As part of that modification, the 50-foot wide screening has been reduce to 17-feet on the

northwest and west sides of the substation adjacent residential within the existing transmission easement. The north side of the substation will retain the 50-foot wide screening adjacent the residences. The east, south, and southeast sides of the substation are adjacent the limited access highway (Dulles Connector) and the Metro Yard. Therefore, no screening was provided except landscaping on those sides, which minimizes any impacts to those uses. The plans have been revised to label and clarify the transitional screening on Sheet 4 of the SEA Plat.

7. **Recommendation:** When RPAs are proposed to be disturbed as part of a construction plan, buffer areas with native vegetation shall be restored or created as required under Chapter 118 of the Code, and planting shall be consistent with Performance Criteria found in the "Riparian Buffers Guidance and Mitigation Guidance Manual" published by the Division of Chesapeake Bay Local Assistance, Virginia Department of Conservation and Recreation.

Applicant Response: The Applicant is in the process of preparing the RPA exception which will be submitted to the County under separate cover.

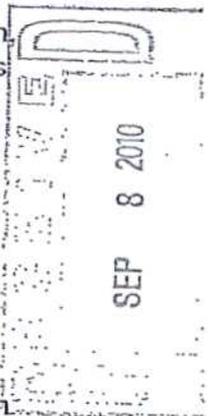
8. **Recommendation:** Recommend the following development conditions to ensure effective tree preservation:

**Tree Preservation:** "The applicant shall submit a Tree Preservation plan as part of the first and all subsequent site plan submissions. The preservation plan shall be prepared by a professional with experience in the preparation of tree preservation plans, such as a Certified Arborist or Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES.

The tree preservation plan shall consist of a tree survey that includes the location, species, size, crown spread and condition rating percentage of all trees 10 inches in diameter and greater, and 25 feet to either side of the limits of clearing and grading shown on the SEA for the entire site. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the SEA and those additional areas in which trees can be preserved as a result of final engineering. The condition analysis ratings shall be prepared using methods outlined in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan."

Applicant Response: The Applicant is in agreement with this condition.

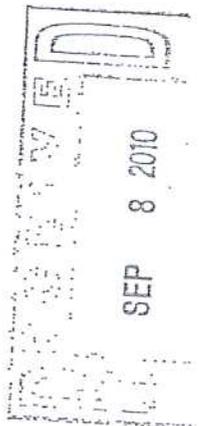
**Tree Preservation Walk-Through.** "The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the



Applicant's Certified Arborist or Registered Consulting Arborist shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions."

Applicant Response: The Applicant is in agreement with this condition with the following change:

Tree Preservation Walk-Through. "The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's Certified Arborist or Registered Consulting Arborist shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made (if any) to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions."



Limits of Clearing and Grading. "The Applicant shall conform strictly to the limits of clearing and grading as shown on the SEA, subject to allowances specified in these development conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the SEA, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities."

Applicant Response: The Applicant is in agreement with this condition.

Tree Preservation Fencing: "All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection

fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the "Root Pruning" proffer below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the direct supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES."

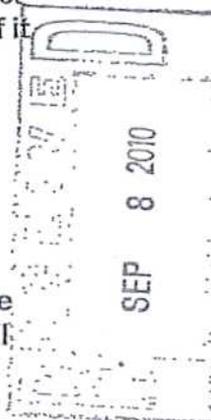
Applicant Response: The Applicant is in agreement with this condition.

Root Pruning. "The Applicant shall root prune, as needed to comply with the tree preservation requirements of these development conditions. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the submitted plan. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.
- Root pruning shall take place prior to any clearing and grading, or demolition of structures.
- Root pruning shall be conducted with the supervision of a certified arborist.
- An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete."

Applicant Response: The Applicant is in agreement with this condition.

Site Monitoring. "During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as proffered and as approved by the UFMD. The Applicant shall retain the services of a Certified Arborist or Registered Consulting Arborist to monitor all construction and demolition work and tree preservation efforts in order to ensure conformance with all tree preservation development conditions, and UFMD approvals. The



monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES."

Applicant Response: The Applicant is in agreement with this condition with the following changes:

During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall ~~be present to~~ monitor daily the process and ensure that the activities are conducted as proffered and as approved by the UFMD. The Applicant shall retain the services of a Certified Arborist or Registered Consulting Arborist to monitor ~~all construction and demolition work~~ tree clearing and tree preservation efforts in order to ensure conformance with all tree preservation development conditions, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.

**COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION MEMO  
DATED JULY 29, 2010**

1. Please show vehicular access to the site. It must be noted that site access can not be accommodated from the limited access right-of-way of Dulles Connector Road (Rt. 267) as it would be in violation of VDOT's Access Management Regulations and Standards.

Applicant Response: Vehicular access to the site has been more clearly delineated on the SEA Plat. Further, by resolution of the Commonwealth Transportation Board dated April 19, 2007 (copy attached), WMATA, Dominion Virginia Power, and VDOT were granted limited access rights from the Dulles Connector Road (Route 267).

2. The site entrance should be designed and constructed in accordance with VDOT's latest *Minimum Standards of Entrances to State Highways*.

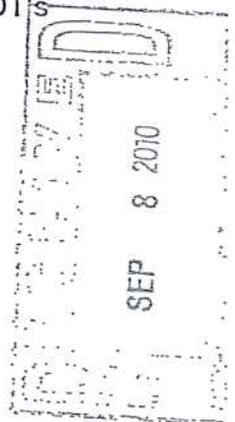
Applicant Response: The site entrance is being constructed by others pursuant to a previously approved SEA 85-D-033-02 approved by the Board of Supervisors on February 23, 2010.

**2232 APPLICATION COMMENTS PROVIDED BY DAVID JILLSON AT MEETING  
DATED AUGUST 11, 2010:**

1. Various edits and requests for clarification on application materials.

Applicant Response: Various edits were made to the Statement of Justification, 5.2-2232 Application, and Utility Statements. Please see revised documents.

2. What are approximate geographic boundaries of Reddfield service area?



Applicant Response: The Statement of Justification was revised to clarify new service area. In addition, drawings were previously submitted showing the existing utility system service area and the new proposed service areas with the addition of the Reddfield substation.

3. **Details for the proposed 0-14 foot retaining wall and 8 foot screening fence.**

Applicant Response: Example retaining wall and fencing pictures are enclosed herewith. Further, Sheet 4 of the SEA Plat was revised to clarify details of the proposed screening wall, retaining wall, and fence. Sheet 3 clarifies the transitional landscape screening.

4. **Photos and Photo Location Map**

Applicant Response: Additional photos have been added of existing views from residential neighbors' yards, and the Photo Location Map has been revised to reflect same (see attached). The Applicant is in the process of preparing visual simulations of neighbors' views of the proposed substation which will be submitted to the County when completed.

5. **Need dimensions of substation facility structures.**

Applicant Response: Dimensions of structures and equipment have been added to Sheets 3A and 3B of the SEA Plat.

6. **Show Comprehensive Plan Trail Map on SEA Plat.**

Applicant Response: The Comprehensive Plan Trail Map has been added to Sheet 2 of SEA Plat. None of these trails cross the portion of the property that is a part of this SEA application. Further, a previous waiver of the trail on the south side of Idylwood Road was approved by the Board of Supervisor on February 23, 2010 (SEA 85-D-033-02) as part of the Metro Yard Expansion Project. In addition, Note 15 on Sheet 4 of the SEA Plat notes that a waiver is requested.

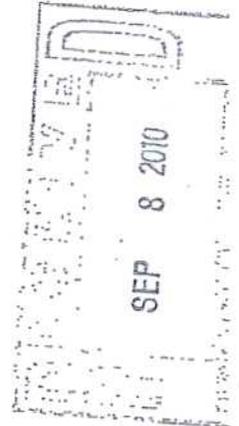
7. **Clearly show proposed vehicular access on the Plat.**

Applicant Response: The proposed vehicular access has been more clearly shown on the SEA Plat. Further, a label has been added to Sheet 3 noting the entrance approval by the Transportation Commonwealth Board, and that the proposed entrance is being constructed by WMATA pursuant to the Metro Yard Expansion Project.

8. **Clearly note area of disturbed site and area of existing and proposed structures.**

Applicant Response: The plans have been revised with the disturbance area calculation being added to Sheet 4. The existing and proposed structures have been labeled accordingly on Sheet 3 of the SEA Plat.

9. **Are any other utility easement located on the property or are new easements proposed with WMATA's future plans?**



Applicant Response: The public water and sewer extensions that were proposed as part of the Metro Yard Expansion Project have been added to the SEA plat sheets. They can be found in the access road area.

10. **Lighting Details:**

Applicant Response: Proposed lighting for this facility will be minimal and consist of a porch light fixture mounted on the enclosure in the substation. This light will be shielded and directed down to the ground and will be similar to residential porch lighting. The proposed light fixture has been added to Sheet 3 of the SEA Plat.

11. **Provide north-south cross section views from the residential neighborhood.**

Applicant Response: Two cross-section sheets have been added to the plan set on Sheets 4A and 4B.

12. **Amend Sheet 1 of the SEA Plat as shown on Attachment 3 (Sheet Index #2, add "/2232 Plan.")**

Applicant Response: Sheet 1 of the SEA Plat has been revised accordingly.

13. **Make easement for Transmission Line bolder on Sheets 2 and 3.**

Applicant Response: Sheet 3 of the SEA Plat has been revised to darken the existing transmission easement line.

14. **Remove cross hatching on Sheets 2 and 3 of the SEA Plat.**

Applicant Response: The plans have been revised to remove the cross hatch for clarity on Sheets 2 and 3.

15. **Identify and state height of existing transmission towers on Sheets 2 and 3 of the SEA Plat.**

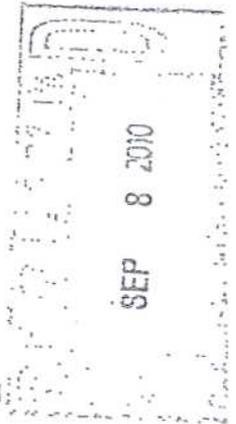
Applicant Response: Sheet 3 of the SEA Plat has been revised to label the height of the existing 90' transmission pole and proposed relocation of same.

16. **Add elevation views of structures, static poles, retaining wall, backbone, etc.**

Applicant Response: Two cross-section sheets have been added to the plan set depicting the height of walls and equipment. Please reference Sheets 4A and 4B of the SEA Plat.

17. **Label contours on Sheet 3 of the SEA Plat**

Applicant Response: Sheet 3 of the SEA Plat has been revised to label the contours. A grading detail has been added to Sheet 4.



18. **Noise and lighting impacts**

Applicant Response: There will be no negative impacts to adjacent properties regarding noise and lighting. The proposed substation will generate minimal sound and will meet Fairfax County Zoning Ordinance requirements. For lighting, there will be a small fixture installed on the 15' control enclosure located in the middle of the substation. The proposed lighting fixture will be a small, porch-type light, shielded downward.

19. **Impacts on air and water**

Applicant Response: There will be no odor or emissions generated by the facility. As such, there will be no negative impacts on air quality. In addition, the substation will not affect groundwater supply.

20. **Provide Photo Simulations of neighbor views of the substation.**

Applicant Response: Proposed Photo Simulations will be forthcoming and provided once the WMATA Stream Rehabilitation plan is completed and approved by DCR.

21. **Letter of Permission from WMATA.**

Applicant Response: A signed letter was provided by WMATA authorizing use of the site for the proposed utility substation. It further authorized submittal of the SEA application by the Applicant.

22. **Need for Heritage Resource Study**

Applicant Response: According to the document provided by Linda Cornish Blank to David Jillson, a Heritage Resource Study is not required.

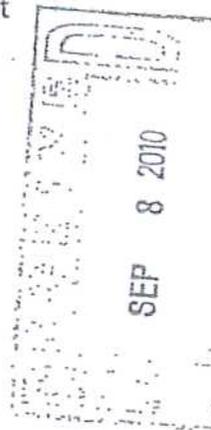
23. **Industry/DVP standards for locating substations.**

Applicant Response: Dominion's general standards for identifying potential substation sites include the following:

(1) Proximity to Need: A new substation should be in close proximity to the service need. In this instance, the WMATA Metro Yard is the site of the need and is central to the area load demand growth and the service for the Silver Line.

(2) Site Size: A desirable size for a distribution substation site is four (4) acres. However, the characteristics of a site may allow for a reduction in the size, such as whether access and stormwater management can occur off site, as well as forecasting that future growth will not require additional transformers or circuits on that site.

(3) Location: A substation must be in close proximity to the transmission lines that supply the power itself. Adjacency is ideal. A site that is not adjacent to a transmission line would require an extension of the transmission line. An extension of any line at or above 138KV requires approval from the State Corporation Commission (SCC), which would cause extensive delay.



(4) Dimensions of Site: An inflexible aspect of a site is the requirement of at least 180 feet by 250 feet in layout dimension. These are the minimum dimensions for the layout of a substation.

(5) Access: The site must have access at all hours on all days all year. In the event of an emergency or power loss, work crews must have immediate access to the site.

(6) Distribution Lines: There must be an easement from the substation for distribution lines to be connected to the service area and/or site. Easements are required for distribution lines. Either existing routes are used or new routes and easements must be obtained.

24. **Time-line Showing Need for Facility**

Applicant Response: In anticipation of future power needs for this area of the County, Reddfield is needed for existing and future growth. The time-line for the proposed Reddfield substation is driven by the future energization deadline of the Metro Silver Line. The WMATA deadline for providing power to the Silver Line is November 2011. Further, as discussed in response #25 below, Dominion plans for future growth in 10 to 15-year planning increments. With the construction of the first transformer at Reddfield, the substation will be able to serve immediately the Silver Line, as well as establish the new Reddfield service area. This will immediately relieve the demand loads on existing substations and assure the minimization of service interruptions as well as the prompt restoration of power after an outage. As the power needs from the existing communities and businesses continuously increase, Reddfield will see a continuous increase in load. In addition, Reddfield is designed to have space for a second transformer in order to provide additional capacity, the need for which is currently forecasted to be in approximately 10-15 years.



25. **Provide information showing relationship of need to population growth.**

Applicant Response: Dominion plans for future power demand growth in 10 to 15-year increments, although its forecasting may change from year to year. However, Dominion does not limit its forecasted need exclusively to population growth. The demand or need for power is made up of several components – existing and forecasted households; existing new, changing or proposed businesses; increased consumption, and the overall Dominion circuit itself.

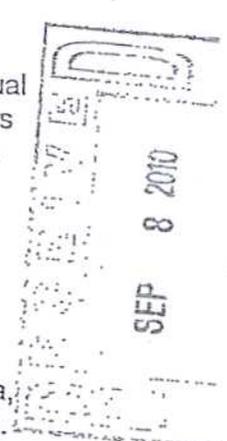
First, Dominion's planning group follows an area's forecasted growth as planned or approved by a jurisdiction. For example, in response to the development of the Silver Line, Fairfax County has approved Comprehensive Plan changes allowing for greater densities in Tysons Corner. In addition, similar Comprehensive Plan changes are proposed for the Reston and Herndon areas. In order to monitor future growth scenarios, Dominion participated in the Tysons Task Force proceedings. Dominion also follows major development approvals. For instance, as new residential, business, or industrial developments are approved, Dominion monitors proposed construction dates.

Redevelopment of communities also plays a role. Over the past several years, this area of Fairfax County has seen a tremendous increase in the demolition and replacement of the smaller, 1960's era homes with larger more modern homes. This redevelopment does not necessarily reflect an increase in population, but it does require an increased need for power.

Second, businesses and office buildings have unique power needs. Dominion follows and is often in direct contact with existing, new, or changing companies to ensure that power will be available for those types of needs. For example, data centers require significant amounts of power, and both the companies and Dominion address existing and future consumption needs on an ongoing basis.

Third, new technology also plays a role in terms of need determination. Today individual homes and businesses consume a great deal more energy than they did 10 to 15 years ago. Most homes now have a vast array of electronic equipment from multiple plasma and LCD television sets, surround sound systems, multiple cell phone and ipod chargers, multiple computers, modems, increased lighting, etc. Companies and businesses also require additional power for not only standard usage, but also for increased and sophisticated telecommuting, video conferencing, etc.

Lastly, the Dominion system is vastly interconnected, and growth in one specific area has impacts on others. Individual substations not only provide power to a specific area, but they also serve as back-up feeds for other areas when disruption of service occurs. Dominion must continuously monitor load demand on existing substations in order to ensure power availability. In the case of Reddfield, the proposed substation will relieve the power load from four other area substations by decreasing each one's service area, all of which will be impacted by future growth within those areas.



**26. Is public water and sewer available at Rail Yard?**

Applicant Response: The public water and sewer extensions that will be constructed by WMATA as part of the Metro Expansion, along with the access road to the pond, has been added to Sheet 3 of the SEA Plat.

**27. Is there room to expand landscape buffer?**

Applicant Response: Space is limited on this site. There is no ability to adjust the layout of the equipment or usable area. Given these site constraints, no additional buffer can be provided.

**28. Does the proposed substation interfere with radio, television, and telecommunications receivers of the public?**

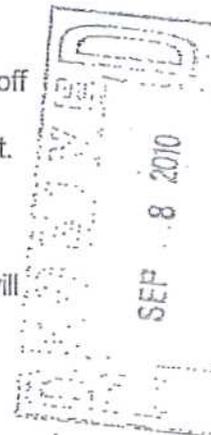
Applicant Response: Substations do not interfere with radio, television, or telecommunication receivers of the public.

29. Will the substation add to Electric & Magnetic Fields ("EMF") in the area? How does it compare to EMF generated by Transmission Lines? Can you provide data/readings from tests conducted at other substations?

Applicant Response: EMF, at various frequencies, is naturally present everywhere in the environment, and it is also created whenever an electrical appliance is used. EMF emitted from transmission lines, distribution lines, and substations will dissipate or "fall off" very quickly. In order to educate neighbors on EMF, Dominion invited several neighbors and community representatives to the Swinks Mill substation located in Great Falls, Virginia, on September 16, 2009. Swinks Mill is an existing substation that is comparable in size to the proposed Reddfield substation. In addition, it is located within a residential neighborhood.

The purpose of the site visit was to show that EMF emitted from the proposed substation would dissipate to well below acceptable standards at the substation's property lines. EMF readings conducted at this visit showed that higher levels of EMF were recorded immediately adjacent to the substation equipment. However, the readings quickly fell off to very low levels outside of the property line. Please refer to the Swinks Mill EMF drawing provided in the enclosed Electric & Magnetic Fields (EMF) Information Packet.

In addition to the substation, readings were also taken directly underneath and immediately adjacent to the transmission line at Swinks Mill (the transmission line is highlighted by the green line on the drawing). Again, these readings show that EMF will quickly fall away from a source.



FIRE MARSHALL COMMENTS:

The submitted application 2232-D10-12 lacks the details we need to fully comment on the submission. Further, the submitted plans and drawings are of too small a scale and are several reproductions removed from the originals. FRD's specific concerns are our ability to access the site and adequate water supply. The submitted application raises more questions than it answers. Examples include:

1. It is unclear where the closest water supply will be to this site.

Applicant Response: The public water and sewer extensions that will be constructed by WMATA as part of the Metro Expansion, along with the access road to the pond, has been added to the SEA Plat.

2. There appears to be a screening wall around some or all of the site. The details are not clear.

Applicant Response: Sheet 4 of the SEA Plat has been revised to label and clarify the specifics of the screening wall.

3. On the south side of the site, WMATA is constructing a yard tunnel/track cover box. Once constructed will this yard tunnel completely block access to the site

for people, vehicles, and water supply from the south, specifically from the WMATA rail yard?

Applicant Response: With the combination of the train tunnel under the Connector Road and the track cover box, people, water, and vehicular traffic will be blocked from accessing the substation site from the rail yard. However, vehicular access from the Dulles Connector Road, as well as a fire hydrant for this portion of the property will be provided for the substation portion of the property as part of the Metro expansion plans. The new vehicle access point and fire hydrant are shown on Sheet 3 of the SEA plat.

4. The contours of the new site are unclear, so we cannot determine slopes and water run-off directions.

Applicant Response: Sheet 3 of the SEA Plat has been revised to label the contours.

5. Retaining wall heights and lengths are unclear.

Applicant Response: Sheet 4 of the SEA Plat has been revised to label and clarify the retaining wall height and length.

6. The proposed road to access the site is shown connecting to the Dulles Connector Road (Route 267). Details for the proposed road such as width and composition are lacking.

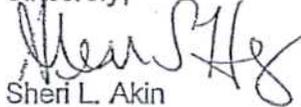
Applicant Response: The proposed access road is being constructed by WMATA as part of the Metro Rail Yard Expansion. A label was added to Sheet 3 of the SEA plat regarding construction of the access road by others

7. The presence of overhead obstructions is unknown from the plans.

Applicant Response: Overhead wire connections from the existing transmission line to the backbone structure, and from the backbone structure to the static poles are shown on Sheet 3 of the SEA Plat

Thank you for your assistance with this matter.

Sincerely,



Sheri L. Akin  
Land Use Planner



cc: Mr. David Emigh, Dominion Virginia Power  
Carson Lee Fifer Jr, Esquire, McGuireWoods LLP  
Planning Commissioner Jay Donahue – Dranesville District  
Supervisor John W. Foust – Dranesville District  
Mr. David Jillson, Fairfax County Planning

2232-D10-12

## SECTION 9-103(1) – ADDITIONAL SUBMISSION REQUIREMENTS

1. Four (4) copies of a map showing the utility system of which the proposed use will be an integral part, together with a written statement outlining the functional relationship of the proposed use to the utility system.

### RESPONSE:

**UTILITY SYSTEM:** Please see attached maps of existing utility system before the Reddfield substation and the proposed utility system with the Reddfield substation.

**WRITTEN STATEMENT OUTLINING FUNCTIONAL RELATIONSHIP:** The Dominion utility system operates through a series of networked transmission power line interconnections. Generation plants located throughout the Virginia, Maryland, and West Virginia areas serve major high voltage 500kV lines that bring power into the 230kV transmission system of Northern Virginia for distribution to many substations. The 230kv line in Fairfax County for the immediate area is shown on the attached utility system maps in blue. Power from the 230kv lines is converted to usable voltages via area substations such as the proposed Reddfield substation. From these substations, power is distributed at 34kV (typically) via distribution level lines and cables to individual homes and businesses.

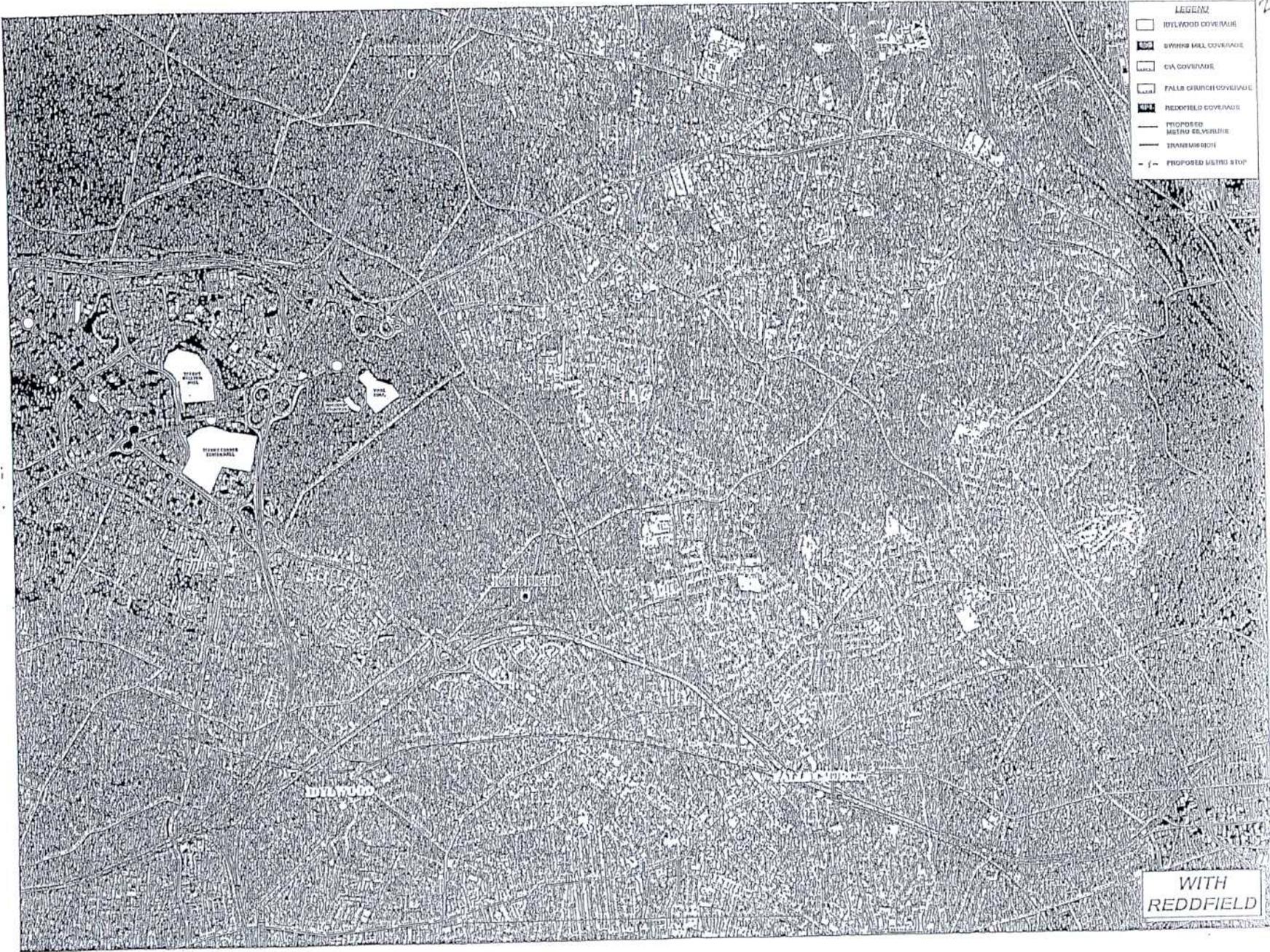
The first utility system map submitted with this application shows what substations distribute power to various areas without the proposed Reddfield substation. The Swinks Mill Substation is shown in GREEN and distributes power to areas north and east of Tysons Corner. The CIA substation is shown in TAN and distributes power to a large area northeast of Tysons Corner. The Idlywood Substation shown in yellow distributes power south and east of Tysons Corner, and the Falls Church Substation, shown in GREY, distributes power further east of Tysons Corner.

Dominion Virginia Power is projected to experience a significant increase in growth and customer demand for electricity during the next decade spurred by the Metro Silver Line in an area that continues to outpace other regions of Northern Virginia. The primary purpose of the Reddfield substation is to provide power to the rapid rail transit system known as the Metro Silver Line currently under construction in Tysons Corner and projected through to the Dulles Airport. Without the Reddfield substation, the Silver Line would need to be powered from one of the other area substations which are currently planned to address future growth in other areas. The Reddfield Substation is necessary to provide additional capacity and to ensure service reliability in this area.

The second utility system map shows the area's proposed utility system with the Reddfield substation. As shown, Reddfield would have direct connectivity to the Metro Silver Line. In addition, it will ultimately relieve the utility load for the Idlywood, Swinks Mill, CIA, and Falls Church substations.



2232-DIG-1



REDDFIELD

WITH REDDFIELD

2232-D10-12

SECTION 9-103(2) – ADDITIONAL SUBMISSION REQUIREMENTS

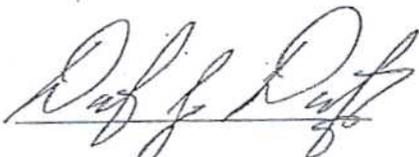
2. Four (4) copies of a statement, prepared by a certified engineer, giving the exact technical reasons for selecting the particular site as the location for the proposed facility and certifying that the proposed use will meet the performance standards of the district in which located.

**RESPONSE:**

**TECHNICAL REASONS FOR SUBSTATION:** Dominion's primary need is to place its substations as close to its existing transmission lines as possible. If a substation is placed on property that is not adjacent to an existing transmission line, then construction of a new, high-voltage transmission line would be necessary to supply the power source to the substation. The location of the proposed Reddfield Substation is strategic and appropriate in that it is immediately adjacent to a 230 kV electric transmission line. Further, it is located on property owned by the Washington Metropolitan Area Transit Authority (WMATA) and used as a Metro rail and service yard. Electricity will be converted and supplied directly to the new Silver Line. Also, this site was selected because it is in close proximity to where the Metro will require electrical service, thus, it effectively provides for the customer's needs. The convergence of the proximity to the existing transmission system and to the customer's load was the reason this site was chosen.

An added benefit to this location is that in addition to serving the new load of the Silver Line, Reddfield Substation is ideally located to serve and provide reliable service to the growing electrical demand of nearby areas of Fairfax County such as Pimmit Hills, the Western sections of McLean, and the areas along Idylwood Rd, Westmoreland St, and Great Falls St, to name a few. This centrally located substation will provide an ultimate demand capacity of approximately 135MW (connected capacity 168MVA) that will provide significant load relief and emergency support for approximately four existing prominent Dominion substations.

I certify that the proposed use of the substation will meet the performance standards of the district in which it is located.

 3/18/10

Daniel J. Doody

Certified Professional Engineer in the State of Virginia

License No. 17536





# COMMONWEALTH of VIRGINIA

## Commonwealth Transportation Board

Pierce R. Hómer  
1830  
Chairman  
4700

1401 East Broad Street - Policy Division - CTB Section - #1106

Richmond, Virginia 23219

(804) 786-

Fax: (804) 225-

*Agenda item # 3-C*

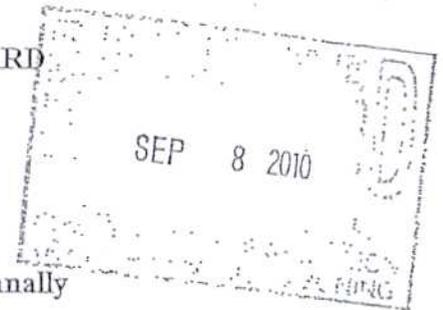
### RESOLUTION OF THE COMMONWEALTH TRANSPORTATION BOARD

April 19, 2007

#### MOTION

Made By: Mr. Koelemay    Seconded By: Mrs. Connally  
Action: Motion Carried, Unanimously

Title: Limited Access Control Changes  
Route 267, Fairfax County



WHEREAS, Route 267, between Interstate 66 and Interstate 495, in Fairfax County, was designed and built as Federal Highway Project 34-5(6) by the United States Department of Transportation, Federal Aviation Administration (FAA), and was designated as a Limited Access Highway as a design feature of the project; and

WHEREAS, in connection with a section of Route 267, which is located between the aforesaid locations, the Virginia Department of Highways and Transportation, predecessor to the Virginia Department of Transportation (VDOT), acquired certain maintenance and operations responsibilities for said Route as part of an Agreement executed on July 6, 1981, between VDOT and FAA; and

WHEREAS, in accordance with said maintenance responsibilities the number and location of points of public access and egress, both to and from the said Route will not be altered by VDOT without the written concurrence of the FAA; and

WHEREAS, the United States of America, acting by and through the Secretary of Transportation, leased the land rights to the Metropolitan Washington Airports Authority (MWAA) by lease dated March 2, 1987, therefore, assuming the activities formerly of the FAA; and

WHEREAS, due to continued design refinement of the Dulles Metrorail Project, the land on the west side of the west right of way and limited access fence lines of the

said Route 267 EBL, as shown on the plans for said Federal Highway Project and additionally depicted on the Department of Rail and Public Transportation (DRPT) Resolution of the Board

Limited Access Control Changes – Route 267

Fairfax County

April 19, 2007

Page Two



drawing number SK-K99-Redfield, has been identified by the DRPT, Dominion Virginia Power (DVP), and VDOT for the location of an entrance for an access road from Route 267 EBL for the sole uses of DRPT to maintain a storm water management facility, and DVP to maintain a substation; and

WHEREAS, DPRT, DVP, and VDOT have identified and requested a limited access control change of approximately 74 feet, more or less, on the west side of the Route 267 EBL west right of way and limited access fence lines (approximately 37 feet, more or less, on either side of approximate Station 1007+00), as shown on the aforesaid plans, and drawing to accommodate ingress, egress, with right in and right out only turning movements, being a gated non-signalized entrance without additional lanes on Route 267, with safety improvements, as required; and

WHEREAS, VDOT has determined that the proposed limited access control change of approximately 74 feet, more or less, on the west side of the Route 267 EBL west right of way and limited access fence lines (approximately 37 feet, more or less, on either side of approximate Station 1007+00), as shown on the aforesaid plans, and drawing, and being a restricted use, gated, non-signalized entrance with no additional lanes, allowing right in and right out only turning movements, as required, is appropriate for said proposed entrance to include any safety improvements as required, from a design standpoint subject to further review and approval; and

WHEREAS, use of said access for other than emergency purposes or required maintenance of the aforesaid facilities shall not be permitted, and the parties agree to and shall keep the gate locked at all times except when DRPT, DVP, and VDOT personnel are present, and use of this property for access to any other properties is strictly prohibited; and

WHEREAS, VDOT has determined that the said proposed limited access control change for the restricted use entrance, as defined, is appropriate from a safety and traffic control standpoint subject to additional review or approval as may be required; and

WHEREAS, all right of way, engineering, construction, and necessary safety improvements shall meet all VDOT standards and requirements; and

WHEREAS, VDOT staff has determined there will be no adverse environmental impacts; and

WHEREAS, all costs of engineering and construction, including all necessary safety improvements, gates and locking devices, will be borne by DRPT and DVP; and

WHEREAS, the installation and maintenance of the gate and locking device(s) shall be the responsibility of DRPT and DVP, with the means to operate the gate locking devices provided to VDOT free of charge and in perpetuity by DRPT and/or DVP; and

Resolution of the Board  
Limited Access Control Changes – Route 267  
Fairfax County  
April 19, 2007  
Page Three

WHEREAS, the proposed limited access control change is in compliance with the Commonwealth Transportation Board Policy; and

WHEREAS, upon completion and acceptance of the proposed entrance and changes by VDOT, all work, roadway construction, improvements and equipment will become the property of the FAA with land rights and maintenance responsibilities within Route 267 remaining as previously defined.

NOW, THEREFORE, BE IT RESOLVED, in accordance with the provisions of Section 33.1-58 of the *Code of Virginia* (1950), as amended, the CTB hereby conditionally approves the said limited access control change for public street purposes as set forth, pending the approval of the location of the point of access and egress by MWAA, and subject to the above referred to conditions. The Commonwealth Transportation Commissioner is hereby authorized to execute any and all documents needed to comply with this resolution.

###





COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION  
140 EAST BROAD STREET  
RICHMOND, VIRGINIA 23219

David S. Ecken, P.E.  
DC-1000000000

April 1, 2007

- The Honorable Pierre Homer
- The Honorable David S. Ecken
- The Honorable Matthew O. Tucker
- The Honorable Jim D. Bowie
- The Honorable Mary Lee Carter
- The Honorable Julia A. Canally
- The Honorable John I. "Buloh" Davis, III
- The Honorable James A. Davis
- The Honorable E. Dana Dickens, III
- The Honorable James L. Keen
- The Honorable L. Douglas Koglenay
- The Honorable Dana M. Martin
- The Honorable Gerald P. McCarthy
- The Honorable Peter B. Schwartz
- The Honorable Cord A. Stalling
- The Honorable Kenneth Spencer White
- The Honorable Alma S. Witt



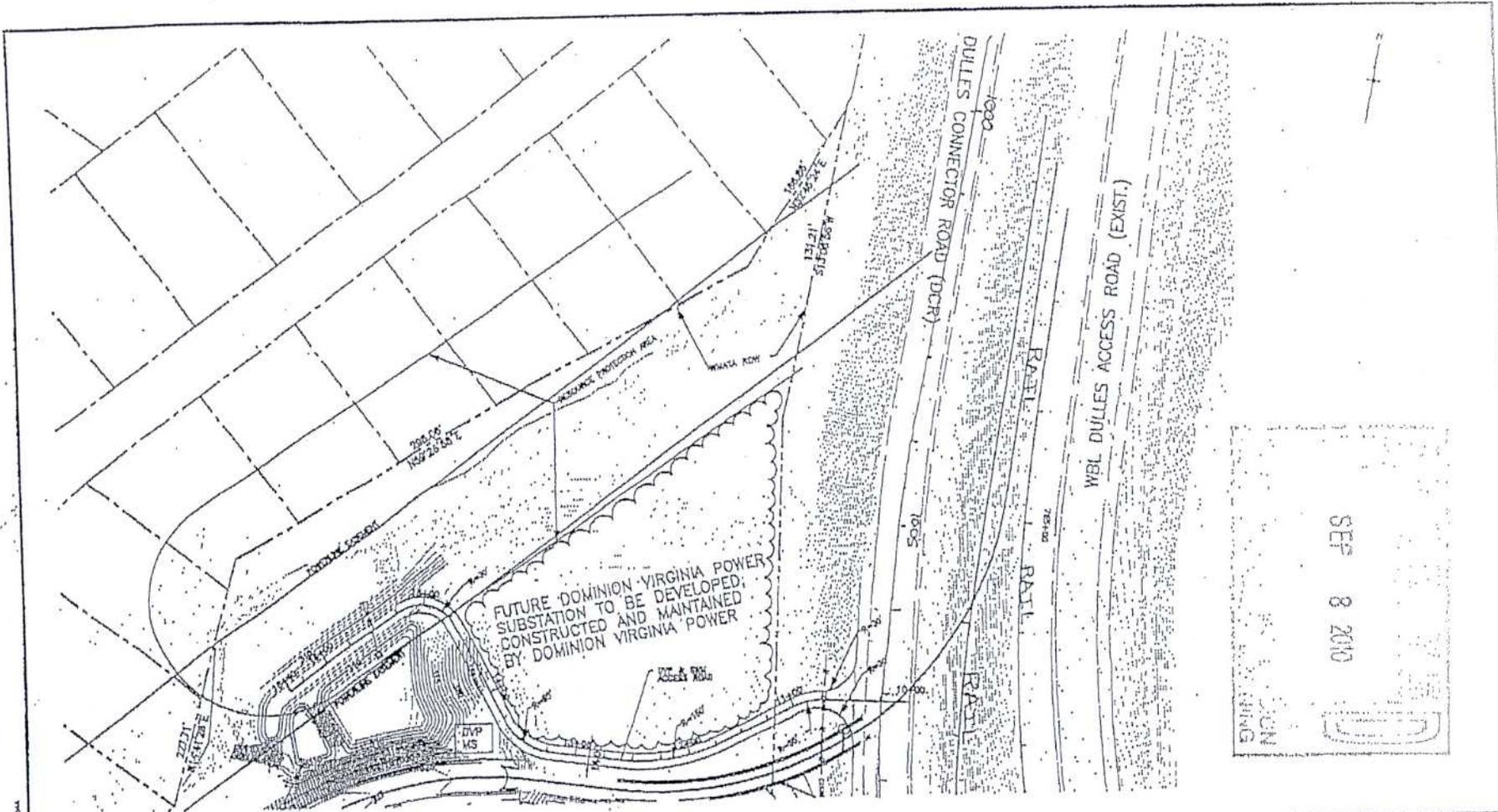
Subject: Change of Limited Access Control, Route 267, Fairfax County

Dear Commonwealth Transportation Board Members:

The Northern Virginia District has forwarded the above request for a limited access control change for your consideration. The Department's staff has determined that the said proposed limited access control change and resulting non-signaled, restricted use entrance is visible from a design, safety and traffic control standpoint, and is being conditionally recommended by the Department. I have reviewed the District Administrator's recommendations and determined that granting this change of limited access control will not adversely affect the safety or operation of the affected highway network and that this request should be considered by the Board.

The proposed limited access control change on Route 267 at the location shown on the plans for Federal Highway Project 34-5(6), as requested by the Department of Rail and Public Transportation, is part of the continuing design refinements of the Dulles Metrorail Project, and is to allow access to their storm water management facility and a Dominion Virginia Power substation.

Sincerely,  
  
Malcolm L. Kesley, P.E.  
Chief Engineer



SEP 8 2010  
 10:00 AM  
 10:00 AM

DATE PLOTTED: 09/08/2010 10:00 AM

DULLES CORRIDOR METRO RAIL PROJECT		WMATA GRID	DRAWING NO. 134887
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY		EXTENSION TO WIEHLE AVE WEST FALLS CHURCH YARD ACCESS ROAD TO FUTURE DVP AND POND	
<b>DTE</b> DULLES TRANSIT ENGINEERS <small>Virginia Department of Rail and Public Transportation</small>		<b>DRPT</b> <small>Virginia Department of Rail and Public Transportation</small>	DRAWN BY: [ ] CHECKED BY: [ ] DATE: [ ] SCALE: [ ] PROJECT NO.: [ ] <b>SICKS-ROEDER</b>

REFERENCE CHANGES		REVISIONS			
NO.	DESCRIPTION	NO.	DATE	DESCRIPTION	BY

DATE PLOTTED: 09/08/2010 10:00 AM
SCALE: 1" = 100'
PROJECT NO.: 134887
DRAWN BY: [ ]
CHECKED BY: [ ]
DATE: [ ]
SCALE: [ ]
PROJECT NO.: [ ]

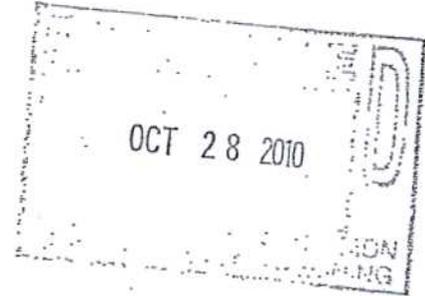
McGuireWoods LLP  
1750 Tysons Boulevard  
Suite 1800  
McLean, VA 22102-4215  
Phone: 703.712.5000  
Fax: 703.712.5050  
www.mcguirewoods.com

Carson Lee Fifer, Jr.  
Direct: 703.712.5343

McGUIREWOODS

Land Use and Development  
lfifer@mcguirewoods.com

October 27, 2010



Chief Ronald L. Mastin  
Fairfax County Fire and Rescue Department  
4100 Chain Bridge Road  
Fairfax, Virginia 22030

Re: Dominion/Reddfield Substation Security Gates

Dear Chief Mastin:

In response to comments made by Eric K. Fisher with the Fairfax County Fire and Rescue Department dated September 27, 2010, regarding the Dominion Virginia Power (Dominion) Reddfield Substation, we wanted to provide you with more information regarding Dominion's protocol for safety responses at their substations. Please find the information below that has been relayed to me by Dominion.

The proposed Reddfield Substation will contain energized high-voltage electrical equipment installed within a secure wall and locked gates preventing anyone, including Fire Department personnel, from unescorted access to the substation interior. In the (rare) event of a fire breaking out inside the substation, trained Dominion and Fire Department personnel are dispatched to the station to respond. For their own safety, Fire Department personnel are not authorized to enter the substation or attempt to extinguish the fire until on-site Dominion personnel assure which areas of the substation have been de-energized for safe Fire Department personnel access.

As an added preventive measure, immediately following the substation completion, Dominion will invite the Chief of the local Fire Department to attend a walk-through of the substation. Together, we will develop an Emergency Response Plan for the Reddfield substation. We will be happy to extend that invitation to County personnel as well.

Please contact me if you have any questions.

Sincerely,

Carson Lee Fifer, Jr.

cc: Dave Emigh, Dominion Virginia Power

Bureau of Capital Outlay Management  
PROJECT REVIEW COMMENTS

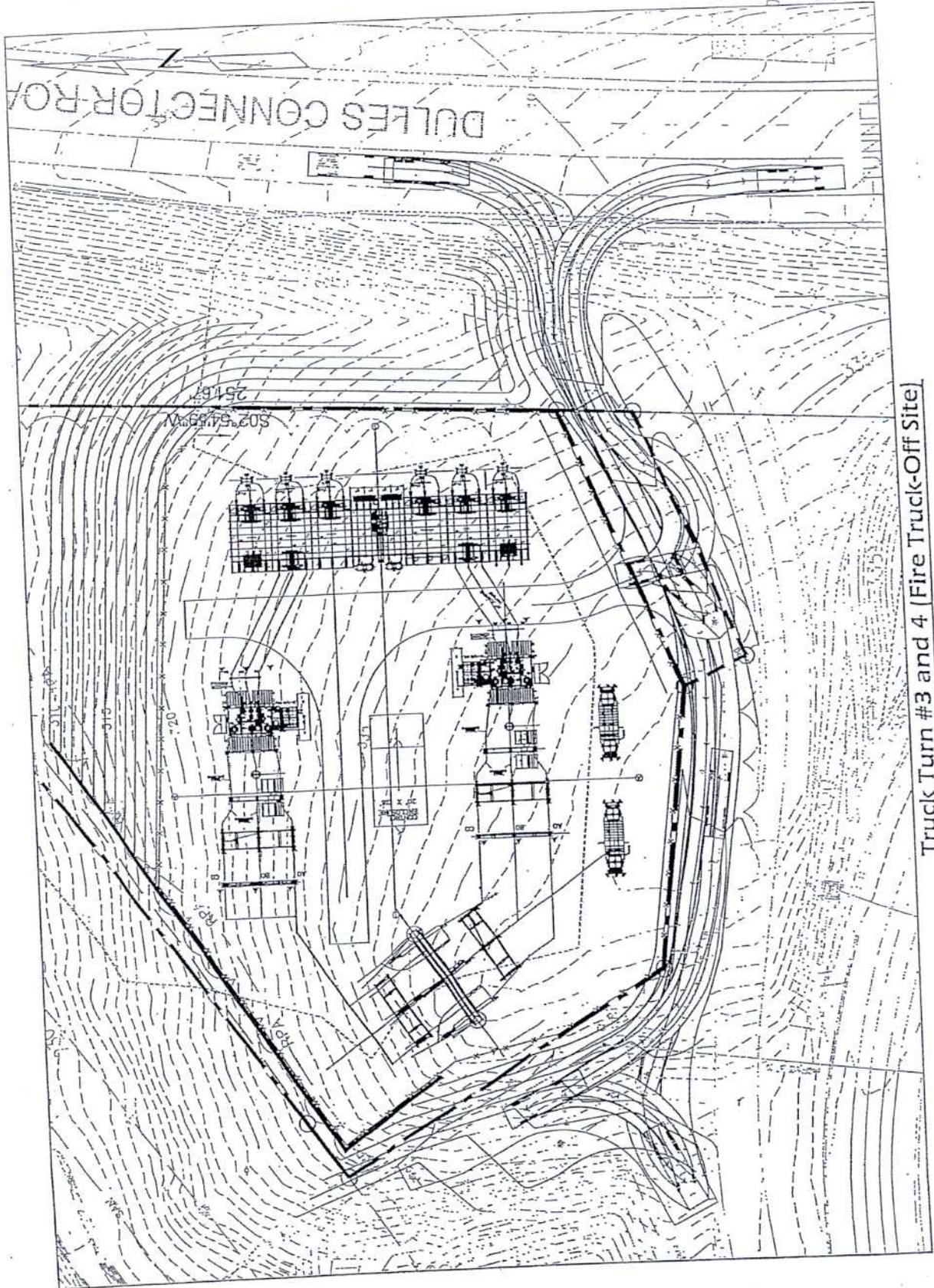
Agency Name:	The Department of Rail and Public Transportation	Project Code:	505-08505-370
Project Title:	West Falls Church Yard (DCR I66) Cut & Cover Tunnel	Review Date:	14 June 2010
Submittal Type:	Working Drawings - 1 <sup>st</sup> Submission	Receipt Date:	28 June 2010
File Name:	wd-f-001-jcr		
Reviewer Name:	J. Christopher Raha, P.E.	Discipline:	Fire Safety
Reviewer E-mail:	Christopher.Raha@dgs.virginia.gov	Telephone:	804.786.4134

This review is provided as a service to the Agency. The Agency and the A/E are responsible for complying with all laws, codes, regulations, policies and the Construction and Professional Services Manual, regardless of review comments. Contact the reviewer if discussion of any comment is desired. Abbreviations used: CPSM = *Construction and Professional Services Manual*; ADAAG = *ADA Accessibility Guidelines for Buildings and Facilities*; VPPA = *Virginia Public Procurement Act*; VUSBC = *Virginia Uniform Statewide Building Code*.

- | #  | Reference  | Comments   |
|----|------------|--|
| 1. |            | This review references Sections of the 2003 NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems, 2003 Virginia Uniform Statewide Building Code (VUSBC), 2003 Virginia Statewide Fire Prevention Code (VSFPC), NFPA 10, NFPA 13, NFPA 14, NFPA 72 and the 2004 Edition of the Construction and Professional Services Manual.  |
| 2. |            | These comments may require changes to other drawings or specification sections, in addition to where the comment is made. The A/E is responsible for this coordination.  |
| 3. | N00-TS-113 | <p>Handrail Plan at Equipment Installation Above Handrail "3"; validate that compliance with NFPA 130 Section 6.2.6.11 is achieved on the Cut and Cover Tunnel Safety Walkway. This proposed handrail dimension of 8" off of the tunnel wall does not appear to achieve compliance with the Tunnel Sections shown on N00-TS-101.</p> <p>DTP Response: NFPA Compliance Review drawings K99-TS-032 (Rev.3), K99-TS-033 (Rev.3) &amp; K99-TS-043 (Rev.1) had been submitted in Vol.2 of latest submittal (Bid Set). On these drawings, handrail with 8" off from the tunnel wall is obviously at outside of the required clearance envelope per NFPA 130 Section 6.2.6.11. These 3 drawings are attached for your reference.</p> <p>Wen Hong 703-852-6043 7/8/2010 Wen.Hong@dullestransitpartners.com</p> |
| 4. | N01-TM-202 | <p>The "West Falls Church Yard SWM Access Road is to be constructed as a Fire Department Access Road consistent with the requirements of VSFPC Section 503.</p> <p>DTP Response: The access road design is consistent with VSFPC section 503 and is part of the West Falls Church Yard design package. The paved roadway width is 18' with a 1' buffer on either side before the hinge point of the side slopes. This provides the 20' unobstructed width (per section 503.2.1). A turn-around sufficient for a ladder truck is provided in the design. The VDOT standard access gate width of 14' and the access road grades will be coordinated with the local fire chief.</p> <p>Ron Jakominich 703-852-6070 7/8/2010 Ron.Jakominich@dullestransitpartners.com</p>                                  |
| 5. | K99-E-022  | Validate that the electrical components depicted within the Sections shown on this sheet achieve compliance with the requirements of NFPA 130 Section 6.2.6.11.  |



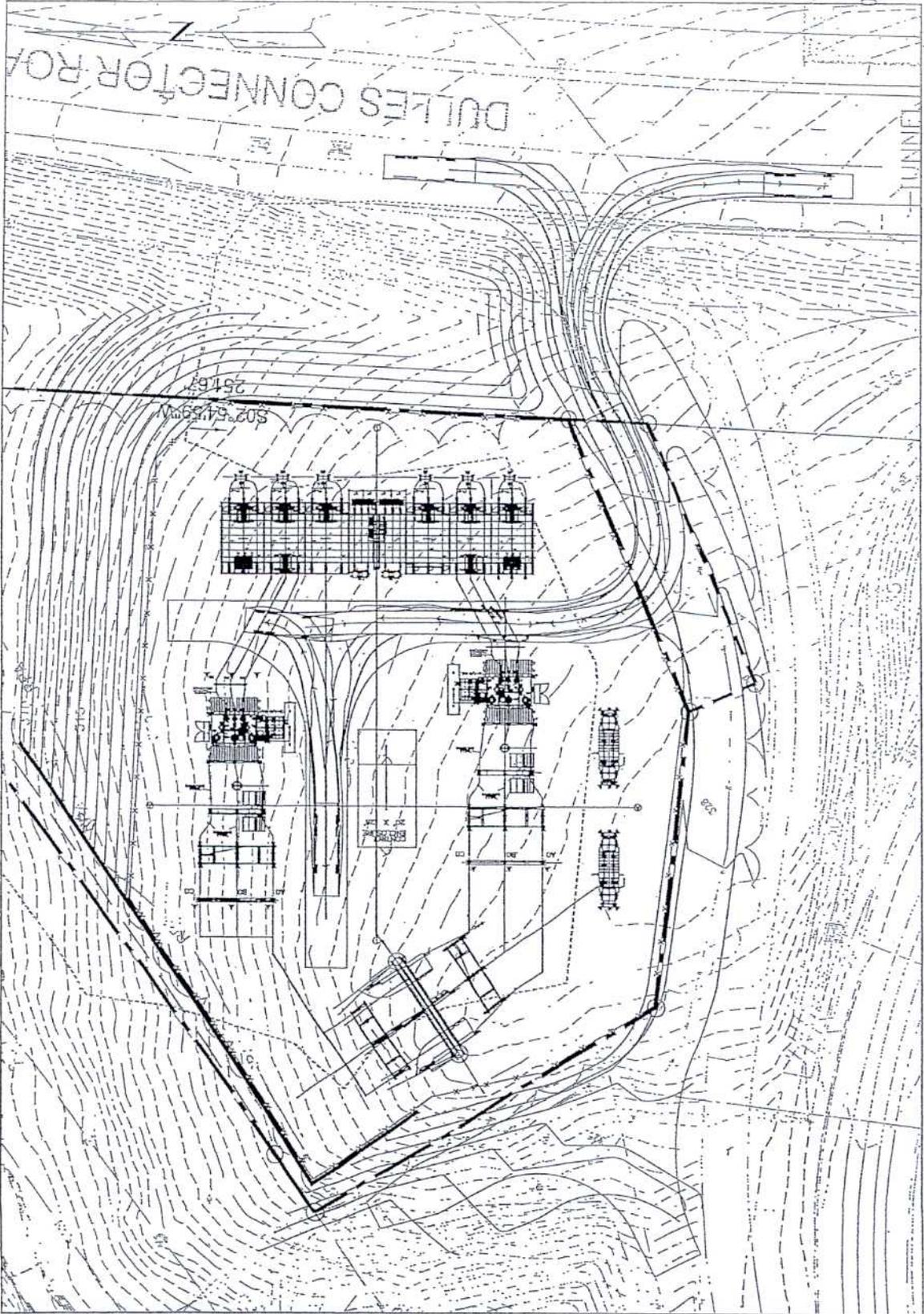
OCT 28 2010



DULLES CONNECTOR ROAD

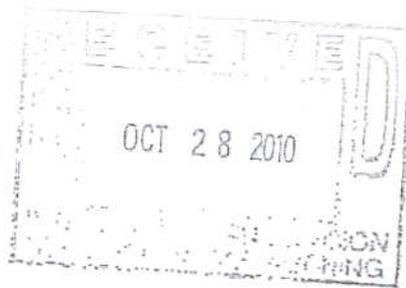
Truck Turn #3 and 4 (Fire Truck-Off Site)

OCT 28 2010



Truck Turn #5 (Fire Truck - On Site)

Dominion Virginia Power  
701 East Cary Street, Richmond, VA 23219  
Mailing Address: P.O. Box 26666  
Richmond, VA 23261  
Web Address: www.dom.com



## MEMORANDUM

---

PROJECT: DOMINION VIRGINIA POWER REDDFIELD SUBSTATION  
DATE: October 26, 2010  
SUBJECT: Alternate Substation Sites Evaluation (Eliminating Factors)

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This memorandum is to summarize the alternate sites considered for the substation and the factors that eliminated them. Attached are site photos and exhibits for each site.

New substations are required only when consumer demand rises to a level that warrants the additional service or a particular need arises. Consumer demand is largely residential electric home use in this area, but in this instance, the need for additional electric power for the Silver Line is driving the timing and schedule. No new substation is easy to locate. In some instances, Dominion has successfully projected increased service demand and reserved an area for a new substation. In this instance, the recent push for rail to Dulles Airport has greatly accelerated the need for this substation, but increasing residential demand and the issue of prompt response to service interruptions would warrant it as well.

Dominion's general standards for identifying potential substation sites include the following:

(1) Proximity to Need: A new substation should be in close proximity to the service need. In this instance, the WMATA Metro Yard is the site of the need and is central to the area load demand growth and the service for the Silver Line.

(2) Site Size: A desirable size for a distribution substation site is four (4) acres. However, the characteristics of a site may allow for a reduction in the size, such as whether access and stormwater management can occur off site, as well as forecasting that future growth will not require additional transformers or circuits on that site.

(3) Location: A substation must be in close proximity to the transmission lines that supply the power itself. Adjacency is ideal. A site that is not adjacent to a transmission line would require an extension of the transmission line. An extension of any line at or above 138KV requires approval from the State Corporation Commission (SCC), which would cause extensive delay, and procurement, clearing and construction of additional right of way for the new towers and transmission line.

(4) Dimensions of Site: An inflexible aspect of a site is the requirement of at least 180 feet by 250 feet in layout dimension. These are the minimum dimensions for the layout of a substation.

(5) Access: The site must have access at all hours on all days all year. In the event of an emergency or power loss, work crews must have immediate access to the site.

(6) Distribution Lines: There must be an easement from the substation for distribution lines to be connected to the service area and/or site. Easements are required for distribution lines. Either existing routes are used or new routes and easements must be obtained.

Each site presented its own constraints on its use as a substation. The most common were residential setbacks; Resource Protection Areas (RPA), wetlands and/or low wet areas; difficult topography; setbacks from existing /planned uses and/or roadways and facilities; irregular shape; existing easements; and existing utilities and/or other uses.



## BACKGROUND – REDDFIELD SITE:

This site was identified in an October 20, 2005 meeting at the Dranesville Supervisor's Office. The meeting was attended by the Dranesville Supervisor, the Dranesville Planning Commissioner, a representative of the Virginia Department of Rail & Public Transportation (VDRP) and representatives of Dominion Virginia Power, MWAA and WMATA. Because of the advantages of the Reddfield site, Dominion was directed to it.

Soon thereafter, on December 8, 2005, the VDRP held a public meeting at Spring Hill Elementary School to discuss the WMATA station plans and this future Dominion Substation site. Since that time, the Reddfield Substation site has been identified on WMATA plans, including but not limited to SEA 85-D-033-02, for certain changes to the West Falls Church Rail Yard.

The Reddfield site is well located for a substation. The following are some of the reasons:

- It is immediately adjacent to a transmission line from which it would obtain its power.
- It is immediately adjacent to its most immediate service need, the Silver Line for rail to Dulles and the first three (3) metro stations in Tysons Corner.
- It is adjacent to an existing industrial use, the West Falls Church Rail Yard.
- Both the access and storm water management facility are located off site, so the size of the substation can be minimized. In fact, the Reddfield Substation will be Dominion's smallest for this type of substation.
- All access, both for construction and for maintenance, will be from the Dulles Connector Road, so no residential or commercial street would be used.
- Distribution line access will be through the Dulles Connector Road, minimizing any impact to residential and commercial areas.
- The Reddfield site is the farthest from residential areas, bounded by the Dulles Connector Road, the West Falls Church Rail Yard and an existing high power transmission line in a 100 foot wide easement.
- At the Reddfield location, the substation will not create noise, odor, particulate matter or vibration. Although the 95 foot "backbone" structure will be hard to completely buffer, only the top part would be visible because the retaining wall and 8 foot screening wall will shield the other facilities within the substation as well. On-site and offsite landscape buffering may be able to shield the entire substation and backbone structure, to be determined on a lot-by-lot basis.

No alternate site provides this minimum presence. As detailed below, all alternate sites are disqualified for sometimes numerous criteria.

OCT 28 2005



## ALTERNATE SITE ANALYSIS INDEX:

DOT 28 11

- DOT 28 11
- |                  |   |
|------------------|---|
| Tabs 1 through 5 | Includes sites Applicant originally reviewed in determining a possible substation site  |
| Tab 6            | Existing Tysons Corner Substation - Dominion was asked if this substation could be expanded instead of constructing Reddfield   |
| Tab 7            | Existing Idylwood Substation - During this application process, Dominion was asked if this substation could be expanded instead of constructing Reddfield                     |
| Tab 8            | Tax Map 40-3-((1))-92 & 92A - Existing UVA/Virginia Tech Center - During this application process, Dominion was asked if a substation could be constructed at this site       |
| Tab 9            | Tax Map 40-3-((1))-59 - Northern Virginia Conservation Trust Property - During this application process, Dominion was asked if a substation could be constructed at this site |
| Tab 10           | Tax Map 40-3-((32))-A - Lindsay Drive Homeowners Association Property - During this application process, Dominion was asked if a substation could be constructed at this site |
| Tab 11           | Tax Map 40-3-((1))-66 - Lindsay Family Cemetery - During this application process, Dominion was asked if a substation could be constructed at this site                       |
| Tab 12           | Tax Map 40-1-((1))-10B - Commonwealth of Virginia Property - During this application process, Dominion was asked if a substation could be constructed at this site            |
| Tab 13           | Tax Map 40-3-((1))-84 - West Falls Church Metro Station - During this application process, Dominion was asked if a substation could be constructed at this site               |
| Tab 14           | Tax Map 40-3-((1))-3B, et al. - Pimmit Run Stream Valley Park - During this application process, Dominion was asked if a substation could be constructed at this site.        |
| Tab 15           | Dominion Transmission Line Easement - No Tax Map Number - During this application process, Dominion was asked if a substation could be constructed at this site               |
| Tab 16           | Pursuant to Section 9-104 of the Zoning Ordinance, Dominion reviewed all commercial and industrial sites within 1 mile of the proposed Reddfield site.                        |

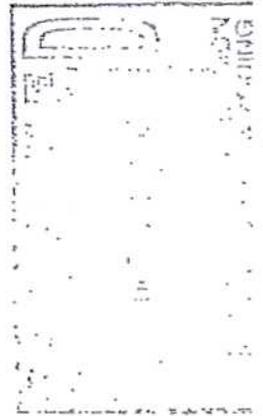
Site # 1 – Tax Map No. 40-1((1)) 25B & 25C - WMATA and Park Authority Property (13.55 + AC.; RPA: 1.91 AC) (“McKay Street” Site)

- A large area of the WMATA site at the end of McKay Street contains a large, low lying wet area. To obtain additional usable area for site equipment, access, and/or distribution lines, additional square footage may be needed from the Fairfax County Park Authority. The amount of square footage needed from the Park Authority would be determined as the work would progress. The Park Authority has stated it would consider only an equal or larger site as a land exchange. The site designated by the Park Authority for exchange is currently planned by Dominion for a future Oakton substation site.
- To use this site, massive grade adjustment and fill would be required for approximately 60% of the site with as much as 16-feet of structural fill, fill in approximately 20% of the storage capacity of the existing stormwater management, and reconstruction of up to 50% of the existing stormwater management dam.
- The access to the site would be from McKay Street for both construction and maintenance. Construction will entail numerous dump truck deliveries of fill dirt, tractor and trailer deliveries of equipment and continual construction disruption within or adjacent to the residential area. Further, there is not enough available area on-site for a truck to turn around, so a truck would be required to back up the entire length of McKay Street.
- This site is within the security fence perimeter of the WMATA rail yard, which would mean long response times for Dominion to respond to outages/problems in the station. WMATA has indicated that it would not permit the substation inside its security fence.
- A substation at this site would place the fence within 35 feet of a residence at the end of McKay Street and 17 feet from the residential property line. (The Reddfield site at the closest point is 194 feet between the substation fence and the residence and 130 feet from the residential property line.)
- The low lying wet area at this site previously functioned as an E&S control for the Route 66 construction project and currently functions as a means of storm water management control for the downstream flooding in the rear yards of the McKay Street residences and future WMATA stream rehabilitation project.
- The flows immediately downstream of the existing in stream weir wall and tentatively against the retaining wall that will support this site are from a drainage area of +/-216 acres with storm events being: Backfull 1-yr storm event Q = 229 cfs, 2-yr storm event Q = 325 cfs, 10-yr storm event Q = 765 cfs, and 100-yr storm event Q = 1167 cfs.
- A 450 foot long and 10-foot high retaining wall would be required to be constructed to raise the site out of the previously flooded areas. It is prudent to assume that spread footings would not be feasible in these wet conditions and deep foundations, piling construction would be required. The length of the construction timetable, as well as construction noise, would be increased because of the pilings.
- This site is in close proximity to identified wetlands. If site features require encroachment into these environmental sensitive areas, a Jurisdictional Permit Application (JPA) would be required along with a Wood turtle Survey.
- Cost would be approximately \$1,000,000 more than the Reddfield site.
- Construction time would be up to a year. This is approximately three (3) times the time of construction for the Reddfield site.
- Using this alternate site could affect the WMATA site plan, SE, and likely the storm water management plans, the stream restoration plans and tree coverage calculations. This site would remove 1.02 acres of mature trees designated and



approved to be saved as part of the Metro expansion SE. The proposed supplemental trees in this area would need to be relocated on the Metro site somewhere as well. WMATA would gain back 0.74 acres of mature trees at the current Reddfield substation site if Dominion did not develop at that site. This still creates a net loss of 0.28 acres of mature trees on the metro site.

- The delay inherent in the use of this site would mean that Dominion could not meet the scheduled date for the delivery of power to the Silver Line.





Alternate Reddfield Substation Site #1



Site # 2 – Tax Map No. 40-2 ((1)) 3B – Zari Sohrabi Property (2.37 AC.; RPA: 1.85 AC.)

- This site is adjacent to the transmission line. Of the 2.37 acres comprising the site, 1.85 acres or 78% is designated as RPA, leaving just 0.52 acres of usable area, which is much too small to be used as a substation.
- In addition, there is an existing, occupied house on the site, the preservation of which would eliminate almost all of the scant usable site area.





Alternate Reddfield Substation Site #2

Site # 3 – Tax Map No. 40-2 ((1)) 42 – Little League, Inc. Property (3.98 AC.; RPA: 3.45 AC.)

- When this site was initially identified because of its adjacency to the transmission lines, there was a large, unused portion. The owner, the Fairfax County Park Authority, indicated that the vacant area was to become additional Little League baseball diamonds/fields, which has now occurred.
- Moreover, of the 3.98 acres of the site, 3.45 acres or 87% is comprised of RPA. The remaining area, 0.53 acres, is too small to be a substation site, even if the ball fields were relocated.



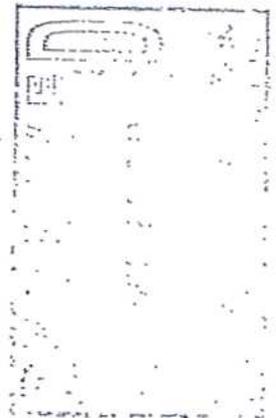


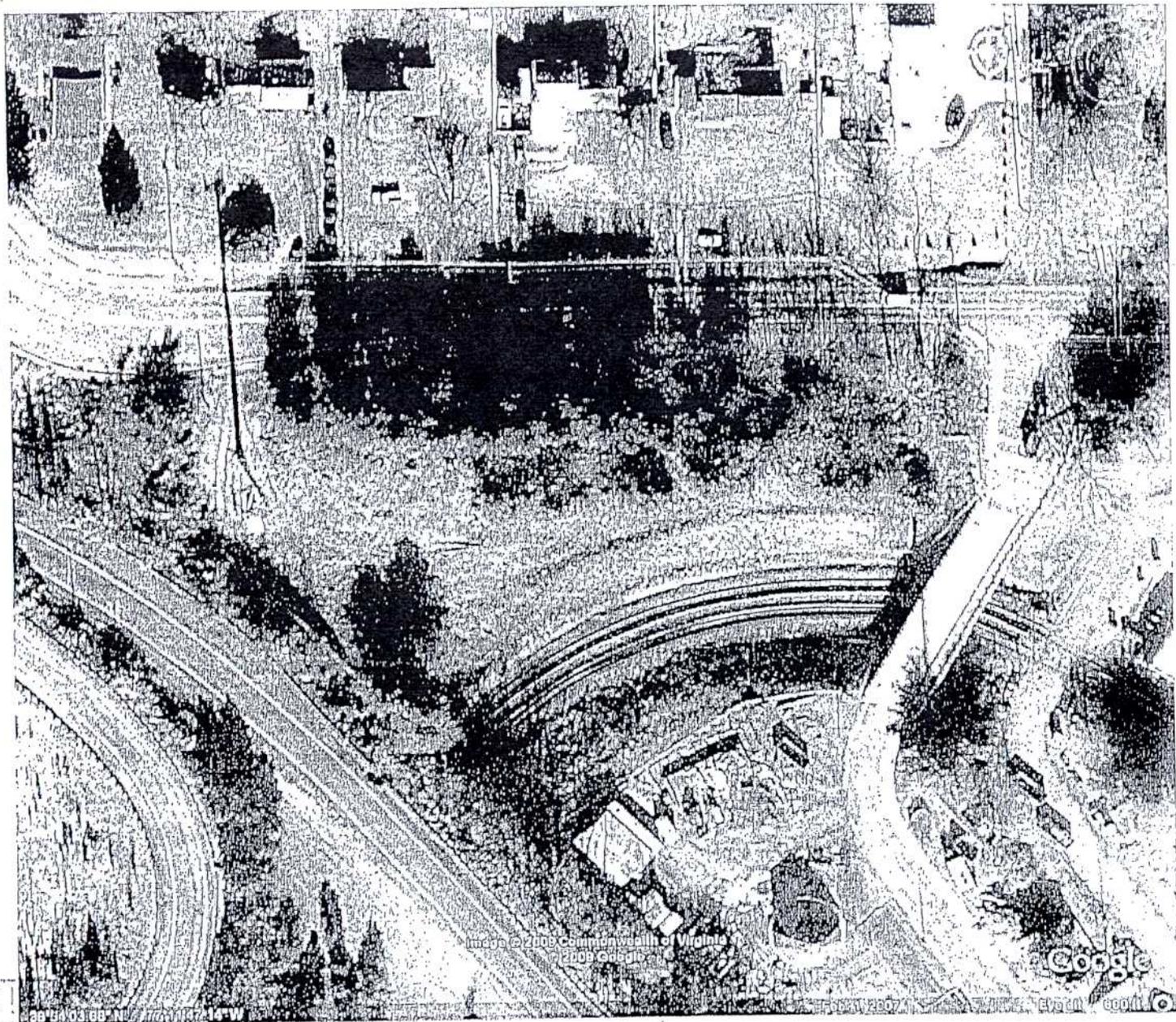
Alternate Reddfield Substation Site #3

01/28/2010

Site # 4 – Tax Map No. 40-3 ((1)) 93B – WMATA Property (8.47 AC.; RPA: 0AC.)

- Although this site consists of 8.47 acres, a substation layout area, outside of the already used metro track area, is only 100 feet by 300 feet. This narrow area cannot accommodate the minimum configuration of 180 feet by 250 feet needed for the structures within a substation. The narrowness eliminates this site.
- Additional site constraints are many, such as a fifty (50) foot setback from the existing rail tracks; a prohibition on any structure being tall enough to fall on the tracks (the ninety (90) foot "backbone" structure is dictated by safety standards); and seventy-five percent (75%) consists of extremely steep slopes, all within a secure Metro Yard. Full-time access even for emergencies, would not be granted by WMATA. The configuration of the site would prevent buffer, landscape screening and required tree coverage.
- Access to this site for construction and maintenance would be from Idylwood Road, and must key to site elevations. This would mean an entrance with no deceleration lane and the high likelihood of trucks queuing on Idylwood Road. In addition to traffic impact on Idylwood Road, the access point there would mean the site could not be raised or lowered to buffer the site from adjacent residences. Given the lack of width for buffering, the site would be quite visible to nearby residences.
- In addition, a cell tower occupies a position on the site.
- This site's immediate adjacency to Idylwood Road would mean that any future widening of Idylwood Road would have to occur totally on the side occupied by a number of homes. Moreover, the proximity of these homes to a substation would be the width of Idylwood Road, a distance of approximately 100 feet to the front doors. (The Reddfield site is a minimum of 130 feet to the nearest lot line (rear yard) and 194 feet to the nearest home.)





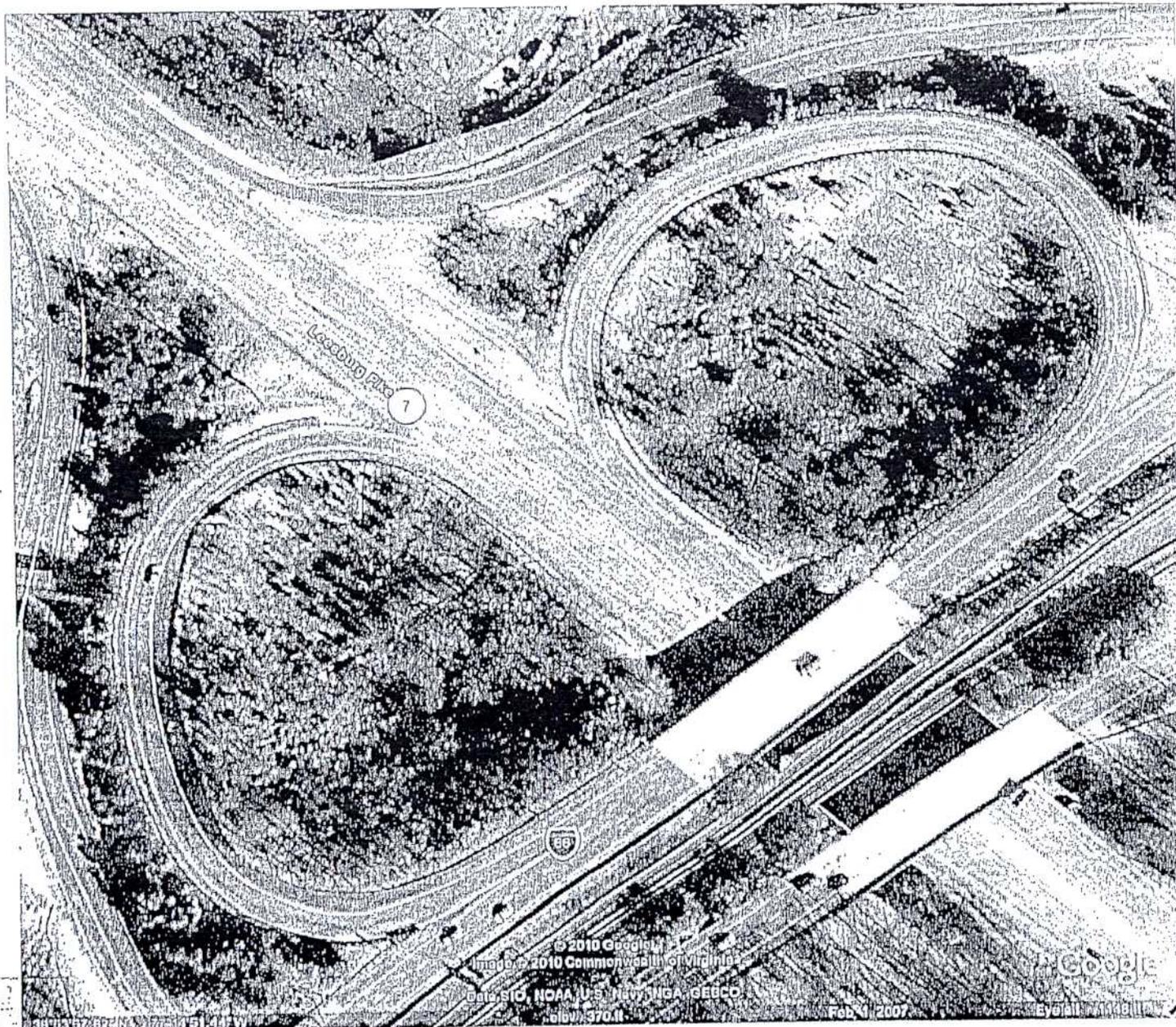
Alternate Reddfield Substation Site #4

OCT 23 2010

Site # 5 – No Tax Map Number – Part of VDOT Right of Way (6.41 AC.; RPA: 0AC.)

- This site consists of a combined acreage of 6.41 acres located in two interchange loops, owned and controlled by the Virginia Department of Transportation (VDOT). VDOT has refused any consideration of the use of this site, based upon VDOT safety policies.
- There are numerous aspects of safety concerns. High-powered transmission lines must connect to the site's "backbone", which by necessity must pass over heavily traveled roadways. Distribution lines must exit the site also over roadways to supply the service to the need. Although 24/7 access appears available, an accident could block access, and conditions that create emergencies are the most likely to precipitate accidents. Moreover, the turning movements into and out of the site would occur on exit/entrance ramps for an interstate highway, a condition contrary to every traffic planning concept existing. This site would not function safely for the general public or for the site workers.





Alternate Reddfield Substation Site #5

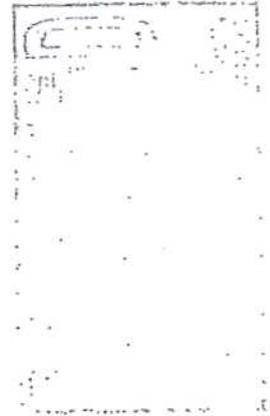
OCT 27 2010

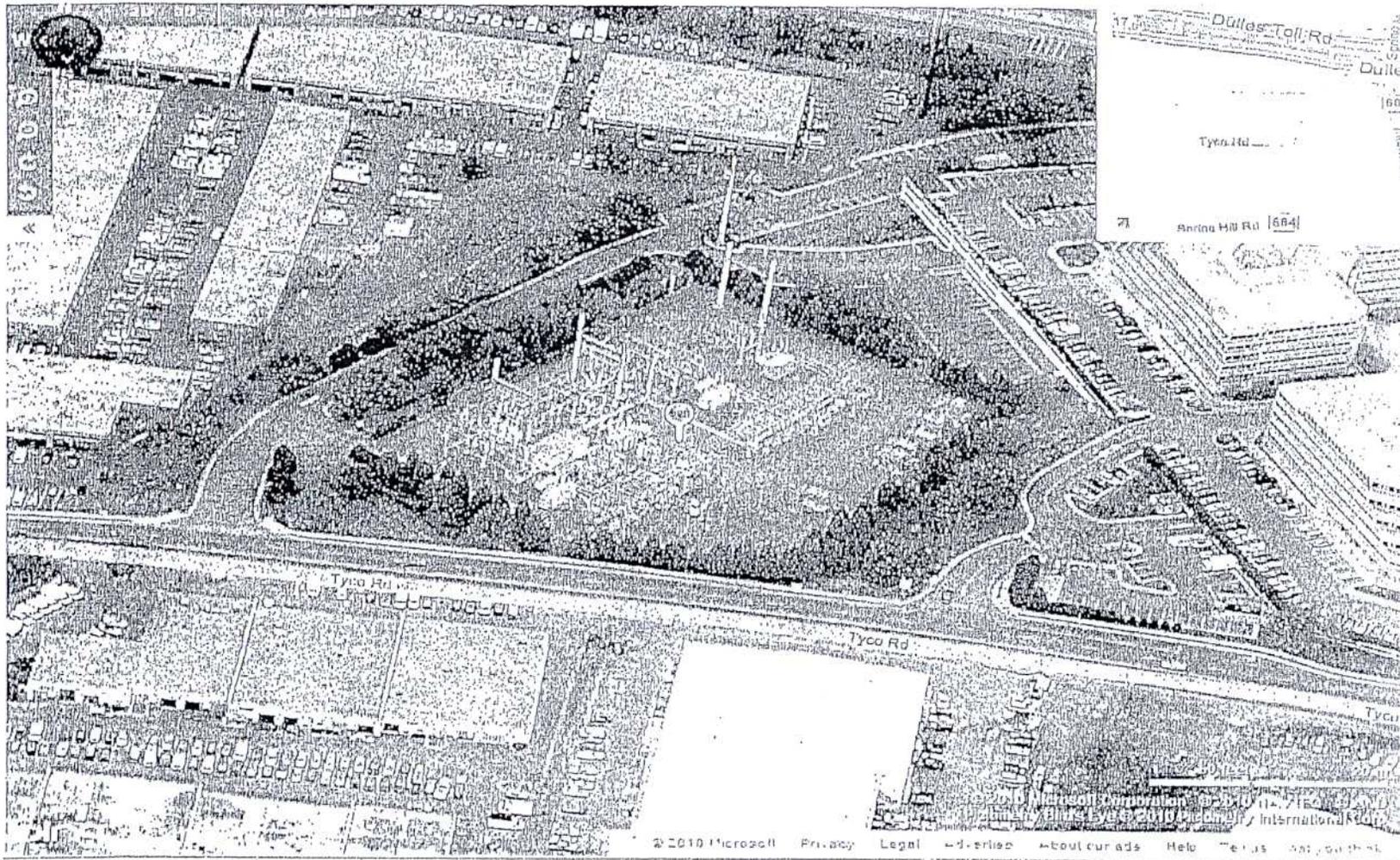
10/27/10  
10/27/10

Tyson's Alternative Sites: Tyco Road Location (Tyson's Substation) and other location:

Tyson's Substation: (Tax Map No. 29-1-((1))-50C; 3.3 Acres)

- Only current site is Tyco Road Substation:
  - Cannot be expanded due to existing development surrounding the substation and the full current utilization of the site. The site contains the following:
    - 2 – 230kV line terminals
    - 2 – 230kV circuit breakers
    - 4 – 230 – 34.5kV transformers
    - 6 – 230kV instrument transformers
    - 22 – 34.5kV circuit breakers
    - 9 – 34.5 kV capacitor banks
    - 24 – 34.5kV instrument transformers
    - 1 – 20 x 40 foot control enclosure
- Other Tyson's locations:
  - No other site currently available.
  - Finding and acquiring a site and subsequent approvals and construction would require additional time that would go beyond deadlines for powering the Silver Line. As an example, the Reddfield site selection/approvals has taken five (5) years since its inception to date.
  - A site should be adjacent to the transmission line.
- In addition to the 3 Silver Line Stations, Reddfield would serve the McLean area and Route 7 corridor. Increasing demand in this Reddfield area will require a substation in the future to provide the additional power service within that area.
- The Beltway is a major barrier for providing needed service to the McLean and Great Falls areas. Additional routes will be extremely difficult or impossible to obtain.





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TYSONS CORNER SUBSTATION

Idylwood Substation Service:

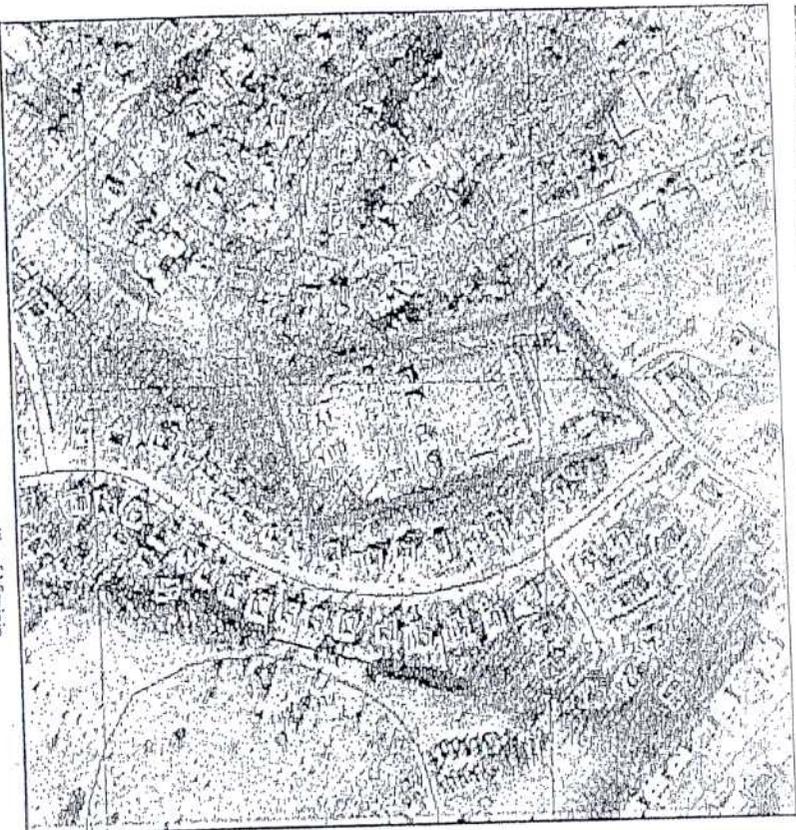
Tax Map No. 49-2-((1))-151

- The potential alternative of providing power for the Silver Line from the existing Idylwood substation has been suggested. The following are problem issues for such an alternative:
  - This alternative would create additional load on a substation that currently provides power to an already large service area. This would create maintenance and reliability issues in the future.
  - The public cost for the Silver Line would increase by approximately 15 million dollars. This would cause budgetary increases for MWA, Fairfax County, and the Federal Government, which entities have funding obligations for Phase I of the metro extension.
  - The feed to the Silver Line would need to be 3.2 miles of underground cable along Shreve Road, Virginia Lane and Idylwood Road. The 3.2 mile distance from the power source to the Silver Line poses possible reliability risks for the Silver Line. Moreover, this route would require the placement of manholes every 500 feet in Idylwood Road and a concrete encased duct bank 3-4.5 feet beneath the road, unless existing utilities cause it to be placed deeper.
  - Changing to this alternative would create significant delays in providing power for the Silver Line. This alternative is expected to cause a 3 year delay for design, VDOT approval, and construction.
  - VDOT approval for undergrounding the power line would be required which would take 4 to 6 months. Construction of this alternative would take an additional 18 to 24 months.
  - Idylwood Road is a heavily traveled, 2-lane connector road. Over 3.2 miles of roadway will be affected during the construction process. More than 250 homes and properties will be directly affected during construction, as well as numerous commuters and residents who use this roadway.
  - This alternative does not address future area demand growth and will create infrastructure deficiencies for Dominion and ultimately the power needs of Fairfax County.



MAP #: 0492 01 0151  
ELECTRIC AND POWER

7701 SHREVE RD



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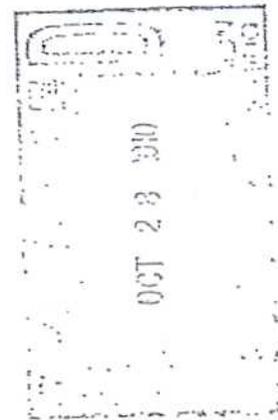
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of Tax Administration, Real Estate Division.

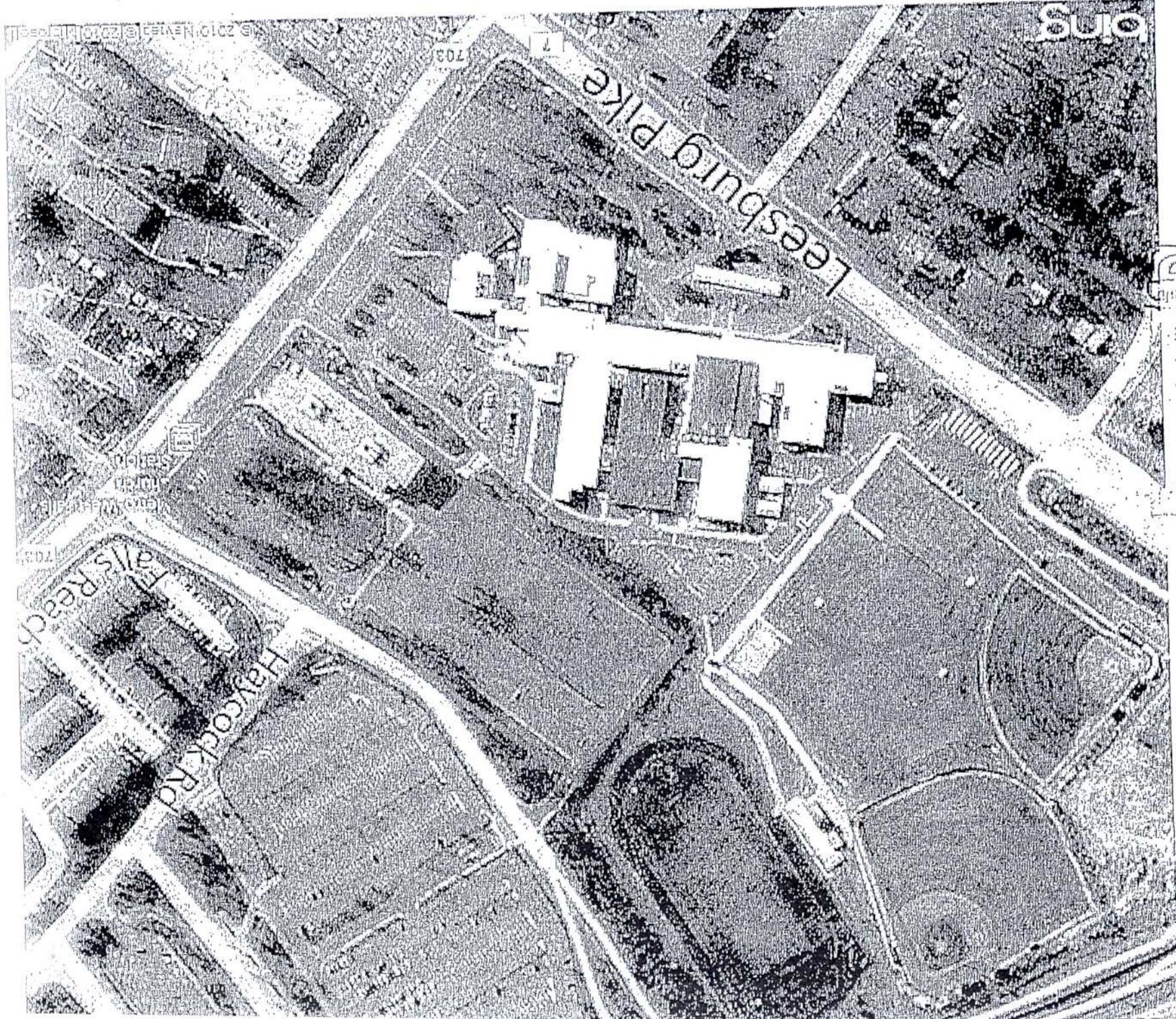


UVA/Virginia Tech Site:

Tax Map No. 40-3-((1))-92 & 92A

- At the request of Leslie Gelman, Dominion reviewed the existing UVA/Virginia Tech property for possible use as an alternative location for the substation. This site would not be feasible for a substation for the following reasons:
  - This site is not directly adjacent to an existing transmission line which would require a new transmission line and easement of adjacent property through acquisition or condemnation with SCC approval.
  - The property is currently used for the Northern Virginia Center, a higher education facility operated by Virginia Tech and the University of Virginia. The site currently consists of the education building and heavily used parking lot.
  - In addition to student parking, the site is currently under a shared parking arrangement with the West Falls Church Metro station. The only possible space for constructing a substation would be in the Center's parking lot.
  - The existing zoning approvals for the property include a Phase 2 plan consisting of additional education buildings and parking garage in the future.





CCT 2 8 550

Northern Virginia Conservation Trust Property:

Tax Map No. 40-3-((1))-59

- At the request of County Staff, Dominion reviewed the above-referenced property for possible use as an alternative location for the substation. This site would not be feasible for a substation for the following reason:
  - The property is currently owned by the Northern Virginia Conservation Trust. A conservation easement, recorded at DB 11348 at Page 1150, exists on the entire property to assure that it will be retained forever in its "existing natural, scenic, and open space condition..."



Fairfax County

MAP #: 0403 01 0059  
NORTHERN VIRGINIA  
CONSERVATION TRUST

N/A



Aerial Imagery © 2007 Commonwealth of Virginia

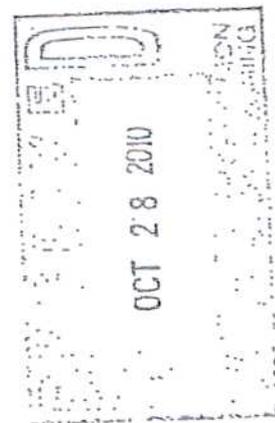
Source: Fairfax County Department  
of Tax Administration, Real Estate Division.

FAIRFAX COUNTY  
RECORDING  
OCT 28 2010  
10

Lindsay Drive Homeowners Association Property:

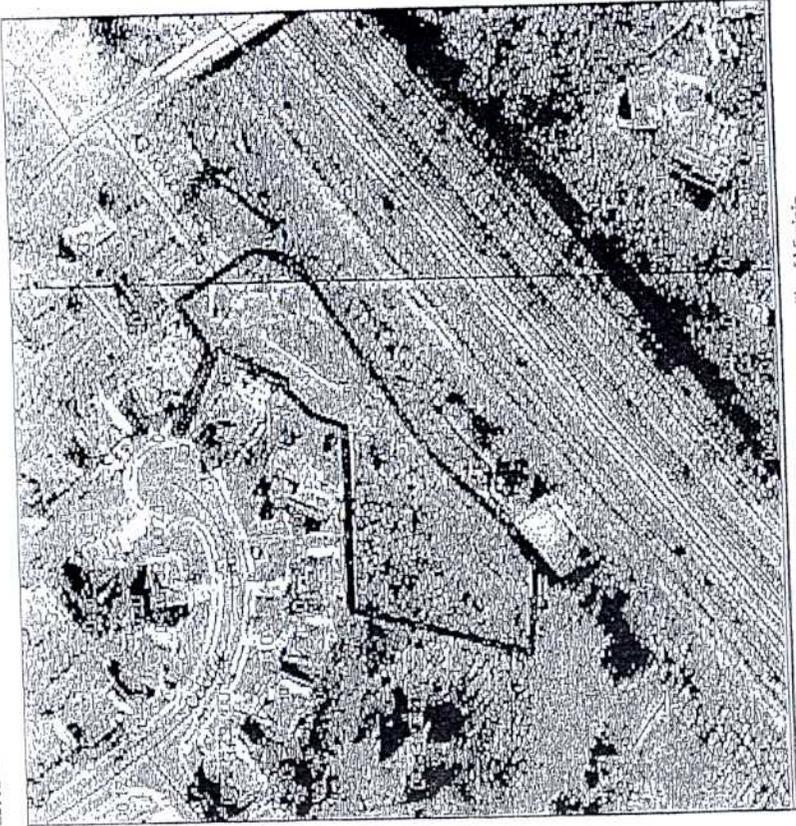
Tax Map No. 40-3-((32))-A

- At the request of County Staff, Dominion reviewed the above-referenced property for possible use as an alternative location for the substation. This site would not be feasible for a substation for the following reasons:
  - The property is currently owned by the Lindsay Drive Homeowners Association
  - This property is part of the Lindsay Drive subdivision and is used to meet open space and stormwater management requirements. In addition, this property buffers the community from the Dulles Connector Road.
  - Site is 1.58 acres and does not meet minimum size requirements.
  - The property is long and narrow. This narrowness cannot accommodate the minimum configuration of 180 feet by 250 feet needed for the structures within a substation. Further, because of lot configuration, residential setback and buffer requirements will not be met.
  - The site is situated approximately fifty (50) feet from residential properties homes and approximately twenty (20) feet from residential property lines.



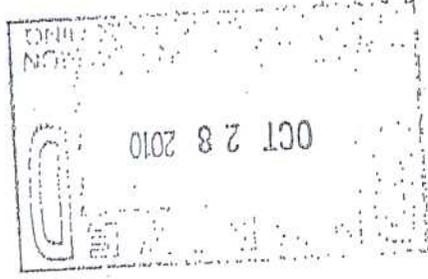
MAP #: 0403 32 A  
LINDSAY DRIVE HOMEOWNERS

N/A



Aerial Imagery © 2007 Commonwealth of Virginia

Source: Fairfax County Department  
of Tax Administration, Real Estate Division.



Lindsay Family Cemetery Property:

Tax Map No. 40-3-((1))-66

- At the request of County Staff, Dominion reviewed the above-referenced property for possible use as an alternative location for the substation. This site would not be feasible for a substation for the following reasons:
  - The property is currently owned by the Lindsay Family Cemetery. An adjacent property known as "The Mount" was owned by Colonel Robert Lindsay, which is listed on the County's Inventory of Historic Properties. The Applicant was unable to verify who is buried at this property, but presume them to be the remains of the Lindsay family.
  - Site is 1.0 acre and will not meet minimum size requirements for a substation.
  - The site is situated approximately fifty (50) feet from residential homes and approximately twenty (20) feet from a residential property line.
  - Because of property's size and close proximity to residential neighbors, minimum setback and buffering requirements cannot be met.
  - Property appears to be land-locked with no defined vehicular access.



MAP #: 0403 01 0055

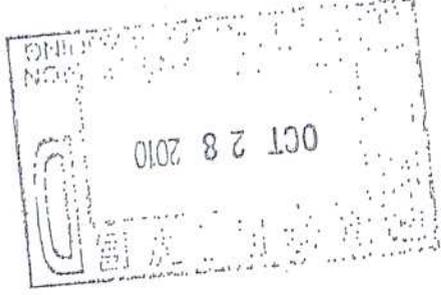
CEMETERY LINSEY FAMILY

N/A



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Source: Fairfax County Department  
of Tax Administration, Real Estate Division.



Commonwealth of Virginia Property:

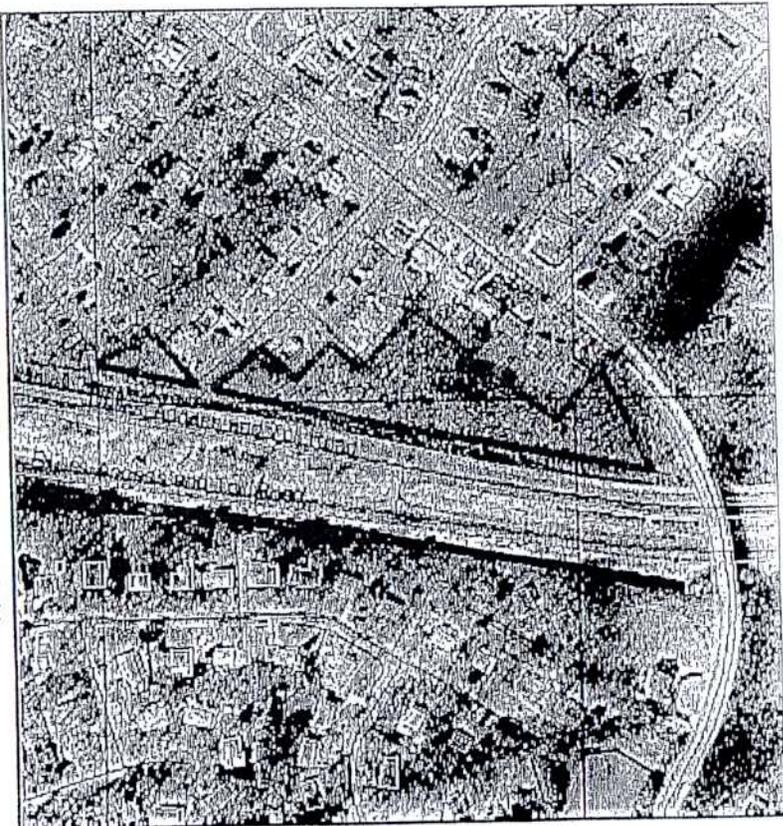
Tax Map No. 40-1-((1))-10B

- At the request of County Staff, Dominion reviewed the above-referenced property for possible use as an alternative location for the substation. This site would not be feasible for a substation for the following reasons:
  - The property is 2.77 acres and is owned by the Commonwealth of Virginia.
  - There is a metro traction power station currently designed for this site to operate the Silver Line Metro Rail. This traction station will be situated on the best optimum usable area for the property. Trees have already been cleared for construction of the traction station.
  - The remaining portions of the property would not meet the minimal site requirements for a substation.



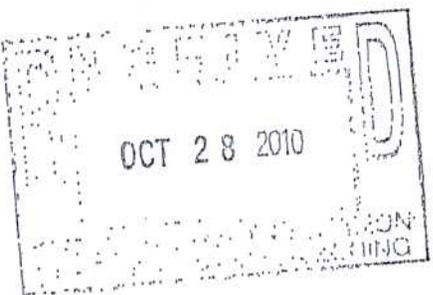
MAP #: 0401 01 0010B  
COMMONWEALTH OF VIRGINIA

N/A



Aerial Imagery © 2007 Commonwealth of Virginia

Source: Fairfax County Department  
of Tax Administration, Real Estate Division.



West Falls Church Metro Station Property:

Tax Map No. 40-3-((1))-84

- At the request of Leslie Gelman, Dominion reviewed the existing UVA/Virginia Tech property for possible use as an alternative location for the substation. This site would not be feasible for a substation for the following reasons:
  - The property is currently owned by WMATA and is occupied by the West Falls Church Metro Station.
  - The suggested site makes up approximately 150 parking spaces for the Metro Station.
  - The site is not adjacent to an existing transmission line.
  - A 1,250 foot long transmission line extension would be required to cross I-66. In addition, the transmission line extension would need to cross the WMATA metro passenger station and the WMATA maintenance yard, crossing approximately 22 tracks. This extension would require VDOT and WMATA approval, which is unlikely.
  - SCC approval is required for this transmission line extension. Dominion would have to demonstrate to the SCC that another site is not available which does not require a transmission line extension. Given the WMATA identified location of the Reddfield site, justification would be difficult.
  - Distribution circuit right-of-ways from this location would be farther away and more difficult to obtain, permit, and build, resulting in considerably higher public costs.
  - Additional space may be required for on-site stormwater management.
  - This portion of the Metro Station is planned by WMATA for future Transit Oriented Development. It is not available.



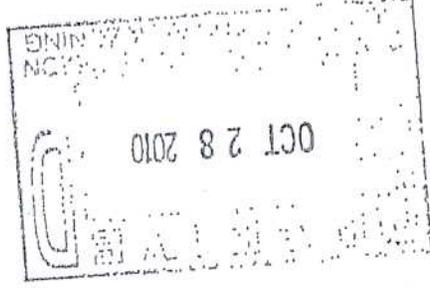
#: 0403 01 0084  
INGTON METROPOLITAN

N/A



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Source: Fairfax County Department  
of Tax Administration, Real Estate Division.



Pimmit Run Stream Valley Park:

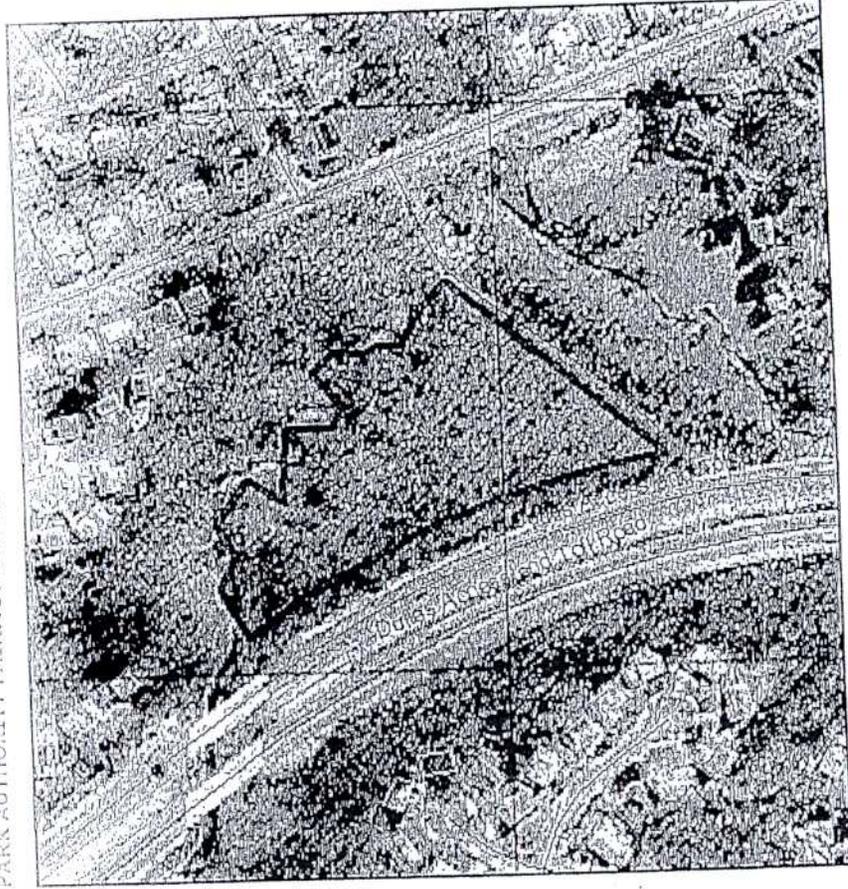
Tax Map No. 40-1-((1))-6

- At the request of Supervisor Foust's office, Dominion reviewed an area within the existing Pimmit Run Stream Valley Park for possible use as an alternative location for the substation. This site would not be feasible for a substation for the following reasons:
  - This site is located 100% in a Resource Protection Area and 100-year floodplain. The site is located where two stream branches of Pimmit Run converge (in a back water flood condition). A rough estimate indicates that this site is located at the low point of over a 1,000 acre drainage area. There would be an extensive wetland environmental permit process associated with development of this site.
  - The site identified is approximately 2.5 acres and is made up of approximately six parcels owned by the Fairfax County Park Authority, VDOT, and residential property owners. All parcels would be affected to locate the substation adjacent to an existing transmission line. If the substation were moved farther north to be solely on the Park Authority property, a State Corporation Commission (SCC) application would be required to link the existing transmission easement across several properties. At best, it would be a 6-8 month approval process for the SCC, and significantly longer to negotiate with individual property owners.
  - Old VDOT right-of-way exists through the site, and an abandonment application would need to be approved.
  - The site, being in a floodplain, would require at least 1 ½ acres to be filled with approximately 6-feet of structural fill (14,520 cy of fill) to reach 1 foot above flood waters. Filling in a floodplain would require an equal volume (14,520 cy) of area to be cut in the lower flood areas to equalize the flood volume. Therefore, an additional acre above the 2.5 acres would be needed for this floodwater displacement. It is anticipated that 3.5 acres of tree removal would occur for the required grading.
  - A FEMA floodplain analysis and FEMA map adjustment is anticipated.
  - The Park Authority would required an equal or larger site as a land exchange.
  - Vehicular access to the site would need to be constructed above the floodplain, and the existing culvert crossing of the stream on Old Idylwood Road would most likely be replaced due to the weight of equipment delivery to the site.
  - The elevation of this substation would be the same elevation as existing homes adjacent to the substation. Visual buffering would be difficult.
  - This location is approximately ½ mile from the metro yard. All distribution circuits would need to cross the Dulles Connector Road, which would necessitate additional public construction costs to the Silver Line project.
  - This site would require SWM facilities, and providing any stormwater quality in a low flooding area is practically impossible. Pollutants would be flushed or released in practically every storm event.
  - The public cost of development could easily be \$1 million more than the Reddfield site.
  - Additional time to secure this property, engineer, environmentally permit, construct, and obtain distribution easement could extend this project more than 3 years. This delay would mean that Dominion could not meet the scheduled date of delivery of power to the Silver Line



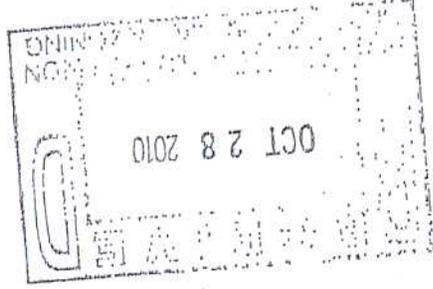
MAP #: 0401.01.0005  
PARK AUTHORITY FAIRFAX COUNTY

N/A



Aerial Imagery © 2007 Commonwealth of Virginia

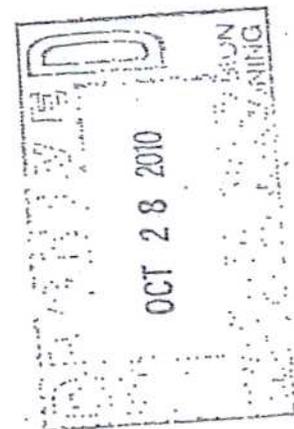
Source: Fairfax County Department  
of Tax Administration, Real Estate Division.



Dominion Power Transmission Line Easement/VDOT Right-of-Way:

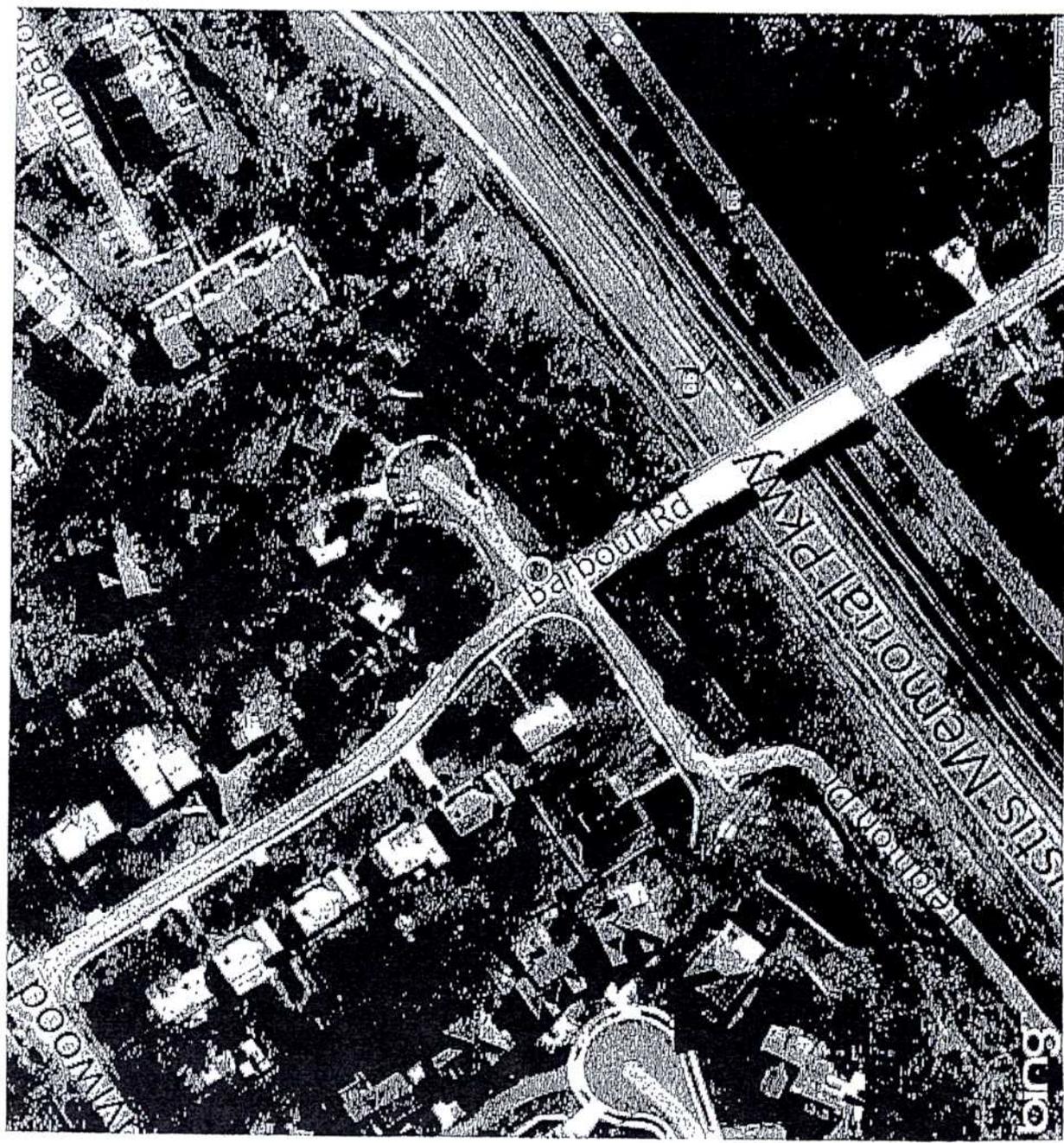
No Tax Map Number

- At the request of County Staff, Dominion reviewed an area approximately  $\frac{3}{4}$  of a mile southwest of the existing site, along I-66 where the existing Transmission Line runs. This site would not be feasible for a substation for the following reasons:
  - The site is too narrow to locate a substation, and the existing transmission line occupies the majority of the space.
  - The widest area is located at the southeast corner of Barbour Road and the Leighton Drive cul-de-sac. This widest point is approximately 150 x 60 feet. The rest of the area is narrower than that. This narrowness cannot accommodate the minimum configuration of 180 x 250 feet needed for the structures within a substation.
  - The site is in close proximity to I-66 with a steep slope dropping to the highway.
  - Residential homes would be within 50 feet of the substation. Even if a substation could be constructed, there would be no excess area to provide screening or meet minimum setback requirements.



Dominion Power Transmission Line/VDOT Right-of-Way

Intersection of Barbour Road, Leighton Drive, and I-66



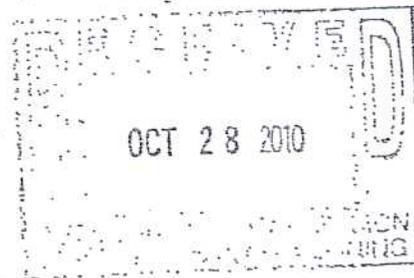
COMMERCIAL & INDUSTRIAL SITES WITHIN 1 MILE

Tax Map #	Owner	Zoning	Size	Description
<b>County of Fairfax:</b>				
40-1 ((1)) 33	Federal Realty	C-5	4.1 ac	Developed with shopping center
40-1 ((1)) 46A	Teldar Properties	C-5	.75 ac	Developed & below size requirements
40-1 ((1)) 52	Exxon Corporation	C-5	.56 ac	Developed & below size requirements
40-3 ((1)) 1B	Federal Realty	C-6	5.4 ac	Developed with shopping center
40-3 ((1)) 4A	Federal Realty	C-6	.11 ac	Below size requirements
40-3 ((1)) 5B1	Pimmit Trust	C-5	.34 ac	Below size requirements
40-3 ((1)) 5C	Federal Realty	C-6	.90 ac	Below size requirements
40-3 ((1)) 92	University of Virginia	C-3	2.2 ac	Property used as parking for Va. Tech Ctr.
40-3 ((1)) 92A	City of Falls Church	C-3	5.3 ac	Va Tech Ctr. -- see Tab 8
40-3 ((1)) 93	City of Falls Church	C-8	1.6 ac	Developed with school recreation facilities
40-3 ((1)) 102	Robert & Mary Cole	C-8	.85 ac	Developed & below size requirements
40-3 ((1)) 103	James Hooper	C-8	1.2 ac	Developed with office parking lot
40-3 ((1)) 107A	Fraternal Order of Police	C-3	.35 ac	Developed & below size requirements
40-3 ((1)) 108A	Danny F. Paul	C-8	.50 ac	Developed & below size requirements
40-3 ((1)) 110	Longoria LLC	C-8	.02 ac	Developed & below size requirements
40-3 ((1)) 111	Don Beyer Motors Inc.	C-8	.39 ac	Developed & below size requirements
40-3 ((1)) 111A	Broad Street Corp.	C-8	.14 ac	Developed & below size requirements
40-3 ((1)) 111C	Falls Church Animal Hosp.	C-8	.35 ac	Developed & below size requirements
40-3 ((41))	Various Condo Owners	C-3	1.7 ac	Developed & below size requirements
<b>City of Falls Church:</b>				
51-219-011	Federal Realty	B-1	4.6 ac	Developed with Shopping Center
51-219-010	Kenyon Oil Company	B-3	.27 ac	Developed & below size requirements
51-219-007	Stephen Pflieger	B-3	.31 ac	Developed & below size requirements
51-219-122	NASA Federal Credit Union	B-1	.21 ac	Developed & below size requirements
51-219-123	West Falls Parcel Inc.	B-1	4.8 ac	Developed with Shopping Center
51-219-002	Falls Church Funeral Home	B-1	.97 ac	Developed & below size requirements
51-219-001	Chevy Chase	B-3	.26 ac	Developed & below size requirements
51-219-031	BXA LLC	B-3	.17 ac	Developed & below size requirements
51-216-006	1050 W. Broad Car Wash	B-3	.35 ac	Developed & below size requirements
51-216-008	BXA LLC	B-3	.34 ac	Developed & below size requirements
51-216-075	Chasco, Inc.	B-3	.47 ac	Developed & below size requirements
51-216-076	First Union National Bank	B-3	.59 ac	Developed & below size requirements
51-202-010	William Shreve, et al	B-3	.35 ac	Developed & below size requirements
51-202-009	William Shreve, et al	B-3	.46 ac	Developed & below size requirements
51-202-011	William Shreve, et al	B-3	.48 ac	Developed & below size requirements
51-202-012	William Shreve, et al	B-3	.21 ac	Developed & below size requirements
51-202-028	William Shreve, et al	B-3	.60 ac	Developed & below size requirements
51-202-005	Mike & Susie Atalla	B-1	.39 ac	Developed & below size requirements
51-202-004	Nabilah Pajelah	B-1	.38 ac	Developed & below size requirements
52-203-056	Various Condo Owners	B-3	1.3 ac	Developed & below size requirements
52-203-012	929 LLC	B-3	1.0 ac	Developed & below size requirements
52-203-011	Taco Bell of America	B-3	.82 ac	Developed & below size requirements
52-102-060	Broad Street Realty Trust	B-1	.34 ac	Developed & below size requirements
52-102-066	West End Properties	B-1	1.9 ac	Developed with Shopping Center



Tax Map #	Owner	Zoning	Size	Description
City of Falls Church cont:				
52-102-051	EBLA LLC	M-1	.56 ac	Developed & below size requirements
52-102-050	Wild Leap, LLC	M-1	.30 ac	Developed & below size requirements
52-102-049	U-Haul Real Estate	M-1	1.1 ac	Developed & below size requirements
52-102-064	N&H Properties	M-1	.26 ac	Developed & below size requirements
52-102-053	F. Massoud, et al	M-1	.93 ac	Developed & below size requirements
52-102-046	Don Beyer Motors	M-1	1.1 ac	Developed & below size requirements
52-102-045	James Preston	M-1	.26 ac	Developed & below size requirements
52-102-044	Ravenwood Mgmt. Co.	M-1	.59 ac	Developed & below size requirements
52-102-043	Broad Street LLC	M-1	.24 ac	Developed & below size requirements
52-102-042	Broad Street LLC	M-1	.24 ac	Developed & below size requirements
52-102-041	Broad Street LLC	M-1	.23 ac	Developed & below size requirements
52-102-037	DOCC Properties LLC	M-1	1.8 ac	Developed with warehouse
52-102-034	City of Falls Church	M-1	.31 ac	Developed & below size requirements
52-102-036	City of Falls Church	M-1	.62 ac	Developed & below size requirements.
52-102-054	City of Falls Church	M-1	.79 ac	Developed & below size requirements
52-102-035	City of Falls Church	M-1	.61 ac	Developed & below size requirements
52-102-033	City of Falls Church	M-1	.30 ac	Developed & below size requirements
52-101-001	City of Falls Church	M-1	.16 ac	Developed & below size requirements
52-101-011	Donald & Nancy Beyer	M-1	.26 ac	Developed & below size requirements
52-101-010	Beyer Limited Partnership	M-1	.26 ac	Developed & below size requirements
52-101-009	Paramount Termite Co.	M-1	.27 ac	Developed & below size requirements
52-101-008	Paramount Termite Co.	M-1	.14 ac	Developed & below size requirements
52-101-007	Paramount Termite Co.	M-1	.14 ac	Developed & below size requirements
52-101-005	Donald Beyer, et al	M-1	.18 ac	Developed & below size requirements
52-101-002	Broad Street Corporation	M-1	.20 ac	Developed & below size requirements
52-101-004	Beyer Limited Partnership	M-1	.54 ac	Developed & below size requirements
52-101-003	Longoria LLC	M-1	.18 ac	Developed & below size requirements

\*Dominion's primary need is to place its substations as close to its existing transmission lines as possible. If a substation is placed on property not adjacent to an existing power line, construction of a new, high-voltage transmission line would be necessary to supply the power source to the substation. A new, connecting transmission line would necessitate condemnation or purchase of a larger land area and would disturb larger tracks of land, homes, businesses, and roadways.



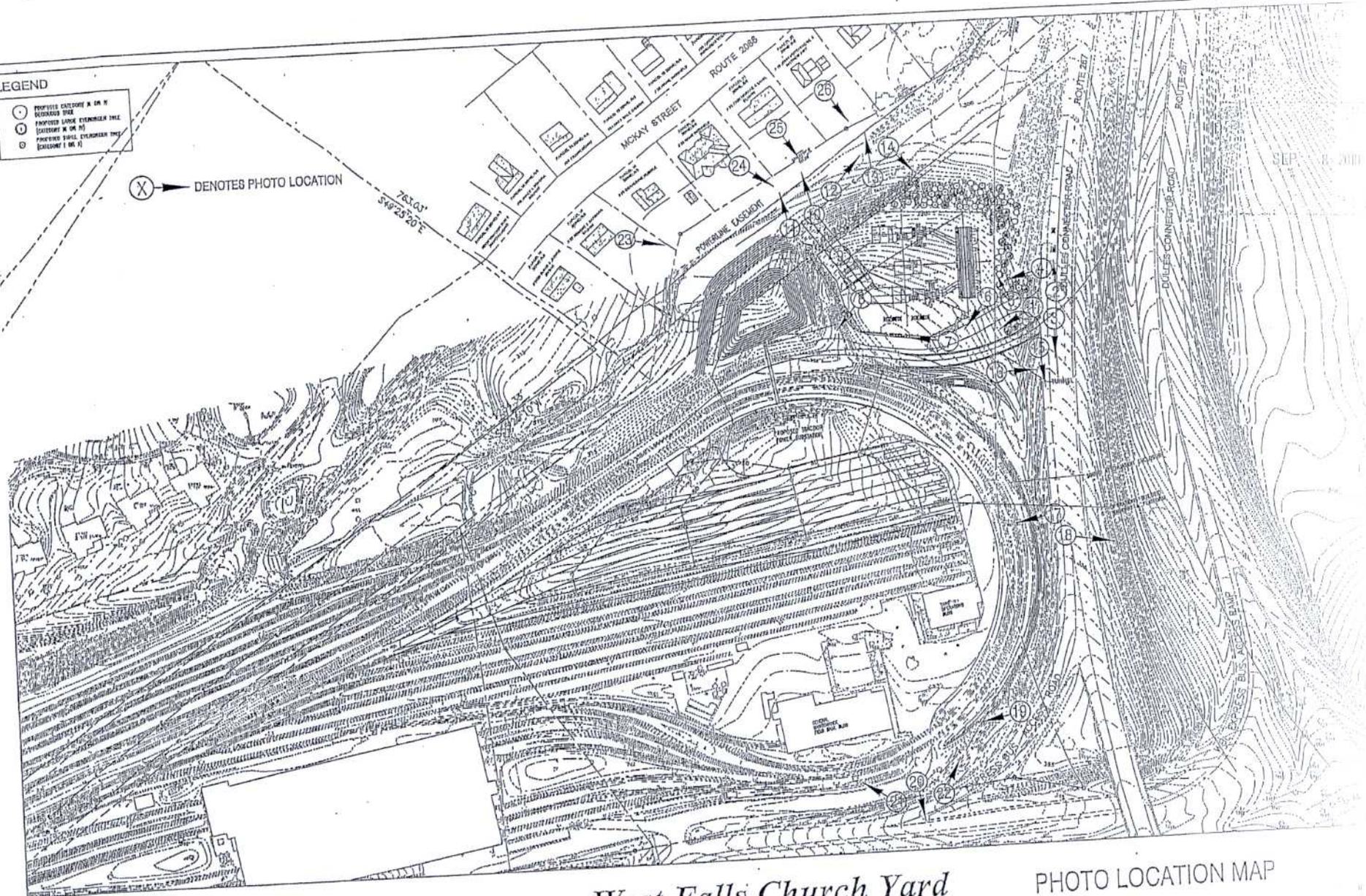
LEGEND

- PROPOSED CATEGORY A OR B TRACKS SIDE
- PROPOSED LARGE EVENTUAL RAIL (CATEGORY A OR B)
- PROPOSED SMALL EVENTUAL RAIL (CATEGORY 1 OR 2)

(X) DENOTES PHOTO LOCATION

763.03'  
S49°25'20"E

SEP 14 2010



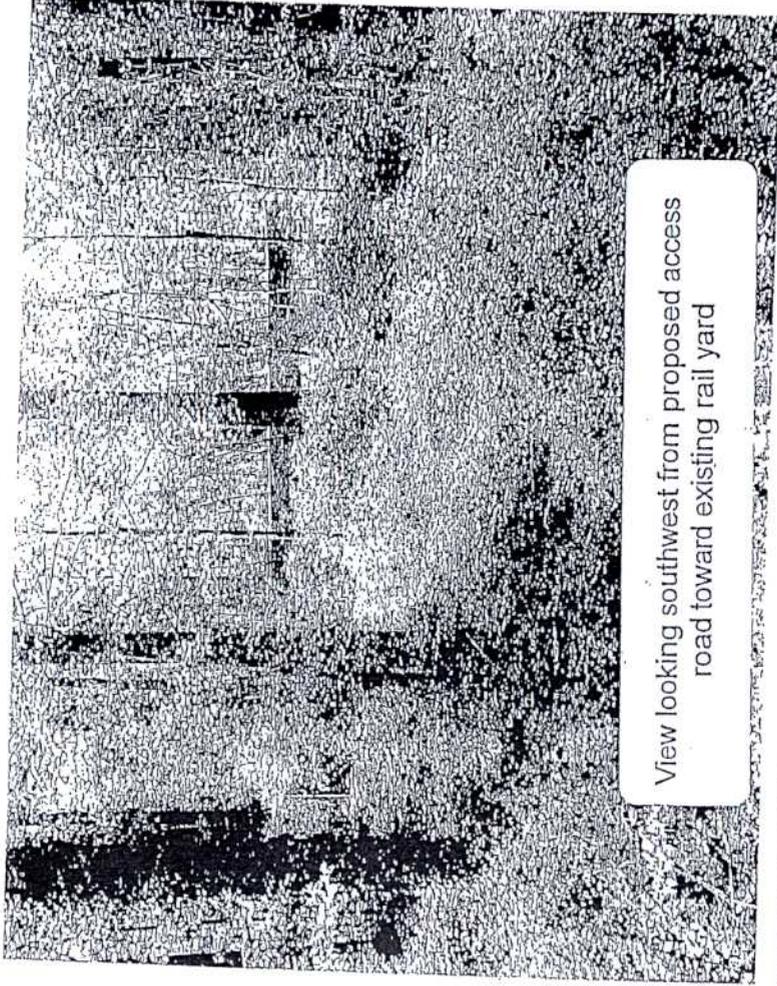
*West Falls Church Yard*  
Dulles Corridor Metrorail Project

PHOTO LOCATION MAP

2232 - DD-12

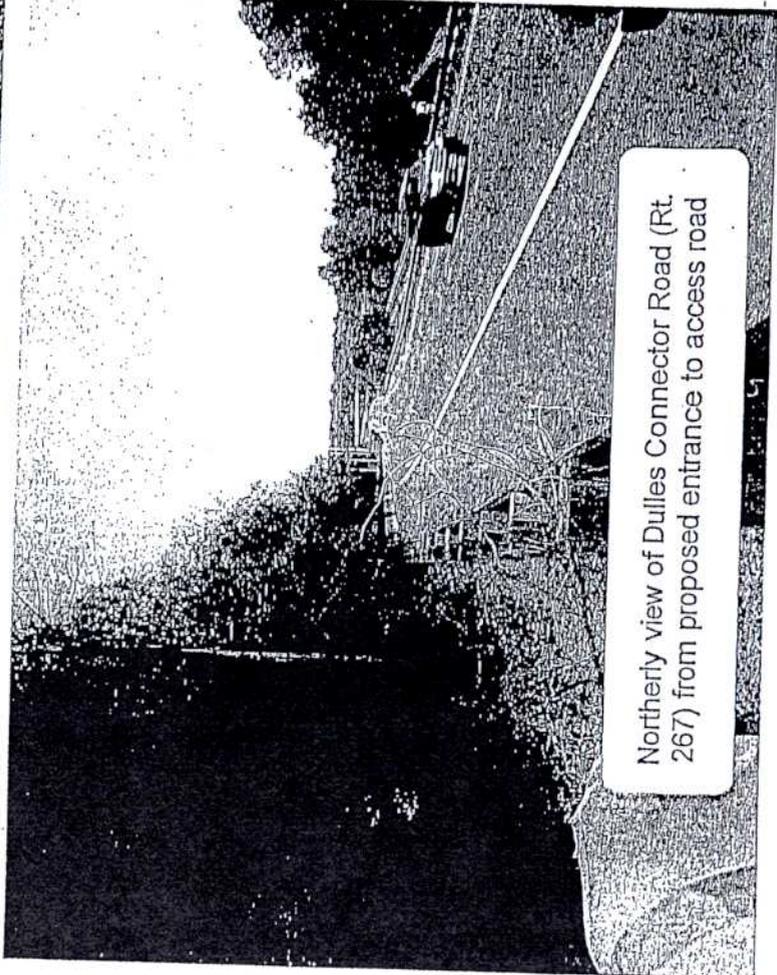
### Redfield Substation Photos

1



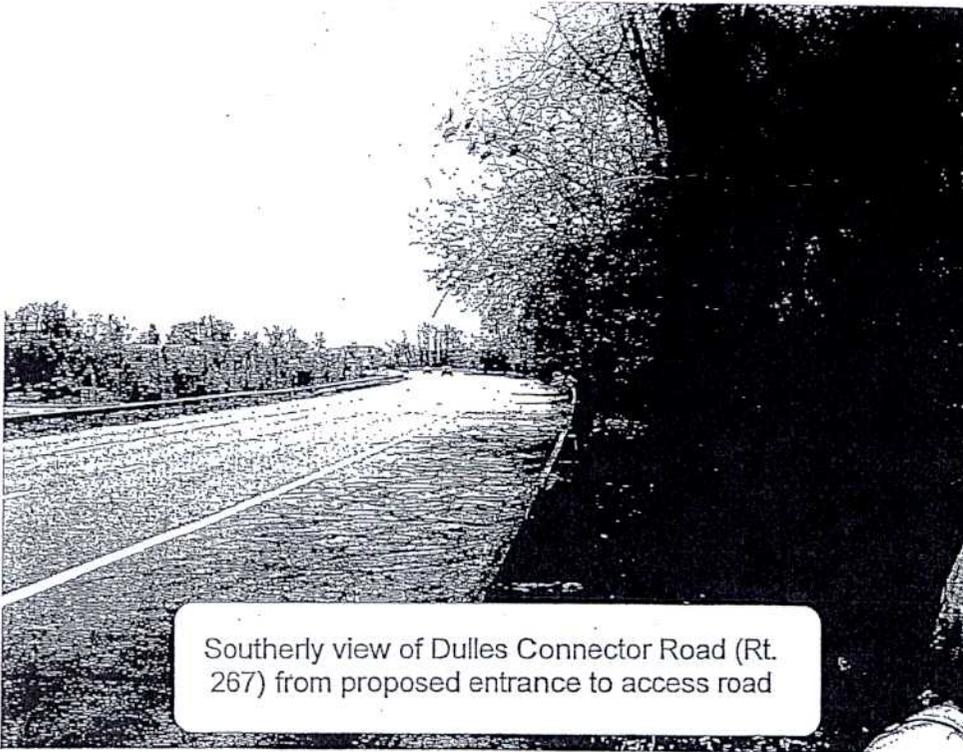
View looking southwest from proposed access road toward existing rail yard

2



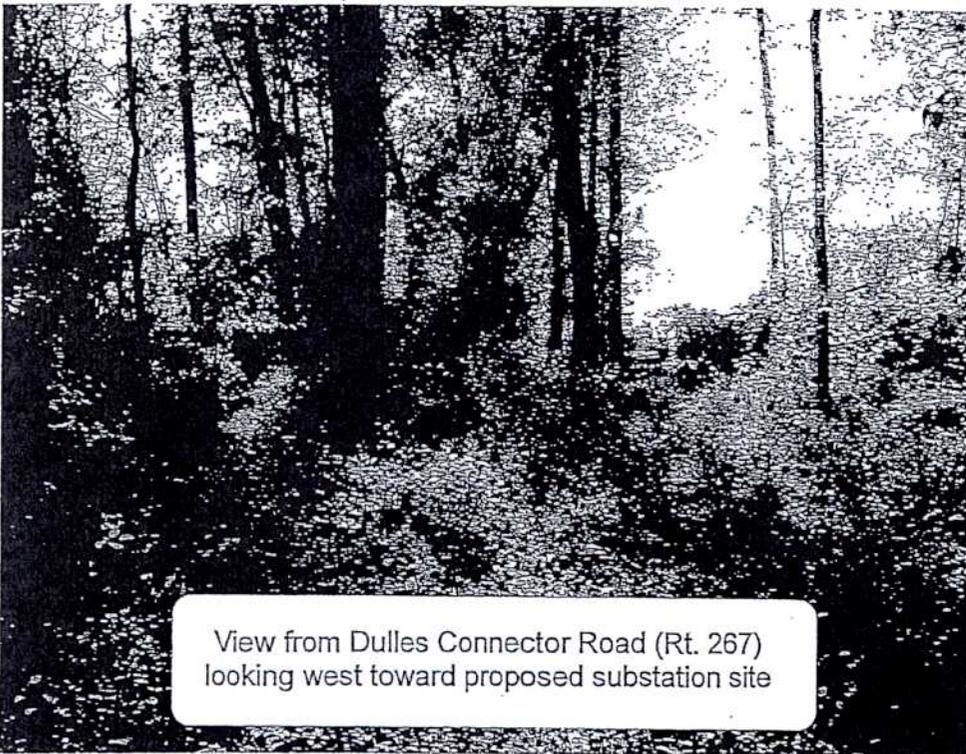
Northerly view of Dulles Connector Road (Rt. 267) from proposed entrance to access road

Redfield Substation Photos



Southerly view of Dulles Connector Road (Rt. 267) from proposed entrance to access road

3



View from Dulles Connector Road (Rt. 267) looking west toward proposed substation site

4

RECEIVED  
MAR 22 2010  
D  
FEDERAL BUREAU OF INVESTIGATION  
U.S. DEPARTMENT OF JUSTICE

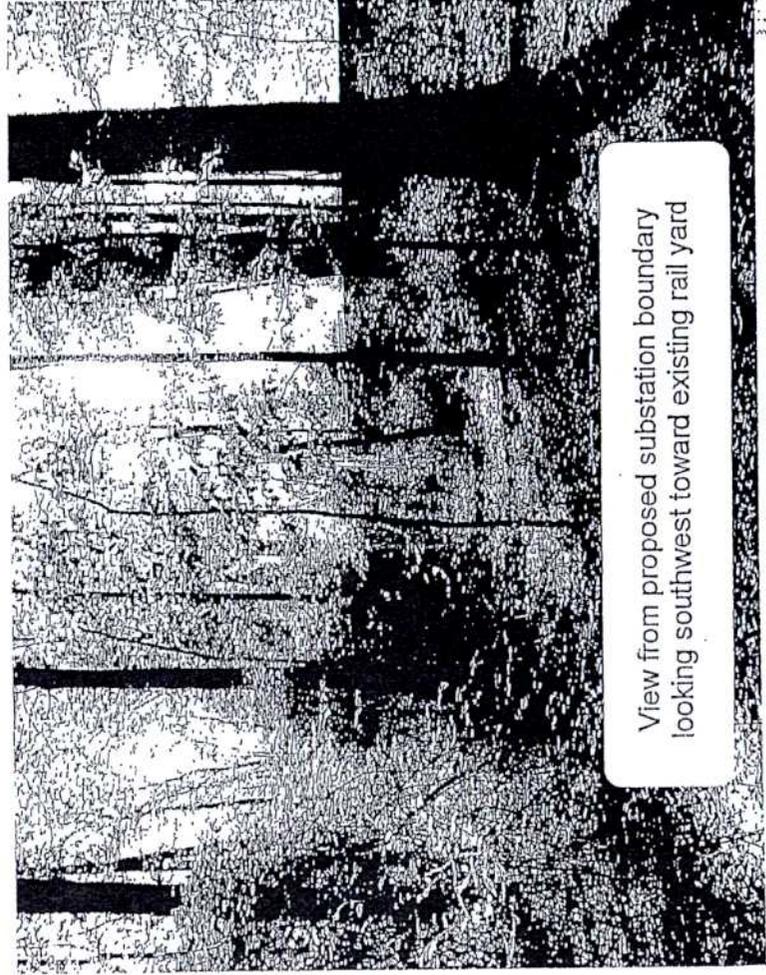
2002 - View 12

### Redfield Substation Photos



5

View from access road entrance looking northwest toward proposed substation site

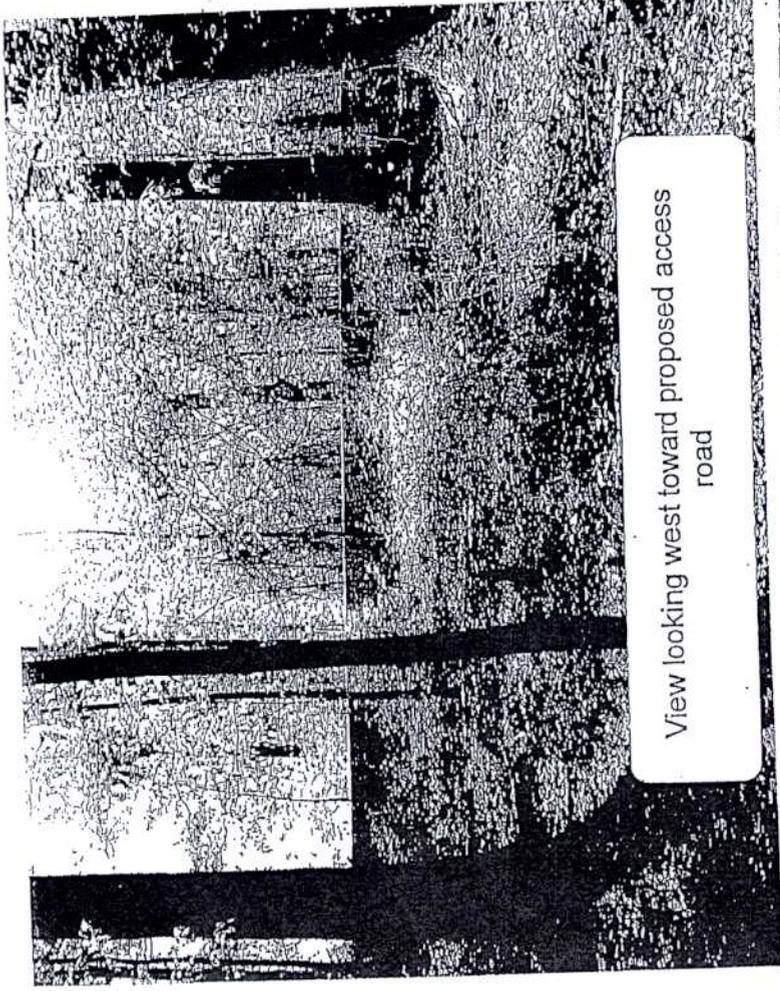


6

View from proposed substation boundary looking southwest toward existing rail yard

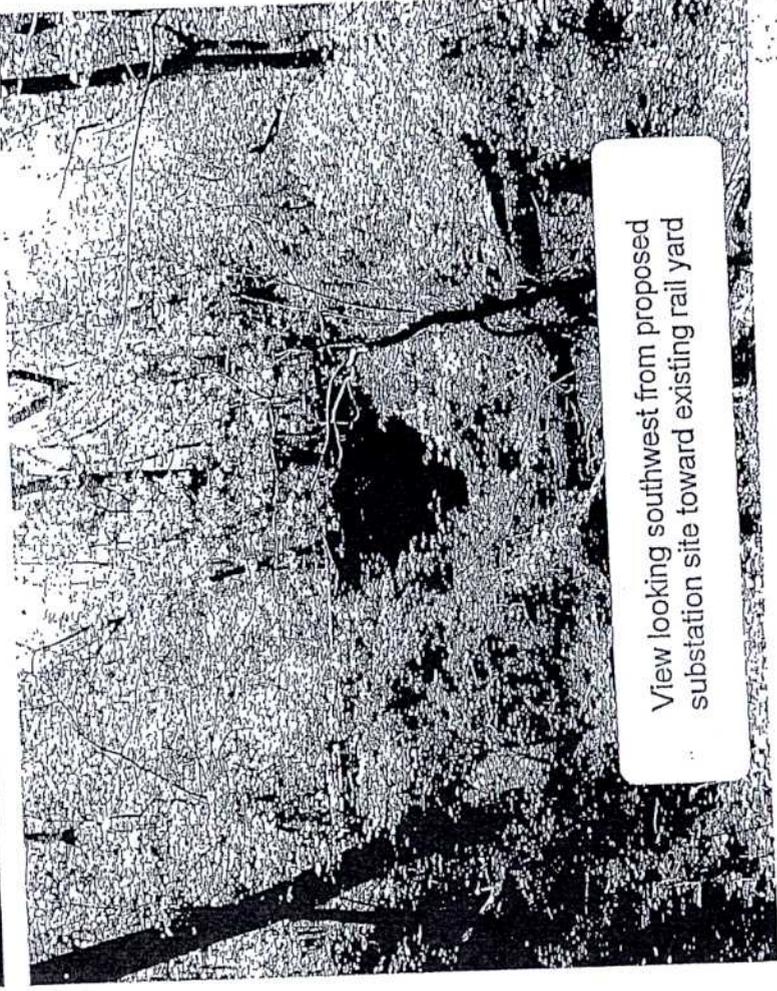
ENVISIO  
MAR 22 2010  
STATION

Redfield Substation Photos



7

View looking west toward proposed access road



8

View looking southwest from proposed substation site toward existing rail yard

REVISED  
MAR 22 2010  
SECTION

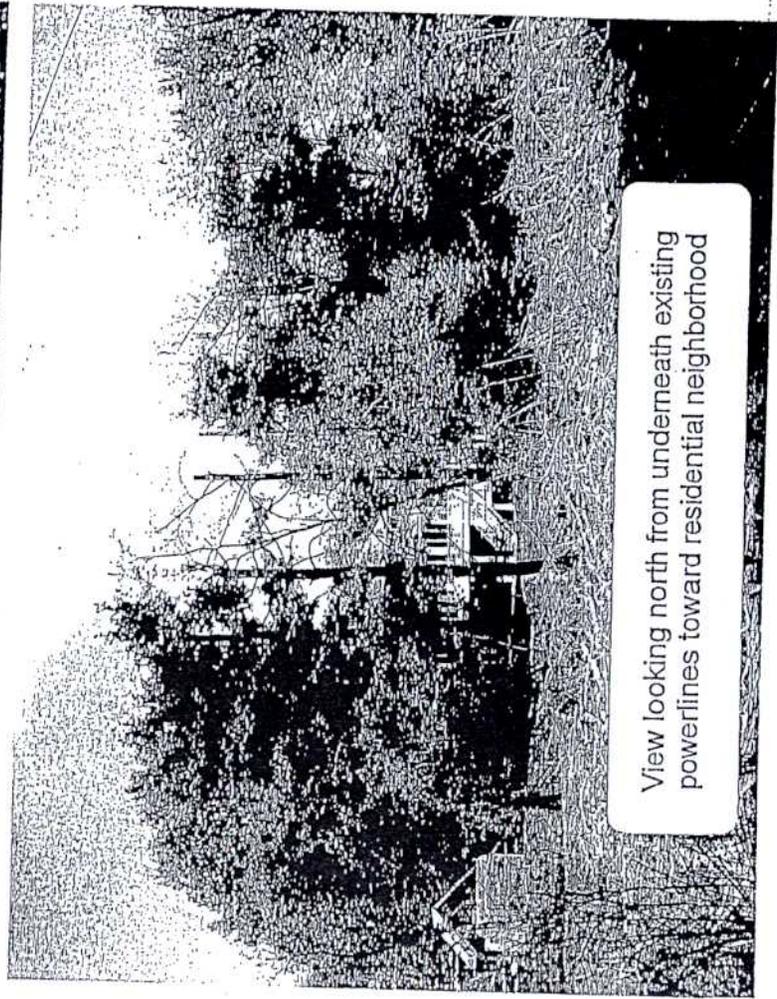
2232-D10-12

### Redfield Substation Photos



9

View looking northwest from proposed substation site toward residential neighborhood



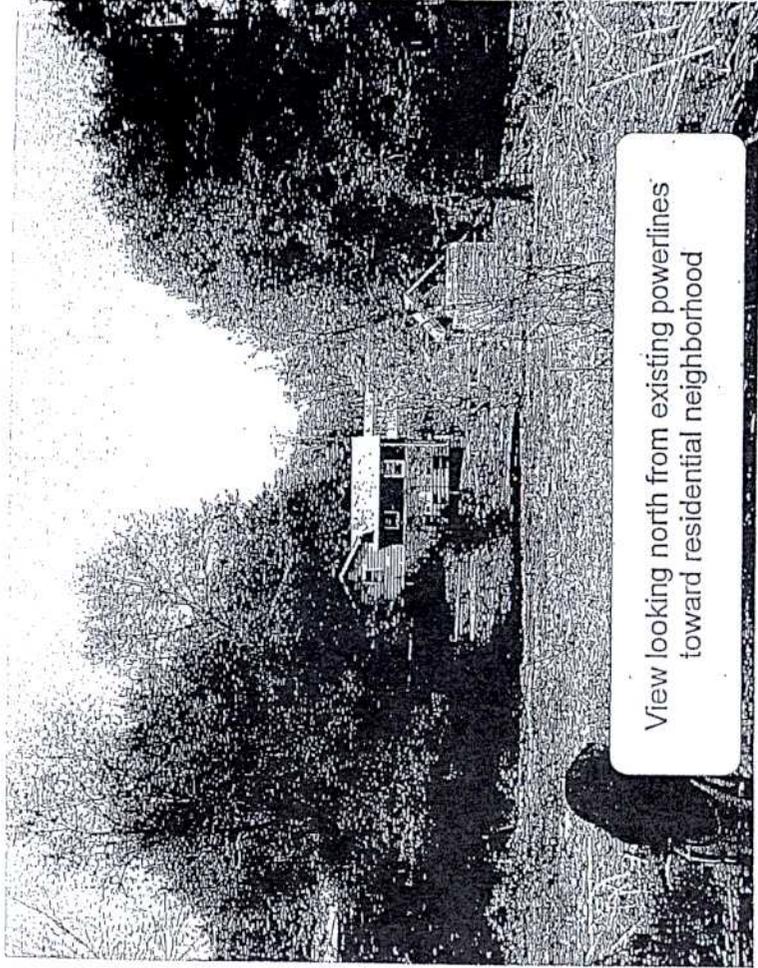
10

View looking north from underneath existing powerlines toward residential neighborhood

2232-D10-12  
MAR 22 2010

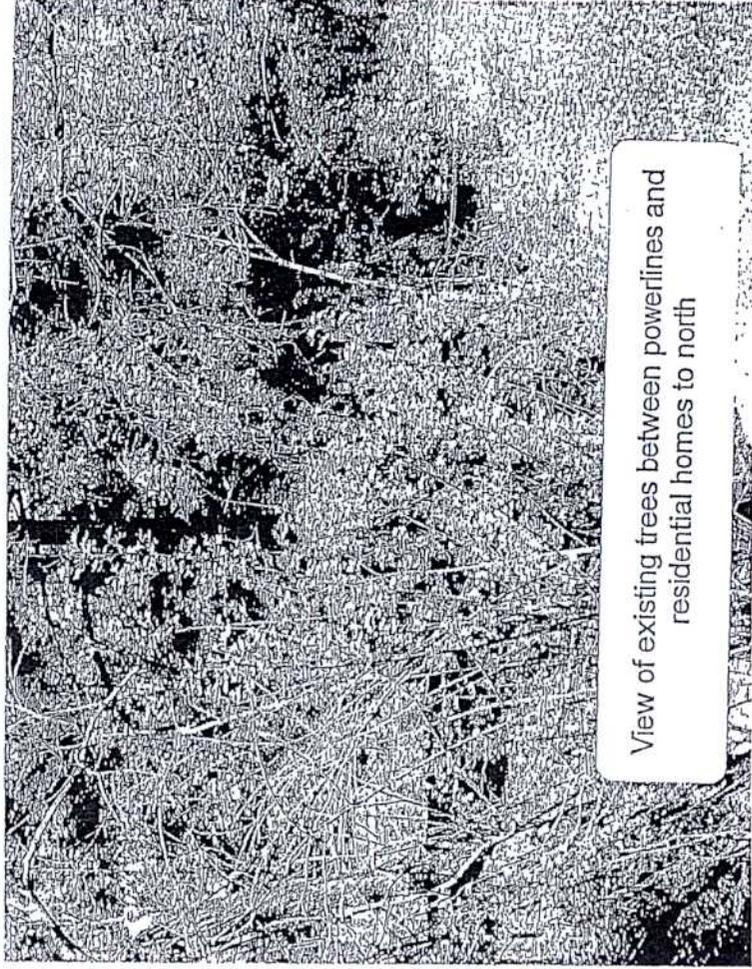
Redfield Substation Photos

11



View looking north from existing powerlines toward residential neighborhood

12



View of existing trees between powerlines and residential homes to north

MAR 22 2010

Redfield Substation Photos

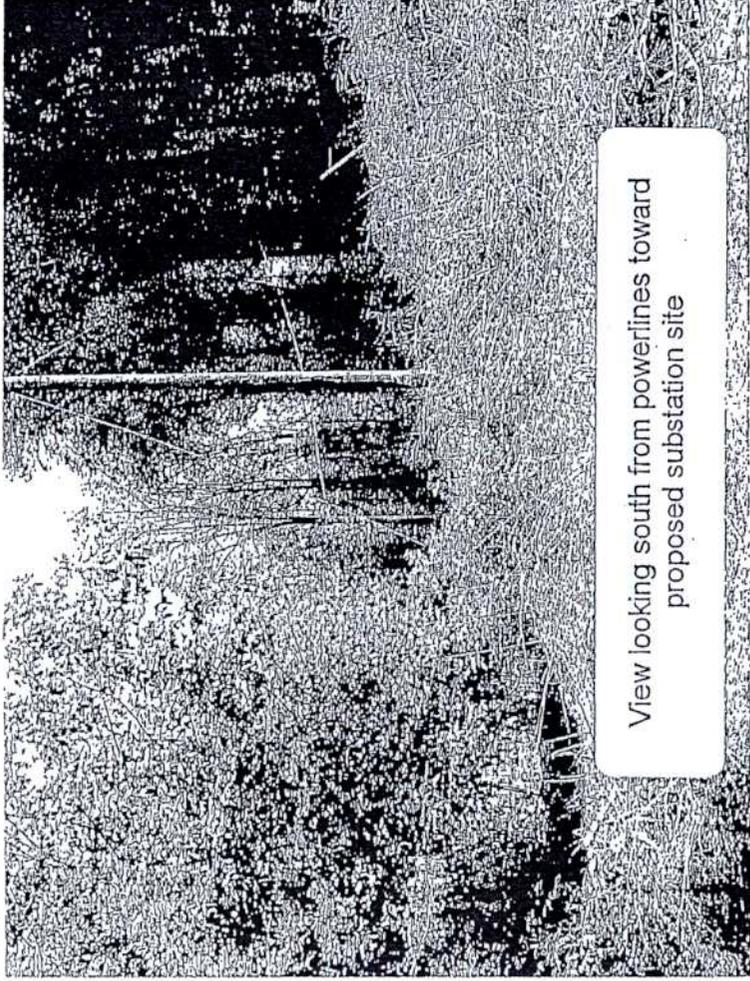


13

View of residential home to north



14



View looking south from powerlines toward proposed substation site

0  
MAR 22 2010

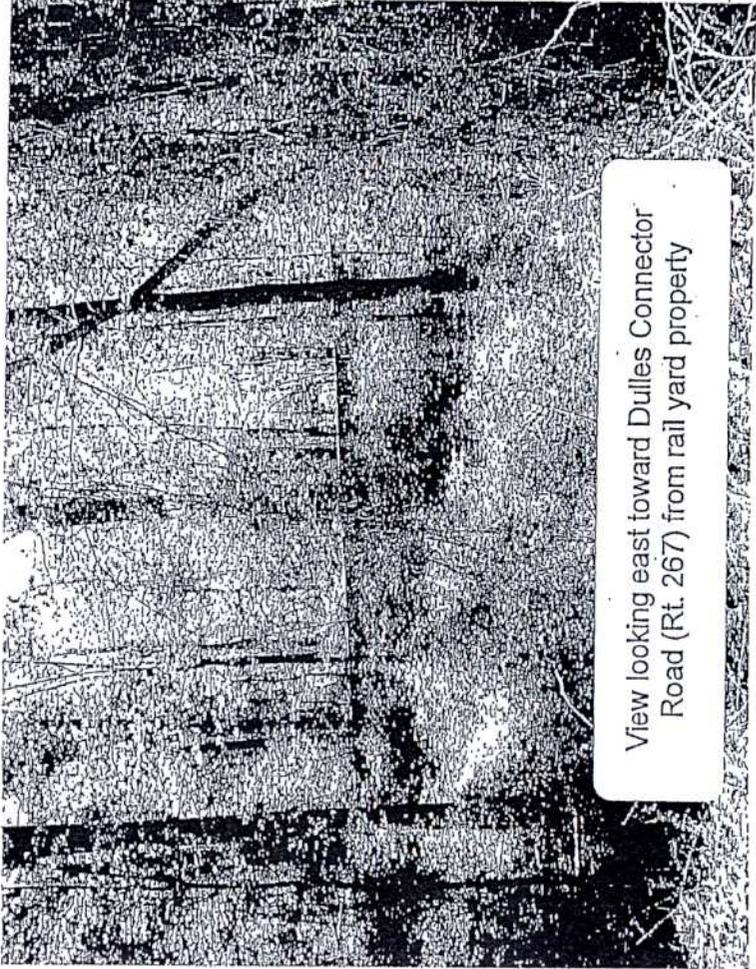
Redfield Substation Photos

15



Southerly view of Dulles Connector Road (Rt. 267) from proposed entrance to access road

16

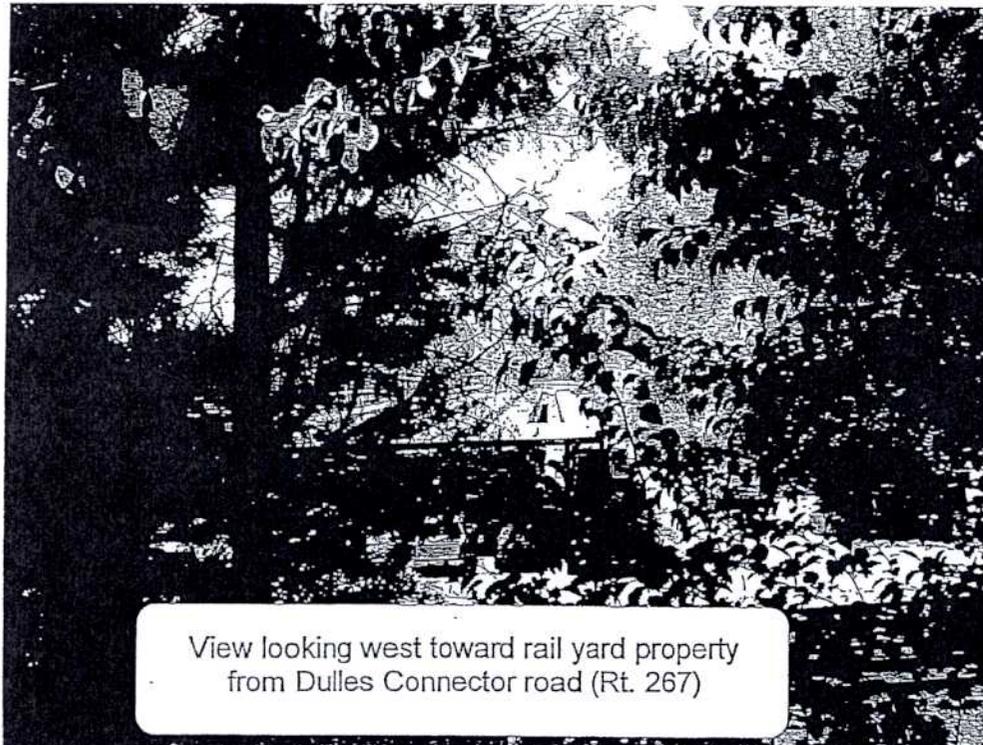


View looking east toward Dulles Connector Road (Rt. 267) from rail yard property

MAR 22 2010  
10:00 AM  
PHOTOGRAPHY

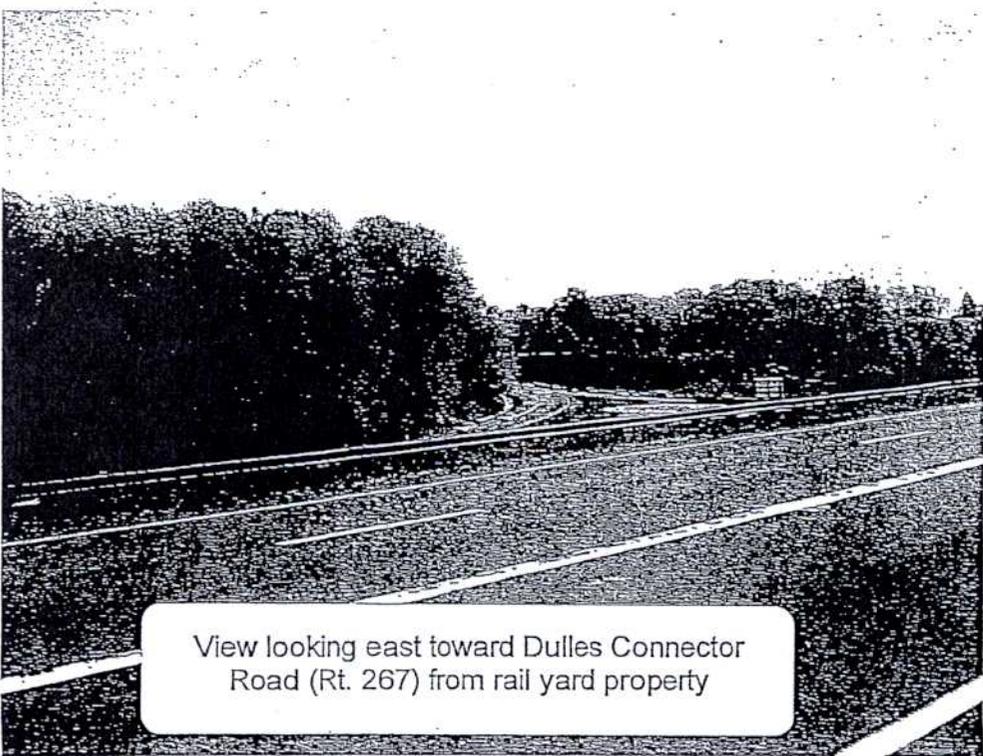
2232-00-12

### Redfield Substation Photos



View looking west toward rail yard property from Dulles Connector road (Rt. 267)

17

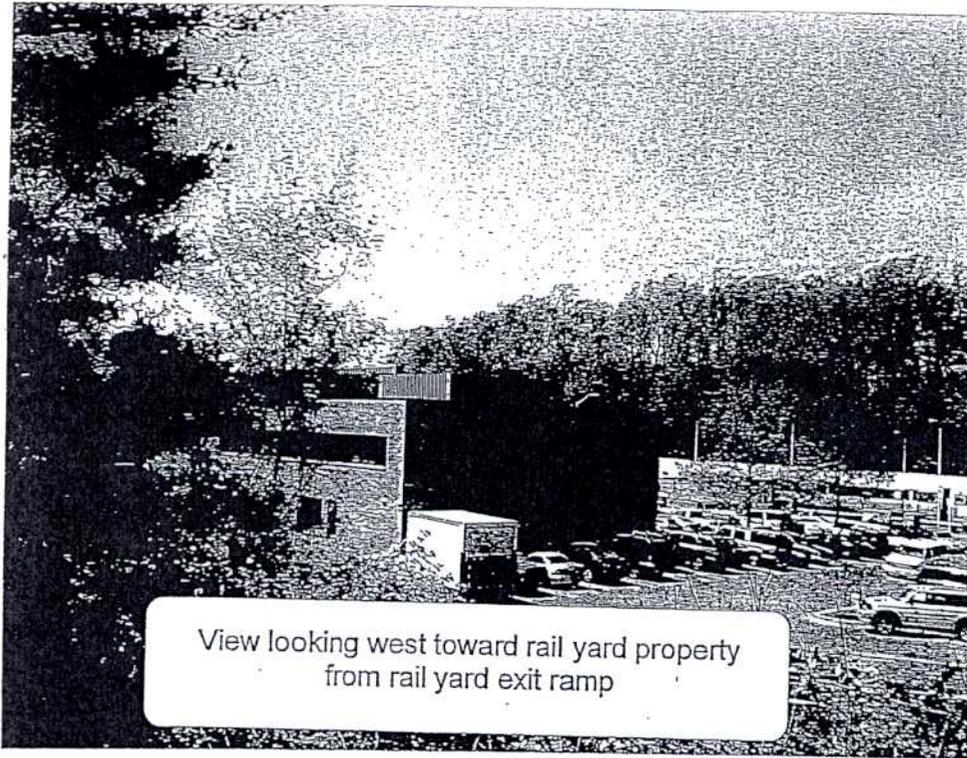


View looking east toward Dulles Connector Road (Rt. 267) from rail yard property

18

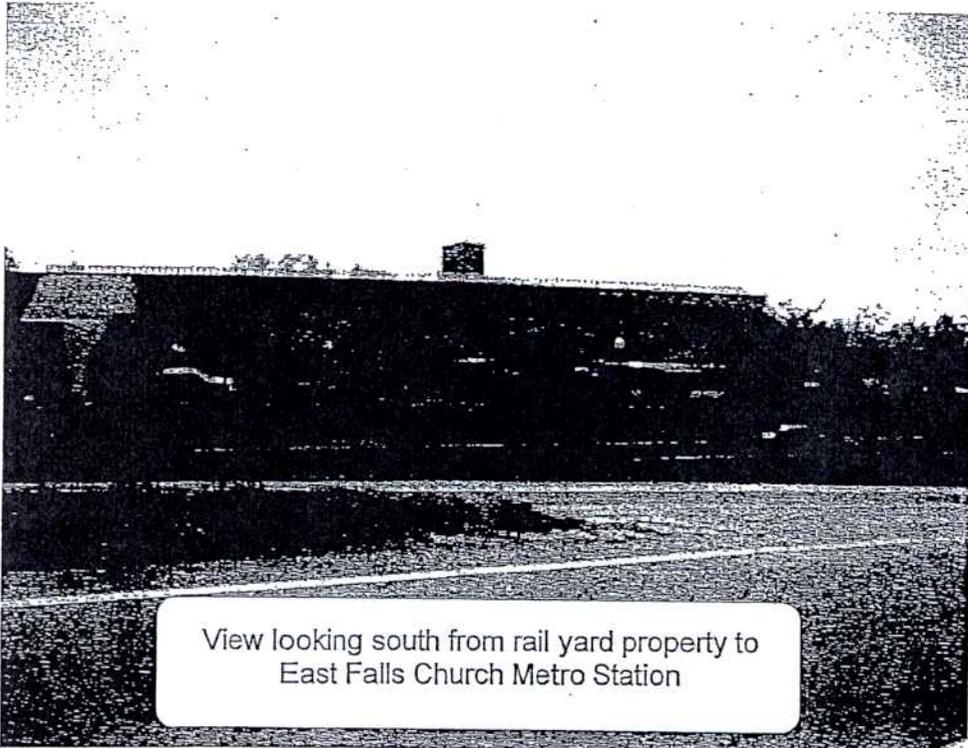
MAR 22 2010

Redfield Substation Photos



19

View looking west toward rail yard property from rail yard exit ramp



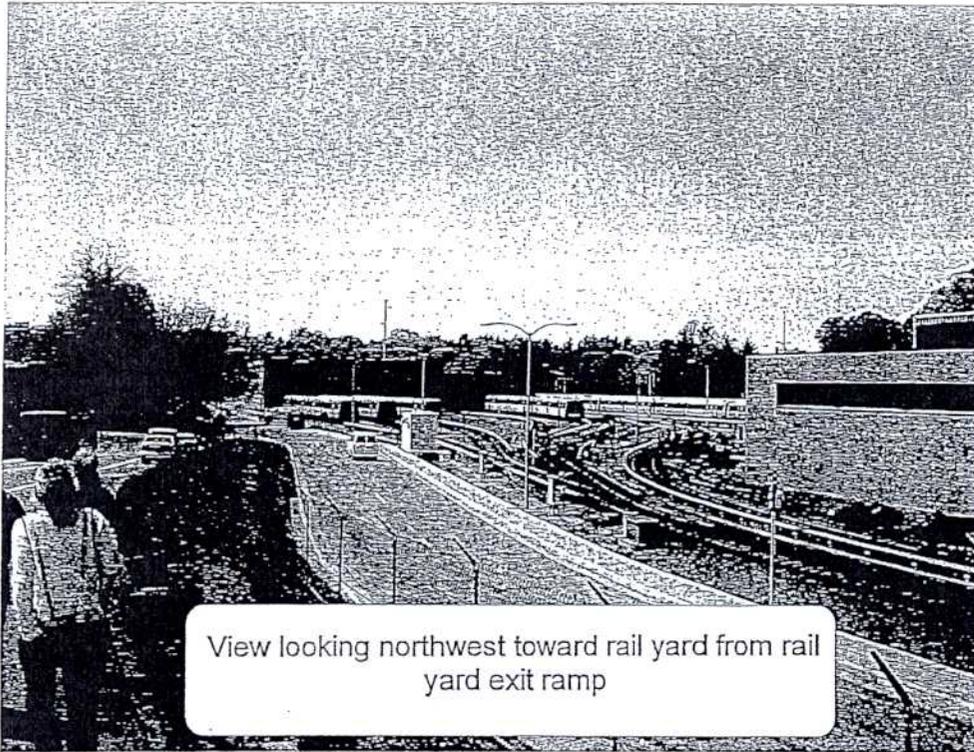
20

View looking south from rail yard property to East Falls Church Metro Station

MAR 22 2010

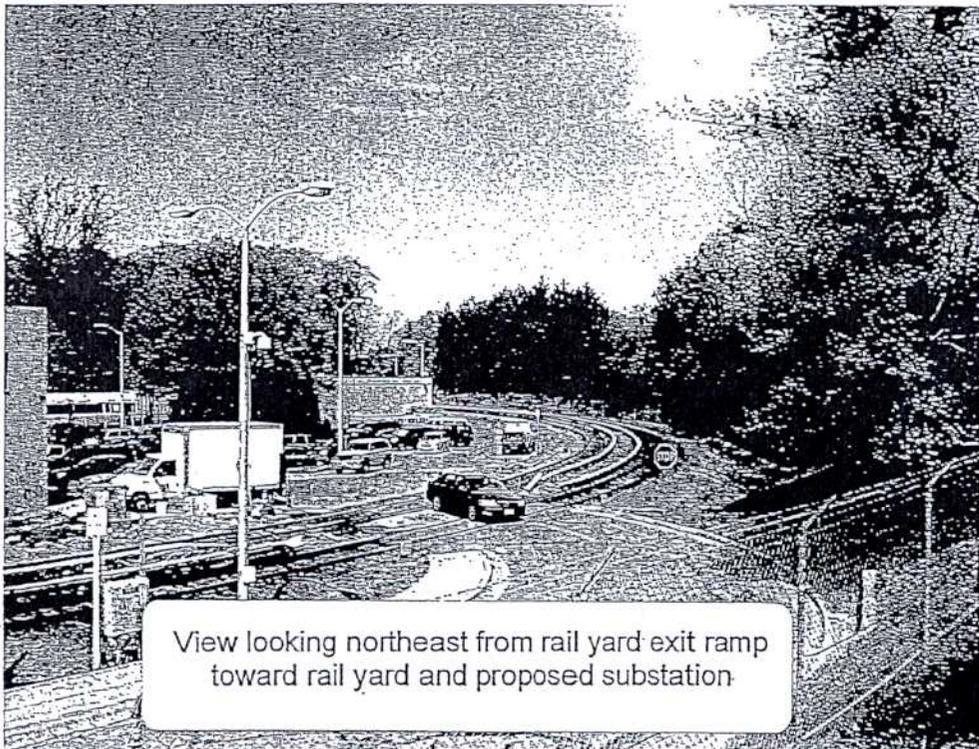
2131-00-02

### Redfield Substation Photos



View looking northwest toward rail yard from rail yard exit ramp

21

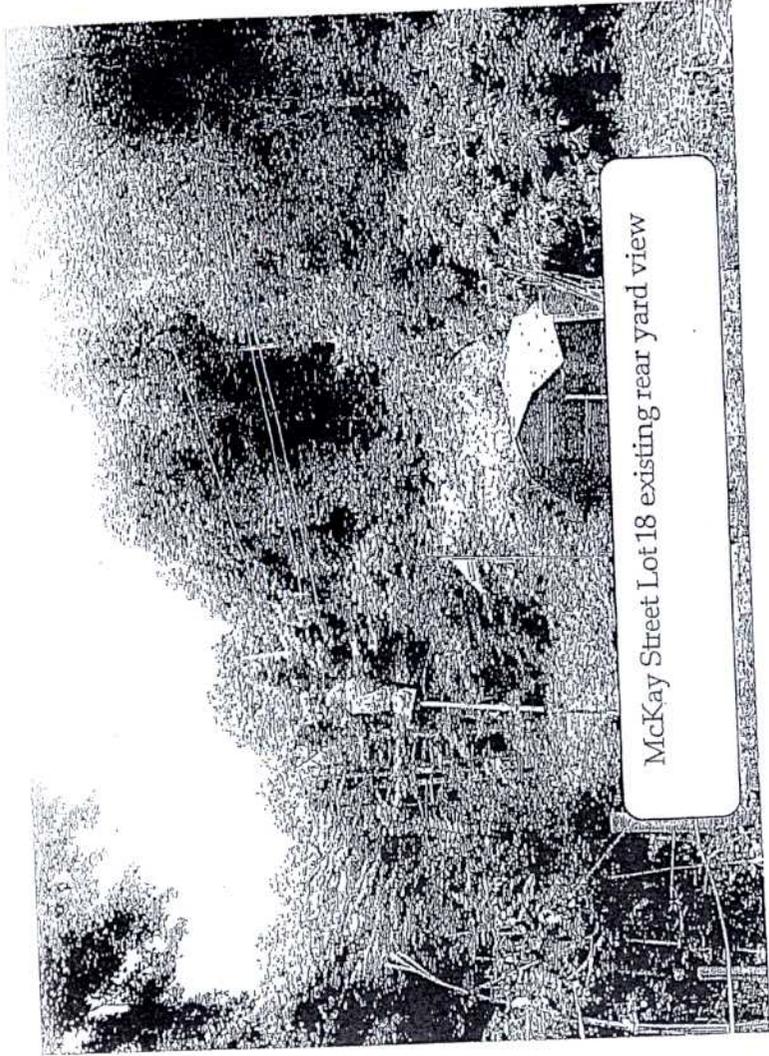


View looking northeast from rail yard exit ramp toward rail yard and proposed substation

22

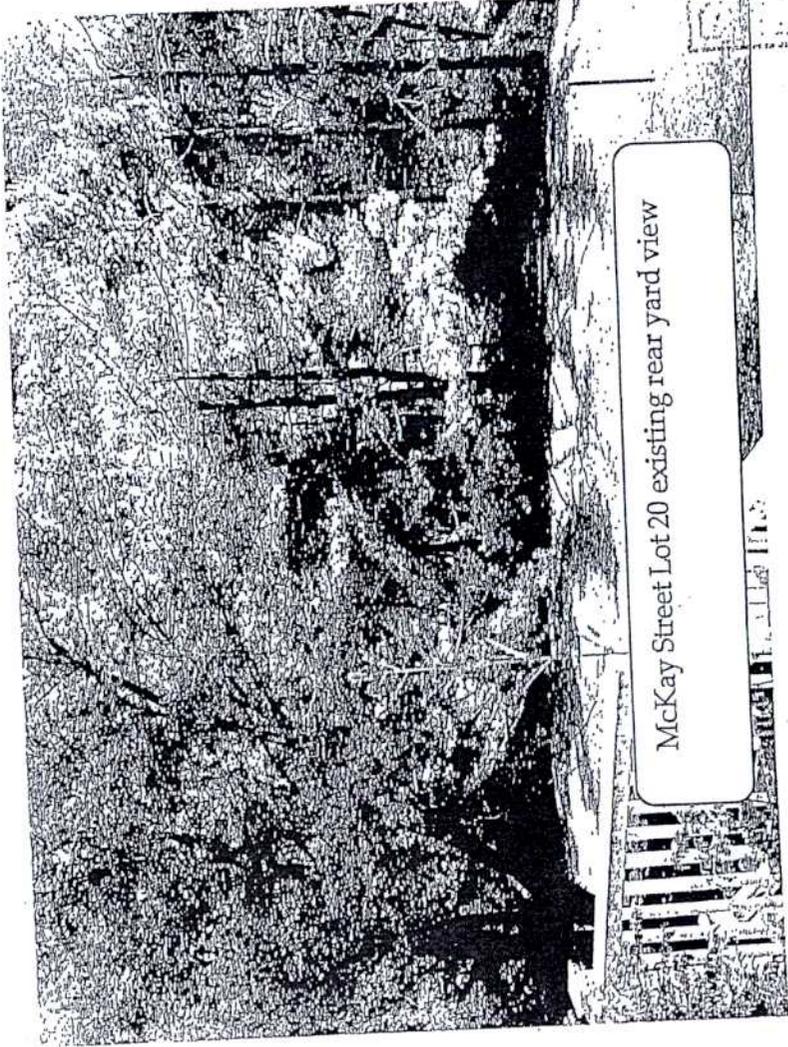
MAR 22 2010

23



McKay Street Lot 18 existing rear yard view

24

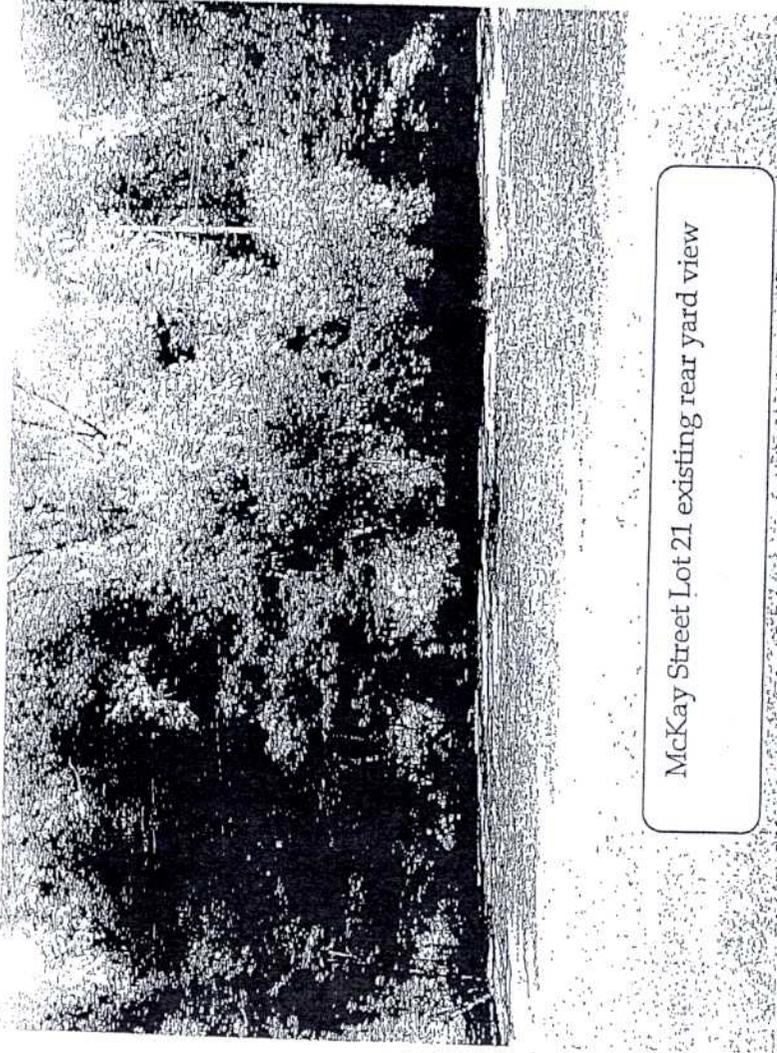


McKay Street Lot 20 existing rear yard view

SEP 8 2010

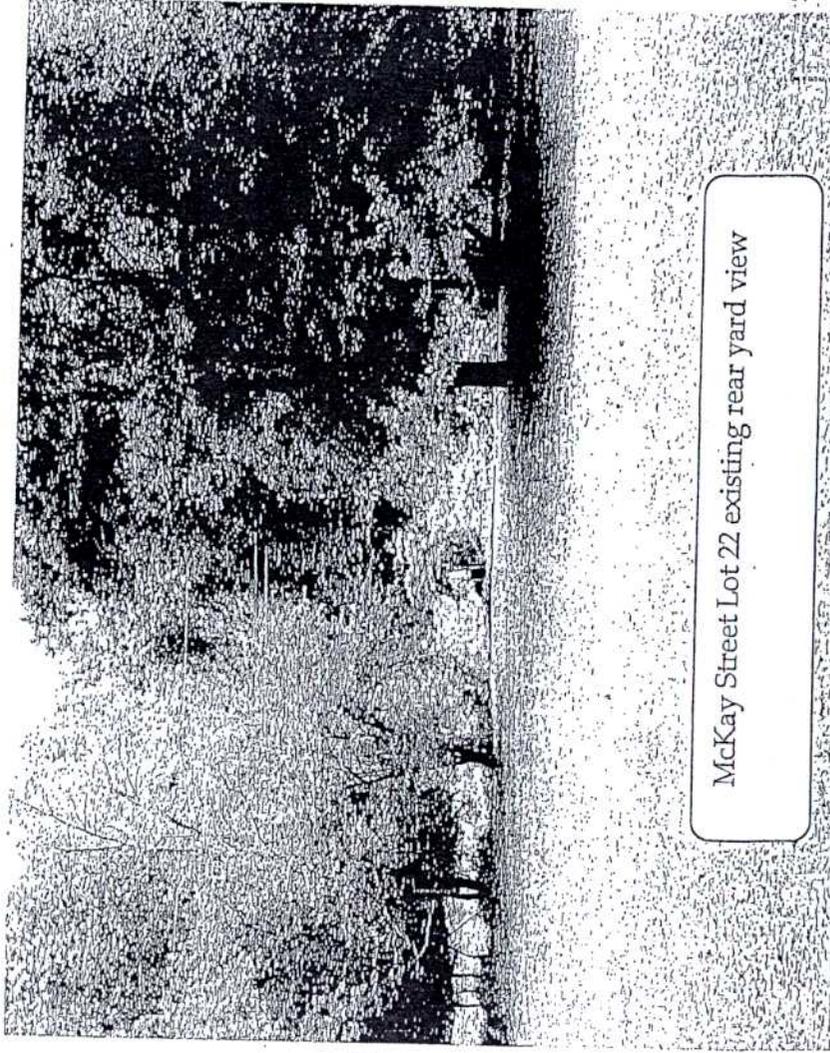
SECTION

25



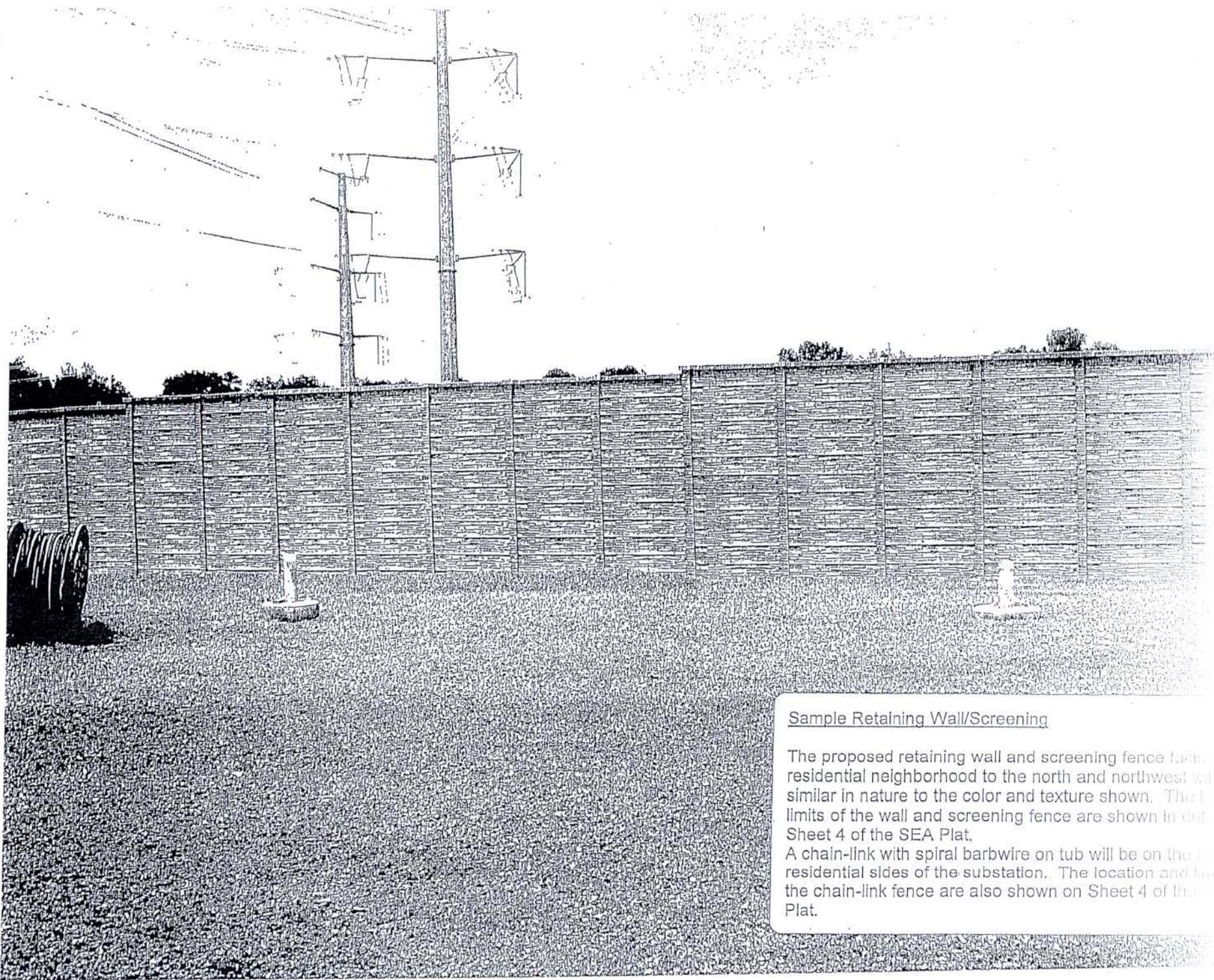
McKay Street Lot 21 existing rear yard view

26



McKay Street Lot 22 existing rear yard view

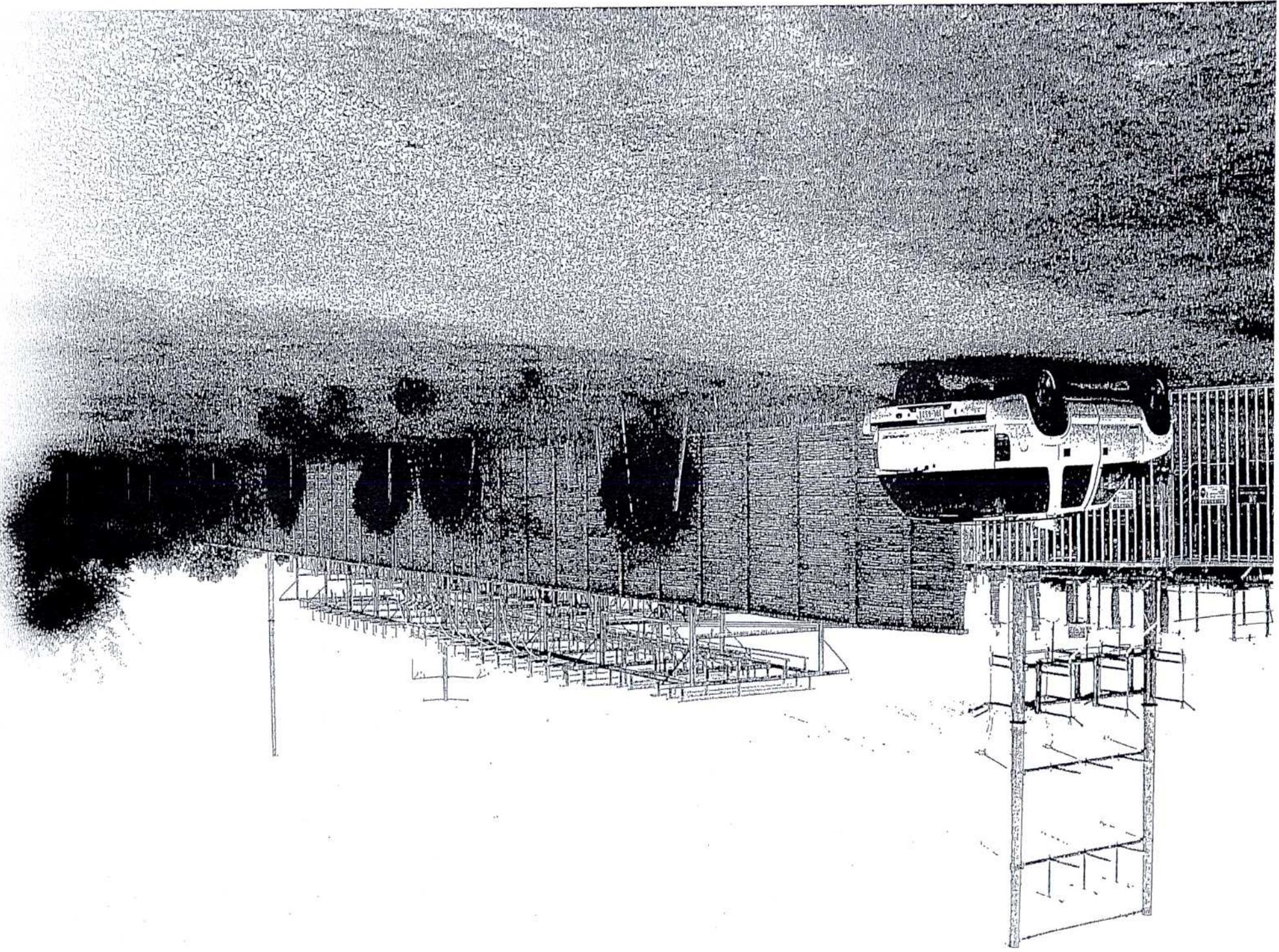
REVISED  
SEP 8 2010



#### Sample Retaining Wall/Screening

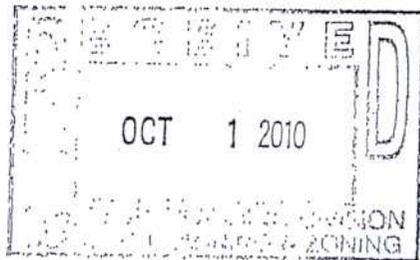
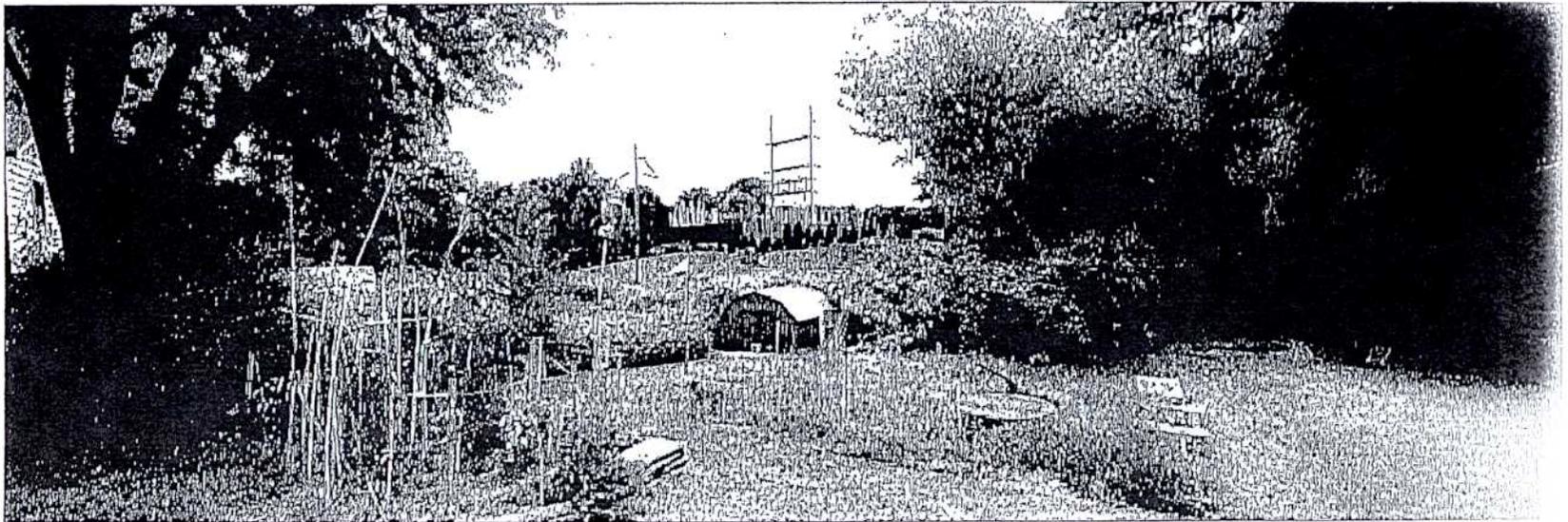
The proposed retaining wall and screening fence facing residential neighborhood to the north and northwest will be similar in nature to the color and texture shown. The limits of the wall and screening fence are shown in detail on Sheet 4 of the SEA Plat.

A chain-link with spiral barbwire on top will be on the residential sides of the substation. The location and limits of the chain-link fence are also shown on Sheet 4 of the SEA Plat.



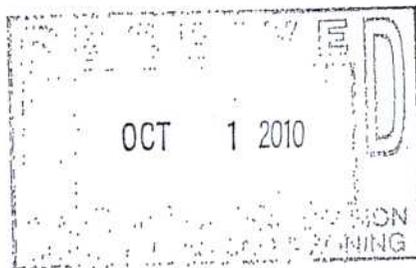
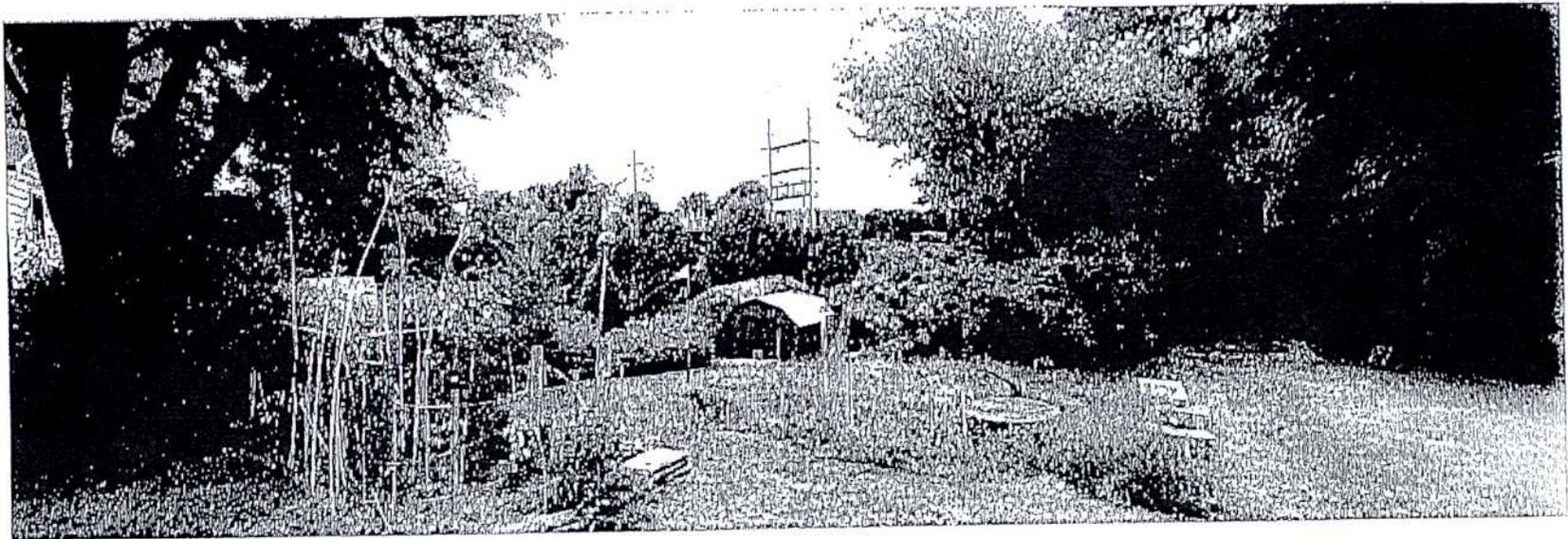
# 2127 McKay Street (Lot 18)

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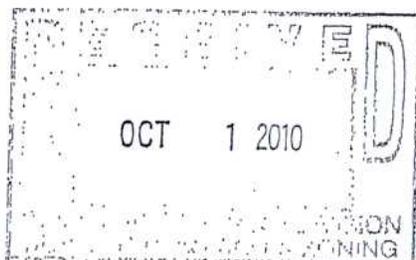
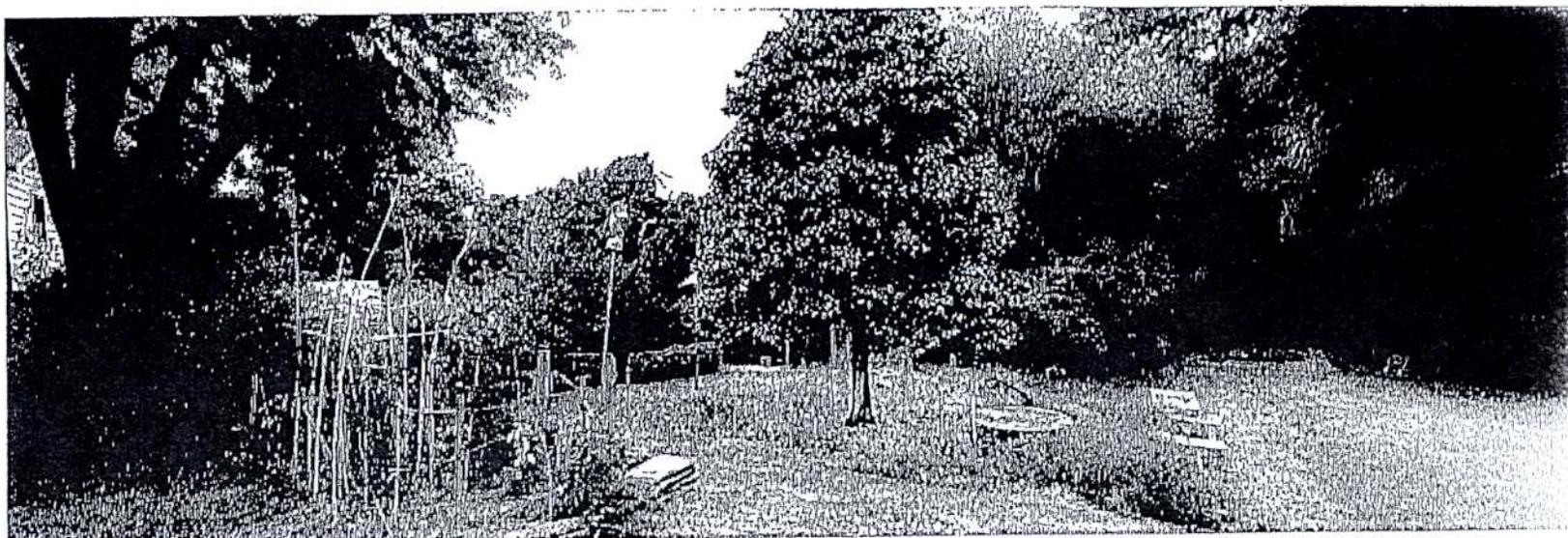
## 2127 McKay Street – With WMATA landscaping

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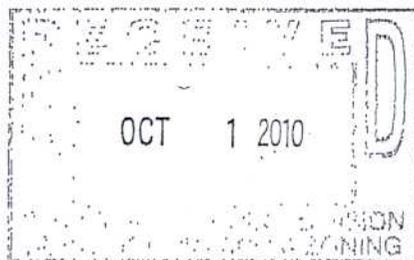
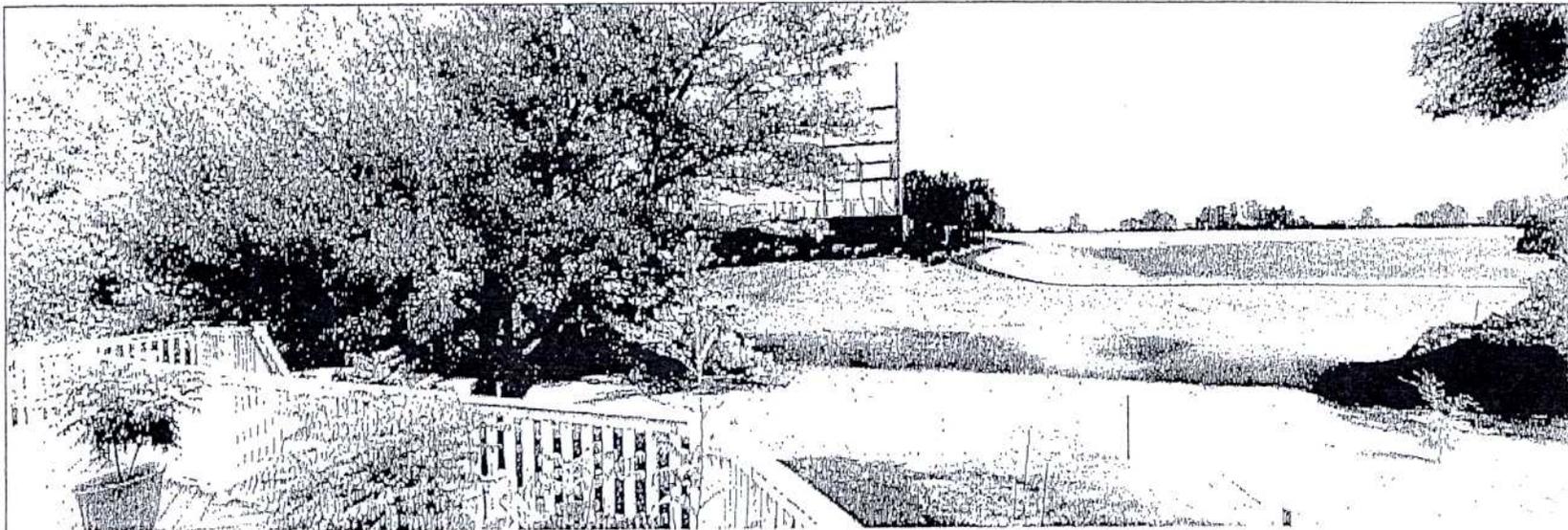
# 2127 McKay Street – With WMATA landscaping and on-site landscaping

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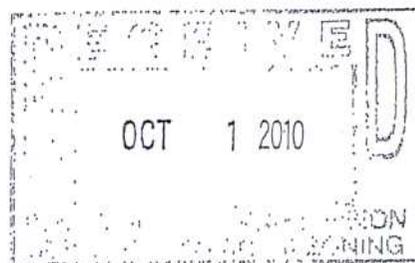
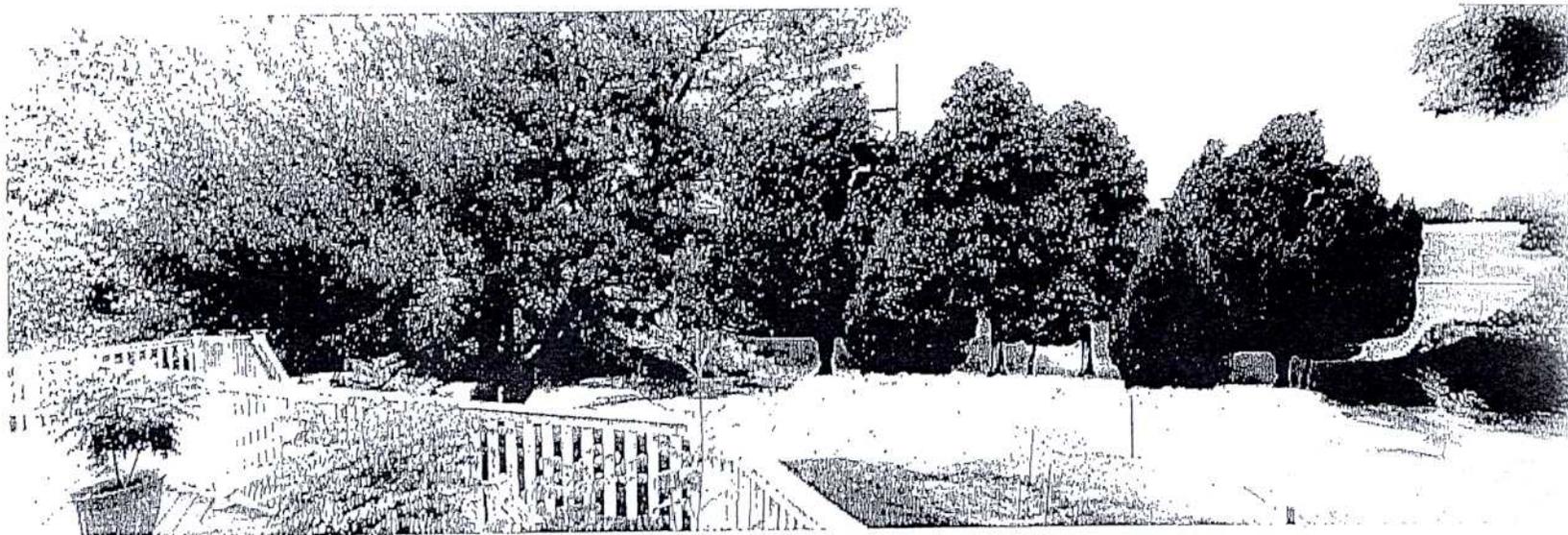
# 2123 McKay Street (Lot 20)

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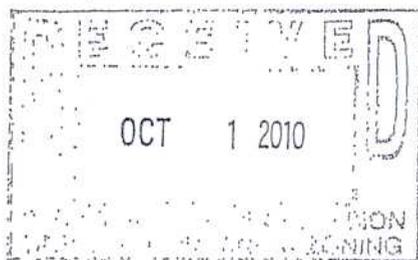
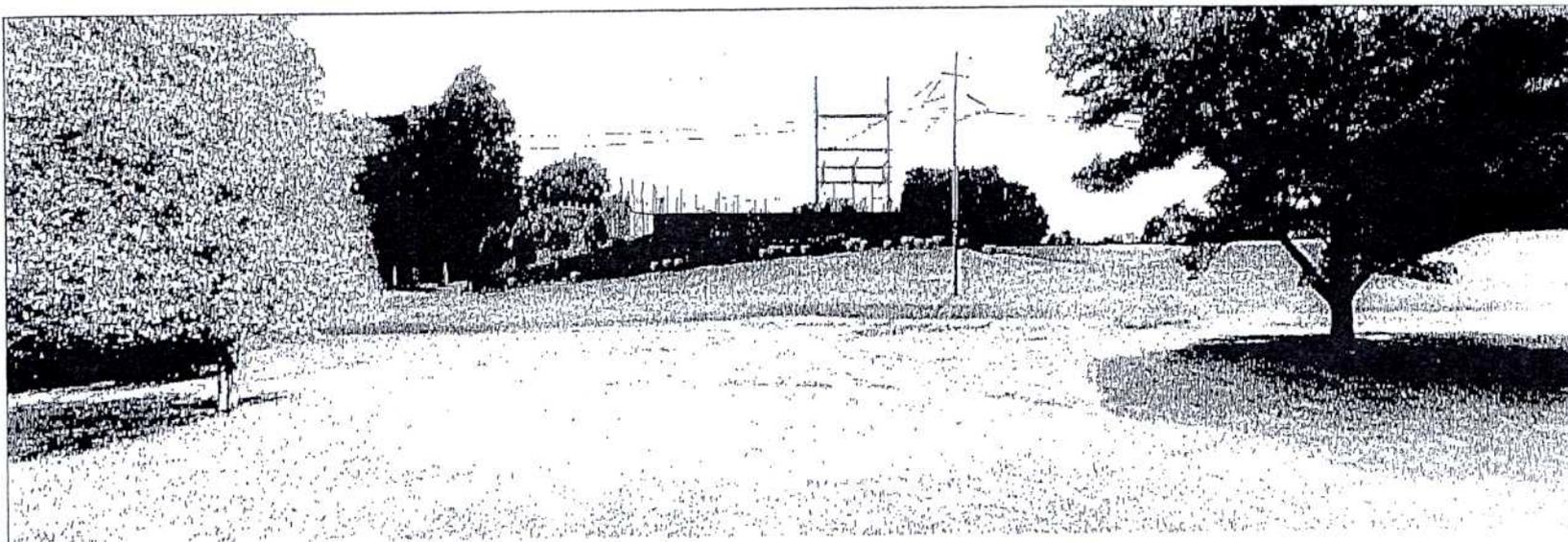
# 2123 McKay Street – With WMATA landscaping

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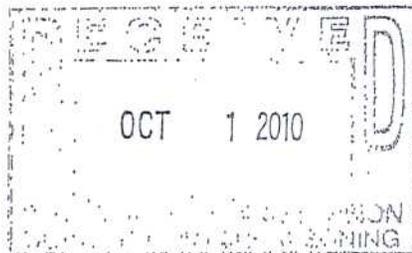
# 2121 McKay Street (Lot 21)

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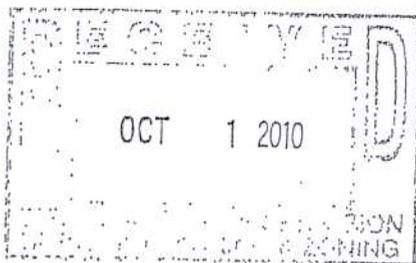
## 2121 McKay Street – With WMATA landscaping

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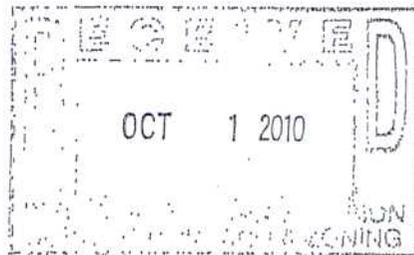
# 2119 McKay Street (Lot 22)

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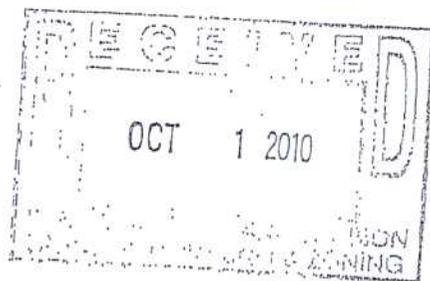
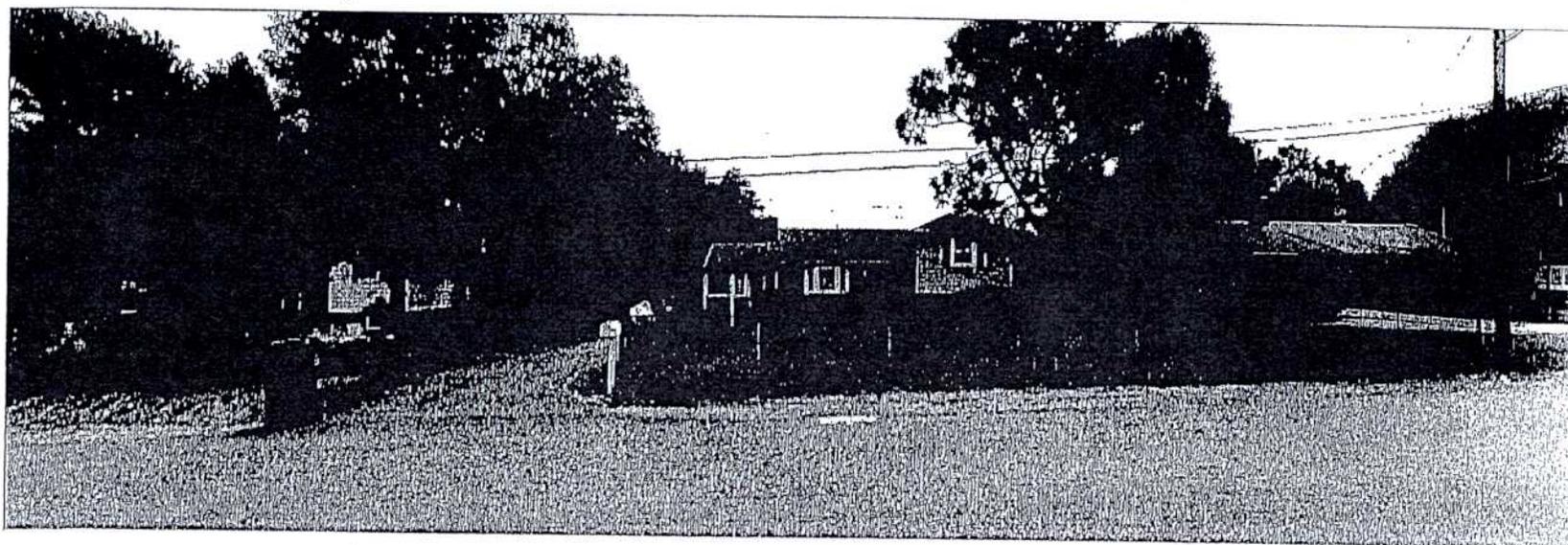
## 2119 McKay Street – With WMATA landscaping

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# View from McKay Street

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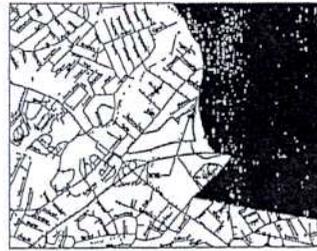


# DOMINION VIRGINIA POWER

## REDDFIELD SUBSTATION AT WEST FALLS CHURCH METRO YARD

Dranesville District Fairfax County, VA

Special Exception Plat and 2232 Plan



VICINITY MAP  
Scale: 1" = 2,000'



Applicant:  
Dominion Virginia Power  
2400 Grayland Avenue  
Richmond, VA 23220

with permission from the Metropolitan Washington Airports Authority

### Sheet Index

1. COVER SHEET
2. SPECIAL EXCEPTION PLAT / 2232 PLAN
3. SPECIAL EXCEPTION PLAT - 30 SCALE
- 0A. DIMENSION PLAN FROM ADJACENT PROPERTY LINES
- 0B. DIMENSION PLAN FROM ADJACENT RESIDENCES
4. NOTES, TABULATION, & EXISTING VEGETATION MAP
- 4A. SECTION A
- 4B. SECTION B

DOMINION VIRGINIA POWER

Reddfield Substation at  
West Falls Church Metro Yard  
Special Exception Plat  
and 2232 Plan

DeWitt

District

District



10A



Rev. J.  
Dir. of  
FEDERATION

MA



SOILS MAP SCALE: 1" = 500'

**SOILS LEGEND**  
 1A4 MIXED ALLUVIAL LAND  
 1B9+ GLENVILLE BELT LOAM  
 85B1 GLENVILLE BELT LOAM, UNDULATING PHASE  
 85C2 GLENVILLE BELT LOAM, ROLLING PHASE

AREA SUBJECT OF  
 SPECIAL EXCEPTION  
 APPLICATION



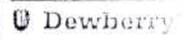
COMPREHENSIVE PLAN MAJOR TRAIL  
 WAIVED BY B.O.S. ON FEBRUARY 23, 2010  
 WITH SEA 85-D-033-02

NOT PART OF  
 APPLICATION

REQUIRED COMPREHENSIVE  
 PLAN MAJOR TRAIL

REQUIRED COMPREHENSIVE  
 PLAN MAJOR TRAIL

REQUIRED COMPREHENSIVE  
 PLAN MAJOR TRAIL



Dewberry & Davis, Inc.  
 10000 Westpark Drive  
 Suite 100  
 Dallas, Texas 75241  
 Tel: 972.382.2200  
 Fax: 972.382.2201  
 www.dewberry.com



DOMINION VIRGINIA POWER  
 Reddfield Substation at  
 West Falls Church Metro Yard  
 SPECIAL EXCEPTION PLAT  
 2008 PLAT  
 10/28/10



ART PLAN



NO.	DATE	BY	DESCRIPTION
3	10/15/10	ESP	REVISED
1	08/25/10	ESP	ISSUED

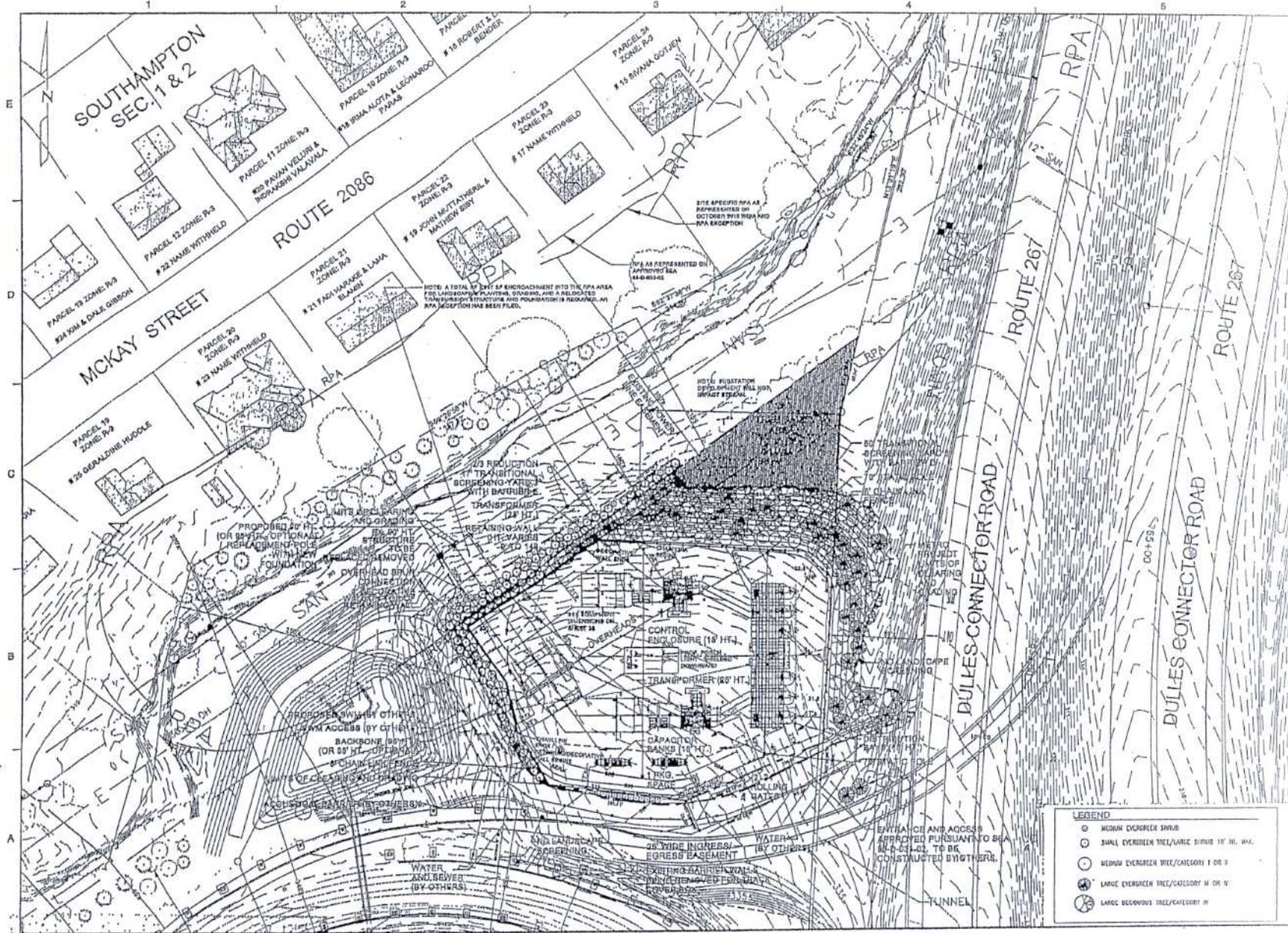
DESIGNED BY: ESP  
 APPROVED BY: ESP  
 CHECKED BY: ESP  
 DATE: FEBRUARY 23, 2010

TITLE  
 SPECIAL EXCEPTION  
 PLAT

PROJECT NO: 00011176

2

SHEET NO: 2 OF 2  
 M-10780



**LEGEND**

- MEDIUM EVERGREEN SHRUB
- SMALL EVERGREEN TREE/LARGE DIBBS 10' HL. MAX.
- MEDIUM EVERGREEN TREE/CATEGORY I OR II
- LARGE EVERGREEN TREE/CATEGORY III OR IV
- LARGE DECIDUOUS TREE/CATEGORY III

OCT 28 2010



Dewberry & Davis  
INCORPORATED



DOMINION VIRGINIA POWER  
Frederick Substation at  
West-Flee Creek, West-Flee Creek, VA



REVISION

NO.	DATE	DESCRIPTION
1	10/28/10	ISSUE FOR PERMIT
2	10/28/10	ISSUE FOR PERMIT

PROPERTY

NO.	DATE	DESCRIPTION
1	10/28/10	ISSUE FOR PERMIT
2	10/28/10	ISSUE FOR PERMIT

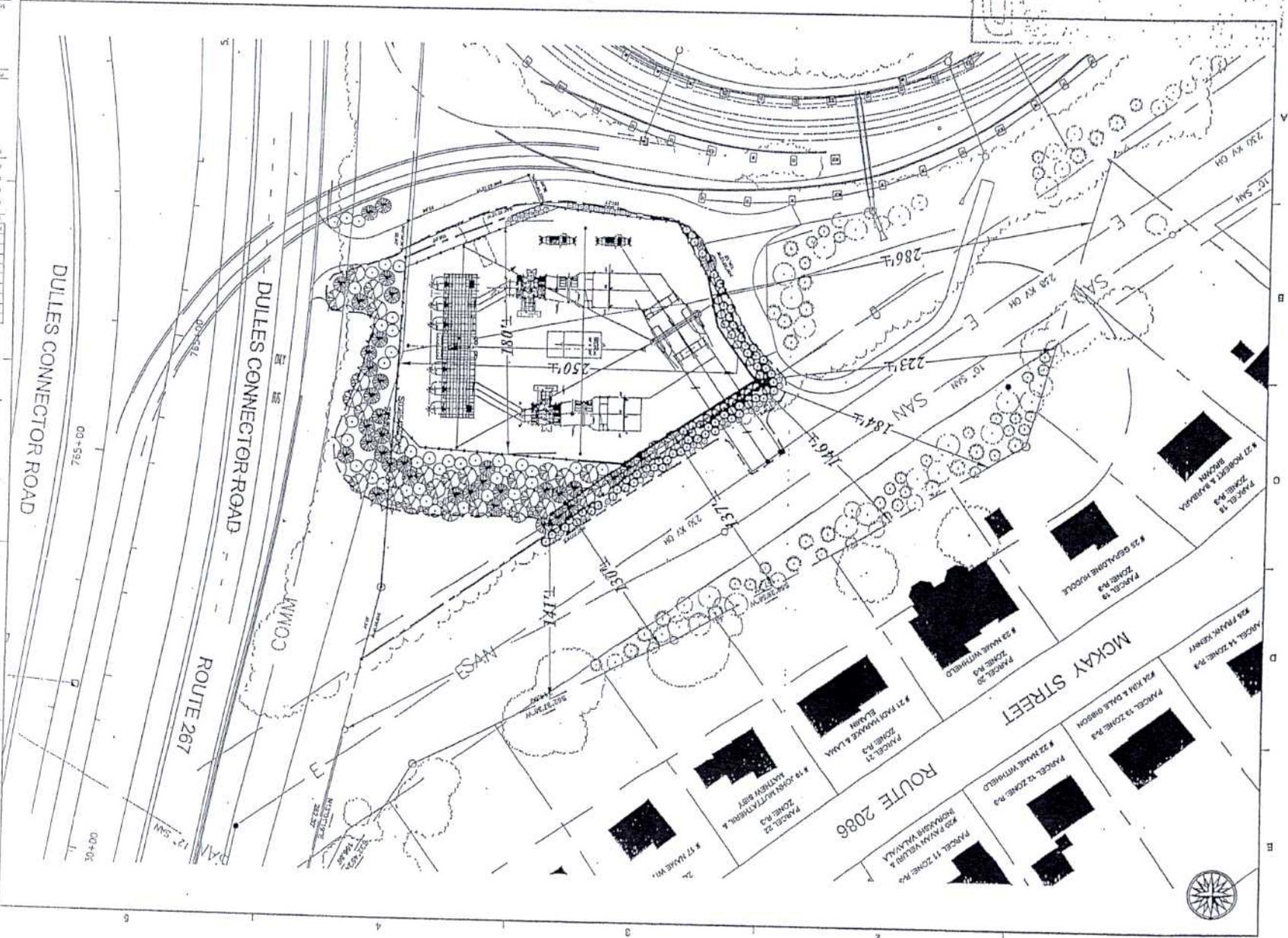
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 PROJECT NO.: [Blank]  
 DATE: [Blank]  
 TITLE: [Blank]

SPECIAL PLANTING

PLANTING

NO.	DATE	DESCRIPTION
1	10/28/10	ISSUE FOR PERMIT
2	10/28/10	ISSUE FOR PERMIT

OCT 28 2010



3A

PROJECT NO. 500117A  
DIMENSION PLAN  
FROM ADJACENT  
PROPERTIES

NO.	DATE	BY	DESCRIPTION
1	08-13-08	MC	REVISED
2	08-20-08	MC	REVISED

DESIGNED BY: [Signature]  
DRAWN BY: [Signature]  
CHECKED BY: [Signature]  
DATE: [Signature]

SCALE: 1" = 20'

NO. PLAN: 00-592

SEALED: [Signature]  
DATE: 10-17-10  
EXPIRES: 10-17-11

**DOMINION VIRGINIA POWER**  
Raddfield Substation at  
West Falls Church Metro Yard  
SPECIAL EXCEPTION PLAN  
2009 PLAN  
DOMINION VIRGINIA POWER

**Dominion**

Deberry & Cook, Inc.  
10000 Westpark Drive, Suite 100  
Westpark, VA 22187  
703-461-1100  
www.deberryandcook.com

Deberry & Cook, Inc.



REGISTERED PROFESSIONAL ENGINEER

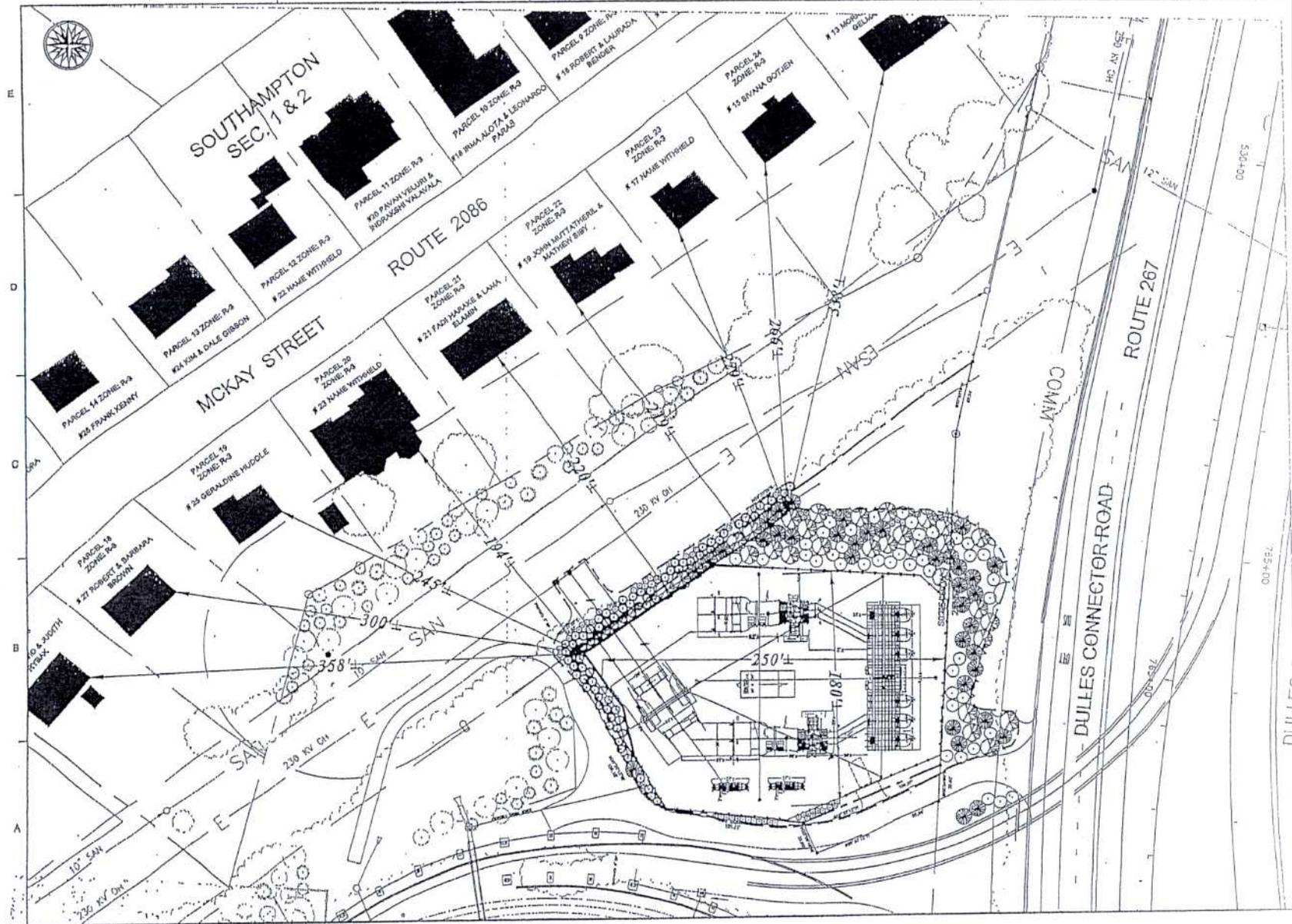
SCALE

NO.	DESCRIPTION	DATE
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2	REVISED	08/10/10
3	REVISED	08/10/10
4	REVISED	08/10/10
5	REVISED	08/10/10

DESIGNED BY: [Name]  
 APPROVED BY: [Name]  
 LICENSE NO.: [Number]  
 DATE: [Date]  
 TITLE: DIMENSIONAL  
 FROM ARCHITECTURAL  
 & ELECTRICAL

31

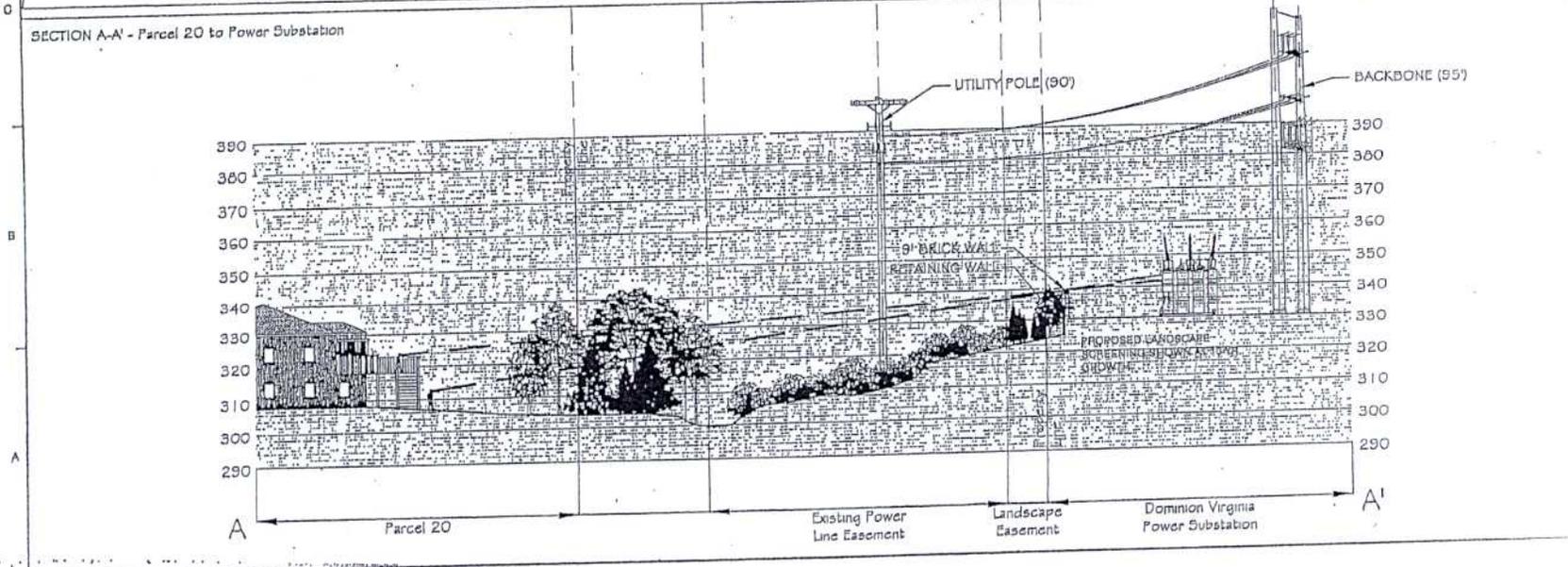
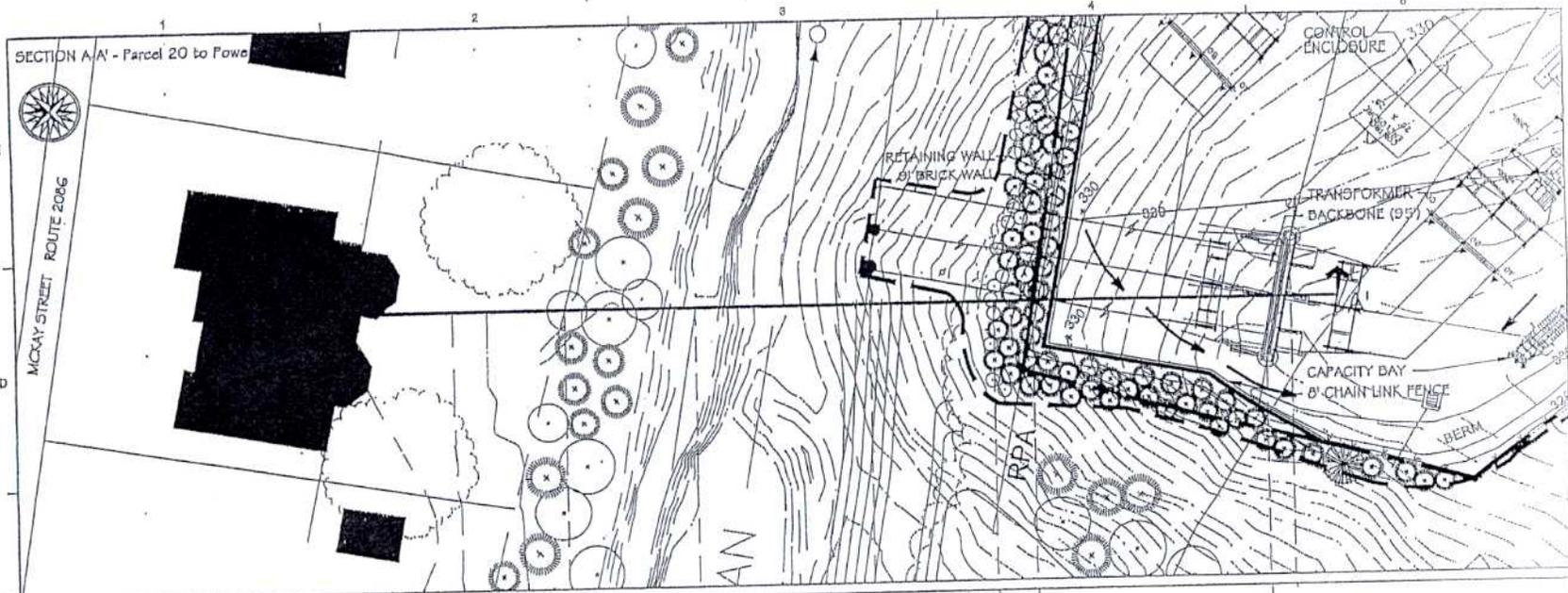
31



OCT 28 2010

31





Dewberry & Davis

Engineering & Architecture

Domino

DOMINION VIRGINIA POWER  
 Redfield Substation &  
 West Falls Church, VA



REGISTERED PROFESSIONAL ENGINEER

SCALE



NO.	DATE	DESCRIPTION
1	10/28/10	ISSUED FOR PERMIT
2		
3		
4		
5		

DESIGNED BY  
 DRAWN BY  
 CHECKED BY  
 DATE  
 TITLE  
 Dominion Virginia Power  
 Engineering & Architecture  
 to Power

OCT 28 2010



ATTAL

sent: Thursday, July 22, 2010 7:18 AM  
to: Jillson, David  
subject: Rev. 2232-D10-12  
importance: High

---

from: Kirst, Lorrie  
sent: Thursday, July 22, 2010 7:16 AM  
to: Jillson, David  
subject: 2232-D10-12

32-D10-12  
 Dominion Virginia Power - Proposed Electric Substation  
 x Map 40-3 ((1)) 46  
 : Corner of West Falls Church Metro Station Railyard and Idylwood Road  
 ning District: R-1

The proposed substation requires the approval of a Category 1 special exception for a light public utility use. Special Exception Amendment Application SEA 85-D-033-03 for an electric substation on this site has been submitted and is currently scheduled for Planning Commission public hearing on November 3, 2010. The site is currently subject to SEA 85-D-033-02. Given that the SEA application for this facility has already been submitted, ZAD comments will not be forwarded to ZED.



# County of Fairfax, Virginia

**MEMORANDUM**

ATTACHMENT 1

DATE: August 6, 2010

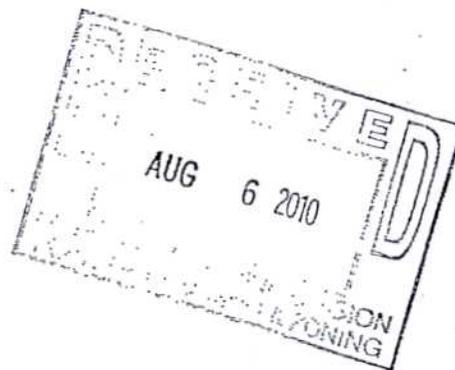
**TO:** David Jillson, Senior Planner

**FROM:** Linda Cornish Blank  
Historic Preservation Planner

**SUBJECT:** 2232-D10-12, Northeast corner of West Falls Church Metro station rail yard, Tax Map 40-3 ((1)) 86; construct electric distribution and transmission substation to consist of two distribution transformers and related distribution circuits within fenced compound

Finding: The subject property is not included within the boundaries of a Fairfax County Historic Overlay District, is not listed on the Fairfax County Inventory of Historic Sites or the National Register of Historic Places or documented in the historic structures survey file. There are no properties in the immediate vicinity of the property which is the subject of this application that are within the boundaries of a Fairfax County Historic Overlay District, listed on the Fairfax County Inventory of Historic Sites or the National Register of Historic Places or documented in the historic structures survey file that would be negatively impacted by the proposed electric distribution and transmission substation.

Recommendation: No action concerning heritage resources is required.





**MEMORANDUM** ATTACHED

DATE: October 6, 2010

**TO:** Regina Coyle, Director  
Zoning Evaluation Division, DPZ

David B. Marshall, Chief  
Facilities Planning Branch, DPZ

**FROM:** Pamela G. Nee, Chief *PN*  
Environment and Development Review Branch, DPZ

**SUBJECT:** Environmental Assessment: SEA 85-D-033-3/2232-D10-12  
Dominion Virginia Power – Reddfield Utility Substation



This memorandum, prepared by Bernard Suchicital, includes citations from the Comprehensive Plan that list and explain environmental policies for this property. Plan citations are followed by a discussion of concerns including a description of potential impacts that may result from the proposed development as depicted on the Special Exception Plat and 2232 Plan dated February 3, 2010 as revised through August 20, 2010. Possible solutions to remedy identified issues are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are also compatible with Plan policies.

**COMPREHENSIVE PLAN CITATIONS**

The Comprehensive Plan is the basis for the evaluation of this application. The assessment of the proposal for conformity with the environmental recommendations of the Comprehensive Plan is guided by the following citations from the Plan:

In the Fairfax County Comprehensive Plan, Policy Plan, 2007 Edition, Environment section as amended through July 27, 2010 on pages 7-18, the Plan states:

- “Objective 2: Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County.
  
- Policy a. Maintain a best management practices (BMP) program for Fairfax County and ensure that new development and redevelopment complies with the County’s best management practice (BMP) requirements.

Department of Planning and Zoning  
Planning Division  
12055 Government Center Parkway, Suite 730  
Fairfax, Virginia 22035-5509  
Phone 703-324-1380  
Fax 703-324-3056  
[www.fairfaxcounty.gov/dpz/](http://www.fairfaxcounty.gov/dpz/)



- Policy j. Regulate land use activities to protect surface and groundwater resources.
- Policy k. For new development and redevelopment, apply better site design and low impact development (LID) techniques . . .

Development proposals should implement best management practices to reduce runoff pollution and other impacts. Preferred practices include: those which recharge groundwater when such recharge will not degrade groundwater quality; those which preserve as much undisturbed open space as possible; and, those which contribute to ecological diversity by the creation of wetlands or other habitat enhancing BMPs, consistent with State guidelines and regulations. . . .

**Objective 10:** Conserve and restore tree cover on developed and developing sites. Provide tree cover on sites where it is absent prior to development.

- Policy a: Protect or restore the maximum amount of tree cover on developed and developing sites consistent with planned land use and good silvicultural practices.
- Policy b: Require new tree plantings on developing sites which were not forested prior to development and on public rights of way.”

## ENVIRONMENTAL ANALYSIS

This section characterizes the environmental concerns raised by an evaluation of this site and the proposed development. Solutions are suggested to remedy the concerns that have been identified by staff. There may be other acceptable solutions. Particular emphasis is given to opportunities provided by this application to conserve the county’s remaining natural amenities.

The application notes that, due to the nature of the project and site constraints, it will not meet the minimum target for tree preservation. The applicant is encouraged to work with the Urban Forestry Management Branch of the Department of Public Works and Environmental Services to identify other opportunities for tree restoration.

No stormwater management facility is located on the subject property. However, a stormwater pond with a 700 foot pipe beyond the limits of the site will address water quality control and outfall for the site. The application notes an encroachment of 4,320 square feet into the Resource Protection Area for the purpose of the planting of landscaping for the transitional screening required, and the installation of the foundation for a relocated transmission structure. Staff encourages the applicant to look for opportunities to reduce encroachment and mitigate disturbance with restoration.



**MEMORANDUM** ATTACHED 1

**DATE:** September 29, 2010

**TO:** St. Clair Williams, Staff Coordinator  
Zoning Evaluation Division and  
David Jillson, Facilities Planner  
Facilities Planning Branch, Planning Division  
Department of Planning and Zoning

**FROM:** Beth Forbes, Stormwater Engineer *BF*  
Environmental and Site Review Division  
Department of Public Works and Environmental Services

**SUBJECT:** Special Exception Amendment Application #SEA 85-D-033-03 and 2232  
Application #2232-D10-12, Virginia Electric and Power Company, Special  
Exception Plat and 2232 Plan dated August 20, 2010, LDS Project #1468-  
ZONA-002-2, Tax Map #40-3-01-0086, Dranesville District



We have reviewed the subject application and offer the following stormwater management comments.

Chesapeake Bay Preservation Ordinance (CBPO)

There is Resource Protection Area (RPA) on this site. The retaining wall and a portion of the substation will be within 100 feet of the stream and will, therefore, encroach into the RPA. The construction, installation, operation and maintenance of appurtenant structures to electric transmission lines are activities exempt from the CBPO (§ 118-5-2(a)).

Water quality controls are required for this development, if not waived (PFM 6-0401.2A). A dry pond is shown on the plat. A portion of the pond is depicted within the county-mapped RPA. A field-verified RPA delineation will be required to determine whether the pond will lie within the RPA, however, Sheet 3 shows the pond's embankment to be within 100 feet of the stream. An encroachment exception under CBPO 118-6-9 will be necessary if a portion of the pond will lie within the delineated RPA (PFM 6-0303.3). A public hearing is required for exception requests filed under Article 6.

Any channel improvements required for the pond's outfall will be within the RPA and will require the approval of a Water Quality Impact Assessment (CBPO 118-2-1(a)). The WQIA can be submitted as part of the site plan (LTI 06-07).

The BMP calculations should be based on the PFM. The phosphorus removal efficiency for dry ponds is 40%, not 45% (PFM Table 6.3).



#### Floodplain

A minor floodplain exists on the property, despite Note #9 on Sheet 4. A floodplain study will be required before site plan approval in order to delineate the boundary of this floodplain. Any construction, grading, or stream channel improvements within the floodplain will require a floodplain determination from this office before site plan approval (ZO 2-903.1). Dedication of a floodplain and storm drain easement on the parcel will be a requirement of the site plan approval (PFM 6-1405.1).

#### Downstream Drainage Complaints

There are no relevant downstream drainage complaints on file.

#### Stormwater Detention

Stormwater detention is required, if not waived (PFM 6-0301.3). A dry pond is shown on the plat. Attached to the plat is a previously approved plat (#SEA 85-D-033-02) and its calculations which include an underground detention facility adjacent to the dry pond.

An underground detention facility seems to be proposed to be within the dry pond's embankment. At the site plan stage, it will be necessary demonstrate the facility within the embankment will not compromise its stability, primarily by meeting compaction and seepage control requirements (PFM 6-1605.6F(2) and -1605.5B).

The note accompanying the underground facility indicates the facility will be constructed with 72" HDPE pipe. The maximum diameter of HDPE pipe allowed is 48" (PFM 6-0902.20(1)).

#### Site Outfall

An outfall narrative has been provided. The detention method has been proposed to meet the PFM's adequate outfall requirements. Natural Channel Design has been proposed for restoration of the stream on the property.

Please contact me at 703-324-1720 if you require additional information.

BF/

cc: Craig Carinci, Director, Stormwater Planning Division, DPWES  
Jeremiah Stonefield, Chief, Stormwater & Geotechnical Section, ESRD, DPWES  
Sharad Regmi, Stormwater Engineer, S&G Section, ESRD, DPWES  
Zoning Application File



**MEMORANDUM**

ATTACHED

September 28, 2010

**TO:** Mr. David Jillson, Planner III  
Facilities Planning Branch, Planning Division, DPZ

**FROM:** Craig Herwig, Urban Forester III *CH*  
Forest Conservation Branch, DPWES

**SUBJECT:** Virginia Electric and Power Company (West Falls Church Metro Station  
Railyard, Idylwood Road), 2232-D10-12

**RE:** Request for assistance dated September 21, 2010



This review is based upon the Special Exception Amendment application (SEA) 85-D-033-03 stamped "Received, Department of Planning and Zoning, September 7, 2010", the Special Exception Plat and 2232 Plan and the response letter to comments and recommendations stamped "Received, Department of Planning and Zoning, September 7, 2010." A site visit was conducted on July 12, 2010.

General Comment: Comments of the previously submitted SEA application, SEA Plat and 2232 Plan were provided to you in my memo dated July 16, 2010. Additional comments are provided to address proposed changes and deviation and modification requests in the most recent submission.

1. **Comment:** The Tree Preservation Target minimum will not be met as demonstrated in table 12.3 and a request for a deviation to the Tree Preservation Target has been requested. The comment response letter indicates that a request to deviate from the Tree Preservation Target minimum will be requested at time of Site Plan submission.

**Recommendation:** A deviation from the Tree Preservation Target should be provided on the SEA Plat and 2232 Plan that states one or more of the justifications listed in PFM 12-0507.3 along with a narrative that provides a site-specific explanation of why the Tree Preservation Target cannot be met.

In addition, development condition language containing a directive from the Board of Supervisors to the Urban Forest Management Division, DPWES, or Director of DPWES to permit a deviation from the Tree Preservation Target percentage should be provided.

2. **Comment:** Preliminary tree cover calculations have been provided however they are unclear and partially incorrect. A 1.25 multiplier has been taken for the entire existing tree preservation area. A portion of the proposed tree preservation area is located within an RPA. No multiplier can be taken for trees proposed for preservation within an RPA. In addition, opportunities for additional 10-year canopy credits can be taken in exchange for the planting of trees in a manner that will provide specific environmental and ecological benefits and for the use of trees that are native to Fairfax County, or for the use of species that are resistant to disease, pests, decay and the negative impacts imposed by harsh environmental conditions.

**Recommendation:** As previously suggested, preliminary 10-year tree canopy calculations in accordance with PFM 12-0510 and PFM Table 12.12 should be provided on the SEA demonstrating how Article 2 of the Tree Conservation Ordinance, 10-year tree canopy requirements will be met.

3. **Comment:** A modification of the transitional screening and barrier requirements has been requested in favor of that shown on the SEA Plat, based on paragraph 14 of section 13-305 of the Zoning Ordinance which states "Transitional screening and barriers may be waived or modified for any public use when such use has been specifically designed to minimize impact on adjacent properties." The vegetation below the proposed electrical conductor mainline and tap line due to vegetation management requirements will be a maximum 10 ft. height under mainline and a maximum 15 ft. height under the tap line. The reduced height of the transitional screening yard plants below the electrical conductor mainline and tap line is not specifically designed to minimize the impact on adjacent properties.

**Recommendation:** The transitional screening and barrier modification request should include justification based on section 13-305 of the Zoning Ordinance for the reduced height of the proposed plants within the transitional screening yard below the electrical conductor mainline and tap lines.

4. **Comment:** A modification of the transitional screening and barrier requirements has been requested in favor of that shown on the SEA Plat. A portion of the proposed transitional screening yard is outside the area of the Special Exception Amendment Plat. In addition, a portion of the transitional screening yard is located within an existing 100-foot wide power line easement even though PFM 12-0514.6B specifically states "Trees shall not be planted within any existing or proposed public utility easement that is required to be delineated on the plan..."

**Recommendation:** The transitional screening and barrier modification request should include justification based on section 13-305 of the Zoning Ordinance for

locating a portion of the transitional screening yard within an existing public utility easement which is contrary to what is stated in PFM 12-0514.6B.

6. **Comment:** Given the nature of tree cover on this site and depending upon the ultimate configuration provided, several development conditions will be instrumental in assuring adequate tree preservation and protection throughout the development process.

**Recommendation:** Recommend the following development conditions to ensure effective tree preservation:

Tree Preservation: "The applicant shall submit a Tree Preservation plan as part of the first and all subsequent site plan submissions. The preservation plan shall be prepared by a professional with experience in the preparation of tree preservation plans, such as a Certified Arborist or Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES.

The tree preservation plan shall consist of a tree survey that includes the location, species, size, crown spread and condition rating percentage of all trees 10 inches in diameter and greater, and 25 feet to either side of the limits of clearing and grading shown on the SEA for the entire site. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the SEA and those additional areas in which trees can be preserved as a result of final engineering. The condition analysis ratings shall be prepared using methods outlined in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan."

Tree Preservation Walk-Through. "The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's Certified Arborist or Registered Consulting Arborist shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made, if any, to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions."

Limits of Clearing and Grading. “The Applicant shall conform strictly to the limits of clearing and grading as shown on the SEA, subject to allowances specified in these development conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the SEA, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities.”

Tree Preservation Fencing: “All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the “Root Pruning” proffer below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the direct supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES.”

Root Pruning. “The Applicant shall root prune, as needed to comply with the tree preservation requirements of these development conditions. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the submitted plan. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.
- Root pruning shall take place prior to any clearing and grading, or demolition of structures.
- Root pruning shall be conducted with the supervision of a certified arborist.

- An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.”

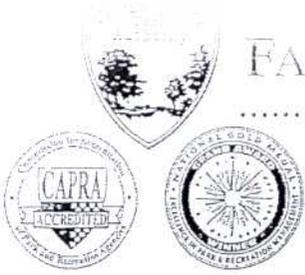
Site Monitoring. “During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as per specific development conditions and as approved by the UFMD. The Applicant shall retain the services of a Certified Arborist or Registered Consulting Arborist to monitor all construction and demolition work adjacent to any vegetation to be preserved and tree preservation efforts in order to ensure conformance with all tree preservation development conditions, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.”

Please feel free to contact me at 703-324-1770 if you have any questions or concerns about these comments and recommendations.

CSH/

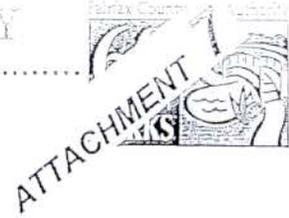
UFMD #: 152420

cc: RA File  
DPZ File



# FAIRFAX COUNTY PARK AUTHORITY

## M E M O R A N D U M



**TO:** David S. Jillson  
Facilities Planning Branch  
Department of Planning and Zoning

**FROM:** Sandy Stallman, Manager, *AD for SS*  
Park Planning Branch, PDD

**DATE:** September 28, 2010

**SUBJECT:** 2232-D10-12 Dominion Virginia Power - Revised  
Tax Map Number: 40-3((1)) 86



The Park Authority staff has reviewed the above referenced plan and provides the following comments.

Applicant's preferred site, parcel 40-3 ((1)) 86

Staff has determined that this applicant's preferred site on parcel 40-3 ((1)) 86 bears no adverse impact on land or resources of the Park Authority.

Alternative Site #1 on parcels 40-1 ((1)) 25B & 25C

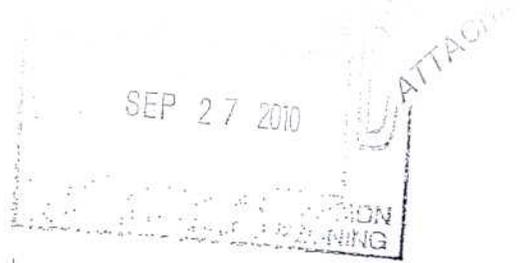
The applicants Alternative Site #1 on parcels 40-1 ((1)) 25B & 25C includes Mount Royal Park (parcel 25C) owned by the Park Authority. The Park Authority also owns an access easement across parcel 25B from McKay Street to Mount Royal Park. As stated by the applicant, it is not possible to determine the impact Alternative Site #1 would have on Park Authority Property without a development plan for this alternative. Though undeveloped, Mount Royal Park is a Master Planned site, making a land exchange unlikely. If the applicant were to resort to using Alternative Site #1, the Park Authority may consider the construction of master planned facilities within Mount Royal Park as a potential offset to development impacts. This would also be dependent on a review of impacts shown on a site plan for this location.

Alternative Site #3 on parcel 40-2 ((1)) 42

The applicant's Alternative Site #3, located on parcel 40-2 ((1)) 42 is located between Kirby and Pimmit Run Stream Valley Parks, both owned by the Park Authority. It should be noted that this proposed parcel is privately owned even though it is between two parks. Development of this site for the proposed use would eliminate at least one much-needed diamond field facility. As stated by the applicant, approximately 87 percent of the site is within the Pimmit Run Resource Protection Area (RPA) and associated flood plain, making it a particularly bad location for an electrical substation.

FCPA Reviewer: Andy Galusha  
DPZ Coordinator: David Jillson

Sent: Monday, September 27, 2010 9:58 PM  
To: Jillson, David  
Cc: Stone, Laurie A.  
Subject: RE: FRD comments re: 2232-D10-12



vid,

The Fire and Rescue Department's comments regarding submitted application 2232-D10-12 have not been satisfactorily addressed. Also, please note that these are "Fire and Rescue Department" comments and reflect the review of the application by several different sections of the department. The applicant incorrectly references the department's comments to their application page 13 as "FIRE MARSHALL COMMENTS." This is incorrect.

Not adequate - Sheet 3 labels "water and sewer (by others)." Provide evidence that Falls Church Public Utilities has seen and agreed to this claimed dead-end water main extension. Show clearly how fire vehicles can access a hydrant so far removed from road entry to the site. One does not drive past the fire to get to the hydrant.

Not adequate - Sheets 4, 4A, 4B do not show vehicle clearances at proposed entry gate area and do not show any hydrant at accessible area near or proximate to vehicle entry gate. Show clearly how fire vehicles can access and leave the site.

Eric K. Fisher  
Systems Analyst III  
Fairfax County Fire and Rescue Department  
Information Technology Section  
100 Chain Bridge Rd., 5th Floor, Fairfax, VA 22030-7000  
703-246-3501, (f) 703-591-6278

---

From: Fisher, Eric K.  
Sent: Friday, August 06, 2010 6:23 PM  
To: Jillson, David  
Cc: Stone, Laurie A.  
Subject: FRD comments re: 2232-D10-12

vid,

The submitted application 2232-D10-12 lacks the details we need to fully comment on the submission. Further, the submitted plans and drawings are of too small a scale and are several reproductions removed from the originals. FRD's specific concerns are our ability to access the site and adequate water supply. The submitted application raises more questions than it answers. Examples include:

- It is unclear where the closest water supply will be to this site.
- There appears to be a screening wall around some or all of the site. The details aren't clear.
- On the south side of the site, WMATA is constructing a yard tunnel/track cover box. Once constructed will this yard tunnel completely block access to the site for people, vehicles, and water supply from the south, specifically from the WMATA rail yard?
- The contours of the new site are unclear, so we cannot determine slopes and water run off directions.
- Retaining wall heights and lengths are unclear.
- The proposed road to access the site is shown connecting to the Dulles Connector. Details for the proposed road such as width and composition are lacking.
- The presence of overhead obstructions is unknown from the plans.

Are full scale copies of the original plans available?

Eric K. Fisher  
Systems Analyst III  
Fairfax County Fire and Rescue Department  
Information Technology Section



# County of Fairfax, Virginia

## MEMORANDUM

ATTACHMENT 2

DATE: August 31, 2010

TO: Regina Coyle, Director  
Zoning Evaluation Division  
Department of Planning and Zoning

FROM: Angela Kadar Rodeheaver, Chief  
Site Analysis Section  
Department of Transportation

SUBJECT: Transportation Impact

REFERENCE: 2232-D10-12 Virginia Electric & Power Co  
D/B/A Dominion Virginia Power  
Land Identification Map: 40-3 ((1)) 0086 (pt)

The following comments reflect the position of the Fairfax County Department of Transportation (FCDOT) and are based on the informational packet made available to this department on July 22, 2010. The application proposes development and operation of an electric substation on property known as West Falls Church Rail Yard. This Department offers the following comments:

- Dulles Access Toll Road access to substation should be constructed as shown on the Resolution approved by the Commonwealth Transportation Board (CTB) and Virginia Department of Transportation (VDOT) dated *April 19, 2007*.
- Access should be constructed to meet all VDOT standards / requirements and obtain required permits.

AKR/mdd



§ 15.2-2232. Legal status of plan.

ATTACHED

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 § 33.1-23.03 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 sixty 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 ten 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 sixty 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 by the Virginia Public Broadcasting Board pursuant to Article 12 (§ 2.2-2426 et seq.) of Chapter 24 of Title 2.2 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 Virginia Public Broadcasting Board 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 ninety 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 sixty 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.

(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.)

In addition to the specific standards set forth hereinafter with regard to particular special exception uses, all such uses shall satisfy the following general standards:

1. The proposed use at the specified location shall be in harmony with the adopted comprehensive plan.
2. The proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations.
3. The proposed use shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof.
4. The proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.
5. In addition to the standards which may be set forth in this Article for a particular category or use, the Board shall require landscaping and screening in accordance with the provisions of Article 13.
6. Open space shall be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.
7. Adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking and loading requirements shall be in accordance with the provisions of Article 11.
8. Signs shall be regulated by the provisions of Article 12; however, the Board may impose more strict requirements for a given use than those set forth in this Ordinance.

In addition to the general standards set forth in Sect. 006 above, all Category 1 special exception uses shall satisfy the following standards:

1. Category 1 special exception uses shall not have to comply with the lot size requirements or the bulk regulations set forth for the zoning district in which located.
2. No land or building in any district other than the I-5 and I-6 District shall be used for the storage of materials or equipment, or for the repair or servicing of vehicles or equipment, or for the parking of vehicles except those needed by employees connected with the operation of the immediate facility.
3. If the proposed location of a Category 1 use is in an R district, there shall be a finding that there is no alternative site available for such use in a C or I district within 500 feet of the proposed location; except that in the case of electric transformer stations and telecommunication central offices, there shall be a finding that there is no alternative site available in a C or I district within a distance of one (1) mile, unless there is a substantial showing that it is impossible for satisfactory service to be rendered from an available location in such C or I district.
4. Before establishment, all uses, including modifications or alterations to existing uses, shall be subject to the provisions of Article 17, Site Plans.

## GLOSSARY

This Glossary is provided to assist the public in understanding the staff evaluation and analysis of development proposals. It should not be construed as representing legal definitions. Refer to the Fairfax County Zoning Ordinance, Comprehensive Plan or Public Facilities Manual for additional information.

**ABANDONMENT:** Refers to road or street abandonment, an action taken by the Board of Supervisors, usually through the public hearing process, to abolish the public's right-of-passage over a road or road right-of-way. Upon abandonment, the right-of-way automatically reverts to the underlying fee owners. If the fee to the owner is unknown, Virginia law presumes that fee to the roadbed rests with the adjacent property owners if there is no evidence to the contrary.

**ACCESSORY DWELLING UNIT (OR APARTMENT):** A secondary dwelling unit established in conjunction with and clearly subordinate to a single family detached dwelling unit. An accessory dwelling unit may be allowed if a special permit is granted by the Board of Zoning Appeals (BZA). Refer to Sect. 8-918 of the Zoning Ordinance.

**AFFORDABLE DWELLING UNIT (ADU) DEVELOPMENT:** Residential development to assist in the provision of affordable housing for persons of low and moderate income in accordance with the affordable dwelling unit program and in accordance with Zoning Ordinance regulations. Residential development which provides affordable dwelling units may result in a density bonus (see below) permitting the construction of additional housing units. See Part 8 of Article 2 of the Zoning Ordinance.

**AGRICULTURAL AND FORESTAL DISTRICTS:** A land use classification created under Chapter 114 or 115 of the Fairfax County Code for the purpose of qualifying landowners who wish to retain their property for agricultural or forestal use for use/value taxation pursuant to Chapter 58 of the Fairfax County Code.

**BARRIER:** A wall, fence, earthen berm, or plant materials which may be used to provide a physical separation between land uses. Refer to Article 13 of the Zoning Ordinance for specific barrier requirements.

**BEST MANAGEMENT PRACTICES (BMPs):** Stormwater management techniques or land use practices that are determined to be the most effective, practicable means of preventing and/or reducing the amount of pollution generated by nonpoint sources in order to improve water quality.

**BUFFER:** Graduated mix of land uses, building heights or intensities designed to mitigate potential conflicts between different types or intensities of land uses; may also provide for a transition between uses. A landscaped buffer may be an area of open, undeveloped land and may include a combination of fences, walls, berms, open space and/or landscape plantings. A buffer is not necessarily coincident with transitional screening.

**CHESAPEAKE BAY PRESERVATION ORDINANCE:** Regulations which the State has mandated must be adopted to protect the Chesapeake Bay and its tributaries. These regulations must be incorporated into the comprehensive plans, zoning ordinances and subdivision ordinances of the affected localities. Refer to Chesapeake Bay Preservation Act, Va. Code Section 10.1-2100 et seq and VR 173-02-01, Chesapeake Bay Preservation Area Designation and Management Regulations.

**CLUSTER DEVELOPMENT:** Residential development in which the lots are clustered on a portion of a site so that significant environmental/historical/cultural resources may be preserved or recreational amenities provided. While smaller lot sizes are permitted in a cluster subdivision to preserve open space, the overall density cannot exceed that permitted by the applicable zoning district. See Sect. 2-421 and Sect. 9-615 of the Zoning Ordinance.

**COUNTY 2232 REVIEW PROCESS:** A public hearing process pursuant to Sect. 15.2-2232 (Formerly Sect. 15.1-456) of the Virginia Code which is used to determine if a proposed public facility not shown on the adopted Comprehensive Plan is in substantial accord with the plan. Specifically, this process is used to determine if the general or approximate location, character and extent of a proposed facility is in substantial accord with the Plan.

**dBA:** The momentary magnitude of sound weighted to approximate the sensitivity of the human ear to certain frequencies; the dBA value describes a sound at a given instant, a maximum sound level or a steady state value. See also Ldn.

**DENSITY:** Number of dwelling units (du) divided by the gross acreage (ac) of a site being developed in residential use; or, the number of dwelling units per acre (du/ac) except in the PRC District when density refers to the number of persons per acre.

**DENSITY BONUS:** An increase in the density otherwise allowed in a given zoning district which may be granted under specific provisions of the Zoning Ordinance when a developer provides excess open space, recreation facilities, or affordable dwelling units (ADUs), etc.

**DEVELOPMENT CONDITIONS:** Terms or conditions imposed on a development by the Board of Supervisors (BOS) or the Board of Zoning Appeals (BZA) in connection with approval of a special exception, special permit or variance application or rezoning application in a "P" district. Conditions may be imposed to mitigate adverse impacts associated with a development as well as secure compliance with the Zoning Ordinance and/or conformance with the Comprehensive Plan. For example, development conditions may regulate hours of operation, number of employees, height of buildings, and intensity of development.

**DEVELOPMENT PLAN:** A graphic representation which depicts the nature and character of the development proposed for a specific land area; information such as topography, location and size of proposed structures, location of streets, trails, utilities, and storm drainage are generally included on a development plan. A development plan is a submission requirement for rezoning to the PRC District. A **GENERALIZED DEVELOPMENT PLAN (GDP)** is a submission requirement for a rezoning application for all conventional zoning districts other than a P District. A development plan submitted in connection with a special exception (SE) or special permit (SP) is generally referred to as an SE or SP plat. A **CONCEPTUAL DEVELOPMENT PLAN (CDP)** is a submission requirement when filing a rezoning application for a P District other than the PRC District; a CDP characterizes in a general way the planned development of the site. A **FINAL DEVELOPMENT PLAN (FDP)** is a submission requirement following the approval of a conceptual development plan and rezoning application for a P District other than the PRC District; an FDP further details the planned development of the site. See Article 16 of the Zoning Ordinance.

**EASEMENT:** A right to or interest in property owned by another for a specific and limited purpose. Examples: access easement, utility easement, construction easement, etc. Easements may be for public or private purposes.

**ENVIRONMENTAL QUALITY CORRIDORS (EQCs):** An open space system designed to link and preserve natural resource areas, provide passive recreation and protect wildlife habitat. The system includes stream valleys, steep slopes and wetlands. For a complete definition of EQCs, refer to the Environmental section of the Policy Plan for Fairfax County contained in Vol. 1 of the Comprehensive Plan.

**ERODIBLE SOILS:** Soils that wash away easily, especially under conditions where stormwater runoff is inadequately controlled. Silt and sediment are washed into nearby streams, thereby degrading water quality.

**FLOODPLAIN:** Those land areas in and adjacent to streams and watercourses subject to periodic flooding; usually associated with environmental quality corridors. The 100 year floodplain drains 70 acres or more of land and has a one percent chance of flood occurrence in any given year.

**FLOOR AREA RATIO (FAR):** An expression of the amount of development intensity (typically, non-residential uses) on a specific parcel of land. FAR is determined by dividing the total square footage of gross floor area of buildings on a site by the total square footage of the site itself.

**FUNCTIONAL CLASSIFICATION:** A system for classifying roads in terms of the character of service that individual facilities are providing or are intended to provide, ranging from travel mobility to land access. Roadway system functional classification elements include Freeways or Expressways which are limited access highways, Other Principal (or Major) Arterials, Minor Arterials, Collector Streets, and Local Streets. Principal arterials are designed to accommodate travel; access to adjacent properties is discouraged. Minor arterials are designed to serve both through traffic and local trips. Collector roads and streets link local streets and properties with the arterial network. Local streets provide access to adjacent properties.

**GEOTECHNICAL REVIEW:** An engineering study of the geology and soils of a site which is submitted to determine the suitability of a site for development and recommends construction techniques designed to overcome development on problem soils, e.g., marine clay soils.

**HYDROCARBON RUNOFF:** Petroleum products, such as motor oil, gasoline or transmission fluid deposited by motor vehicles which are carried into the local storm sewer system with the stormwater runoff, and ultimately, into receiving streams; a major source of non-point source pollution. An oil-grit separator is a common hydrocarbon runoff reduction method.

**IMPERVIOUS SURFACE:** Any land area covered by buildings or paved with a hard surface such that water cannot seep through the surface into the ground.

**INFILL:** Development on vacant or underutilized sites within an area which is already mostly developed in an established development pattern or neighborhood.

**INTENSITY:** The magnitude of development usually measured in such terms as density, floor area ratio, building height, percentage of impervious surface, traffic generation, etc. Intensity is also based on a comparison of the development proposal against environmental constraints or other conditions which determine the carrying capacity of a specific land area to accommodate development without adverse impacts.

**Ldn:** Day night average sound level. It is the twenty-four hour average sound level expressed in A-weighted decibels; the measurement assigns a "penalty" to night time noise to account for night time sensitivity. Ldn represents the total noise environment which varies over time and correlates with the effects of noise on the public health, safety and welfare.

**LEVEL OF SERVICE (LOS):** An estimate of the effectiveness of a roadway to carry traffic, usually under anticipated peak traffic conditions. Level of Service efficiency is generally characterized by the letters A through F, with LOS-A describing free flow traffic conditions and LOS-F describing jammed or grid-lock conditions.

**MARINE CLAY SOILS:** Soils that occur in widespread areas of the County generally east of Interstate 95. Because of the abundance of shrink-swell clays in these soils, they tend to be highly unstable. Many areas of slope failure are evident on natural slopes. Construction on these soils may initiate or accelerate slope movement or slope failure. The shrink-swell soils can cause movement in structures, even in areas of flat topography, from dry to wet seasons resulting in cracked foundations, etc. Also known as slippage soils.

**OPEN SPACE:** That portion of a site which generally is not covered by buildings, streets, or parking areas. Open space is intended to provide light and air; open space may function as a buffer between land uses or for scenic, environmental, or recreational purposes.

**OPEN SPACE EASEMENT:** An easement usually granted to the Board of Supervisors which preserves a tract of land in open space for some public benefit in perpetuity or for a specified period of time. Open space easements may be accepted by the Board of Supervisors, upon request of the land owner, after evaluation under criteria established by the Board. See Open Space Land Act, Code of Virginia, Sections 10.1-1700, et seq.

**P DISTRICT:** A "P" district refers to land that is planned and/or developed as a Planned Development Housing (PDH) District, a Planned Development Commercial (PDC) District or a Planned Residential Community (PRC) District. The PDH, PDC and PRC Zoning Districts are established to encourage innovative and creative design for land development; to provide ample and efficient use of open space; to promote a balance in the mix of land uses, housing types, and intensity of development; and to allow maximum flexibility in order to achieve excellence in physical, social and economic planning and development of a site. Refer to Articles 6 and 16 of the Zoning Ordinance.

**PROFFER:** A written condition, which, when offered voluntarily by a property owner and accepted by the Board of Supervisors in a rezoning action, becomes a legally binding condition which is in addition to the zoning district regulations applicable to a specific property. Proffers are submitted and signed by an owner prior to the Board of Supervisors public hearing on a rezoning application and run with the land. Once accepted by the Board, proffers may be modified only by a proffered condition amendment (PCA) application or other zoning action of the Board and the hearing process required for a rezoning application applies. See Sect. 15.2-2303 (formerly 15.1-491) of the Code of Virginia.

**PUBLIC FACILITIES MANUAL (PFM):** A technical text approved by the Board of Supervisors containing guidelines and standards which govern the design and construction of site improvements incorporating applicable Federal, State and County Codes, specific standards of the Virginia Department of Transportation and the County's Department of Public Works and Environmental Services.

**RESOURCE MANAGEMENT AREA (RMA):** That component of the Chesapeake Bay Preservation Area comprised of lands that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

**RESOURCE PROTECTION AREA (RPA):** That component of the Chesapeake Bay Preservation Area comprised of lands at or near the shoreline or water's edge that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation of the quality of state waters. In their natural condition, these lands provide for the removal, reduction or assimilation of sediments from runoff entering the Bay and its tributaries, and minimize the adverse effects of human activities on state waters and aquatic resources. New development is generally discouraged in an RPA. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

**SITE PLAN:** A detailed engineering plan, to scale, depicting the development of a parcel of land and containing all information required by Article 17 of the Zoning Ordinance. Generally, submission of a site plan to DPWES for review and approval is required for all residential, commercial and industrial development except for development of single family detached dwellings. The site plan is required to assure that development complies with the Zoning Ordinance.

**SPECIAL EXCEPTION (SE) / SPECIAL PERMIT (SP):** Uses, which by their nature, can have an undue impact upon or can be incompatible with other land uses and therefore need a site specific review. After review, such uses may be allowed to locate within given designated zoning districts if appropriate and only under special controls, limitations, and regulations. A special exception is subject to public hearings by the Planning Commission and Board of Supervisors with approval by the Board of Supervisors; a special permit requires a public hearing and approval by the Board of Zoning Appeals. Unlike proffers which are voluntary, the Board of Supervisors or BZA may impose reasonable conditions to assure, for example, compatibility and safety. See Article 8, Special Permits and Article 9, Special Exceptions, of the Zoning Ordinance.

**STORMWATER MANAGEMENT:** Engineering practices that are incorporated into the design of a development in order to mitigate or abate adverse water quantity and water quality impacts resulting from development. Stormwater management systems are designed to slow down or retain runoff to re-create, as nearly as possible, the pre-development flow conditions.

**SUBDIVISION PLAT:** The engineering plan for a subdivision of land submitted to DPWES for review and approved pursuant to Chapter 101 of the County Code.

**TRANSPORTATION DEMAND MANAGEMENT (TDM):** Actions taken to reduce single occupant vehicle automobile trips or actions taken to manage or reduce overall transportation demand in a particular area.

**TRANSPORTATION SYSTEM MANAGEMENT (TSM) PROGRAMS:** This term is used to describe a full spectrum of actions that may be applied to improve the overall efficiency of the transportation network. TSM programs usually consist of low-cost alternatives to major capital expenditures, and may include parking management measures, ridesharing programs, flexible or staggered work hours, transit promotion or operational improvements to the existing roadway system. TSM includes Transportation Demand Management (TDM) measures as well as H.O.V. use and other strategies associated with the operation of the street and transit systems.

**URBAN DESIGN:** An aspect of urban or suburban planning that focuses on creating a desirable environment in which to live, work and play. A well-designed urban or suburban environment demonstrates the four generally accepted principles of design: clearly identifiable function for the area; easily understood order; distinctive identity; and visual appeal.

**VACATION:** Refers to vacation of street or road as an action taken by the Board of Supervisors in order to abolish the public's right-of-passage over a road or road right-of-way dedicated by a plat of subdivision. Upon vacation, title to the road right-of-way transfers by operation of law to the owner(s) of the adjacent properties within the subdivision from whence the road/road right-of-way originated.

**VARIANCE:** An application to the Board of Zoning Appeals which seeks relief from a specific zoning regulation such as lot width, building height, or minimum yard requirements, among others. A variance may only be granted by the Board of Zoning Appeals through the public hearing process and upon a finding by the BZA that the variance application meets the required Standards for a Variance set forth in Sect. 18-404 of the Zoning Ordinance.

**WETLANDS:** Land characterized by wetness for a portion of the growing season. Wetlands are generally delineated on the basis of physical characteristics such as soil properties indicative of wetness, the presence of vegetation with an affinity for water, and the presence or evidence of surface wetness or soil saturation. Wetland environments provide water quality improvement benefits and are ecologically valuable. Development activity in wetlands is subject to permitting processes administered by the U.S. Army Corps of Engineers

**TIDAL WETLANDS:** Vegetated and nonvegetated wetlands as defined in Chapter 116 Wetlands Ordinance of the Fairfax County Code: includes tidal shores and tidally influenced embayments, creeks, and tributaries to the Occoquan and Potomac Rivers. Development activity in tidal wetlands may require approval from the Fairfax County Wetlands Board.

#### Abbreviations Commonly Used in Staff Reports

A&F	Agricultural & Forestal District	PDH	Planned Development Housing
ADU	Affordable Dwelling Unit	PFM	Public Facilities Manual
ARB	Architectural Review Board	PRC	Planned Residential Community
BMP	Best Management Practices	RC	Residential-Conservation
BOS	Board of Supervisors	RE	Residential Estate
BZA	Board of Zoning Appeals	RMA	Resource Management Area
COG	Council of Governments	RPA	Resource Protection Area
CBC	Community Business Center	RUP	Residential Use Permit
CDP	Conceptual Development Plan	RZ	Rezoning
CRD	Commercial Revitalization District	SE	Special Exception
DOT	Department of Transportation	SEA	Special Exception Amendment
DP	Development Plan	SP	Special Permit
DPWES	Department of Public Works and Environmental Services	TDM	Transportation Demand Management
DPZ	Department of Planning and Zoning	TMA	Transportation Management Association
DU/AC	Dwelling Units Per Acre	TSA	Transit Station Area
EQC	Environmental Quality Corridor	TSM	Transportation System Management
FAR	Floor Area Ratio	UP & DD	Utilities Planning and Design Division, DPWES
FDP	Final Development Plan	VC	Variance
GDP	Generalized Development Plan	VDOT	Virginia Dept. of Transportation
GFA	Gross Floor Area	VPD	Vehicles Per Day
HC	Highway Corridor Overlay District	VPH	Vehicles per Hour
HCD	Housing and Community Development	WMATA	Washington Metropolitan Area Transit Authority
LOS	Level of Service	WS	Water Supply Protection Overlay District
Non-RUP	Non-Residential Use Permit	ZAD	Zoning Administration Division, DPZ
OSDS	Office of Site Development Services, DPWES	ZED	Zoning Evaluation Division, DPZ
PCA	Proffered Condition Amendment	ZPRB	Zoning Permit Review Branch
PD	Planning Division		
PDC	Planned Development Commercial		