



APPLICATION ACCEPTED: June 19, 2014
PLANNING COMMISSION: February 11, 2015
BOARD OF SUPERVISORS: Not Yet Scheduled

County of Fairfax, Virginia

January 28, 2015

STAFF REPORT

SPECIAL EXCEPTION APPLICATION SE 2014-PR-032 & 2232-P14-4

PROVIDENCE DISTRICT

APPLICANT: Virginia Electric and Power Company,
d/b/a Dominion Virginia Power

ZONING: R-3

PARCEL(S): 49-2 ((1)) 151, 49-2 ((12)) 1A

LOCATION: 7701 and 7707 Shreve Road

ACREAGE: 7.15 acres

PLAN MAP: Public Facility

SE CATEGORY: Category 1 Use: Electrical Substation

PROPOSAL: To determine whether the proposed redevelopment of the existing electrical substation satisfy the criteria of location, character and extent pursuant to Sect. 15.2-2232 of the Code of Virginia, and requests Special Exception approval to permit redevelopment of existing electrical substation

Suzanne Wright

STAFF RECOMMENDATIONS:

Staff recommends that the Planning Commission find that the facility proposed under 2232-P14-4 satisfies the criteria of location, character, and extent as specified in Section 15-2.2232 of the Code of Virginia, and therefore is substantially in accord with the provisions of the Comprehensive Plan.

Staff recommends approval of SE 2014-PR-032, subject to the Proposed Development Conditions contained in Appendix 1.

Staff recommends approval of a modification to the transitional screening requirements along all boundaries of this site in favor of that shown on the SE Plat.

Staff recommends that the Board direct the Director of DPWES to approve a modification of 10 year tree canopy requirements in favor of that shown on the SE Plat.

Staff recommends that the Board direct the Director of DPWES to approve a waiver of tree preservation target requirements in favor of that shown on the SE Plat.

Staff recommends that the Board approve a modification of the tree canopy requirements in favor of what is shown on the SE Plat.

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 recommendation of staff; it does not reflect the position of the Board of Supervisors.

The approval of this rezoning 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.

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.

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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

SE 2014-PR-032



Applicant: VA. ELECTRIC & POWER CO. D/B/A
DOMINION VIRGINIA POWER
Accepted: 06/19/2014
Proposed: ELECTRICAL SUBSTATION AND
TELECOMMUNICATION FACILITY
Area: 7.15 AC OF LAND; DISTRICT - PROVIDENCE
Zoning Dist Sect: 03-030403-0304
Located: 7701 SHREVE ROAD, FALLS CHURCH, VA 22043

Zoning: R-3
Plan Area: 1,
Overlay Dist:
Map Ref Num: 049-2- /01/ /0151 /12/ /0001A



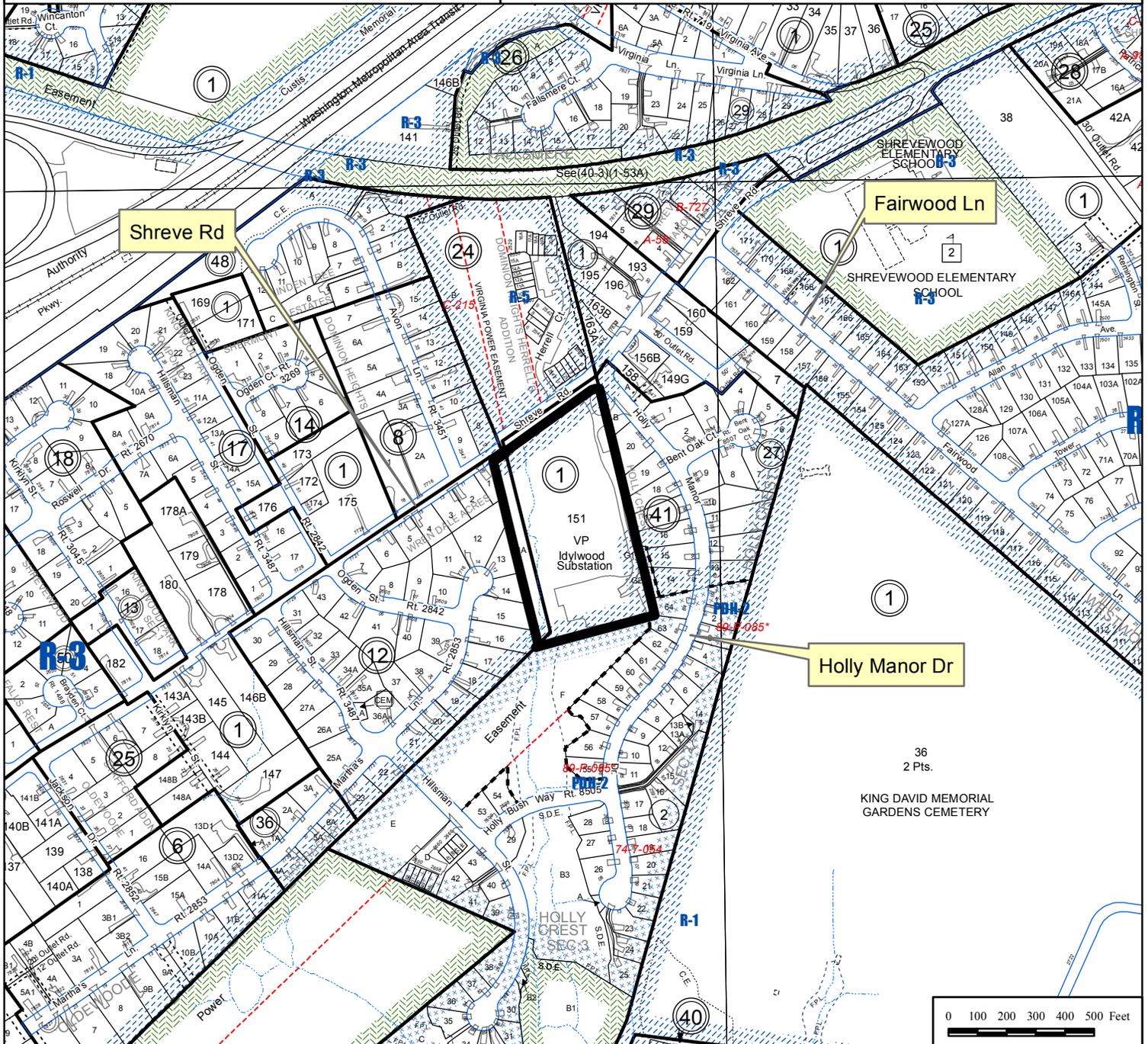
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Zoning: R-3
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SITE USE NOTES

- A. TYPE OF OPERATION: ELECTRIC SUBSTATION; TELECOMMUNICATIONS FACILITY—TOWER AND CONTROL ENCLOSURE (EXISTING AND PROPOSED)
- B. HOURS OF OPERATION: 24 HOURS A DAY FOR BOTH ELECTRIC SUBSTATION AND TELECOMMUNICATIONS FACILITY (EXISTING AND PROPOSED)
- C. ESTIMATED NUMBERS OF PATRONS/CLIENTS/PATIENTS/PUPILS/ETC: ZERO (0) FOR BOTH ELECTRICAL SUBSTATION AND TELECOMMUNICATIONS FACILITY (EXISTING AND PROPOSED)
- D. PROPOSED NUMBER OF EMPLOYEES/ATTENDANTS/TEACHERS/ETC: ZERO (0) EMPLOYEES WILL BE ON SITE FULL-TIME. IT IS EXPECTED THAT A DOMINION EMPLOYEE WILL VISIT THE ELECTRIC SUBSTATION ONE TO TWO TIMES PER MONTH, AND AN AT&T EMPLOYEE WILL VISIT THE TELECOMMUNICATIONS FACILITY ONE TO TWO TIMES PER MONTH. (EXISTING AND PROPOSED)
- E. ESTIMATE OF TRAFFIC IMPACT OF PROPOSED USE: (INCLUDE MAXIMUM EXPECTED TRIP GENERATION AND THE DISTRIBUTION OF SUCH TRIPS BY MODE AND TIME OF DAY) TRAFFIC IMPACT WILL BE NONE TO VERY MINIMAL. IT IS EXPECTED THAT DOMINION EMPLOYEES WILL VISIT THE ELECTRIC SUBSTATION ONE TO TWO TIMES PER MONTH, USUALLY DURING DAYLIGHT HOURS; AND AN AT&T EMPLOYEE WILL VISIT THE TELECOMMUNICATIONS FACILITY ONE TO TWO TIMES PER MONTH. (EXISTING AND PROPOSED)
- F. AREA TO BE SERVED BY PROPOSED USE: SURROUNDING COMMUNITIES – THE ELECTRIC SUBSTATION WILL SERVE FAIRFAX COUNTY, CITY OF FALLS CHURCH, CITY OF FAIRFAX, AND METRO RAIL. THE TELECOMMUNICATIONS FACILITY WILL SERVE THE SURROUNDING AREA. (EXISTING AND PROPOSED)
- G. DESCRIPTION OF BUILDING FACADE/ARCHITECTURE OF PROPOSED NEW BUILDINGS: THE ELECTRIC SUBSTATION EQUIPMENT ENCLOSURES WILL BE METAL AND ANSI GRAY IN COLOR, AND LOCATED COMPLETELY WITHIN THE 20' TALL SOLID SCREENING WALL AROUND THE PERIMETER OF THE SITE. THE TELECOMMUNICATIONS CONTROL ENCLOSURE WILL BE paneled and light brown/tan in color. (EXISTING AND PROPOSED)
- H. LISTING OF BELOW HAZARDOUS OR TOXIC SUBSTANCES TO BE GENERATED, UTILIZED, STORED, TREATED, AND/OR DISPOSED OF ON SITE AND THE SIZE AND CONTENTS OF ANY EXISTING OR PROPOSED STORAGE TANKS OR CONTAINERS:

ALL HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS PARTS 116.4, 302.4, AND 355:

ELECTRIC SUBSTATION:
 -ELECTRICAL INSULATING OIL (TRANSFORMER OIL) IS PRESENT IN EACH TRANSFORMER AND REACTOR. WHENEVER THIS EQUIPMENT IS REPLACED, THE OIL IS REMOVED AND PLACED INTO TANK TRAILERS. THERE IS NO OIL STORAGE ONSITE. (EXISTING AND PROPOSED)
TELECOMMUNICATIONS FACILITY:
 -NO HAZARDOUS OR TOXIC SUBSTANCES (EXISTING AND PROPOSED)

ALL HAZARDOUS WASTE AS SET FORTH IN VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY HAZARDOUS WASTE MANAGEMENT REGULATIONS:

ELECTRIC SUBSTATION:
 -NO HAZARDOUS WASTE ON-SITE (EXISTING AND PROPOSED)
TELECOMMUNICATIONS FACILITY:
 -NO HAZARDOUS WASTE ON-SITE (EXISTING AND PROPOSED)

PETROLEUM PRODUCTS AS DEFINED IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 280

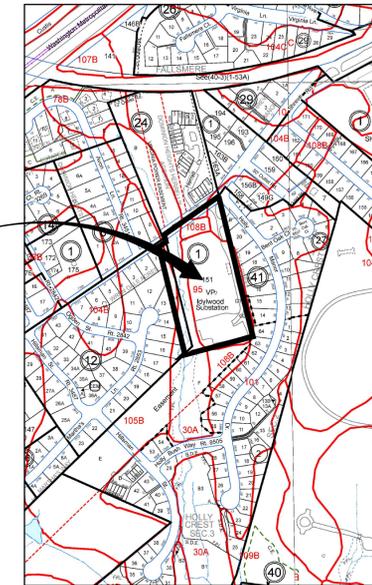
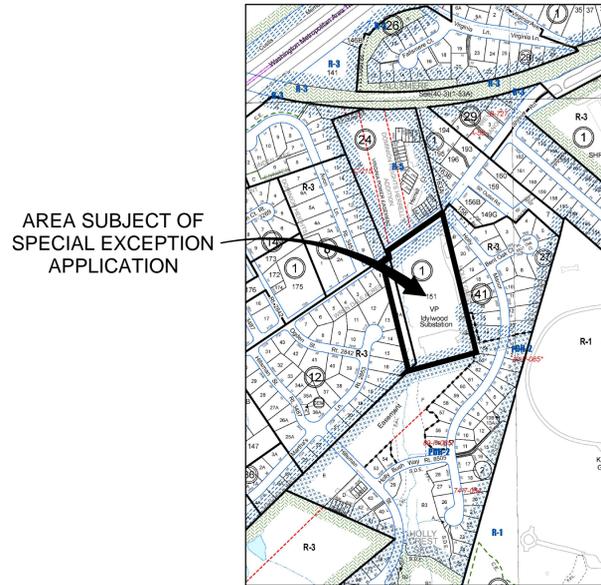
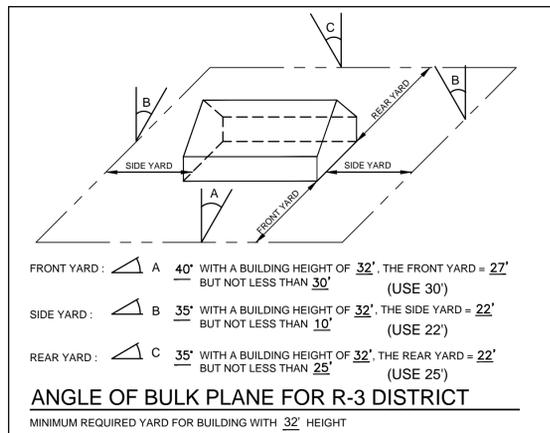
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TELECOMMUNICATIONS FACILITY:
 -NO PETROLEUM PRODUCTS ON-SITE (EXISTING AND PROPOSED)

I. THE PROPOSED USE HEREIN CONFORMS TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS, ADOPTED STANDARDS, AND ANY APPLICABLE CONDITIONS; EXCEPT THE FOLLOWING:

1. **TREE PRESERVATION:** A DEVIATION FROM PUBLIC FACILITY MANUAL (PFM) 12-0508.3A (3). A DEVIATION REQUEST IS BEING SUBMITTED FOR A CHANGE FROM THE TREE PRESERVATION TARGET. THIS REQUEST IS REQUIRED DUE TO THE OVERHEAD TRANSMISSION LINES OVER THE SITE AND THE FEDERAL ENERGY REGULATORY COMMISSION (FERC) AND NORTH AMERICAN ELECTRICAL RELIABILITY (NERC) TREE MANAGEMENT STANDARDS. SEE EXISTING VEGETATION MAP SHEET FOR DETAILS.
2. **REDUCTION IN TRANSITIONAL SCREENING:** A MODIFICATION REQUEST IS BEING SUBMITTED FOR A 2/3 REDUCTION IN THE TRANSITIONAL SCREENING YARD WIDTH. SEE PROPOSED LANDSCAPING SHEET FOR DETAILS.
3. **FENCE/WALL HEIGHT:** A WAIVER REQUEST IS BEING SUBMITTED FOR THE HEIGHT OF THE SCREENING WALL AROUND THE PERIMETER OF THE SUBSTATION PROPERTY. SEE PROPOSED FACILITY SHEET FOR WALL HEIGHTS (20-FOOT HIGH, MEASURED FROM THE OUTSIDE OF THE WALL)

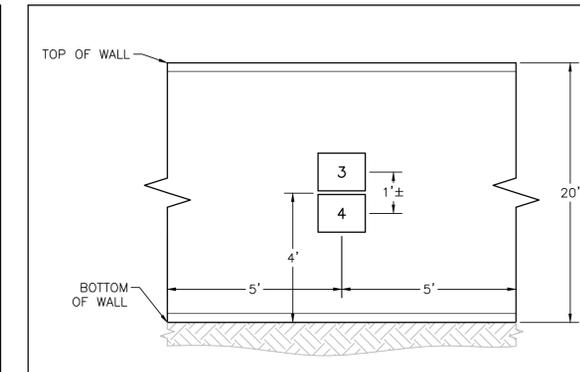
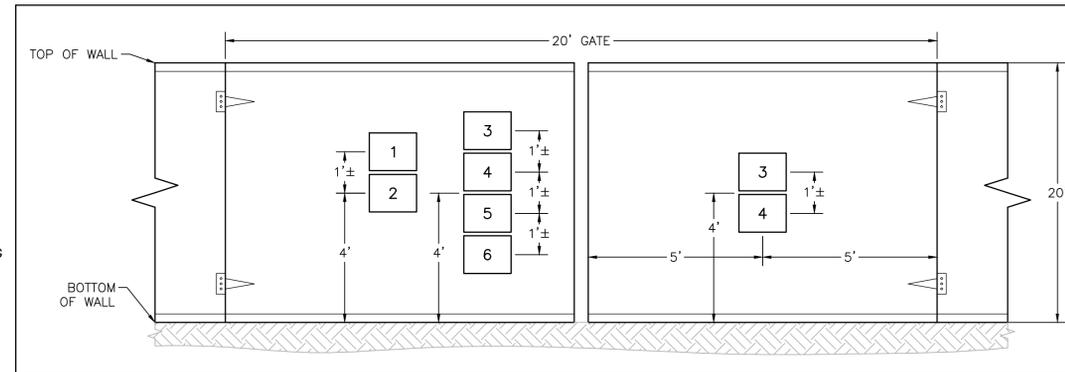
SITE NOTES:

1. THIS PARCEL LIES IN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBER 51059C0165E, EFFECTIVE DATE: SEPTEMBER 17, 2010.
2. THIS SITE IS NOT WITHIN OR ADJACENT TO A RESOURCE PROTECTION AREA AS SHOWN ON THE CHESAPEAKE BAY PRESERVATION AREA MAP (SHEET 49-2) PREPARED BY COUNTY OF FAIRFAX.
3. TOPOGRAPHIC SURVEY (FIELD-RUN) PERFORMED BY BURGESS & NIPLE, INC. IN JUNE AND JULY, 2013.
4. EXISTING SITE ZONING IS R-3. BUILDING SETBACKS: FRONT = 30', REAR = 25', SIDES = 10'. SETBACKS BASED ON FAIRFAX COUNTY ZONING ORDINANCE, SEC. 3-307. ADDITIONAL SETBACKS OR BUFFERS MAY BE REQUIRED, REFER TO FAIRFAX COUNTY ZONING ORDINANCES PART 3.
5. PROPERTY LINES SHOWN HEREON ARE BASED UPON FIELD MONUMENTATION, REFERENCED DEEDS, AND PLATS.



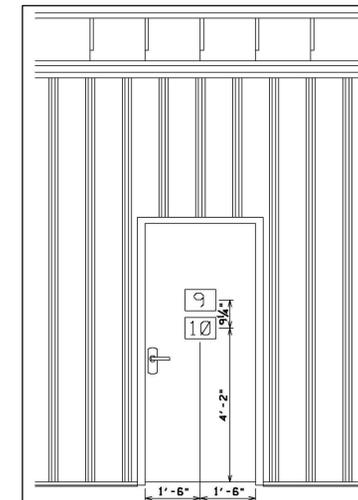
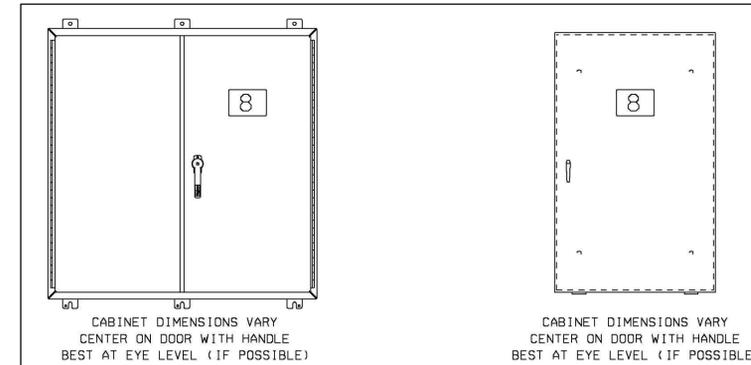
SOIL LEGEND:

- 30A: CODORUS AND HATBORO SOILS
- 95: URBAN LAND
- 101: URBAN LAND—WHEATON COMPLEX
- 104B: WHEATON—FAIRFAX COMPLEX
- 105B: WHEATON—GLENELG COMPLEX
- 108B: WHEATON—SUMERDUCK COMPLEX



CONSTRUCTION ACCESS NOTE:

1. THE STAGING AND PARKING OF CONSTRUCTION VEHICLES SHALL OCCUR ON THE PROPERTY, INCLUDING PERSONAL VEHICLES UTILIZED BY CONSTRUCTION WORKERS. THE HOURS OF CONSTRUCTION SHALL BE POSTED IN ENGLISH AND IN SPANISH AND SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 AM AND 9 PM MONDAY THROUGH FRIDAY AND 8:00 AM TO 9 PM ON SATURDAYS. NO CONSTRUCTION SHALL OCCUR ON SUNDAYS OR MAJOR FEDERAL HOLIDAYS. THE APPLICANT SHALL PROVIDE THE PROVIDENCE DISTRICT SUPERVISOR'S OFFICE WITH A POINT OF CONTACT FOR CONSTRUCTION RELATED ISSUES. THE APPLICANT SHALL PROVIDE AN INITIAL RESPONSE TO CONSTRUCTION RELATED ISSUES WITHIN 24 HOURS OF RECEIVING NOTICE.



SIGN NUMBER	DISCRIPTION	STOCK NUMBER
REQUESTED BY SUBSTATION ENGINEERING		
1	SIGN, SITE IDENTIFICATION	N/A SEE NOTE
2	SIGN, ACCESS INSTRUCTIONS	42214023
3	SIGN, NOTICE NO TRESPASSING PROPERTY OF DOMINION	76711000
4	SIGN, DANGER HAZARDOUS VOLTAGE, KEEP OUT	42009566
REQUESTED BY SUBSTATION SUPERVISOR		
5	SIGN, WARNING ARC FLASH HAZARD	42211775
6	SIGN, WARNING ELECTRIC FENCE INSIDE	42114440
7	LABEL, DANGER ELECTRIC FENCE (ON SUPPORTING PVC)	42211867
8	LABEL, DANGER ARC FLASH HAZARD (ON BOX/CABINET)	42211776
9	LABEL, ACCESS INSTRUCTIONS, ENTRY DOORS ONLY	42214630
10	LABEL, WARNING ENERGIZED BATTERY SYSTEM (ENTRY DOOR)	42211868

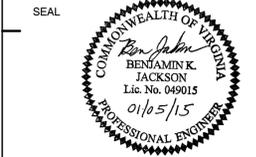
SUBSTATION SIGNAGE LEGEND



Dewberry Engineers Inc.
 4805 Lake Brook Drive, Suite 200
 Glen Allen, Virginia 23060
 PHONE: 804.290.7957
 FAX: 804.290.7929
 www.dewberry.com



DOMINION VIRGINIA POWER
 Idylwood Substation
 SE 2014-PR-032
 SPECIAL EXCEPTION PLAT
 2232 PLAN
 PROVIDENCE DISTRICT
 FAIRFAX COUNTY, VIRGINIA



KEY PLAN

SCALE

No.	DATE	BY	Description

REVISIONS

DRAWN BY: BKJ

APPROVED BY: KWW

CHECKED BY: KWW

DATE: JANUARY 2015

TITLE

GENERAL NOTES & SOILS MAP

PROJECT NO. 50058411



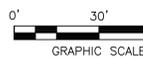
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FAIRFAX COUNTY, VIRGINIA

SEAL



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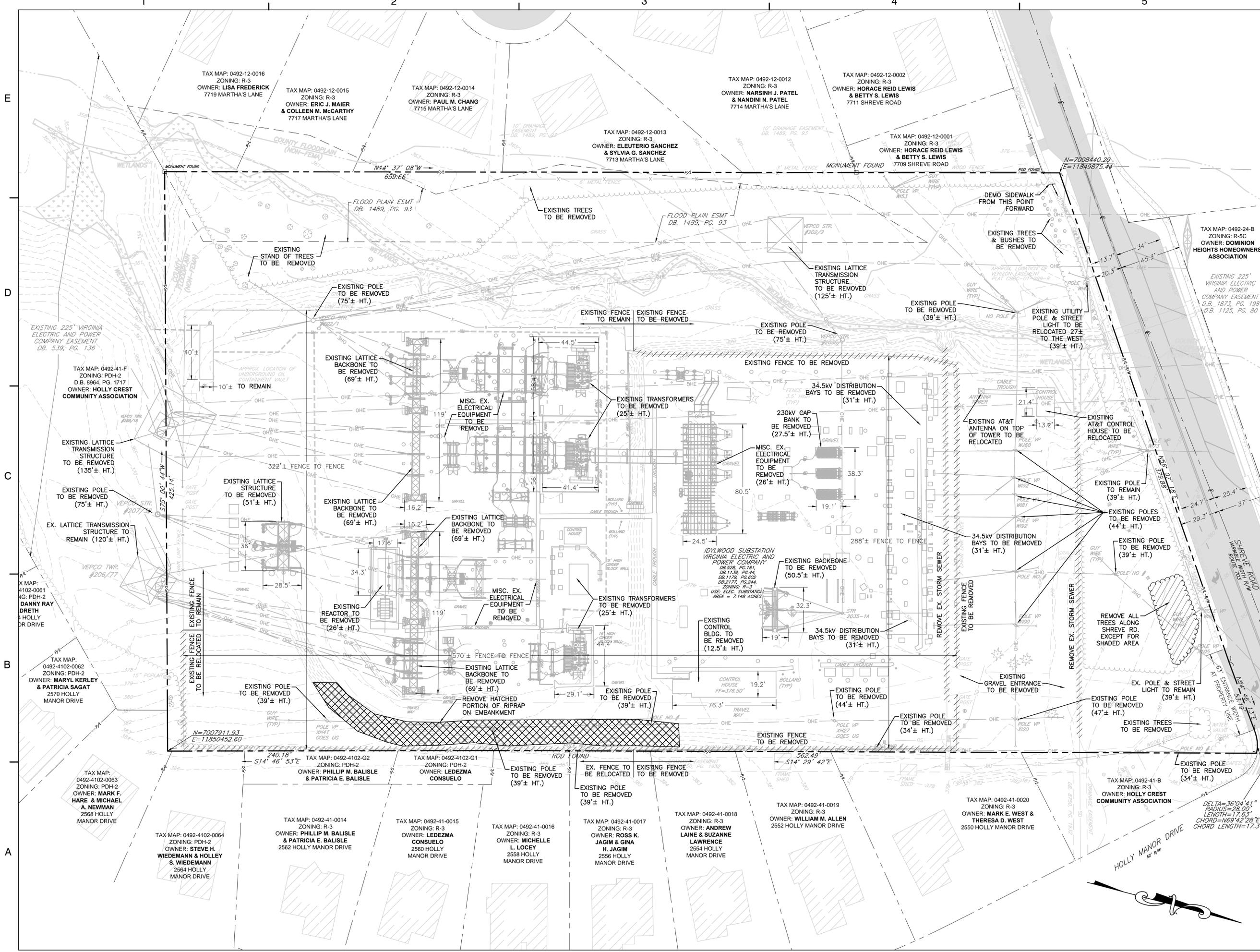
No.	DATE	BY	Description

REVISIONS

DRAWN BY: BKJ
APPROVED BY: KWW
CHECKED BY: KWW
DATE: JANUARY 2015

EXISTING CONDITIONS & DEMOLITION PLAN

PROJECT NO. 50058411



TAX MAP: 0492-12-0016
ZONING: R-3
OWNER: LISA FREDERICK
7719 MARTHA'S LANE

TAX MAP: 0492-12-0015
ZONING: R-3
OWNER: ERIC J. MAIER
& COLLEEN M. MCCARTHY
7717 MARTHA'S LANE

TAX MAP: 0492-12-0014
ZONING: R-3
OWNER: PAUL M. CHANG
7715 MARTHA'S LANE

TAX MAP: 0492-12-0013
ZONING: R-3
OWNER: ELEUTERIO SANCHEZ
& SYLVIA G. SANCHEZ
7713 MARTHA'S LANE

TAX MAP: 0492-12-0012
ZONING: R-3
OWNER: NARSINH J. PATEL
& NANDINI N. PATEL
7714 MARTHA'S LANE

TAX MAP: 0492-12-0002
ZONING: R-3
OWNER: HORACE REID LEWIS
& BETTY S. LEWIS
7711 SHREVE ROAD

TAX MAP: 0492-12-0001
ZONING: R-3
OWNER: HORACE REID LEWIS
& BETTY S. LEWIS
7709 SHREVE ROAD

TAX MAP: 0492-24-B
ZONING: R-5C
OWNER: DOMINION
HEIGHTS HOMEOWNERS
ASSOCIATION

TAX MAP: 0492-41-F
ZONING: PDH-2
D.B. 8964, PG. 1717
OWNER: HOLLY CREST
COMMUNITY ASSOCIATION

TAX MAP: 4102-0061
ZONING: PDH-2
OWNER: DANNY RAY
DRETH
4 HOLLY
DR DRIVE

TAX MAP: 0492-4102-0062
ZONING: PDH-2
OWNER: MARYL KERLEY
& PATRICIA SAGAT
2570 HOLLY
MANOR DRIVE

TAX MAP: 0492-4102-0063
ZONING: PDH-2
OWNER: MARK F.
HARE & MICHAEL
A. NEWMAN
2568 HOLLY
MANOR DRIVE

TAX MAP: 0492-4102-0064
ZONING: PDH-2
OWNER: STEVE H.
WIEDEMANN & HOLLEY
S. WIEDEMANN
2564 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0014
ZONING: R-3
OWNER: PHILLIP M. BALISLE
& PATRICIA E. BALISLE
2562 HOLLY MANOR DRIVE

TAX MAP: 0492-41-0015
ZONING: R-3
OWNER: LEDEZMA
CONSUELO
2560 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0016
ZONING: R-3
OWNER: MICHELLE
L. LOCEY
2558 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0017
ZONING: R-3
OWNER: ROSS K.
JAGIM & GINA
H. JAGIM
2556 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0018
ZONING: R-3
OWNER: ANDREW
LAINE & SUZANNE
LAWRENCE
2554 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0019
ZONING: R-3
OWNER: WILLIAM M. ALLEN
2552 HOLLY MANOR DRIVE

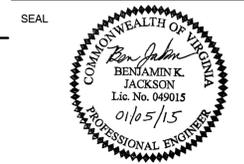
TAX MAP: 0492-41-0020
ZONING: R-3
OWNER: MARK E. WEST &
THERESA D. WEST
2550 HOLLY MANOR DRIVE

TAX MAP: 0492-41-B
ZONING: R-3
OWNER: HOLLY CREST
COMMUNITY ASSOCIATION

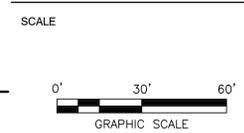
DELTA = 36°04'41"
RADIUS = 28.00'
LENGTH = 17.63'
CHORD = 169°42'28"E
CHORD LENGTH = 17.34'



DOMINION VIRGINIA POWER
Idywood Substation
SE 2014-PR-032
SPECIAL EXCEPTION PLAT
2232 PLAN
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA



KEY PLAN



No.	DATE	BY	Description

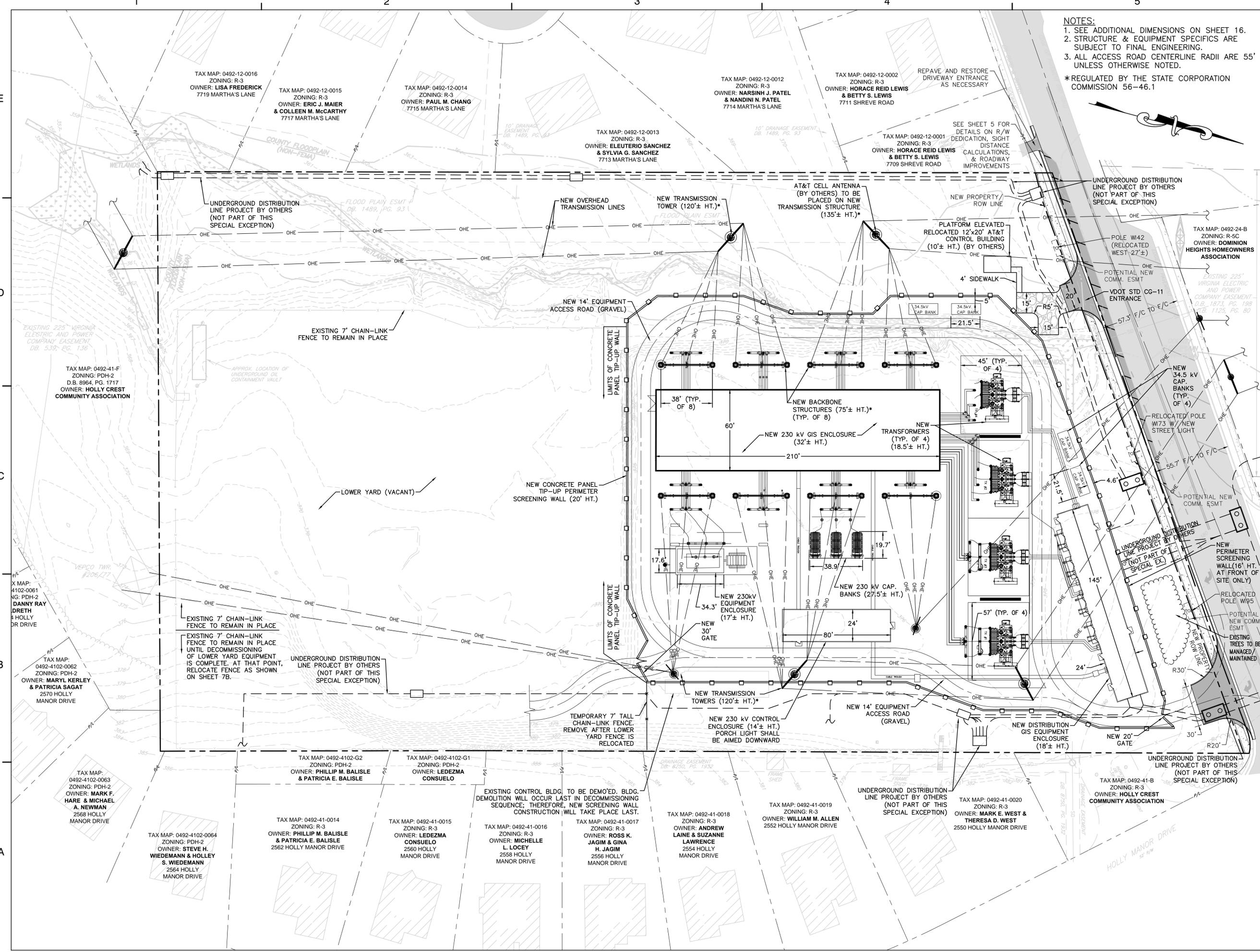
REVISIONS

DRAWN BY: BKJ
APPROVED BY: KWW
CHECKED BY: KWW
DATE: JANUARY 2015

PROPOSED FACILITY PLAN

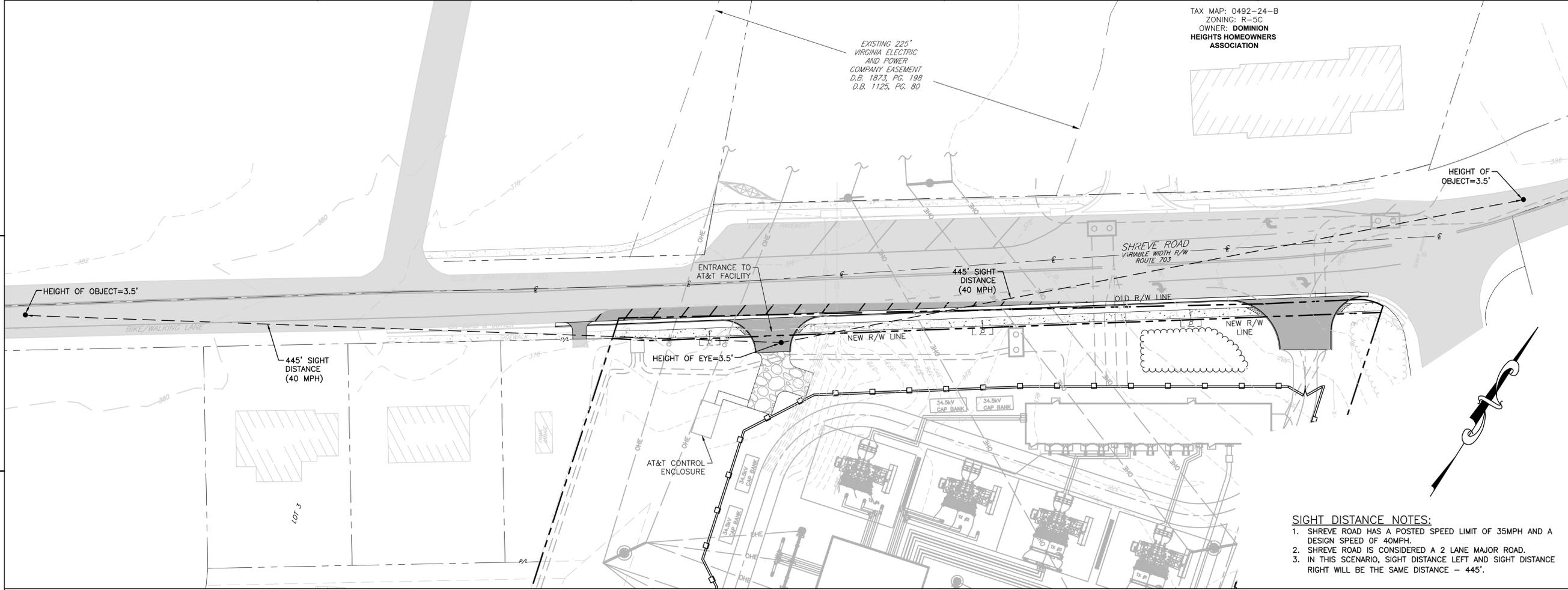
PROJECT NO. 50058411

- NOTES:**
1. SEE ADDITIONAL DIMENSIONS ON SHEET 16.
 2. STRUCTURE & EQUIPMENT SPECIFICS ARE SUBJECT TO FINAL ENGINEERING.
 3. ALL ACCESS ROAD CENTERLINE RADII ARE 5' UNLESS OTHERWISE NOTED.
- *REGULATED BY THE STATE CORPORATION COMMISSION 56-46.1



1 2 3 4 5

E
D
C
B
A

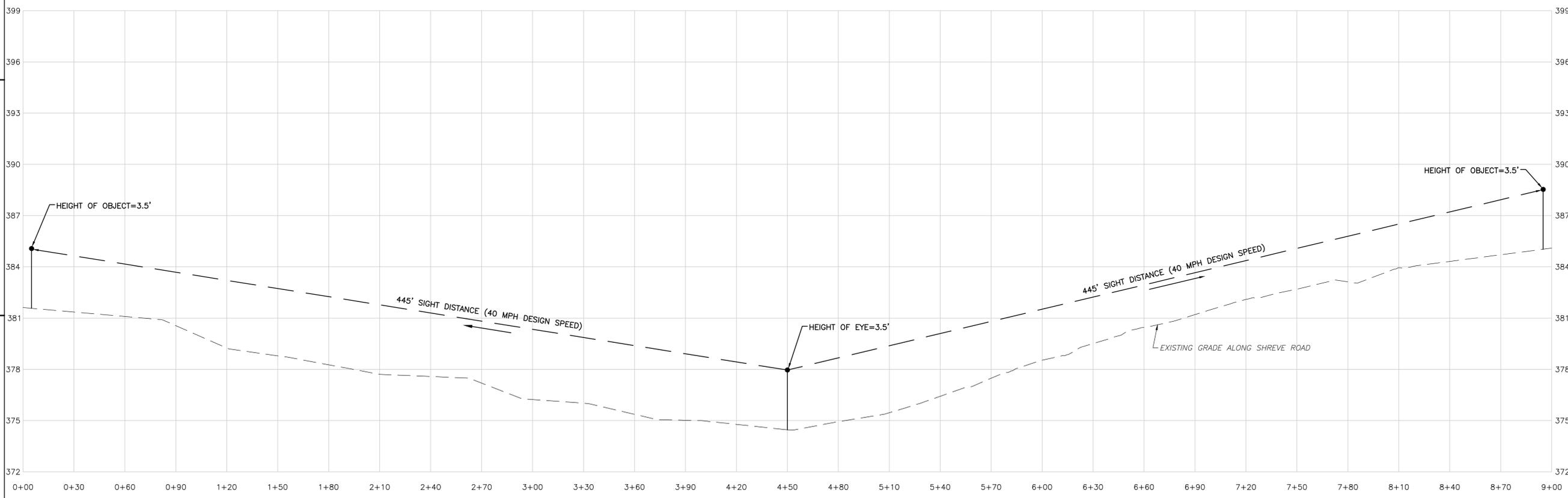


TAX MAP: 0492-24-B
ZONING: R-5C
OWNER: DOMINION HEIGHTS HOMEOWNERS ASSOCIATION

- SIGHT DISTANCE NOTES:**
1. SHREVE ROAD HAS A POSTED SPEED LIMIT OF 35MPH AND A DESIGN SPEED OF 40MPH.
 2. SHREVE ROAD IS CONSIDERED A 2 LANE MAJOR ROAD.
 3. IN THIS SCENARIO, SIGHT DISTANCE LEFT AND SIGHT DISTANCE RIGHT WILL BE THE SAME DISTANCE - 445'.

AT&T ENTRANCE - SIGHT DISTANCE PLAN

SCALE:
H: 1" = 30'



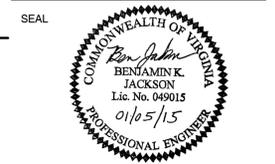
AT&T ENTRANCE - SIGHT DISTANCE PROFILE

SCALE:
H: 1" = 30', V: 1" = 3'

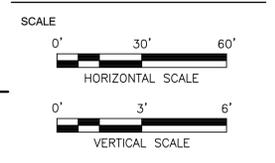
Dewberry
Dewberry Engineers Inc.
4805 Lake Brook Drive, Suite 200
Glen Allen, Virginia 23060
PHONE: 804.290.7957
FAX: 804.290.7929
www.dewberry.com



DOMINION VIRGINIA POWER
Idylwood Substation
SE 2014-PR-032
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2232 PLAN
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KEY PLAN



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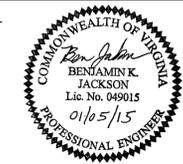
TITLE
AT&T ENTRANCE SIGHT DISTANCE PLAN

PROJECT NO. 50058411



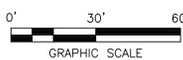
DOMINION VIRGINIA POWER
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SEAL



KEY PLAN

SCALE



No.	DATE	BY	Description

REVISIONS

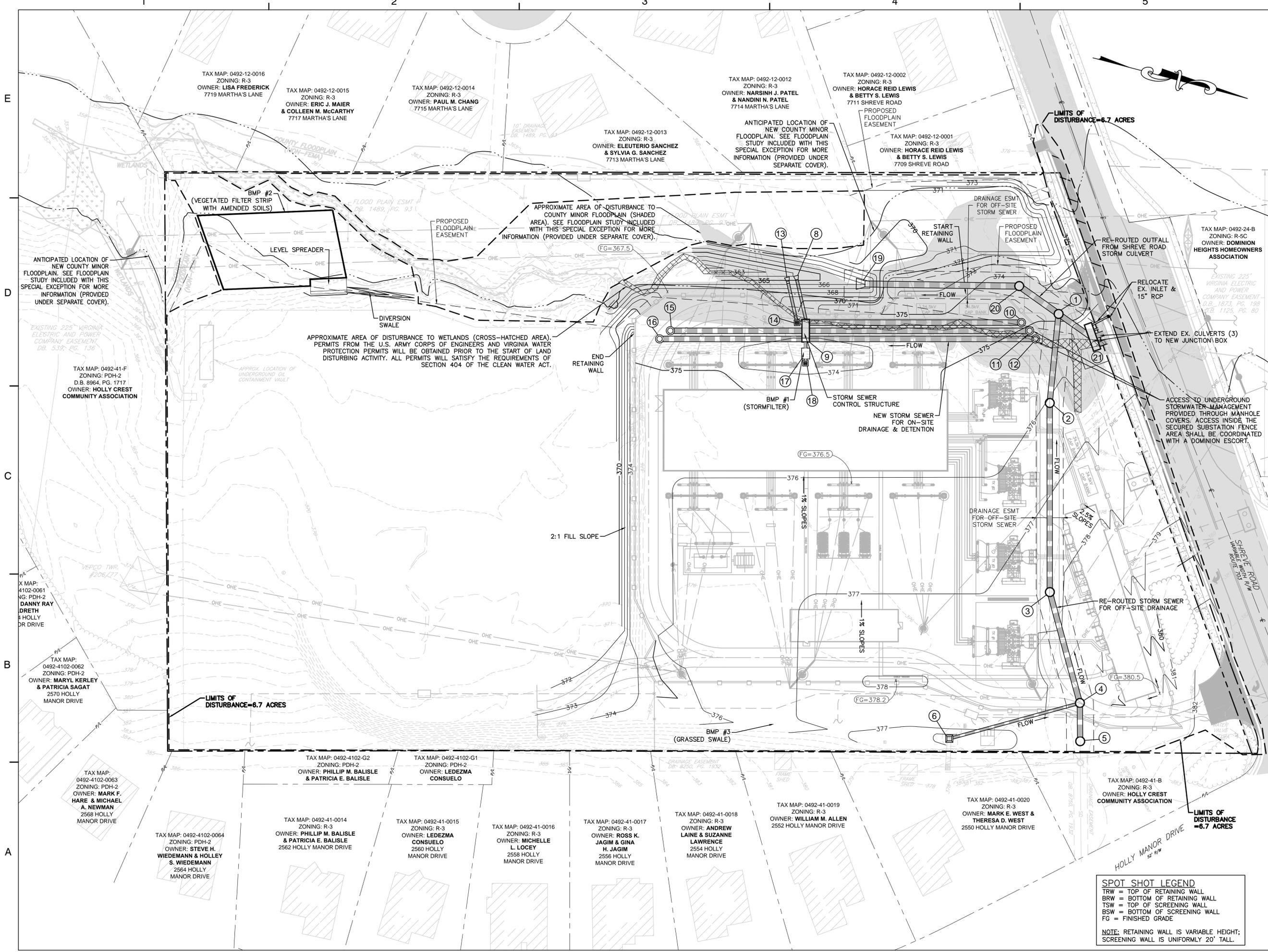
DRAWN BY: BKJ
APPROVED BY: KWW
CHECKED BY: KWW
DATE: JANUARY 2015
TITLE:

UPPER YARD GRADING PLAN

PROJECT NO. 50058411

7A

SHEET NO. 7 OF 21

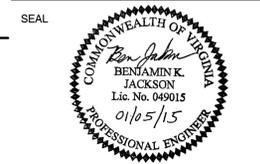


SPOT SHOT LEGEND
TRW = TOP OF RETAINING WALL
BRW = BOTTOM OF RETAINING WALL
TSW = TOP OF SCREENING WALL
BSW = BOTTOM OF SCREENING WALL
FG = FINISHED GRADE

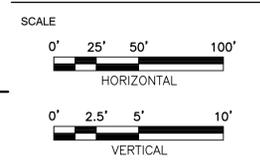
NOTE: RETAINING WALL IS VARIABLE HEIGHT;
SCREENING WALL IS UNIFORMLY 20' TALL.



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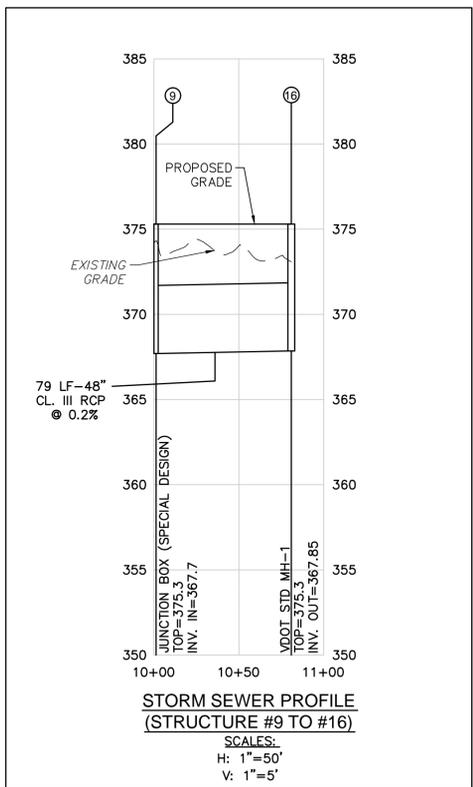
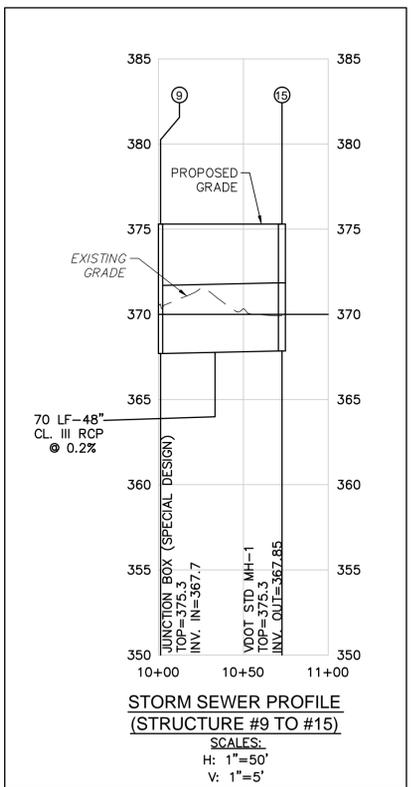
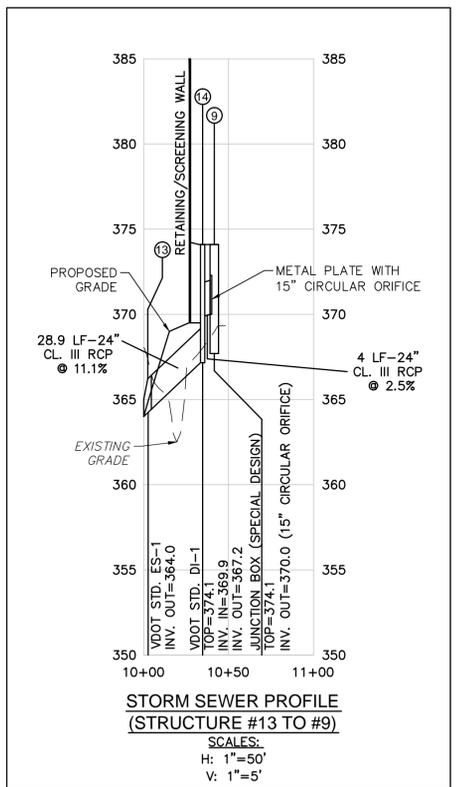
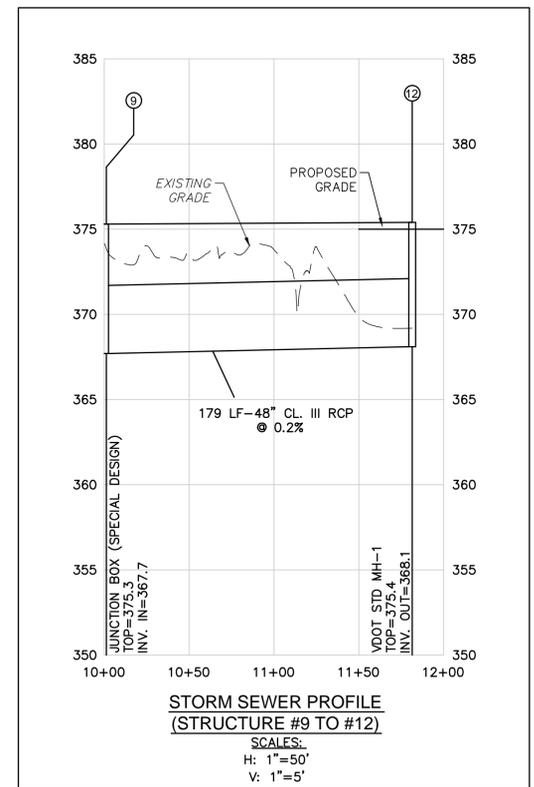
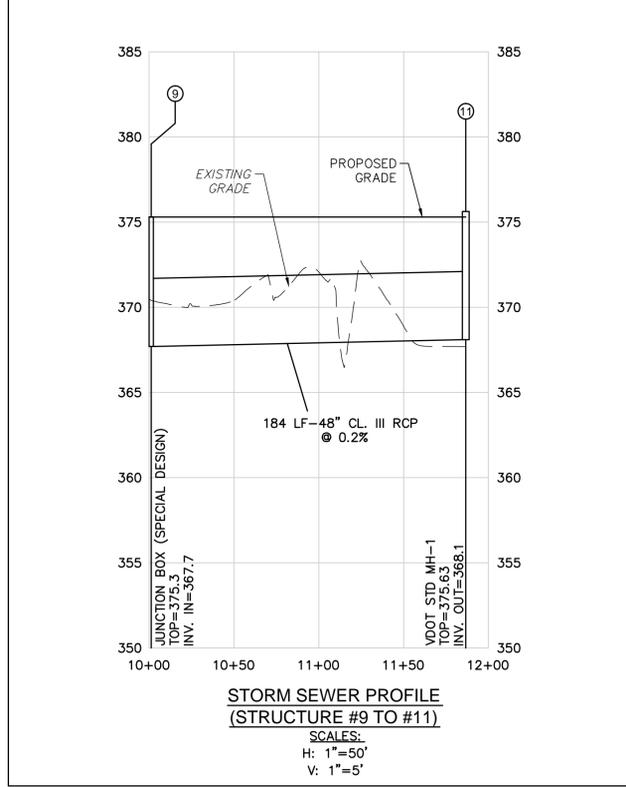
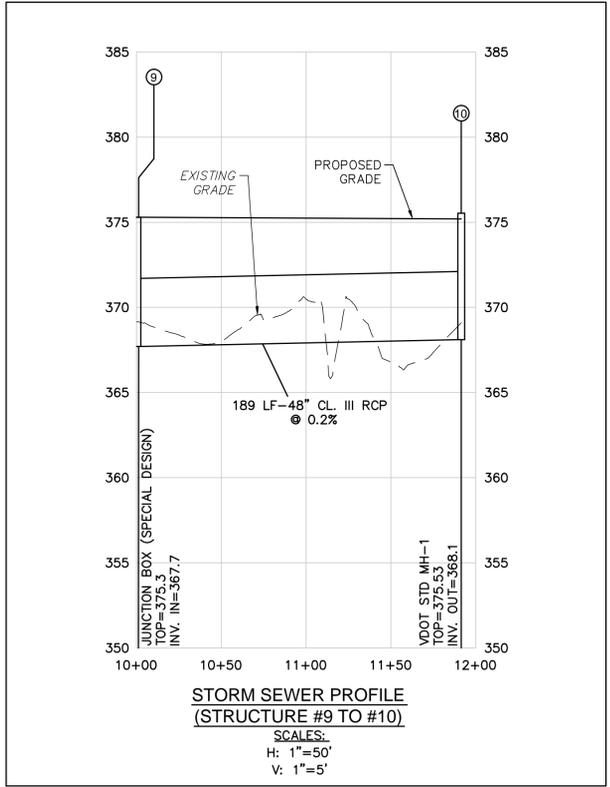
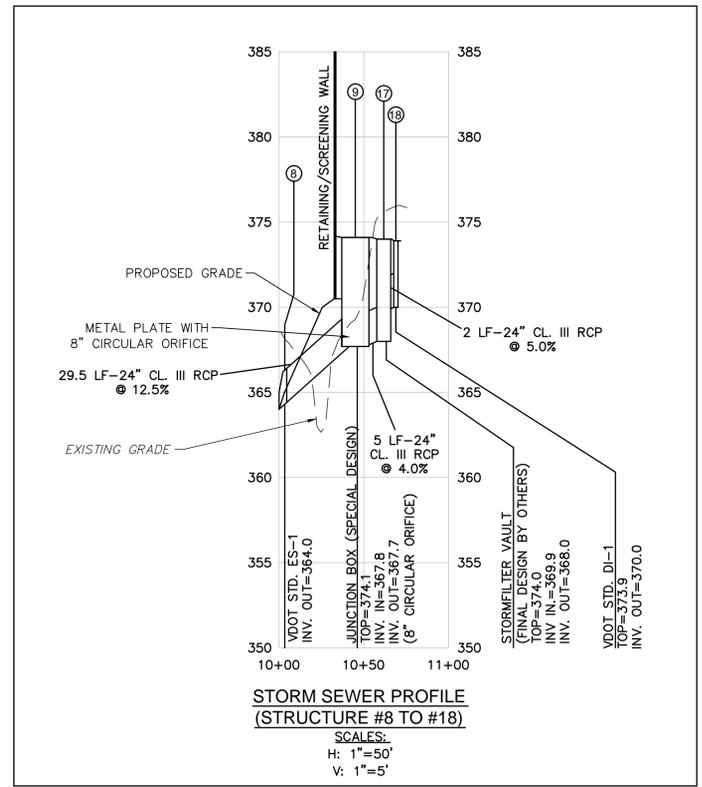
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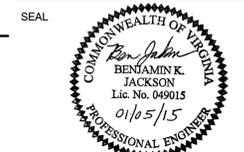
REVISIONS

DRAWN BY: BKJ
APPROVED BY: KWW
CHECKED BY: KWW
DATE: JANUARY 2015
TITLE:

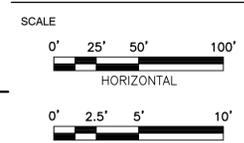
DETENTION SYSTEM PROFILES

PROJECT NO. 50058411





KEY PLAN

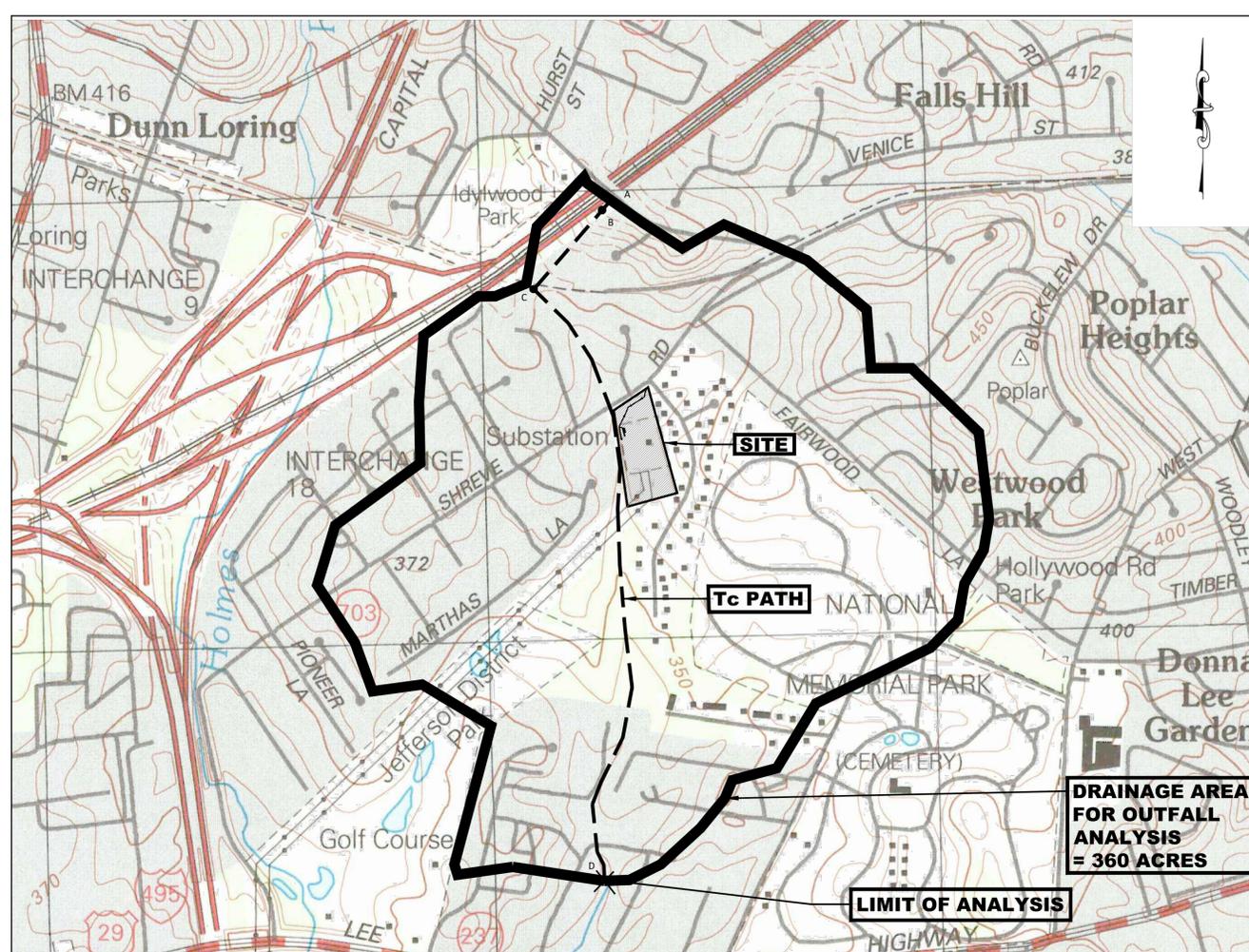
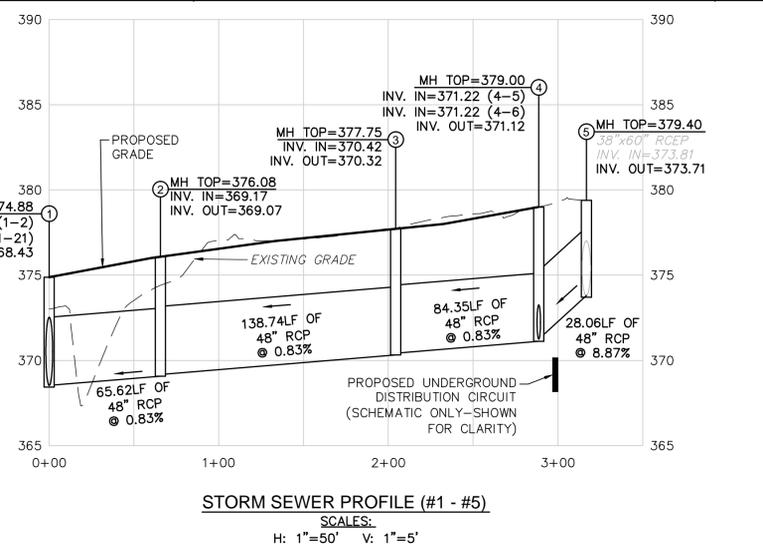
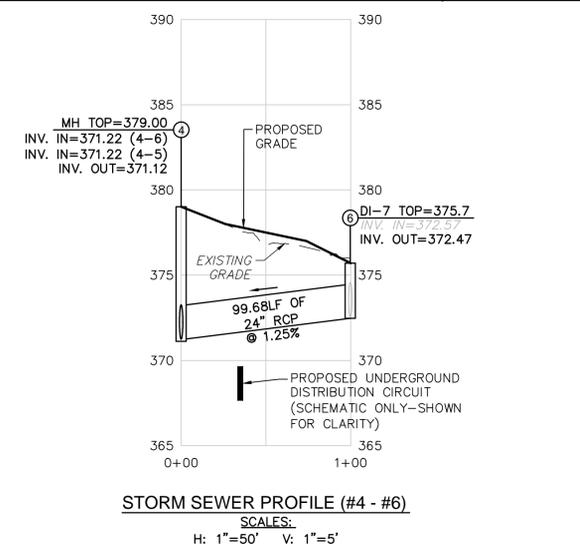
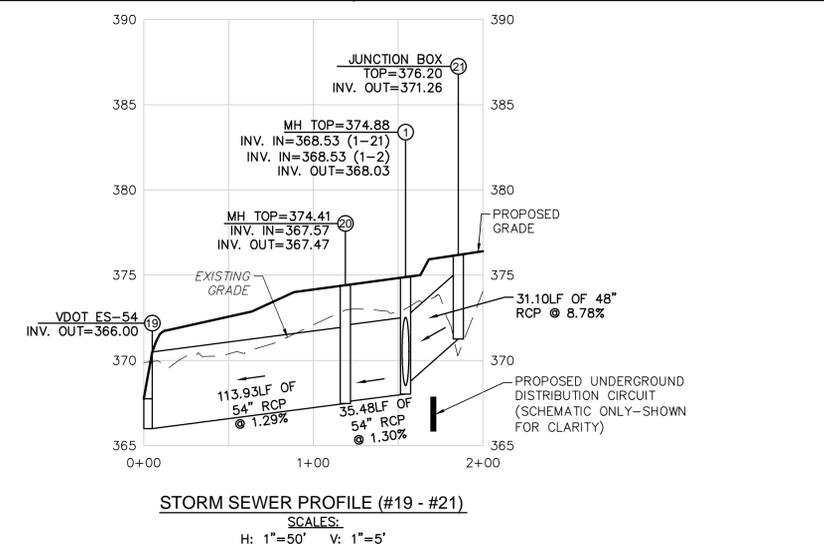


No.	DATE	BY	Description
REVISIONS			

DRAWN BY: TT
APPROVED BY: KWW
CHECKED BY: KWW
DATE: JANUARY 2015

STORM SEWER PROFILES

PROJECT NO. 50058411



ADEQUATE OUTFALL SUMMARY

Cross-Section	Channel Slope	2-Year Discharge (cfs)	10 Year Discharge (cfs)	Soil Type	Permissible Velocity (fps)	2 Year Velocity (fps)	10 Year Flow Depth (ft)
LIMIT OF ANALYSIS	0.006%	455.00	1068.00	103A Wheaton-Codorus complex	6.0 (Loam)	4.4	5.7

ADEQUATE OUTFALL INFORMATION:

DESCRIPTION OF EACH NUMBERED OUTFALL:

OUTFALL #8

OUTFALL #8 IS A 24" RCP STORM SEWER. THIS STORM SEWER IS THE 2-YEAR STORM OUTLET FROM THE STORMWATER CONTROL STRUCTURE/JUNCTION BOX. THE TOTAL FLOW IS 3.82cfs. THIS OUTFALL DISCHARGES INTO AN UNNAMED TRIBUTARY OF HOLMES RUN. THIS TRIBUTARY HAS BEEN CONFIRMED BY THE USACE AS AN ESTABLISHED PERENNIAL STREAM.

OUTFALL #13

OUTFALL #13 IS A 24" RCP STORM SEWER. THIS STORM SEWER IS THE 10-YEAR STORM OUTLET FROM THE STORMWATER CONTROL STRUCTURE/JUNCTION BOX. THE TOTAL FLOW IS 14.06cfs. THIS OUTFALL DISCHARGES INTO AN UNNAMED TRIBUTARY OF HOLMES RUN. THIS TRIBUTARY HAS BEEN CONFIRMED BY THE USACE AS AN ESTABLISHED PERENNIAL STREAM.

OUTFALL #19

OUTFALL #19 IS A 54" RCP STORM SEWER. THIS STORM SEWER COMBINES FLOW FROM THE OFF-SITE DRAINAGE UPSTREAM OF SHREVE ROAD (80.1cfs ROUTED THROUGH A TWIN 30"x44" CULVERT UNDER SHREVE ROAD) AND HOLY CREST SUBDIVISION (88.9cfs ROUTED THROUGH A 48" RCP ACROSS THE IDYLWOOD SUBSTATION SITE). THE TOTAL FLOW IS 169cfs. THIS OUTFALL DISCHARGES INTO AN UNNAMED TRIBUTARY OF HOLMES RUN. THIS TRIBUTARY HAS BEEN CONFIRMED BY THE USACE AS AN ESTABLISHED PERENNIAL STREAM.

CHANNEL PROTECTION:

PER FAIRFAX COUNTY CODE CHAPTER 124-4-4(b)(3)(c), THE MAXIMUM PEAK FLOW RATE FROM THE 2-YEAR 24-HOUR STORM (455cfs) CAN BE CONVEYED WITHIN THE SYSTEM FROM THE POINT OF DISCHARGE TO THE LIMIT OF ANALYSIS (SEE MAP TO THE RIGHT) WITHOUT CAUSING EROSION. THUS, THE MAXIMUM PEAK FLOW RATE FROM THE ONE-YEAR 24-HOUR STORM FOLLOWING THE LAND-DISTURBING ACTIVITY MAY BE CALCULATED IN ACCORDANCE WITH THE FOLLOWING METHODOLOGY:

$$Q_{Developed} \leq I.F. * (Q_{Pre-Developed} * RV_{Pre-Developed}) / RV_{Developed}$$

$$Q_{Developed} = (0.8 * 5.2cfs * 1.5in) / 2.2in = 2.8cfs; 2.8cfs < 4.5cfs \text{ OK}$$

FLOOD PROTECTION:

STORMWATER FLOWS FROM THE IDYLWOOD SUBSTATION SITE IMMEDIATELY DISCHARGE INTO AN ESTABLISHED COUNTY NON-FEMA FLOODPLAIN. A FLOODPLAIN STUDY (SUBMITTED UNDER SEPARATE COVER) HAS BEEN PERFORMED THAT PROVES THAT DESPITE LAND DISTURBANCE AND GRADING OPERATIONS WITHIN THE LIMITS OF THIS FLOODPLAIN, THE EXTENTS OF THE RISE OF THE FLOODPLAIN WILL BE CONTAINED WITHIN THE DOMINION PROPERTY AND WILL HAVE NO ADVERSE IMPACTS TO ADJACENT PROPERTY OWNERS. THEREFORE, PER FAIRFAX COUNTY CODE CHAPTER 124-4-4(c)(5)(c), FLOOD PROTECTION REQUIREMENTS HAVE BEEN MET.

MISCELLANEOUS:

SEE DRAINAGE REPORT BOOKLET SUBMITTED UNDER SEPARATE COVER FOR FURTHER INFORMATION, INCLUDING CALCULATIONS OF RUNOFF CURVE NUMBERS, TIME OF CONCENTRATION, AND THE SCS TR-55 GRAPHICAL PEAK DISCHARGE METHOD USED TO DETERMINE 2-YEAR AND 10-YEAR FLOWS TO THE ANALYSIS POINT.

Worksheet for Outfall Analysis (2-Year)

Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.050
Channel Slope	0.00600 ft/ft
Left Side Slope	3.00 ft/ft (H:1V:1)
Right Side Slope	3.00 ft/ft (H:1V:1)
Bottom Width	12.00 ft
Discharge	455.00 cfs
Results	
Normal Depth	4.18 ft
Flow Area	102.09 ft ²
Wetted Perimeter	38.46 ft
Hydraulic Radius	2.67 ft
Top Width	37.10 ft
Critical Depth	2.00 ft
Critical Slope	0.00223 ft/ft
Velocity	4.43 ft/s
Velocity Head	0.31 ft
Specific Energy	4.49 ft
Froude Number	0.47
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.00 ft
Profile Description	0.00 ft
Profile Headloss	infty ft/s
Downstream Velocity	infty ft/s
Upstream Velocity	infty ft/s
Normal Depth	4.18 ft
Critical Depth	2.00 ft
Channel Slope	0.00600 ft/ft

LESS THAN PERMISSIBLE VELOCITY, OK

Worksheet for Outfall Analysis (10-Year)

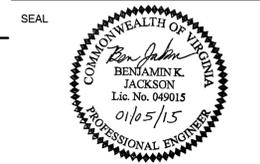
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.040
Channel Slope	0.00600 ft/ft
Left Side Slope	3.00 ft/ft (H:1V:1)
Right Side Slope	3.00 ft/ft (H:1V:1)
Bottom Width	12.00 ft
Discharge	1068.00 cfs
Results	
Normal Depth	5.85 ft
Flow Area	183.37 ft ²
Wetted Perimeter	47.71 ft
Hydraulic Radius	3.42 ft
Top Width	45.87 ft
Critical Depth	4.40 ft
Critical Slope	0.01119 ft/ft
Velocity	6.54 ft/s
Velocity Head	0.66 ft
Specific Energy	6.31 ft
Froude Number	0.81
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.00 ft
Profile Description	0.00 ft
Profile Headloss	infty ft/s
Downstream Velocity	infty ft/s
Upstream Velocity	infty ft/s
Normal Depth	5.85 ft
Critical Depth	4.40 ft
Channel Slope	0.00600 ft/ft

PER EX. DITCH GEOMETRY, OK

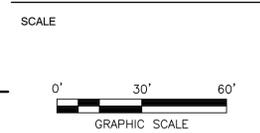
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DOMINION VIRGINIA POWER
Idylwood Substation
SE 2014-PR-032
SPECIAL EXCEPTION PLAT
2232 PLAN
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA



KEY PLAN

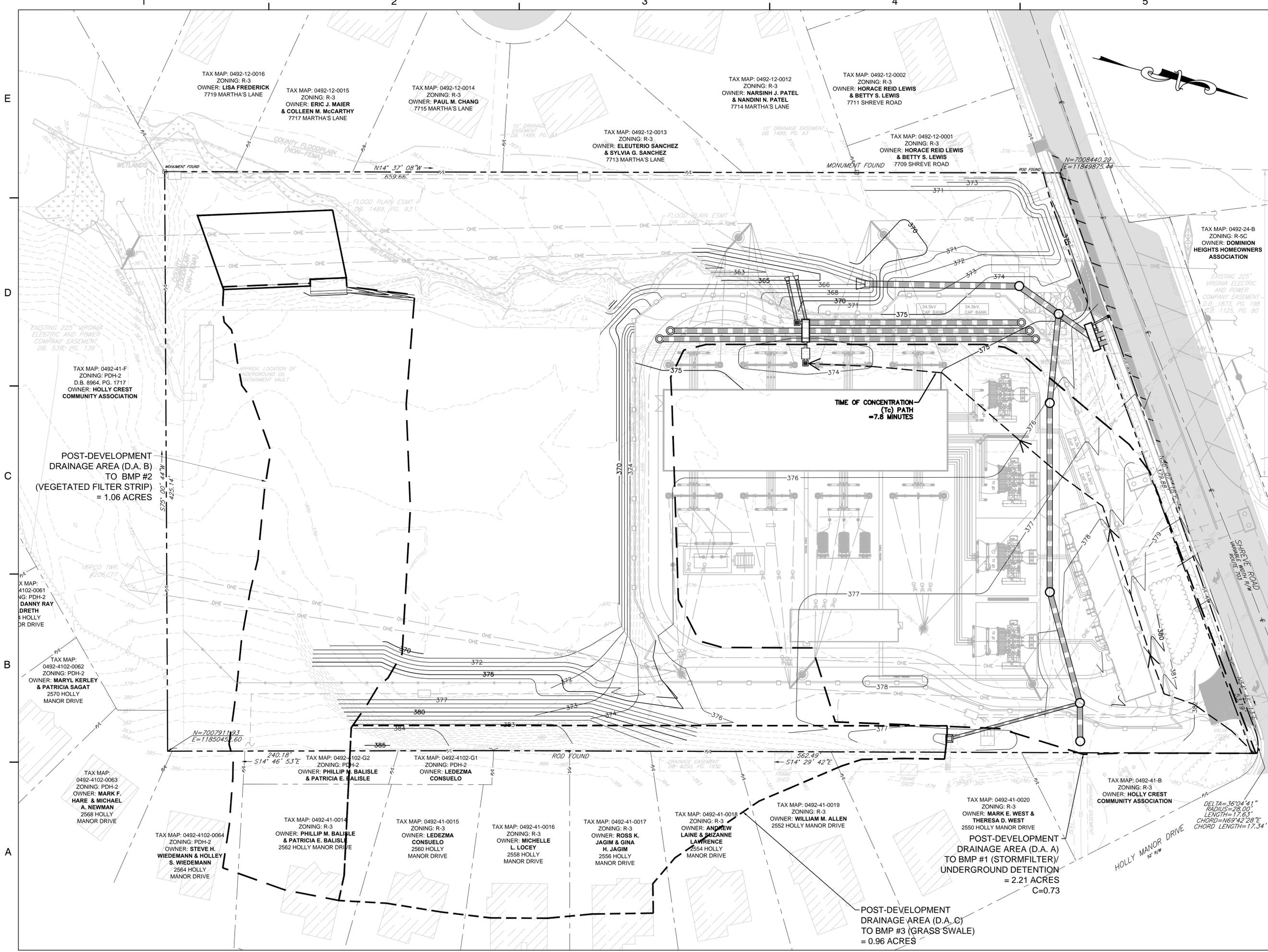


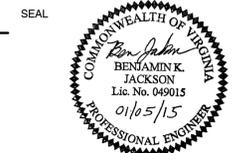
No.	DATE	BY	Description
REVISIONS			

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APPROVED BY: KWW
CHECKED BY: KWW
DATE: JANUARY 2015
TITLE:

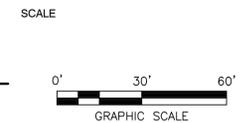
POST-DEVELOPED DRAINAGE AREA MAP

PROJECT NO. 50058411





KEY PLAN



No.	DATE	BY	Description

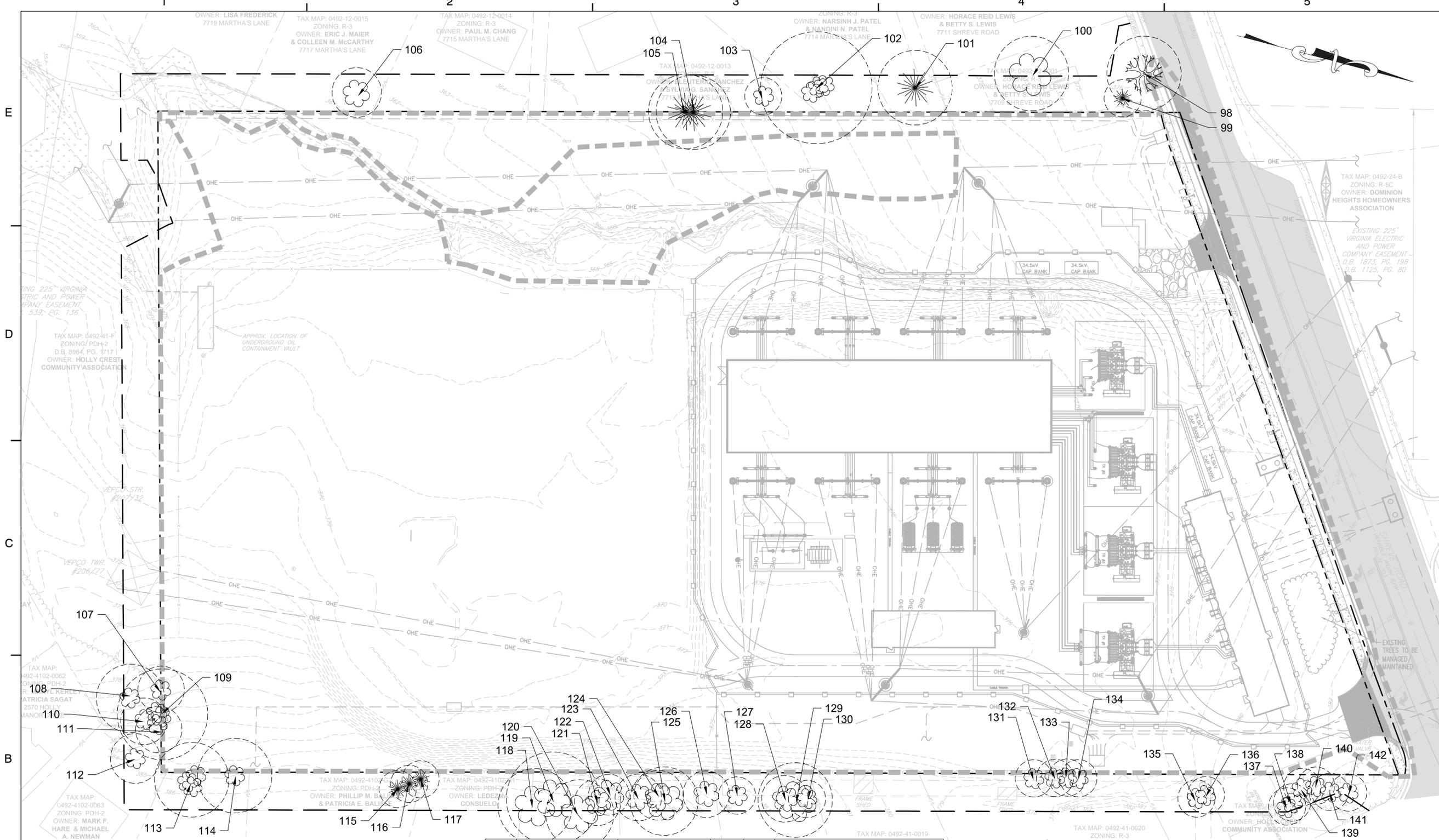
REVISIONS

DRAWN BY: LM
APPROVED BY: JC
CHECKED BY: KWW
DATE: JANUARY 2015
TITLE:

OFF-SITE TREE SURVEY

PROJECT NO. 50058411

14B



Idylwood Substation Tree Inventory
December 30, 2014

Tree #	Size (DBH)	Common Name	Scientific Name	Condition	Remove	Notes
142	12	blue spruce	<i>Picea pungens</i>	80		
141	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
140	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
139	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
138	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
137	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
136	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
135	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
134	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
133	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
132	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
131	12	leyland cypress	<i>x Cupressocyparis leylandii</i>	70		
130	12	red maple	<i>Acer rubrum</i>	75		
129	24	red maple	<i>Acer rubrum</i>	70		
128	15	red maple	<i>Acer rubrum</i>	70		
127	12	cherry	<i>Prunus species</i>	65		
126	15	cherry	<i>Prunus species</i>	70		
125	22	black locust	<i>Robinia pseudoacacia</i>	65		
124	16	red maple	<i>Acer rubrum</i>	80		
123	15	black locust	<i>Robinia pseudoacacia</i>	60		
122	18	black locust	<i>Robinia pseudoacacia</i>	60		
121	15	black locust	<i>Robinia pseudoacacia</i>	65		
120	22	black locust	<i>Robinia pseudoacacia</i>	60		
119	30	black locust	<i>Robinia pseudoacacia</i>	65		
118	24	black locust	<i>Robinia pseudoacacia</i>	65		
117	12	white pine	<i>Pinus strobus</i>	60		
116	12	white pine	<i>Pinus strobus</i>	60		
115	12	white pine	<i>Pinus strobus</i>	60		
114	24	red maple	<i>Acer rubrum</i>	80		may be jointly owned, no grade change proposed
113	24	tulip poplar	<i>Liriodendron tulipifera</i>	70		twin, no grade change proposed within crz
112	16	tulip poplar	<i>Liriodendron tulipifera</i>	70		
111	14	black cherry	<i>prunus serotina</i>	60		
110	15/15	tulip poplar	<i>Liriodendron tulipifera</i>	65		twin, may be jointly owned, no grade change within crz
109	15	tulip poplar	<i>Liriodendron tulipifera</i>	80		may be jointly owned, no grade change proposed
108	22	tulip poplar	<i>Liriodendron tulipifera</i>	70		
107	15	tulip poplar	<i>Liriodendron tulipifera</i>	70		may be jointly owned, no grade change proposed
106	16	tulip poplar	<i>Liriodendron tulipifera</i>	70		
105	24	white pine	<i>Pinus strobus</i>	80		no grade change proposed within crz
104	24	white pine	<i>Pinus strobus</i>	80		no grade change proposed within crz
103	12	red maple	<i>Acer rubrum</i>	65		
102	12/12/14	red maple	<i>Acer rubrum</i>	75		triple trunk
101	24	white pine	<i>Pinus strobus</i>	60		
100	24	leyland cypress	<i>x Cupressocyparis leylandii</i>	75		
99	12	white pine	<i>Pinus strobus</i>	75		
98	24	red oak	<i>Quercus rubra</i>	80		

NOTES

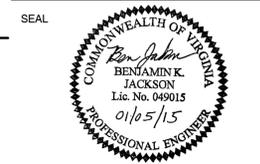
- TREE INVENTORY AND CONDITION EVALUATION PERFORMED BY JANICE M. CENA (MA-4469A) ON DECEMBER 17, 2014.
- TREE CONDITION EVALUATION WAS PERFORMED FROM THE SUBSTATION PROPERTY FOR ALL OFFSITE TREES.
- CONDITION EVALUATION PER 9TH EDITION OF THE GUIDE FOR PLANT APPRAISAL, PUBLISHED BY THE ISA.
- CRITICAL ROOT ZONE (CRZ) IS EQUAL TO 1 FOOT OF RADIUS FOR EVERY INCH CALIPER.
- TREE LOCATIONS ARE APPROXIMATE AND WERE LOCATED BY GPS FROM THE SUBSTATION PROPERTY.

LEGEND

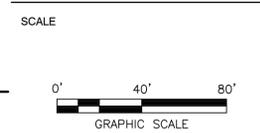
- WXYZ EX. EVERGREEN TREE TO REMAIN
- WXYZ EX. DECIDUOUS TREE TO REMAIN
- EX. TREE TO BE REMOVED
- EX. TREE CRITICAL ROOT ZONE (CRZ)
- LIMITS OF CLEARING AND GRADING
- 25' OFFSET FROM LOGC



DOMINION VIRGINIA POWER
Idywood Substation
SE 2014-PR-032
SPECIAL EXCEPTION PLAT
2232 PLAN
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA



KEY PLAN

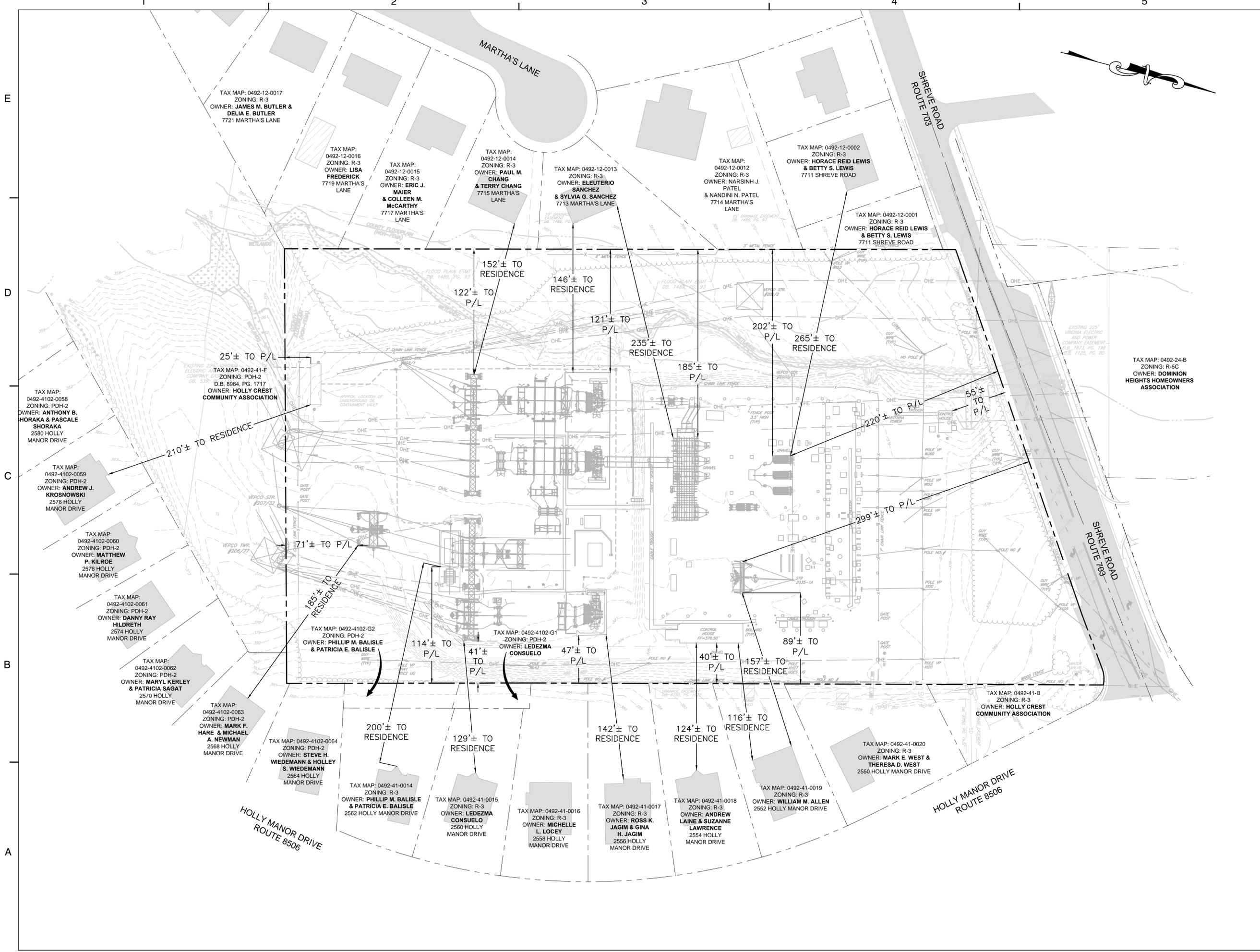


No.	DATE	BY	Description
REVISIONS			

DRAWN BY: BKJ
APPROVED BY: KWW
CHECKED BY: KWW
DATE: JANUARY 2015

TITLE
EXISTING DIMENSION
PLAN FROM ADJACENT
PROPERTY LINES
& RESIDENCES

PROJECT NO. 50058411

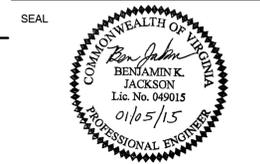


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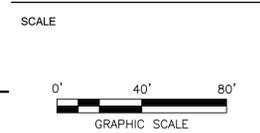
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DOMINION VIRGINIA POWER
Idywood Substation
SE 2014-PR-032
SPECIAL EXCEPTION PLAT
2232 PLAN
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA



KEY PLAN

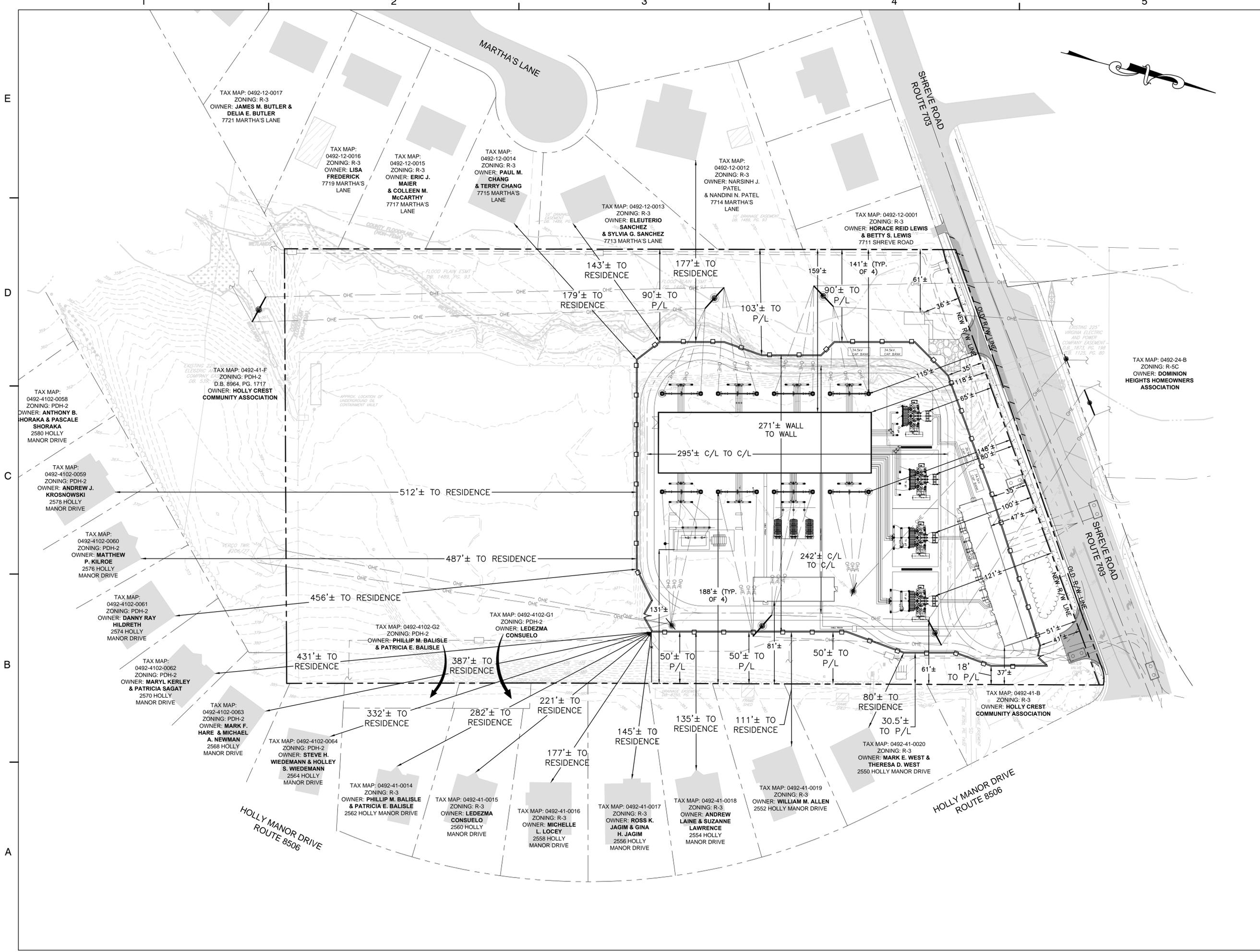


No.	DATE	BY	Description
REVISIONS			

DRAWN BY	BKJ
APPROVED BY	KWW
CHECKED BY	KWW
DATE	JANUARY 2015

TITLE
PROPOSED DIMENSION
PLAN FROM ADJACENT
PROPERTY LINES
& RESIDENCES

PROJECT NO. 50058411



TAX MAP: 0492-12-0017
ZONING: R-3
OWNER: JAMES M. BUTLER &
DELIA E. BUTLER
7721 MARTHA'S LANE

TAX MAP: 0492-12-0016
ZONING: R-3
OWNER: LISA
FREDERICK
7719 MARTHA'S
LANE

TAX MAP: 0492-12-0015
ZONING: R-3
OWNER: ERIC J.
MAIER
& COLLEEN M.
MCCARTHY
7717 MARTHA'S
LANE

TAX MAP: 0492-12-0014
ZONING: R-3
OWNER: PAUL M.
CHANG
& TERRY CHANG
7715 MARTHA'S
LANE

TAX MAP: 0492-12-0013
ZONING: R-3
OWNER: ELEUTERIO
SANCHEZ
& SYLVIA G. SANCHEZ
7713 MARTHA'S LANE

TAX MAP: 0492-12-0012
ZONING: R-3
OWNER: NARSINH J.
PATEL
& NANDINI N. PATEL
7714 MARTHA'S
LANE

TAX MAP: 0492-12-0001
ZONING: R-3
OWNER: HORACE REID LEWIS
& BETTY S. LEWIS
7711 SHREVE ROAD

TAX MAP: 0492-4102-0058
ZONING: PDH-2
OWNER: ANTHONY B.
HORAKA & PASCALE
SHORAKA
2580 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-F
ZONING: PDH-2
D.B. 8964, PG. 1717
OWNER: HOLLY CREST
COMMUNITY ASSOCIATION

TAX MAP: 0492-4102-0059
ZONING: PDH-2
OWNER: ANDREW J.
KROSNOWSKI
2578 HOLLY
MANOR DRIVE

TAX MAP: 0492-4102-0060
ZONING: PDH-2
OWNER: MATTHEW
P. KILROE
2576 HOLLY
MANOR DRIVE

TAX MAP: 0492-4102-0061
ZONING: PDH-2
OWNER: DANNY RAY
HILDRETH
2574 HOLLY
MANOR DRIVE

TAX MAP: 0492-4102-0062
ZONING: PDH-2
OWNER: MARYL KERLEY
& PATRICIA SAGAT
2570 HOLLY
MANOR DRIVE

TAX MAP: 0492-4102-0063
ZONING: PDH-2
OWNER: MARK F.
HARE & MICHAEL
A. NEWMAN
2568 HOLLY
MANOR DRIVE

TAX MAP: 0492-4102-0064
ZONING: PDH-2
OWNER: STEVE H.
WIEDEMANN & HOLLEY
S. WIEDEMANN
2564 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0014
ZONING: R-3
OWNER: PHILLIP M. BALISLE
& PATRICIA E. BALISLE
2562 HOLLY MANOR DRIVE

TAX MAP: 0492-41-0015
ZONING: R-3
OWNER: LEDEZMA
CONSUELO
2560 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0016
ZONING: R-3
OWNER: MICHELLE
L. LOCEY
2558 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0017
ZONING: R-3
OWNER: ROSS K.
JAGIM & GINA
H. JAGIM
2556 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0018
ZONING: R-3
OWNER: ANDREW
LAINE & SUZANNE
LAWRENCE
2554 HOLLY
MANOR DRIVE

TAX MAP: 0492-41-0019
ZONING: R-3
OWNER: WILLIAM M. ALLEN
2552 HOLLY MANOR DRIVE

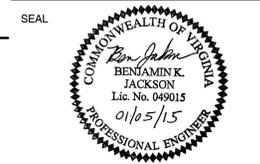
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ZONING: R-3
OWNER: MARK E. WEST &
THERESA D. WEST
2550 HOLLY MANOR DRIVE

TAX MAP: 0492-41-B
ZONING: R-3
OWNER: HOLLY CREST
COMMUNITY ASSOCIATION

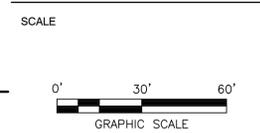
TAX MAP: 0492-24-B
ZONING: R-5C
OWNER: DOMINION
HEIGHTS HOMEOWNERS
ASSOCIATION



DOMINION VIRGINIA POWER
Idylwood Substation
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FAIRFAX COUNTY, VIRGINIA



KEY PLAN

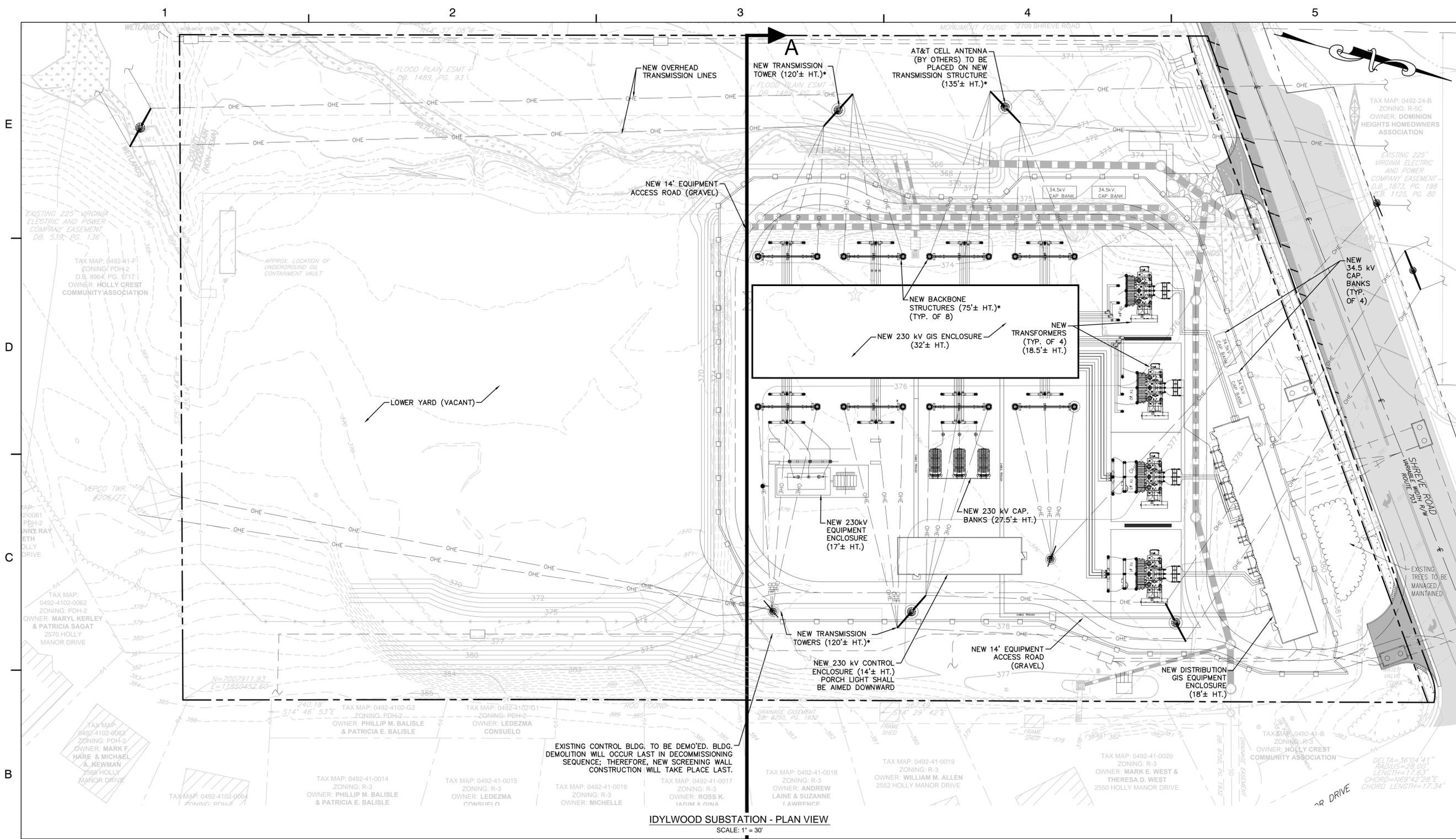


No.	DATE	BY	Description
REVISIONS			
		BKJ	DRAWN BY
		KWW	APPROVED BY
		KWW	CHECKED BY
			DATE JANUARY 2015
TITLE			

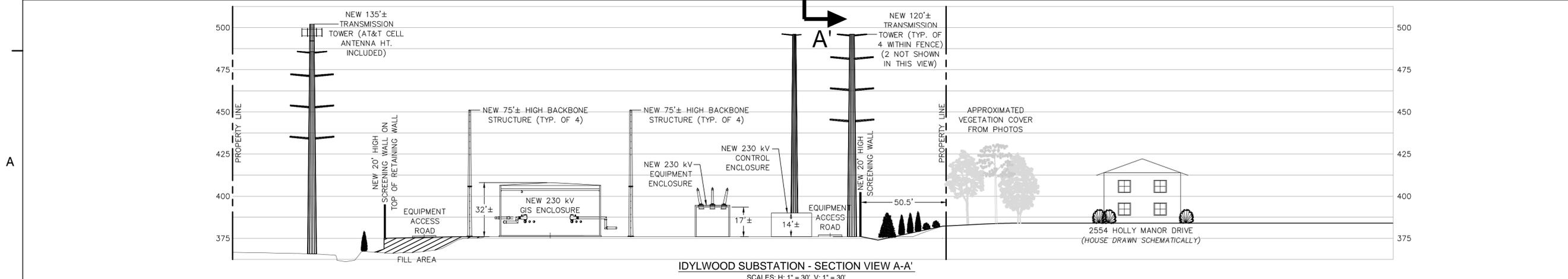
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APPROVED BY KWW
CHECKED BY KWW
DATE JANUARY 2015
TITLE

SUBSTATION SECTION VIEW A-A'

PROJECT NO. 50058411



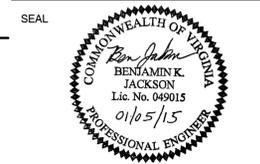
IDYLWOOD SUBSTATION - PLAN VIEW
SCALE: 1" = 30'



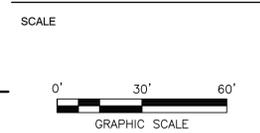
IDYLWOOD SUBSTATION - SECTION VIEW A-A'
SCALES: H: 1" = 30', V: 1" = 30'



DOMINION VIRGINIA POWER
Idylwood Substation
SE 2014-PR-032
SPECIAL EXCEPTION PLAT
2232 PLAN
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA



KEY PLAN

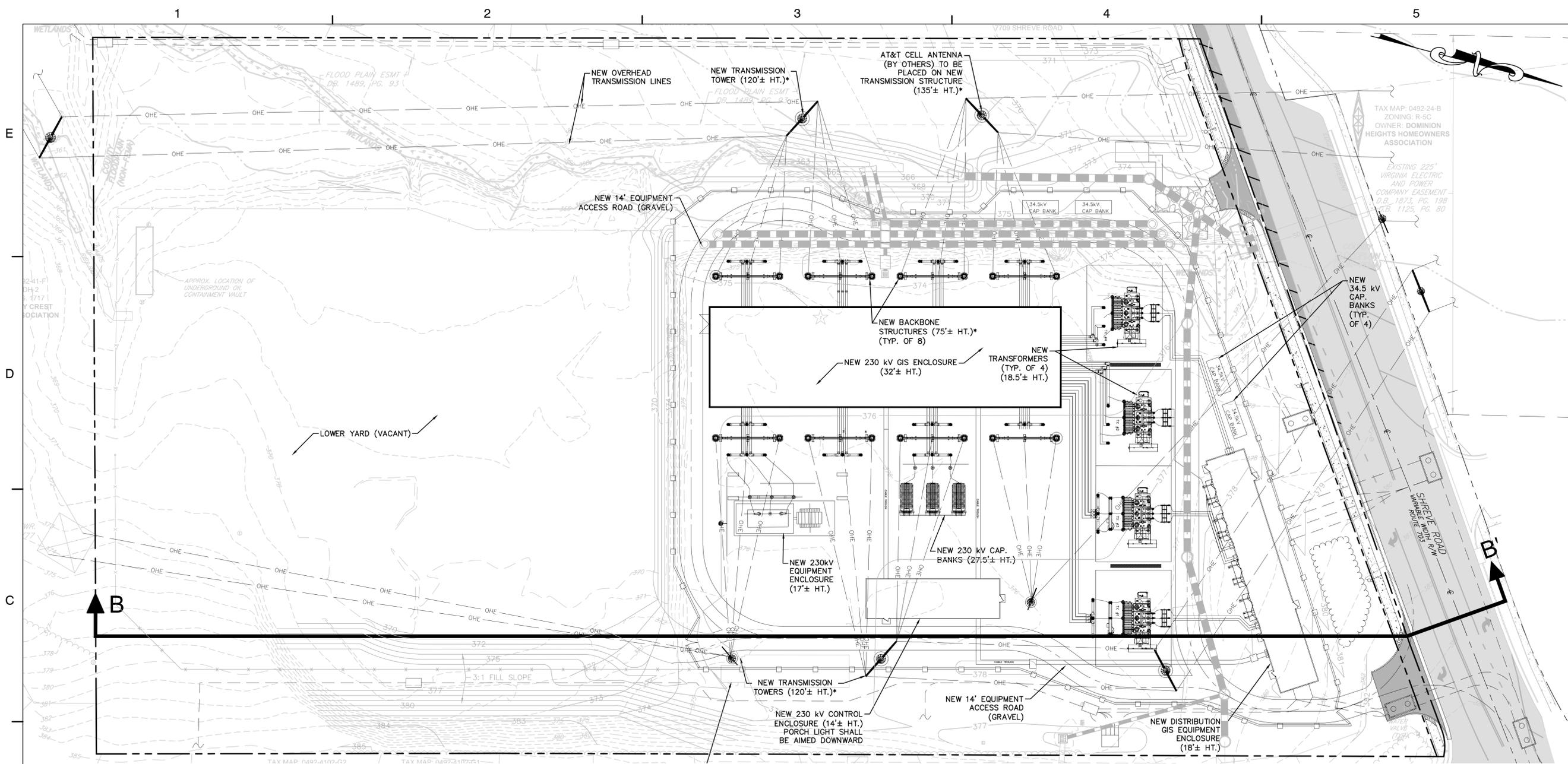


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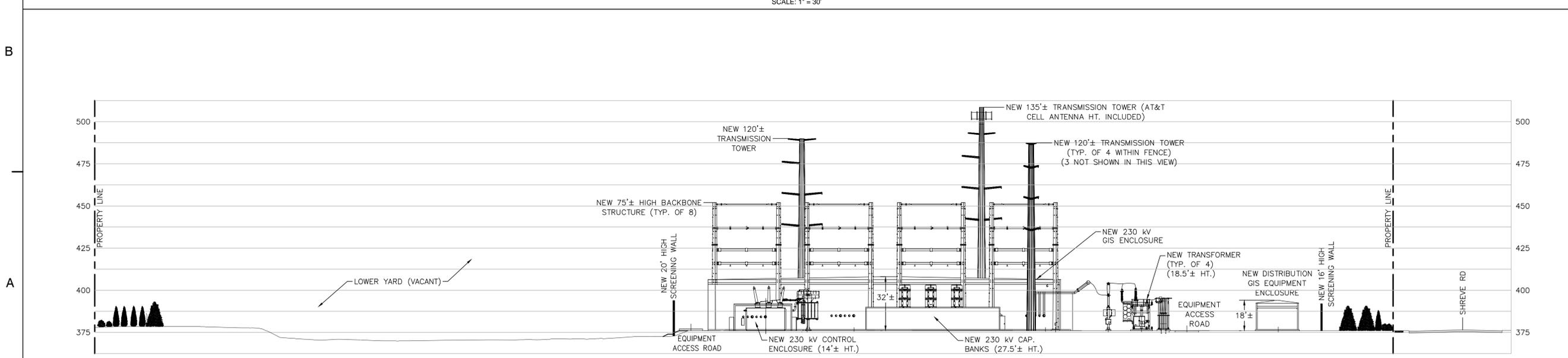
DRAWN BY: BKJ
APPROVED BY: KWW
CHECKED BY: KWW
DATE: JANUARY 2015
TITLE:

SUBSTATION SECTION VIEW B-B'

PROJECT NO. 50058411



IDYLWOOD SUBSTATION - PLAN VIEW
SCALE: 1" = 30'



IDYLWOOD SUBSTATION - SECTION VIEW B-B'
SCALES: H: 1" = 30', V: 1" = 30'

DESCRIPTION OF THE APPLICATION

The applicant, Dominion Virginia Power, seeks a Category 1 Special Exception to permit a redesign and upgrade to an existing electric power substation located at 7701 and 7707 Shreve Road in Falls Church. The applicant seeks to demolish and replace the existing equipment with new Gas Insulated Substation (GIS) equipment, which take up a smaller footprint, to include eight new 75-foot tall backbones and several new enclosures ranging in height from 17 to 32 feet tall for upgraded equipment on this 7.15 acre parcel. These upgrades are required to provide reliable electrical service to the surrounding communities as critical deficiencies have been identified at the current substation which amount to a violation of mandatory North American Electrical Reliability Corporation (NERC) reliability standards. The upgrade will also help support growing electrical needs in the area.

There is also a companion 2232 application, 2232-P14-4 which is included in this staff report and analyzes the location, character and extent of this proposed substation.

Finally, there is a companion Features Shown application to relocate an AT&T antenna from an existing electric transmission pole to a relocated electric transmission pole.

Staff notes that the layout of the redesign of this substation has gone through several iterations over the last few years, even prior to filing this application. Over the course of this review, the applicant has worked extensively with the neighbors and staff to refine the layout as provided in the SE Plat. In the future, the applicant may request an expansion of this proposal; however, the current application is only for the items shown on the SE Plat. Further significant expansion of this substation would require additional land use approvals from the Board of Supervisors.

As a point of reference, Sect. 101(6)(B) of Article 9 of the Zoning Ordinance exempts transmission lines approved by the State Corporation Commission (SCC) from the County land use process. The SCC regulates transmission lines which are 138 kilovolts or above. The Statement of Justification notes that this substation is a terminus for seven 230kV transmission lines.

A reduced copy of the submitted SE Plat is included at the front of this report. Copies of the proposed development conditions, the affidavit and the applicant's statement of justification are included in Appendices 1, 2 and 3, respectively.

LOCATION AND CHARACTER

Site Location:

As noted above, the subject property is located at 7701 and 7707 Shreve Road in Falls Church immediately south of Shreve Road. The general area is the southeastern quadrant created by interchange of Interstate 495 with Interstate 66.

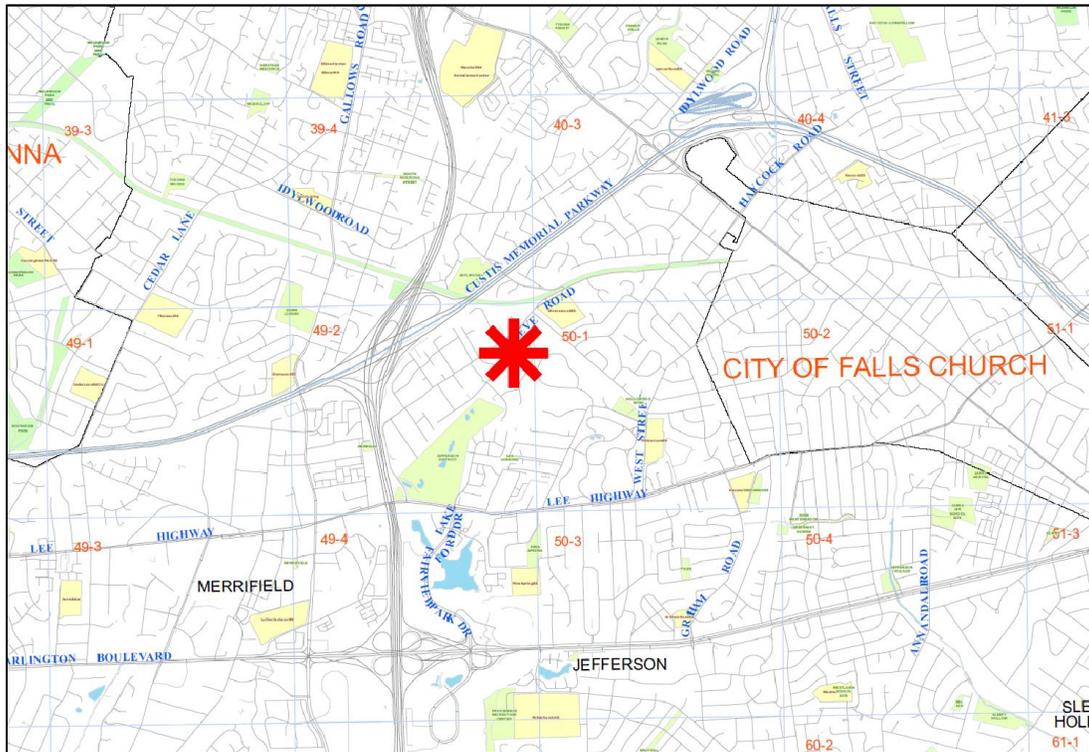


Figure 1 Vicinity Map

Existing Condition, Use and Structures:

The site is currently developed with an existing substation which was built in the 1950s. The current substation consumes much of the site, with backbones, reactors, control buildings, transformers and distribution bays scattered on the site. The height of the two tallest existing backbones is 69 feet with the other structures ranging in height from 12 feet to 50 feet. These particular features are, at their closest, about 40 feet from the northeastern property line, 220 feet from Shreve Road and 120 feet from the western property line. These features are surrounded by a chain link fence.

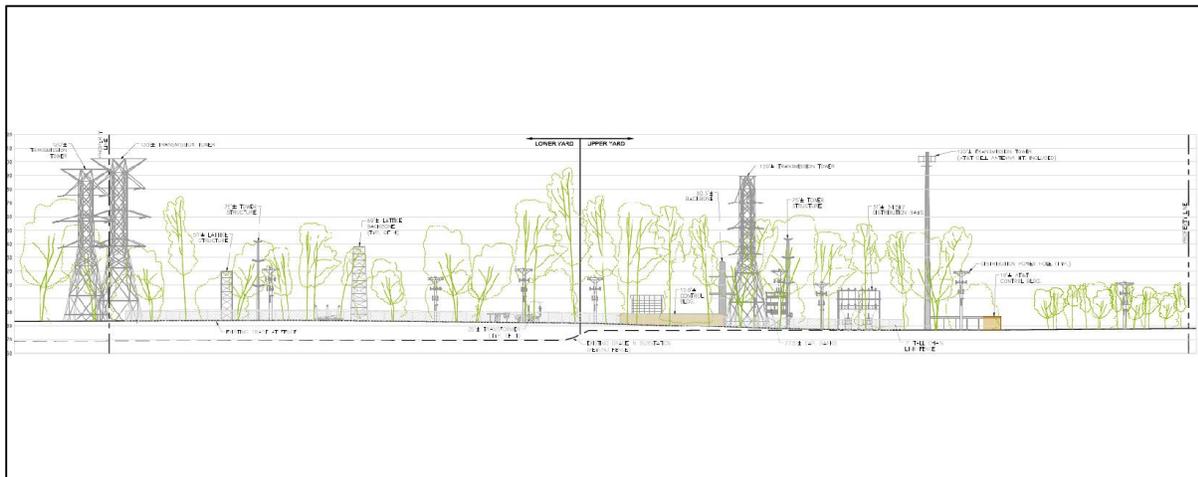


Figure 2 Elevation for Existing Features (Shreve Road is to the right)

The grade on the site changes from east to west. The site is higher on the northeast side (adjacent to the Holly Manor subdivision) and slopes downward to a stream on the western side of the property. Along that northeastern property boundary, the grade changes are most evident on the rear three quarters of the site (furthest from Shreve Road), with the height at the property boundary at about 384-385 feet high and sloping downward steeply in places to 373 feet. That embankment is covered by riprap.

The subject property is located within the Cameron Run watershed and an unnamed intermittent stream and associated wetlands traverses from north to south along the entire western side of the substation. The intermittent stream system and its associated wetlands are within a minor floodplain. There is existing vegetation along Shreve Road and in the area of the stream on the western side of the property. The vegetation is generally in good to fair condition.

The applicant proposes to reroute this stream and adjust the floodplain based on this treatment of the stream. A floodplain study has been submitted to the Department of Public Works and Environmental Service (DPWES) for review as a part of this Special Exception. The SE Plat depicts several utility poles which are depicted to be removed on this application. It should be noted that the poles are shown on the SE Plat for informational purposes as high voltage transmission wires are regulated by a public hearing process with the State Corporation Commission (SCC).



Figure 3 Aerial Photograph

Surrounding Area Description:

SURROUNDING AREA DESCRIPTION			
Direction	Use	Zoning	Plan
North (across Shreve Road)	Residential (Single Family Attached) (Dominion Heights)	R-5	Public Facilities Residential; 2-3 du/ac
South	Dominion Power Easement	R-3	Residential; 1-2 du/ac
East	Residential (Single Family Detached) (Holly Crest)	PDH-2	Residential, 2-3 du/ac
West	Residential (Single Family Detached) (Wrendale)	R-3	Residential, 2-3 du/ac

BACKGROUND

As noted by the applicant, this substation is a longstanding feature in this area, originally constructed in the late 1950s. While the applicant has worked to upgrade the facility over time, no activities have occurred at the site since its original construction which would require any land use approvals. The site is not governed by any modern land use approvals.

COMPREHENSIVE PLAN PROVISIONS (See Appendix 4)

- Plan Area:** Area I
- Planning District:** Jefferson Planning District
- Planning Sector:** Shreve-West Planning Sector

The subject property is located in the Area I, Jefferson Planning District, J-8 Shreve-West Community Planning Sector. The Comprehensive Plan Map identifies the property as planned for Public Facilities, Governmental and Institutional.

Area Plan

Fairfax County Comprehensive Plan, Area I, 2013 Edition; Jefferson Planning District, as amended through 4-29-2014, Overview, Figure 6: Existing Public Facilities, page 12:

Figure 6 identifies the Va. Power Idylwood Substation as existing public facilities in J-8.

Policy Plan

Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition; Public Facilities, as amended through March 4, 2014, Countywide Objectives and Policies, pages 2-4:

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 b. Co-locate public facilities whenever appropriate to achieve convenience and economies of scale, as long as the integrity of the Comprehensive Plan is not impinged.

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

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

Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition; Public Facilities, as amended through March 4, 2014, Electrical and Land-Line Utility Services, pages 33-37:

Objective 40: *Locate electrical and land-line service facilities to provide maximum service levels as unobtrusively as possible. (See Figure 7.)*

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

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

Policy d. Provide adequate acreage for expansion of substations, hub centers and equipment areas and maintain levels of screening to accommodate expansion.

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 type and facility is the least disruptive.

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

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

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

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

DESCRIPTION OF THE DEVELOPMENT PLAN

Special Exception Plat (Copy at front of staff report)

Title of SE Plat: Idylwood Substation
 Prepared By: Dewberry Engineers, Inc.
 Original and Revision Dates: February 2014 as revised through January 5, 2015
 Description of SE Plat:

Idylwood Substation	
Sheet Number	Description
1	Cover Sheet
2	General Notes and Soil Map
3	Existing Conditions and Demolition Plan
4	Proposed Facility Plan
5	Roadway Improvements and Sight Distance Plan
6	A&TT Entrance Sight Distance Plan
7A	Proposed Upper Yard Grading Plan
7B	Proposed Lower Yard Grading Plan
8	Stormwater Management Information
9	Detention System Profile—1

10	Detention System Profile—2
11	Pre-Developed Drainage Area Map
12	Post-Developed Drainage Area Map
13	Proposed Landscaping Plan
14A	Notes, Tabulation and Existing Vegetation Map
14B	Offsite Tree Survey
15	Existing Dimension Plan from Adjacent Property Lines
16	Proposed Dimension Plan from Adjacent Property Lines
17	Substation Section View A-A
18	Substation Section View B-B
19	Forestry Development Conditions

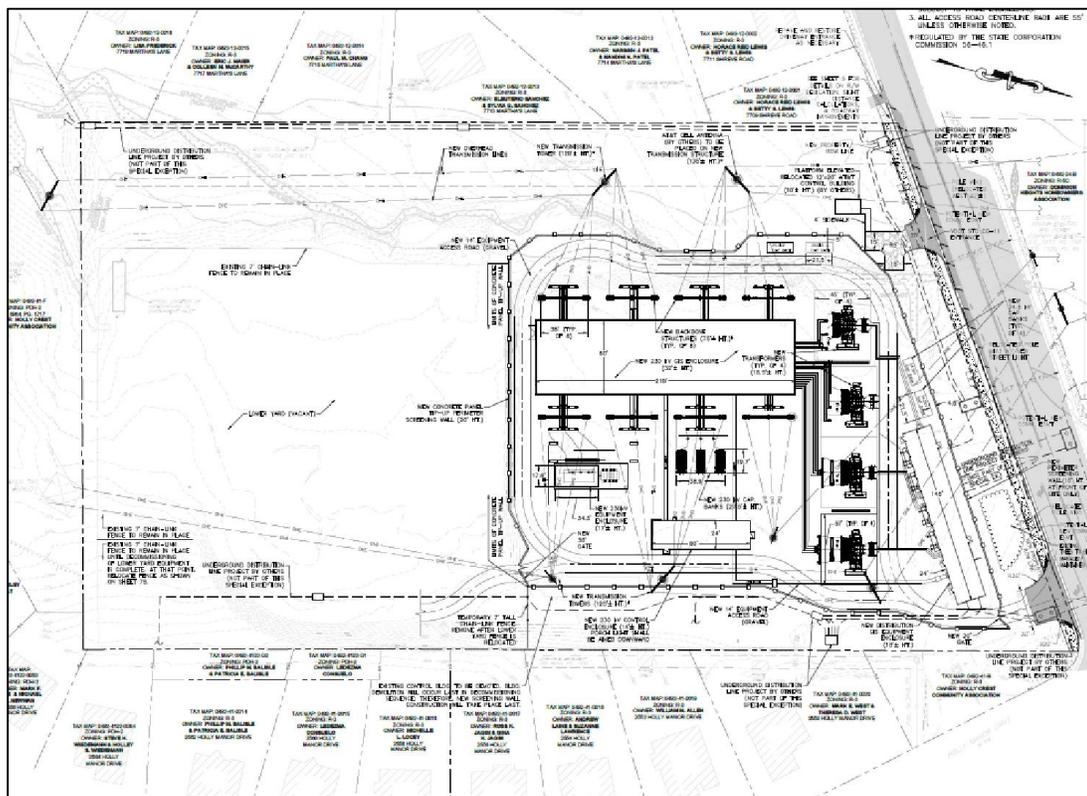


Figure 4 Layout

Layout

The proposed layout consolidates the equipment into an area sited on the upper “yard” or half of the site (closest to Shreve Road). As shown on the graphic above, the proposed features include a new 18-foot tall equipment enclosure parallel to Shreve Road which is immediately in front of the four new 18.5-foot tall transformers which are placed in a row. The 75-foot tall backbones are directly behind these transformers and consist of eight towers which connect into a 32-foot tall enclosure located between the towers. The site also contains several cap banks and shorter enclosures scattered around the site, including a 14-foot tall control enclosure on the northeastern side of the backbones.

The internal equipment is accessed through a new 14-foot wide gravel driveway which is located inside of the proposed wall.

The applicant has also provided dedication of right of way along Shreve Road to accommodate the sidewalk so that it will be maintained by the Virginia Department of Transportation (VDOT).

Landscaping

The applicant proposes to remove much of the existing vegetation on the site (which is generally along the peripheral edges of the site) and replace it with new plantings along the edges of the property. The applicant has shown that there are some existing trees near the proposed entrance to the substation that the applicant will attempt to manage and maintain. The applicant proposes a 50-foot wide tree and shrub buffer along the southern property boundary, a 40-foot wide landscaped area along the shared northeastern boundary with Holly Manor, a 25-foot landscaped buffer (although it varies in width) along Shreve Road, and a 50-foot wide landscaped buffer along the western boundary. The maximum height of any trees in the transmission corridor along the western, northern and southern boundaries is 10 feet tall. The maximum height of trees along the northeastern boundary is 14 feet tall.

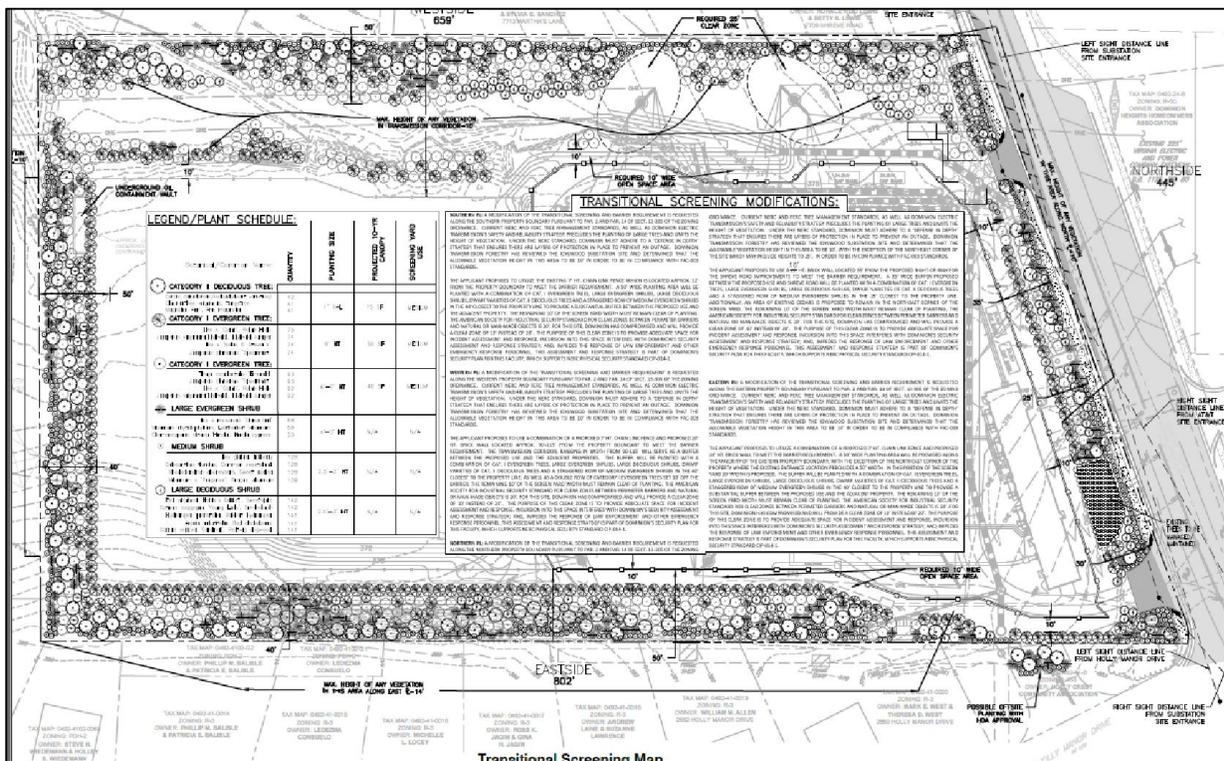


Figure 6 Transitional Screening Plan

transmission hub and major distribution substation. The proposed substation utilizes existing transmission lines and towers, which is consistent with the Comprehensive Plan. Although the proposed substation is located adjacent to a residential area, the existing substation, which the proposal replaces, predates the surrounding residential developments. The initial application involved an expansion of the substation facility and noted that a search was conducted for alternative locations. However, according to the applicant, no suitable alternative locations are available. Additionally, the current application no longer includes expansion plans and only includes a rebuild of the existing substation.

Character

The proposed rebuilding of the electrical utility facility will occur within the parcels containing the current substation operated by Dominion Virginia Power. Although the footprint of the rebuilt substation will be smaller than the existing substation, due to the utilization of GIS equipment, it is necessary to shift the facility to the north side of the site along Shreve Road, as the existing equipment must remain operational while the substation is rebuilt. This shift will impact the existing vegetation located at the front of the property along Shreve Road; however, the existing vegetation will be replaced with transitional screening consisting of a landscaped buffer 25 to 30 feet wide with a maximum height of 10 feet.

Additionally, a landscape buffer ranging from 10 to 50 feet wide will be planted on all sides of the property with a maximum height ranging from 10 to 14 feet. Guidelines created by Dominion Power to comply with NERC standards for reliability limit the height of transitional screening from 10 to 14 feet.

The compound will also be screened by a 20 foot wall along the eastern, southern and western perimeter, and a 16-foot high wall along Shreve Road. The texture and colors of the wall will be red brick, which were developed with input from a citizen committee; however, the wall along the southern side of the compound will be concrete panel. The concrete panel wall will face unused portions of the site, and the nearest residence facing this concrete panel portion of the wall is 431 feet away. Additionally, this portion of the site will be screened by a 40-foot wide landscape buffer with a maximum height of 10 feet, further obscuring the concrete panel wall from view.

The proposed compound wall will be 6 to 10 feet higher than the transitional screening, and will have a visual impact. The four transformers (18.5 feet in height), and one GIS enclosure (18 feet in height) will be screened from view behind the compound wall; however, an additional GIS enclosure (32 feet in height), the backbone structures (75 feet in height) and transmission towers (120 to 135 feet in height) will be greater in height than the wall and create a visual impact. As noted previously, the transmission towers are not part of SE 2014-PR-032, and are regulated by the SCC. Additionally, the proposed backbone structures, 75 feet in height, will be taller than the existing backbone structures, which are 69 feet in height. However, the proposed backbone structures and transmission towers will not be greater in height than the existing towers in the transmission corridor, and are

consistent with the height of the surrounding transmission towers.

Extent

The proposed rebuilt substation will remain an unmanned facility requiring service once or twice a month or as needed with minimal traffic impacts. However, an additional access point to the site is proposed with this application. The second access point is necessary for the AT&T telecommunications facility, which will also be an unmanned facility requiring service once or twice a month or as needed with minimal traffic impact. This facility will be the subject of a future 2232 review. The proposed facility is the minimum necessary to serve the area and will utilize GIS equipment, resulting in a substation that will be more efficient and occupy a smaller footprint than the current facility. Additionally, the rebuilt substation is required by NERC guidelines and is necessary to avoid NERC violations and meet increased demands for power.

Environmental and Stormwater Analysis (See Appendices 5 and 6)

Floodplain and Wetlands

The applicant had originally indicated that the outfall analysis and floodplain study be completed during the site plan process. However, in order to evaluate the impacts of any stormwater impacts, the applicant has now agreed that the outfall requirements and site data should be shown now on the SE Plat. The information provided on the SE Plat meets the criteria of the Public Facilities Manual (PFM) and Zoning Ordinance (ZO).

In addition, the applicant has submitted a floodplain study to assure that floodplain water level will not rise due to the stream rerouting. The Department of Public Works and Environmental Services (DPWES)'s review of this study is underway at this time but still is not complete.

Any disturbance to wetlands will require permits from the US Army Corps of Engineers and Virginia Department of Environmental Quality. These requirements must be met prior to obtaining site plan approval from Fairfax County and a development condition has been proposed reiterating that requirement.

Demolition Debris

With the significant amount of demolition expected here, the applicant was asked to consider how the demolition debris will be disposed. While the applicant had not yet determined the treatment of this debris, staff has proposed a development condition that the debris be recycled to the extent possible. With the condition, this issue is resolved.

Urban Forestry Analysis (See Appendix 8)

While the site vegetation is in good to fair condition, much of it will be removed in order to upgrade the electrical substation. Given the height limitations per agreements with

NERC, staff has focused on analysis of how the proposed landscape plan mitigates the visual impact of this use.

Generally, the ground-level visual impacts are mitigated by the evergreen and deciduous vegetation to be provided onsite. The applicant has also agreed to work with the Holly Manor subdivision and individual property owners to provide offsite landscaping on individual properties to further screen the site. In addition, the applicant proposes landscaping on some of the Holly Manor common areas (for instance, at the vehicular entrance on Holly Manor Drive that is to be re-landscaped). It should be noted that the impacts of the taller backbones proposed with this application will not be mitigated by vegetation unless it was very mature. Furthermore, the height of this kind of mature vegetation is not be conducive to the functioning of the substation per guidelines developed by NERC and Dominion Power.

The applicant has shown renderings of the first years after the vegetation is removed and staff notes that there will be an interim landscape that will be starker than what the neighborhood has become accustomed to. However, once the proposed on and offsite screening reaches full maturity, staff believes that the site will be adequately buffered on all sides. The applicant has also committed to a masonry wall to help mitigate the visual impacts of the site as well. The proposed development conditions provide that the vegetation will be provided as shown on the SE Plat and in coordination with neighboring properties.

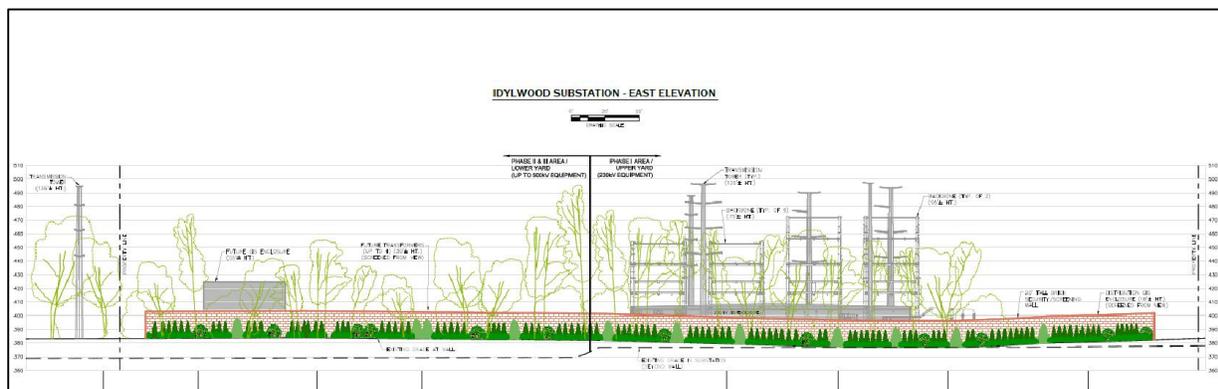


Figure 8 Eastern Elevation



Figure 9 2-year vegetation growth and wall (from Shreve Road)

With the implementation of the proposed development conditions, staff finds that the landscape plan presented here is satisfactory.

Transportation Analysis (See Appendix 7)

As discussed above, two entrances are proposed from Shreve Road into this site (one for Dominion and one for the AT&T facility). Staff had requested that the applicant consolidate these entrances. However, the applicant declined to do so, noting that in order to maintain security for the substation, it could not permit access to the AT&T facility through the substation. VDOT has indicated that the two entrances are acceptable given the minimal trips expected to the site. While a consolidated entrance would have been preferable, staff is satisfied with the two proposed entrances along Shreve Road.

Initially, the applicant had shown new light poles along Shreve Road which caused the proposed 5-foot sidewalk to meander around the poles. However, in order for the sidewalk to be maintained by VDOT, staff noted that a one-foot wide buffer in the ROW must be provided beyond the edge of the sidewalk. The applicant has revised the SE Plat to move the light poles and show the appropriate buffer and, thus, this issue is resolved.

Finally, while unused, an access point and easement are available from Holly Manor Drive to the substation. Since this access point will not be used with this application, the applicant has agreed to landscape this area to further mitigate the visual impacts along Holly Manor Drive. Staff has also proposed a development condition requiring the curb and gutter and sidewalk to be restored in that area. With implementation of that development condition, staff finds this issue resolved.

ZONING ORDINANCE PROVISIONS

Pursuant to Sect. 9-104 of the Zoning Ordinance, Category 1 special exception uses do not need to comply with the lot size requirements or the bulk regulations set forth for the

zoning district in which located. Therefore, requirements related to lot area, width, height, floor area ratios, and angle of bulk plane do not apply. An explanation of the layout of the site has been provided earlier in this report.

However, the Zoning and County Ordinances do contain landscaping requirements related to tree cover and transitional screening for Category 1 uses. Staff summarizes those requirements and how the application satisfies the requirements below.

Tree Canopy Requirements		
Requirement		Provided
25% 10-year tree canopy 76,465 SF		40,825 SF*
Tree Preservation		
12,545 SF		0 SF*
Transitional Screening*		
Direction	Required	Provided
North	TS 2	<u>18-30</u> foot wide buffer with medium trees and medium/large evergreen shrubs, medium deciduous trees and large deciduous shrubs, with 16 foot tall masonry barrier
South	TS 3	<u>40 foot wide</u> landscaped barrier consisting of Category I evergreen trees, medium and large evergreen shrubs, category II deciduous trees and large deciduous shrubs.
East	TS 3	Between 8-40 foot wide landscaped buffer consisting of Category I evergreen trees, medium and large evergreen shrubs, small deciduous trees and large deciduous shrubs, with 20 foot tall masonry barrier.
West	TS 3	Between <u>100-113 foot wide</u> landscaped buffer consisting of category I evergreen trees, medium and large evergreen shrubs, Category II deciduous trees and large deciduous shrubs.

*Modifications Requested

Transitional Screening 2 (TS2) shall consist of an unbroken strip of open space a minimum of thirty-five (35) feet wide and planted with all of the following: (1) A mixture of large and medium evergreen trees that achieves a minimum ten (10) year tree canopy of seventy-five (75) percent or greater; (2) A mixture of trees consisting of at least seventy (70) percent evergreen trees, and consisting of no more than thirty-five (35) percent of any single species of evergreen or deciduous tree; and (3) A mixture of predominately medium evergreen shrubs at a rate of three (3) shrubs for every ten (10) linear feet for the length of the transition yard area. The shrubs shall generally be located away from the barrier and staggered along the outer boundary of the transition yard.

Transitional Screening 3 (TS3) shall consist of an unbroken strip of open space a minimum of fifty (50) feet wide planted with all of the following: (1) A mixture of large and medium evergreen trees and large deciduous trees that achieves a minimum ten (10) year tree canopy of seventy-five (75) percent or greater; (2) A mixture of trees consisting of at least seventy (70) percent evergreen trees, and consisting of no more than thirty-five (35) percent of any single species of evergreen or deciduous tree; and (3) A mixture of predominately medium evergreen shrubs at a rate of three (3) shrubs for every ten (10) linear

feet for the length of the transition yard area. The shrubs shall generally be located away from the barrier and staggered along the outer boundary of the transition yard.

Barrier		
Direction	Required	Provided
North	D, E, or F	16 foot tall masonry wall
South	D, E, or F	20 foot tall masonry wall
East	D, E, or F	20 foot tall masonry wall
West	D, E, or F	20 foot tall masonry wall

Barrier D shall consist of a 42-48 inch chain link fence and may be required by the Director to have inserts in the fence fabric, to be coated, or to be supplemented by trees and/or shrubs.

Barrier E shall consist of a 6 foot wall, brick or architectural block faced on the side facing the existing use and may be required to be so faced on both sides as determined by the Director.

Barrier F shall consist of a 6 foot high solid wood or otherwise architecturally solid fence.

Waivers and Modifications

Waiver of Tree Preservation Requirements

Basis: PFM Chapter 12-508.3A(1) *Deviations may be requested if meeting the Tree Preservation Target would preclude the development of uses or densities otherwise allowed by the Zoning Ordinance;*

In order to maintain service throughout the upgrade and transfer of functionality to the new equipment, and to satisfy the guidelines that Dominion Power has established with the Federal Energy Regulatory Commission (FERC) and NERC for vegetation on their properties, the applicant notes that meeting the tree preservation requirements on this site would preclude the development of uses otherwise allowed by the Zoning Ordinance. Specifically, the site needs to be razed and used in total while the transfer from old to new equipment is accomplished. Furthermore, the tree heights must be limited in order to provide for reliable service without undue disruption caused by high vegetation. As such, staff supports the waiver of the tree preservation requirement.

Modification of Tree Canopy Requirements

Basis: PFM Chapter 12-0513.2 *which allows the Director to approve a modification of 10-year Tree Canopy Requirements where strict application of the requirements would reduce the usable area of a lot due to lot configuration or size to a point that would preclude a reasonable use of the lot or would otherwise cause an unreasonable or unnecessary hardship to the developer.*

To satisfy the 10-year tree canopy requirements, 76,465 SF of tree canopy area would need to be provided. The applicant, however, proposes to provide 40,825 SF (all in new vegetation). As discussed above, due to the requirements associated with vegetation on this type of public utility site, it would not be feasible for provide the full 10% tree canopy. As such, staff supports this requested modification.

*Modification of Transitional Screening Requirements***Basis:** *Section 13-305(4)*

As noted above, the applicant meets the width requirements of the required transitional screening only along the western property boundary. The proposed landscaping also does not meet the vegetation makeup of either Transitional Screening 2 or 3 as required by the Zoning Ordinance on the peripheries of this entire site. However, as discussed earlier in this report, the guidelines established with NERC/FERC preclude certain categories of trees which would grow too high to coexist with electric transmission lines. Staff has reviewed the tree and shrub selection and has found that the proposed plantings generally meet the intent to provide a visual buffer to the equipment on the ground. In addition, the width of the transitional screening buffer can be reduced up to 2/3 with the provision of an adequate barrier. Since the application proposes a 16-to 20-foot high wall surrounding all of the proposed equipment, staff is satisfied that the transitional screening provided meets the intent of the Zoning Ordinance and recommends approval of the modification in favor of what is shown on the SE Plat.

OTHER ZONING ORDINANCE REQUIREMENTS:**Special Exception Requirements** (See Appendix 11)

The standards used to evaluate this application can be found in Sect. 9-104, Standards for all Category 1 Uses and in 9-006, the General Standards for all Special Exception uses. There are no additional standards for electrical substations.

9-104 Standards for all Category 1 Uses

Standard 1 provides that 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. This standard or exemption was noted above and is acknowledged.

Standard 2 requires that no land or building can 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. The applicant has not proposed storage of materials or equipment, the enclosures and facilities here are for the substation operation. Staff has proposed a development condition that no land or building on the subject site can be so used. As such, staff finds this issue is resolved.

Standard 3 requires that for an electrical substation 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. The applicant has included an analysis of other sites (contained within the Statement of Justification in Appendix 3) and has

determined that no other locations within a one-mile radius are suitable and notes that as an existing substation, the proposal meets location selection criteria. Staff finds this issue is resolved.

Standard 4 requires that, before establishment, all uses, including modifications or alterations to existing uses, shall be subject to the provisions of Article 17, Site Plans. A development condition has been proposed nothing that this use is subject to the site plan provisions of the Zoning Ordinance. As such, this issue is resolved.

9-006 General Standards

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:

General Standard 1 requires that the proposed use at the specified location be in harmony with the adopted comprehensive plan. The property is shown as public facilities, governmental and institutional uses on the Comprehensive Plan land use map and, as detailed earlier in this staff report, the proposal is in harmony with the location, character and extent provisions of the Comprehensive Plan. As such, this standard is satisfied.

General Standard 2 requires that the proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations. This application has demonstrated compliance with the zoning district regulations that apply to a Category 1 use, with the exception of landscaping modifications proposed and supported in this report. As such, this standard is satisfied.

General Standard 3 requires that the proposed use be such that it will be harmonious with and 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. As discussed in the land use/2232 analysis, the location, character and extent of this application are satisfied. Furthermore, as stated earlier in this report, staff believes that the proposed screening and barrier will adequately buffer the adjacent properties from the substation. Therefore, this standard is satisfied.

General Standard 4 requires that the proposed use 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 applicant has provided the requested ROW for this proposal and, with the addition of a one-foot wide buffer behind the sidewalk to enable VDOT maintenance of the sidewalk, this standard is satisfied.

General Standard 5 notes that, 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. The applicant has provided a

satisfactory landscape plan consisting of evergreen trees and shrubs with deciduous trees and shrubs around the periphery of this site and offsite as permitted by the nearby landowners and has requested the appropriate waivers and modifications to Article 13, and as such, this standard is satisfied.

General Standard 6 requires that open space be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located. For this use, open space is not a technical requirement of the Zoning Ordinance, however, the applicant has shown 33% open space on their SE Plat and, as such, this standard is satisfied.

General Standard 7 requires that adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use be provided and that parking and loading requirements be in accordance with the provisions of Article 11. The stormwater management system has been reviewed and it adequately treats both the quantity and quality of stormwater generated onsite. The floodplain study is currently under review. There is no parking or loading requirement for this use. As such, this standard has been satisfied.

General Standard 8 requires that signs 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. The applicant shows some small signs on the gates and a development condition has been proposed that all signs be regulated by Article 12. As such, this standard is satisfied.

CONCLUSIONS AND RECOMMENDATIONS

Staff Conclusions

In staff's opinion, the subject proposal, as amended, by Virginia Electric & Power Co. d/b/a Dominion Virginia Power, to expand the Idylwood Substation at 7701 and 7707 Shreve Road, Falls Church, VA 22043, satisfies the criteria of location, character, and extent as specified in Va. Code Sec. 15.2-2232, as amended. Staff also concludes that SE 2014-PR-032 is in harmony with the Comprehensive Plan and in conformance with the applicable Zoning Ordinance provisions with the implementation of the Proposed Development Conditions contained in Appendix 1 of the Staff Report.

Staff Recommendations

Staff recommends that the Planning Commission find that the facility proposed under 2232-P14-4 satisfies the criteria of location, character, and extent as specified in Section 15-2.2232 of the Code of Virginia, and therefore is substantially in accord with the provisions of the Comprehensive Plan.

Staff recommends approval of SE 2014-PR-032, subject to the Proposed Development Conditions contained in Appendix 1.

Staff recommends approval of a modification to the transitional screening requirements along all boundaries of this site in favor of that shown on the SE Plat.

Staff recommends that the Board direct the Director of DPWES to approve a modification of 10 year tree canopy requirements in favor of that shown on the SE Plat.

Staff recommends that the Board direct the Director of DPWES to approve a waiver of tree preservation target requirements in favor of that shown on the SE Plat.

Staff recommends that the Board approve a modification of the tree canopy requirements in favor of what is shown on the SE Plat.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions, 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.

APPENDICES

1. Proposed Development Conditions
2. Affidavit
3. Statement of Justification
4. 2232 Staff Report
5. Environmental Analysis
6. Stormwater Analysis
7. Transportation Analysis
8. Urban Forestry Analysis
9. Fairfax County Park Authority Analysis
10. Applicable Zoning Ordinance Provisions
11. Glossary

PROPOSED DEVELOPMENT CONDITIONS

SE 2014-PR-032

January 28, 2015

If it is the intent of the Board of Supervisors to approve SE 2014-PR-032 located at 7701 and 7707 Shreve Road, Tax Map Parcels 49-2 ((1)) 151 and 49-2 ((12)) 1A, for an electrical substation to permit the redevelopment and expansion of the existing electrical substation utility facility pursuant to Sect. 9-104 of the Fairfax County Zoning Ordinance, the staff recommends that the Board condition the approval 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 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. This Special Exception is subject to the provisions of Article 17, Site Plans. Any plan submitted pursuant to the Special Exception shall be in substantial conformance with the approved Special Exception (SE) Plat entitled "Idylwood Substation," prepared by Dewberry Engineers, Inc., dated February 2014, as revised through January 5, 2015, and these conditions. Minor modifications to the approved Special Exception may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.
4. Right-of-way along Shreve Road shall be dedicated as generally depicted on the plat, as approved by Fairfax County and the Virginia Department of Transportation (VDOT). The right-of-way shall be dedicated in fee simple to the Board of Supervisors upon request by either Fairfax County or the Virginia Department of Transportation, whichever occurs first.
5. The entrances to the substation and the telecommunications facility shall meet the commercial entrance standards of the Virginia Department of Transportation. The existing curb cut/entrance on Holly Manor lane shall be removed and the curb and gutter and sidewalk shall be restored in the right of way.
6. A 5-foot wide sidewalk shall be constructed across the Shreve Road frontage.
7. Stormwater management shall be provided as generally depicted on the plat or as approved by the Department of Public Works and Environmental Services (DPWES).
8. Landscaping shall be provided both on and off-site in order to meet the intent of the Type 2 and Type 3 Transitional Screening requirements subject to the review and approval of the Urban Forest Management Division. On-site landscaping shall be as generally depicted on the plat. The Applicant shall provide the off-site landscaping to reduce the visual impact of the substation on the adjacent residential properties. The Applicant shall provide evergreen and/or deciduous

vegetation on the lot of each residential landowner along Holly Manor Drive and Marthas Lane who are adjacent to the substation property, who will have views of the new substation equipment, and who elect to have off-site landscaping installed on their property. The Applicant shall contact the Holly Manor Homeowners' Association and/or individual property owners adjacent to the substation along Holly Manor Drive to develop a plan for supplemental landscaping to be installed by the Applicant. The Applicant shall also contact the representatives of the Dominion Heights Herrell Addition subdivision to determine if off-site landscaping should be provided on those properties as well. The Applicant shall negotiate the quantity, location, species, and type of landscaping with each individual landowner and submit the final design to the Urban Forest Management Division (UFMD) for review and comment. The landscaping shall be installed by the Applicant at the sole cost of the Applicant. The viability of such plantings shall be assured by the Applicant for a one (1) year period after installation, but regular care and maintenance shall be provided by the landowner. For satisfaction of this development condition, prior to site plan approval, the Applicant shall demonstrate that the landowners adjacent to the substation along Holly Manor Drive and Marthas Lane and in Dominion Heights Herrell were contacted via certified mail of their eligibility to receive off-site landscaping. The Applicant may begin working with the adjacent homeowners anytime thereafter. Landscaping may be installed prior to or following construction of the substation, as determined by the individual landowner. Prior to release of the project's performance bond, the Applicant shall demonstrate final compliance of this development condition with either approved landscape layouts including property owner signatures verifying installation of respective off-site landscaping, a property owner's election to not receive off-site landscaping, or evidence of the Applicant's good faith effort to obtain such approval. The Applicant shall work with UFMD and the Providence District Supervisor's office to resolve any differences that arise during this process.

9. The wall shall be constructed as generally depicted on the SE Plat and shall be precast panels and pilasters with full over-size brick façade along the north, east and west boundaries. Pre-cast concrete masonry panels and pilasters may be installed for the southern wall with matching brick color. The wall shall be built in general conformance with the SE plat and meet the Applicant's latest security requirements. Regardless of what is shown on the Plat, the gate along the front shall be 16 feet tall to match the rest of the wall height along Shreve Road.
10. The vegetation and wall proposed on-site are required to remain as generally depicted on the SE Plat. Minor modifications as allowed by the Zoning Ordinance may be permitted; however, replacement and appropriate maintenance of the vegetation and wall shall be provided as necessary to ensure the survival of the vegetation and aesthetic quality of the wall. Should the vegetation not survive, the applicant shall replace such vegetation and maintain it thereafter.
11. If a gate is necessary in the chain link fence along the southern boundary adjacent to the Dominion Power easement, a gap in the vegetation may be permitted up to 14 feet wide upon review by the Urban Forestry Management Division.

12. As a condition of the 10-year tree canopy modification, a contribution of \$26,730 shall be made to the Tree Preservation and Planting Fund at the time of site plan approval.
13. Tree Preservation: "The applicant shall submit a Tree Preservation Plan and Narrative 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.
14. The tree preservation plan shall include a tree inventory that identifies the location, species, critical root zone, size, crown spread and condition analysis percentage rating for all individual trees to be preserved, as well as all on and off-site trees, living or dead with trunks 12 inches in diameter and greater (measured at 4 ½ - feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) located within 25 feet of the limits of clearing and grading within the undisturbed area. 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 SE and those additional areas in which trees can be preserved as a result of final engineering. The tree preservation plan and narrative shall include all items specified in PFM 12-0507 and 12-0509. 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."
15. 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."
16. Limits of Clearing and Grading. "The Applicant shall conform strictly to the limits of clearing and grading as shown on the SE, subject to allowances specified in these proffered 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 SE, 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."

17. 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.
18. 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 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."
19. 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 subdivision plan submission. 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:
 - a. Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.
 - b. Root pruning shall take place prior to any clearing and grading, or demolition of structures.
 - c. Root pruning shall be conducted with the supervision of a certified arborist.
 - d. An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete."
20. The wall may be built in stages. All reasonable efforts shall be made to complete as much of the wall as possible at the earliest stage possible. The gate at the entrance on Shreve Road shall be 16 feet in height.

21. Construction and demolition debris waste shall be recycled to the maximum extent practicable during the various stages of the existing substation demolition.
22. This use shall be subject to the Noise Ordinance of Fairfax County.
23. All applicable permits from the US Army Corps of Engineers, Virginia Department of Environmental Quality, and Virginia Department of Conservation and Recreation shall be obtained prior to obtaining site plan approval.
24. Construction hours shall meet Fairfax County Code requirements and be limited to Monday through Friday 7:00 am and 9:00 pm and Saturdays 8:00 am to 9:00 pm. No construction work shall be performed on Sundays or major federal holidays. Signage shall be posted on-site notifying construction personnel of residential properties in close proximity to the substation and to limit truck idling. Construction vehicles shall not idle or park along Holly Manor Drive. The Applicant shall provide the Providence District Supervisor's office with a point of contact for construction related issues. The Applicant shall provide a response to construction related issues/questions/complaints within 24 hours of receiving notice. The construction hours noted above shall not prohibit the Applicant from performing emergency construction or maintenance on the substation or adjacent power lines as necessary.
25. All signs onsite shall be subject to Article 12.
26. Storage of materials, equipment or trucks not needed for operation of the substation or adjacent power lines is not permitted onsite once construction activities have been completed.

The above proposed conditions are staff recommendations and do not reflect the position of the Board of Supervisors unless and until adopted by that Board.

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.

Pursuant to Section 9-015 of the Zoning Ordinance, this Special Exception shall automatically expire, without notice, thirty (30) months after the date of approval unless the use has been established or construction 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 explain why additional time is required, specify the amount of additional time requested, and explain the basis for the amount of time requested.



County of Fairfax, Virginia

MEMORANDUM

Office of the County Attorney
Suite 549, 12000 Government Center Parkway
Fairfax, Virginia 22035-0064
Phone: (703) 324-2421; Fax: (703) 324-2665
www.fairfaxcounty.gov

DATE: October 10, 2014

TO: Suzanne Wright, Staff Coordinator
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Jo Ellen Groves, Paralegal *JEG*
Office of the County Attorney

SUBJECT: Affidavit
Application No.: SE 2014-PR-032
Applicant: Virginia Electric & Power Company
d/b/a Dominion Virginia Power
PC Hearing Date: 2/5/15
BOS Hearing Date: Not yet scheduled

REF.: 125917

Attached is an affidavit which has been approved by the Office of the County Attorney for the referenced case. Please include this affidavit dated 10/6/14, which bears my initials and is numbered 125917, when you prepare the staff report.

Thank you for your cooperation.

Attachment

cc: (w/attach) Domenic Scavuzzo, Planning Technician I (Sent via e-mail)
Zoning Evaluation Division
Department of Planning and Zoning

SPECIAL EXCEPTION AFFIDAVIT

DATE: 10/6/2014
 (enter date affidavit is notarized)

I, Dominick F. Piccolomini, 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 125917

in Application No.(s): SE 2014-PR-032
 (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 BOLD above)
Virginia Electric and Power Company d/b/a Dominion Virginia Power	120 Tredegar Street Richmond, VA 23219	Applicant/Title Owner of TM Parcels 0492-01-0151 and 0492-12-0001A
Agents:		
Courtney R. Fisher	701 East Cary St., 12th Floor Richmond, VA 23219	Agent
David E. Crowl	2400 Grayland Avenue Richmond, VA 23220	Agent
Tiffany Taylor-Minor	701 East Cary St., 12th Floor Richmond, VA 23219	Agent
Wilson O. Velazquez	2400 Grayland Avenue Richmond, VA 23220	Agent
Mark R. Gill	701 East Cary St., 12th Floor Richmond, VA 23219	Agent
Travis K. Cutler	3072 Centreville Road Herndon, VA 20171	Agent
Carolyn J. Moss	3072 Centreville Road Herndon, VA 20171	Agent
Dominick F. Piccolomini	701 East Cary Street Richmond, VA 23219	Agent
Angelita D. Gardner-Kittrell	701 East Cary Street Richmond, VA 23219	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: 10/6/2014
(enter date affidavit is notarized)

for Application No. (s): SE 2014-PR-032
(enter County-assigned application number (s))

125917

(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 BOLD above)
Dewberry Engineers Inc. Agents: Kenneth W. Wagner Benjamin K. Jackson Thomas (nmi) Tran	4805 Lake Brook Drive, Suite 200 Glen Allen, VA 23060	Engineer/Agent Engineer/Agent Engineer/Agent Engineer/Agent
McGuireWoods LLP Agents: Sheri L. Akin Gregory A. Riegler	1750 Tysons Boulevard, Suite 1800 Tysons Corner, VA 22102	Attorneys/Agent Planner/Agent Attorney/Agent

(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: 10/6/2014
(enter date affidavit is notarized)

for Application No. (s): SE 2014-PR-032
(enter County-assigned application number(s))

125917

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
120 Tredegar Street
Richmond, VA 23219

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.
[X] 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) [X] 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: 10/6/2014
(enter date affidavit is notarized)

for Application No. (s): SE 2014-PR-032
(enter County-assigned application number (s))

125917

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

Dewberry Engineers Inc.
4805 Lake Brook Drive, Suite 200
Glen Allen, VA 23060

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 Inc.

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

The Dewberry Companies Inc.
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)

Barry K. Dewberry	The Michael S. Dewberry Credit Shelter
Karen S. Grand Pre	Trust u/a/d 11/23/05 (f/b/o Michael S.
Thomas L. Dewberry	Dewberry II, Katie A. Dewberry, John M.
	Dewberry, and 1 other minor child of
	Michael S. Dewberry)

(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: 10/6/2014
(enter date affidavit is notarized)

for Application No. (s): SE 2014-PR-032
(enter County-assigned application number(s))

125917

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
Tysons Corner, VA 22102

(check if applicable) [X] 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

- Adams, John D.
Alphonso, Gordon R.
Anderson, Arthur E., II
Anderson, Mark E.
Andre-Dumont, Hubert
Bagley, Terrence M.
Barger, Brian D.
Becker, Scott L.
Becket, Thomas L.
Belcher, Dennis I.
Bell, Craig D.
Blik, R. E.
Blank, Jonathan T.
Boardman, J. K.
Boland, J. W.
Brenner, Irving M.
Brooks, Edwin E.
Brose, R. C.
Burk, Eric L.
Busch, Stephen D.
Cabaniss, Thomas E.
Cacheris, Kimberly Q.
Cairns, Scott S.
Capwell, Jeffrey R.
Cason, Alan C.
Chaffin, Rebecca S.
Chapman, Jeffrey J.
Cockrell, Geoffrey C.
Collins, Darren W.
Covington, Peter J.
Cramer, Robert W.
Cromwell, Richard J.
Culbertson, Craig R.
Cullen, Richard (nmi)
Daglio, Michael R.
De Ridder, Patrick A.

(check if applicable) [X] 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: 10/6/2014
(enter date affidavit is notarized)

125917

for Application No. (s): SE 2014-PR-032
(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
Tysons Corner, 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**)

- | | | |
|-------------------------|---------------------------|----------------------------|
| Dickerman, Dorothea W. | Harmon, Jonathan P. | Konia, Charles A. |
| DiMattia, Michael J. | Harmon, T. C. | Kratz, Timothy H. |
| Dooley, Kathleen H. | Hartsell, David L. | Kromkowski, Mark A. |
| Downing, Scott P. | Hatcher, J. K. | Krueger, Kurt J. |
| Edwards, Elizabeth F. | Hayden, Patrick L. | Kutrow, Bradley R. |
| Ensing, Donald A. | Hayes, Dion W. | La Fratta, Mark J. |
| Ey, Douglas W., Jr. | Heberton, George H. | Lamb, Douglas E. |
| Farrell, Thomas M. | Hedrick, James T., Jr. | Lias-Booker, Ava E. |
| Feller, Howard (nmi) | Hilton, Robert C. | Little, Nancy R. |
| Finger, Jon W. | Horne, Patrick T. | Long, William M. |
| Finkelson, David E. | Hornyak, David J. | Manning, Amy B. |
| Foley, Douglas M. | Hosmer, Patricia F. | Marianes, William B. |
| Fox, Charles D., IV | Hutson, Benne C. | Marshall, Gary S. |
| Franklin, Ronald G. | Isaf, Fred T. | Marshall, Harrison L., Jr. |
| Fratkin, Bryan A. | Jackson, J. B. | Marsico, Leonard J. |
| Freedlander, Mark E. | Jewett, Bryce D., III | Martin, Cecil E., III |
| Freeman, Jeremy D. | Jordan, Hilary P. | Martin, George K. |
| Fuhr, Joy C. | Justus, J. B. | Martinez, Peter W. |
| Gambill, Michael A. | Kahn, Brian A. | Mason, Richard J. |
| Glassman, Margaret M. | Kanazawa, Sidney K. | Mathews, Eugene E., III |
| Glickson, Scott L. | Kane, Matthew C. | Mayberry, William C. |
| Gold, Stephen (nmi) | Kang, Franklin D. | McDonald, John G. |
| Goldstein, Philip (nmi) | Kannensohn, Kimberly J. | McFarland, Robert W. |
| Grant, Richard S. | Katsantonis, Joanne (nmi) | McGinnis, Kevin A. |
| Greenberg, Richard T. | Keeler, Steven J. | McIntyre, Charles W. |
| Greene, Christopher K. | Kilpatrick, Gregory R. | McKinnon, Michele A. |
| Greenspan, David L. | King, Donald E. | McLean, David P. |
| Gresham, A. B. | Kittrell, Steven D. | McLean, J. D. |
| Grieb, John T. | Kobayashi, Naho (nmi) | McRill, Emery B. |

(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: 10/6/2014
(enter date affidavit is notarized)

125917

for Application No. (s): SE 2014-PR-032
(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
Tysons Corner, 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)

- | | | |
|----------------------------|----------------------------|-------------------------|
| Michalik, Christopher M. | Riley, James B., Jr. | Stein, Marta A. |
| Milianti, Peter A. | Riopelle, Brian C. | Stone, Jacquelyn E. |
| Miller, Amy E. | Roberts, Manley W. | Swan, David I. |
| Moldovan, Victor L. | Robinson, Stephen W. | Symons, Noel H. |
| Muckenfuss, Robert A. | Roeschenthaler, Michael J. | Tackley, Michael O. |
| Mullins, P. T. | Rogers, Marvin L. | Tarry, Samuel L., Jr. |
| Murphy, Sean F. | Rohman, Thomas P. | Thanner, Christopher J. |
| Nahal, Hardeep S. | Ronn, David L. | Thornhill, James A. |
| Natarajan, Rajsekhar (nmi) | Rosen, Gregg M. | Van Horn, James E. |
| Neale, James F. | Rust, Dana L. | Vaughn, Scott P. |
| Nesbit, Christopher S. | Satterwhite, Rodney A. | Vick, Howard C., Jr. |
| Newhouse, Phillip J. | Scheurer, P. C. | Viola, Richard W. |
| O'Grady, John B. | Schewel, Michael J. | Wade, H. L., Jr. |
| Oakey, David N. | Schmidt, Gordon W. | Walker, John T., IV |
| Older, Stephen E. | Sellers, Jane W. | Walker, Thomas R. |
| Oostdyk, Scott C. | Sethi, Akash D. | Walker, W. K., Jr. |
| Padgett, John D. | Shelley, Patrick M. | Westwood, Scott E. |
| Parker, Brian K. | Simmons, L. D., II | Whelpley, David B., Jr. |
| Perzek, Philip J. | Simmons, Robert W. | White, H. R., III |
| Phillips, Michael R. | Slaughter, D. F. | White, Walter H., Jr. |
| Pryor, Robert H. | Slone, Daniel K. | Wilburn, John D. |
| Pusateri, David P. | Spahn, Thomas E. | Williams, Steven R. |
| Rak, Jonathan P. | Spitz, Joel H. | Woodward, Michael B. |
| Reid, Joseph K., III | Spivey, Angela M. | Wren, Elizabeth G. |
| Richardson, David L. | Stallings, Thomas J. | |
| Riegle, Gregory A. | Steen, Bruce M. | |

(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: 10/6/2014
(enter date affidavit is notarized)

125917

for Application No. (s): SE 2014-PR-032
(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.

Application No.(s): SE 2014-PR-032
(county-assigned application number(s), to be entered by County Staff)

SPECIAL EXCEPTION AFFIDAVIT

DATE: 10/6/2014
(enter date affidavit is notarized)

125917

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.)

Planning Commissioner Tim J. Sargeant is employed by Virginia Electric and Power Company, d/b/a Dominion Virginia Power, which is the applicant and title owner of the subject property, for this Special Exception Application.

Donald E. King of McGuireWoods LLP donated in excess of \$100 to Supervisor John Foust.

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:

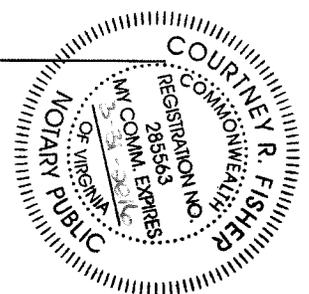
(check one) Donald F. Piccolomini
 Applicant Applicant's Authorized Agent

Dominick F. Piccolomini
(type or print first name, middle initial, last name, and & title of signee)

Subscribed and sworn to before me this 6th day of October 2014, in the State/Comm. of Virginia, County/City of Richmond.

CRF/SL
Notary Public

My commission expires: 3-31-2016



Idylwood Substation Statement of Justification

December 10, 2014

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", "Dominion", or the "Company") hereby requests Special Exception and 15.2-2232 approval to permit the redevelopment of an electric substation known as Idylwood Substation. Idylwood Substation (the "Property") is identified as Tax Map Numbers 49-2-((1))-151 and 49-2-((12))-001A, and is addressed as 7701 and 7707 Shreve Road, respectively. The Property is located in the Providence District and is zoned R-3 (Residential 3 DU/AC).

II. BACKGROUND

The Property has been the site of an existing substation since 1947. It was originally approved for a substation use by the Board of Zoning Approvals on November 26, 1946. On November 13, 1962, it received subsequent Special Permit approval to add area to the substation.

Today, the site totals approximately 7.2 acres and is an integral station at the center of Dominion's northern region electrical grid. Idylwood is located at the intersection of two major transmission corridors and is both an electrical transmission hub and major distribution substation. As an electrical transmission hub, it is the terminus for seven 230kV transmission lines and is a key component to supplying the energy required to keep up with growth in the Northern Virginia region. As a major distribution substation, Idylwood presently has fourteen distribution circuits that directly supply power to the local Fairfax County residents and businesses in communities that include Falls Church, Merrifield, southern Tysons Corner, as well as the cities of Falls Church and Fairfax. These areas, in particular, have seen a tremendous growth in residential usage, commercial and office demand, new construction within the past 10 years, and will continue to grow. In addition, a circuit from Idylwood is dedicated to help power the Metro Rail.

The planned work at Idylwood is vital. This station is over sixty years old, and has undergone several expansions and piecemeal improvements since its original design. Presently, the old equipment is spread throughout the 7.2 acres. The rebuild will upgrade and provide state-of-the-art equipment, thus ensuring Dominion will be able to continue to provide reliable electrical service to the surrounding communities and businesses. Additionally, the remodel will provide

the room necessary within the substation property to allow for future growth when needed. The immediate need for the remodel is described further below.

III. PROJECT NEED:

The Federal Energy Regulatory Commission ("FERC") has designated the North American Electric Reliability Corporation ("NERC") as the Electric Reliability Organization for the United States. NERC Reliability Standards establish minimum criteria with which all public utilities must comply as components of the interstate electric transmission system. NERC's jurisdiction serves more than 334 million people across the continental United States, Canada, and the northern portion of Baja California, Mexico. The Energy Policy Act of 2005 mandates that electric utilities, such as Dominion Power, must follow NERC Reliability Standards or face fines up to 1 million dollars per day, per violation if found to be in non-compliance.

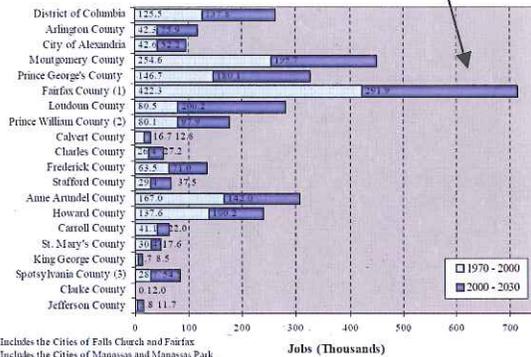
Dominion is required to evaluate its electric transmission system on a routine basis in order to ensure compliance with NERC Reliability standards. These routine checks keep the transmission grids running - even during contingency situations such as storm events or equipment failure - in a reliable manner. In its evaluation of the Northern Virginia regional system, Dominion has identified critical defects at the Idylwood Substation that create a serious overload of the 230kV equipment during contingency events beginning in 2015. Factors that contribute to the identified defects are a combination of load growth and outdated equipment. The identified overload of the Idylwood equipment for these contingency events is a violation of the mandatory NERC Reliability Standards and has resulted in the project to rebuild Idylwood Substation.

In its assessment of the current Idylwood equipment, Dominion has determined that the need for the project is three-fold. First, the equipment contributing to the 2015 contingency defects must be corrected and replaced in 2015. Second, the immediate need for this work has resulted in the recognition that a complete rebuild of the substation is necessary. As stated above, the existing equipment is outdated and could be characterized as a weak link in the Northern Virginia grid. If not done, continuous repairs will be necessary, much like an older car that is constantly in the shop. Third, the older equipment is sprawled throughout the substation parcel which is not ideal to handle future growth. Dominion will install newer, state-of-the-art equipment that is quieter, more reliable, and designed in a more efficient and effective layout, thus making room for future equipment should area growth dictate the need.

The need for the Idylwood rebuild is different than recent applications for new substations in the area. Idylwood has been an important and vital substation for Fairfax County and the region since 1947 and must continue to be. The property is adequate to meet the needs for this area of Fairfax County and the region, but the equipment is old, unreliable, and located on the property in a wasteful and inefficient layout, all of which has resulted in the NERC violation that must be fixed by 2015. If left unchanged, Idylwood would struggle to meet future growth forecasts, which are expected to be significant over the next 10 to 20 years.

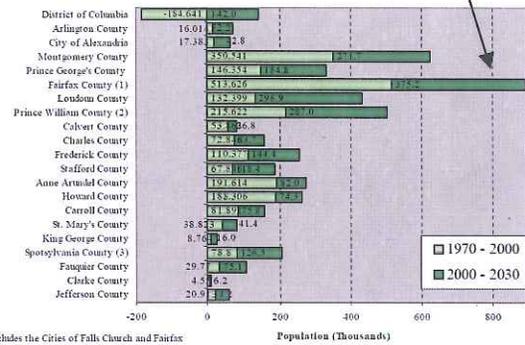
In fact, the 2007 Metropolitan Washington Council of Governments Report on *Growth Trends to 2030* anticipates that Fairfax County will be the lead jurisdiction in Virginia, Maryland, and the District of Columbia showing the most growth in jobs and population by the year 2030.

2030 Fairfax County Jobs



(1) Includes the Cities of Falls Church and Fairfax
 (2) Includes the Cities of Manassas and Manassas Park
 (3) Includes the City of Fredericksburg

2030 Fairfax County Population



(1) Includes the Cities of Falls Church and Fairfax
 (2) Includes the Cities of Manassas and Manassas Park
 (3) Includes the City of Fredericksburg

IV. DESCRIPTION OF PROPOSAL

The Idylwood rebuild is proposed in separate phases. The first phase will be immediate and involve construction of the new substation equipment toward the front of the property, closer to Shreve Road. Specific work includes converting the existing straight bus arrangement to a breaker-and-a-half arrangement with four strings of 230kV GIS breakers to accommodate a total of eight line terminals. Gas-insulated substation ("GIS") equipment will be used instead of typical air-insulated substation equipment. GIS is the best available technology that can be used in a smaller footprint. It is exponentially more expensive than conventional substation equipment; however, the end result will be a new and improved substation that is quieter, more efficient, and which will operate within smaller footprint.

This first phase will cure the NERC violation, upgrade the equipment, and allow for additional substation capacity. The work in the first phase must take place while keeping the existing equipment functional in order to keep "lights on" to all of Dominion's existing customers. Only minimal pieces of the existing infrastructure will be out of service at any one time in order to meet the power needs of Idylwood customers. The planned work can be analogous to performing a whole home renovation while still living in the house; the house has to remain livable with all appliances remaining plugged-in and functional.

Once the new equipment is installed, the second phase will involve de-energizing and removing the old equipment currently spread throughout the property. Once equipment removal is complete, Dominion will then install the wall and new landscape buffers, which will provide improved screening and buffering to the site. The result will be a consolidated, state-of-the-art substation that is quieter, more efficient, located within a smaller footprint, and which will now have improved screening and landscaping.

Anticipated Impacts and Mitigation

Visual: In that this is an existing substation to be redeveloped, once the redevelopment is complete, the substation will once again blend in with the surrounding community. However, Dominion is proposing improved mitigation efforts than what currently exists today.

The Applicant, in consultation with the surrounding community, is proposing a higher, decorative wall to be constructed around the entire substation property in order to mitigate impacts onto adjacent properties and enhance security. The wall, proposed to be 20 feet along the southern, eastern, and western boundaries and 16 feet along the Shreve Road property frontage, will be constructed once the new equipment is installed and the old equipment is removed. In addition to being a visual barrier, the wall will also shield maintenance activity and sound from the neighbors. The existing chain-link fence will remain in place at the rear portion of the property; however, the Applicant is proposing to install a 50 foot wide landscape buffer along the vacant rear yard. In the future, any additional equipment proposed for the lower rear yard would require a new special exception, and visual mitigation efforts may be evaluated at that time.

No new equipment within the remodeled substation will be greater in height than that of any transmission line structure located in the existing, adjacent transmission line right-of-way. These transmission line structures include heights of up to 130 feet; whereas, the tallest proposed heights for the new station equipment range from 75 feet to 95 feet. As such, the new remodel will blend in with existing transmission structures.

The lower profile electrical equipment within the substation ranges from 18-32 feet in height, which will be effectively screened by the perimeter wall. In addition, there are existing mature trees that help shield views of the substation, and Dominion is proposing additional landscaping around the perimeter wall, as well as offering off-site supplemental landscaping on properties of visually impacted neighbors. Line of sight drawings and visual simulations submitted with this application help demonstrate the effectiveness of these mitigation efforts.

Noise and light: Dominion will comply with Fairfax County noise ordinances with the operation of the substation and minimal outdoor lighting is proposed. This lighting will be downward directed to preserve dark sky objectives.

Air and water quality: Air quality standards will not be impacted with this redevelopment project. Further, the redevelopment of Idylwood substation will require all stormwater from the site to comply with the latest Department of Environmental Quality Regulations, as well as the local Fairfax County Stormwater Management Ordinance, both of which incorporate stringent water quality standards for phosphorus loads discharged from the site.

Environmental: A waters of the U.S. investigation of the project site was conducted in November 2013. The wetland and stream boundaries have been confirmed by the U.S. Army Corps of Engineers (USACE) in a Jurisdictional Determination (JD) letter dated March 5, 2014 (# NAO-2014-00396). A USACE permit will be obtained for the proposed impacts to wetlands and streams prior to the start of construction. Mitigation for wetland and stream impacts will be provided if required by the USACE.

According to the Department of Conservation and Recreation (DCR) and the United States Fish and Wildlife Service (USFWS), no known populations of threatened or endangered species are located on or within the vicinity of the subject property. Heritage resources are not anticipated to be impacted. There are no known archeological resources within the redevelopment area. Long View (2606 Ogden Street) is the nearest architectural resource. Prior to any ground disturbance, the State Historic Preservation Office will be consulted in coordination with the USACE.

As a result of the proposed remodel of Idylwood Substation, the existing culvert crossing of Shreve Road and a portion of the existing channel running parallel to the site will be realigned and converted to piped storm sewer. Existing and proposed 100-year floodplains for the Unnamed Tributary to Holmes Run were analyzed. The extents of the rise will be contained within the Dominion property and will have no adverse impacts to adjacent property owners. All vital equipment and structures will be located outside the limits of the proposed 100-year floodplain.

Transportation: There will be no increase in, or impacts to, vehicular traffic for the site. The site is expected to be visited by Dominion employees one to two times per month.

V. SECTION 9-104 OF THE FAIRFAX COUNTY ZONING ORDINANCE

Section 9-104(3) states that if the proposed location of a Category 1 (light public utility) 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: This provision applies to new Category 1 uses rather than redevelopment scenarios which is proposed with this application. Regardless, Dominion reviewed available commercial or industrial properties within one (1) mile of the proposed site. Attached to this Statement of Justification as Exhibit 2.A is a list of 107 parcels located within one (1) mile of the proposed site that are zoned either commercial or industrial. Exhibit 2.A demonstrates whether the parcel is already developed or vacant, and notes if the acreage is appropriate for development of a new substation site. In this particular case, a conservative minimum 2 acres was decided to be the smallest parcel necessary for Dominion's needs. Of the 107 parcels, all but 15 parcels were already developed. Of the 15 vacant parcels, 7 are below the 2 acre threshold. Of the remaining 8 parcels, all are below the 2 acre threshold as well; however, due to adjacency, they could be grouped into two separate clusters totaling greater than 2 acres. However, both of these combined locations are across I-495 from the existing transmission line corridor and would thus require a transmission line extension. A transmission line extension would require State Corporation Commission (SCC) application and approval. The associated timeline of approval of an SCC application prohibits these as solutions not withstanding all the new impacts that are created. Exhibit 2.B is the map showing commercial or industrially zoned parcels.

Based upon the foregoing, the existing Idylwood substation is the best and most appropriate location. It has existed and operated here since 1947 and will continue to meet the needs of the County and the region.

VI. 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, 7 days/week
- 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 distribution component of the substation currently serve a specific service area from Merrifield, Falls Church, Tysons Corner, to the cities of Falls Church and Fairfax. The transmission component of the existing substation serves the entire Northern Virginia region. The proposed remodel and additional equipment will continue to serve these areas.

- G. Architectural compatibility: A substation has been in operation at this since 1947. There are no buildings associated with the substation, except unmanned control enclosures. The proposed enclosures and substation equipment will be surrounded by landscaping and a screening wall.
- 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.

VII. DESCRIPTION IN CONTEXT OF SECTION 9-006 OF THE ZONING ORDINANCE

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

RESPONSE: The location of the existing substation and proposed remodel is in harmony with the adopted Comprehensive Plan. The Plan map shows the property as public facilities, governmental, and institutional and further identifies the property as a Public Service and Utility Facility. The substation is consistent with and is an integral part of the community by providing electric service to both the surrounding area, as well as being a larger area service provider. Redevelopment at Idylwood substation is supportive of the County's policies goals in the Comprehensive Plan including strategic focus on environmental protection, energy conservation, growth and public facilities, adequate public services, and economic development and opportunities.

Objective 8 of the Land Use Policy Plan encourages a land use pattern that protects, enhances, and/or maintains stability in established residential neighborhoods. The Idylwood redevelopment project is consistent with this objective by virtue that it is a redevelopment project, rather than an entirely new site development elsewhere in the community. In Appendix 9 of the Land Use Policy, Residential Development Criteria, the Plan is clear that local concerns should be addressed. Dominion has been proactive in working with adjacent property owners prior to and during submittal of this application package, and this commitment to outreach and communication with the community will remain steadfast.

Economic Policy Plan, Objective 4, states that Fairfax County shall establish itself as a leader in Information Technology and Telecommunications (IT&T). Redevelopment of the Idylwood substation supports this objective whole-heartedly, as adequate electric infrastructure is paramount to the IT&T industry.

The proposed use also meets the objectives for Public Facilities outlined in the Comprehensive Plan. Specifically, Objective 3 indicates that the provision of public facilities should be balanced with growth and development. Further, mitigation of impact is stated within Objective 4. Due to the area's past and future growth, it is necessary to upgrade and expand the existing substation to balance the needs of the County and region. Dominion is minimizing the impacts by utilizing best available equipment technology and is providing effective screening and buffering.

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. The existing electric substation facility is a permitted use within the R-3 District with special exception approval. Prior special permits were approved for this site as an electric substation, and the requested remodel and improvements are logical requests based upon area growth and meeting County infrastructure needs.

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 existing substation has been located at the existing Property since 1947. The substation is currently surrounded by residential development and connected to the electrical grid system through overhead transmission lines that enter and exit the substation in a northerly/southerly direction.

This is an existing substation to be redeveloped, and once the redevelopment is complete, it will once again, blend in with neighboring properties. Further, with additional mitigation efforts that do not currently exist at the site, the changes will not hinder or discourage the appropriate development and use of adjacent land and/or buildings or impair the value thereof. The largest changes to the substation are the associated backbones of the transmission line facilities and the proposed new wall. The backbones have been reduced in height from their original design in response to concerns of adjacent property owners. Further, the proposed wall, although new, replaces an ineffective 7-foot tall chain link fence. In addition, new landscaping is proposed, both on and off-site, which will greatly improve buffering and screening than what currently exists. Dominion is working with neighbor representatives on the exact architectural aesthetic of the wall, and will work with individual property owners regarding off-site landscaping.

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 substation is expected to be visited by Dominion employees one to two times per month for maintenance purposes.

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 modified landscaping, buffering and screening in accordance with the Zoning Ordinance.

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: The property is currently built out with 44% open space. Once redeveloped, the open space will be 39.7%, both well over the minimums noted in the R-3 District.

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.

RESPONSE: The substation will be unmanned, but there will be an area in the substation available for the occasional Dominion vehicle or vehicles visiting the site. Adequate outfall and stormwater management in accordance with the July 1, 2014, implementation of DEQ's stormwater regulations, as administered by Fairfax County, will be provided and is referenced in the Special Exception plan.

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: No new signage is proposed. Dominion's existing signage includes no access and high electric power warnings. In addition, a sign with Dominion Power contact information is posted. All existing signage is in compliance with the provisions of Article 12 of the Zoning Ordinance.

VIII. Fairfax County 2232 Process, as per Section 15.2-2232 of the Code of Virginia:

The redevelopment and continued operation of Idylwood substation is appropriate in terms of location, character, and extent.

Location - The property is currently used as an existing substation, which was constructed in 1947. The substation predates the nearest adjacent residential development, the Holly Crest Subdivision, which was developed in the early 1990's through a rezoning approved in 1991. Prior to 1991, individual residential properties abutted the substation. To the west of Idylwood is the Wren Dale Acres Subdivision. Wren Dale was developed in a similar time frame as Idylwood.

No other locations were considered to rectify the identified NERC violation at Idylwood because the solution is mandatory. The resulting remodel and additional equipment for this location is a logical need and request by Dominion due to past and forecasted growth in the region. Redevelopment at existing Idylwood location is therefore appropriate as the County continues to grow.

Character - The Idylwood substation is an existing public utility, and the proposed remodel and expansion will not change the existing character. The station is currently connected and will remain connected to the existing high voltage electric transmission lines that run through the site. The earliest of these transmission lines dates back to the original construction of the substation. As such, the character of this site has been a public utility for the past 60 years and will continue to do so.

Extent - The remodel of the substation is the minimal necessary to serve the area at this time. Dominion is remodeling the substation with superior GIS distribution and transmission technology to reduce the size of the footprint than what already exists. Distribution facilities will be placed toward the property frontage, closer to the existing roadway. In addition, Dominion is utilizing alternate line configurations to minimize heights of the backbone structures. Coupled with the wall and additional landscaping, the extent of the proposal is the minimum necessary to meet electrical demand and afford the best opportunity for reducing impacts on the community.

IX. REQUESTED MODIFICATIONS AND WAIVERS:

This application conforms to the provisions of all applicable ordinances, regulations and adopted standards, with the exception of the following:

- 1. Modification of the transitional screening requirement along the northern, southern, eastern and western boundaries in favor of that shown on the Special Exception Plan.**

Pursuant to Section 13-305, the Applicant requests a modification of the transitional screening requirements along the northern, southern, eastern, and western portions of the special exception area for the following reasons: 1) portions of the vegetation within the transitional screening areas must be restricted in height due to its location beneath Dominion's transmission lines; 2) a small portion of the eastern screening yard

cannot meet the 50' requirement due to the driveway location, and portions of the western boundary do not meet the full 50' due to the existing floodplain, transmission line structures, and required clear zones; and 3) a 10' strip along the proposed wall and fencing is required to provide adequate space for security assessment and emergency response.

Sections 13-305(3) and (14) states that 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 impacts through a combination of architectural and landscaping techniques. Further, pursuant to Section 13-305(4), the transitional screening yard width and planting requirements may be reduced as much as 2/3 where the developer chooses to construct a seven (7) foot brick or architectural block wall instead of the lesser barrier indicated in the matrix.

The Applicant is providing a combination of elements to minimize adverse impacts. First, it shifted the substation equipment to the west in order to increase the eastern buffer to 50 feet. Second, an architectural, brick screening wall, with a request to increase the wall height up to 20' is proposed. Third, the Applicant intends to greatly increase the amount of landscaping than what currently exists today on the property, as well as offer off-site landscaping to interested adjacent landowners who are visually affected. As such, a combination of architectural and landscaping techniques will be provided that will shield views of the substation and meet the purpose and intent of the screening requirements.

2. Increase in Wall Height

Pursuant to Section 10-104(3)(H), the Applicant is also requesting approval for an increase in wall height up to 20 feet. The increase in wall height will help block views of the proposed equipment, will provide sound mitigation, and infrastructure security. As such, the request will be in character with the existing site development, harmonious with the surrounding development, and will not adversely impact the use and/or enjoyment of any nearby property.

3. Deviation of the tree preservation target pursuant to PFM 12-0508.3A(1)

Meeting the Tree Preservation Target would preclude the development of uses on the property. As such, a deviation request is being submitted due to the overhead transmission lines that run through the site and the NERC Tree Management Standards which regulate vegetation underneath said power lines. See Vegetation Map Sheet for details.

X. Existing AT&T Telecommunications Infrastructure

Dominion will continue to make provisions for the existing AT&T telecommunications infrastructure presently co-located at the Idylwood Substation and previously approved by Fairfax County. Dominion's proposed rebuild plan will impact the existing AT&T facilities, causing them to be relocated elsewhere on site. This telecommunications facility is a vital component of AT&T's area-wide wireless telecommunications network, and must be continued at the site in order for AT&T to keep providing coverage in the area. The visual impacts from the relocated AT&T facility will be negligible, since the relocation from the existing location is minimal. The proposed relocated antenna platform on the utility pole would be located to minimize visual impact on homes and the view from public thoroughfares. Plus, it will blend in with the public facility nature of the site. As before, there will be no interference with electronic equipment for telephone, television, radio, or other electronic uses with the relocation. As such, the location, character and extent of the relocated AT&T equipment is in substantial accord with the Comprehensive Plan and previous approvals.

V. CONCLUSION:

The above-described application proposes necessary redevelopment changes to an existing electrical substation facility and telecommunications facility in order to continue to support both local and regional electrical and cellular service, and meets the County 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 used conforms to the Zoning Ordinance and the recommendations of the Comprehensive Plan. Therefore, for the reasons set forth herein, Dominion respectfully requests the approval of these applications.

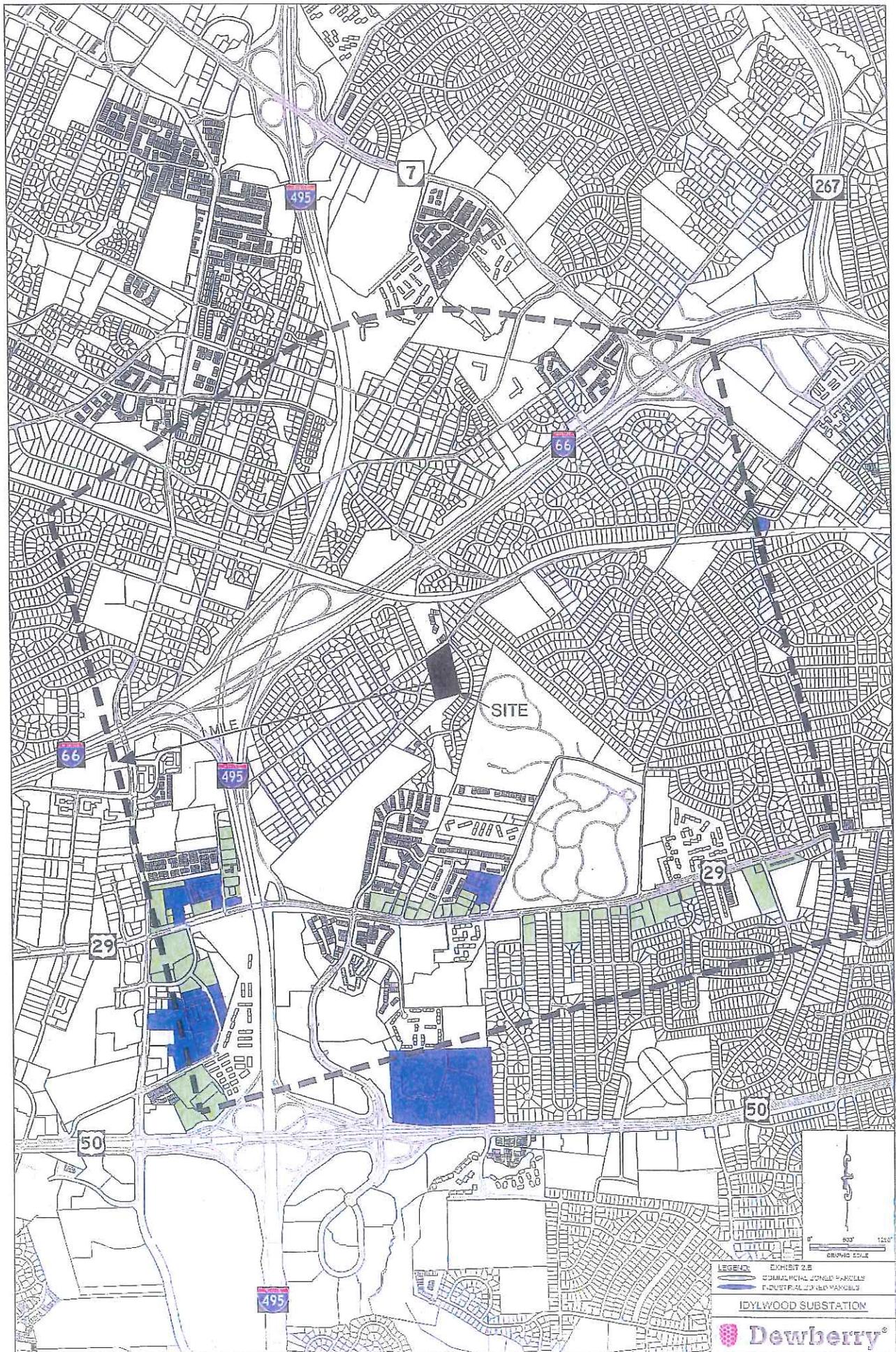
Respectfully,



Courtney R. Fisher
Sr. Siting and Permitting Specialist

Idylwood Substation - "C-" or "I-" Zoned Parcels within 1 Mile of Substation

Tax Map #	Zoning	Listed as Vacant in County Records?	Size (Ac.)	Reason Site Not Feasible	If Vacant, Able to Be Aggregated with Adjacent Parcels to Be > 2ac?
0492 01 0071B	C-3	No (low rise office)	0.93	Site is developed already; < 2 acres	-
0492 01 0071A	C-3	No (low rise office)	0.99	Site is developed already; < 2 acres	-
0492 01 0072	C-3	No (low rise office)	0.94	Site is developed already; < 2 acres	-
0492 01 0073	C-3	No (single family residence)	0.49	Site is developed already; < 2 acres	-
0492 01 0066	C-3	No (low rise office)	0.01	Site is developed already; < 2 acres	-
0492 28 (1-10)	C-2	No (condominiums)	N/A	Site is developed already; < 2 acres	-
0492 01 0077A	C-3	No (low rise office)	0.88	Site is developed already; < 2 acres	-
0492 39 (101-406)	C-3	No (condominiums)	N/A	Site is developed already; < 2 acres	-
0492 01 0080A	I-3	No (low rise office)	0.74	Site is developed already; < 2 acres	-
0492 01 0031A	I-5	No (gas station)	0.74	Site is developed already; < 2 acres	-
0492 01 0031	C-8	No (regional center)	1.4	Site is developed already; < 2 acres	-
0492 26 (1-21)	I-5	No (warehousing/storage)	N/A	Site is developed already; < 2 acres	-
0492 01 0028	I-5	No (retail)	3.91	Site is developed already	-
0492 01 0028A	C-8	No (retail)	0.23	Site is developed already; < 2 acres	-
0492 01 0027	C-8	No (retail)	0.28	Site is developed already; < 2 acres	-
0492 01 0028C	C-8	No (retail)	2.87	Site is developed already	-
0494 01 0053	C-6	No (community center)	7.47	Site is developed already	-
0494 01 0049E	C-3	No (restaurant)	1.49	Site is developed already; < 2 acres	-
0494 01 0049F	C-3	No (hotel/restaurant)	2	Site is developed already; < 2 acres	-
0494 01 0044E1	C-3	No (low rise office)	2.71	Site is developed already	-
0494 01 0049G	C-3	No (low rise office)	1.28	Site is developed already; < 2 acres	-
0494 03 0006	I-5	No (warehousing/storage)	0.48	Site is developed already; < 2 acres	-
0494 03 0007	I-5	No (automotive)	0.54	Site is developed already; < 2 acres	-
0494 01 0032	I-5	No (telephone/elcom)	4.6	Site is developed already	-
0494 01 0028B	I-5	No (low rise office)	5.13	Site is developed already	-
0494 04 0001A	I-5	No (warehousing/storage)	1.19	Site is developed already; < 2 acres	-
0494 04 0001B	I-5	No (low rise office)	1.65	Site is developed already; < 2 acres	-
0494 04 0002	I-5	No (low rise office)	1.75	Site is developed already; < 2 acres	-
0494 04 0003	I-5	No (mini warehouses)	0.49	Site is developed already; < 2 acres	-
0494 04 0004	I-5	No (mini warehouses)	0.47	Site is developed already; < 2 acres	-
0494 04 0005A	I-5	No (low rise office)	0.57	Site is developed already; < 2 acres	-
0494 04 0005B	I-5	No (warehousing/storage)	1.12	Site is developed already; < 2 acres	-
0494 04 0006	I-5	No (low rise office)	0.97	Site is developed already; < 2 acres	-
0494 04 0007	I-5	No (mini warehouses)	0.42	Site is developed already; < 2 acres	-
0494 04 0008	I-5	No (mini warehouses)	0.94	Site is developed already; < 2 acres	-
0494 14 0003	C-4	No (medium/high rise office)	1.91	Site is developed already; < 2 acres	-
0494 14 0004	C-4	No (medium/high rise office)	6.25	Site is developed already	-
0494 14 0005	C-4	No (hotel)	3.07	Site is developed already	-
0494 01 0062C	C-4	No (medium/high rise office)	3.05	Site is developed already	-
0494 01 0059A	I-3	No (office)	20	Site is developed already	-
0494 01 0059B	I-3	No (office)	13	Site is developed already	-
0494 01 0059C	I-3	No (office)	10.63	Site is developed already	-
0492 01 0092A	C-8	No (neighborhood center)	1.89	Site is developed already; < 2 acres	-
0492 01 0094	Commercial	No (low rise office)	0.45	Site is developed already; < 2 acres	-
0492 11 0012A	C-8	No (low rise office)	0.56	Site is developed already; < 2 acres	-
0492 11 0013	C-8	No (office)	0.33	Site is developed already; < 2 acres	-
0492 11 0013A	C-8	No (auto repair shop)	0.36	Site is developed already; < 2 acres	-
0492 11 0010	C-8	No (retail)	0.43	Site is developed already; < 2 acres	-
0492 11 0010A	C-8	No (retail)	0.06	Site is developed already; < 2 acres	-
0492 11 0011A	C-8	No (retail)	0.68	Site is developed already; < 2 acres	-
0492 10 0001A	C-8	No (low rise office)	0.85	Site is developed already; < 2 acres	-
0492 01 0095	C-8	No (specialty center)	0.74	Site is developed already; < 2 acres	-
0492 01 0096C	C-8	No (auto repair shop)	0.57	Site is developed already; < 2 acres	-
0492 01 0096B	C-8	No (auto repair shop)	0.53	Site is developed already; < 2 acres	-
0492 09 0001A	C-8	No (auto repair shop)	0.06	Site is developed already; < 2 acres	-
0492 09 0001B	C-8	No (neighborhood center)	1.04	Site is developed already; < 2 acres	-
0492 09 0002	C-8	No (warehousing/storage)	0.61	Site is developed already; < 2 acres	-
0492 09 0003	C-8	No (warehousing/storage)	0.61	Site is developed already; < 2 acres	-
0492 01 0097	C-5	No (gas station)	0.46	Site is developed already; < 2 acres	-
0492 09 0004	I-4	No (warehousing/storage)	0.67	Site is developed already; < 2 acres	-
0492 09 0005	I-4	No (warehousing/storage)	0.67	Site is developed already; < 2 acres	-
0492 09 0006	I-4	No (warehousing/storage)	0.7	Site is developed already; < 2 acres	-
0501 01 0026	I-4	No (mini warehouses)	3.16	Site is developed already	-
0501 01 0028	C-5	No (convenience store)	0.35	Site is developed already; < 2 acres	-
0503 18 0001	C-5	No (business services)	0.68	Site is developed already; < 2 acres	-
0503 18 0002	C-3	No (private school)	1.23	Site is developed already; < 2 acres	-
0503 18 0002A	C-3	No (office)	0.35	Site is developed already; < 2 acres	-
0501 01 0038	C-8	No (apartments)	3.57	Site is developed already	-
0503 15 C	C-8	No (auto repair shop)	0.49	Site is developed already; < 2 acres	-
0503 15 B	C-8	No (specialty center)	1.03	Site is developed already; < 2 acres	-
0503 15 A1	C-8	No (gas station)	0.52	Site is developed already; < 2 acres	-
0503 15 A2	C-8	No (auto repair shop)	0.31	Site is developed already; < 2 acres	-
0503 15 A4	C-8	No (retail)	0.21	Site is developed already; < 2 acres	-
0503 15 A5	C-8	No (retail)	0.21	Site is developed already; < 2 acres	-
0501 01 0039A	C-8	No (gas station)	0.46	Site is developed already; < 2 acres	-
0501 01 0039B	C-8	No (neighborhood center)	1.97	Site is developed already; < 2 acres	-
0503 01 0010	C-8	No (supermarket)	0.91	Site is developed already; < 2 acres	-
0501 01 0039D	C-8	No (neighborhood center)	3.87	Site is developed already	-
0501 01 0039E	C-8	No (entry out restaurant)	0.92	Site is developed already; < 2 acres	-
0501 23 B	C-3	No (low rise office)	0.07	Site is developed already; < 2 acres	-
0501 01 0041C	C-3	No (low rise office)	0.07	Site is developed already; < 2 acres	-
0501 01 0041D	C-3	No (low rise office)	1.07	Site is developed already; < 2 acres	-
0501 01 0051B	C-6	No (gas station)	0.1	Site is developed already; < 2 acres	-
0501 01 0051C	Commercial	No (neighborhood center)	4.94	Site is developed already	-
0501 18 (1-15)	C-3	No (condominiums)	N/A	Site is developed already; < 2 acres	-
0403 01 0116	C-2	No (office)	0.17	Site is developed already; < 2 acres	-
0403 01 0117	C-2	No (office)	0.17	Site is developed already; < 2 acres	-
0403 01 0118	C-2	No (office)	0.17	Site is developed already; < 2 acres	-
0403 01 0118A	C-2	No (office)	0.17	Site is developed already; < 2 acres	-
0403 12 0017	I-6	No (warehousing/storage)	0.33	Site is developed already; < 2 acres	-
0403 12 0018	I-6	No (other industrial)	0.46	Site is developed already; < 2 acres	-
0403 12 0019	I-6	No (other industrial)	0.31	Site is developed already; < 2 acres	-
0492 01 0074	C-3	Yes	0.09	< 2 acres	No (standalone, too small)
0492 01 0065	C-3	Yes	0.07	< 2 acres	No (standalone, too small)
0494 04 A	I-5	Yes	0.08	< 2 acres	No (standalone, too small)
0492 01 0093	C-8	Yes	0.18	< 2 acres	No (standalone, too small)
0492 09 0002C	C-8	Yes	0.03	< 2 acres	No (three adjacent vacant parcels total < 2ac)
0492 09 0002A	C-8	Yes	0.13	< 2 acres	No (three adjacent vacant parcels total < 2ac)
0492 09 0002B	C-8	Yes	0.13	< 2 acres	No (three adjacent vacant parcels total < 2ac)
0492 01 0051E	I-5	Yes	1.15	< 2 acres	These four parcels could be aggregated together to be greater than 2ac. However, a new SCC application would have to be filed for the extension of overhead transmission lines across Interstate 495 Capital Beltway.
0492 01 0051D	I-5	Yes	1.37	< 2 acres	
0492 01 0051B	I-5	Yes	0.02	< 2 acres	
0492 01 0051C	C-8	Yes	1.2	< 2 acres	
0494 01 0038	I-5	Yes	0.91	< 2 acres	These four parcels could be aggregated together to be greater than 2ac. However, a new SCC application would have to be filed for the extension of overhead transmission lines across Interstate 495 Capital Beltway.
0494 01 0039	I-5	Yes	0.5	< 2 acres	
0494 01 0041	I-5	Yes	0.5	< 2 acres	
0494 01 0041	I-5	Yes	0.5	< 2 acres	



SITE

LEGEND
 EXISTING ZB
 COMMERCIAL ZONED PARCELS
 INDUSTRIAL ZONED PARCELS

IDYLWOOD SUBSTATION





County of Fairfax, Virginia

MEMORANDUM

DATE: January 21, 2015

TO: Barbara C. Berlin, Director
Zoning Evaluation Division, DPZ

FROM: Chris Caperton, Chief
Public Facilities Planning Branch, DPZ

SUBJECT: Section 15.2-2232 Review
Application 2232-P14-4 (concurrent with **SE 2014-PR-064**)
Virginia Electric & Power Company d/b/a Dominion Virginia Power
Idylwood Substation
7701 and 7707 Shreve Road, Falls Church, VA 22043
Tax Map 49-2 ((1)) 151 and 49-2 ((12)) 1A

Pursuant to Va. Code Sec. 15.2-2232, the Public Facilities Planning Branch of the Planning Division offers the following comments and recommendation on the proposed redevelopment and expansion of the Idylwood Substation.

PROJECT DESCRIPTION

The applicant, Virginia Electric & Power Company, d/b/a Dominion Virginia Power (“Dominion”), proposes to redevelop the Idylwood Substation as described in the 2232 Review Application. The proposal is also subject to review and approval of SE 2014-PR-064. In order to comply with the North American Electric Reliability Corporation (NERC) requirements for reliability of the electrical grid, Dominion Virginia Power must rebuild the substation requiring replacement of all equipment at the Idylwood Substation. The planned work at Idylwood is necessary to meet projected increased demand for electricity and to provide power to Metrorail.

The proposed facility is summarized below (the 2232 Review Application is attached and includes by reference the plans included with the SE 2014-PR-064 staff report).

Location: 7701 and 7707 Shreve Road, Falls Church, VA 22043. The 7.15 acre property is located on the south side of Shreve Road and to the west of Holly Manor Drive.

Site: The site is currently developed with an electric substation facility owned by Virginia Electric & Power Company d/b/a/Dominion Virginia Power. The site includes 3 existing lattice transmission structures and 1 transmission tower ranging from 120 to 130 feet in height, a fenced compound, and AT&T telecommunications antennas collocated on top of the transmission tower. The compound is surrounded by a 7 foot chain link fence with 1 foot of barbed wire along the top. The fenced compound includes 4 backbone structures, ranging in height from 50 to 69 feet in height, and 4 transformers, 25 feet in height. The compound also

includes distribution bays, control buildings and switching equipment ranging in height from 12 to 31 feet.

Proposed Facility: The proposed redevelopment will occur on the existing property owned by the applicant on the northern side of the site. All equipment at the substation will be replaced with gas insulated substation (GIS) equipment instead of the usual air insulated substation equipment. GIS equipment requires a smaller footprint and is used at constrained sites where space for expansion is limited. The rebuilt substation will include 8 new backbone structures 75 feet in height, 4 new transformers 18.5 feet in height, and 2 GIS enclosures. The heights of the proposed GIS enclosures are 18 and 32 feet in height. Additionally, the compound will include 5 new transmission towers ranging from 120 to 135 feet in height. The transmission towers are not part of SE 2014-PR-032, and are regulated by the State Corporation Commission (SCC). The substation compound will be surrounded by a brick and concrete wall ranging in height from 16 to 20 feet. The footprint of the rebuilt substation will be smaller than the existing substation; however, since the existing equipment must remain operational during the rebuild, the footprint of the substation will be shifted to the north, closer to Shreve Road. Once the new substation is operational, the old equipment will be removed from the site. The unused portion of the site will be surrounded by a barbed wire fence and transitional screening.

Screening: The site is currently screened by a 7 foot chain link fence with 1 foot of barbed wire along the top. The north side of the property along Shreve Road is screened by trees and bushes. The chain link fence around the front portion of the property as well as the trees and bushes will be removed as a result of the substation rebuild and replaced with a 20 foot wall along the southern, eastern and western boundaries, and a 16 foot wall along the Shreve Road frontage. The community requested a lower wall height along Shreve Road. The wall will completely enclose the rebuilt substation compound and the applicant states that the wall will be a visual barrier, provide security, and screen the neighbors from noise and maintenance activity. The chain link fence will remain around the rear portion of the property, and transitional screening consisting of a 40 foot wide landscape buffer is proposed for this area. Additionally, transitional screening consisting of a landscape buffer ranging from 40 to 50 feet wide is proposed for the eastern, southern and western boundaries of the site, and a 25 to 30 foot wide landscape buffer is proposed for the north side of the property fronting Shreve Road. Due to site constraints, only a 10 foot wide landscape buffer is proposed for the northeastern side of the site, and Dominion Virginia Power has proposed planting additional landscaping on adjacent property owned by the Holly Crest Subdivision HOA to provide screening. Additionally, Dominion Power has created vegetation and landscape guidelines approved by the North American Electrical Reliability Corporation (NERC) in order to ensure reliability. These guidelines based on expertise and best practices of local utilities and regulators. The maximum height of the landscape buffer allowed by these guidelines is 10 feet under transmission lines and 14 feet around the substation. As a result of these guidelines, the height of the landscape buffer will be limited to 10 feet on the eastern, northern and southern perimeter, and 14 feet on the western perimeter facing the Holly Crest subdivision. These guidelines also require open space between the proposed landscape buffer and wall surrounding the substation for

incident and assessment response, and the applicant is proposing 10 feet of open space to meet this requirement. The landscape buffer will include evergreen trees 6 to 8 feet in height at planting time, large evergreen shrubs 4 to 5 feet in height at planting time and medium evergreen shrubs 2.5 to 3 feet in height at planting time.

Access: Access to the substation will be provided from one existing access point from Shreve Road, on the east side of the property. Additionally, the AT&T telecommunications facility, collocated on a Dominion transmission tower, will be accessed from a second point on Shreve Road, on the west side of the property.

Operations: The facility will operate 24 hours per day, 7 days per week. It will be an unmanned facility that will be visited by Dominion Virginia Power and AT&T employees approximately once or twice per month or as needed.

Service Area: The proposed use will serve the Dominion transmission system by providing delivery of electricity at 230kV. The Idylwood substation is located at the intersection of two transmission corridors and is a transmission hub and major distribution substation serving more than 22,300 businesses and residences in Falls Church, Merrifield, Southern Tysons Corner and Fairfax City.

Electromagnetic Fields and Radiation Levels: The Comprehensive Plan requires the facility to minimize exposure to electromagnetic fields and maintain radiation at acceptable levels, according to Objective 40, Policy h; “Regulate new development to minimize unnecessary exposure to unhealthful impacts of low level electromagnetic fields from electrical transmission lines”; and Objective 41, Policy i; “Assure that radiation levels, individually and cumulatively, will be maintained at acceptable levels”. The applicant submitted a study of the electromagnetic field levels around the Idylwood substation. The study includes electromagnetic field readings taken at the Idylwood substation site during the day on January 7, 2015. The readings indicate higher electromagnetic field levels at the corners of the substation and under the transmission lines. The electromagnetic field levels are lower further away from the substation and transmission lines.

COMPREHENSIVE PLAN GUIDANCE

The subject property is located in the Area I, Jefferson Planning District, J-8 Shreve-West Community Planning Sector. The Comprehensive Plan Map identifies the property as planned for Public Facilities, Governmental and Institutional.

Area Plan

Fairfax County Comprehensive Plan, Area I, 2013 Edition; Jefferson Planning District, as amended through 4-29-2014, Overview, Figure 6: Existing Public Facilities, page 12:

Figure 6 identifies the Va. Power Idylwood Substation as existing public facilities in J-8.

Policy Plan

Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition; Public Facilities, as amended through March 4, 2014, Countywide Objectives and Policies, pages 2-4:

“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 b. Co-locate public facilities whenever appropriate to achieve convenience and economies of scale, as long as the integrity of the Comprehensive Plan is not impinged.

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

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

Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition; Public Facilities, as amended through March 4, 2014, Electrical and Land-Line Utility Services, pages 33-37:

“Objective 40: Locate electrical and land-line service facilities to provide maximum service levels as unobtrusively as possible. (See Figure 7.)

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

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

Policy d. Provide adequate acreage for expansion of substations, hub centers and equipment areas and maintain levels of screening to accommodate expansion.

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 type and facility is the least disruptive.

Policy b. Mitigate the visual impact of switching and hub centers, equipment areas and electrical substations from adjacent development. Land with existing mature vegetation is preferable, as are access roads which obscure

entrances, berms which provide screening, and slopes that provide localized lower elevations.

- Policy d. Conceal, screen or site ground transformers and distribution boxes to reduce their visual presence and potential for clutter.
- Policy e. Provide for the appropriate screening and buffering of proposed facilities.
- Policy f. Design and site proposed facilities to preserve areas necessary for future right-of-way dedication and ancillary easements for construction of road improvements.”

STAFF ANALYSIS

CONFORMANCE WITH THE COMPREHENSIVE PLAN

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

The proposed facility is located on property that is currently developed with the Idylwood Substation, and the site is planned for Public Facilities, Governmental and Institutional. It is located at the intersection of two (2) transmission corridors and is a transmission hub and major distribution substation. The proposed substation utilizes existing transmission lines and towers, which is consistent with the comprehensive plan. Although the proposed substation is located adjacent to a residential area, the existing substation the proposal replaces predates the surrounding residential developments. The initial application involved an expansion of the substation facility and noted that a search was conducted for alternative locations. However, according to the applicant, no suitable alternative locations are available. Additionally, the current application no longer includes expansion plans and only includes a rebuild of the existing substation.

Character

The proposed rebuilding of the electrical utility facility will occur within the parcels containing the current substation operated by Dominion Virginia Power. Although the footprint of the rebuilt substation will be smaller than the existing substation, due to the utilization of GIS equipment, it is necessary to shift the facility to the north side of the site along Shreve Road, as the existing equipment must remain operational while the substation is rebuilt. This will impact the existing vegetation located at the front of the property along Shreve Road; however, the existing vegetation will be replaced with transitional screening consisting of a landscaped buffer 25 to 30 feet wide with a maximum height of 10 feet. Additionally, a landscape buffer ranging from 10 to 50 feet wide will be planted on all sides of the property with a maximum height ranging from 10 to 14 feet. Guidelines created by Dominion Power to comply with NERC standards for reliability limit the height of transitional screening from 10 to 14 feet.

The compound will also be screened by a 20 foot wall along the eastern, southern and western perimeter, and a 16 foot wall along Shreve Road. The texture and colors of the wall will be red brick, which were developed with input from a citizen committee; however, the wall along the southern side of the compound will be concrete panel. The concrete panel wall will face unused portions of the site, and the nearest residence facing this concrete panel portion of the wall is 431 feet away. Additionally, this portion of the site will be screened by a 40 foot wide landscape buffer with a maximum height of 10 feet, further obscuring the concrete panel wall from view.

The proposed compound wall will be 6 to 10 feet higher than the transitional screening, and will have a visual impact. The 4 transformers (18.5 feet in height), and one GIS enclosure (18 feet in height) will be screened from view behind the compound wall; however, an additional GIS enclosure (32 feet in height), the backbone structures (75 feet in height) and transmission towers (120 to 135 feet in height) will be greater in height than the wall and create a visual impact. As noted previously, the transmission towers are not part of SE 2014-PR-032, and are regulated by the SCC. Additionally, the proposed backbone structures, 75 feet in height, will be taller than the existing backbone structures, which are 69 feet in height. However, the proposed backbone structures and transmission towers will not be greater in height than the existing towers in the transmission corridor, and are consistent with the height of the surrounding transmission towers.

Extent

The proposed rebuilt substation will remain an unmanned facility requiring service once or twice a month or as needed with minimal traffic impacts. However, an additional access point to the site is proposed with this application. The second access point is necessary for the AT&T telecommunications facility, which will also be an unmanned facility requiring service once or twice a month or as needed with minimal traffic impact. This facility will be the subject of a future 2232 review. The proposed facility is the minimal necessary to serve the area and will utilize GIS equipment, resulting in a substation that will be more efficient and occupy a smaller footprint than the current facility. Additionally, the rebuilt substation is required by NERC guidelines and is necessary to avoid NERC violations and meet increased demands for power.

CONCLUSION AND RECOMMENDATIONS

Staff concludes that the subject proposal, as amended, by Virginia Electric & Power Co. d/b/a Dominion Virginia Power, to expand the Idylwood Substation at 7701 and 7707 Shreve Road, Falls Church, VA 22043, 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-P14-4**, as amended, substantially in accord with provisions of the adopted Comprehensive Plan.

CBC/DBS



County of Fairfax, Virginia

MEMORANDUM

DATE: January 6, 2015

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

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

SUBJECT: ENVIRONMENTAL ASSESSMENT for: **SE 2014-PR-032**
Idylwood Substation

This memorandum, prepared by Mary Ann Welton, includes citations from Comprehensive Plan that provide guidance for the evaluation of the subject Special Exception application and 2232 plan which have been revised through November 3, 2014. The extent to which the application conforms to the applicable guidance contained in the Comprehensive Plan is noted. Possible solutions to remedy identified issues are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are in harmony 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, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on pages 7-9, 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. . . .

- 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 design (LID) techniques such as those described below, and pursue commitments to reduce stormwater runoff volumes and peak flows, to increase groundwater recharge, and to increase preservation of undisturbed areas. In order to minimize the impacts that new development and redevelopment projects may have on the County’s streams, some or all of the following practices should be considered where not in conflict with land use compatibility objectives:
- Minimize the amount of impervious surface created.
 - Site buildings to minimize impervious cover associated with driveways and parking areas and to encourage tree preservation.
 - Where feasible, convey drainage from impervious areas into pervious areas. . . .
 - Encourage fulfillment of tree cover requirements through tree preservation instead of replanting where existing tree cover permits. Commit to tree preservation thresholds that exceed the minimum Zoning Ordinance requirements. . . .
 - Encourage the use of innovative BMPs and infiltration techniques of stormwater management where site conditions are appropriate, if consistent with County requirements.
 - Apply nonstructural best management practices and bioengineering practices where site conditions are appropriate, if consistent with County requirements. . . .
 - Maximize the use of infiltration landscaping within streetscapes consistent with County and State requirements.”

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on page 10, the Plan states:

“Objective 3: Protect the Potomac Estuary and the Chesapeake Bay from the avoidable impacts of land use activities in Fairfax County.

- Policy a. Ensure that new development and redevelopment complies with the County's Chesapeake Bay Preservation Ordinance....”

The Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, page 18 states:

“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 land use. 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.

Water Quality Protection and Stormwater Management Best Management Practices

The 7.15 acre subject property is located within the Cameron Run watershed immediately east of Interstate 495 and south of Interstate 66. An unnamed intermittent stream and associated wetlands traverses from north to south along the entire western side of the substation. The intermittent stream system and its associated wetlands are within a minor floodplain.

The stormwater management plan for this redevelopment includes a proposed detention pond, an underground stormfilter and a vegetated swale with soil amendments which will traverse the west side of the substation. These measures are proposed to meet water quality, water quantity and outfall adequacy requirements for the reconstructed substation; however, the stormwater measures will have significant impacts on the existing intermittent stream system and associated wetlands currently located in this area. This intermittent stream system and its associated non-tidal wetlands are regulated under the floodplain regulations of the County’s Zoning Ordinance, as well as Section 404 of the Clean Water Act. This stream system is not a Resource Protection Area (RPA) under the County’s Chesapeake Bay Preservation Ordinance (CBPO).

In the absence of an alternative area to cite the stormwater facilities for the substation, the applicant has committed to accommodate all the permitting requirements associated with the floodplain regulations of the County’s Zoning Ordinance, as well as the permitting requirements under Section 404 of the Clean Water Act. A floodplain study has been submitted to the Department of Public Works and Environmental Services (DPWES) for review and approval.

The adequacy of stormwater management/best management practice (SWM/BMP) facilities and outfall will be subject to review and approval by the Department of Public Works and Environmental Services (DPWES).

The stormwater management narrative, sheet #8 of revised special exception plan, indicates the applicant's intention to meet the permitting requirements of the Stormwater Management Ordinance, Chapter 124 of the Code of Fairfax County which became effective on July 1, 2014. Staff from the DPWES administers the stormwater management ordinance.

Vegetation Restoration: Staff encourages the applicant to work with the Urban Forestry Management Division (UFMD) of DPWES to identify appropriate tree and shrub species which can be used to augment proposed vegetation.

PGN: MAW



County of Fairfax, Virginia

MEMORANDUM

DATE: August 15, 2014

TO: Suzanne L. Wright, Staff Coordinator
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Mohan Bastakoti, P.E., Senior Engineer III 
South Branch
Site Development and Inspections Division
Department of Public Works and Environmental Services

SUBJECT: SE 2014-PR-032(VA Electric & Power Co. DBA Dominion Virginia Power); Tax Map #0492-01-0151& 0490-12-0001A; Providence District

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

Chesapeake Bay Preservation Ordinance (CBPO)

There are no Resource Protection Areas on the site.

Floodplain

There are minor floodplains on the site. The proposed activity shall not increase the water surface elevation above the 100-year flood level upstream and downstream, calculated in accordance with the provisions of the Public Facilities Manual. (ZO 2-905-1). A flood plain study shall be separately submitted to SDID for review.

A flood plain use determination from the Director is required for any proposed use in regulated a flood plain.

Downstream Drainage Complaints

There are no current downstream drainage complaints on file.

Stormwater Detention

A 'stormwater management narrative' which contains a description of how detention is met per Chapter 124-4-4D of Fairfax County Code is required with SE.

Water Quality Control

BMP narratives addressing/using Virginia Runoff Reduction Spreadsheet per Chapter 124-4-2 of Fairfax County Code is required with SE.

Suzanne L. Wright

SE 2014-PR-032(VA Electric & Power Co. DBA Dominion Virginia Power); Tax Map #0492-01-0151& 0490-12-0001A; Providence District

Page 2 of 2

Wetlands

All wetlands permits (COE Permits and Virginia Water Protection Permits) required by law shall be obtained prior to commencing land disturbing activities. PFM 6-1702.4

Downstream Drainage System

A description of how the channel protection and flood protection requirements will be met per Chapter 124-4-4-4 of Fairfax County Code is required with the SE.

A detailed description and analysis of how the adequate outfall requirements will be satisfied for each numbered outfalls per Stormwater Management Ordinance (Chapter 124) and Fairfax County Public Facilities Manual (PFM 6-0203.1) is required with SE.

cc: Don Demetrius, Chief, Watershed Evaluation Branch, SPD, DPWES
Fred Rose, Chief, Watershed Planning & Assessment Branch, SPD, DPWES
Durga Kharel, Chief, Central Branch, SDID, DPWES
Zoning Application File





County of Fairfax, Virginia

MEMORANDUM

DATE: December 22, 2014

TO: Barbara Berlin, Director
Zoning Evaluation Division, Department of Planning & Zoning

FROM: Michael A. Davis, Acting Chief 
Site Analysis Section, Department of Transportation

FILE: SE 2014-PR-032

SUBJECT: Dominion Virginia Power (Idylwood Substation)
7701 Shreve Road, Falls Church VA 22043
Tax Map: #49-2 ((1)) 151; ((12)) 1A

This department has reviewed the subject application including the Special Exception Plat and 2232 Plan dated May 14, 2014, as revised through December 10, 2014, and offers the following comments:

- The right-of-way line should be located 1-foot back behind the back edge of the sidewalk to meet VDOT standards for maintenance. This would apply to two of the three areas of the sidewalk that meander around street light poles. Either the right-of-way line should be adjusted behind the bump out areas or the light poles should be relocated so the bump outs are no longer necessary.
- All other previous comments have been addressed.

MAD/EAI



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

4975 Alliance Drive
Fairfax, VA 22030

December 5, 2014

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

To: Ms. Barbara Berlin
Director, Zoning Evaluation Division

From: Kevin Nelson
Virginia Department of Transportation – Land Development Section

Subject: SE 2014-PR-032 Virginia Electric and Power Company
Dominion Virginia Power Idylwood Substation
Tax Map # 49-2((01))0151

All submittals subsequent to the first submittal shall provide a response letter to the previous VDOT comments. Submittals without comment response letters are considered incomplete and will be returned without review.

I have reviewed the above plan submitted on November 5, 2014, and received on November 10, 2014. The following comments are offered:

6. *Right of way should be dedicated along Shreve Road in accordance with the County Transportation Plan.* The right of way will be required to be a minimum of 1' beyond the sidewalk on the site plans for the walks to be maintained by VDOT.

If you have any questions, please call me.

cc: Ms. Angela Rodeheaver

fairfaxspex2014-PR-032se3VEPCOIdylwoodSubstation12-5-14BB

We Keep Virginia Moving



County of Fairfax, Virginia

MEMORANDUM

DATE: December 22, 2014

TO: Suzanne Wright, Staff Coordinator
Zoning Evaluation Division, DPZ

FROM: Todd Nelson, Urban Forester II
Forest Conservation Branch, DPWES

SUBJECT: Idylwood Substation; SE 2014-PR-032

RE: Request for assistance dated December 12, 2014

This review is based upon the Special Exception Plat (SE) 2014-PR-032 stamped "Received, Department of Planning and Zoning, December 11, 2014".

General Comment: Urban Forest Management Division (UFMD) comments and recommendations on the previously submitted SE were provided to DPZ in the memos dated July 22, 2014, September 8, 2014, and November 20, 2014. Several comments and recommendations contained in the memos were not adequately addressed and are similar to several of the following comments and recommendations. Additional comments and recommendations are provided to address the 10-year Tree Canopy requirements, Tree Preservation Target requirements, and Transitional Screening.

- 1. Comment:** The 35' identified as the required transitional screening yard width for the northern property line, as shown on sheet 13, is incorrect. A 50' wide transitional screening yard is required at the northern property line.

Recommendation: The required transitional screening yard calculations for the northern property line should be revised to identify a 50' wide transitional screening yard requirement and a tree canopy requirement of 16,688 sq. ft.

- 2. Comment:** The 10-year Tree Canopy Calculations and the information contained in the Tree Preservation Target Deviation request on sheet 14A are incorrect. It does not appear the 25% 10-year tree canopy requirement (76,465 sq. ft.) will be provided in its entirety, as indicated by the 40,825 sq. ft. identified as the total of canopy area provided through tree plantings, as shown on lines D17, E2, and E4 of the 10-year Tree Canopy Calculations. The Tree Preservation Target Deviation incorrectly states the "10-year Tree Canopy Requirement of 25% will be met through the planting of trees on the site." In addition, a request to modify the 25% 10-year tree canopy requirement has not been included as part of this application.

Department of Public Works and Environmental Services
Urban Forest Management Division

12055 Government Center Parkway, Suite 518
Fairfax, Virginia 22035-5503
Phone 703-324-1770, TTY: 711, Fax: 703-653-9550
www.fairfaxcounty.gov/dpwes



Recommendation: A request to modify the 25% 10-year tree canopy requirement shall be submitted as part of the SE. The modification request shall specify the scenario listed in PFM 12-0513.1 through 12-0513.3 that applies to this SE plat, shall identify how the proposed design meets the criteria listed in PFM sections 12-0513.4A through 12-0513.4C, shall include a detailed site specific justification including all applicable FERC and NERC standards and regulations related to proposed landscaping in and around electrical substations, and shall identify the amount of 10-year tree canopy that will be provided. In addition, a revised Tree Preservation Target request and revised 10-year Tree Canopy Calculations should also be provided.

3. **Comment:** Specific comments and recommendations regarding potential construction impacts associated with this SE on offsite trees cannot be provided at this time as offsite trees along the various property boundaries are not shown or identified. Tree inventory and condition analysis information to be provided at the planning stage are essential tools in estimating potential construction impacts on offsite trees.

Recommendation: A tree inventory that identifies the location, species, critical root zone, size, crown spread and condition analysis percentage rating for all individual offsite trees living or dead with trunks 12 inches in diameter and greater (measured at 4 ½ - feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) located within 25 feet of the limits of clearing and grading within the undisturbed area should be provided as part of the SE. In addition, trees should be labeled as 'to be saved' or as 'to be removed' based on the proximity of the proposed limits of clearing and grading and potential impacts of construction activities on the individual trees. If any offsite trees are proposed for removal, permission to remove these trees from the offsite property owner should be provided as part of the SE.

Please contact me at 703-324-1770 should you have any questions.

TLN
UFMDID #: 193181

cc: DPZ File



FAIRFAX COUNTY PARK AUTHORITY



M E M O R A N D U M

TO: Barbara Berlin, AICP, Director
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Sandy Stallman, AICP, Manager *SS*
Park Planning Branch, PDD

DATE: November 25, 2014

SUBJECT: SE 2014-PR-032 (VA Electric & Power Co./Dominion VA Power)
Tax Map Number: 49-2((1)) 151 & 49-2((12)) 1A

BACKGROUND

The Park Authority has reviewed the above referenced special exception dated November 3, 2014. The special exception proposes to rebuild the existing Idylwood substation in order to comply with mandatory North American Electric Reliability Corporation (NERC) requirements pertaining to reliability of the electrical grid.

COMPREHENSIVE PLAN GUIDANCE

The County Comprehensive Plan includes both general and specific guidance regarding parks and resources. The Policy Plan describes the need to mitigate adverse impacts to park and recreation facilities caused by growth and development; it also offers a variety of ways to offset those impacts, including contributions, land dedication, development of facilities, and others (Parks and Recreation, Objective 6, p.8). Resource protection is addressed in multiple objectives, focusing on protection, preservation, and sustainability of resources (Parks and Recreation Objectives 2 and 5, p.5-7).

ANALYSIS AND RECOMMENDATIONS

Natural Resource Impact

In order to protect the environmental health of nearby public parkland, all landscaping to be installed for the development should consist of non-invasive species. Species should also ideally be native to this region of Virginia to provide the greatest habitat benefit for wildlife. Several of the species in the planting plan (sheet 13) are non-native. For a list of alternative native plant species, see the section on the DNH website titled Native Plants for Conservation, Restoration, and Landscaping at: http://www.dcr.virginia.gov/natural_heritage/nativeplants.shtml. If there is a question as to whether a native species occurs in Fairfax County, the applicant should check the Digital Atlas of Virginia Flora at <http://vaplantatlas.org> for clarification. A list of invasive plant species for the state of Virginia can be found at the Virginia Department of Conservation &

Recreation Division of Natural Heritage (DNH) website at
http://www.dcr.virginia.gov/natural_heritage/documents/invlist.pdf.

Additionally, the *viburnum rhytidophyllum* species has been found to be invasive and naturalizing in parks in North America; staff recommends substituting a native alternative such as *Viburnum nudum* or *Viburnum prunifolium*.

Cultural Resources Impact

The subject property was subjected to archival cultural resources review, which indicated that the site is fully developed and unlikely to contain significant cultural resources.

Staff has received the applicant's historic resources review. Staff recommends the Applicant continue to confer with the Virginia Department of Historic Resources, as appropriate, and requests copies of any additional historic resource reports or documentation generated.

SUMMARY OF RECOMMENDATIONS

This section summarizes the recommendations included in the preceding analysis section.

- Applicant should install landscaping that consists of non-invasive species and native to this region of Virginia in order to protect the environmental health of nearby parkland.
- Substitute a native alternative, such as *Viburnum nudum* or *Viburnum prunifolium*, for *viburnum rhytidophyllum*.
- Applicant should continue to consult with the Virginia Department of Historic Resources, as appropriate.

FCPA Reviewer: Anna Bentley
DPZ Coordinator: Suzanne Wright

Copy: Cindy Walsh, Director, Resource Management Division
Liz Crowell, Manager, Cultural Resource Management & Protection Section
John Stokely, Manager, Natural Resource Management & Protection Section
Suzanne Wright, DPZ Coordinator
Chron File
File Copy

9-006 General Standards

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.

9-104 Standards for all Category 1 Uses

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		