



APPLICATION ACCEPTED: July 27, 2017
PLANNING COMMISSION: November 9, 2017
BOARD OF SUPERVISORS: November 21, 2017 @ 3:30 p.m.

County of Fairfax, Virginia

October 25, 2017

STAFF REPORT



APPLICATIONS SE 2017-SU-020 & 2232-Y17-34

WS

SULLY DISTRICT

APPLICANT: Milestone Limited Partnership III; Cellco Partnership D/B/A Verizon Wireless

STREET ADDRESS: 6309T Bull Run Post Office Road

ZONING DISTRICT: R-C and WS

TAX MAP REFERENCE: 52-2 ((1)) 11E1

SITE AREA: 8.43 Acres

COMPOUND AREA: 1,250 square feet

SE CATEGORY: Mobile and Land Based Telecommunication Facilities (Category 1)

PROPOSAL: The applicants have filed for review by the Planning Commission to determine whether the proposed 150 foot tall telecommunication facility (monopole) and related ground structure satisfy the criteria of location, character and extent pursuant to Sect. 15.2-2232 of the Code of Virginia, and request Special Exception approval to construct the proposed telecommunication facility on the property

STAFF RECOMMENDATION:

Staff recommends that the Planning Commission find that the facility proposed under 2232-Y17-34 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.

Zach Fountain / Doug Hansen

Staff recommends approval of SE 2017-SU-020, subject to the proposed development conditions contained in Appendix 1.

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

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

It should be 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.

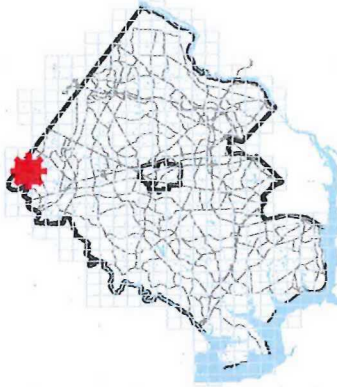
For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.



Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

Special Exception

SE 2017-SU-020



Applicant:

MILESTONE LIMITED PARTNERSHIP III;
CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

Accepted:

07/27/2017

Proposed:

TELECOMMUNICATIONS FACILITY

Area:

8.43 AC; DISTRICT - SULLY

Zoning Dist Sect:

03-0C04

Located:

6309T BULL RUN POST OFFICE ROAD,
CENTREVILLE, VA 20120

Zoning:

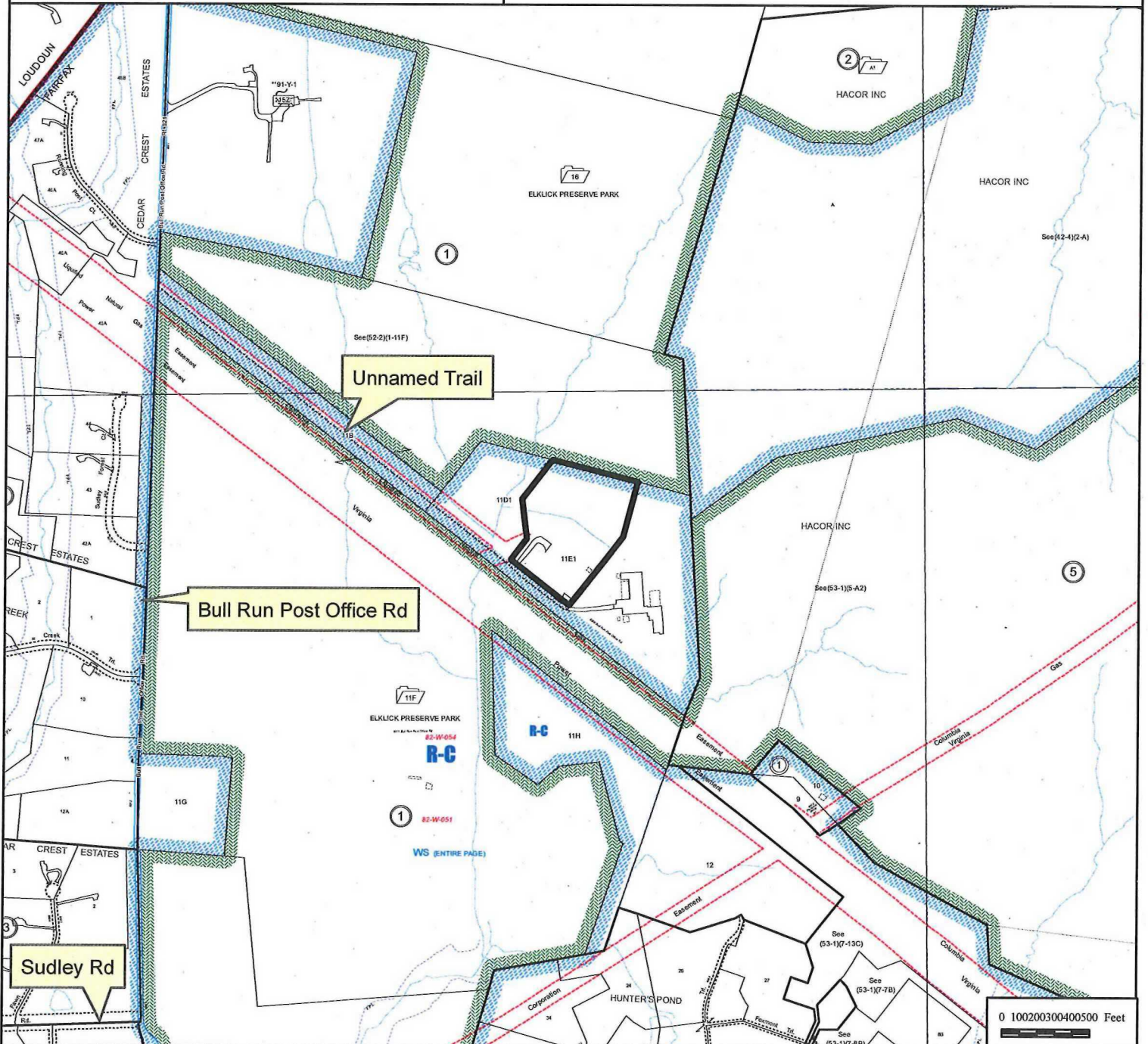
R- C

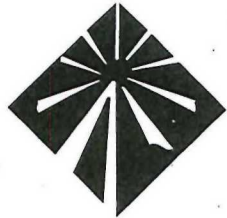
Overlay Dist:

WS

Map Ref Num:

052-2- /01/ /0011E1





Milestone
COMMUNICATIONS



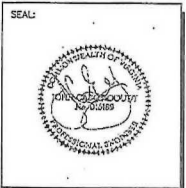
2232-Y17-34
SE 2017-SU-020

PLEASANT VALLEY SUBSTATION
6309T BULL RUN POST OFFICE ROAD
CENTREVILLE, VA 20120



6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-0960
FAX: (202)408-0961

| SUBMITTALS | | |
|------------|--------------------------|------|
| DATE | DESCRIPTION | REV. |
| 06-29-17 | SPECIAL EXCEPTION REVIEW | |
| 06-27-17 | SPECIAL EXCEPTION REVIEW | |
| 07-18-17 | SPECIAL EXCEPTION REVIEW | |
| 09-05-17 | SPECIAL EXCEPTION REVIEW | |
| 10-09-17 | SPECIAL EXCEPTION REVIEW | |
| | | |
| | | |



PROJECT NO: 1050.153
DESIGNER: M.A.
ENGINEER: M.M.

SCALE: AS SHOWN ON PLAN

PLEASANT VALLEY
SUBSTATION
6309T BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA, 20120

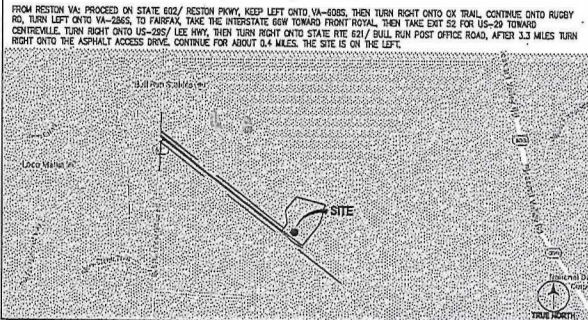
TITLE: TITLE SHEET

SHEET NUMBER: T-1

GENERAL NOTES

1. THE CONTRACTOR SHALL OBEY ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THIS WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES, ESPECIALLY THE FARRAX COUNTY ZONING ORDINANCE AND THE FARRAX COUNTY COMPREHENSIVE PLAN.
2. THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERtheless CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CONSTRUCTION MANAGER OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWING/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/ENGINEER'S SPECIFICATION UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDA OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE PROJECT BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBERY AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SAUAGES OF ANY NATURE.
13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
14. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL, OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL THE CONFLICT IS RESOLVED BY THE CONSTRUCTION MANAGER.
15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE PROJECT.

VICINITY MAP



SHEET INDEX

- T-1 TITLE SHEET
- C-1 ACCESS AND SITE PLAN
- C-2 SPECIAL EXCEPTION PLAN
- C-2A EXISTING CONDITIONS AERIAL
- C-3 EROSION AND SEDIMENT CONTROL PLAN AND DETAILS
- C-4 COMPOUND PLAN
- C-5 MONOPOLE ELEVATION
- C-6 SITE DETAILS
- C-7 VZW ANTENNA SCHEDULE AND DETAILS
- C-8 VZW RRH AND DISTRIBUTION BOX DETAILS
- C-9 VZW EQUIPMENT SLAB DETAILS
- C-10 VZW EQUIPMENT CABINET DETAILS
- C-11 SITE PROFILES
- SWM-1 STORMWATER MANAGEMENT PLAN AND NARRATIVE

SYMBOLS AND ABBREVIATIONS

| | | |
|--------------------------|---------------------------|---|
| ADJ ADJUSTABLE | MCH MECHANICAL | ⊕ SPOT ELEVATION |
| APPROX APPROXIMATE | MFR MANUFACTURER | — CENTERLINE |
| CAB CABINET | MGB MAIN GROUND BAR | — PLATE |
| CLC CEILING | MN MINIMUM | (No. / SHT) DETAIL NUMBER SHEET NUMBER |
| CONC CONCRETE | MTL METAL | — GROUND WIRE |
| CONT CONTINUOUS | NC NOT IN CONTRACT | ○ ANTENNA |
| CU CONSTRUCTION JOINT | NIS NOT TO SCALE | CALL UTILITIES INFORMATION AND VERIFY |
| Ø DIA DIAMETER | OC ON CENTER | 3 WORKING DAYS PRIOR TO BEGINNING SAFETY PREPARATION SHALL BE INDICATED BY CONTRACTOR AT ALL TIMES IN ACCORDANCE WITH CURRENT OSHA STANDARD |
| DWG DRAWING | OPP OPPOSITE | |
| EQS EQUIPMENT GROUND BAR | SF SQUARE FOOT | |
| EA EACH | SMT SHEET | |
| ELEC ELECTRICAL | SM SIMILAR | |
| EL ELEVATION | SS STAINLESS STEEL | |
| EQ EQUAL | STL STEEL | |
| EQUIP EQUIPMENT | TCC TOP OF CONCRETE | |
| EXT EXTERIOR | TOM TOP OF MASONRY | |
| FF FINISHED FLOOR | TOS TOP OF STEEL | |
| GA GAGE | TYP TYPICAL | |
| GALV GALVANIZED | VF VERIFY IN FIELD | |
| GB GROUND BAR | UN UNLESS OTHERWISE NOTED | |
| GC GENERAL CONTRACTOR | W/W WELDED WIRE FABRIC | |
| GRND GROUND | W/ WITH | |
| LG LONG | ∅ AND | |
| LJH LONG LEG HORIZONTAL | ○ AT | |
| MAX MAXIMUM | | |

PROJECT DESCRIPTION

SCOPE OF WORK: 1. INSTALL A NEW 150'-0" HIGH MONOPOLE FOUNDATION AND MONOPOLE.
2. INSTALL GROUNDING, UTILITIES, COMPOUND SUBGRADE AND FENCING.
3. INSTALL VERIZON WIRELESS EQUIPMENT SLAB AND EQUIPMENT CABINETS.
4. INSTALL VERIZON WIRELESS STANDOFF FRAMES, ANTENNAS AND RISERS ON THE MONOPOLE.
5. INSTALL VERIZON WIRELESS CABLES IN THE MONOPOLE.

PROPERTY OWNER: NORTHERN VIRGINIA ELECTRIC COOPERATIVE
10323 LOMOND DRIVE
MANASSAS, VA 20109

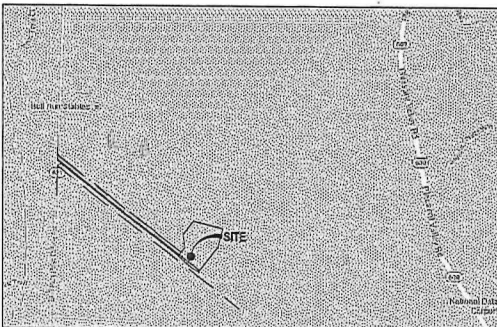
APPLICANT: MILESTONE COMMUNICATIONS
1210 SUNSET HILLS ROAD, SUITE 100
RESTON, VA 20190
MR. LEN FORKAS
703-960-2655

LATITUDE: N 30° 51' 28.940"
LONGITUDE: W 77° 30' 27.340"
GROUND ELEVATION: 237.56' AMSL
JURISDICTION: FARRAX COUNTY
PARCEL ID: 0222 01 001163
CURRENT ZONING: R-C
USE: GAS, PIPELINE ROW, PLANTS, STORAGE/ TELECOMMUNICATIONS SITE

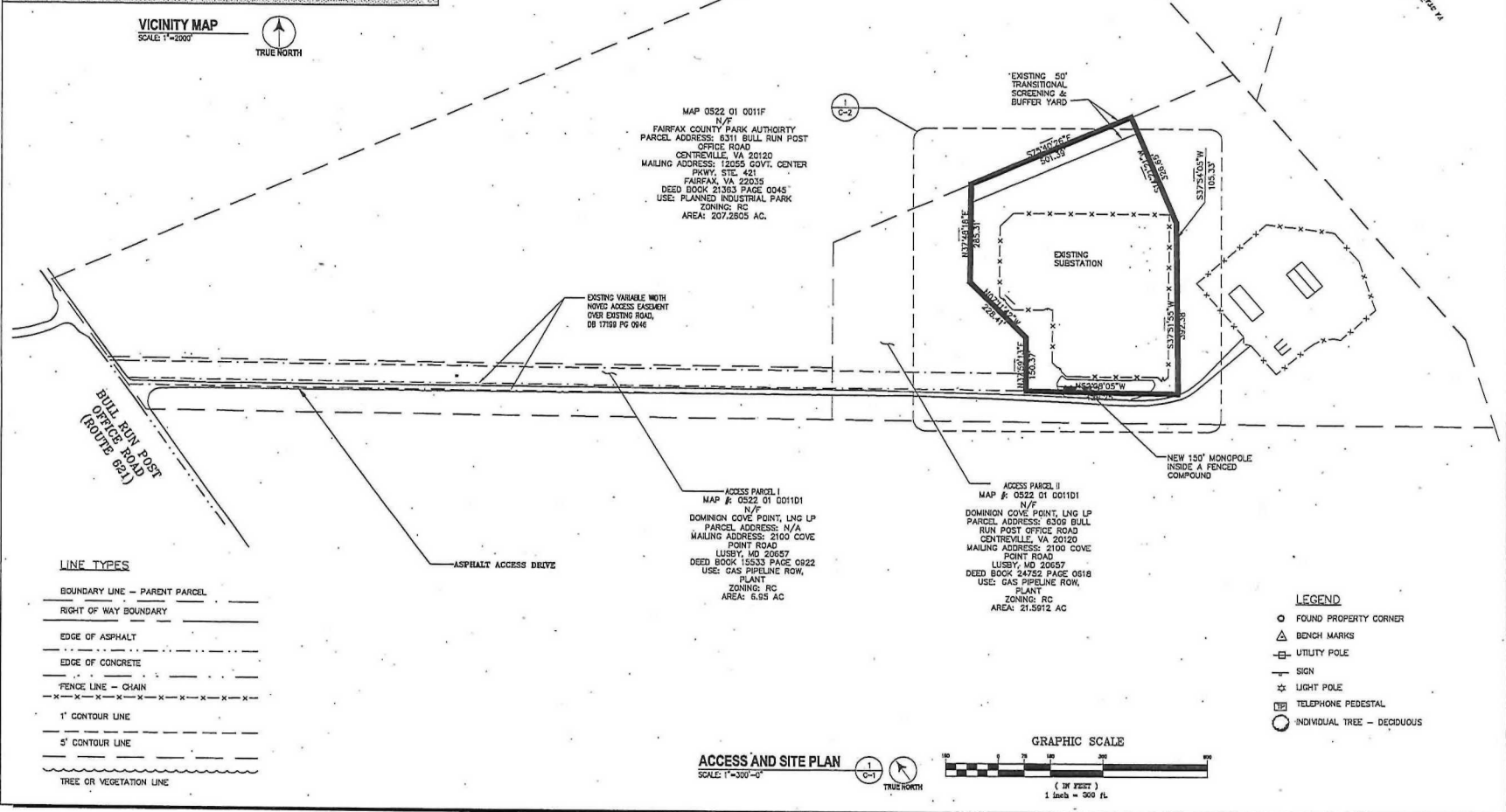
APPROVALS

MILESTONE COMMUNICATIONS: _____ DATE _____

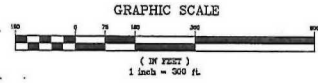
NOVEC REPRESENTATIVE: _____ DATE _____



VICINITY MAP
SCALE: 1"=2000'



ACCESS AND SITE PLAN
SCALE: 1"=300'-0"



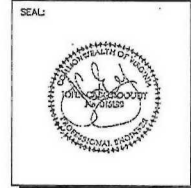
- LEGEND**
- FOUND PROPERTY CORNER
 - △ BENCH MARKS
 - UTILITY POLE
 - SIGN
 - ☆ LIGHT POLE
 - ⊞ TELEPHONE PEDESTAL
 - INDIVIDUAL TREE - DECIDUOUS

entrex
communication services, Inc.

6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-0960
FAX: (202)408-0961

SUBMITTALS

| DATE | DESCRIPTION | REV. |
|----------|--------------------------|------|
| 05-09-17 | SPECIAL EXCEPTION REVIEW | |
| 05-27-17 | SPECIAL EXCEPTION REVIEW | |
| 07-18-17 | SPECIAL EXCEPTION REVIEW | |
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| | | |
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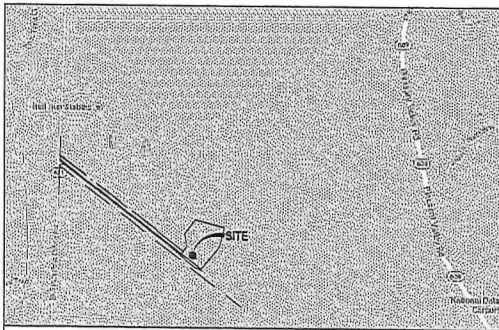
PROJECT NO: 1050.153
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
AS SHOWN ON PLAN

PLEASANT VALLEY
SUBSTATION
6309' BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA. 20120

TITLE:
**ACCESS AND
SITE PLAN**

SHEET NUMBER:
C-1



VICINITY MAP
SCALE 1"=200'



SITE PLAN NOTES

- 1.) SITE NAME: PLEASANT VALLEY SUBSTATION
- 2.) THIS IS NOT A BOUNDARY SURVEY AND IS NOT TO BE USED FOR THE TRANSFER OF PROPERTY.
- 3.) THE SUBJECT PARCEL INFORMATION:
OWNER: NORTHERN VIRGINIA ELECTRIC COOPERATIVE
PREMISES ADDRESS: 6309T BULL RUN POST OFFICE ROAD
CENTREVILLE, VA, 20120
MAILING ADDRESS: 10323 LOMOND DRIVE
MANASSAS, VA, 20109
COUNTY: FAIRFAX
MAP#: 0522 01 0011E
BOOK: 24752 PAGE: 618
ZONING: RC
- 4.) THE RECORDED REFERENCES FOR THE PARENT PARCEL ARE AS FOLLOWS:
DEED BOOK: 24752, PAGE 618
- 5.) THE DATUM'S ARE NAD 83 AND NAVD 88, AND THE BEARING BASE IS STATE GRID.
- 6.) UNDERGROUND UTILITIES HAVE BEEN LOCATED. THE PRESENCE OF ANY SUCH UTILITIES MUST BE RECONFIRMED BY THE CONTRACTOR BEFORE CONSTRUCTION.
- 7.) NO WETLANDS HAVE BEEN DEFINED AND ANY AREAS SHOWN AS MARSH, PONDS OR DITCHES ARE DONE SO FROM VISIBLE SURFACE FEATURES AND IN NO WAY CONSTITUTE A DENIED WETLAND.
- 8.) THE FLOOD ZONE OF THE NEW MONOPOLE IS AS FOLLOWS: FLOOD ZONE X, AREA DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAN. SOURCE: FEMA FLOOD MAP FOR FAIRFAX COUNTY, VA, COMMUNITY PANEL NUMBER 510506 0212E, EFFECTIVE SEPTEMBER 17, 2010.
- 9.) A TITLE REPORT FOR THIS PROPERTY WAS FURNISHED BY WALKER TITLE, LLC DATED JANUARY 23, 2014, CASE #W400044. THE TITLE REPORT WAS REVIEWED BY THE ENGINEER.
- 10.) THE DATA COLLECTED AND SHOWN ON THIS DRAWING ARE FOR THE PURPOSES OF CONSTRUCTION OF A CELLULAR MONOPOLE, ANY NECESSARY ANCILLARY EQUIPMENT AND ALL APPROPRIATE EASEMENTS.
- 11.) NO UNRECORDED EASEMENTS ARE SHOWN ON THIS SURVEY AND IT IS POSSIBLE THAT SUCH EASEMENTS IMPACT THE SITE.
- 12.) THIS PROPERTY IS SUBJECT TO ALL MATTERS OF PUBLIC RECORD.
- 13.) THE LOCATION OF THE NEW MONOPOLE IS AS FOLLOWS: THE VALUES LISTED BELOW ARE WITHIN ±50' HORIZONTAL AND ±20' VERTICAL.
LATITUDE: N 38° 51' 29.840"
LONGITUDE: W 77° 02' 27.340"
ELEVATION: 237.5' AMSL AT BASE
- 14.) THIS PROPERTY IS IN BULL RUN WATERSHED.

LEGEND

- FOUND PROPERTY CORNER
- △ BENCH MARKS
- UTILITY POLE
- SIGN
- ☆ LIGHT POLE
- Ⓜ TELEPHONE PEDESTAL

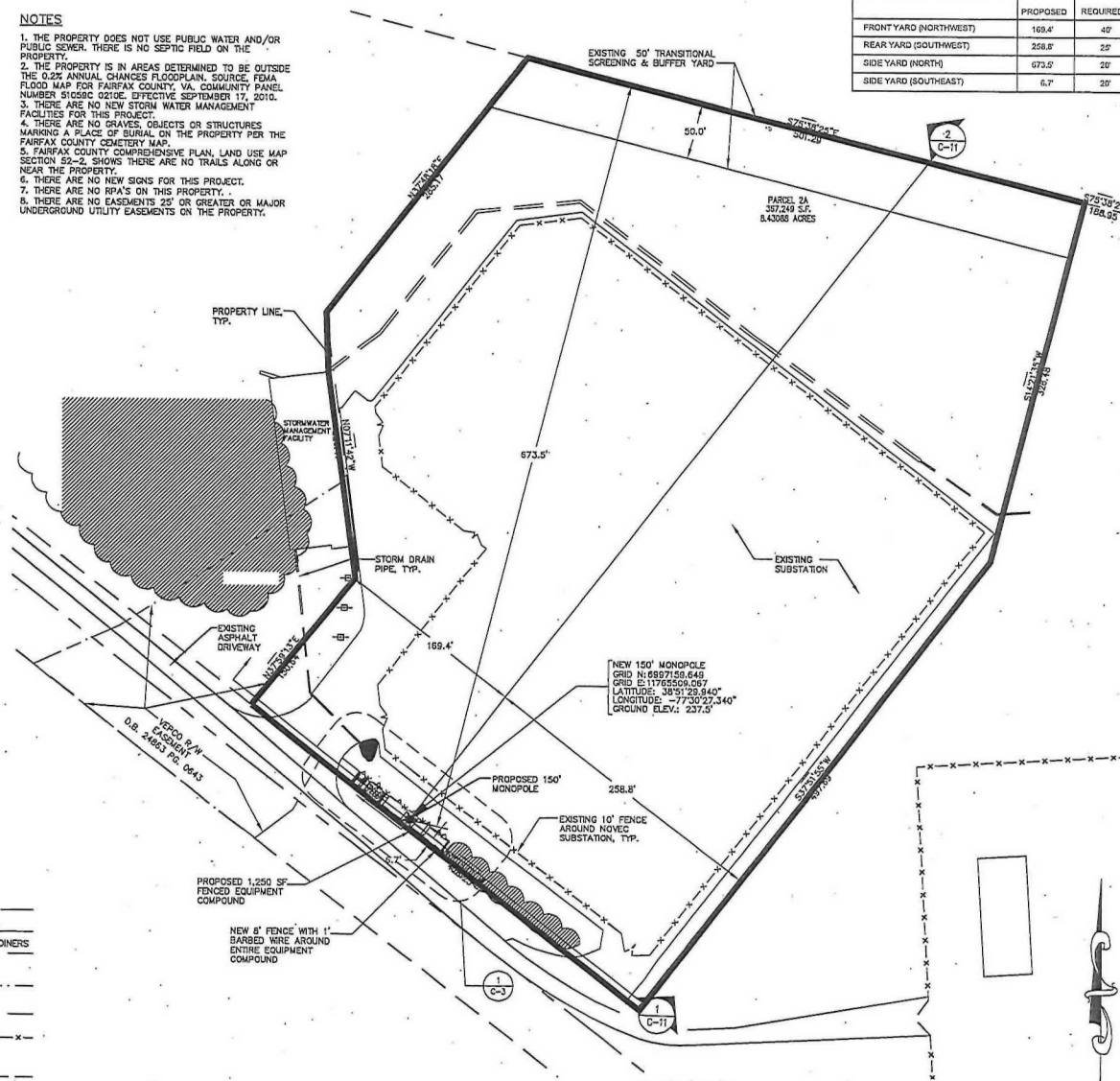
LINE TYPES

- BOUNDARY LINE - PARENT PARCEL
- RIGHT OF WAY BOUNDARY
- - - UNSURVEYED LINE - BOUNDARY OF ADJOINERS
- EDGE OF ASPHALT
- EDGE OF CONCRETE
- - - FENCE LINE - CHAIN
- - - 1' CONTOUR LINE
- - - 5' CONTOUR LINE
- TREE OR VEGETATION LINE

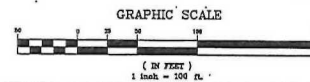
NOTES

1. THE PROPERTY DOES NOT USE PUBLIC WATER AND/OR PUBLIC SEWER. THERE IS NO SEPTIC FIELD ON THE PROPERTY.
2. THE PROPERTY IS IN AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCES FLOODPLAIN. SOURCE: FEMA FLOOD MAP FOR FAIRFAX COUNTY, VA, COMMUNITY PANEL NUMBER 510506 0212E, EFFECTIVE SEPTEMBER 17, 2010.
3. THERE ARE NO NEW STORM WATER MANAGEMENT FACILITIES FOR THIS PROJECT.
4. THERE ARE NO GRAVES, OBJECTS OR STRUCTURES MARKING A PLACE OF BURIAL ON THE PROPERTY PER THE FAIRFAX COUNTY CEMETERY MAP.
5. FAIRFAX COUNTY COMPREHENSIVE PLAN, LAND USE MAP SECTION 52-2, SHOWS THERE ARE NO TRAILS ALONG OR NEAR THE PROPERTY.
6. THERE ARE NO NEW SIGNS FOR THIS PROJECT.
7. THERE ARE NO RPA'S ON THIS PROPERTY.
8. THERE ARE NO EASEMENTS 25' OR GREATER OR MAJOR UNDERGROUND UTILITY EASEMENTS ON THE PROPERTY.

| MONOPOLE SETBACKS | | |
|------------------------|----------|----------|
| | PROPOSED | REQUIRED |
| FRONT YARD (NORTHWEST) | 168.4' | 40' |
| REAR YARD (SOUTHWEST) | 258.8' | 25' |
| SIDE YARD (NORTH) | 673.5' | 20' |
| SIDE YARD (SOUTHEAST) | 6.7' | 20' |



SPECIAL EXCEPTION PLAN
SCALE 1"=100'-0"

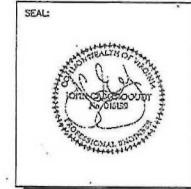


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SUBMITTALS

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| 08-08-17 | SPECIAL EXCEPTION REVIEW | |
| 05-27-17 | SPECIAL EXCEPTION REVIEW | |
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PROJECT NO: 1050.153
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
AS SHOWN ON PLAN

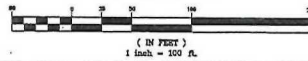
PLEASANT VALLEY
SUBSTATION
6309T BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA, 20120

TITLE:
**SPECIAL
EXCEPTION
PLAN**

SHEET NUMBER:
C-2

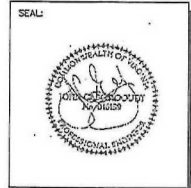


AERIAL
SCALE N.T.S.



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ENGINEER: M.M.

SCALE:
AS SHOWN ON PLAN

**PLEASANT VALLEY
SUBSTATION
6309T BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA. 20120**

TITLE:
**EXISTING
CONDITIONS
AERIAL**

SHEET NUMBER:
C-2A



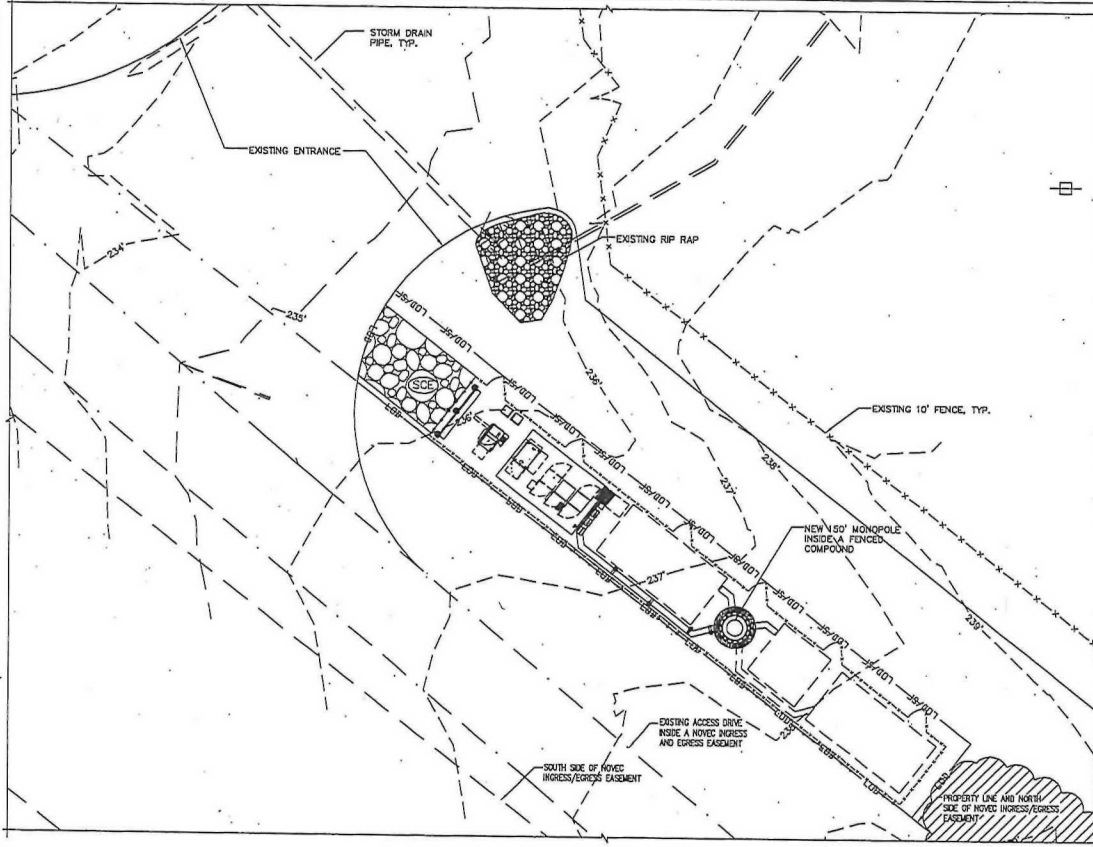
LINE TYPES

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- UNSURVEYED LINE - BOUNDARY OF ADJOINERS _____
- EDGE OF ASPHALT _____
- EDGE OF CONCRETE _____
- FENCE LINE - CHAIN _____
- 1' CONTOUR LINE _____
- 5' CONTOUR LINE _____
- TREE OR VEGETATION LINE _____

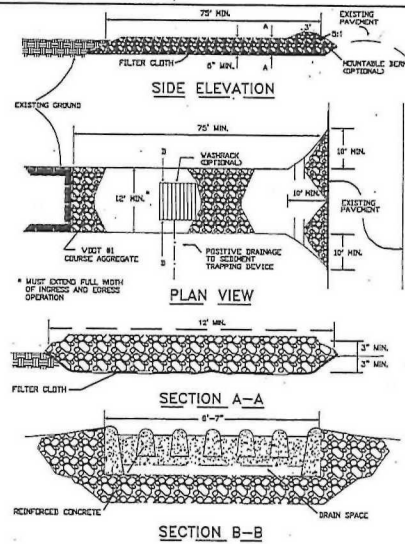
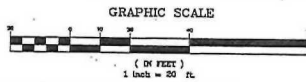
AREA TABULATION

SITE AREA: 8.43 ACRES
 DISTURBED AREA: 1,940 SF

NOTE: TOPO OBTAINED THROUGH FIELD SURVEY, MAY 2017.

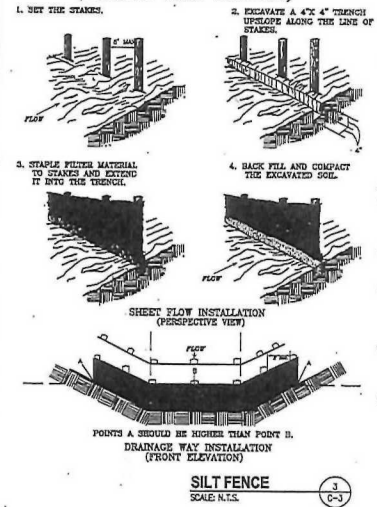


EROSION AND SEDIMENT CONTROL PLAN
 SCALE: 1"=20'-0"



STABILIZED CONSTRUCTION ENTRANCE 2
 SCALE: N.T.S.

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



NOTES:

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING.
3. SHOULD THE FABRIC ON A SILT FENCE BE DAMAGED OR BECOME INEFFECTIVE PRIOR TO THE END OF THE SPECIFIED MAINTENANCE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.

SILT FENCE 3
 SCALE: N.T.S.



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| | | |
| | | |

SEAL:



Milestone COMMUNICATIONS

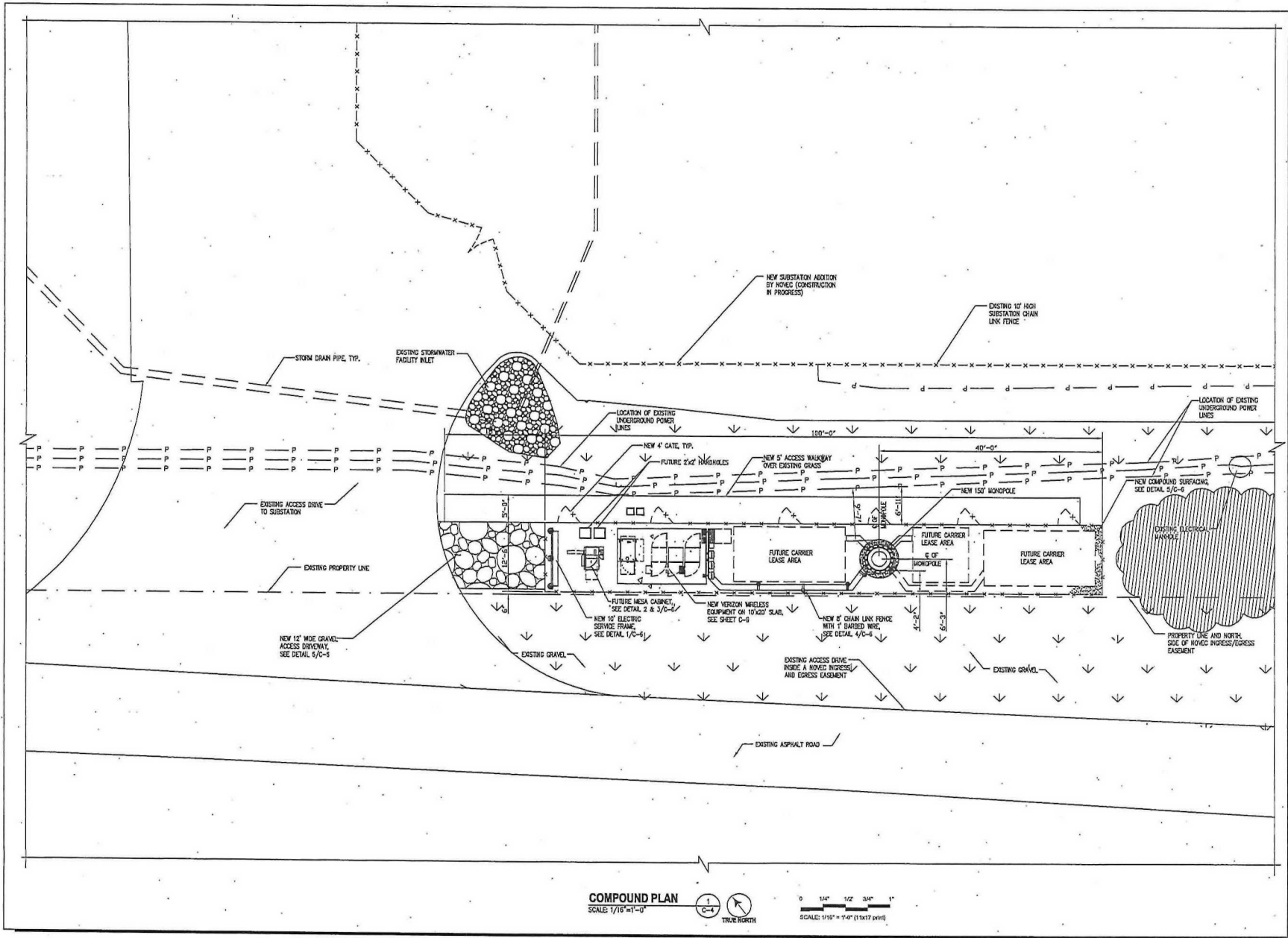
PROJECT NO: 1050.153
 DESIGNER: M.A.
 ENGINEER: M.M.

SCALE:
 AS SHOWN ON PLAN

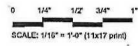
**PLEASANT VALLEY SUBSTATION
 6309T BULL RUN
 POST OFFICE ROAD
 CENTREVILLE, VA. 20120**

TITLE:
EROSION AND SEDIMENT CONTROL PLAN AND DETAILS

SHEET NUMBER:
C-3



COMPOUND PLAN
SCALE: 1/16" = 1'-0"

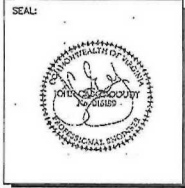


entrex
communication services, inc.

6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-6960
FAX: (202)408-0961

SUBMITTALS

| DATE | DESCRIPTION | REV. |
|----------|--------------------------|------|
| 06-09-17 | SPECIAL EXCEPTION REVIEW | |
| 06-27-17 | SPECIAL EXCEPTION REVIEW | |
| 07-18-17 | SPECIAL EXCEPTION REVIEW | |
| 09-07-17 | SPECIAL EXCEPTION REVIEW | |
| 10-09-17 | SPECIAL EXCEPTION REVIEW | |
| | | |
| | | |



PROJECT NO: 1050.153
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
AS SHOWN ON PLAN

**PLEASANT VALLEY
SUBSTATION**
6309T BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA. 20120

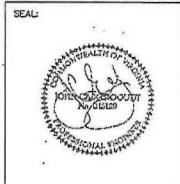
TITLE:
COMPOUND PLAN

SHEET NUMBER:
C-4



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| SUBMITTALS | | |
|------------|--------------------------|------|
| DATE | DESCRIPTION | REV. |
| 08-08-17 | SPECIAL EXCEPTION REVIEW | |
| 08-27-17 | SPECIAL EXCEPTION REVIEW | |
| 07-18-17 | SPECIAL EXCEPTION REVIEW | |
| 09-07-17 | SPECIAL EXCEPTION REVIEW | |
| 10-09-17 | SPECIAL EXCEPTION REVIEW | |
| | | |
| | | |



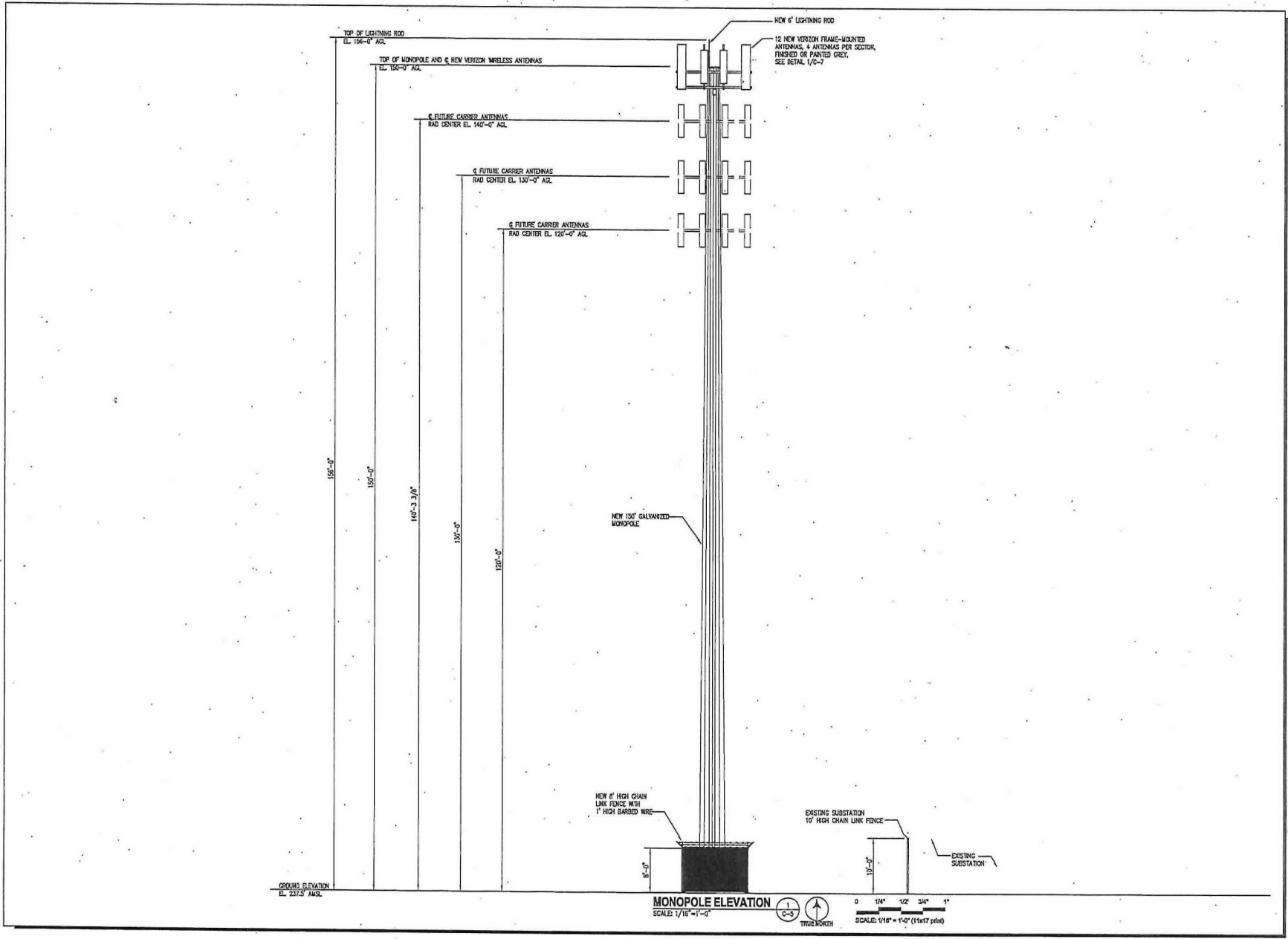
PROJECT NO: 1050.153
 DESIGNER: M.A.
 ENGINEER: M.M.

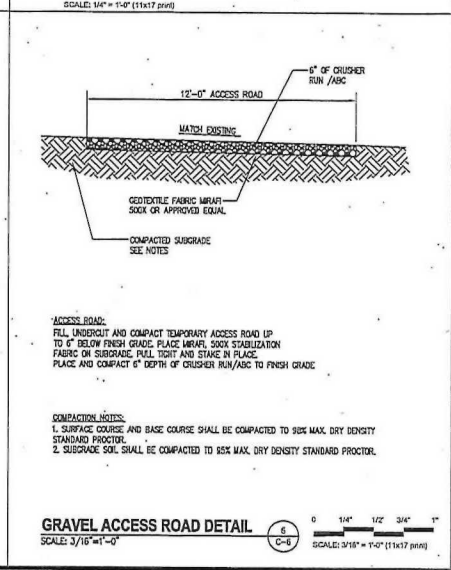
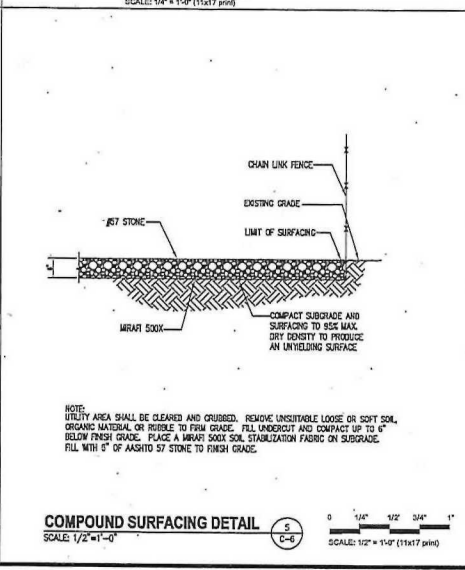
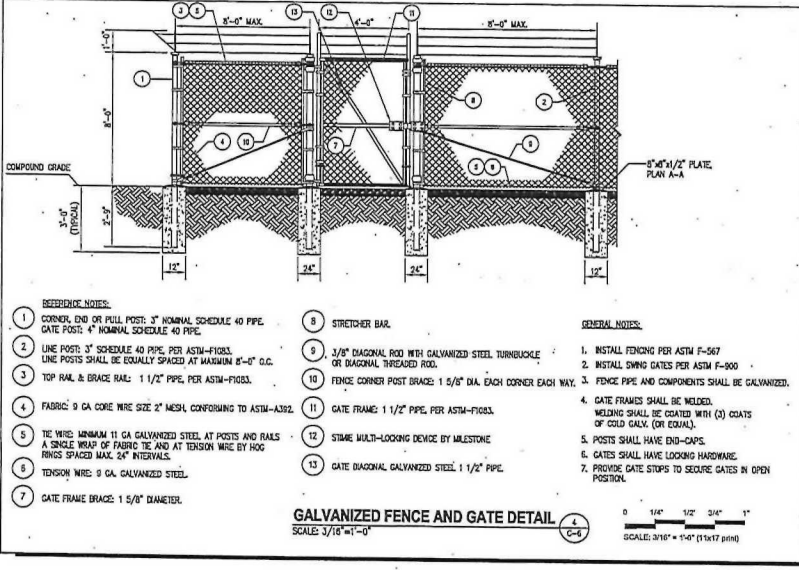
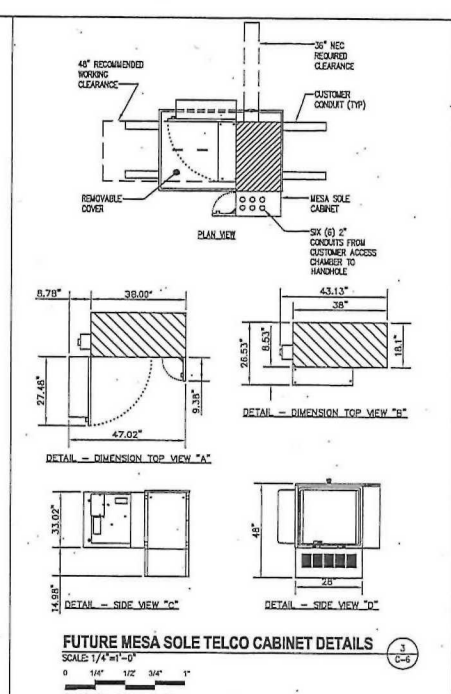
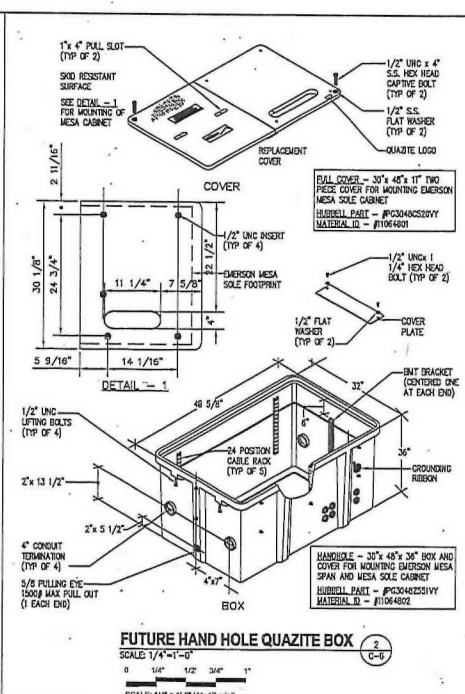
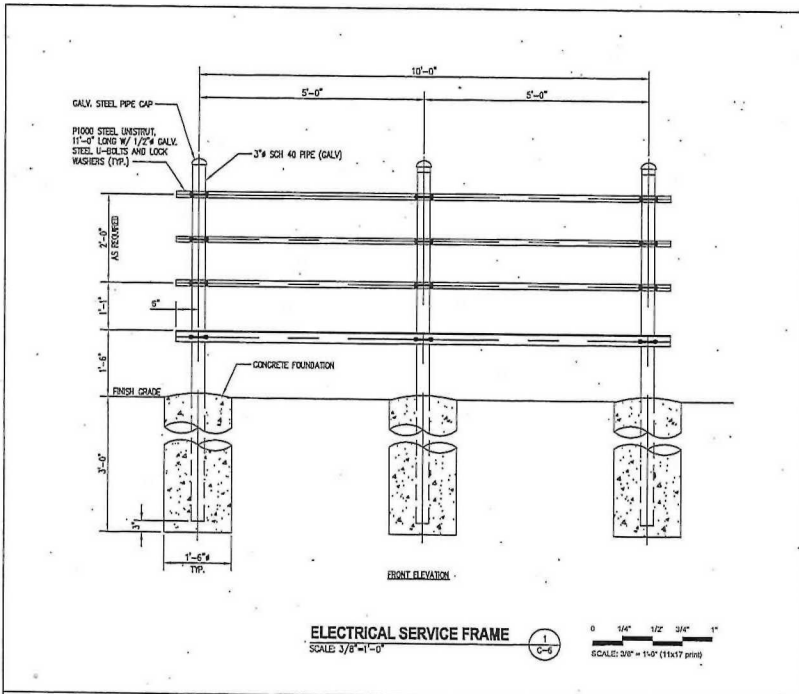
SCALE:
 AS SHOWN ON PLAN

PLEASANT VALLEY
 SUBSTATION
 6309T BULL RUN
 POST OFFICE ROAD
 CENTREVILLE, VA. 20120

TITLE:
MONOPOLE ELEVATION

SHEET NUMBER:
C-5



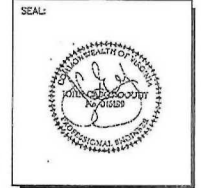


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FAX: (202)408-0951

SUBMITTALS

| DATE | DESCRIPTION | REV. |
|----------|--------------------------|------|
| 05-08-17 | SPECIAL EXCEPTION REVIEW | |
| 05-27-17 | SPECIAL EXCEPTION REVIEW | |
| 07-18-17 | SPECIAL EXCEPTION REVIEW | |
| 09-07-17 | SPECIAL EXCEPTION REVIEW | |
| 10-09-17 | SPECIAL EXCEPTION REVIEW | |



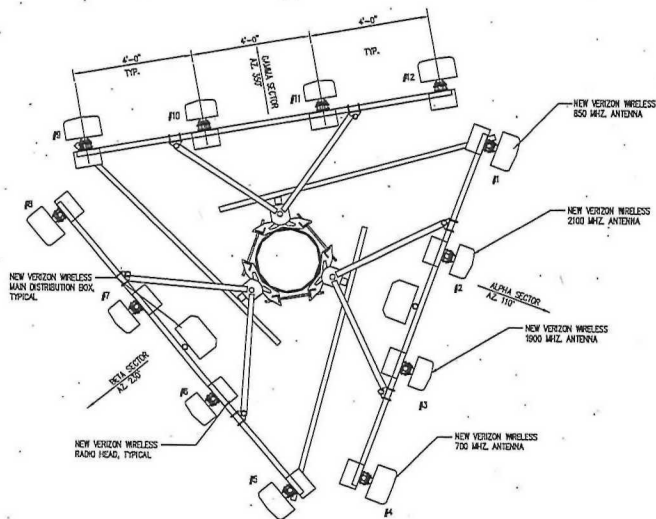
PROJECT NO: 1050.153
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
AS SHOWN ON PLAN

**PLEASANT VALLEY
SUBSTATION
6309T BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA. 20120**

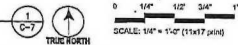
TITLE:
SITE DETAILS

SHEET NUMBER:
C-6



NOTE:
ALL ANTENNAS SHALL BE FINISHED OR PAINTED GREY.

ANTENNA LOCATION PLAN
SCALE: 1/4"=1'-0"



| ANTENNA AND CABLE SCHEDULE | | | | | | | | | |
|----------------------------|--------------|------------|---|----------------------|---------|-----------------------|-----------------------|------------|-----------|
| ANTENNA SECTOR | ANTENNA MARK | RAD CENTER | ANTENNA | MECHANICAL DOWN-TILT | AZIMUTH | CABLE LENGTH (NOTE 7) | COAXIAL CABLE SIZE | COLOR CODE | FREQUENCY |
| ALPHA | # 1 | 150'-0" | BXA-70063-80P (94.6" H x 11.2" W x 4.5" D) | SEE NOTE 6 | 110° | 170' | (1) 6X12 HYBRID CABLE | R | 850 MHZ |
| | # 2 | 150'-0" | BXA-171063-120P (72.5" H x 6.1" W x 4.1" D) | - | 110° | 170' | (1) 6X12 HYBRID CABLE | O/R/O | 2100 MHZ |
| | # 3 | 150'-0" | BXA-171063-120P (72.5" H x 6.1" W x 4.1" D) | - | 110° | - | SHARED HYBRID CABLE | B/R/B | 1900 MHZ |
| | # 4 | 150'-0" | BXA-70063-80P (94.6" H x 11.2" W x 4.5" D) | - | 110° | - | SHARED HYBRID CABLE | O/R/O | 700 MHZ |
| BETA | # 5 | 150'-0" | BXA-70063-80P (94.6" H x 11.2" W x 4.5" D) | - | 230° | - | SHARED HYBRID CABLE | BL | 850 MHZ |
| | # 6 | 150'-0" | BXA-171063-120P (72.5" H x 6.1" W x 4.1" D) | - | 230° | - | SHARED HYBRID CABLE | O/BL/O | 2100 MHZ |
| | # 7 | 150'-0" | BXA-171063-120P (72.5" H x 6.1" W x 4.1" D) | - | 230° | - | SHARED HYBRID CABLE | B/BL/B | 1900 MHZ |
| GAMMA | # 8 | 150'-0" | BXA-70063-80P (94.6" H x 11.2" W x 4.5" D) | - | 350° | - | SHARED HYBRID CABLE | Y | 850 MHZ |
| | # 9 | 150'-0" | BXA-171063-120P (72.5" H x 6.1" W x 4.1" D) | - | 350° | - | SHARED HYBRID CABLE | O/Y/O | 2100 MHZ |
| | # 10 | 150'-0" | BXA-171063-120P (72.5" H x 6.1" W x 4.1" D) | - | 350° | - | SHARED HYBRID CABLE | B/Y/B | 1900 MHZ |
| GPS | # 11 | 150'-0" | BXA-70063-80P (94.6" H x 11.2" W x 4.5" D) | - | 350° | - | SHARED HYBRID CABLE | O/Y/O | 700 MHZ |
| | # 12 | 150'-0" | BXA-70063-80P (94.6" H x 11.2" W x 4.5" D) | - | 350° | - | SHARED HYBRID CABLE | O/Y/O | 700 MHZ |
| GPS | - | - | MAXIMUS GPS-TMC-4020NASCALA (2) REQUIRED | - | - | - | 1/2" | - | - |

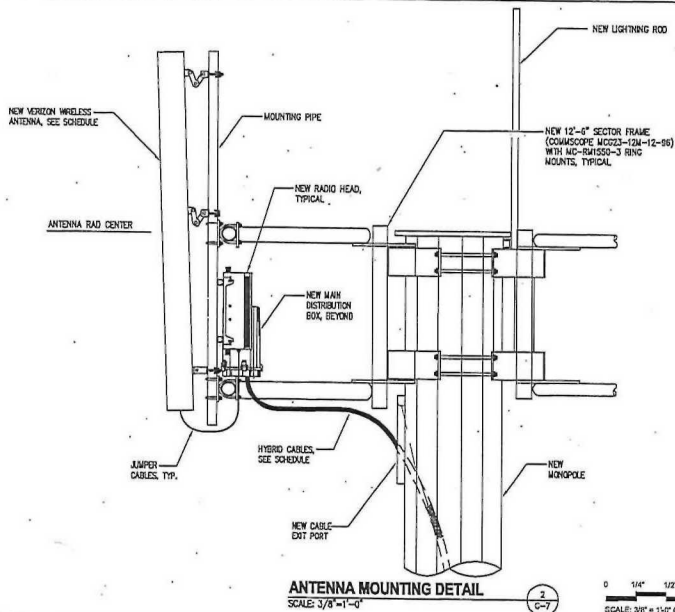
NOTES:

- ALL ANTENNAS SHALL BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR SHALL COORDINATE REQUIRED MECHANICAL DOWNTILT FOR EACH ANTENNA WITH RF ENGINEER. ANTENNA DOWNTILT SHALL BE SET AND VERIFIED BY A SMART LEVEL.
- ANTENNA CENTERLINE HEIGHT IS IN REFERENCE TO ELEVATION O.D.S.
- FINAL CABLE LENGTHS SHALL BE DETERMINED AFTER INSTALLATION.
- COORDINATE THE ANTENNA DOWNTILT WITH THE RF ENGINEER.
- THE CABLE LENGTHS SHOWN ARE THE ACTUAL COMPUTED LENGTHS WITH NO OVERAGE ALLOWANCE.
- REFER TO THE APS FOR THE ANTENNA DOWNTILT REQUIREMENTS.
- THE CABLE LENGTH IS MEASURED FROM THE MAIN DISTRIBUTION BOX ON THE STRUCTURE.

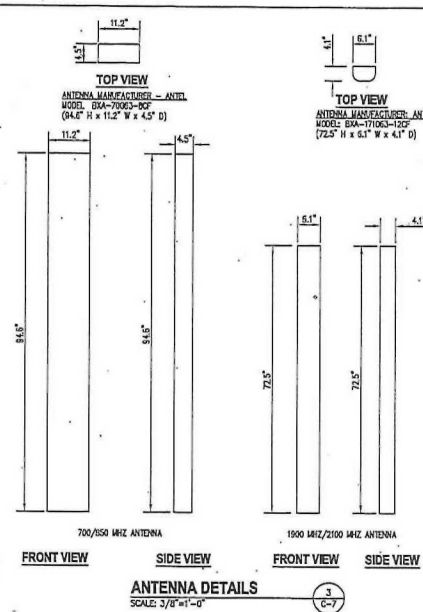
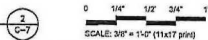
CABLE MINIMUM BEND RADIUS

| 7/8" RF | 1-1/4" RF | 1-5/8" RF | 2-1/4" RF | 1.1" HYBRIFLEX |
|---------|-----------|-----------|-----------|----------------|
| 7" | 15" | 20" | 22" | 10" |

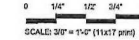
NOTE:
ALL ANTENNAS SHALL BE FINISHED OR PAINTED GREY.



ANTENNA MOUNTING DETAIL
SCALE: 3/8"=1'-0"



ANTENNA DETAILS
SCALE: 3/8"=1'-0"



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FAX: (202)408-0961

SUBMITTALS

| DATE | DESCRIPTION | REV. |
|----------|--------------------------|------|
| 06-09-17 | SPECIAL EXCEPTION REVIEW | |
| 06-27-17 | SPECIAL EXCEPTION REVIEW | |
| 07-18-17 | SPECIAL EXCEPTION REVIEW | |
| 08-07-17 | SPECIAL EXCEPTION REVIEW | |
| 10-09-17 | SPECIAL EXCEPTION REVIEW | |
| | | |
| | | |
| | | |

SEAL:



PROJECT NO: 1050.153
DESIGNER: M.A.
ENGINEER: M.M.

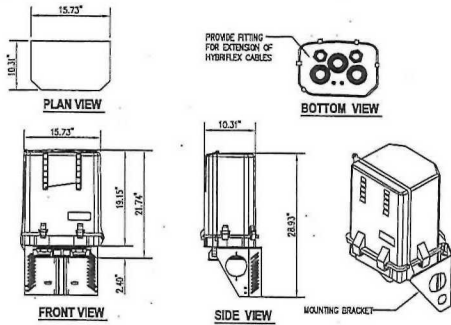
SCALE:
AS SHOWN ON PLAN

PLEASANT VALLEY
SUBSTATION
6309T BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA, 20120

TITLE:
**VZW ANTENNA
SCHEDULE
AND DETAILS**

SHEET NUMBER:
C-7

NOTE:
ALL DISTRIBUTION BOXES SHALL BE FINISHED OR PAINTED GREY.



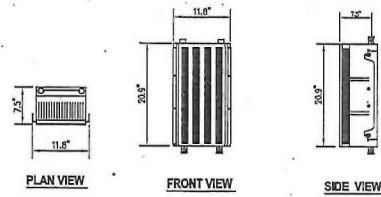
MANUFACTURER: RAYCAP
DIMENSIONS: 10.31x15.73x18.13"
HEIGHT: 21.4 LBS (SYSTEM)
5.5 LBS (MOUNT)
26.9 LBS (TOTAL)

MAIN DISTRIBUTION BOX DETAILS
SCALE: 1/2"=1'-0"

1
C-8

0 1/4" 1/2" 3/4" 1"
SCALE: 1/2" = 1'-0" (11x17 print)

NOTE:
RRH'S ARE MOUNTED BEHIND THE ANTENNAS



MANUFACTURER: ALCATEL-LUCENT
MODEL: 813 RRH 4X3D
DIMENSION: 7.5"x11.6"x20.5" WITH SOLAR SHIELD
WEIGHT: 55.6 LBS WITH SOLAR SHIELD

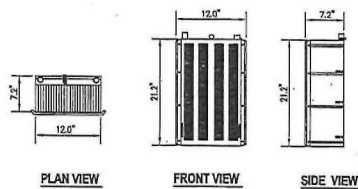
NOTE:
1. INSTALL RRH PER MANUFACTURE RECOMMENDATIONS.

700 MHZ RADIO HEAD DETAILS
SCALE: 1/2"=1'-0"

2
C-8

0 1/4" 1/2" 3/4" 1"
SCALE: 1/2" = 1'-0" (11x17 print)

NOTE:
RRH'S ARE MOUNTED BEHIND THE ANTENNAS



MANUFACTURER: ALCATEL-LUCENT
MODEL: 815 RRH4X3D
DIMENSION: 7.2"x12.0"x21.2" WITH SOLAR SHIELD
WEIGHT: 53 LBS WITH SOLAR SHIELD

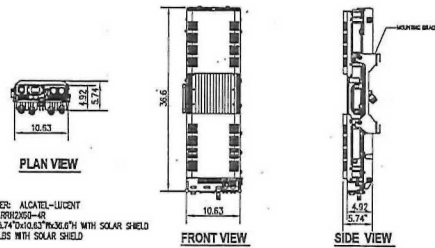
NOTE:
1. INSTALL RRH PER MANUFACTURE RECOMMENDATIONS.

1900 MHZ RADIO HEAD DETAILS
SCALE: 1/2"=1'-0"

3
C-8

0 1/4" 1/2" 3/4" 1"
SCALE: 1/2" = 1'-0" (11x17 print)

NOTE:
RRH'S ARE MOUNTED BEHIND THE ANTENNAS



MANUFACTURER: ALCATEL-LUCENT
MODEL: 84 RRH2X2-6L
DIMENSION: 5.74"x10.63"x30.6" WITH SOLAR SHIELD
WEIGHT: 55 LBS WITH SOLAR SHIELD

NOTE:
1. INSTALL RRH PER MANUFACTURE RECOMMENDATIONS.

2100 MHZ RADIO HEAD DETAILS
SCALE: 1/2"=1'-0"

4
C-8

0 1/4" 1/2" 3/4" 1"
SCALE: 1/2" = 1'-0" (11x17 print)



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SUBMITTALS

| DATE | DESCRIPTION | REV. |
|----------|--------------------------|------|
| 06-08-17 | SPECIAL EXCEPTION REVIEW | |
| 06-27-17 | SPECIAL EXCEPTION REVIEW | |
| 07-18-17 | SPECIAL EXCEPTION REVIEW | |
| 09-07-17 | SPECIAL EXCEPTION REVIEW | |
| 10-06-17 | SPECIAL EXCEPTION REVIEW | |
| | | |
| | | |

SEAL:



Milestone
COMMUNICATIONS

PROJECT NO: 1050.153
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
AS SHOWN ON PLAN

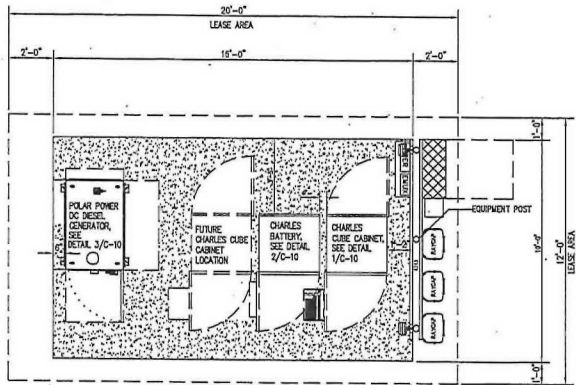
PLEASANT VALLEY
SUBSTATION
6309T BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA. 20120

TITLE:

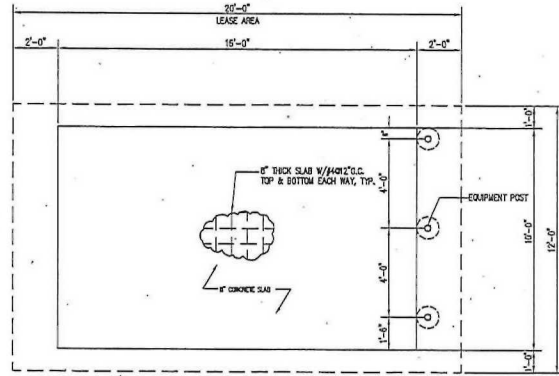
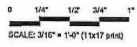
**VZW RRH AND
DISTRIBUTION
BOX DETAILS**

SHEET NUMBER:

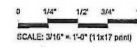
C-8



EQUIPMENT LAYOUT PLAN
SCALE: 3/16" = 1'-0"



CONCRETE EQUIPMENT SLAB PLAN
SCALE: 3/16" = 1'-0"



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| SUBMITTALS | | |
|------------|--------------------------|------|
| DATE | DESCRIPTION | REV. |
| 06-08-17 | SPECIAL EXCEPTION REVIEW | |
| 06-27-17 | SPECIAL EXCEPTION REVIEW | |
| 07-18-17 | SPECIAL EXCEPTION REVIEW | |
| 09-07-17 | SPECIAL EXCEPTION REVIEW | |
| 10-09-17 | SPECIAL EXCEPTION REVIEW | |
| | | |
| | | |



PROJECT NO: 1050.153
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
AS SHOWN ON PLAN

**PLEASANT VALLEY
SUBSTATION
6309T BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA. 20120**

TITLE:
**VZW EQUIPMENT
SLAB DETAILS**

SHEET NUMBER:
C-9



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SUBMITTALS

| DATE | DESCRIPTION | REV. |
|----------|--------------------------|------|
| 06-08-17 | SPECIAL EXCEPTION REVIEW | |
| 06-27-17 | SPECIAL EXCEPTION REVIEW | |
| 07-18-17 | SPECIAL EXCEPTION REVIEW | |
| 08-07-17 | SPECIAL EXCEPTION REVIEW | |
| 10-02-17 | SPECIAL EXCEPTION REVIEW | |
| | | |
| | | |

SEAL:



Milestone COMMUNICATIONS

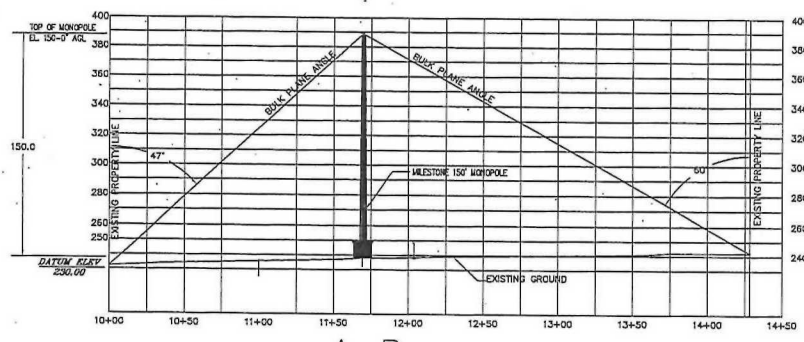
PROJECT NO: 1050.153
 DESIGNER: M.A.
 ENGINEER: M.M.

SCALE:
 AS SHOWN ON PLAN

PLEASANT VALLEY SUBSTATION
6309T BULL RUN
POST OFFICE ROAD
CENTREVILLE, VA. 20120

TITLE:
SITE PROFILES

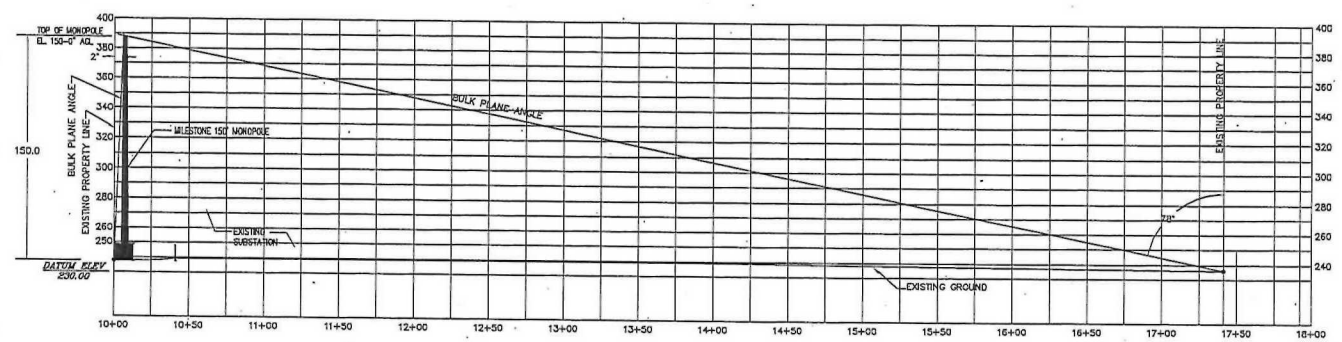
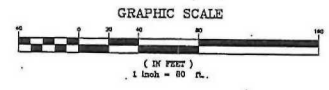
SHEET NUMBER:
C-11



A-B

BULK PLANE ELEVATIONS WEST - EAST

SCALE: 1"=80'-0" HORIZONTAL
 SCALE: 1"=80'-0" VERTICAL



BULK PLANE ELEVATIONS SOUTH - NORTH

SCALE: 1"=80'-0" HORIZONTAL
 SCALE: 1"=80'-0" VERTICAL



OUTFALL NARRATIVE

PRE-DEVELOPMENT CONDITIONS

THIS SITE CONSISTS OF 5.081 ACRES OF TOTAL LAND AREA, OF WHICH 0.048 ACRES WILL BE DISTURBED FOR THE DEVELOPMENT OF A COMMUNICATIONS FACILITY. THE SITE IS WITHIN BULL RUN WATERSHED AND HAS ONE OUTFALL. THE RUNOFF FROM THE SITE BARELY DRAINS TO THE SOUTH AFTER IT IS DISCHARGED FROM AN EXISTING STORMWATER MANAGEMENT SYSTEM. FIELD OBSERVATION REVEALED NO DRAINAGE PROBLEMS ON-SITE OR OFFSITE WITHIN THE STUDY AREA.

DURING CONSTRUCTION PERIOD

BEST PRACTICES WILL BE INSTALLED AS A SEDIMENT AND EROSION CONTROL MEASURE ALONG THE AREA OF DISTURBANCE (0.048 AC). THE RUNOFF FOR THE DISTURBED AREA WILL BE 0.174 CFS FOR THE 10-YEAR STORM EVENT. THE RUN OFF WILL BE DISPERSED AS A SHEET FLOW (PPM 6-0202.0) ACROSS THE LOT AND INTO A STORM SEWER PIPE THAT PROTECTED FROM SEDIMENT ENTERING THE STORM SEWER SYSTEM. ALL OF THE SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE KEPT FUNCTIONAL THROUGHOUT THE DURATION OF THE PROJECT. NO DEBRIS OR DIRT FROM THE SITE SHALL BE PERMITTED TO THE STREET. A CONSTRUCTION ENTRANCE SHALL BE MAINTAINED AND PROVIDE WATER FOR CLEANING CONSTRUCTION VEHICLES IF NO PUBLIC WATER IS AVAILABLE.

POST-DEVELOPMENT CONSTRUCTION

THERE WILL BE AN INCREASE OF 1,250 SF OF IMPERVIOUS AREA RESULTING IN AN INCREASE OF 0.097 CFS AND 0.129 CFS FOR THE 2-YEAR AND 10-YEAR STORM EVENT RESPECTIVELY. THE INCREASE IS MINIMAL FOR THIS LOT.

THIS INCREASE IN RUNOFF BY THIS DEVELOPMENT WILL HONOR THE NATURAL DRAINAGE DROPS AND WILL NOT AGGRAVATE ANY EXISTING DRAINAGE PROBLEM OR CAUSE ANY NEW DRAINAGE PROBLEM ON THE DOWNSTREAM PROPERTIES. THE RUNOFF FROM THIS SITE WILL LEAVE AS SHEET FLOW. IT IS THE OPINION OF THE ENGINEER THAT THIS INCREASE WILL NOT HAVE ANY ADVERSE IMPACT ON SITE OR OFFSITE AFTER COMPLETION OF THE PROPOSED DEVELOPMENT AND THAT THE OUTFALL IS ADEQUATE TO HANDLE THE MINIMAL INCREASE OF FLOWS.

STORMWATER MANAGEMENT NARRATIVE:

THE EXISTING SITE IS CURRENTLY UTILIZING THREE (3) STORMTECH FACILITY AND TWO (2) BIORETENTION FACILITIES TO MEET STORMWATER QUANTITY AND QUALITY REQUIREMENTS. THE EXISTING FACILITIES, WHICH WERE DESIGNED FOR THE DOMINION GAS COMPRESSOR STATION RENOVATION (2016) WERE OVER-DESIGNED FOR FUTURE EXPANSION OF THE FACILITY. THERE IS ONLY ONE (1) OUTFALL FOR THE PROPOSED COMMUNICATIONS FACILITY. THE RUNOFF FROM THE FACILITY WILL FLOW OVERLAND TO AN EXISTING 10" STORM SEWER, WHICH FLOWS INTO AN EXISTING STORMTECH SYSTEM.

THE EXISTING STORMTECH FACILITY WAS DESIGNED TO PROVIDE STORMWATER QUANTITY FOR THE 1-YEAR, 2-YEAR AND 10-YEAR STORM EVENT. THE NEW VIRGINIA STORMWATER REGULATIONS WERE UTILIZED FOR THE DOMINION GAS COMPRESSOR STATION PROJECT (4WACS00-10 THROUGH 4WACS00-05). THE VIRGINIA RUNOFF REDUCTION METHODOLOGY (VRM) WERE USED TO DETERMINE BOTH THE PHOSPHOROUS REMOVAL REQUIREMENTS AND THE RUNOFF REDUCTION VOLUME. THE TARGET PHOSPHOROUS LOAD (POST-DEVELOPMENT) FOR THE SITE IS 0.41 POUNDS PER ACRE PER YEAR (LBS/ACRE/YR). THIS PREVIOUS SITE PLAN WAS EXEMPT FROM ALL COUNTY REVIEW BECAUSE THE SITE PLAN WAS REGULATED BY THE FEDERAL ENERGY REGULATORY COMMISSION (FERC).

BECAUSE THE EXISTING FACILITIES WERE OVER-DESIGNED FOR FUTURE GRAVEL AREAS NO ADDITIONAL MEASURES ARE NEEDED TO MEET STORMWATER MANAGEMENT REQUIREMENTS FOR BOTH QUANTITY AND QUALITY.

RUNOFF COMPUTATIONS

"C" RUNOFF COEFFICIENT

A. PRE-DEVELOPMENT
 $= \frac{2.283 \times 0.20}{2.043} = 0.22$

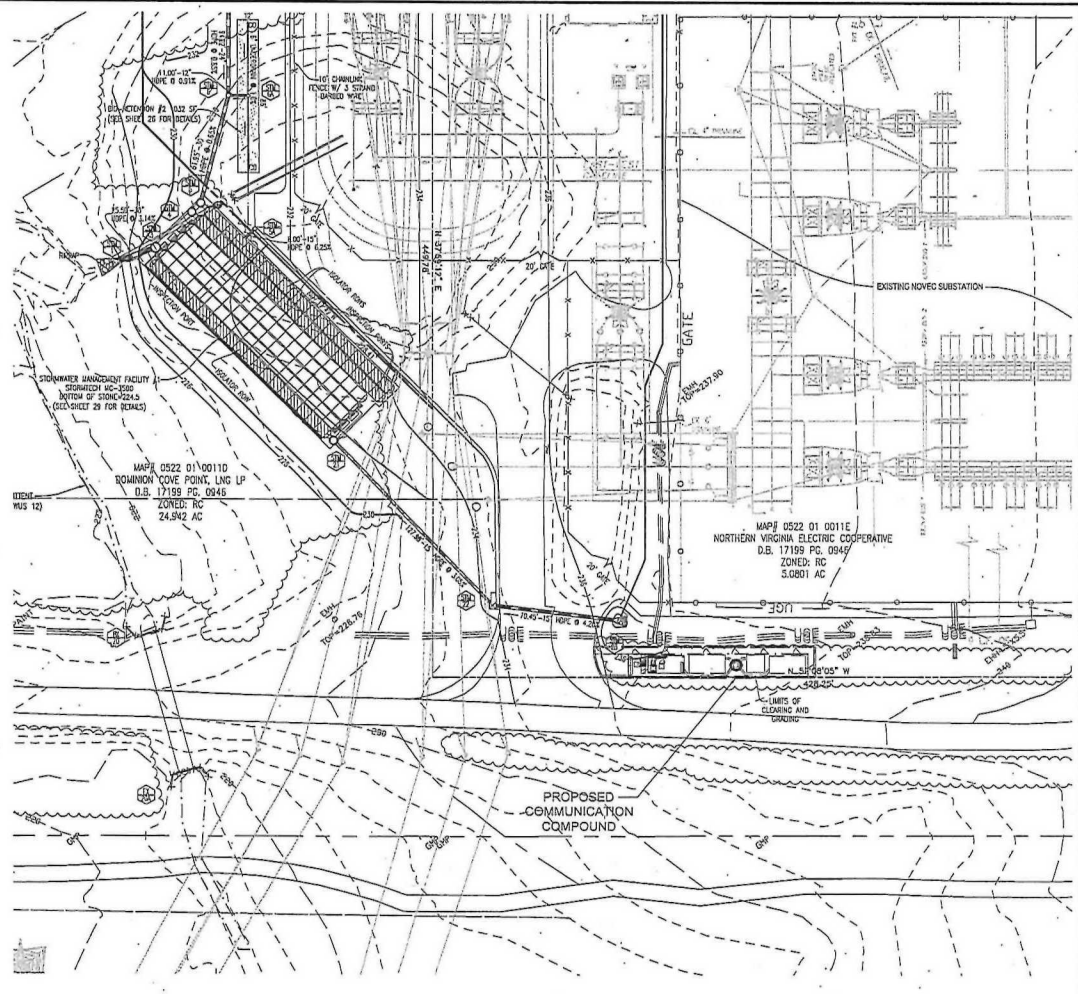
A. POST-DEVELOPMENT
 $= \frac{0.23 \times 0.36}{1.061} = 0.08$

RUNOFF Q=CIA

A. PRE-DEVELOPMENT
 $Q_1 = 0.20 \times 5.45 \times 0.048 = 0.078 \text{ CFS}$
 $Q_2 = 0.20 \times 7.27 \times 0.048 = 0.105 \text{ CFS}$

B. POST-DEVELOPMENT
 $Q_1 = 0.07 \times 5.45 \times 0.048 = 0.175 \text{ CFS}$
 $Q_2 = 0.07 \times 7.27 \times 0.048 = 0.234 \text{ CFS}$

C. CHANGE IN RUNOFF
 $Q_1 = 0.175 - 0.078 = 0.097 \text{ CFS}$
 $Q_2 = 0.234 - 0.105 = 0.129 \text{ CFS}$



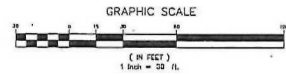
STORMWATER MANAGEMENT PLAN AND NARRATIVE

PLEASANT VALLEY SUBSTATION
 FAIRFAX COUNTY, VIRGINIA

Plan Number
 Drawn By: CC
 Designed By: CC
 Checked By:

Date: JUNE 6, 2017
 Scale: 1"=30'

Sheet: 13 of 13
 SWM-1



| NO. | DATE | DESCRIPTION | BY |
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SPECIAL EXCEPTION REQUEST

The applicant seeks a Special Exception and 2232 approval to allow the construction of a telecommunications monopole 150 feet in height in the R-C (Residential Conservation) District and Water Supply Overlay District (WS).

A copy of the special exception plat and associated plans is included in the front of the staff report. Copies of the proposed development conditions are contained in Appendix 1. The Statement of Justification and photographs, the 2232 application, photosims and photographs, and the affidavit are contained in Appendices 2 through 5, respectively. A glossary is included in Appendix 15 of this report.

CHARACTER OF THE SITE AND SURROUNDING AREA

The proposed telecommunications facility is located in western Fairfax County at 6309T Bull Run Post Office Road, on Northern Virginia Electrical Cooperative (NOVEC) property, known as the Pleasant Valley Substation that is within a larger area of existing public utility and public facility properties and uses. The substation provides power to a natural gas compressor station owned by Dominion Cove Point on neighboring property to the southeast. Immediately to the south of the substation property is a major utility easement consisting of an electrical transmission corridor with 2 to 3 parallel rows of tall overhead utility lines supported by 130 foot tall lattice towers, running from southeast to northwest across property owned by the Fairfax County Park Authority. The easement also contains a Columbia liquefied natural gas line.

The overall parcel contains 8.43 acres. The compound wherein the proposed telecommunications monopole is to be located (which is the extent of the Special Exception) contains 1,250 square feet, and is situated near the southern property line of the parcel. The compound is currently undeveloped with grass and tree cover.

All properties surrounding the subject parcel are also zoned R-C and WS. Undeveloped public park land is north of the subject site, the Dominion Cove Point natural gas compression plant is to the southeast, natural gas and electrical transmission easements with additional undeveloped public park land are to the south, and undeveloped public park land is further west of private open space.



Figure 1: Aerial view of the property, edited by staff to show the surrounding zoning and the proposed Special Exception compound. Source: Google Maps.

BACKGROUND AND HISTORY

The area surrounding and containing the subject parcel has been zoned R-C since the creation of the district.

Previously, Milestone Communications, Inc., and Verizon Wireless (Verizon) had obtained 2232 approval for this same monopole under 2232-Y14-7, approved by the Planning Commission on December 4, 2014 with the monopole to be located in the northwest portion of the parcel. The approved monopole was never constructed and must now be relocated due to a change in development plans by NOVEC for that portion of the property. At that time, the Planning Commission approval for this monopole was a “by-right” approval not requiring a Special Exception application.

In 2016, House Bill 883 was approved by the 2016 General Assembly, which eliminated all public review of proposed telecommunications towers in by-right locations. The Fairfax County Board of Supervisors subsequently amended the Zoning Ordinance on June 21, 2016 (effective June 22, 2016) to require that all telecommunication monopoles and towers obtain Special Exception approval whether proposed in by-right or nonconforming locations. As a consequence of these legal changes, a Special Exception is requested to permit the proposed telecommunications facility.

DESCRIPTION OF THE REQUEST

The applicant proposes to build a 150 foot monopole and an associated 1,250 square foot equipment cabinet compound on the subject property. The proposed tower is the same height as the previous tower and similar in design, constructed of steel with a galvanized finish. It is designed to hold 12 panel antennas for Verizon, and up to 3 future carriers at various location heights (RAD centers) on the monopole. Verizon is at a 150 foot RAD center, and the 3 future carriers are at RAD centers of 140 feet, 130 feet, and 120 feet respectively.

At the base of the proposed monopole is leased space for the equipment compound measuring 100 feet long and 12 feet 6 inches wide with a total area of 1,250 square feet. There is a proposed 8 foot tall chain link fence with an additional 1 foot of barbed wire on top surrounding the equipment compound.

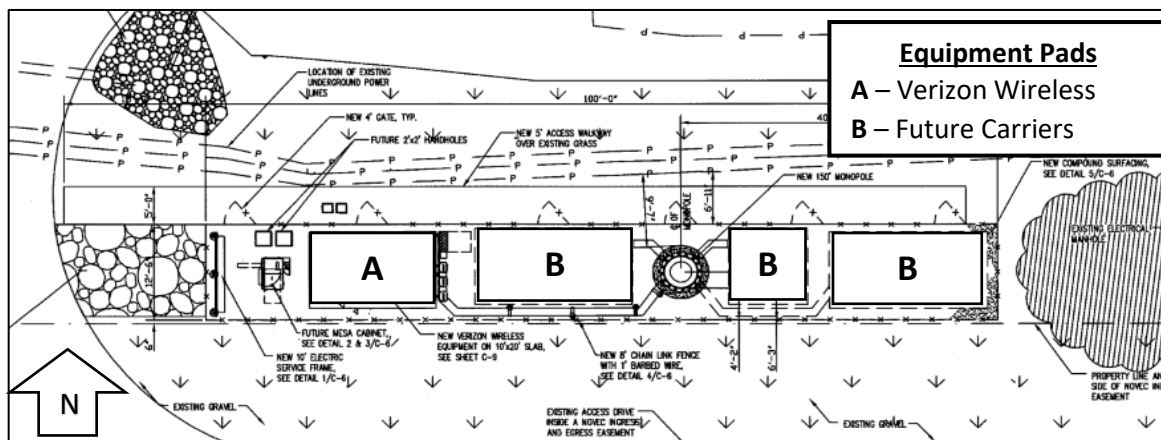


Figure 2: Excerpt of the Special Exception Plan, edited by staff. Source: Applicant.

The Verizon equipment is located at the western end of the compound and consists of 3 cabinets (2 at construction and 1 future), and a backup diesel-powered generator with an internal gas tank. The equipment areas allotted to the 3 future carriers are located in the center and eastern portions of the compound. The facility will operate 24 hours a day, 7 days per week. It is designed to be an unmanned facility, visited approximately 1-2 times per month by each carrier for site inspection, or on an as-needed basis for repairs. In addition, all facilities are monitored off site by the provider 24-hours a day, 7-days a week in order to ensure they are operating properly and that there is no unauthorized tampering with the facilities. The proposed use is benign and does not generate noise, lights, dust, glare, vibrations, fumes, or odors. Minimum noise is generated when the back-up generator is tested once per month or during emergency operation.

Attached to the application are Verizon’s propagation maps showing the area to be covered by the new facility. Verizon’s objective for this site is to fill existing service gaps and provide services to residences and commuters in the neighborhoods between Pleasant Valley Road and Gum Springs Road to the west. The site will serve a wide area of western Fairfax County and southeastern Loudoun County. The site not only fills gaps but enhances 4G-LTE data service to all users in the surrounding area.

Comprehensive Plan Guidance

The subject property is located in Area III, Bull Run Planning District, BR5 Stonebridge Community Planning Sector. The Comprehensive Plan Map identifies the property as planned for residential use (.1-.2 dwelling units/acre) with the property zoned R-C and WS.

Area Plan

FAIRFAX COUNTY COMPREHENSIVE PLAN, 2017 Edition **AREA III**
Bull Run Planning District, Amended through 3-14-2017
BR5-Stone Bridge Community Planning Sector **Page 38, 69, 74**
“BR5 STONE BRIDGE COMMUNITY PLANNING SECTOR

CHARACTER

The Stone Bridge Community Planning Sector is located in the far western portion of the county and is generally bounded by Loudoun County, Prince William County, Pleasant Valley Road, and Compton Road.

Much of the planning sector is undeveloped and includes forest and farmland, large portions of which are preserved as public parkland. A majority of the planning sector is outside of the county’s Approved Sewer Service Area and existing single-family residential units in this portion of the planning sector are widely scattered at very low densities. ...

.....

CONCEPT FOR FUTURE DEVELOPMENT

Consistent with its existing pattern of low intensity development, most of this sector is recommended under the Concept for Future Development as a Low Density Residential Area. ...

RECOMMENDATIONS

Land Use

.....

1. The land on the southwest perimeter of the county, adjacent to Loudoun County and Prince William County, lying generally along Bull Run and the public parkland associated with Bull Run has remained for the most part open and undeveloped and has a rural character. It is planned for residential development at .1-.2 dwelling unit per acre and public parkland. This is in conformance with the findings of the Occoquan Basin Study. The present very low density development which characterizes this area should remain intact to protect its natural wildlife and water quality.

.....

Heritage Resources

.....

Any development or ground disturbance in this sector, both on private and public land, should be preceded by heritage resource studies, and alternatives should be explored for the avoidance, preservation or recovery of significant heritage resources that are found. In those areas where significant heritage resources have been recorded, an effort should be made to preserve them. If preservation is not feasible, then, in accordance with countywide objectives and policies as cited in the Heritage Resources section of the Policy Plan, the threatened resource should be thoroughly recorded and in the case of archaeological resources, the artifacts recovered.

Public Facilities

2. Provide two substations for Northern Virginia Electric Cooperative in Sector BR5.”

**“MOBILE AND LAND-BASED
TELECOMMUNICATION SERVICES**

Mobile and land-based telecommunication services provide for the wireless transmission of voice and data and include cellular and personal communications services (PCS), paging and wireless Internet services and mobile radio communication. These services operate from wireless networks that depend on antenna devices and related equipment to transmit from a sender to one or more receivers. Such services are viewed as public utility service providers that benefit the community and its economic growth and vitality.

.....

The 1996 Telecommunications Act, implemented by the Federal Communications Commission (FCC), and the federal courts defers to state and local governments (subject to certain exceptions) with respect to the placement, construction, and modification of facilities used to

provide cellular, broadband, and other personal wireless services. State and local governments may not regulate these facilities based on the potential health or environmental effects of radio frequency (RF) emissions, to the extent that the facilities comply with established FCC regulations. Information on the FCC regulations is available for review on their Website.

GENERAL GUIDELINES

Objective 43: In order to provide for the mobile and land-based telecommunication network for wireless telecommunication systems licensed by the Federal Communications Commission, and to achieve opportunities for the co-location of related facilities and the reduction or elimination of their visual impact, locate the network's necessary support facilities which include any antennas, support structures and equipment buildings or equipment boxes in accordance with the following policies.

- Policy a. Avoid the construction of new structures by locating proposed telecommunication facilities on available existing structures such as rooftops, telecommunication and broadcast support structures, electrical utility poles and towers, and water storage facilities when the telecommunication facilities can be placed inconspicuously to blend with such existing structures. (See Figures 8, 9, 10.)
- Policy b. When existing structures are not available for co-location, or co-location is not appropriate because of adverse visual impacts or service needs, locate new structures that are required to support telecommunication antennas on properties that provide the greatest opportunity to conceal the telecommunication facilities and minimize their visual impact on surrounding areas.
- Policy c. When new structures or co-locations are required to serve residential neighborhoods, consider minimizing visual impacts on the surrounding area by utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS), if feasible.
- Policy d. When multiple sites provide similar or equal opportunity to minimize impacts, public lands shall be the preferred location.
- Policy e. Locate mobile and land-based telecommunication facilities on public property only after a lease agreement between the county, or related board or authority, and the service provider has been established.
- Policy f. Ensure that the use of public property by mobile and land-based telecommunication facilities does not interfere with the existing or planned operational requirements of the public use and complies with adopted policies and plans to protect natural resources.
- Policy g. Co-locate mobile and land-based telecommunication facilities operated by different service providers on single sites and/or structures whenever appropriate. Locate single-use structures on a property only when a co-location structure for multiple service providers is not desirable or feasible due to technological differences, site limitations or visual impact concerns.
- Policy h. Ensure that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunication facility based

on its service area requirements while still mitigating the visual impact of the facility.

- Policy i. When new structures, co-locations and/or technologies (such as distributed antenna systems, micro-cell technology or miniaturization technology) are necessary to meet the service area requirements for the residential neighborhood(s), ensure that the height and mass of any appropriate co-location on the telecommunication facility is in character with the surrounding residential area and mitigates the visual impact of the facility on the surrounding residential area.
- Policy j. Design, site and/or landscape proposed telecommunication facilities to minimize impacts on the character of the property and surrounding areas. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type, location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding areas.
- Policy k. Demonstrate that the selected site for a new telecommunication facility provides the least visual impact on residential areas and the public way, as compared with alternate sites. Analyze the potential impacts from other vantage points in the area, especially from residential properties, to show how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site.
- Policy l. A key concept in assessing telecommunication facilities is mitigation which is defined as actions taken to reduce or eliminate negative visual impacts. Mitigate the visual impact of proposed telecommunication facilities and their equipment, by using effective design options appropriate to the site such as:
- Design, site and/or landscape the proposed facility to minimize impacts on the character of the area;
 - Locate proposed telecommunication facilities near or within areas of mature vegetation and trees that effectively screen or provide an appropriate setting for the proposed structure provided such location does not adversely impact sensitive resources or cause fragmentation of forested communities. When viewed in context, consider perspective views, relative topography and other factors, to mitigate the visual presence and prominence of the structure;
 - Blend proposed telecommunication facilities with an existing pattern of tall structures;
 - Obscure or block the views of proposed telecommunication facilities with other existing structures, vegetation, tree cover, or topographic features to the maximum extent feasible; and
 - Replace existing telecommunication facilities with taller structures or extend their overall height to reduce the need for another structure when such height increases or structure replacements are visually appropriate

to the site, including the surrounding area and are consistent with the type, style and pattern of the existing structure.

- Policy m. Locate proposed telecommunication facilities to ensure the protection of historically significant landscapes and cultural resources. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities.
- Policy n. Site proposed telecommunication facilities to avoid areas of environmental sensitivity, such as steep slopes, floodplains, wetlands, environmental quality corridors, and resource protection areas.
- Policy o. Site proposed telecommunication facilities to allow for future expansion and with corresponding levels of screening to accommodate expansion.
- Policy p. Design and site proposed telecommunication facilities to preserve areas necessary for future right-of-way dedication and ancillary easements for construction of road improvements.
- Policy q. Locate and construct antennas used for purposes other than mobile and land-based telecommunication services in accordance with the same guidelines established in this “Mobile and Land-Based Telecommunications Services” section.

Objective 44: Design proposed telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area. (See Figures 11 and 12.)

- Policy a. Disguise or camouflage the appearance of proposed telecommunication facilities to resemble other man-made structures and natural features (such as flagpoles, bell towers, and trees) that are typically found in a similar context and belong to the setting where placed.
- Policy b. Design proposed telecommunication facilities that are disguised and camouflaged to be of a bulk, mass and height typical of and similar to the feature selected.
- Policy c. Use other new and existing structures and vegetation of comparable form and style to establish a grouping that complements a camouflaged telecommunication facility and supports its design, location and appearance.”

STAFF ANALYSIS

Agency Comments

- Planning Division – Environment and Development Review Branch (Appendix 6): The application does not present a conflict with the environmental policies of the Comprehensive Plan.
- Fairfax County Park Authority – Park Planning Branch (Appendix 7): Based on staff review of the application, staff has determined that this application

has no adverse impact on the land, resources, facilities or service levels of the Park Authority.

- Department of Land Development Services – Site Development and Inspections Division (Appendix 8):
The proposed development is exempt from the provision of Chapter 124 of the County Code (Stormwater Management Ordinance), as the development plan is regulated by the Federal Energy Regulatory Commission (124-1-10.D.). Therefore, there are no further comments at this time.
- Department of Public Works and Environmental Services – Forest Conservation Branch (Appendix 9):
All review comments have been addressed and the modification for the Transitional Screening yard for the northeast side of the site has been submitted and will be addressed at time of Site Plan review. There are no additional comments at this time.
- Department of Public Works and Environmental Services – Sewer Engineering Analysis and Planning Branch (Appendix 10):
The special exception amendment plan for the referenced property is in the non-sewer service area. Further, a proposed telecommunication facility use has no impact on the sanitary sewer system.
- Fairfax County Department of Transportation – Site Analysis Section (Appendix 11):
A previous application by the applicant for a telecommunications facility on the northwest portion of this same parcel was approved by the Planning Commission on December 4, 2014 but was never constructed. Now the facility must be relocated on the parcel due to a change in plans for the original site. This department has no transportation issues with the application.

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 entire property on which the proposed 150 foot tall monopole is located is owned by a major public utility company (NOVEC), is used for electrical transmission and electrical substation purposes, and is associated with and part of a major utility easement over 100 feet in width. This meets the intent of Comprehensive Plan guidelines to consider new monopoles to be located in major utility transmission easements or rights-of-way. Also, the property chosen for the telecommunications facility is on relatively level ground not in a floodplain or a Resource Protection Area. This fulfills Plan guidelines to site proposed telecommunication facilities to avoid areas

of environmental sensitivity, such as steep slopes, floodplains, wetlands, environmental quality corridors, and resource protection areas.

The applicant states that within the search area, existing and adjacent electrical transmission towers approximately 130 feet tall were evaluated for use. However, Dominion Virginia Power rejected co-location on these structures. The existing towers cannot structurally support or accommodate Verizon's proposed antennas. Therefore, the applicant chose the NOVEC site for the 150 foot tall monopole as the monopole can still be located near these other tall transmission towers. This meets Comprehensive Plan objectives stipulating that when existing structures are not available for co-location, or co-location is not appropriate because of adverse service needs, new structures that are required to support telecommunications antennas be located on properties that provide the greatest opportunity to conceal the telecommunications facilities.

The Comprehensive Plan encourages public lands as a preferred location for telecommunications uses. However, in this case the nearby public park lands are undeveloped with no firm master plan for development and location of uses. Also, they do not offer any greater opportunity to reduce visual impact than the selected site, as demonstrated above.

Character

The proposed site for the 150 foot tall monopole and 1,250 square foot equipment compound is adjacent to NOVEC's electrical substation servicing an electrical power corridor with approximate 130 foot tall transmission towers. Another public utility for natural gas compression (Dominion Cove Point) exists southeast of the site. Therefore, the subject property provides screening and context due to the existing pattern of tall transmission towers and public utilities in the immediate area. This accords with Comprehensive Plan guidelines to design and site proposed telecommunications facilities to minimize impacts on the character of the property and surrounding areas. In addition, the site is further surrounded by public park land and wooded areas. This fulfills Plan objectives to obscure or block views of proposed telecommunications facilities with other existing tree cover or topographic features to the maximum extent feasible.

Photo-simulations (photosims) located in Appendix 4 represent the monopole's appearance from the closest adjacent residential areas at least 2,300 feet to the west. The majority of photosims reveal that the monopole has minimal visibility due to distance or landscape features in this rural area and is in context with the existing tall electrical transmission towers. Therefore, Comprehensive Plan guidelines have been achieved that demonstrate that the selected site for a new telecommunication facility provides the least visual impact on residential areas and the public way, as compared with alternate sites, and that analysis of potential impacts from other vantage points in the area, especially from residential properties, shows how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site. Related to this, since the proposed 150 foot tall monopole is on electrical substation property and is adjacent to an electrical transmission corridor with towers

that are approximately 130 feet in height, this adheres to Plan objectives that other existing structures of comparable form and style establish a grouping that complements a camouflaged telecommunication facility and supports its design, location, and appearance.

The proposed monopole does not impact other historically significant landscapes and cultural resources. Specifically, the views of and vistas from other architecturally and/or historically significant structures are not impaired or diminished by placement of this telecommunications facility, thereby meeting Comprehensive Plan guidelines.

Overall, the Comprehensive Plan objectives are achieved for designing, siting, and/or landscaping mobile and land-based telecommunication facilities to minimize impacts on the character of the property and surrounding areas.

Extent

The Zoning Ordinance allows for monopoles up to 199 feet in height. The proposed monopole is 150 feet tall and can accommodate up to 4 possible carriers. Verizon proposes to place 12 panel antennas at a 150 foot RAD center on the monopole, with future carriers' antennas located at 140, 130, and 120 foot RAD centers respectively. Therefore, Comprehensive Plan objectives are met ensuring that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunications facility based on its service area requirements while still mitigating the visual impact of the facility. It also meets Plan objectives to site proposed telecommunications facilities to allow for future expansion.

It is important to note that while a 150 foot tall monopole is proposed, Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012 permits a one-time future height increase of not more than 10 percent, or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed 20 feet, whichever is greater. This could be administratively approved under Section 6409(a) without a public hearing, because it would not be considered a substantial change to the physical dimensions of the tower.

SPECIAL EXCEPTION

Zoning Ordinance Requirements

The application must satisfy the following provisions:

- General Special Exception Standards (Sect. 9-006)
- Standards for All Category 1 Uses (Sect. 9-104)
- Additional Standards for Mobile and Land Based Telecommunication Facilities (Sect. 9-105)

These standards are summarized below and contained in Appendix 14. In accordance with Sect. 9-104 (1) of the Zoning Ordinance, Category 1 Special Exception uses are not required to comply with lot size requirements or bulk regulations.

General Special Exception Standards (Sect. 9-006)

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

Staff believes the proposal has met and satisfied the review criteria of the installation of a new telecommunications facility in location, character and extent. The proposed telecommunication facility will be directly bounded by Fairfax County Park Authority land, two electrical substations and a transmission easement corridor with 130-foot-high poles that support suspended cables. The applicant has selected a location that minimizes visual impacts on residents and adequately satisfies telecommunication signal needs within this area. The proposed facility also provides and allows for future colocation which is in accordance with the Comprehensive Plan's Policy Plan.

The Stone Bridge Community Planning Sector indicates that all special exception approvals should be rigorously reviewed to ensure the proposed impacts on the existing residences are minimal. In 2014, the Planning Commission approved the 2232-Y14-7 application submitted by Milestone Communications and Verizon Wireless, to allow for the construction of a telecommunication facility on the northwestern portion of the Northern Virginia Electric Cooperative (NOVEC) property. This facility was never constructed and now the applicant is proposing to build a telecommunications facility approximately 500 feet south of the prior approval. The Comprehensive Plan map recommends .1 - .2 dwelling units per acre for this location, and in the Staff's opinion, the proposed telecommunications tower is compatible with the Comprehensive Plan recommendations.

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

The proposed facility location is within the R-C and WS Districts which are intended to protect water courses, stream valleys, marshes, forest cover in watersheds, aquifer recharge areas, rare ecological areas, and areas of natural scenic vistas; to minimize impervious surface and to protect the quality of water in public water supply watersheds; to promote open, rural areas for the growing of crops, pasturage, horticulture, dairying, floriculture, the raising of poultry and livestock, and for low density residential uses. The proposed telecommunications facility will be collocated on the southern portion of the NOVEC property, a site which is already serving as a utility use and should not generate any additional impacts on the properties environmental features.

Staff believes as a Category 1 light public utility use, the proposed scope and stature of the telecommunication facility is in harmony with the purpose and intent of the R-C zoning district and that the proposed site is an ideal location to strengthen telecommunications services, while minimizing impacts to the surrounding area.

Standard 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.

The proposed facility will be located in an area surrounded by properties zoned R-C, a zoning district which is intended to protect this environmentally sensitive region of the county. The proposed 1,250 square foot facility will consist of a 150-foot-tall monopole structure, new equipment cabinets, three future carrier leasing areas and will be enclosed by an 8-foot-tall chain link fence with one foot of barbwire on the top. This facility will be located near the southern boundary line of the NOVEC property. Staff believes the addition of the proposed facility to this property shall not impair the value of adjacent land or discourage appropriate development in the R-C zoning district.

Standard 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.

The Fairfax County Department of Transportation reviewed the application and have no objection to the approval of this application.

The proposed telecommunication facility will remain an unmanned facility with minimal traffic impact, usually requiring visits from technicians from each provider 1-2 times per month on an as-needed basis and in cases of emergency repair. The technicians primary access point will be off Bull Run Post Office Road through the NOVEC access easement.

Standard 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.

No screening is required for a tower in the proposed location pursuant to Article 13. An 8 foot tall chain link fence with one foot of barbed wire is proposed to enclose the facility.

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

In the R-C District, there is no requirement for landscaped open space.

Standard 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.

The proposed telecommunications facility will encompass an area of 1,250 square feet for this special exception compound. The site will be subjected to site plan review, which will address water quality and quantity control requirements. A development condition has been included to address this concern.

Standard 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.

No commercial or advertising signs are permitted or designed for the proposed telecommunications facility.

In staff's opinion, with the proposed development conditions, the application satisfies the General Special Exception standards.

Standards for All Category 1 Uses (Sect. 9-104)

Standard 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.

As indicted in this standard, the proposed telecommunications facility is not required to comply with the lot size requirements or bulk regulations of the R-C District. The Zoning Administration Division considers the proposed fence, directly encompassing the proposed telecommunications facilities structures, an integral component of the safety and security of the compound and does not classify it as an accessory structure to the facility. Therefore, the proposed fence height is acceptable.

Standard 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.

Staff has proposed a development condition to restrict the storage of materials, equipment and vehicles.

Standard 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.

As discussed previously in the 2232 analysis this site has been determined appropriate for the proposed facility and will minimize impacts to the adjacent uses. There are no commercial or industrial zoned properties in the immediate area which can fulfill the needs to provide coverage in this area.

Standard 4: Before establishment, all uses, including modifications or alterations to existing uses, shall be subject to the provisions of Article 17, Site Plans.

The proposed telecommunications use will be subject to site plan review.

In staff's opinion, with the proposed conditions, the application satisfies the General Standards for All Category 1 Uses.

Additional Standards for Mobile and Land Based Telecommunication Facilities (Sect. 9-105)

Standard 1: Except for antennas completely enclosed within a structure, all antennas and their supporting mounts shall be of a material or color that closely matches and blends with the structure on which it is mounted.

All panel and dish antennas shall be finished or painted grey as the tower has a galvanized finish.

Standard 2: Except for a flag mounted on a flagpole as permitted under the provisions of Par. 2 of Sect. 12-203, no commercial advertising or signs shall be allowed on any monopole, tower, antenna, antenna support structure, or related equipment cabinet or structure.

No commercial advertising or signs will be posted on the tower, antenna, antenna support structure, or related equipment cabinet or structure.

Standard 3: If any additions, changes or modifications are to be made to monopoles or towers, the Director shall have the authority to require proof, through the submission of engineering and structural data, that the addition, change, or modifications conforms to structural wind load and all other requirements of the Virginia Uniform Statewide Building Code.

To reinforce this requirement a development condition has been included that would require conformance with this standard should any modifications be made to the proposed facility.

Standard 4: No signals, lights or illumination shall be permitted on an antenna unless required by the Federal Communications Commission, the Federal Aviation Administration or the County, provided, however, that on all antenna structures which exceed 100 feet in height, a steady red marker light shall be installed and operated at all times, unless the Zoning Administrator waives the red marker light requirement upon a determination by the Police Department that such marker light is not necessary for flight safety requirements for police and emergency helicopter operations. All such lights shall be shielded to prevent the downward transmission of light.

A development condition has been included prohibiting signals, lights or illumination of the tower except if required by the Federal Aviation Administration, Federal Communications Commission, or the County Police.

Standard 5: All antennas and related equipment cabinets or structures shall be removed within 120 days after such antennas or related equipment cabinets or structures are no longer in use.

A development condition requiring conformance with the standard has been included.

In staff's opinion, with the adoption of the proposed development conditions, the application satisfies the additional standards for mobile and land based telecommunication facilities.

Modifications/Waivers

No modifications or waivers are required for this application.

CONCLUSION / RECOMMENDATIONS

Staff recommends that the Planning Commission find that the facility proposed under 2232-Y17-34 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 2017-SU-020, subject to the proposed development conditions contained in Appendix 1.

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

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

APPENDICES

1. Proposed Development Conditions
2. Special Exception Statement of Justification and Photographs
3. 2232 Application
4. Photosims
5. Affidavit
6. Planning Division – Environment and Development Review Branch Memorandum
7. Fairfax County Park Authority – Development Review Section Memorandum
8. LDS – Site Development and Inspections Division Memorandum
9. Department of Public Works and Environmental Services – Urban Forest Management Division Memorandum
10. Department of Public Works and Environmental Services – Engineering Analysis and Planning Branch Memorandum
11. Fairfax County Department of Transportation – Site Analysis Section
12. FAA Lighting Guidelines
13. Applicable 2232 Standards
14. Applicable Ordinance Standards
15. Glossary

PROPOSED DEVELOPMENT CONDITIONS

If it is the intent of the Board of Supervisors to approve SE 2017-SU-020 located at Tax Map 52-2 ((1)) 11E1 to allow for a telecommunications facility pursuant to Sect. 9-006 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, as may be determined by the Director, Land Development Services (LDS). Any plan submitted pursuant to this special exception shall be in substantial conformance with the approved Special Exception plat entitled Verizon Pleasant Valley Substation, prepared by Entrex Communication Services, Inc. consisting of 14 sheets and dated 6/08/17 as revised to 10/09/17, 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. The telecommunications tower shall be designed as a self-support tower in substantial conformance with the Special Exception plat and the elevation drawings submitted with this application. The self-support tower shall be limited to a maximum height of 150 feet, with the exception of a one-time future height increase as permitted pursuant to Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012. The compound may include equipment cabinets, electric panels, telephone panels and other improvements. Future equipment cabinets shall be located within the specified locations indicated on the Special Exception plat.
5. The combined fence and barbwire height is limited to a maximum height of nine (9) feet as depicted on the Special Exception plat.
6. The self-support tower shall not be lighted, illuminated, nor have signal lights except as required by the Federal Aviation Administration (FAA), the Federal Communications Commission (FCC), or the County Police.
7. The tower and accessory facilities shall be subject to periodic inspections by LDS. If any additions, changes or modifications are made to the tower or to related facilities, the Director shall have the authority to require proof, through the submission of engineering and structural data, that the addition, change or modification conforms to all structural and all other requirements of the

Virginia Uniform Statewide Building Code (VUSBC). In the event that the results of any monitoring indicate alterations or damage exists to the approved equipment or structures in excess of the extent deemed acceptable by applicable codes and standards, immediate action shall be taken, as deemed necessary and approved by LDS and DIT, to comply with the applicable codes and agreements.

8. Available space on the tower and for equipment structures shall be made available for lease for telecommunications purposes to other telecommunications operators, including but not limited to Fairfax County, subject to reasonable industry-standard lease terms and fair market rent.
9. The tower, related equipment structures and, to the extent reasonably practical, the subterranean support structures for the tower shall be dismantled and removed within 120 days after such antennas or related equipment cabinets or structures are no longer in use.

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 specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.



**Application for Determination
Pursuant to
Section 15.2-2232, Code of Virginia**

Part II: Statement of Justification

Applicants: Milestone Communications and Verizon Wireless
Site Name: Pleasant Valley Substation
Site Address: 6309T Bull Run Post Office Road
 Centreville, Virginia 20120
Parcel Number: 0522 01 0011E1
Zoning District: Residential Conservation R-C (WS)
Planned Use: Residential at 0.1-0.2 du/ac
Supervisor District: Sully

Description of Proposed Use

Pursuant to Section 15.2-2232 of the Code of Virginia, the Applicants Milestone Tower Limited Partnership (“Milestone Communications”) and Cellco Partnership d/b/a Verizon Wireless (“Verizon Wireless”) respectively request that a proposed 150-foot tall telecommunications monopole structure with a supporting equipment compound be approved at the Pleasant Valley Substation, 6309T Bull Run Post Office Road, Centreville, Virginia 20120. (The Property has no fixed address assigned by the Department of Tax Administration but is adjacent to 6309 Bull Run Post Office Road). A Special Exception application has also been submitted for the proposed use.

The Property is owned by the Northern Virginia Electric Cooperative (“NOVEC”) (“Owner”) and is located just north of a major Virginia Power electrical transmission corridor with large transmission poles and towers that run from southeast to northwest across property owned by the Fairfax County Park Authority. A major natural gas easement also is just south of the property. The existing use of the property consists of an electrical substation that is a power source for a natural gas compressor station owned by Dominion Cove Point located on neighboring property to the southeast (0522 01 0011D1), as well as an additional electrical substation owned by NOVEC that is a delivery point to back-feed the existing NOVEC Cub Run substation serving part of western Fairfax County.

The neighboring gas compressor substation as well as the related electrical substation on this subject property that serves it were authorized by the Federal Energy Regulatory Commission (FERC) under the Natural Gas Act and the U.S. Department of Transportation and were not subject to Fairfax County 2232 Review and Special Exception requirements. The other electrical substation was collocated by NOVEC on a 15,600-square foot portion of the original substation area under SE 2004-SU-039 granted by the Board of Supervisors on March 21, 2005 and by 2232 Review 2232-Y04-18. In addition, a previous application by Milestone Communications and Verizon Wireless to locate a monopole and compound on the northwest portion of this same parcel was approved by the Planning Commission on December 4, 2014



under application 2232-Y14-7. This approved monopole was never constructed and must now be relocated on the site due to other plans for that area of the site by NOVEC.

The Property consists of 8.43 acres, is zoned R-C Residential Conservation, WS (Water Supply), and is planned at 0.1 to 0.2 dwelling units per acre. The proposed telecommunications facility is located along the southern property line of the property and is designed for up to 4 telecommunications carriers. Verizon Wireless is the initial carrier and will be located at the top position on the 150-foot monopole. The facility also will accommodate up to 3 additional future carriers. A detailed description of the telecommunications facility is provided on the Site Plan entitled "Pleasant Valley Substation" prepared by Entrex Communications Services, Inc. dated June 16, 2017 and included as part of this application. Verizon Wireless will have 12 panel antennas at a rad center of 150 feet above ground level. Space for the antennas of 3 future carriers is available at rad centers of 140 feet, 130 feet, and 120 feet above ground level. The types and sizes of the Verizon antennas are detailed on Page 6 of the application form and on the zoning drawings, Sheet C-7. An elevation of the monopole showing the location of Verizon's antenna platforms and those of the other future carriers is shown on Sheet C-5.

At the base of the proposed monopole will be a lease area for the equipment compound measuring 100 feet long and 12 feet 6 inches wide with a total area of 1,250 square feet. An 8-foot high chain link fence will enclose the compound area. The compound area will contain all equipment of Verizon Wireless and of all future carriers as well as the telecommunications monopole. The Verizon Wireless equipment will consist of three cabinets (two at construction and one future) and a backup diesel power generator with an internal gas tank. Full details on the compound area are provided on the Compound Plan and Equipment Slab Details, Sheets C-4 and C-9 of the Zoning Drawings. The dimensions of Verizon's equipment and generator are detailed on Sheets C-8 and C-10.

The proposed equipment structure and equipment cabinets will be unmanned and will operate around the clock 365 days per year. All facilities are monitored off site by the providers 24-hours a day, 7-days a week, in order to ensure that they are operating properly and that there is no unauthorized tampering with the facilities. Routine maintenance occurs for each of the equipment structures or cabinets approximately once or twice a month as performed by a service technician driving a standard size vehicle to the site. There are no customers, employees or other personnel at the site except at the time of the routine maintenance.

The facility will operate as a cellular base station in the wireless telecommunications networks of Verizon and up to 3 additional providers. The proposed use is benign and will not generate noise, lights, dust, glare, vibrations, fumes or odors. Minimum noise will be generated when the back-up generator is tested or there is an outage. The traffic generated will be minimal. The proposed use does not present a threat to the public health, safety or welfare and will not impact radio, television or telephone reception. It will have no negative impact upon the air and water quality, nor will it impact any existing environmental features on the subject property.

Requirement of Proposed Use

Attached to the application are Verizon's propagation maps that show the area to be covered by the new facility and the existing network coverage in the area provided by other existing and pending Verizon Wireless sites. The maps show the existing and pending Verizon sites in the vicinity as identified on the maps as Sully Station, Stone, Club Run, Cedar Springs, Catharpin, Gum Springs and South Riding, and the projected improvement anticipated after installation of the proposed telecommunications use at the Pleasant Valley Substation site. Verizon Wireless' objective for this site is to fill existing service gaps and provide services to residences and commuters in the neighborhoods between Pleasant Valley Road and Gum Springs Road to the west. The site will serve a wide area of Western Fairfax County and Southeastern Loudoun County. The site will not only fill gaps but will enhance 4G-LTE data service to all users in the surrounding area.

To achieve the desired coverage and capacity within the intended geographical area, each antenna facility must be strategically located to ensure maximum coverage and a minimum overlap with each other facility. Because of the low power of the system, the antennas are effective only within a limited geographical area. Thus, each facility site is subject to technical and geographical constraints to provide reliable and efficient service. The proposed facility is necessary to meet Verizon Wireless' objectives for the area and will further satisfy similar needs of other wireless telecommunications carriers in the future. Moreover, the proposed height of the structure allows placement of the antennas at a sufficient height to permit radio signals to clear any obstructions such as trees and structures while simultaneously providing coverage to the intended service area and allowing for the colocation of up to 3 additional wireless carriers at the site.

Verizon Wireless chose this proposed location as it meets coverage objectives and will improve telecommunications coverage to clients. The construction of a telecommunications monopole facility at this location will serve additional carriers and is suitable to the site, its setting, and the nature of the existing public utility uses on and adjacent to the property.

Since one of the primary benefits of the wireless communication system is the ability to communicate to and from any location, a network of facilities that provide seamless coverage is essential. The location and design of each facility in the network is therefore critical to the overall functioning of the entire network. Without a facility at or near this location, Verizon Wireless will be unable to provide reliable coverage to its users in the area.

Anticipated Impacts on Adjoining Properties

The monopole structure will be in an area of existing public utility and public facility properties and uses. The 8.43 acre NOVEC electrical substation property is surrounded by property owned by Dominion Cove Point that is used for the storage, compression and transmission of natural gas. Immediately to the south of the Dominion Cove Point property is a major utility easement running from southeast to northwest with two to three parallel rows of overhead utility lines supported by existing tall lattice towers and poles. The easement also contains a Columbia liquefied natural gas line. These utility easements run across a 207.26-acre

Fairfax County Park Authority Ellick Preserve property (0522 01 11F) south of the NOVEC property adjacent to the Dominion Cove Point to the north, west and south. The Fairfax County Park Authority also owns a 246-acre property (0531 05 A2) south and east of the Dominion Cove Point property. Further to the southeast of the Dominion Cove Point property is a 12.98-acre vacant parcel owned by Columbia Gas (0522 01 0011H).

The large lot, mostly public and vacant land use pattern surrounding the property isolates it from residential uses and roadways. The nearest residential parcels are approximately 2,500 feet to the west side of Bull Run Post Office Road. The access entrance to the NOVEC property at Bull Run Post Office Road is approximately 2,400 feet to the west of the proposed facility's location.

Extensive tree cover in the area as well as its relationship to other nearby tall utility structures will serve to buffer and screen the proposed facility. The use proposed in the application will have no impact on traffic or parking as it will be unmanned and will not generate vehicular traffic other than once or twice a month for a technician to visit to ensure everything is in proper working order. The technician uses a standard vehicle and will have access to the structure and compound via the paved access driveway and a gravel 12 feet wide gravel driveway that connects from the main driveway to the compound. The gravel driveway will accommodate the service vehicles visiting the site. There will be no perceptible noise generated by the facility unless the backup generator is operating during testing or power outages. In addition, there will be no interference with electronic equipment for telephone, television, radio or other electronic uses.

Alternative Sites Considered for the Proposal

The proposed monopole structure will be located to fill an existing service void and address capacity issues. The overall area is characterized by large properties in public or public utility ownership and use, and large lot single-family residential development. The Virginia Power Easement contains large structures but were rejected for colocation due to size of the antenna mount and the fact that the structures support a 500kV transmission line. There are no existing tall buildings in the area for colocation of a telecommunication use. The public sites owned by the Fairfax County Park Authority offer no greater advantage for reducing impacts than the selected substation site. On most areas of the park properties, the proposed telecommunications structure would have less visual context with the existing tall transmission structures and farther removed from the existing public utility uses in the area. As a result, from many vantage points, the structure would also more likely appear to be a more solitary and prominent feature on the landscape.

The facility being proposed was formerly approved by the Planning Commission under Application 2232-Y14-7 on December 4, 2014 for the same NOVEC property with the monopole located near its northeast corner. However, this approved facility was never constructed due to subsequent requirements and plans by NOVEC to use this portion of the site for expansion purposes. The site now being proposed is on the same NOVEC parcel along its southern property line. This location offers similar advantages for accommodating the structure and mitigating visual and land uses impacts.

Other than the public utility sites and the large Fairfax County Park Authority properties in the area, there are no other nonresidential properties suitable for the proposed structure. The selected public utility electrical substation is already impacted by industrial type development and is well isolated from other uses. It is a well-buffered site that provides the opportunity to visually mix the new monopole structure with other existing tall tower and poles used for the transmission of electrical power, reducing its prominence and visual presence.

Relationship of the Proposed Facility to the Comprehensive Plan

The property is located in the Bull Run Planning District, Stone Bridge Community Planning Sector (BR5), Planning Area III, and is planned for residential use at 0.1 -0.2 dwelling units per acre. On Figure 6, "Existing Public Facilities", page 17 of the "Overview: Bull Run Planning District", the "NOVEC Substation" is identified in Sector BR5 under the "Public Utilities" column. On page 74 of the Bull Run Planning District, Stone Bridge Community Planning Sector (BR5), under "Recommendations: Public Facilities," Recommendation 2 states "Provide two substations for the Northern Virginia Electric Cooperative in Sector BR5."

General Guidelines

Objective 43: In order to provide for the mobile and land-based telecommunication network for wireless telecommunication systems licensed by the Federal Communications Commission, and to achieve opportunities for the colocation of related facilities and the reduction or elimination of their visual impact, locate the network's necessary support facilities which include antennas, support structures and equipment buildings or equipment boxes in accordance with the following policies.

***Policy a.* Avoid the construction of new structures by locating proposed telecommunication facilities on available existing structures such as rooftops, telecommunication and broadcast support structures, electrical utility poles and towers, and water storage facilities when the telecommunication facilities can be placed inconspicuously to blend with such existing structures. (See Figures 8, 9, 10).**

Applicants' Response: There are no existing structures near the property that can structurally accommodate the proposed telecommunications use. The applicant explored the use of existing Virginia Power transmission towers in the transmission easement just to the south of the property but Virginia Power rejected colocation on these structures due to the number of antennas required on the antenna mounts and the fact that the transmission towers support a major 500kV transmission line. Construction of a new structure is, therefore, needed to respond to the growing need in the area.

***Policy b.* When existing structures are not available for co-location, or co-location is not appropriate because of adverse visual impacts or service needs, locate new structures that are required to support telecommunication antennas on properties that provide the greatest opportunity to conceal the telecommunication facilities and minimize their visual impact on surrounding areas.**

Applicants' Response: The proposed monopole and compound will be located on property developed with an electrical power substation and that is adjacent to existing major utility transmission corridors. The proposed monopole will be compatible and visually blend with existing tall electrical transmission structures in the area that are approximately 130 feet in overall height and will have minimal visual impact on surrounding areas. In addition, the property adjoins large land holdings of the Fairfax County Park Authority, much of which is undeveloped and wooded and will serve to buffer and screen the proposed use from roadways and residential areas.

Policy c. When new structures or co-locations are required to serve residential neighborhoods, consider minimizing visual impacts on the surrounding area by utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS), if feasible.

Applicants' Response: The proposed structure will not have a camouflaged design but will be located on a public utility site and will visually blend with the existing tall electrical transmission structures in the area that are approximately 130 feet in overall height. The property is well isolated and surrounded by public parkland and public utility uses and is far removed from existing residences and roadways.

Policy d. When multiple sites provide similar or equal opportunity to minimize impacts, public lands shall be the preferred location.

Applicants' Response: While there are nearby public parklands, they are in open space with no firm master plan for development and location of uses. They offer no greater advantage than the selected site for locating the telecommunications structure to reduce visual impacts than the selected site.

Policy e. Locate mobile and land-based telecommunication facilities on public property only after a lease agreement between the County, or related board or authority, and the service provider has been established.

Applicants' Response: The structure will not be located on a public use site.

Policy f. Ensure that the use of public property by mobile and land-based telecommunication facilities does not interfere with the existing or planned operational requirements of the public use and complies with adopted policies and plans to protect natural resources.

Applicants' Response: The proposed structure will not be located on a public use site.

Policy g. Co-locate mobile and land-based telecommunication facilities operated by different service providers on single sites and/or structures whenever appropriate. Locate single-use structures on a property only when a co-location structure for multiple service

providers is not desirable or feasible due to technological differences, site limitations or visual impact concerns.

Applicants' Response: The proposed 150-foot monopole and compound will accommodate up to 3 telecommunication providers, including the initial carrier, Verizon Wireless.

Policy h. Ensure that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunication facility based on its service area requirements while still mitigating the visual impact of the facility.

Applicants' Response: The 150-foot height of the proposed monopole is the minimum extent feasible to meet wireless coverage objectives and accommodate up to 3 telecommunication carriers. The height is consistent with adjacent utility transmission structures and will not have a visual impact on surrounding areas.

Policy i. When new structures, co-locations and/or technologies (such as distributed antenna systems, micro-cell technology or miniaturization technology) are necessary to meet the service area requires for the residential neighborhood(s), ensure that the height and mass of any appropriate co-location on the telecommunication facility is in character with the surrounding residential area and mitigates the visual impact of the facility on the surrounding residential area.

Applicants' Response: The height of the proposed structure is in keeping with other large poles and towers on the adjacent power transmission easement that are approximately 130 feet in overall height and is designed to accommodate up to 3 telecommunication carriers in an integrated placement of antennas at 10-foot intervals.

Policy j. Design, site and/or landscape proposed telecommunication facilities to minimize impacts on the character of the property and surrounding areas. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type, location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding areas.

Applicants' Response: The 150-foot monopole is of similar height, mass and relative extent as the nearby approximately 130-foot tall lattice towers used to support the 3 major electrical transmission towers, that cross on adjoining property. The monopole is consistent with the public utility use of the electrical substation site and the adjoining site to the east used for an industrial gas compression facility. The new structure will be in context with its immediate surroundings; established wooded areas and distance will serve to screen it from the nearest residential areas along Bull Run Post Office Road. The appropriateness of the design and site and elevation of the structure are provided on Zoning Drawing Sheets C-5 and C-11. The appropriateness of the design and the relationship to the site and surrounding community are demonstrated by the photo-simulations submitted as part of the application.

Policy k. Demonstrate that the selected site for a new telecommunication facility provides the least visual impact on residential areas and the public way, as compared with alternate sites. Analyze the potential impacts from other vantage points in the area, especially from residential properties, to show how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site.

Applicants' Response: The selected site is in a residential conservation (RC) zoned area and is used for nonresidential/electrical substation purposes. Adjoining properties are either in public utility or public park use. Part of the public park area immediately to the south is impacted by a public utility corridor with large electrical transmission towers and poles. In addition, extensive woodland areas border the northern and western edge of the property. The site's relationship to an existing pattern of large electrical transmission structures and public utilities in the immediate area, as well as its proximity to public parkland and wooded areas, mitigates visual impacts by providing screening, context and the opportunity to visually blend the new structure with other existing tall transmission structures in the area that are approximately 130 feet in height. Other properties in the search area used for nonresidential purposes provide no greater opportunity for concealment or visual mitigation. The photo-simulations included in the application package demonstrate the appropriateness of the design and any visual impacts on surrounding areas.

Policy l. A key concept in assessing telecommunication facilities is mitigation which is defined as actions taken to reduce or eliminate negative visual impacts. Mitigate the visual impact of proposed telecommunication facilities and their equipment, by using effective design options appropriate to the site such as:

- **Design, site and/or landscape the proposed facility to minimize impacts on the character of the area;**
- **Locate proposed telecommunication facilities near or within areas of mature vegetation and trees that effectively screen or provide an appropriate setting for the proposed structure provided such location does not adversely impact sensitive resources or cause fragmentation of forested communities. When viewed in context, consider perspective views, relative topography and other actors, to mitigate the visual presence and prominence of the structure;**
- **Blend proposed telecommunication facilities with an existing pattern of tall structures;**
- **Obscure or block the views of proposed telecommunication facilities with other existing structures, vegetation, tree cover, or topographic features to the maximum extent feasible; and**
- **Replace existing telecommunication facilities with taller structures or extend their overall height to reduce the need for another structure when such height increases or structure replacements are visually appropriate to the site, including the surrounding area and are consistent with the type, style and pattern of the existing structure.**

Applicants' Response: The structure is located near an area of mature vegetation in the larger area to the north and west on property owned by the Fairfax County Park Authority. To the south, west and southwest, most of the property also is owned by the Fairfax County Park Authority and is impacted by the existing electrical transmission corridor. While not extensively wooded, this property provides considerable distance and buffer between the proposed use and

any residences in those directions. In addition, the proposed monopole will be of a consistent height and design and visually blend with the existing pattern of tall structures approximately 130 feet in height in the existing transmission corridor to the south.

Policy m. Locate proposed telecommunication facilities to ensure the protection of historically significant landscapes and cultural resources. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities.

Applicants' Response: The proposed facility will not adversely impact historically significant landscapes and cultural resources nor impair or diminish views and vistas from such resources.

Policy n. Site proposed telecommunication facilities to avoid areas of environmental sensitivity, such as steep slopes, floodplains, wetlands, environmental quality corridors, and resource protection areas.

Applicants' Response: The facility will avoid areas of environmental sensitivity.

Policy o. Site proposed telecommunication facilities to allow for future expansion and with corresponding levels of screening to accommodate expansion.

Applicants' Response: Both the monopole and equipment compound area will be designed to accommodate up to 3 telecommunication providers while maintaining current levels of screening.

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

Applicants' Response: The facility will be located so as not to impede on any areas necessary for future right-of-way or road improvements.

Policy q. Locate and construct antennas used for purposes other than mobile and land-based telecommunication services in accordance with the same guidelines established in this "Mobile and Land-Based Telecommunications Services" section.

Applicants' Response: The proposed facility is for mobile and land based purposes.

Objective 44: Design proposed telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area. (See Figures 11 and 12).

Policy a. Disguise or camouflage the appearance of proposed telecommunication facilities to resemble other man-made structures and natural features (such as flagpoles, bell towers,

and trees) that are typically found in a similar context and belong to the setting where placed.

Applicants' Response: The proposed monopole structure will not be of a camouflaged design but will be consistent and in context with the other structures on the substation property and the adjoining major electrical transmission line corridor to the south and gas compression station use to the east.

Policy b. Design proposed telecommunication facilities that are disguised and camouflaged to be of a bulk, mass and height typical of and similar to the feature selected.

Applicants' Response: The proposed 150-foot tall structure will be of a mass and height similar to other large steel towers and poles with an overall height of approximately 130 feet used for electric transmission purposes on the property and the adjacent power line corridor.

Policy c. Use other new and existing structures and vegetation of comparable form and style to establish a grouping that complements a camouflaged telecommunication facility and supports its design, location and appearance.

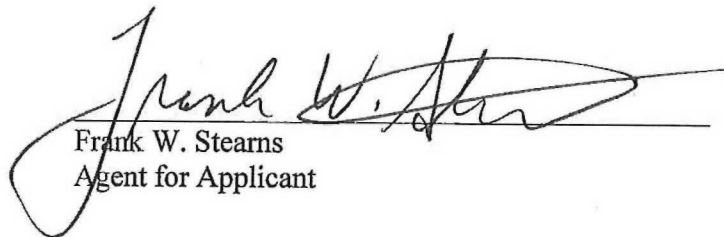
Applicants' Response: The design and height of the 150-foot monopole is of comparable form and style as the towers and poles in the electrical transmission corridor that are approximately 130 feet in height. The new structure will visually blend and be consistent with these other existing vertical structures in the immediate area.

Conclusions

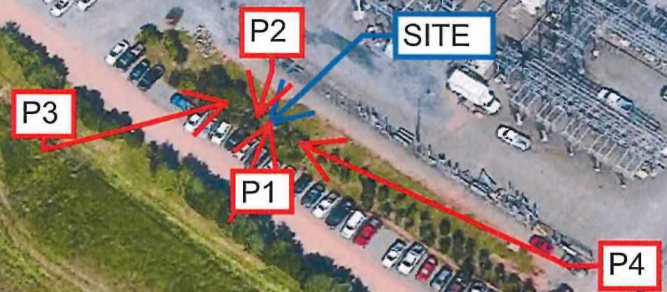
In light of the foregoing and the reasons stated, Cellco Partnership d/b/a Verizon Wireless and Milestone Communications, Inc. hereby submit that this proposal is in compliance with the Fairfax County Comprehensive Plan and respectfully requests that the 2232 Review Application be approved.

Respectfully submitted,

DONOHUE & STEARNS, PLC


Frank W. Stearns
Agent for Applicant

Milestone at NOVEC
Pleasant Valley Substation
Aerial



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Google Earth



RECEIVED
OCT 19 2017
DEPARTMENT OF PLANNING & ZONING
PERMITTING DIVISION

Milestone at NOVEC
Pleasant Valley Substation
P1 - Looking North to Site



RECEIVED
OCT 19 2017
DEPARTMENT OF PLANNING & ZONING
PLANNING DIVISION



Milestone at NOVEC
Pleasant Valley Substation
P2 - Looking South to Site



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OCT 19 2017
DEPT. OF PLANNING & ZONING
PLANNING DIVISION



Milestone at NOVEC Pleasant Valley Substation
P3 - Looking Northeast to Site



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OCT 19 2017
DEPAR OF PLANNING & ZONING DIVISION

Milestone at NOVEC
Pleasant Valley Substation
P4 - Looking West to Site



Telecommunications Facility

2232 Review Application



12/2015



**2232 PUBLIC FACILITY REVIEW
(Telecommunications)**

**County of Fairfax, Virginia
Application for Determination
Pursuant to
Virginia Code Section 15.2-2232**

*** This area to be completed by staff ***

APPLICATION NUMBER 2232-417-34

(Please Type or Clearly Print)

PART I: APPLICATION SUMMARY

LOCATION OF PROPOSED USE

Address 6309T Bull Run Post Office Road

City/Town Centreville Zip Code 20120

Place Name (if at County facility) _____

Tax Map I.D. Number(s) 0522 01 0011E1

Fairfax County Supervisor District Sully

Total Area of Subject Parcel(s) 8.43 acres

Zoning District R-C

APPLICANT(S)

Name (Company or Agency) Milestone Communications and Verizon Wireless

Agent Name Frank W. Stearns

(Note: Failure to notify County of a change in agent may result in application processing delays)

Agent's Mailing Address 201 Liberty Street

City/Town Leesburg State VA Zip Code 20175

Telephone Number (703) 726-2547 Fax (703) 549-5385

E-mail fwstearns@donohuestearns.com

Secondary Contact (Must Be Provided) Cristian Hernandez, Milestone Communications

Telephone Number (703) 620-2555 E-mail cris@milestonecorp.com



PROPERTY OWNER(S) OF RECORD

Owner Northern Virginia Electric Coperative

Street Address 10323 Lomond Drive

City/Town Manassas State VA Zip Code 20109

Has property owner been contacted about this proposed use? Yes No

BRIEF DESCRIPTION OF PROPOSED USE

Construct a 150' tall galvanized steel monopole. Install 12 panel antennas mounted at a 150' RAD Center. All antennas are finished or painted grey. Construct a 1250' SF equipment compound to include cabinets and a diesel generator enclosed by an 8' tall chain link fence. Provision is made for up to 3 additional carriers.

PRIOR TELECOMMUNICATIONS APPROVAL(S)

Research and provide all previous 2232, 456, 6409, or "Feature Shown" (FS) approvals for the applicant carrier that is the subject of this application. Provide explanation for any conflicting information between previous approval(s) of record and the information shown in this current application.

2232-Y14-7 approved December 4, 2014.

PRIOR ZONING APPROVAL(S)

Research and provide previous zoning approvals (RZ, SE, SP, VC, etc.) for all uses on site such as proffered conditions, special exceptions, special permits, variances, or development plans. This applies to any carrier with telecommunication equipment on the subject property.

SE 2004-SU-039



SIGNATURE

The undersigned acknowledges that additional Fairfax County land use review requirements may be identified during the review of this 2232 Review application and the fulfillment of such requirements is the responsibility of the applicant. The undersigned also acknowledges that all Fairfax County Zoning Ordinance requirements pertaining to this project shall be fulfilled.

In the event a new agent is assigned responsibility for this application, the applicant agrees to provide a letter to the Department of Planning and Zoning authorizing the transfer of responsibility for the application and providing all new contact information. In the event the applicant fails to notify County staff of a change in agent, the application may be subject to processing delays.

Signature of Applicant or Agent *Frank W. [Signature]*

Date June 28, 2017; revisions submitted 10/10/17; 10/19/17

Submit completed application to:

**Chris Caperton, Chief, Facilities Planning Branch
Fairfax County Department of Planning and Zoning
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035-5507
(703) 324-1380**



PART II: TELECOMMUNICATION USES
(Do not submit for non-telecommunications public facility uses)

A. TYPE OF PROPOSED FACILITY Check the appropriate box(es) and provide the required information

| | Yes | No |
|---|-------------------------------------|-------------------------------------|
| New monopole* or tower | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Collocation on existing monopole or tower | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Collocation on building facade or rooftop | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Collocation on replacement light pole or utility pole | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Located in utility or transportation easement and/or right-of-way | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Modification to approved telecommunications facility | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Collocation on other structure _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Including treepoles, flagpoles and other freestanding stealth structures.*

B. EXISTING ANTENNAS(S) TO BE REMOVED AND/OR TO REMAIN Provide a separate page for each provider listed as part of the application

Provider _____

| Model # or name | Type Panel, Dish, Omni | QTY | Height/ Diameter | Width/ Diameter | Remove or Remain | Location height on the structure |
|-----------------|------------------------------|-----|---------------------|--------------------|------------------------|--|
| | | | | | | |
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C. NEW ANTENNA(S) Provide a separate page for each provider listed as part of the application

| Model # or name | Type Panel, Dish, Omni | QTY | Height | Width | Diameter | Location height on the structure |
|-----------------|------------------------------|-----|--------|-------|----------|--|
| BXA-70063-8CF | Panel | 6 | 94.6" | 11.2" | | 150' rad center |
| BXA-171063-12CF | Panel | 6 | 72.5" | 6.1" | | 150' rad center |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Existing structure color: _____ Antenna color: Gray

Is antenna painted to match existing structure? Yes _____ No

If No, please explain: This is a new structure. The antenna are a natural gray finish per catalog cuts supplied.

Will the antennas be screened? Yes _____ No

If Yes, describe the screening to be provided: _____

Will the antennas be flush-mounted to the structure on which they are located? Yes _____ No

If No, please explain: Antennas are attached to a three-sided platform at top of monopole.

Additional information:

D. EXISTING EQUIPMENT TO BE REMOVED AND/OR TO REMAIN

| Model # or name | Type Cabinet, shelter, telco or generator | QTY | Height | Width | Depth | Location | Remove or Remain |
|-----------------|--|-----|--------|-------|-------|----------|------------------------|
| | | | | | | | |
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E. NEW EQUIPMENT

| Model # or name | Type Cabinet, shelter, telco or generator | QTY | Height | Width | Depth | Location |
|--------------------------------------|--|-----|--------|-------|--------|-----------------|
| Charles CUBE | Cabinet | 2* | 78.1" | 32" | 39.1" | Inside compound |
| Charles Battery | Cabinet | 1 | 78.8 " | 32" | 32" | Inside compound |
| Polar-Power Diesel Generator | Generator | 1 | 76.53" | 31" | 49.39" | Inside Compound |
| | | | | | | |
| MESA (future) | FutureTelco | 1 | 48" | 43" | 26.5" | Inside Compound |
| | | | | | | |
| | | | | | | |
| *1 at initial construction, 1 future | | | | | | |

Describe how the equipment cabinet or shelter will be screened, including material, color (and, as applicable, fence height).

8' tall chain link fence with barbed wire

Mechanical specifications

| | | |
|---------------------------------|---------------------|---------------------|
| Length | 2405 mm | 94.6 in |
| Width | 285 mm | 11.2 in |
| Depth | 114 mm | 4.5 in |
| Depth with z-bracket | 154 mm | 6.1 in |
| Weight ⁴⁾ | 10.9 kg | 24.0 lbs |
| Wind Area Fore/Aft | 0.69 m ² | 7.4 ft ² |
| Wind Area Side | 0.27 m ² | 3.0 ft ² |
| Max Wind Survivability | >201 km/hr | >125 mph |
| Wind Load @ 100 mph (161 km/hr) | | |
| Fore/Aft | 1038 N | 233 lbf |
| Side | 502 N | 113 lbf |

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting & Downtilting

Mounting hardware attaches to pipe diameter $\varnothing 50$ -160 mm; $\varnothing 2.0$ -6.3 in

| | |
|---------------------------|----------|
| Mechanical downtilt angle | 0-17° |
| Mounting Bracket Kit | 36210002 |
| Downtilt Bracket Kit | 36114003 |

Electrical specifications

| | |
|---------------------------------------|--|
| Frequency Range | 696-900 MHz |
| Impedance | 50 Ω |
| Connector ³⁾ | NE or E-DIN Female 2 ports / Center |
| VSWR ¹⁾ | $\leq 1.35:1$ |
| Polarization | Slant $\pm 45^\circ$ |
| Isolation Between Ports ¹⁾ | < -30 dB |
| Gain ¹⁾ | 16 dBd 18 dBi |
| Power Rating ²⁾ | 500 W |
| Half Power Angle ¹⁾ | |
| Horizontal Beamwidth | 63° |
| Vertical Beamwidth | 7° |
| Electrical downtilt ⁵⁾ | 0° |
| Null fill ¹⁾ | 5% |
| Lightning protection | Direct ground |

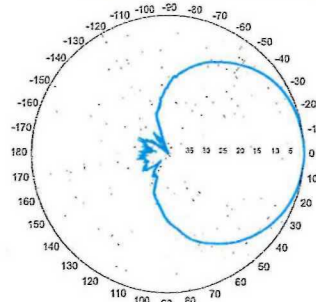
Patented Dipole Design: U.S. Patent No. 6,608,600 B2

1) Typical values.
 2) Power rating limited by connector only.
 3) NE indicates an elongated N connector.
 E-DIN indicates an elongated DIN connector.
 4) Antenna weight does not include brackets.
 5) Add'l downtilts may be available. Check website for details.

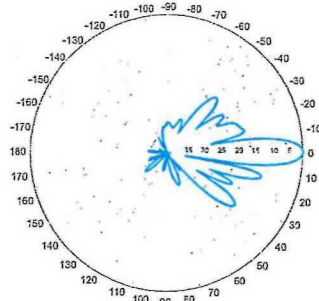
Improvements to mechanical and/or electrical performance of the antenna may be made without notice.



Radiation-pattern 750 MHz

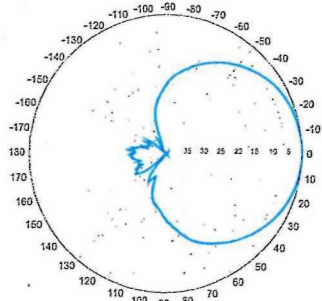


Horizontal

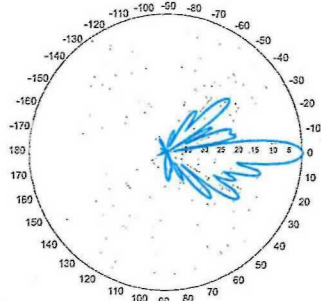


Vertical

850 MHz



Horizontal

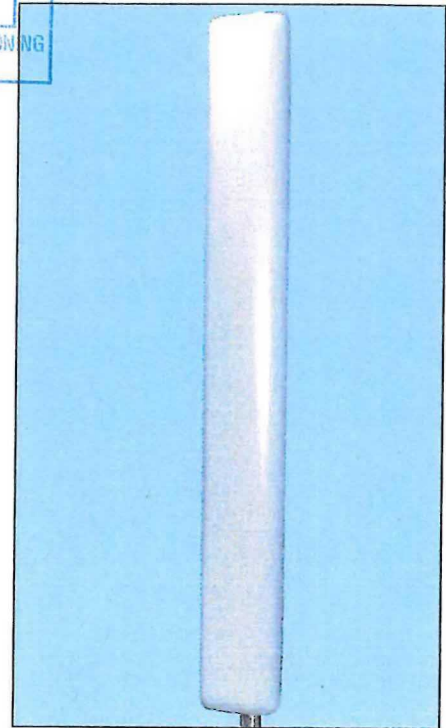


Vertical

696-900 MHz

BXA-70063/8CF _____

When ordering replace "___" with connector type.



Featuring our Exclusive 3T Technology™ Antenna Design:

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad bandwidth and superior performance.
- Air as insulation for virtually no internal signal loss.

Warranty:

This antenna is under a five-year limited warranty for repair or replacement.

Revision Date: 01/08/09



BXA-171063-12CF-EDIN-X

X-Pol | FET Panel | 63° | 19.0 dBi

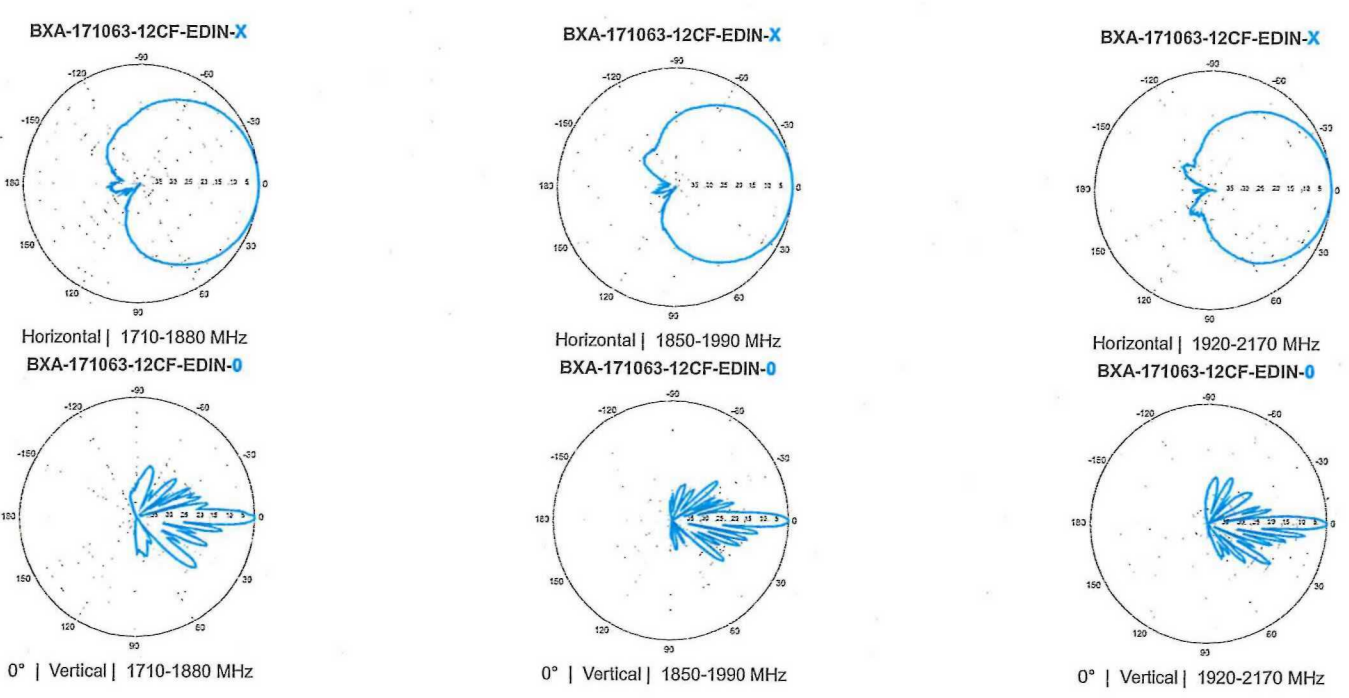


Replace "X" with desired electrical downtilt.
Antenna is also available with NE connector(s).
Replace "EDIN" with "NE" in the model number when ordering.

| Electrical Characteristics | 1710-2170 MHz | | |
|----------------------------|---|---------------------|---------------------|
| Frequency bands | 1710-1880 MHz | 1850-1990 MHz | 1920-2170 MHz |
| Polarization | ±45° | ±45° | ±45° |
| Horizontal beamwidth | 68° | 65° | 60° |
| Vertical beamwidth | 4.5° | 4.5° | 4.5° |
| Gain | 16.1 dBd / 18.2 dBi | 16.5 dBd / 18.6 dBi | 16.9 dBd / 19.0 dBi |
| Electrical downtilt (X) | | 0, 2, 5 | |
| Impedance | | 50Ω | |
| VSWR | | ≤1.5:1 | |
| First upper sidelobe | | < -17 dB | |
| Front-to-back ratio | | > 30 dB | |
| In-band isolation | | < -25 dB | |
| IM3 (20W carrier) | | < -150 dBc | |
| Input power | | 300 W | |
| Lightning protection | | Direct Ground | |
| Connector(s) | 2 Ports / EDIN or NE / Female / Center (Back) | | |
| Operating temperature | -40° to +60° C / -40° to +140° F | | |

| Mechanical Characteristics | | |
|-----------------------------------|--|--|
| Dimensions Length x Width x Depth | 1842 x 154 x 105 mm | 72.5 x 6.1 x 4.1 in |
| Depth with z-brackets | 133 mm | 5.2 in |
| Weight without mounting brackets | 5.8 kg | 12.8 lbs |
| Survival wind speed | > 201 km/hr | > 125 mph |
| Wind area | Front: 0.28 m ² Side: 0.19 m ² | Front: 3.1 ft ² Side: 2.1 ft ² |
| Wind load @ 161 km/hr (100 mph) | Front: 460 N Side: 304 N | Front: 103 lbf Side: 68 lbf |

| Mounting Options | Part Number | Fits Pipe Diameter | Weight |
|---|---|----------------------|--------------|
| 2-Point Mounting Bracket Kit | 26799997 | 50-102 mm 2.0-4.0 in | 2.3 kg 5 lbs |
| 2-Point Mounting & Downtilt Bracket Kit | 26799999 | 50-102 mm 2.0-4.0 in | 3.6 kg 8 lbs |
| Concealment Configurations | For concealment configurations, order BXA-171063-12CF-EDIN-X-FP | | |

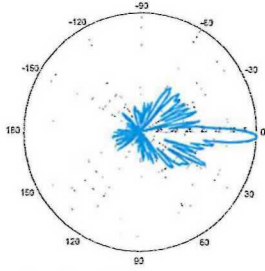


Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

BXA-171063-12CF-EDIN-X

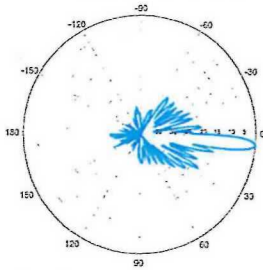
X-Pol | FET Panel | 63° | 19.0 dBi

BXA-171063-12CF-EDIN-2



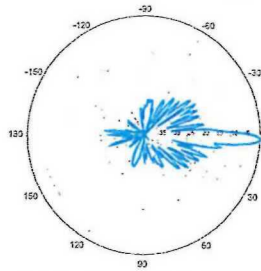
2° | Vertical | 1710-1880 MHz

BXA-171063-12CF-EDIN-5



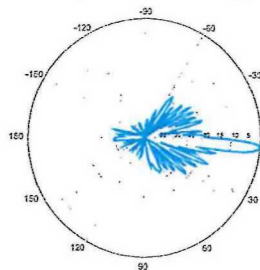
5° | Vertical | 1710-1880 MHz

BXA-171063-12CF-EDIN-2



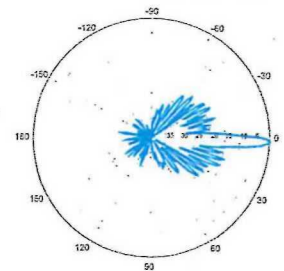
2° | Vertical | 1850-1990 MHz

BXA-171063-12CF-EDIN-5



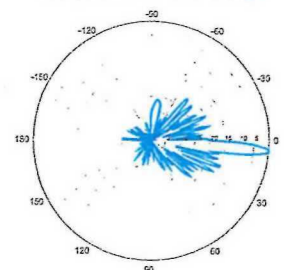
5° | Vertical | 1850-1990 MHz

BXA-171063-12CF-EDIN-2



2° | Vertical | 1920-2170 MHz

BXA-171063-12CF-EDIN-5



5° | Vertical | 1920-2170 MHz

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.



Charles Universal Broadband Enclosure (CUBE)

PM63922RF2, PM63922RF4, PM63922IC1 & PM63922MC1

General Description and Installation

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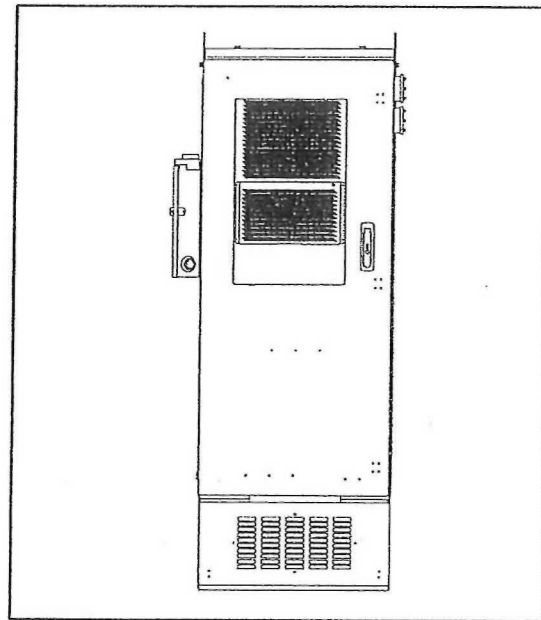


Figure 1 Closed view of the PM63922RF2/RF4

1. GENERAL INTRODUCTION

1.1 Document Purpose

This document provides general information for the CUBE-PM63922RF2, CUBE-PM63922RF4, CUBE-PM63922IC1 and CUBE-PM63922MC1 of the Charles Industries' Universal Broadband Enclosures (CUBE).

- NOTE -

Hereafter, the Charles Universal Broadband Enclosure will be referred to as the "PM63922RF2", "PM63922RF4", "PM63922IC1", "PM63922MC1" or "CUBE".

1.2 Product Purpose

These CUBEs consist of a protective enclosure for an integrated system of electronic components and equipment that can serve fiber and copper interfaces.

1.3 Product Mounting and Location

These outdoor, weather-resistant CUBEs are to be mounted on a pad. The installer connects the power, fiber and copper connections. Detailed mounting and installation information is covered in Section 3.

2. PRODUCT DESCRIPTION

This section contains information regarding the CUBE's physical design and interior components. The PM63922RF2 and PM63922RF4 are identical with each having a 4000 BTU air conditioner and 750W heat exchanger. The only difference is the PM63922RF2 is a 24VDC enclosure and the PM63922RF4 is a 48VDC.

The PM63922IC1 and PM63922MC1 are identical except for the size of the heat exchanger, the IC1 is 1200W and the MC1 is 1880W. Neither of these models have the air conditioner.

Refer to section 3.7 and figures 6-8 for further details.

These CUBEs have two compartments which include an equipment and battery compartment. Figure 4 and Figure 5 shows the main components of these compartments.

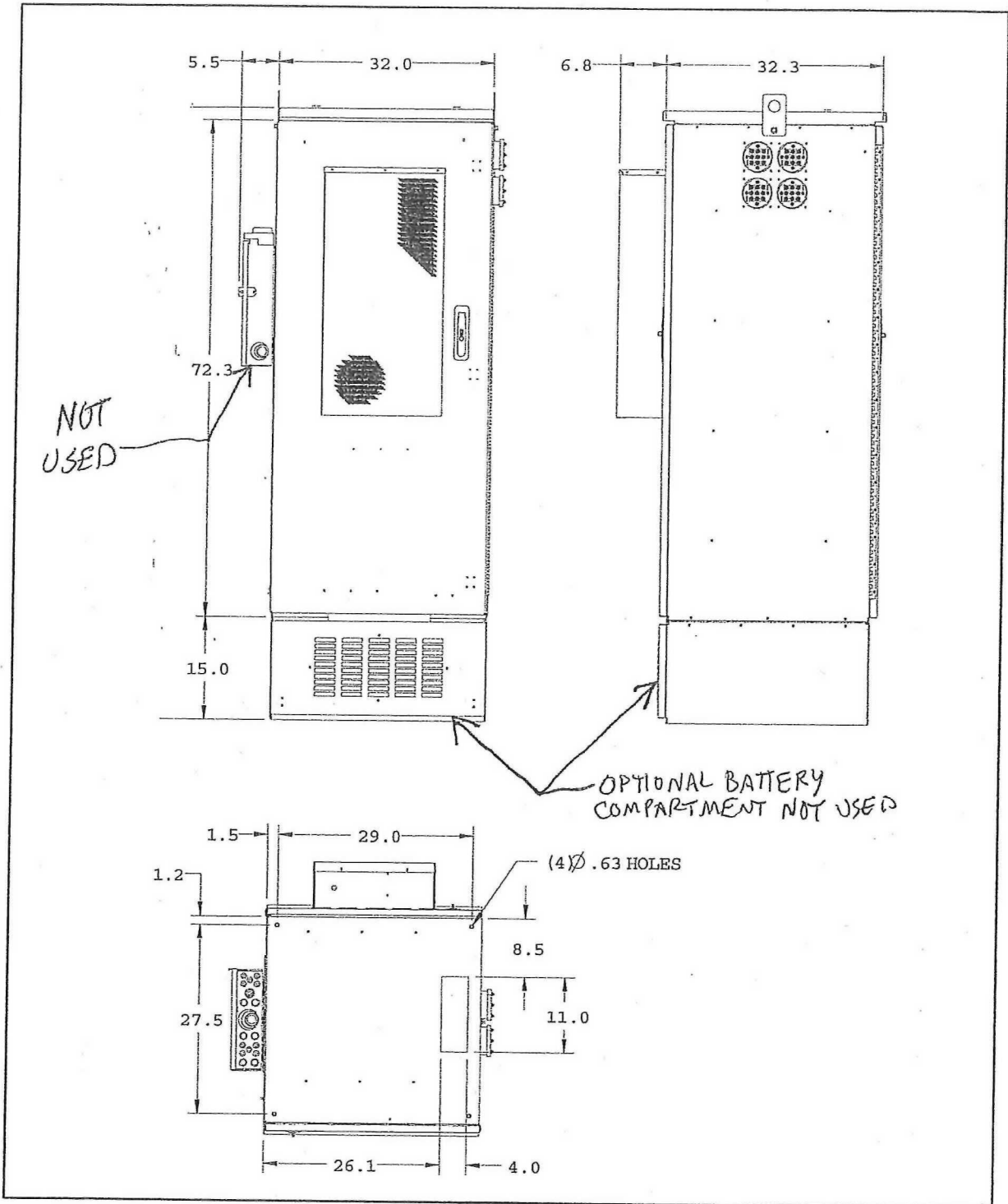


Figure 3 PM63922IC1 and PM63922MC1 Dimensions (in inches)

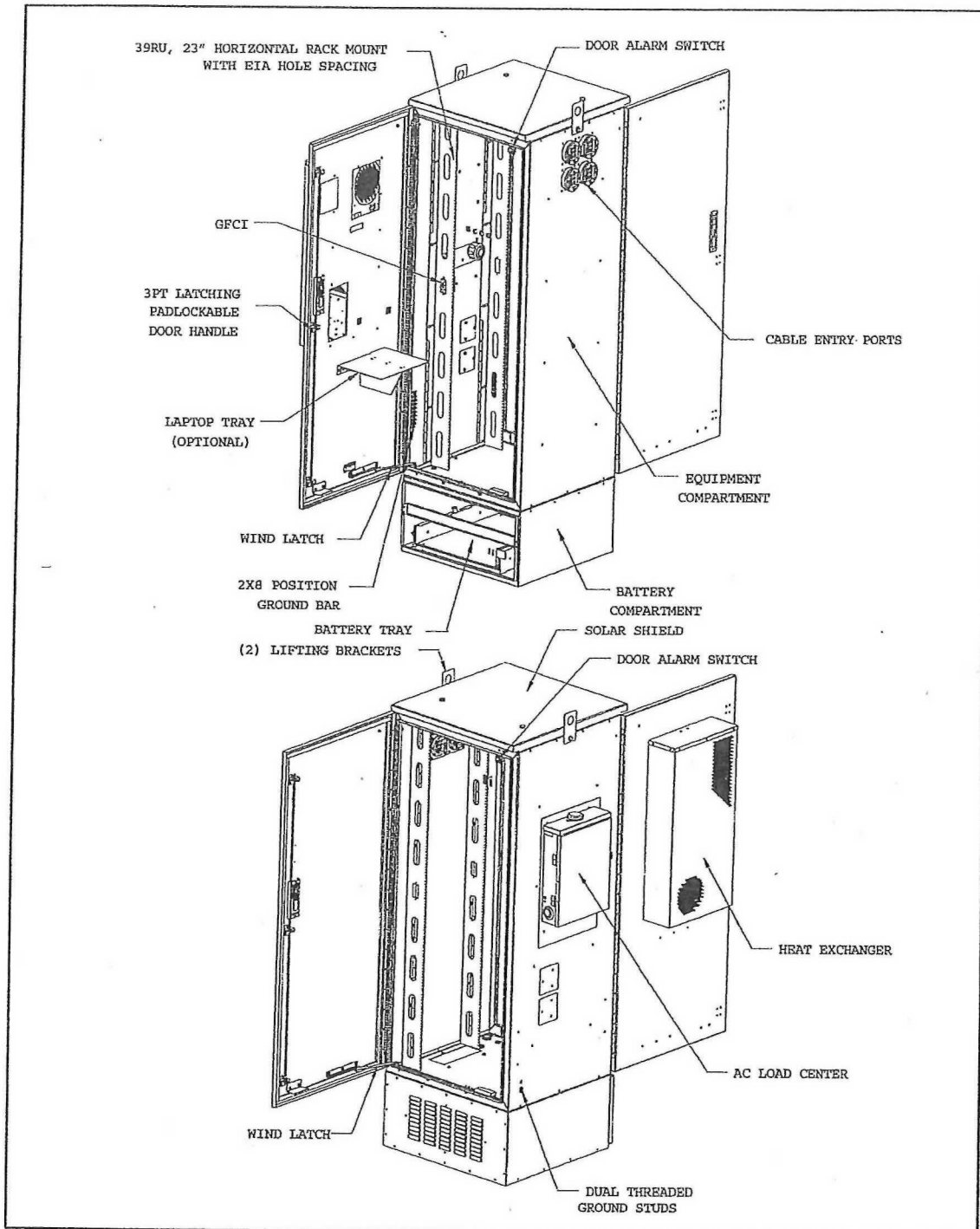


Figure 5 PM63922IC1 and PM63922MC1 Components



7. SPECIFICATIONS

7.1 Regulatory Specifications

- o Designed to be compliant to GR-487

7.2 Physical Specifications

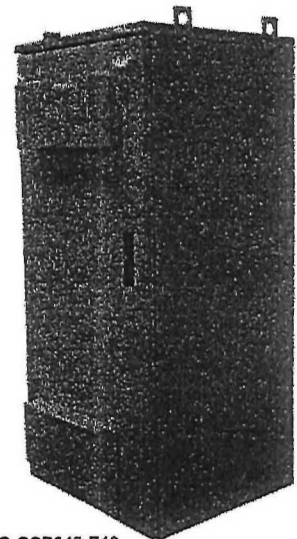
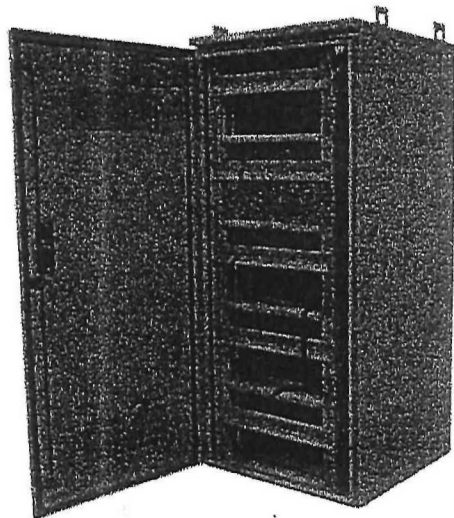
The physical specifications are shown in Table 2.

| Category | |
|--|--|
| Dimensions and weight | 89"H x 32"W x 32"D 500-550lbs |
| 23" Front and Rear Equipment Rack Space and Hole Spacing | 68" (39RU) EIA spacing with tapped 12-24 |
| Color | Off-White |
| Touch up paint | 02-000290-0 |
| Material | .125" Welded Aluminum |
| Maximum Heat Dissipation PM63922RF2/RF4 | 1200W with air conditioner 750W with heat exchanger |
| Maximum Heat Dissipation PM63922IC1/MC1 | 1200W/1880W with heat exchanger |
| Air Conditioner | Dantherm #CS030040A 4000 BTU |
| Heat Exchanger PM63922RF2 PM63922RF4 PM63922IC1 PM63922MC1 | Dantherm # PS023022Y PS023022Z PS035035Z-S PS035055Z-S |
| Bonding and Grounding | (4) 2x8 Position Ground Bar |
| Cable Entrance Battery Compartment Equipment Compartment Between Compartments | 11 x 4" rectangular opening (4) Roxtec Microflex 4" 3x3 port modules (2) 1/2" cord grips (1) 1" cord grip (1) 1" grommet (1) 3/4" double hole |
| Optional folding tray | 97-002178-A |
| Replacement Gasket | 39-000350-0 |
| Pad Mount Template | 97-TEMPM6XX3-A |
| Operating Temp. Range, Inside Enclosure | -40° to +149°F, -40° to 65°C |
| Operating Temp. Range, Outside Enclosure | -40° to +115°F, -40° to 46°C |
| Humidity | 0 to 95% (non-condensing) |
| Altitude | Up to 12,000 feet |

(WITH OPTIONAL BATTERY COMPARTMENT)

Table 1 CUBE Physical Specifications

Charles Universal Broadband Enclosures (CUBE) Battery Backup Cabinets



MADE IN THE
USA

CUBE BBU cabinets are ideally suited for cell sites and other outdoor environments when a large amount of battery backup is required. Multiple BBU cabinets can be combined to achieve an even greater amount of battery backup time. BBU cabinets can be installed adjacent to or remotely from a BTS cabinet.

Specifications

Construction 0.125" Aluminum Welded Construction Outer Enclosure, Powder Coated Off White Finish,
10 Gauge Steel Battery Racks
Mounting Style Pad Mount Enclosure
Thermal Management Direct Air Cooling, Solar Shield
Door Latching 3-Point Latching with Pad Lockable Handle in Front, Removable Panel in Rear
Battery Types / Termination Ni-CD or VRLA, Anderson Disconnects for Each String
Bus Bars Two (2) 2x14 Position Bus Bars
Cable Entrance Seven (7) 1.75/2.5" Double Knockout on RHS, One (1) 1.75/2.5" Double Knockout on LHS,
Seven (7) 1.75/2.5" Double Knockout on Rear
Alarms Door Intrusion
Certifications Telcordia Zone 4 Seismic, Telcordia GR-487 and UL (pending)

Supported Battery Types

| Manufacturer | Battery Model # | Ah | Manufacturer | Battery Model # | Ah |
|--------------|-----------------|-----|----------------|-----------------|-----|
| Northstar | NSB155FT | 155 | GNB Marathon | M12V155FT | 155 |
| Northstar | NSB170FT | 170 | GNB Marathon | M12V180FT | 180 |
| Energys | SBS170F | 170 | Saft | Tel.X 150 | 150 |
| Energys | SBS190F | 190 | Saft | Tel.X 180 | 180 |
| C&D | TEL12-155F | 155 | East Penn Deka | 12AVR-150ET | 150 |
| C&D | TEL12-170F | 170 | East Penn Deka | 12AVR-170ET | 170 |
| C&D | TEL12-190F | 190 | Fiamm | 12UMTX140 | 140 |
| C&D | TEL12-210F | 210 | Fiamm | 12UMTX170 | 170 |

| Part Number | Configuration | Size | Thermal | Battery Strings | Trays | # of Busses | Weight (Empty) | Weight (Loaded) |
|----------------|-----------------|----------|---------|-----------------|-------|-------------|----------------|-----------------|
| CUBE-BB24J1HN1 | 24V Ni-Cd | 73x32x32 | DAC | 10 | 5 | 1 | 900 lbs | 2650 lbs |
| CUBE-BB48E1HN1 | 48V Ni-Cd | 73x32x32 | DAC | 5 | 5 | 1 | 900 lbs | 2650 lbs |
| CUBE-BB24F1HN1 | 24V Ni-Cd | 46x32x32 | DAC | 6 | 3 | 1 | 600 lbs | 1675 lbs |
| CUBE-BB48C1HN1 | 48V Ni-Cd | 46x32x32 | DAC | 3 | 3 | 1 | 600 lbs | 1675 lbs |
| CUBE-BB24J2XV1 | 24V VRLA | 73x32x32 | TEC | 10 | 5 | 1 | 900 lbs | 3450 lbs |
| CUBE-BB48E2XV1 | 48V VRLA | 73x32x32 | TEC | 5 | 5 | 1 | 900 lbs | 3450 lbs |
| CUBE-BB24F2XV1 | 24V VRLA | 46x32x32 | TEC | 6 | 3 | 1 | 600 lbs | 2150 lbs |
| CUBE-BB48C2XV1 | 48V VRLA | 46x32x32 | TEC | 3 | 3 | 1 | 600 lbs | 2150 lbs |
| CUBE-BBDLJ2HN1 | 24 or 48V Ni-Cd | 73x32x32 | DAC | 10 | 5 | 2 | 900 lbs | 3450 lbs |
| CUBE-BBDLJ2XV1 | 24 or 48V VRLA | 73x32x32 | TEC | 10 | 5 | 2 | 900 lbs | 3450 lbs |
| CUBE-BBDLF2HN1 | 24 or 48V Ni-Cd | 46x32x32 | DAC | 6 | 3 | 2 | 600 lbs | 2150 lbs |
| CUBE-BBDLF2XV1 | 24 or 48V VRLA | 46x32x32 | TEC | 6 | 3 | 2 | 600 lbs | 2150 lbs |

OG-OSP048-E13

INNOVATIVE ENCLOSED SOLUTIONS™

Charles Industries, Ltd.
5600 Apollo Drive
Rolling Meadows IL 60008

Phone: (847) 806-6300
Fax: (847) 806-6231
Web: www.charlesindustries.com



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6

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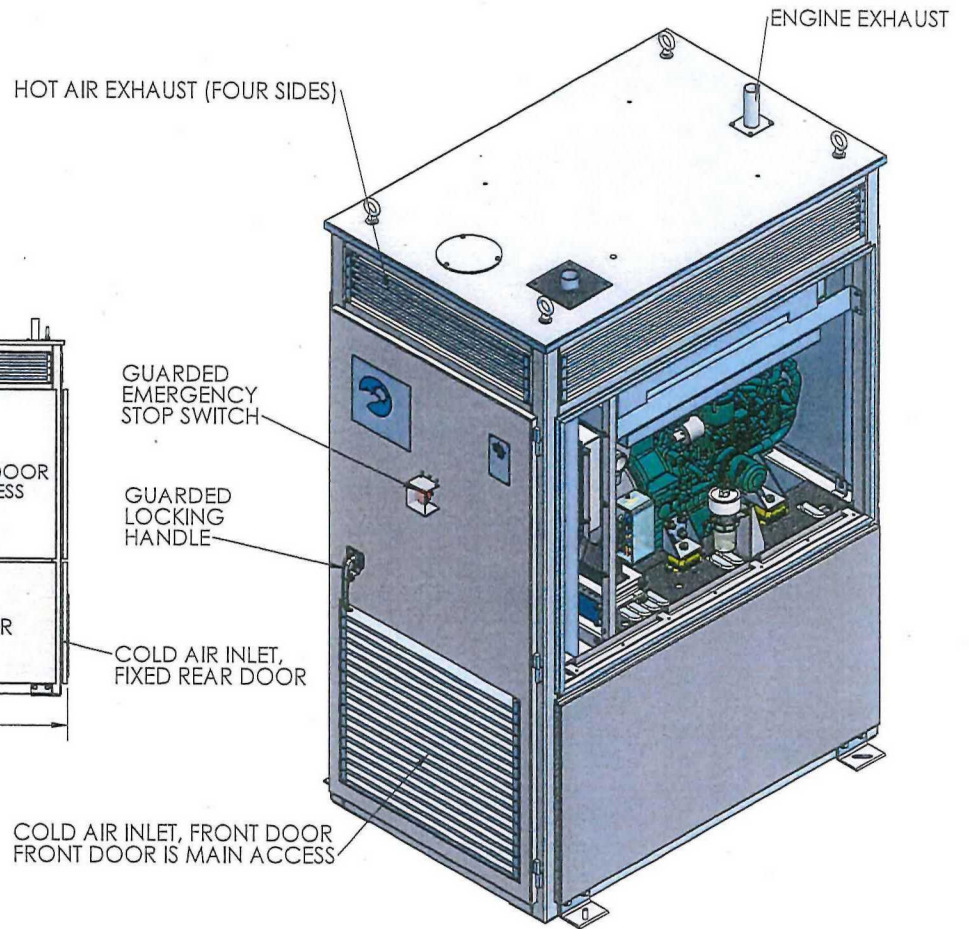
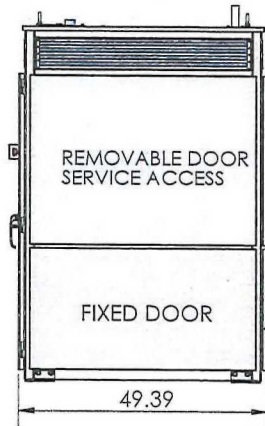
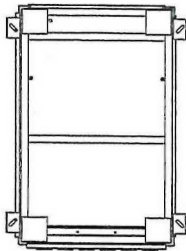
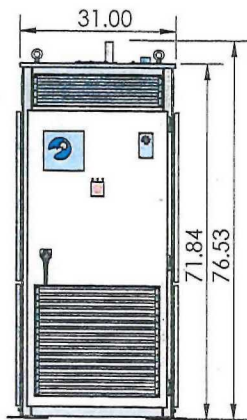
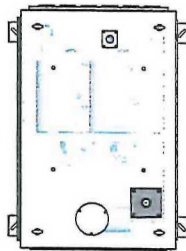
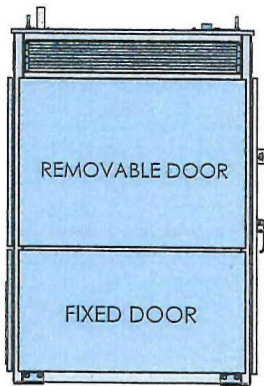
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 $\times .XXX0.010"$

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 249 E GARDENA AVE, GARDENA CA. 90248

TITLE: ALUMINUM VERTICAL
 ENCLOSURE, 72 IN

SIZE DWG. NO. REV
B 88-25-0603 A-1

SCALE: 1:24 WEIGHT: SHEET 1 OF 4

INITIAL RELEASE

| REV | DESCRIPTION |
|-----|-------------|
| 8 | |

| ECO# | BY | DATE |
|------|----|------|
| | | |

| NEXT ASSY | USED ON |
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| APPLICATION | DO NOT SCALE DRAWING |
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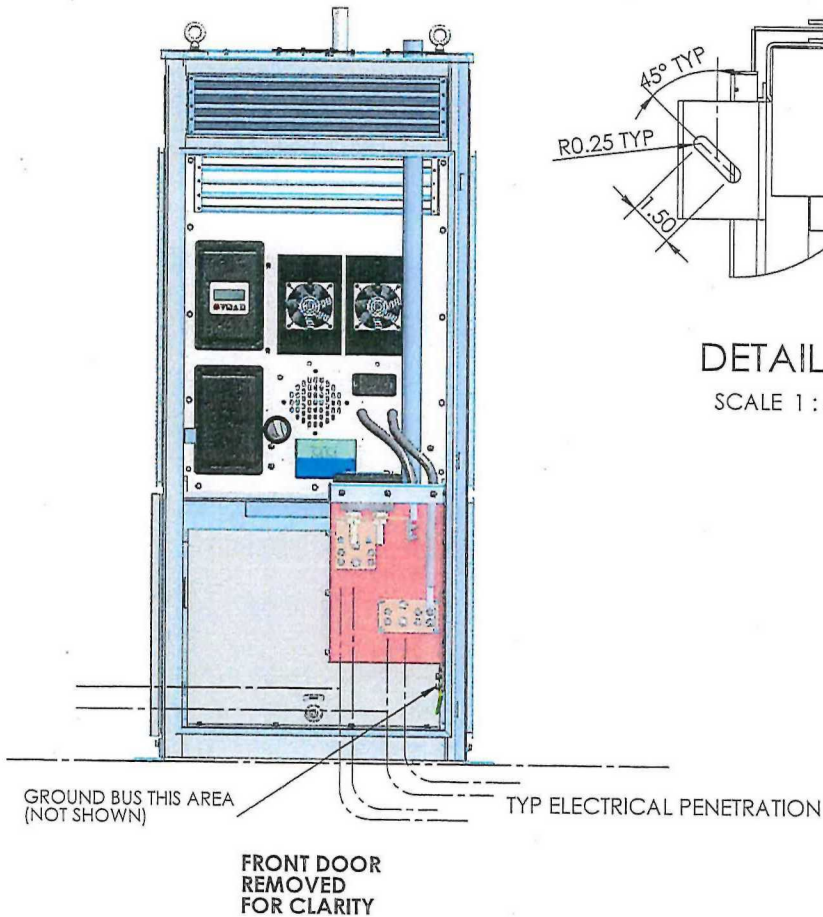
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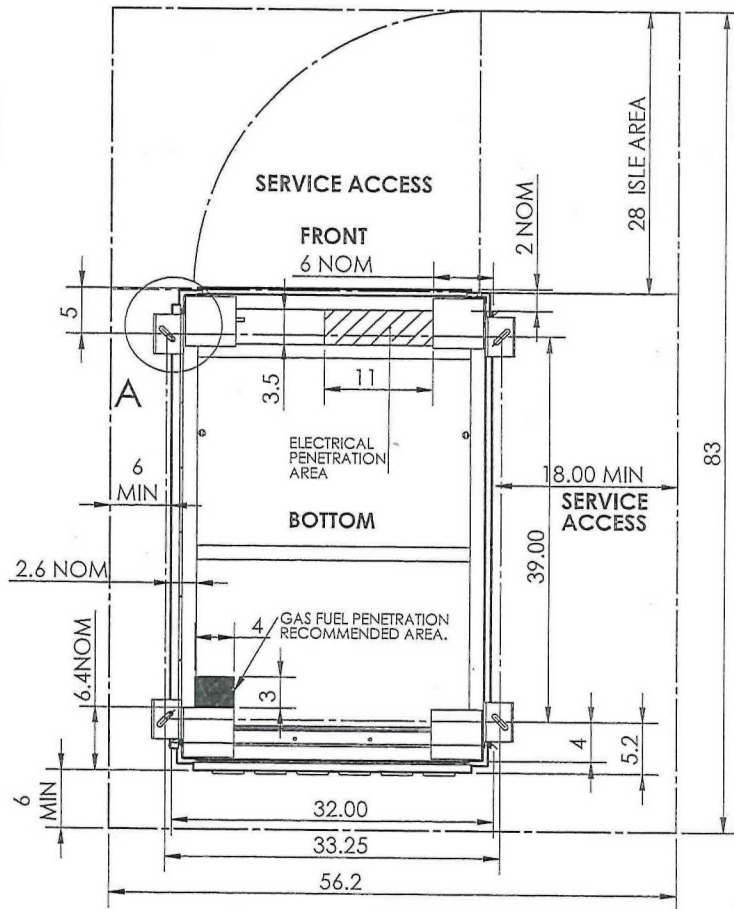
C

B

A



INSTALLATION FOOTPRINT, BOTTOM VIEW



D

C

B

A

COMMENTS:

UNLESS OTHERWISE SPECIFIED: CAD GENERATED DRAWING
 DO NOT MANUALLY UPDATE
 DIMENSIONS ARE IN INCHES APPROVALS DATE
 TOLERANCES ARE: DRAWN GLEASON 1/22/2015
 CHECKED
 FRACTIONS DECIMALS ANGLES
 ±1/32" X.X14.1" ±1/2"
 X.X340.03"
 X.XXX±0.010"

MATERIAL ENG APPR.
 FINISH MFG APPR.
 O.A.

DO NOT SCALE DRAWING

POLAR POWER INC.
 249 E GARDENA AVE, GARDENA CA. 90248

TITLE: ALUMINUM VERTICAL ENCLOSURE, 72 IN

SIZE DWG. NO. REV
B 88-25-0603 A-1

SCALE: 1:24 WEIGHT: SHEET 2 OF 4

INITIAL RELEASE

| REV | DESCRIPTION | ECOM | BY | DATE |
|-----|-------------|------|----|------|
| 8 | | | | |

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
 POLAR POWER INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT
 THE WRITTEN PERMISSION OF POLAR POWER INC. IS PROHIBITED.

| NEXT ASSY | USED ON |
|-------------|----------------------|
| APPLICATION | DO NOT SCALE DRAWING |

4

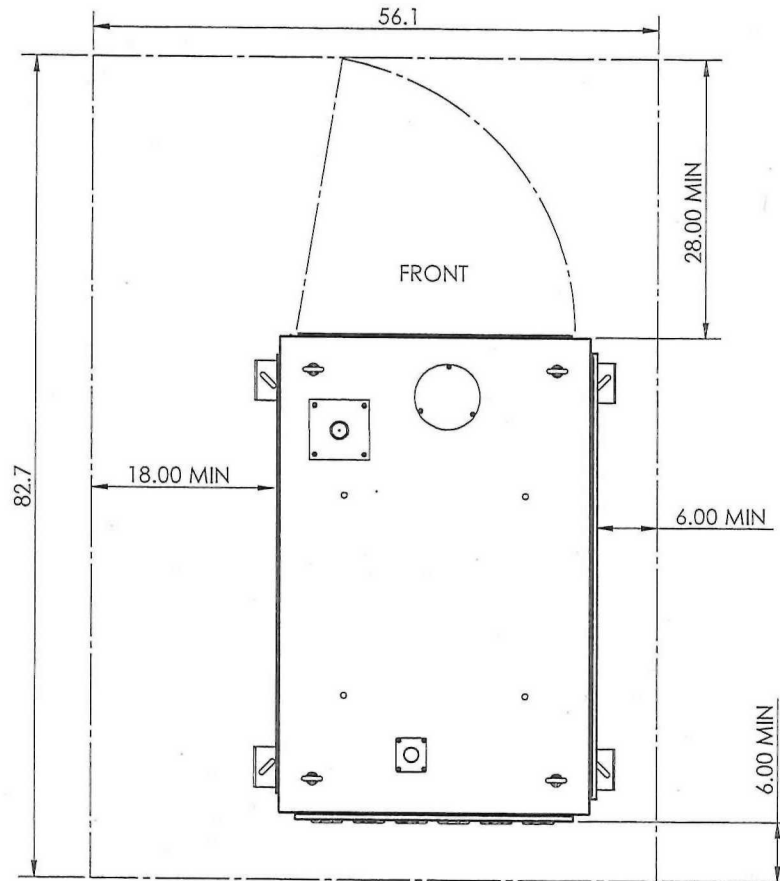
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8 7 6 5 4 3 2 1

INSTALLATION FOOTPRINT, PLAN VIEW



COMMENTS:

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES ARE:
 FRACTIONS DECIMALS ANGLES
 ±1/32" ±0.001" ±1/2°
 X.XX±0.01" X.XXX±0.010"
 MATERIAL FINISH
 DRAWN GIBSON 1/22/2015
 CHECKED
 ENG APPR.
 MFG APPR.
 G.A.

POLAR POWER INC.
 249 E GARDENA AVE, GARDENA CA. 90248

TITLE: **ALUMINUM VERTICAL ENCLOSURE, 72 IN**

SIZE DWG. NO. REV
B 88-25-0603 A-1

SCALE: 1:24 WEIGHT: SHEET 3 OF 4

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NEXT ASSY USED ON
 APPLICATION

DO NOT SCALE DRAWING

INITIAL RELEASE

| REV | DESCRIPTION |
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| ECOM | BY | DATE |
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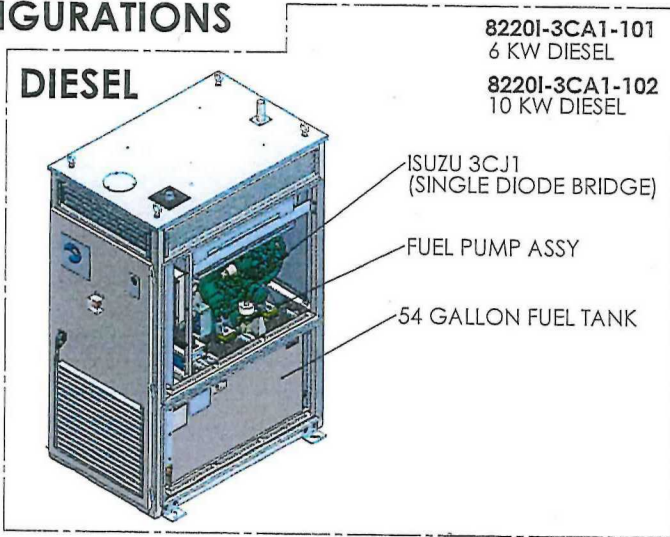
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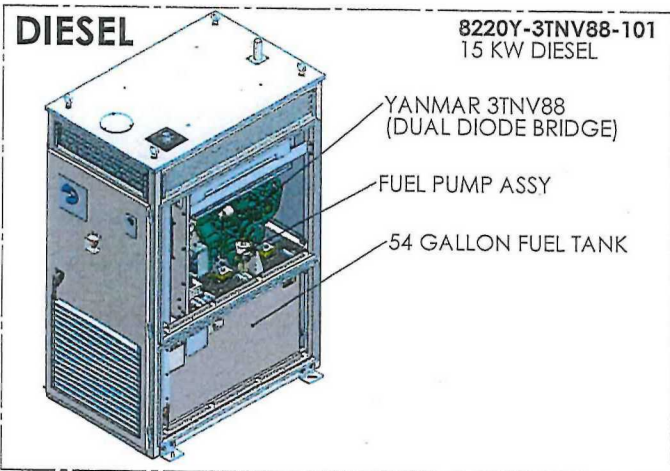
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CONFIGURATIONS

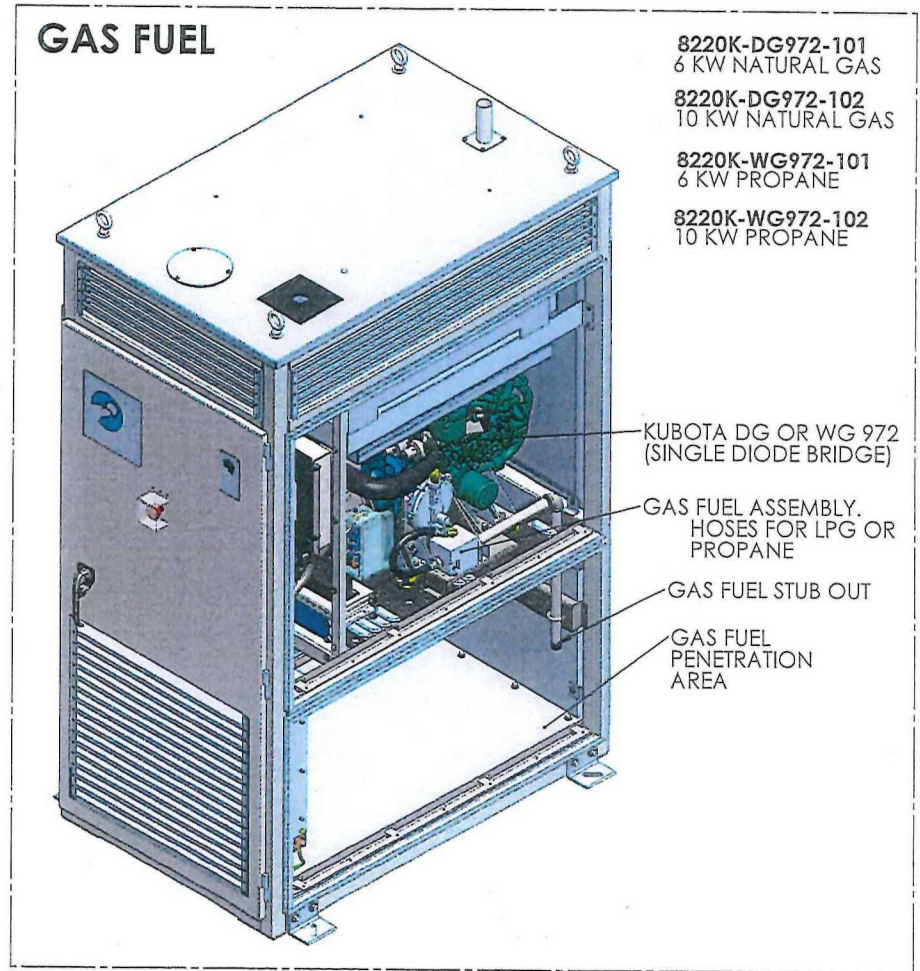
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DIESEL



GAS FUEL



COMMENTS:

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DO NOT MANUALLY UPDATE

DIMENSIONS ARE IN INCHES APPROVALS DATE

TOLERANCES ARE: DRAWN DATE 1/22/2015

FRACTIONS DECIMALS ANGLES
±1/32" X.XX0.1° ±1/2°

X.XX0.00" X.XX0.010"

CHECKED

MATERIAL ENG APPR.

FINISH MFG APPR.

G.A.

POLAR POWER INC.
249 E GARDENA BLVD, GARDENA, CA 90248

TITLE: ALUMINUM VERTICAL ENCLOSURE, 72 IN

SIZE DWG. NO. REV

B 88-25-0603 A-1

SCALE: 1:24 WEIGHT: SHEET 4 OF 4

INITIAL RELEASE

| REV | DESCRIPTION | ECO# | BY | DATE | PROPRIETARY AND CONFIDENTIAL | NEXT ASSY | USED ON |
|-----|-------------|------|----|------|---|-----------|---------|
| 8 | | | | | THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF POLAR POWER INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF POLAR POWER INC. IS PROHIBITED. | | |

| APPLICATION | DO NOT SCALE DRAWING |
|-------------|----------------------|
| 4 | 3 |

| SCALE | WEIGHT | SHEET | TOTAL SHEETS |
|-------|--------|-------|--------------|
| 1:24 | | 4 | 4 |

MESA® Sole Series Enclosures

Key Features

- Door mounted heat exchanger for thermal control
- External AC power box with a 2-position load center
- Optional vented base chamber for batteries
- Optional right side-mounted customer access module
- Designed to meet GR-63-CORE (NEBs), GR-1089-CORE (EMC) and NEC safety requirements
- Designed to meet Telcordia's GR-487-CORE, Issue 2 requirements



The MESA® Sole Series offers thermal management, battery backup and room for wireless carrier equipment to meet your small cell application needs.

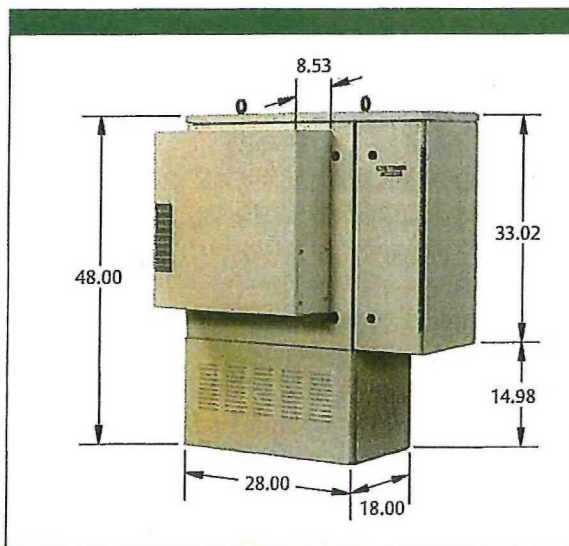
Description

The MESA® Sole Series is a compact and flexible enclosure solution for housing electronics, distribution, and battery backup equipment in outdoor telecom networks. To provide maximum protection for your equipment investment, the MESA® Sole is designed and tested to withstand the most severe environmental conditions. Efficient thermal management is achieved through use of a heat exchanger cooling system which keeps electronics from exceeding their optimal temperatures, yet never introduces outside air and pollutants into the equipment chamber. The MESA® Sole cabinet is extremely flexible, and a modular approach is taken wherever possible so the cabinet can be quickly configured to meet your exact requirements.

Application

This cabinet can economically house a variety of next generation electronic equipment including telco backhaul, fiber distribution, and radio equipment for wireless applications.

Dimensions



Technical Specifications

| Enclosure | |
|----------------|--|
| Cabinet Access | Environmentally sealed door to access the equipment chamber |
| Security | (2) 1/4 turn fasteners secure door; padlock can be installed on lower fastener |

| Mounting | |
|---------------------|---|
| Mounting Options | Pad, pole, wall or H-Frame |
| Vertical Rack Space | 63.5 cm (25") of unobstructed vertical mounting space. Total space is 71 cm (28") |
| Racks | Equipped with 58 cm (23") steel equipment rails bonded by contact to master ground bar |
| Center Mounting | Accepts standard 30 cm (12") deep, center mount equipment [13 cm (5") front, 18 cm (7") rear] |

| Thermal Protection | |
|--------------------|--|
| Heat Exchanger | Equipped with door mounted heat exchanger, capable of removing 650 Watts of heat at 46 °C ambient / 65 °C return (114.8 °F ambient / 149°F return) |

| Equipment Chamber | |
|-----------------------|---|
| Cable Entry | Via (1) 10 cm (4") inside diameter cable cone, (1) 2.5 cm (1") grommeted opening, and (1) 2 cm (.75") opening |
| AC Power Box | Equipped with an external 2-position load center to accommodate customer-supplied AC power |
| AC Convenience Outlet | Ground Fault Circuit Interrupter (GFCI) protected 15 A outlet in equipment chamber |
| Grounding | Equipment chamber contains (2) 6-position, 2-hole ground bars; one is isolated from frame |

| Optional Battery Compartment | |
|------------------------------|---|
| Battery Options | Ventilated external battery base compartment equipped with battery heater pad |

| Optional Customer Access Module | |
|---------------------------------|---|
| Mounting | Mounts on right side of cabinet |
| Grounding | 10-position ground bar |
| Environmental | Sealed from outside environment by right-hand hinged door |
| Security | (2) 1/4 turn fasteners open using 216 hex tool |

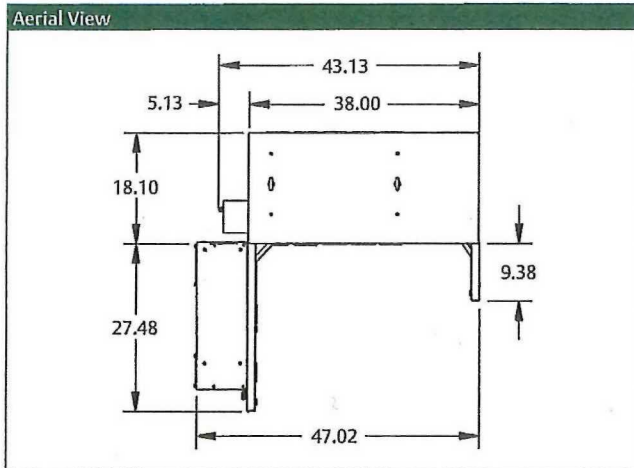


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 EmersonNetworkPower.eu/EnergySystems (EMEA)

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Dimensions (continued)



Ordering Information

| Emerson Part No. | Description | Dimensions (H x W x D) | Approx. Weight |
|--------------------|---|---|-------------------|
| Enclosures | | | |
| F1009260 | MESA® Sole backhaul cabinet with customer access module and battery base | 121.9 x 109.2 x 67.3 cm (48" x 43" x 26.5") | 96.6 kg (213 lb.) |
| F1009261 | MESA® Sole backhaul cabinet with customer access module (no battery base) | 83.8 x 109.2 x 67.3 cm (33" x 43" x 26.5") | 74.8 kg (165 lb.) |
| F1009262 | MESA® Sole backhaul cabinet with battery base (no customer access module) | 121.9 x 83.8 x 67.3 cm (48" x 33" x 26.5") | 86.1 kg (190 lb.) |
| F1009263 | MESA® Sole backhaul cabinet (no customer access module or battery base) | 83.8 x 83.8 x 67.3 cm (33" x 33" x 26.5") | 64.4 kg (142 lb.) |
| Accessories | | | |
| F1009264 | MESA® Sole pole mount kit | | |
| F1009265 | MESA® Sole wall mount kit | | |
| F1009266 | MESA® Sole pad mount kit (only for cabinets with battery base: F1009260 and F1009262) | | |
| F1009604 | MESA® Sole H-frame kit | | |
| F1010043 | MESA® Sole mounting plinth/platform (only for cabinets without battery base: F1009261 & F1009263) | | |
| F1009300 | MESA® Sole battery bracket kit for SBS batteries | | |
| F1009351 | MESA® Sole mounting bracket kit for 100-pr. protection panel in customer access module | | |
| F1009656 | MESA® Sole conduit template for customer access module | | |
| F1006640 | 100-pr. protection panel | | |

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MESA® Sole Series Enclosures

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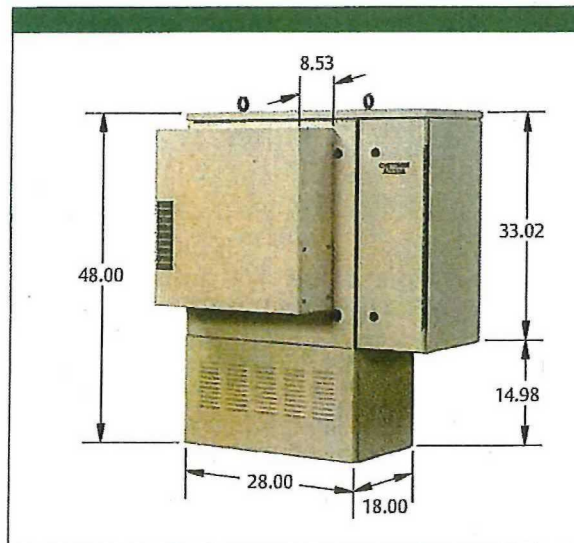
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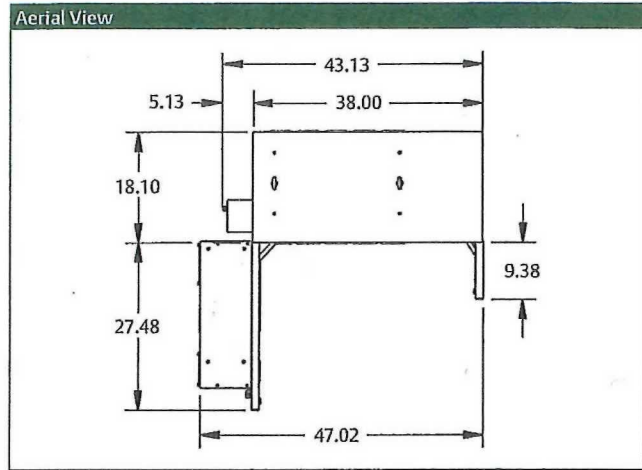
| Thermal Protection | |
|--------------------|--|
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|-----------------------|---|
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|------------------------------|---|
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| Optional Customer Access Module | |
|---------------------------------|---|
| Mounting | Mounts on right side of cabinet |
| Grounding | 10-position ground bar |
| Environmental | Sealed from outside environment by right-hand hinged door |
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Dimensions (continued)



Ordering Information

| Emerson Part No. | Description | Dimensions (H x W x D) | Approx. Weight |
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**Statement of Certified Engineer
Site Selection and Performance Standards**

Site Name: Pleasant Valley
Site Address: 6309T Bull Run Post Office Road, Centreville, VA

The NOVEC substation parcel located at 6309T Bull Run Post Road, was selected by Verizon Wireless to provide and improve 4G LTE wireless coverage to the neighborhoods between Gum Springs and Pleasant Valley Road in Centreville. The site will also enhance in-building coverage to the neighboring residential communities.

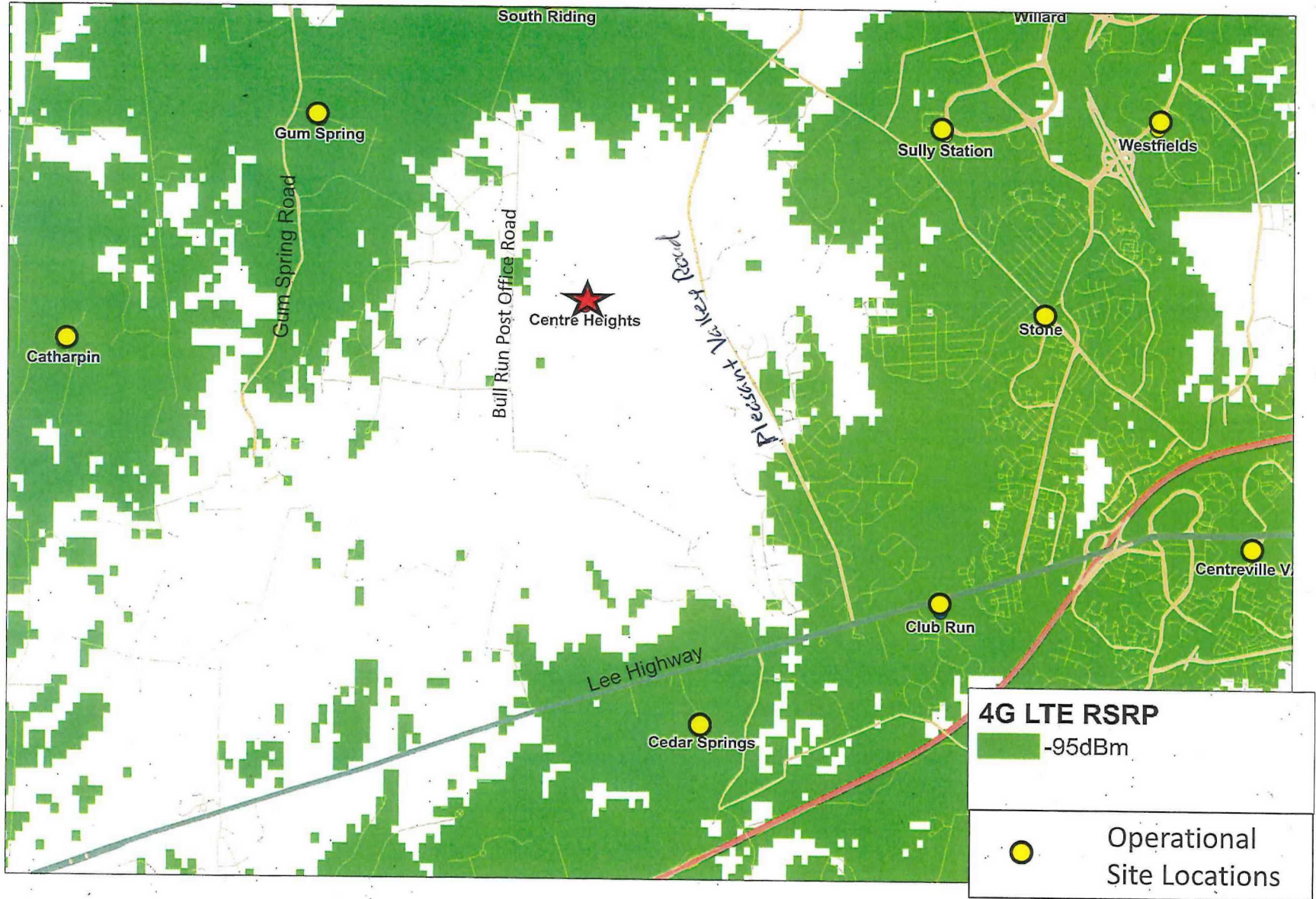
The applicant identified existing structures of sufficient height in the area. However, each of the existing Dominion Virginia Power (DVP) transmission towers that were of sufficient height and structurally capable were already occupied by other carriers. By adding Verizon Wireless equipment, these transmission towers would fail structurally.

The proposed Milestone facility will resolve the need for adequate coverage in the area surrounding the proposed site and also ensure adequate overlapping coverage between and among existing Verizon sites. Ultimately, the proposed site will allow residents and commuters to experience better quality and diminished drop calls. The propagation maps attached to the application and prepared by an RF Engineer illustrate the improved coverage that will result with the addition of the new telecommunications site.

Mercy Luhanga
Radio Frequency Engineer
9000 Junction Drive
Annapolis Junction, MD 20701

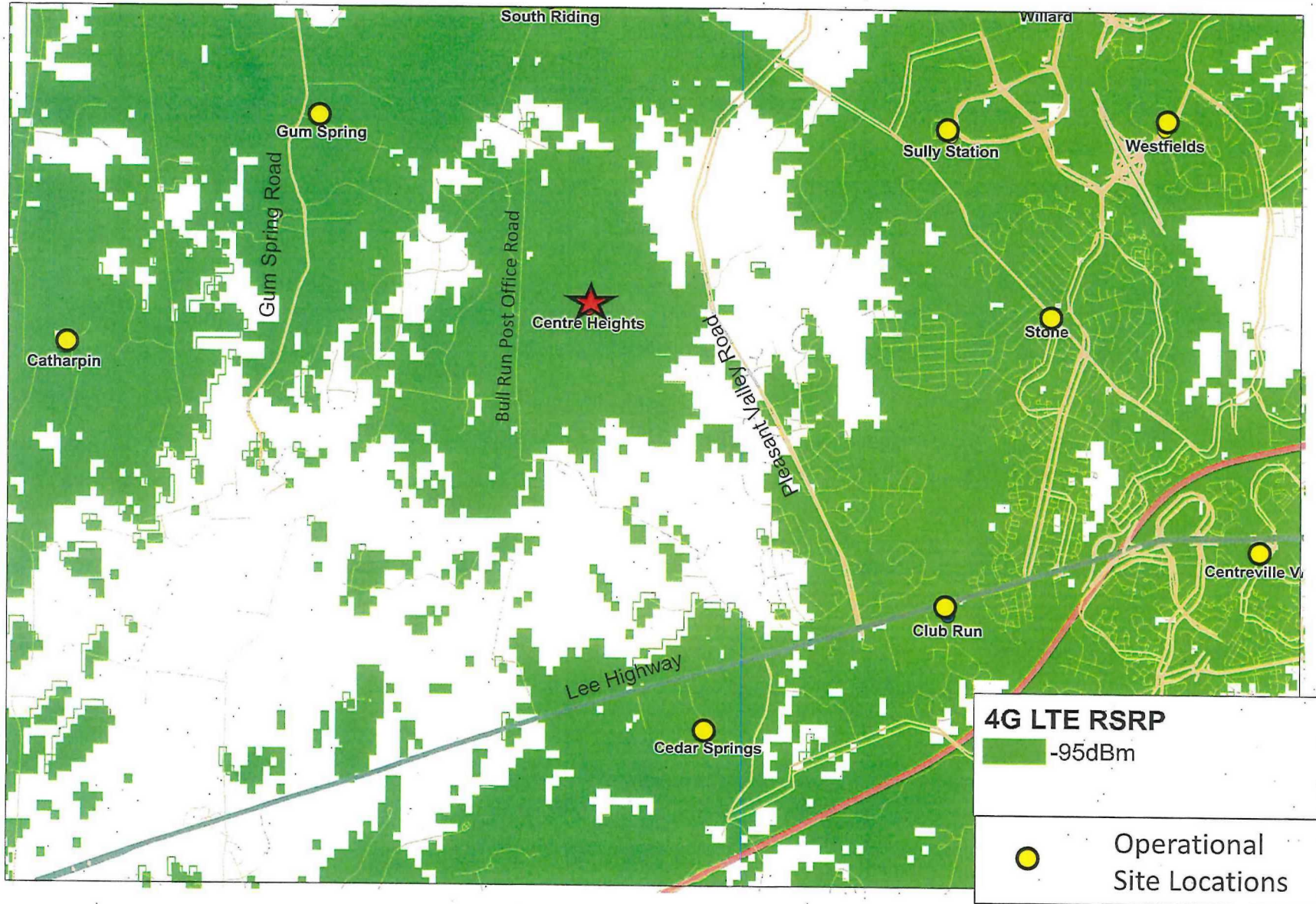
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TOWN OF PLANNING & ZONING
PLANNING DIVISION

VZW - 4G LTE Coverage - Without the Centre Heights Site



VZW - 4G LTE Coverage - With the Centre Heights Site

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DEPARTMENT OF PLANNING & ZONING
PLANNING DIVISION



MAP #: 0522 01 0011E1
NORTHERN VIRGINIA ELECTRIC COOP

N/A

Owner

| | |
|-----------------|-----------------------------------|
| Name | NORTHERN VIRGINIA ELECTRIC COOP, |
| Mailing Address | 10323 LOMOND DR MANASSAS VA 20109 |
| Book | 24752 |
| Page | 0618 |

**Parcel**

| | |
|----------------------------------|---|
| Property Location | CENTREVILLE VA 20120 |
| Map # | 0522.01 0011E1 |
| Tax District | 90200 |
| District Name | SULLY DIST. #2 |
| Land Use Code | Gas,pipeline ROW,plants,storage,etc. |
| Land Area (acreage) | 8.4309 |
| Land Area (SQFT) | |
| Zoning Description | RC(Res Conservation 1DU/5AC) |
| Utilities | SEWER NOT AVAILABLE |
| County Historic Overlay District | NO For further information about Historic Overlay Districts, CLICK HERE |

Street/Road
 Site Description

Legal Description

| | |
|-------------------|---|
| Legal Description | DOMINION COVE POINT LNG LP PCL 2A ASSESSED BY SCC |
|-------------------|---|

Sales History

| Date | Amount Seller | Buyer |
|------------|--|---------------------------------|
| 09/16/2016 | \$0 NORTHERN VIRGINIA ELECTRIC COOPERATIVE | NORTHERN VIRGINIA ELECTRIC COOP |

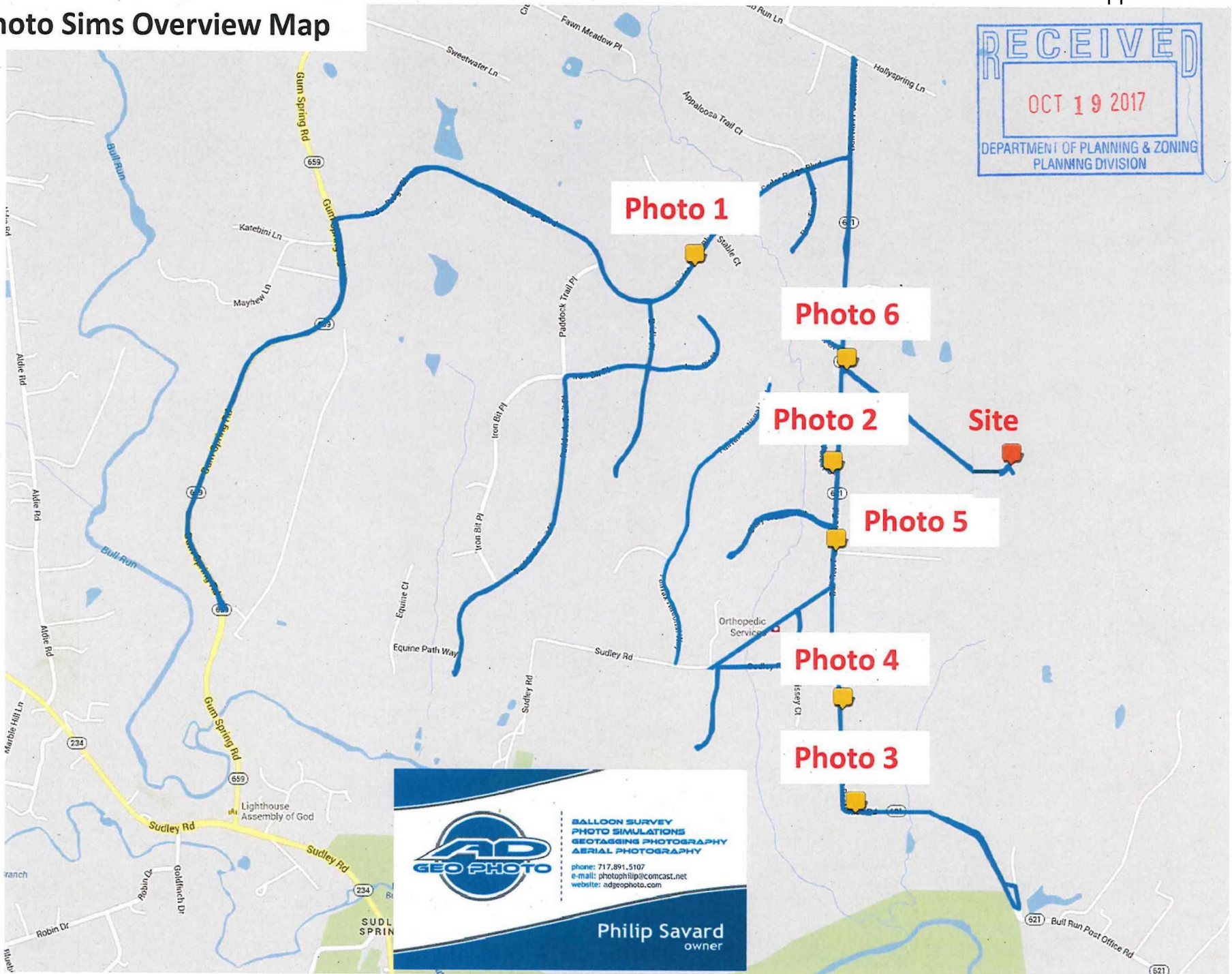
Sales

| | |
|--------------------|--|
| Date | 09/16/2016 |
| Amount | \$0 |
| Seller | NORTHERN VIRGINIA ELECTRIC COOPERATIVE |
| Buyer | NORTHERN VIRGINIA ELECTRIC COOP |
| Notes | No consideration |
| Deed Book and Page | 24752-0618 |
| Additional Notes | |

Values

| | |
|----------|------|
| Tax Year | 2017 |
|----------|------|

Photo Sims Overview Map



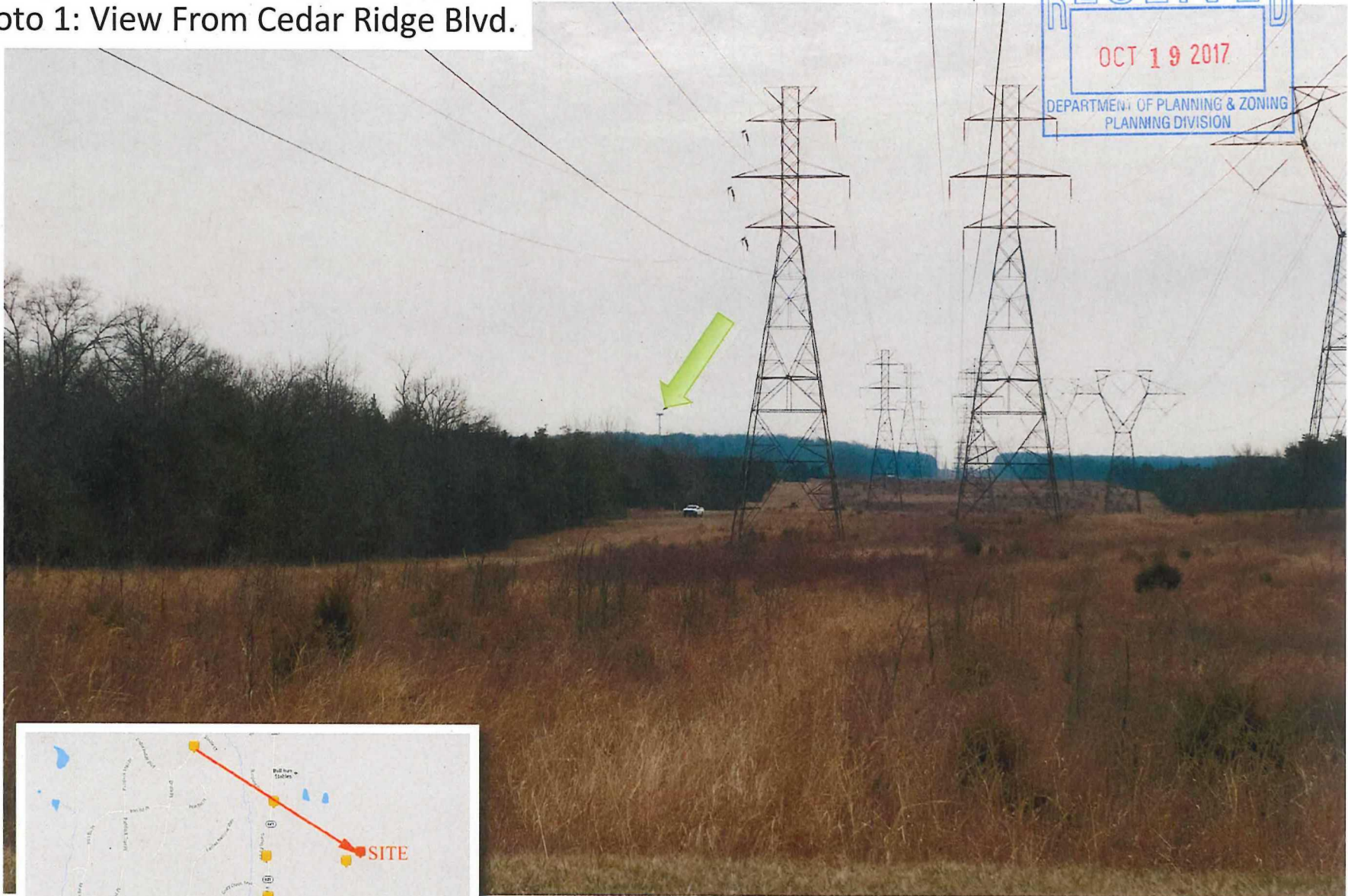
**BALLOON SURVEY
PHOTO SIMULATIONS
GEOTAGGING PHOTOGRAPHY
AERIAL PHOTOGRAPHY**

phone: 717.891.5107
e-mail: photophilip@comcast.net
website: adgeophoto.com

Philip Savard
owner

Photo 1: View From Cedar Ridge Blvd.

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AD
GEO PHOTO

BALLOON SURVEY
PHOTO SIMULATIONS
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AERIAL PHOTOGRAPHY

phone: 717.891.5107
e-mail: photophilip@comcast.net
website: adgphoto.com

Philip Savard
owner

PLEASANT VALLEY SUBSTATION PROPOSED MONOPOLE

Photo 2: View from the intersection Bull Run Post Office Road and Sudley Forest Court

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PLANNING DIVISION



AD
GEO PHOTO

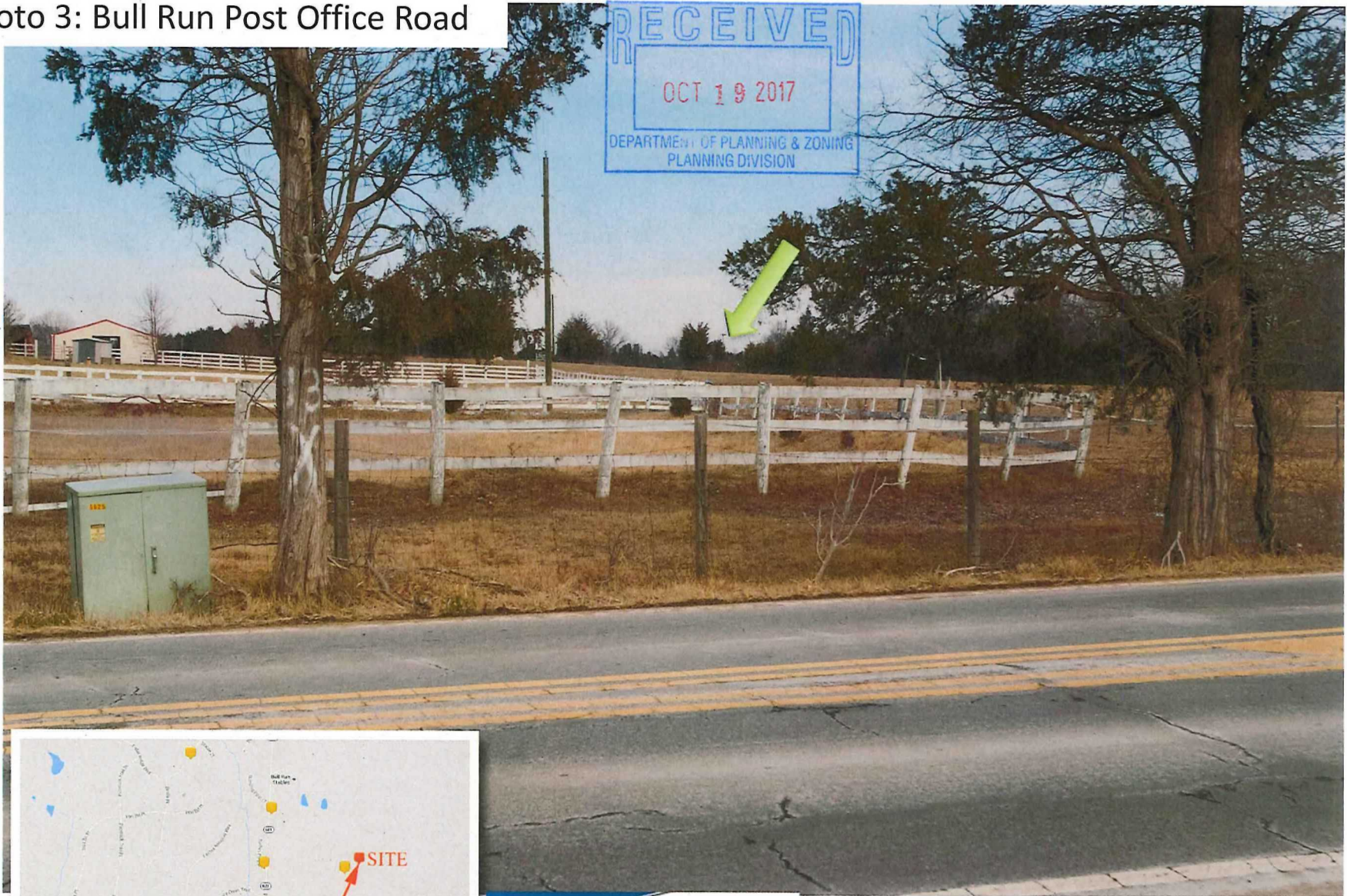
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GEOTAGGING PHOTOGRAPHY
AERIAL PHOTOGRAPHY

phone: 717.891.5107
e-mail: photo@adgeo.com
website: adgeo.com

Philip Savard
owner

PLEASANT VALLEY SUBSTATION PROPOSED MONOPOLE

Photo 3: Bull Run Post Office Road



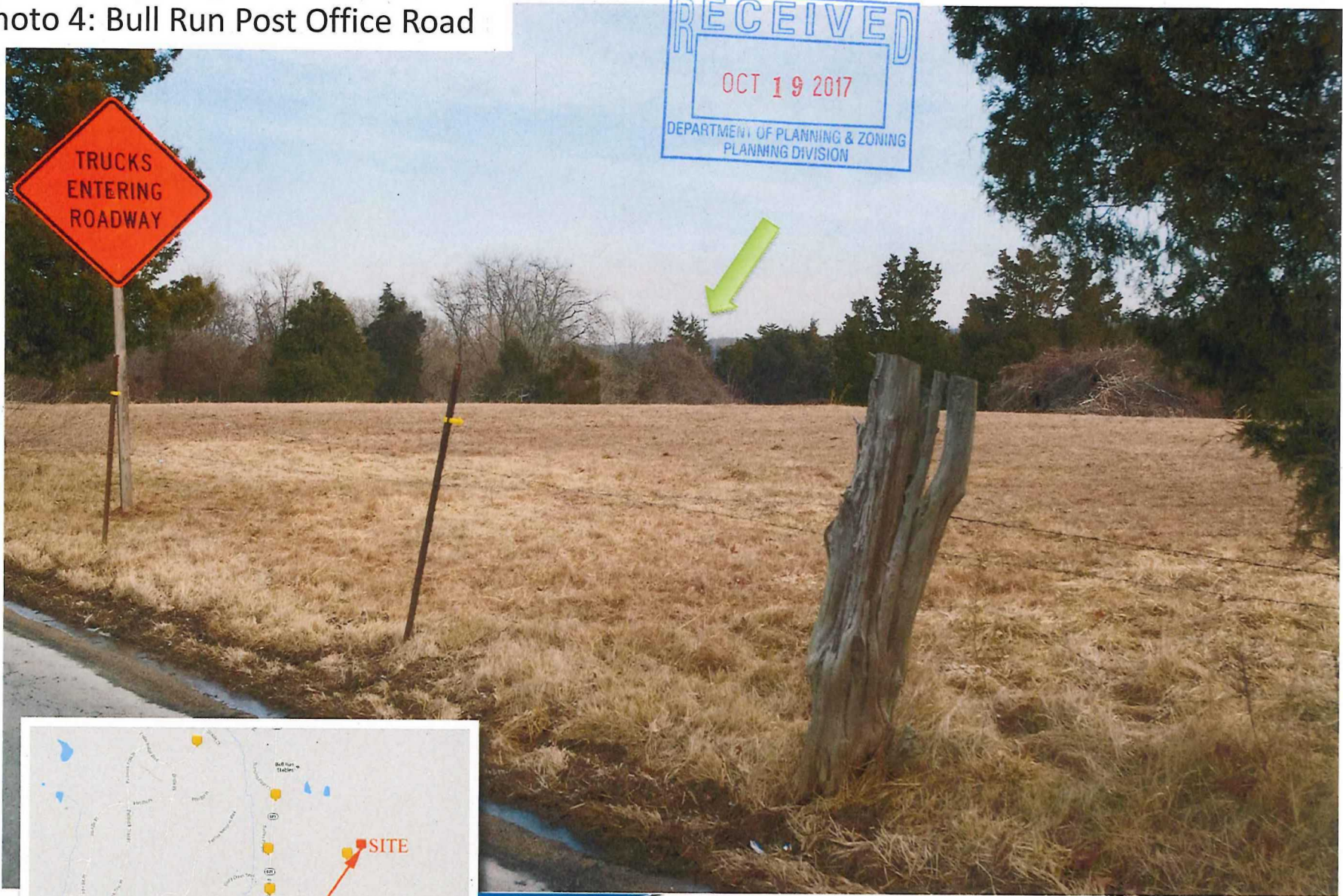
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phone: 717.891.5107
e-mail: phil@savardphoto.com
website: sdpphoto.com

Philip Savard
owner

PLEASANT VALLEY
SUBSTATION
PROPOSED MONOPOLE

Photo 4: Bull Run Post Office Road



AD
GEO PHOTO

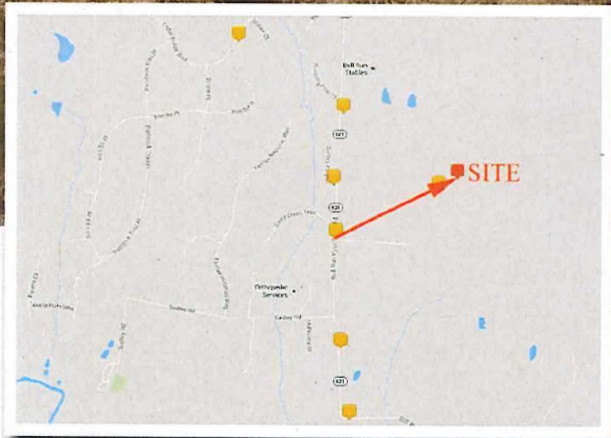
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PHOTO SIMULATIONS
GEOTAGGING PHOTOGRAPHY
AERIAL PHOTOGRAPHY

phone: 712.894.5107
e-mail: phil@philgpc.com
website: adgphoto.com

Philip Savard
owner

PLEASANT VALLEY SUBSTATION PROPOSED MONOPOLE

Photo 5: Bull Run Post Office Road



**AD
GEO PHOTO**

BALLOON SURVEY
PHOTO SIMULATIONS
GEOTAGGING PHOTOGRAPHY
AERIAL PHOTOGRAPHY

phone: 717.891.5137
e-mail: photo@philipcomcast.net
website: adgphoto.com

Philip Savard
owner

**PLEASANT VALLEY
SUBSTATION
PROPOSED MONOPOLE**

Photo 6: View from Bull Run Post Office Road and Pleasant Valley Substation access road



BALLOON SURVEY
PHOTO SIMULATIONS
GEOTAGGING PHOTOGRAPHY
AERIAL PHOTOGRAPHY

phone: 717.891.5107
e-mail: photo@adphoto.com
website: adphoto.com

Philip Savard
owner

PLEASANT VALLEY
SUBSTATION
PROPOSED MONOPOLE

Photo 7: The Pleasant Valley Substation Access Road

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PLANNING DIVISION



**AD
GEO PHOTO**

BALLOON SURVEY
PHOTO SIMULATIONS
GEOTAGGING PHOTOGRAPHY
AERIAL PHOTOGRAPHY

phone: 712.891.5107
email: photo@adgeo.com
website: adgeophoto.com

Philip Savard
owner

PLEASANT VALLEY SUBSTATION PROPOSED MONOPOLE




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 6, 2017

TO: Zach Fountain, Staff Coordinator
Zoning Evaluation Division
Department of Planning and Zoning

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

SUBJECT: Affidavit
Application No.: SE 2017-SU-020
Applicant: Milestone Limited Partnership III; Cellco Partnership d/b/a Verizon
Wireless
PC Hearing Date: 11/9/17
BOS Hearing Date: 11/21/17

REF.: 141395

Attached is an affidavit which has been approved by the Office of the County Attorney for the referenced case. Please include this affidavit dated 10/5/17, which bears my initials and is numbered 141395, when you prepare the staff report.

Thank you for your cooperation.

Attachment

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

SPECIAL EXCEPTION AFFIDAVIT

141395

DATE: October 5, 2017
(enter date affidavit is notarized)

I, Frank W. Stearns, 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

in Application No.(s): SE 2017-SU-020
(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) |
|---|---|--|
| Milestone Tower Limited Partnership III Leonard NMI Forkas, Jr., Agent | 12110 Sunset Hills Road, Suite 100 Reston, VA 20190 | Applicant/Lessee and Sub-Lessor Tax Map 0522 01 0011E |
| Cellco Partnership d/b/a Verizon Wireless, Brian Stover, Agent | 7600 Montpelier Road, 2nd Floor Laurel, MD 20723 | Co-Applicant/Sub-Lessee Tax Map 0522 01 0011E |
| Entrex Communications Services, Inc. Marc A. Marzullo | 6600 Rockledge Drive, Suite 550 Bethesda, MD 20817 | Engineers/Agents for Milestone Tower Limited Partnership III |
| Donohue & Stearns, PLC Frank W. Stearns Edward L. Donohue | 201 Liberty Street Leesburg, VA 20175 | Attorneys/Agents for Milestone Tower Limited Partnership III |
| Northern Virginia Electric Cooperative | 10323 Lomond Drive Manassas, VA 20109 | Owner Tax Map 0522 01 0011E |

(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: October 5, 2017
(enter date affidavit is notarized)

141 395

for Application No. (s): SE 2017-SU-020
(enter County-assigned application number (s))

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

| NAME (enter first name, middle initial, and last name) | ADDRESS (enter number, street, city, state, and zip code) | RELATIONSHIP(S) (enter applicable relationships listed in BOLD above) |
|---|---|--|
| Dewberry Consultants, LLC Curt Crouch | 13575 Heathcote Boulevard Gainesville, VA 20155-6693 | Engineers/Agents for Milestone Tower Limited Partnership III |
| Millennium Engineering, PC Paul A. Dugan Michael Fischer, PE Anthony Handley | 132 Jaffrey Road Malvern, PA 19355 | RF Engineers/Agents for Milestone Tower Limited Partnership III |

(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

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141395

for Application No. (s): SE 2017-SU-020
(enter County-assigned application number(s))

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

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

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name and number, street, city, state, and zip code) Bell Atlantic Mobile Systems, LLC
One Verizon Way
Basking Ridge, NJ 07920

DESCRIPTION OF CORPORATION: (check one statement)

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

NAMES OF SHAREHOLDERS: (enter first name, middle initial and last name)
MCI Communication Services, Inc.

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

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

Special Exception Attachment to Par. 1(b)

DATE: October 5, 2017
(enter date affidavit is notarized)

141395

for Application No. (s): SE 2017-SU-020
(enter County-assigned application number (s))

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

MCI Communications Services, Inc.
One Verizon Way
Basking Ridge, NJ 07920-1097

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)

MCI Broadband Solutions, Inc.

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

MCI Broadband Solutions, Inc.
901 International Parkway
Lake Mary, FL 32746

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)

Terremark Worldwide, Inc.

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

Special Exception Attachment to Par. 1(b)

DATE: October 5, 2017
(enter date affidavit is notarized)

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for Application No. (s): SE 2017-SU-020
(enter County-assigned application number (s))

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

Teremark Worldwide, Inc.
One Biscayne Tower
2 South Biscayne Boulevard, Suite 2800
Miami, FL 33131

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)

Verizon Business Network Services, Inc.

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

Verizon Business Network Services, Inc.
One Verizon Way
Basking Ridge, NJ 07920

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)

MCI Communications Corporation

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

Special Exception Attachment to Par. 1(b)

DATE: October 5, 2017
(enter date affidavit is notarized)

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for Application No. (s): SE 2017-SU-020
(enter County-assigned application number (s))

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

MCI Communications Corporation
One Verizon Way
Basking Ridge, NJ 07920

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)

Verizon Business Global, LLC

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

Verizon Business Global, LLC
One Verizon Way
Basking Ridge, NJ 07920

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)

Verizon Communications, Inc.

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

Special Exception Attachment to Par. 1(b)

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for Application No. (s): SE 2017-SU-020
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NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

Verizon Communications, Inc.
140 West Street
New York, NY 10007

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)

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

GTE Wireless Incorporated
One Verizon Way
Basking Ridge, NJ 07920

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)

GTE Corporation

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

Special Exception Attachment to Par. 1(b)

DATE: October 5, 2017
(enter date affidavit is notarized)

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for Application No. (s): SE 2017-SU-020
(enter County-assigned application number (s))

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

GTE Corporation
140 West Street
New York, NY 10007

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)

Verizon Communications Inc.

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

JV PartnerCo, LLC
One Verizon Way
Basking Ridge, NJ 07920

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)

Verizon Americas Inc.

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

Special Exception Attachment to Par. 1(b)

DATE: October 5, 2017
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for Application No. (s): SE 2017-SU-020
(enter County-assigned application number (s))

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

Verizon Americas Inc.
One Verizon Way
Basking Ridge, NJ 07920

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)

Verizon Americas Holdings, Inc.

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

Verizon Americas Holdings, Inc.
901 International Parkway
Lake Mary, FL 32746

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)

Verizon Americas Finance 2 Inc.

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

Special Exception Attachment to Par. 1(b)

DATE: October 5, 2017
(enter date affidavit is notarized)

14395

for Application No. (s): SE 2017-SU-020
(enter County-assigned application number (s))

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

Verizon Americas Finance 2 Inc.
One Verizon Way
Basking Ridge, NJ 07920

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)

Verizon Americas Finance 1 Inc.

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

Verizon Americas Finance 1 Inc.
One Verizon Way
Basking Ridge, NJ 07920

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)

Verizon Communications Inc.

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

Special Exception Attachment to Par. 1(b)

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for Application No. (s): SE 2017-SU-020
(enter County-assigned application number (s))

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

Verizon Holdings LLC
One Verizon Way
Basking Ridge, NJ 07920

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)

Verizon Americas Inc.

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

Milestone Communications Management III, Inc.
12110 Sunset Hills Road, Suite 100
Reston, VA 20190

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)

Leonard NMI Forkas, Jr.

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

Special Exception Attachment to Par. 1(b)

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for Application No. (s): SE 2017-SU-020
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NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

Entrex Communications Services, Inc.
6600 Rockledge Drive, Suite 550
Bethesda, MD 20817

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)

Marc A. Marzullo
Camille F. Shabshab
John Cabot Goudy

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

Donohue & Stearns, PLC
117 Oronoco Street
Alexandria, VA 22314

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)

Edward L. Donohue
Frank W. Stearns

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

Special Exception Attachment to Par. 1(b)

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for Application No. (s): SE 2017-SU-020
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NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

Northern Virginia Electric Cooperative
10323 Lomond Drive
Manassas, VA 20109

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)

NONE -
There are no shareholders in a cooperative.

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

Millennium Engineering, PC
132 Jaffrey Road
Malvern, PA 19355

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)

Paul A. Dugan

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

Special Exception Attachment to Par. 1(b)

DATE: October 5, 2017
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14395

for Application No. (s): SE 2017-SU-020
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NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

Dewberry Consultants LLC
13575 Heathcote Boulevard, Suite 130
Gainesville, VA 20155-6693

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 Sidney Dewberry Credit |
| Karen S. Grand Pre | Shelter Trust u/a/d 11-23-2005 f/b/o |
| Thomas L. Dewberry | Michael S. Dewberry II, Katie A. |
| | Dewberry, John M. Dewberry and |
| | one other minor child |

(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.

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for Application No. (s): SE 2017-SU-020
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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)

Cellco Partnership d/b/a Verizon Wireless
One Verizon Way
Basking Ridge, NJ 07920

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

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g.

General Partner, Limited Partner, or General and Limited Partner)

| | |
|-----------------------------------|-----------------|
| Bell Atlantic Mobile Systems, LLC | General Partner |
| GTE Wireless Inc. | General Partner |
| JV PartnerCo LLC | General Partner |
| PCS Nucleus L.P. | General Partner |

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

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

Special Exception Attachment to Par. 1(c)

DATE: October 5, 2017
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141395

for Application No. (s): SE 2017-SU-020
(enter County-assigned application number (s))

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

PCS Nucleus, L.P.
One Verizon Way
Basking Ridge, NJ 07920

(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)

Verizon Holdings LLC
JV PartnerCo, LLC

(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)

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for Application No. (s): SE 2017-SU-020
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PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

Milestone Tower Limited Partnership III
12110 Sunset Hills Road, Suite 100
Reston, VA 20190

(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)

Milestone Communications Management General Partner
III, Inc.

(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.

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141395

for Application No. (s): SE 2017-SU-020
(enter County-assigned application number(s))

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

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

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

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

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

NONE

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

SPECIAL EXCEPTION AFFIDAVIT

141395

DATE: October 5, 2017
(enter date affidavit is notarized)

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.)

Frank W. Stearns, Esq. of Donohue & Stearns, PLC has contributed in excess of \$100 to Supervisor Pat Herry.
Frank W. Stearns, Esq. of Donohue & Stearns, PLC has contributed in excess of \$100 to Supervisor John Cook.
Milestone Tower Limited Partnership III has contributed in excess of \$100 to Supervisor Pat Herry.
Milestone Tower Limited Partnership III has contributed in excess of \$100 to Supervisor Jeff McKay.

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.

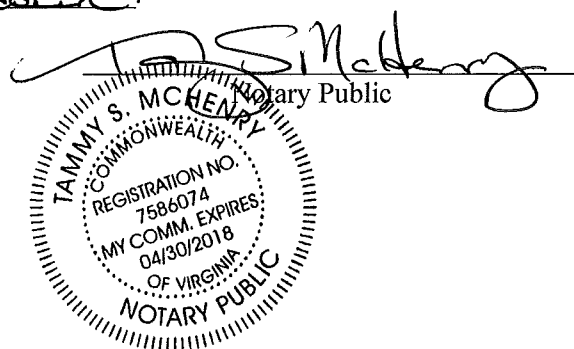
WITNESS the following signature:

(check one) Applicant Applicant's Authorized Agent

Frank W. Stearns
(type or print first name, middle initial, last name, and & title of signee)

Subscribed and sworn to before me this 5th day of October 2017, in the State/Comm. of Virginia, County/City of Loudoun.

My commission expires: 4/30/18



Hansen, Doug

From: Welton, Mary Ann
Sent: Friday, October 20, 2017 10:40 AM
To: Hansen, Doug
Subject: 2232-Y17-34; SE 2017-SU-020

From: Environment and Development Review Branch
RE: Pleasant Valley Substation

Doug,

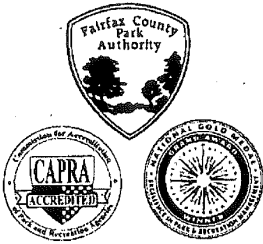
I have reviewed the application to construct a Verizon Wireless 150' monopole within the existing NOVEC substation within a fenced compound. The equipment compound measures 110 feet by 12.5 feet = 1,250 square feet. The compound will be enclosed by an eight foot fence. The Verizon Wireless equipment will consist of three cabinets and a backup diesel power generator. Three additional providers could collocate.

This application does not present a conflict with the environmental policies of the comprehensive plan.

Let me know if you have any questions.

Sincerely,

Mary Ann Welton, AICP
Department of Planning and Zoning
703-324-1364



FAIRFAX COUNTY PARK AUTHORITY

M E M O R A N D U M

TO: Tracy Strunk, Director
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Andrea Dorlester, AICP, Manager *SB for
AWD*
Park Planning Branch, PDD

DATE: September 22, 2017

SUBJECT: SE 2017-SU-020 Pleasant Valley Substation (6309T Bull Run Post Office Road)
Tax Map Number: 52-2 ((1)) 11E1

The Park Authority staff has reviewed the above referenced plan. Based on that review, staff has determined that this application bears no adverse impact on the land, resources, facilities or service levels of the Park Authority.

FCPA Reviewer: Adam Wynn, Landscape Architect, Park Planning Branch
DPZ Coordinator: Doug Hansen, Senior Planner, Facilities Planning Branch, DPZ

Copy: David Bowden, Director, Planning and Development Division
Todd Brown, Acting Director, Resource Management Division
Cindy McNeal, Land Acquisition and Management Branch, PDD
Doug Hansen, Senior Planner, Facilities Planning Branch, DPZ
Chron File
File Copy



County of Fairfax, Virginia

MEMORANDUM

DATE: October 13, 2017

TO: Doug Hansen, Senior Staff Coordinator
Zoning evaluation Division
Department of Planning and Zoning

FROM: Yosif Ibrahim, Senior Engineer III
Site Development and Inspections Division
Department of Land Development Services

SUBJECT: Verizon Pleasant Valley Substation Special Exception SE 2017-SU-020;
5665-ZONA-001-1; Tax Map Number: 052-2-((01))-0011E; Sully District

We have reviewed the revised plans for the subject application and it seems that the proposed development is exempt from the provision of Chapter 124 of the County code (Stormwater Management Ordinance), as the development plan was regulated by the Federal Energy Regulatory Commission (124-1-10. D.).

At this stage, we don't have any further comments related to Stormwater Management.

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

SR/

cc: Shannon Curtis, Chief, Watershed Planning & Assessment Branch, Storm water Planning Division, DPWES
Shahab Baig, Chief, North Branch, SDID, LDS
Roshna Gafoor, Engineer III, SDID, LDS
Zoning Application File





County of Fairfax, Virginia

MEMORANDUM

DATE: October 11, 2017

TO: Doug Hansen, Staff Coordinator
Zoning Evaluations Division, DPZ

FROM: Rachel Jackson, Urban Forester II
Forest Conservation Branch, DPWES

SUBJECT: Milestone Verizon Wireless - Novec Pleasant Valley Substation
SE 2017-SU-020
2232-Y17-34

The below comment is based on the review of the above 2232 and Special Exception Plat for Verizon Wireless stamped "Received, Department of Planning and Zoning October 10, 2017.

Comment: All comments have been addressed and the modification for the Transitional Screening yard for the northeast side of the site has been submitted and will be addressed at time of Site Plan. There are no additional comments at this time.

REHJ/

UFMDID #: 236480 & 234120

cc: DPZ File

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





County of Fairfax, Virginia

MEMORANDUM

DATE: August 31, 2017

TO: Doug Hansen
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Sharad Regmi, P.E.
Engineering Analysis and Planning Branch

SUBJECT: Sanitary Sewer Analysis Report

REF: Application No.: SE 2017 SU 020
Tax Map No.: 052-2-01-0011-E1

The special exception amendment plan for the above referenced property is in the non-sewer service area. Furthermore, proposed telecommunication facility use has no impact on sanitary sewer system. Please contact me if you have any questions.

FAIRFAX COUNTY
WASTEWATER MANAGEMENT



Quality of Water = Quality of Life

Department of Public Works and Environmental Services
Wastewater Planning & Monitoring Division
12000 Government Center Parkway, Suite 358
Fairfax, VA 22035
Phone: 703-324-5030, Fax: 703-803-3297
www.fairfaxcounty.gov/dpwes





County of Fairfax, Virginia

MEMORANDUM

DATE: September 13, 2017

TO: Tracy Strunk, AICP, Director
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Jeffrey C. Hermann, Chief *JCH*
Site Analysis Section
Department of Transportation

FILE: 3-5 (SE 2017-SU-020)

SUBJECT: Transportation Impact

REFERENCE: SE 2017-SU-020
Milestone Limited Partnership III; Cellco Partnership dba Verizon
Wireless
Land Identification Map: 52-2 ((1)) 11E1

Transmitted herewith are the comments from the Department of Transportation with respect to the referenced application. These comments are based on plats made available to this office dated July 19, 2017. The applicant requests approval of a Special Exception to construct a 150-foot monopole and associated equipment compound for up to four telecommunications carriers near the southern property line of the parcel. The tower will be unmanned and will be visited only once or twice a month by technicians from each carrier for maintenance or as required for any needed service.

A previous application by the applicant for a telecommunications facility on the northwest portion of this same parcel was approved by the Planning Commission on December 4, 2014, but was never constructed and now the facility must be relocated on the parcel due to a change in plans for the original site.

This department has no transportation issues with this application.

JCH/LAH/lah
cc: Doug Hansen, DPZ

Fairfax County Department of Transportation
4050 Legato Road, Suite 400
Fairfax, VA 22033-2895
Phone: (703) 877-5600 TTY: 711
Fax: (703) 877 5723
www.fairfaxcounty.gov/fcdot



12/04/15

AC 70/7460-1L

CHAPTER 4. LIGHTING GUIDELINE

4.1 Purpose.

This chapter describes the various obstruction lighting systems used to identify structures that have been determined to require added conspicuity. The lighting standards in this AC are the minimum necessary for aviation safety. Recommendations on lighting structures can vary, depending on terrain features, weather patterns, geographic location, and number of structures. Specific lighting guidelines for wind turbines are contained in Chapter 13.

4.2 Standards.

The standards outlined in this AC are based on using light units that meet specified intensities, beam patterns, color, and flash rates as stated in AC 150/5345-43, *Specification for Obstruction Lighting Equipment*. These standards may be obtained from: www.faa.gov/airports/resources/advisory_circulars/

4.3 Lighting Systems.

Obstruction lighting may be displayed on structures as follows:

1. Aviation Red Obstruction Lights. Use flashing lights and/or steady-burning lights during nighttime. Tower structures are typically marked with flashing red lights. Buildings and smaller obstructions located near airports should be marked with steady-burning red lights. (See Chapter 5).
2. Medium-Intensity Flashing White Obstruction Lights. Medium-intensity flashing white obstruction lights may be used during daytime and twilight with automatically selected reduced intensity for nighttime operation. When this system is used on structures 700 feet (213 m) AGL or less, other methods of marking and lighting the structure may be omitted. Aviation orange and white paint is always required for daytime marking on structures exceeding 700 feet (213 m) AGL. This system is not normally recommended on structures 200 feet (61 m) AGL or less.
3. High-Intensity Flashing White Obstruction Lights. High-intensity flashing white obstruction lights may be used during daytime with automatically selected reduced intensities for twilight and nighttime operations. When this system is used, other methods of marking and lighting the structure may be omitted. This system should not be used on structures 700 feet (213 m) AGL or less, unless an FAA aeronautical study shows otherwise.
Note: All flashing lights on a structure should flash simultaneously except for catenary support structures, which have a distinct flashing sequence between the levels of lights (see paragraph 4.4).
4. Dual Lighting. This system consists of red lights for nighttime and high- or medium-intensity flashing white obstruction lights for daytime and twilight. When a dual lighting system incorporates medium-intensity flashing white lights on

structures 700 feet (213 m) AGL or less or high-intensity flashing white lights on structures greater than 700 feet (213 m) AGL, other methods of marking the structure may be omitted.

5. Obstruction Lights During Construction. As the height of the structure exceeds each level at which permanent obstruction lights would be recommended, two or more lights of the type specified in the determination should be installed at that level. Temporary high or medium-intensity flashing white lights, as recommended in the determination, should be operated 24 hours a day until all permanent lights are in operation. In either case, two or more lights should be installed on the uppermost part of the structure any time it exceeds the height of the temporary construction equipment. They may be turned off for periods when they could interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level.
6. Obstruction Lights in Urban Areas. When a structure is located in an urban area where there are numerous other white lights (e.g., streetlights) red obstruction lights with painting or a medium-intensity dual system is recommended. Medium-intensity lighting is not normally recommended on structures less than 200 feet (61 m).
7. Temporary Construction Equipment Lighting. Since there is such a variance in construction cranes, derricks and other drilling rigs, each case should be considered individually. Lights should be installed according to the standards given in Chapters 5, 6, 7, or 8, as they would apply to permanent structures.

4.4 **Lighted Spherical Markers.**

- 4.4.1 Lighted markers are available for increased night conspicuity of high-voltage (69 kV or greater) transmission line catenary wires. These markers should be used on transmission line catenary wires near airports, heliports, across rivers, canyons, lakes, etc. The lighted markers should be manufacturer-certified as recognizable from a minimum distance of 4,000 feet (1,219 m) under nighttime conditions, minimum Visual Flight Rule (VFR) conditions or having a minimum intensity of at least 32.5 candelas. The lighting unit should emit a steady-burning, red light.
- 4.4.2 Lighted markers should be installed on the highest energized line. If the lighted markers are installed on a line other than the highest catenary, then markers specified in Chapter 3 paragraph 3.5 should be used in addition to the lighted markers. The maximum distance between the line energizing the lighted markers and the highest catenary above the lighted marker should be no more than 25 feet (7.62 m) and shall not violate the sag requirements of the transmission line design.
- 4.4.3 Lighted markers should be distinctively shaped, (i.e., spherical or cylindrical) so they are not mistaken for items that are used to convey other information. They should be visible in all directions from which aircraft are likely to approach. The area in the

immediate vicinity of the supporting structure's base should be clear of all items and/or objects of natural growth that could interfere with the line-of-sight between a pilot and the structure's lights. (See Figure A-4 in Appendix A.) When a catenary wire crossing requires three or more supporting structures, the inner structures should be equipped with enough light units per level to provide full coverage from which aircraft are likely to approach.

4.5 **Inspection, Repair, and Maintenance.**

To ensure the proper candela output for fixtures with incandescent lamps, the voltage provided to the lamp filament should not vary more than plus or minus three percent of the lamp's rated voltage. The input voltage should be measured at the closest disconnecting means to the lamp fixture with the lamp operating during the hours of normal operation. (For strobes, the input voltage of the power supplies should be within 10 percent of rated voltage.) Lamps should be replaced after being in operation for approximately 75 percent of their rated life or immediately upon failure. Flashtubes in a light unit should be replaced immediately upon failure, when the peak effective intensity falls below specification limits or when the fixture begins skipping flashes, or at the manufacturer's recommended intervals. Due to the effects of harsh environments, light fixture lenses should be visually inspected every 24 months, or when the light fixture fails, for ultraviolet (UV) damage, cracks, crazing, dirt buildup, etc., to ensure the certified light output has not deteriorated. (See Chapter 2 paragraph 2.4 for reporting requirements in case of failure.) Lenses that have cracks, UV damage, crazing, or excessive dirt buildup should be cleaned or replaced.

4.6 **Nonstandard Lights.**

Moored balloons, chimneys, church steeples, and similar obstructions may be floodlighted by fixed search light projectors installed at three or more equidistant points around the base of each obstruction. The searchlight projectors should provide an average illumination of at least 15 foot-candles (161.45 lux) over the top one-third of the obstruction.

4.7 **Placement Factors.**

The height of the structure AGL determines the number of light levels. The light levels may be adjusted slightly, but not to exceed 10 feet (3 m) when necessary to accommodate guy wires and personnel who replace or repair light fixtures. Except for catenary wire support structures, the following factors should be considered when determining the placement of obstruction lights on a structure.

1. Red Obstruction Lighting Systems. The structure's overall height, including all appurtenances, such as rods, antennas, and obstruction lights, determines the number of light levels.
2. Medium-Intensity Flashing White Obstruction Lighting Systems. The structure's overall height, including all appurtenances such as rods, antennas, and obstruction lights, determines the number of light levels.

3. High-Intensity Flashing White Obstruction Lighting Systems. The main structure's overall height, excluding all appurtenances, such as rods, antennas, and obstruction lights, determines the number of light levels.
4. Dual Obstruction Lighting Systems. The structure's overall height, including all appurtenances, such as rods, antennas, and obstruction lights, is used to determine the number of light levels for a medium-intensity white obstruction light/red obstruction dual lighting system. The structure's overall height, excluding all appurtenances, is used to determine the number of light levels for a high-intensity white obstruction light/red obstruction dual lighting system.
5. Adjacent Structures. The elevation of the tops of adjacent buildings in congested areas may be used as the equivalent of ground level to determine the correct number of light levels required.
6. Shielded Lights. If an adjacent structure or object blocks the visibility of an obstruction light, the light's horizontal placement should be adjusted or additional lights should be mounted on that object to retain or contribute to the definition of the obstruction.
7. Nesting of Lights. Care should be taken to ensure that obstruction lights do not become blocked or "nested" as new antennas, hardware, or appurtenances are added to the top of a structure. If new equipment is added that blocks the obstruction light's visibility, the light fixtures must be relocated and/or raised so that it is not blocked by the new equipment. For example, when new larger cellular antenna panels are fitted to older towers, the obstruction light will need to be raised so that it is not blocked by the larger antenna panels. The widest structure, appurtenance, lightning rod, or antenna that can be placed in front of an obstruction light (excluding the L-810 light) without significantly blocking the obstruction light's visibility should be no wider than 7/8 of an inch. Due to their smaller size, L-810 lights should not be blocked by any structure.

4.8 **Monitoring Obstruction Lights.**

Obstruction lighting systems should be closely monitored by visual or automatic means. It is extremely important to visually inspect obstruction lighting in all operating intensities at least once every 24 hours on systems without automatic monitoring. In the event a structure is not readily accessible for visual observation, a properly maintained automatic monitor should be used. This monitor should be designed to register the malfunction of any light on the obstruction regardless of its position or color. When using remote monitoring devices, the system's communication and operational status should be confirmed at least once every 24 hours. The monitor (aural or visual) should be located in an area generally occupied by the responsible personnel. In some cases, this may require a remote monitor in an attended location. For each structure, a log should be maintained in which the lighting system's daily operations status is recorded. Light fixture lenses should be replaced if serious cracks, hazing, dirt buildup, etc., has occurred.

4.9 Ice Shields.

Where icing is likely to occur, metal grates or similar protective ice shields should be installed directly over each light unit to prevent falling ice or accumulation from damaging the light units. The light should be mounted in a manner to ensure an unobstructed view of at least one light by a pilot approaching from any direction.

4.10 Light Shields.

In general, light shields are not permitted because of the adverse effects they have on the obstruction light fixture's photometrics. In addition, these shields can promote undesired snow accumulation, bird nesting, and wind loading.

4.11 Distraction.

When obstruction lights are in proximity to a navigable waterway, they may distract vessel operators. To avoid interference with marine navigation, coordinate with the Commander of the District Office, United States (U.S.) Coast Guard before installing the lighting system. The contact information for the U.S. Coast Guard is:

Commandant (CG-5531)
U.S. Coast Guard
2100 2nd St SW, Stop 7580
Washington, DC 20593-7580
202-372-1561

CHAPTER 8. DUAL LIGHTING WITH RED/MEDIUM-INTENSITY FLASHING WHITE LIGHT SYSTEMS

8.1 Purpose.

This dual lighting system includes red lights (L-864) for nighttime and medium-intensity, flashing white lights (L-865) for daytime and twilight use. This lighting system may be used in lieu of operating a medium-intensity flashing white lighting system at night. There may be some populated areas where nighttime use of medium-intensity light systems may cause significant environmental concerns. Using the dual lighting system should reduce/mitigate those concerns. Recommendations on lighting structures can vary, depending on terrain features, weather patterns, geographic location, and number of structures.

8.2 Installation.

The light units should be installed as specified in Chapters 4, 5, and 6. The number of light levels needed is dependent on the height of the obstruction, as shown in Figure A-10 in Appendix A.

8.3 Operation.

Light systems should be operated as specified in Chapter 3. Both systems should not be operated at the same time; however, there should be no more than a 2-second delay when changing from one system to the other. Outage of the uppermost red light shall cause the white obstruction light system to activate and operate in its specified "night" step intensity.

8.4 Control Device.

The light system is controlled by a device (photocell) that changes the light's intensity when the ambient light changes. The system should automatically change steps when, in the Northern Hemisphere, the northern sky illuminance reaching a north-facing vertical surface is as follows:

1. Twilight-to-Night. This should not occur before the illumination drops below 5 foot-candles (53.8 lux) but should occur before it drops below 2 foot-candles (21.5 lux).
2. Night-to-Day. The intensity changes listed in subparagraph 8.4 1 above should be reversed when changing from the night-to-day mode.

8.5 Antenna or Similar Appurtenance Light.

When a structure equipped with a dual lighting system is topped with an antenna or similar appurtenance exceeding 40 feet (12 m) in height, a medium-intensity flashing white (L-865) and a flashing red light (L-864) should be placed within 40 feet (12 m) from the tip of the appurtenance. The white light should operate during daytime and

twilight and the red light during nighttime. These lights should flash simultaneously with the rest of the lighting system.

8.6 **Omission of Marking.**

When medium-intensity white obstruction lights are operated on structures 700 feet (213 m) AGL or less during daytime and twilight, other methods of marking may be omitted.

Code of Virginia
Title 15.2. Counties, Cities and Towns
Chapter 22. Planning, Subdivision of Land and Zoning

§ 15.2-2232. Legal status of plan

- A. Whenever a local planning commission recommends a comprehensive plan or part thereof for the locality and such plan has been approved and adopted by the governing body, it shall control the general or approximate location, character and extent of each feature shown on the plan. Thereafter, unless a feature is already shown on the adopted master plan or part thereof or is deemed so under subsection D, no street or connection to an existing street, park or other public area, public building or public structure, public utility facility or public service corporation facility other than a railroad facility or an underground natural gas or underground electric distribution facility of a public utility as defined in subdivision (b) of § 56-265.1 within its certificated service territory, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being substantially in accord with the adopted comprehensive plan or part thereof. In connection with any such determination, the commission may, and at the direction of the governing body shall, hold a public hearing, after notice as required by § 15.2-2204. Following the adoption of the Statewide Transportation Plan by the Commonwealth Transportation Board pursuant to § 33.2-353 and written notification to the affected local governments, each local government through which one or more of the designated corridors of statewide significance traverses, shall, at a minimum, note such corridor or corridors on the transportation plan map included in its comprehensive plan for information purposes at the next regular update of the transportation plan map. Prior to the next regular update of the transportation plan map, the local government shall acknowledge the existence of corridors of statewide significance within its boundaries.
- B. The commission shall communicate its findings to the governing body, indicating its approval or disapproval with written reasons therefor. The governing body may overrule the action of the commission by a vote of a majority of its membership. Failure of the commission to act within 60 days of a submission, unless the time is extended by the governing body, shall be deemed approval. The owner or owners or their agents may appeal the decision of the commission to the governing body within 10 days after the decision of the commission. The appeal shall be by written petition to the governing body setting forth the reasons for the appeal. The appeal shall be heard and determined within 60 days from its filing. A majority vote of the governing body shall overrule the commission.
- C. Widening, narrowing, extension, enlargement, vacation or change of use of streets or public areas shall likewise be submitted for approval, but paving, repair, reconstruction, improvement, drainage or similar work and normal service extensions of public utilities or public service corporations shall not require approval unless such work involves a change in location or extent of a street or public area.
- D. Any public area, facility or use as set forth in subsection A which is identified within, but not the entire subject of, a submission under either § 15.2-2258 for subdivision or subdivision A 8 of § 15.2-2286 for development or both may be deemed a feature already shown on the adopted master plan, and, therefore, excepted from the requirement for submittal to and approval by the commission or the governing body; provided, that the governing body has by ordinance or

resolution defined standards governing the construction, establishment or authorization of such public area, facility or use or has approved it through acceptance of a proffer made pursuant to § 15.2-2303.

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

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

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

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

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 specific 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 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. Sign shall be regulated by the provisions of Article 12; however, the Board may impose 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 uses 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.

9-105 Additional Standards for Mobile and Land Based Telecommunication Facilities

1. Except for antennas completely enclosed within a structure, all antennas and their supporting mounts shall be of a material or color that closely matches and blends with the structure on which it is mounted.
2. Except for a flag mounted on a flagpole as permitted under the provisions of Par. 2 of Sect. 12-203, no commercial advertising or signs shall be allowed on any monopole, tower, antenna, antenna support structure, or related equipment cabinet or structure.
3. If any additions, changes or modifications are to be made to monopoles or towers, the Director shall have the authority to require proof, through the submission of engineering and structural data, that the addition, change, or modifications conforms to structural wind load and all other requirements of the Virginia Uniform Statewide Building Code.
4. No signals, lights or illumination shall be permitted on an antenna unless required by the Federal Communications Commission, the Federal Aviation Administration or the County, provided, however, that on all antenna structures which exceed 100 feet in height, a steady red marker shall be installed and operated at all times, unless the Zoning Administrator waives the red marker light requirement upon a determination by the Police Department that such marker light is not necessary for flight safety requirements for police and emergency helicopter operations. All such lights shall be shielded to prevent the downward transmission of light.
5. All antennas and related equipment cabinets of structures shall be removed within 120 days after such antennas or related equipment cabinets or structures are no longer in use.

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 | | |