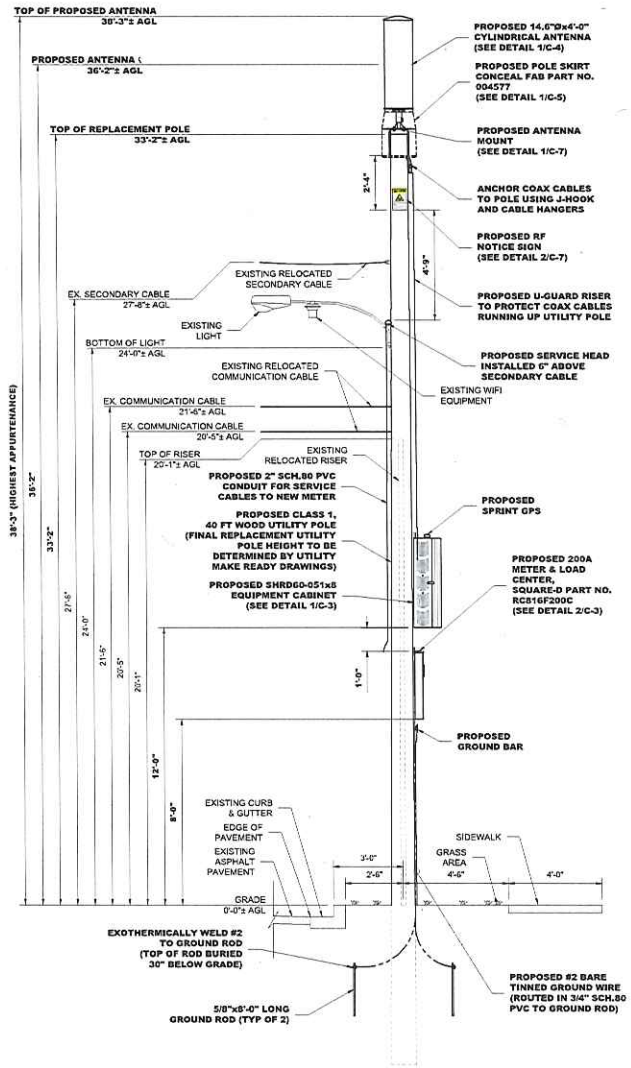
EXHIBIT A-1 TO EXHIBIT A-4

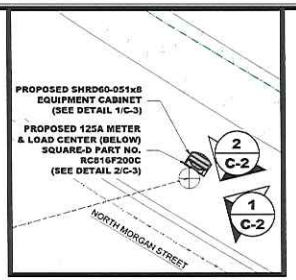
APPROVED WOOD AND COMPOSITE POLE DESIGN

Exhibit A-1 (Wood Utility Poles)

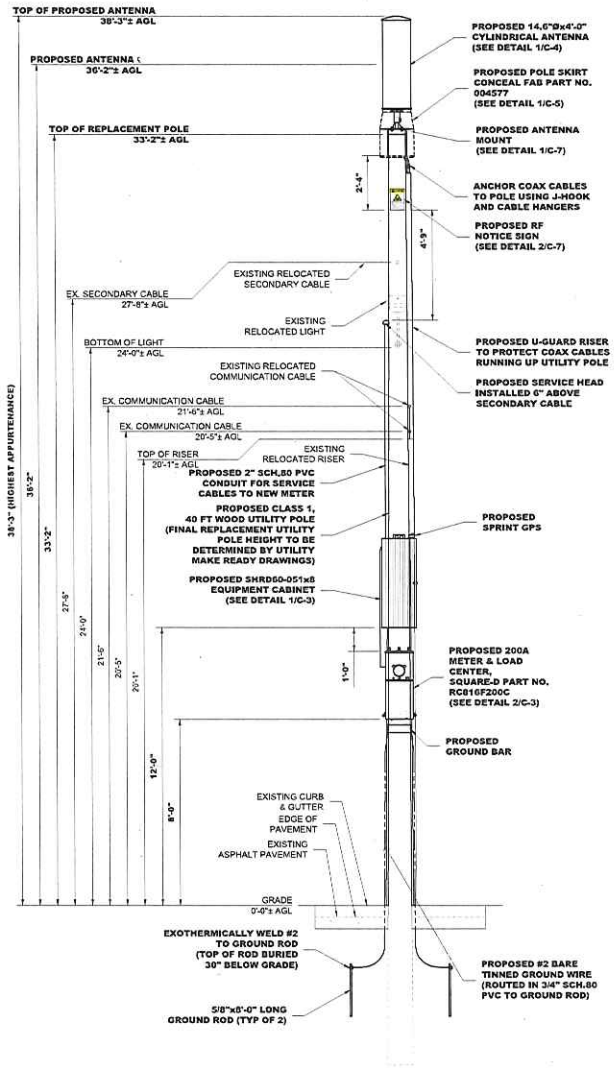
CROWN CASTLE FIBER LLC

NODE:
NVA-070m1(485401)





NEW EQUIPMENT ORIENTATION



1 C-2 **PROPOSED POLE ELEV - WEST**
SCALE = 3/8" = 1'-0"

2 C-2 **PROPOSED POLE ELEV - SOUTH**
SCALE = 3/8" = 1'-0"

COMMONWEALTH OF VIRGINIA
ANDREW M. MILLER
No. 050495
01/03/2020
PROFESSIONAL ENGINEER
ANDREW M. MILLER, PE
VIRGINIA PROFESSIONAL ENGINEER
LICENSE # 050495

ENGINEER:
advantage engineers
7470 SAMUEL MORSE DRIVE, SUITE 150
COLUMBIA, MARYLAND 21046
PHONE: (443) 367-0093
www.advantageengineers.com

OWNER/DEVELOPER:
CROWN CASTLE
CROWN CASTLE FIBER LLC
10980 GRANTCHESTER WAY, 4TH FLOOR
COLUMBIA, MARYLAND 21044
WWW.CROWNCASTLE.COM

TITLE:
CROWN CASTLE FIBER LLC
5501 NORTH MORGAN STREET
ALEXANDRIA, VIRGINIA 22312
JURISDICTION: CITY OF ALEXANDRIA, VA

REVISIONS

REV	DATE	DESCRIPTION	BY
A	12/23/19	ISSUED FOR 90% REVIEW	MDS
B	01/03/19	ISSUED FOR 100% REVIEW	MTG
0	01/03/19	ISSUED FOR CONSTRUCTION	MTG

DRAWN BY:	CHECKED BY:	APPROVED BY:
MDS	MTG	MTG

AE PROJECT NUMBER:	19E0067.001
FILE NAME:	NVA-070m1 - CDs
DATE DRAWN:	12/23/19
DRAWING TITLE:	PROPOSED ELEVATIONS

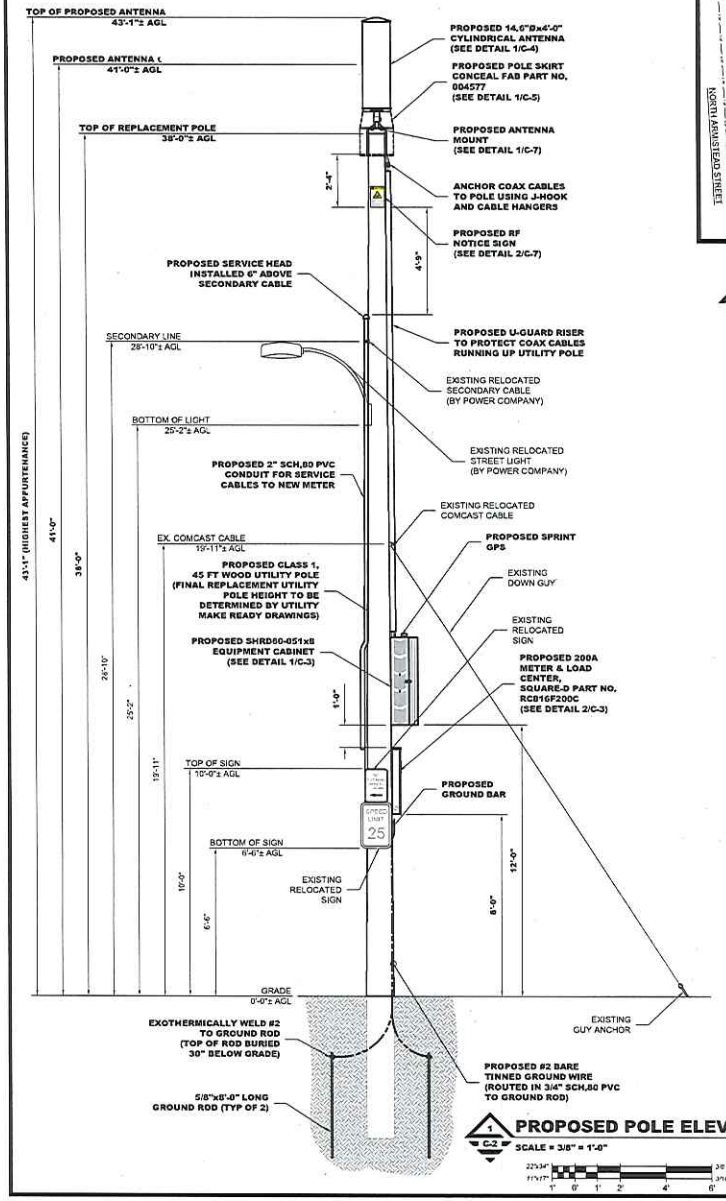
DRAWING SHEET:	SHEET NUMBER:
C-2	5 OF 11

THIS DRAWING IS PROPERTY OF ADVANTAGE ENGINEERS, LLC. IT IS FOR THE EXCLUSIVE USE OF THIS PROJECT. ANY REUSE OF THIS DRAWING WITHOUT THE EXPRESSED WRITTEN CONSENT OF ADVANTAGE ENGINEERS, LLC IS PROHIBITED.

Exhibit A-2 (Wood Utility Poles)

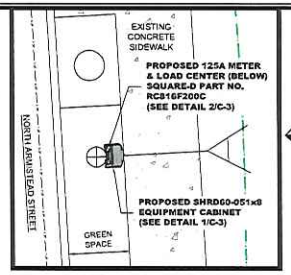
CROWN CASTLE FIBER LLC

NODE: NVA-071 (468566)



1 C-2 **PROPOSED POLE ELEV - NORTH**

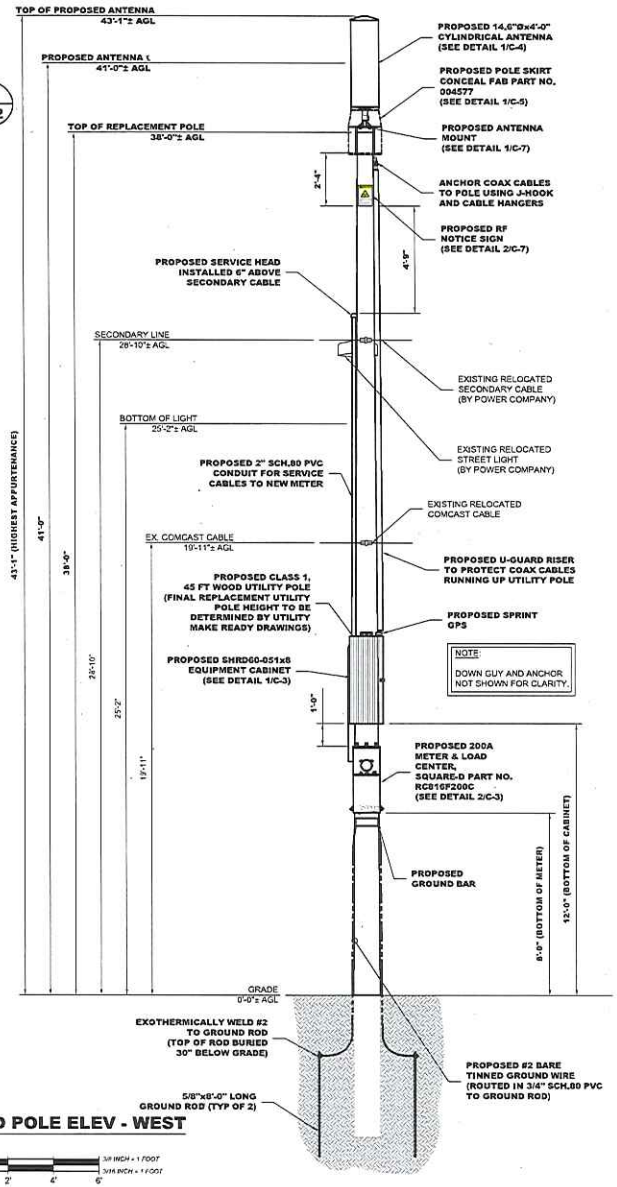
SCALE = 3/8" = 1'-0"



NEW EQUIPMENT ORIENTATION

1 C-2

2 C-2



2 C-2 **PROPOSED POLE ELEV - WEST**

SCALE = 3/8" = 1'-0"

COMMONWEALTH OF VIRGINIA
ANDREW M. MILLER
No. 050495
02/26/2020
PROFESSIONAL ENGINEER

ANDREW M. MILLER, PE
VIRGINIA PROFESSIONAL ENGINEER
LICENSE # 050495

ENGINEER:
advantage engineers
7101 COLUMBIA GATEWAY DRIVE, SUITE A
COLUMBIA, MARYLAND 21046
PHONE: (443) 767-6881
www.advantageengineers.com

OWNER/DEVELOPER:
CROWN CASTLE
CROWN CASTLE FIBER LLC
10980 GRANTCHESTER WAY, 4TH FLOOR
COLUMBIA, MARYLAND 21044
WWW.CROWNCASTLE.COM

TITLE:
CROWN CASTLE FIBER LLC
486 N. ARMISTEAD STREET
ALEXANDRIA, VIRGINIA 22312
JURISDICTION: CITY OF ALEXANDRIA, VA

REVISIONS

REV	DATE	DESCRIPTION	BY
A	08/01/18	ISSUED FOR 90% REVIEW	MTG
B	08/15/18	ISSUED FOR 100% REVIEW	MTG
C	08/22/18	ISSUED FOR CONSTRUCTION	MTG
D	02/25/20	ISSUED FOR CONSTRUCTION	MDS

DRAWN BY:	CHECKED BY:	APPROVED BY:
MTG	JMC	MTG

AE PROJECT NUMBER:	20E0067.001
FILE NAME:	NVA-### - CDs
DATE DRAWN:	05/15/18
DRAWING TITLE:	PROPOSED ELEVATIONS

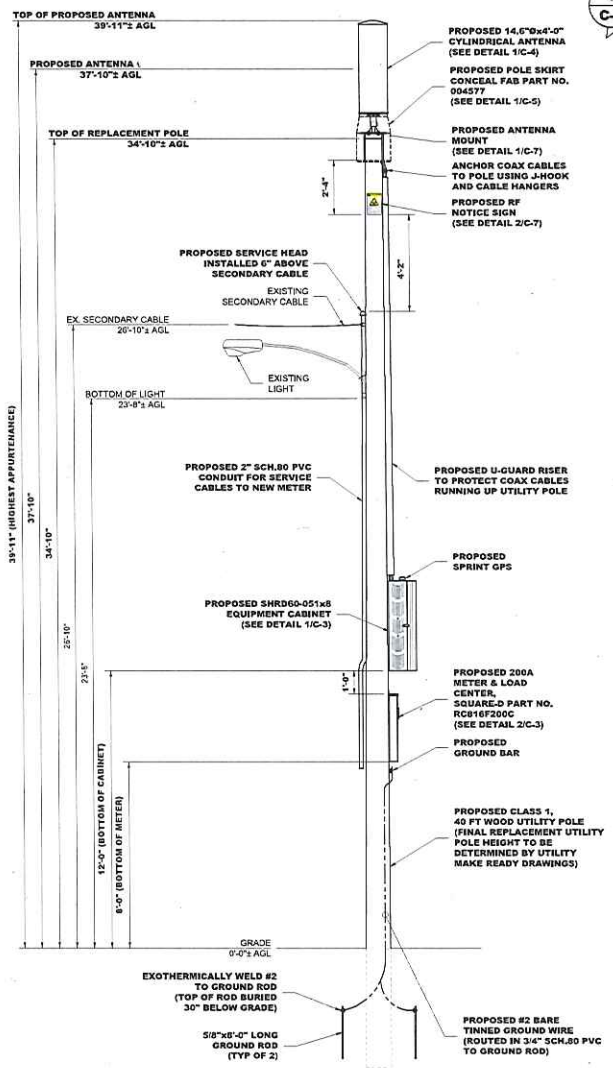
DRAWING SHEET: C-2 SHEET NUMBER: 5 OF 11

THIS DRAWING IS PROPERTY OF ADVANTAGE ENGINEERS, LLC. IT IS FOR THE EXCLUSIVE USE OF THIS PROJECT. ANY RE-USE OF THIS DRAWING WITHOUT THE EXPRESSED WRITTEN CONSENT OF ADVANTAGE ENGINEERS, LLC IS PROHIBITED.

Exhibit A-3 (Wood Utility Poles)

CROWN CASTLE FIBER LLC

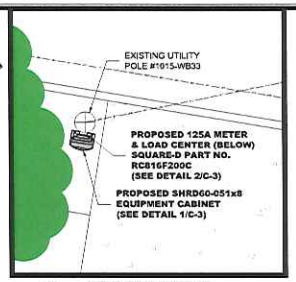
NODE: NVA-109 (475034)



1/C-2 PROPOSED POLE ELEV - EAST

SCALE = 3/8" = 1'-0"

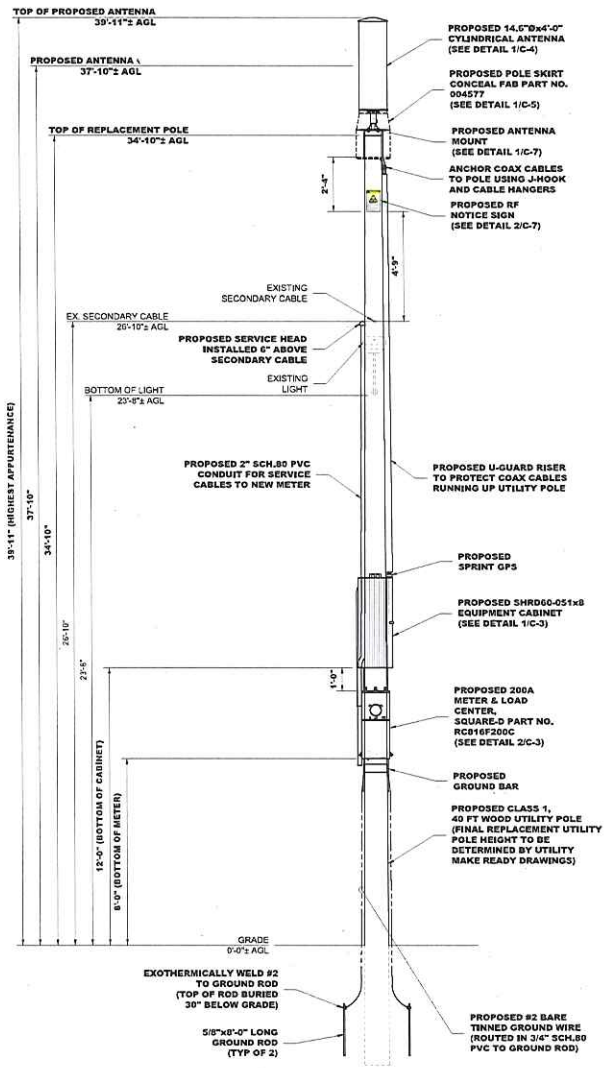




1/C-2

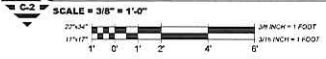
2/C-2

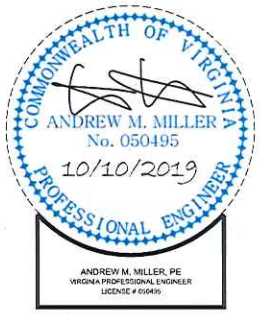
NEW EQUIPMENT ORIENTATION



2/C-2 PROPOSED POLE ELEV - NORTH

SCALE = 3/8" = 1'-0"





ENGINEER:

advantage engineers

OWNER/DEVELOPER:

CROWN CASTLE

CROWN CASTLE FIBER LLC
10980 GRANTCHESTER WAY, 4TH FLOOR
COLUMBIA, MARYLAND 21044
WWW.CROWNCASTLE.COM

TITLE:

CROWN CASTLE FIBER LLC
610-660 MONTGOMERY STREET
ALEXANDRIA, VIRGINIA 22314
JURISDICTION: CITY OF ALEXANDRIA, VA

REVISIONS

REV	DATE	DESCRIPTION	BY
A	05/15/19	ISSUED FOR 90% REVIEW	MDS
0	05/30/19	ISSUED FOR CONSTRUCTION	KJF
1	10/09/19	JURISDICTION REVISION	KJF

DRAWN BY:	CHECKED BY:	APPROVED BY:
MDS	KJF	MTG

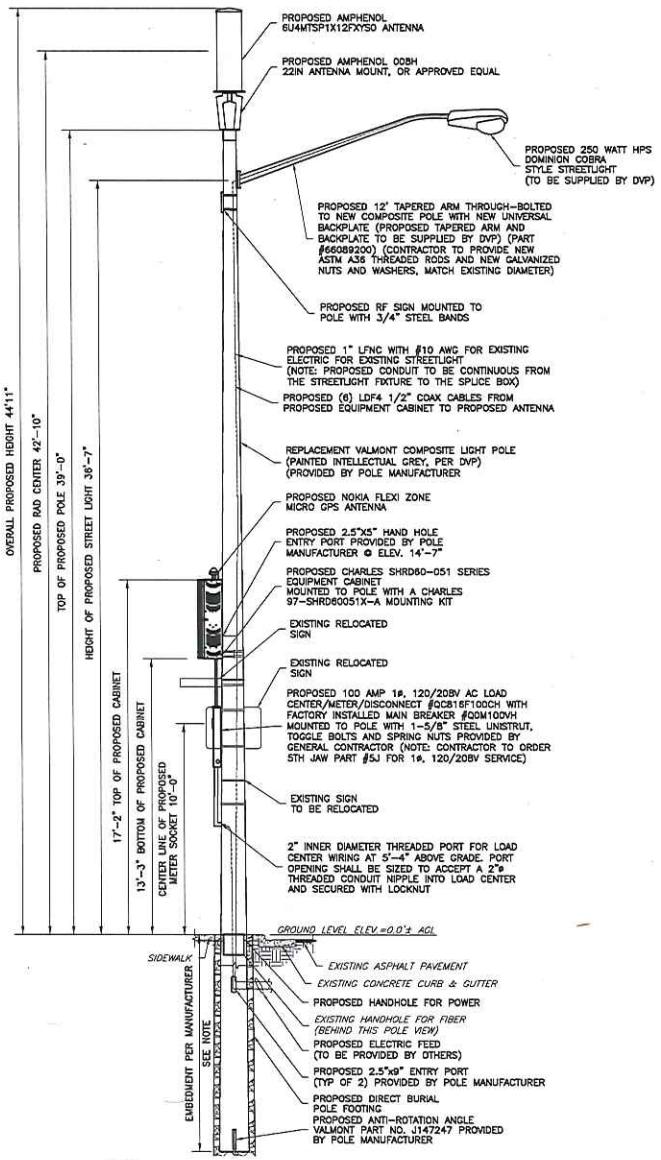
AE PROJECT NUMBER:	18E011F.003
FILE NAME:	NVA-109 - CDs
DATE DRAWN:	05/15/19
DRAWING TITLE:	PROPOSED ELEVATIONS

DRAWING SHEET:	SHEET NUMBER:
C-2	5 OF 11

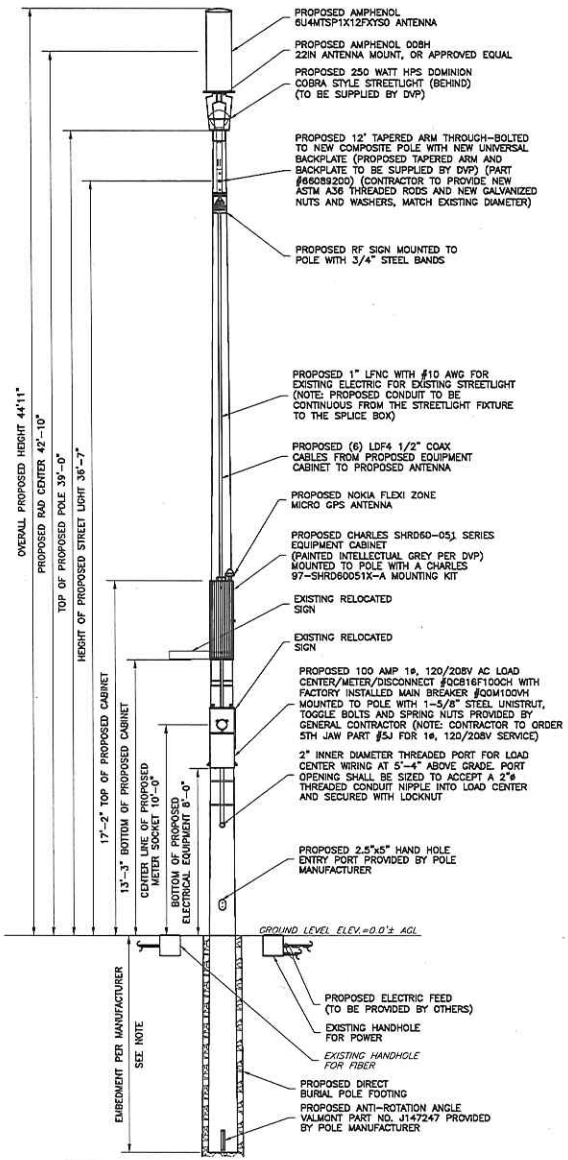
THIS DRAWING IS PROPERTY OF ADVANTAGE ENGINEERS, LLC. IT IS FOR THE EXCLUSIVE USE OF THIS PROJECT. ANY RE-USE OF THIS DRAWING WITHOUT THE EXPRESSED WRITTEN CONSENT OF ADVANTAGE ENGINEERS, LLC IS PROHIBITED.

Exhibit A-4 (Composite Utility Poles)

CROWN CASTLE FIBER, LLC
PROPOSED ELEVATIONS



1 / 05 POLE ELEVATION LOOKING EAST
SCALE: 1" = 3' (22x34)
SCALE: 1" = 6' (11x17)



2 / 05 POLE ELEVATION LOOKING SOUTH
SCALE: 1" = 3' (22x34)
SCALE: 1" = 6' (11x17)

NOTE:
DETERMINATION OF REQUIRED POLE PORTS IS THE RESPONSIBILITY OF THE POLE OWNER AND THEIR DELEGATED MANUFACTURER/ENGINEER. REFER TO POLE OWNER SUPPLIED CUT SHEET AND DESIGN CALCULATIONS FOR ADDITIONAL INFORMATION.

NOTE:
DETERMINATION OF REQUIRED POLE EMBEDMENT LENGTH, INSTALLATION AND CONSTRUCTION METHODS IS THE RESPONSIBILITY OF THE POLE OWNER AND THEIR DELEGATED MANUFACTURER/ENGINEER. REFER TO POLE OWNER SUPPLIED CUT SHEET AND DESIGN CALCULATIONS FOR ADDITIONAL INFORMATION.

NOTE:
ALL EQUIPMENT, CABLES AND ANTENNAS TO BE PAINTED OR ORDERED TO MATCH THE EXTERIOR COLOR OF THE STRUCTURE.

MOUNTING NOTE:
IF FIELD CONDITIONS DO NOT ALLOW FOR INSTALLATION AS DIRECTED, CONTRACTOR IS TO CONTACT ENGINEER FOR FURTHER INSTRUCTION.

THE PASSING STRUCTURAL ANALYSIS OF THE PROPOSED LIGHT POLE WITH THE PROPOSED LOADING PERFORMED BY NB+C ENGINEERING SERVICES, PROJECT #100505.

NOTE:
GENERAL CONTRACTOR TO USE THE FOLLOWING CONNECTORS WHEN INSTALLING THE LFNC CABLING:
PVC PIPE SUPPLIES: 1-1/4" SCHEDULE 80 PVC COUPLING THREADED SKU: 830-012
PVC PIPE SUPPLIES: 1-1/4" X CLOSE SCHEDULE 80 PVC NIPPLE SKU: 212-016

NODE:
NVA-017 (485483)

ENGINEER:
NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
6301 MARSHALEE DRIVE, SUITE 200
ELKRIDGE, MD 21075
(410) 752-7092

OWNER/DEVELOPER:
CROWN CASTLE
CROWN CASTLE FIBER LLC
10960 GRANTCHESTER WAY, 4TH FLOOR
COLUMBIA, MD 21044

TITLE:
CROWN CASTLE FIBER LLC
4233 FAIRFAX DRIVE
ARLINGTON, VIRGINIA 22201
JURISDICTION: ARLINGTON COUNTY

COMMONWEALTH OF VIRGINIA
TRENT TRAVIS SNARR
Lic. No. 049978
DATE 07/12/19
PROFESSIONAL ENGINEER

ENGINEER OF RECORD

TRENT T. SNARR, P.E.
VA PROFESSIONAL ENGINEER LIC. #49978

REVISIONS

REV	DATE	DESCRIPTION	BY
3	04/29/20	CLIENT COMMENTS	AMM
2	03/18/20	CLIENT COMMENTS	AMM
1	02/03/20	COUNTY COMMENTS	MB
0	01/22/20	FINAL CDs	MB

DRAWN BY:	CHECKED BY:	APPROVED BY:
MB	JIK	JIK

PROJECT NUMBER	100505
FILE NAME:	POLE TOP ENG. STD. DWG
DATE DRAWN:	04-24-19
SCALE:	AS SHOWN

SHEET:
05