Verzon

SITE NAME: PIEDMONT COLLEGE **5G L-SUB6 - CARRIER ADD**

1804 MONTICELLO AVENUE CHARLOTTESVILLE, VA 22902 ALBEMARLE COUNTY

VICINITY MAP 38° 0' 45.83",-0

DIRECTIONS

FROM 2501 GOODES BRIDGE RD, RICHMOND, VA 23224: HEAD NORTH ON GOODES BRIDGE RD TOWARD ELK RD. TURN RIGHT ONTO US-360 E. TAKE THE RAMP ON THE RIGHT FOR I-95 NORTH/VA-150 NORTH AND HEAD TOWARD HOSPITAL/POWHITEPKWY. TAKE THE RAMP ON THE RAMP ON THE RIGHT AND FOLLOW SIGNS FOR VA-76N. KEEP STRAIGHT TO GET ONTO I-195 N. KEEP STRAIGHT TO GET ONTO I-64 W. AT EXIT 121, HEAD RIGHT ON THE RAMP FOR VA-20 TOWARD SCOTTSVILLE. TURN RIGHT ONTO VA-20 N/MONTICELLO AVE. MAKE A U-TURN AT QUARRY RD. ACCESS ROAD TO SITE WILL BE ON THE RIGHT.

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

- 2018 INTERNATIONAL BUILDING CODE
- 2017 NATIONAL ELECTRICAL CODE
- 2018 NFPA 101, LIFE SAFETY CODE
- 2018 INTERNATIONAL FIRE CODE (IFC)
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- ANSI/TIA-222-G

TIA 607

- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81

2018 VIRGINIA CONSTRUCTION CODE

- IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- TELCORDIA GR-1275

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT: HTTPS://PMI.VZWSMART.COM

SMART TOOL VENDOR PROJECT PROJECT NUMBER: 10155466

252518 VERIZON LOCATION CODE (PSLC):

*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT

MOUNT REPLACEMENT REQUIRED

YES

VERIZON APPROVED VENDORS

* REFER TO CONSTRUCTION DRAWINGS.

DRAWING INDEX

T-1	TITLE SHEET
Z-1	SITE PLAN
C-1	COMPOUND PLAN
C-2	ELEVATION
A-1	EQUIPMENT SCHEDULE I
A-2	EQUIPMENT SCHEDULE II
A-3	EQUIPMENT DETAILS
A-4	MOUNT SPECIFICATION SHEET I

MOUNT SPECIFICATION SHEET II

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 24"X36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

APPLICANT

(804) 543-9908

APPLICANT: **VERIZON WIRELESS** 1831 RADY COURT RICHMOND, VA 23222 **MEG BROWN**

NB+C ENGINEERING SERVICES, LLC.



1831 RADY COURT RICHMOND. VA 23222

PIEDMONT COLLEGE 5G L-SUB6 - CARRIER ADD NB+C PROJ. #100352 1804 MONTICELLO AVENUE CHARLOTTESVILLE, VA 22902 ALBEMARLE COUNTY

REVISIONS 0 08/08/22 PRELIMINARY ZDs REV DATE DESCRIPTION

TITLE SHEET

I = 1

EMERGENCY INFORMATION:

VERIZON (800) 837-4966

DOMINION VA POWER (866) 366-4357

SITE INFORMATION

& (2) HYBRID CABLEs.

38° 0' 45.8316"

-78° 28' 38.3412"

ALBEMARLE COUNTY

077000000002500

157.49± ACRES

PO. BOX 400218

CHARLOTTESVILLE, VA 22904

VERIZON WIRELESS

1831 RADY COURT RICHMOND, VA 23222

86' AGL & 77' AGL

1600.0 SQ FT

MONOPOLE

90.0'±AGL

 $10.0' \pm (AMSL)$

1804 MONTICELLO AVENUE

CHARLOTTESVILLE, VA 22902

PROJECT CONSISTS OF (2) MOUNT REPLACEMENTS,

OVPs, (1) HYBRID CABLES ON TOWER, AND INSTALLING UPCONVERTERS, ALARMS, WITH CORRESPONDING

EQUIPMENT AND KITS AS LISTED IN RFDS TO EXISTING

R-15 (HIGH DENSITY MULTI FAMILY HOUSING)

UNIVERSITY OF VIRGINIA FOUNDATION

SHELTER. THE FINAL TOWER CONFIGURATION WILL BE (9)

ANTENNAS, (3) INTEGRATED ANTENNA/RRUS, (9) RRUS, (2) OVPS

REMOVING (6) ANTENNAS, (3) RRUS FROM TOWER, (3) RRUS

FROM SHELTER & (6) COAX CABLES FOLLOWED BY INSTALLING

FIRE & RESCUE DEPARTMENT: (757) 926-8404 POLICE DEPARTMENT: (757) 928-4300

PROJECT TEAM

APPLICANT:

PROJECT DESCRIPTION:

SITE ADDRESS:

LATITUDE (NAD 83):

LONGITUDE (NAD 83):

GROUND ELEVATION:

JURISDICTION:

TAX MAP NUMBER:

PARCEL AREA:

PARCEL OWNER:

TOWER OWNER:

STRUCTURE TYPE:

RAD CENTER:

STRUCTURE HEIGHT:

TOTAL LEASE AREA:

POWER PROVIDER:

TELCO PROVIDER:

ZONING:

VERIZON WIRELESS 1831 RADY COURT RICHMOND, VA 23222

CONSTRUCTION MANAGEMENT FIRM:

NETWORK BUILDING + CONSULTING, LLC. 120 EASTSHORE DRIVE, SUITE 300 GLEN ALLEN, VA 23059

(804) 548-4079

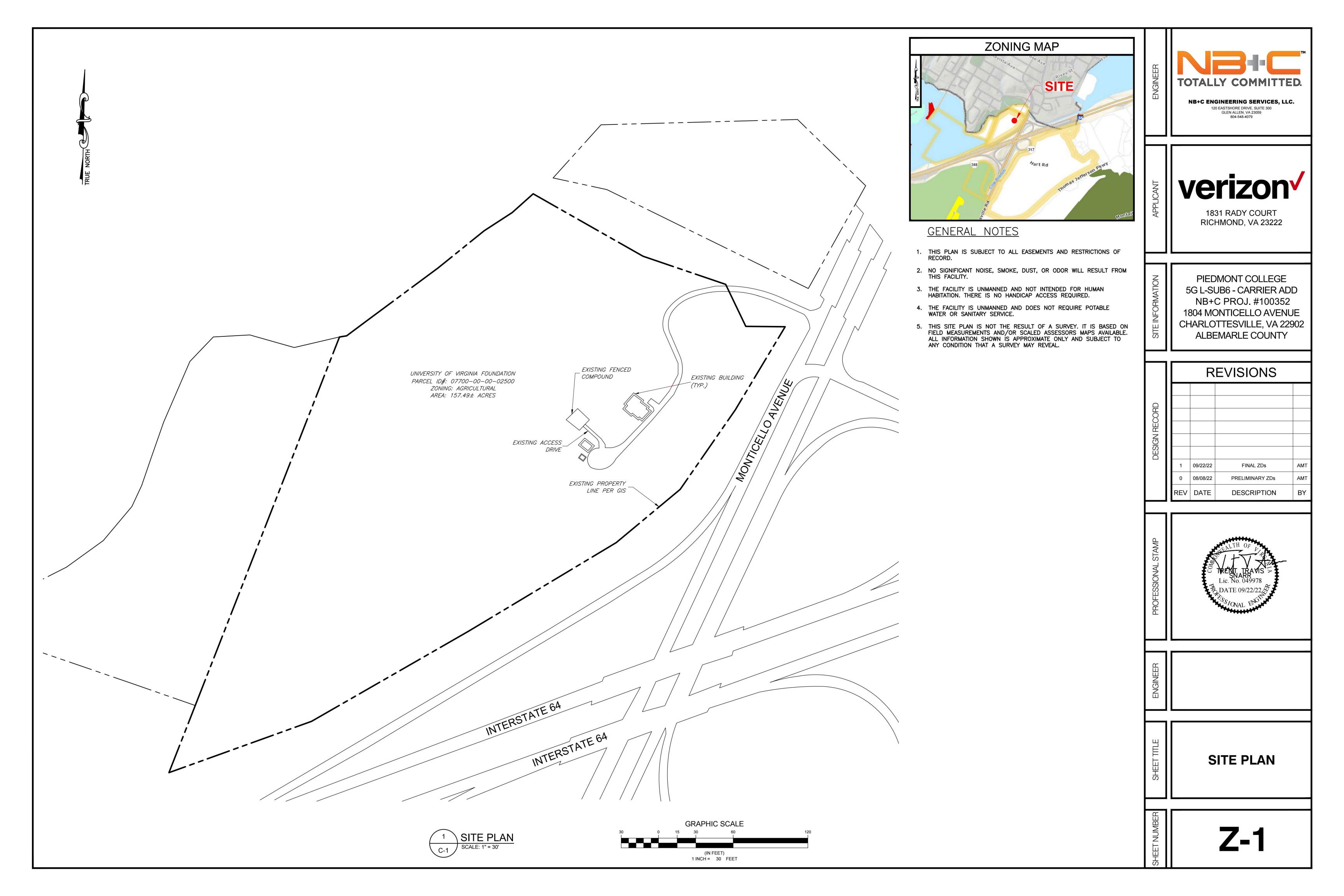
ENGINEERING FIRM: 120 EASTSHORE DRIVE, SUITE 300 GLEN ALLEN, VA 23059

(804) 548-4079 tsnarr@nbcllc.com

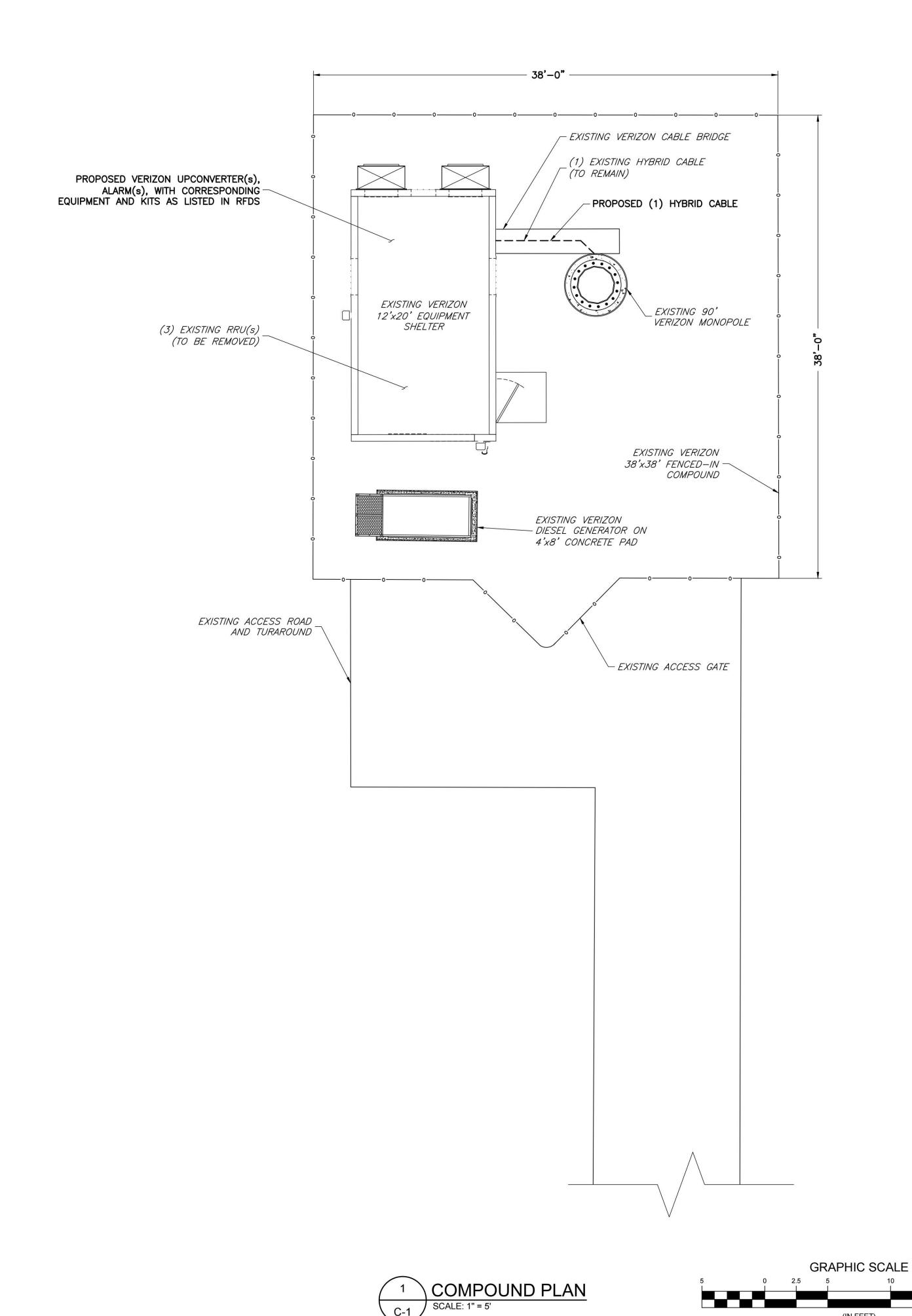
NB+C ENGINEERING SERVICES, LLC.

MANUAL OF STEEL CONSTRUCTION 15TH EDITION

ANSI/T 311







(IN FEET) 1 INCH = 5 FEET NGINEER



NB+C ENGINEERING SERVICES, LLC.

120 EASTSHORE DRIVE, SUITE 300
GLEN ALLEN, VA 23059
804-548-4079

PPLICANT



1831 RADY COURT RICHMOND, VA 23222

TE INFORMATIO

PIEDMONT COLLEGE 5G L-SUB6 - CARRIER ADD NB+C PROJ. #100352 1804 MONTICELLO AVENUE CHARLOTTESVILLE, VA 22902 ALBEMARLE COUNTY

		REVISIONS						
Ω								
DESIGN RECORD								
RE(
<u>I</u>								
DES								
_	1	09/22/22	FINAL ZDs	AMT				
	0	08/08/22	PRELIMINARY ZDs	AMT				
	REV	DATE	DESCRIPTION	BY				

PROFESSIONAL STAMP



ENGINEER

COMPOUND PLAN

C-1

THE PE STRUCTURAL ANALYSIS OF THE EXISTING STRUCTURE WITH THE EXISTING & PROPOSED LOADS WAS PERFORMED BY NETWORK BUILDING + CONSULTING, ENGINEERING SERVICES. PROPOSED VERIZON ANTENNA DATED 08/02/2022, PROJECT# 100352. (TYP. OF 2 PER SECTOR, TOTAL OF 6) TOP OF EXISTING TOWER ELEV.=90.0' AGL PROPOSED VERIZON RRU PROPOSED ANTENNA CENTER LINE (TYP. OF 1 PER SECTOR, TOTAL OF 3) ELEV.=86.0' AGL PROPOSED VERIZON RRU TYP. OF 1 PER SECTOR, TOTAL OF 3) PROPOSED ANTENNA CENTER LINE ELEV.=77.0' AGL PROPOSED VERIZON INTEGRATED L-SUB6 ANTENNA/RRH (TYP. OF 1 PER SECTOR, TOTAL OF 3) PROPOSED VERIZON INTEGRATED CBRS ANTENNA/RRH (TYP. OF 1 PER SECTOR, TOTAL OF 3) (1) EXISTING VERIZON HYBRID CABLE (TO REMAIN) PROPOSED (1) VERIZON HYBRID CABLE — EXISTING 90' MONOPOLE TOWER

GENERAL NOTES

- 1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITIES COMPANY OR OTHER PUBLIC AUTHORITIES.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
- 3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK. MINOR OMISSIONS OR ERRORS IN THE BID DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE OVERALL INTENT OF THESE DRAWINGS.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED AS A RESULT OF CONSTRUCTION OF THIS FACILITY.
- 5. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 6. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 7. CONTRACTOR SHALL VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEERING PRIOR TO INSTALLATION.
- 8. TRANSMITTER EQUIPMENT AND ANTENNAS ARE DESIGNED TO MEET ANSI/TIA 222-G REQUIREMENTS.
- 9. ALL STRUCTURAL ELEMENTS SHALL BE HOT DIPPED GALVANIZED STEEL.
- 10. CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
- 11. IF ANY UNDERGROUND UTILITIES OR STRUCTURES EXIST BENEATH THE PROJECT AREA, CONTRACTOR MUST LOCATE IT AND CONTACT THE APPLICANT & THE OWNER'S REPRESENTATIVE.
- 12. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION BY TECHNICIANS APPROXIMATELY 2 TIMES PER MONTH.
- 13. PRIOR TO THE INSTALLATION OF THE PROPOSED EQUIPMENT OR MODIFICATION OF THE EXISTING STRUCTURE. A STRUCTURAL ANALYSIS SHALL BE PERFORMED BY THE OWNER'S AGENT TO CERTIFY THAT THE EXISTING/PROPOSED COMMUNICATION STRUCTURE AND COMPONENTS ARE STRUCTURALLY ADEQUATE TO SUPPORT ALL EXISTING AND PROPOSED ANTENNAS, COAXIAL CABLES AND OTHER APPURTENANCES.
- 14. PROPERTY LINE INFORMATION WAS PREPARED USING DEEDS, TAX MAPS, AND PLANS OF RECORD AND SHOULD NOT BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY.
- 15. THIS PLAN IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
- 16. THE PROPOSED FACILITY WILL CAUSE ONLY A "DE MINIMIS" INCREASE IN STORMWATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
- 17. NO SIGNIFICANT NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
- 18. THE FACILITY IS UNMANNED AND NOT INTENDED FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED).
- 19. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
- 20. POWER TO THE FACILITY WILL BE MONITORED BY A SEPARATE METER.

TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC. 120 EASTSHORE DRIVE, SUITE 300 GLEN ALLEN, VA 23059

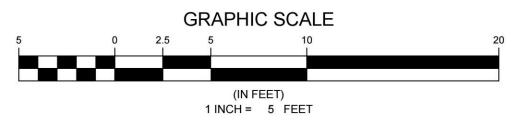
1831 RADY COURT RICHMOND, VA 23222

PIEDMONT COLLEGE 5G L-SUB6 - CARRIER ADD NB+C PROJ. #100352 1804 MONTICELLO AVENUE CHARLOTTESVILLE, VA 22902 ALBEMARLE COUNTY

		REVISIONS					
Q							
DESIGN RECORD							
l RE(
DES							
	1	09/22/22	FINAL ZDs	АМТ			
	0	08/08/22	PRELIMINARY ZDs	АМТ			
	REV	DATE	DESCRIPTION	BY			

ELEVATION





STRUCTURAL NOTE:
THE PE STRUCTURAL ANALYSIS OF THE EXISTING STRUCTURE WITH THE EXISTING & PROPOSED LOADS WAS PERFORMED BY

DATED 08/02/2022, PROJECT# 100352.

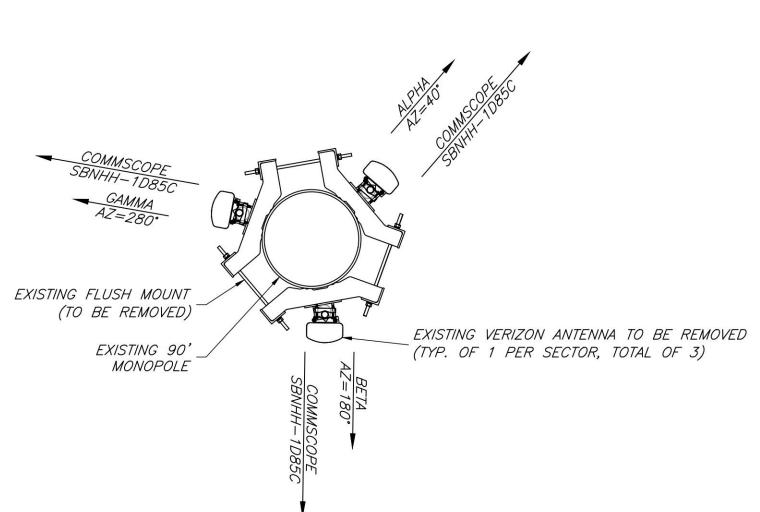
NETWORK BUILDING + CONSULTING, ENGINEERING SERVICES.

ANTENNA INFORMATION CHART (86' RAD CENTER) MECHANICAL ELECTRICAL **ANTENNA** ANTENNA MODEL SECTOR STATUS **AZIMUTH** RRH QUANTITY & MODEL CENTER MANUFACTURER DOWN TILT DOWN TILT (1) SAMSUNG B2/B66A RRH ORAN (RF4439d-25A) NHH-85C-R2B 40° PROPOSED COMMSCOPE SEE RFDS **PROPOSED** COMMSCOPE NHH-85C-R2B 86' 40° SEE RFDS (1) SAMSUNG B5/B13 RRH ORAN RF4440d-13A (1) SAMSUNG B2/B66A RRH ORAN (RF4439d-25A) **PROPOSED** COMMSCOPE NHH-85C-R2B 180° 86' (1) SAMSUNG B5/B13 RRH ORAN RF4440d-13A **PROPOSED** COMMSCOPE NHH-85C-R2B 180° SEE RFDS **PROPOSED** NHH-85C-R2B SEE RFDS (1) SAMSUNG B2/B66A RRH ORAN (RF4439d-25A) COMMSCOPE 280° (1) SAMSUNG B5/B13 RRH ORAN RF4440d-13A SEE RFDS C2 PROPOSED COMMSCOPE NHH-85C-R2B 280°

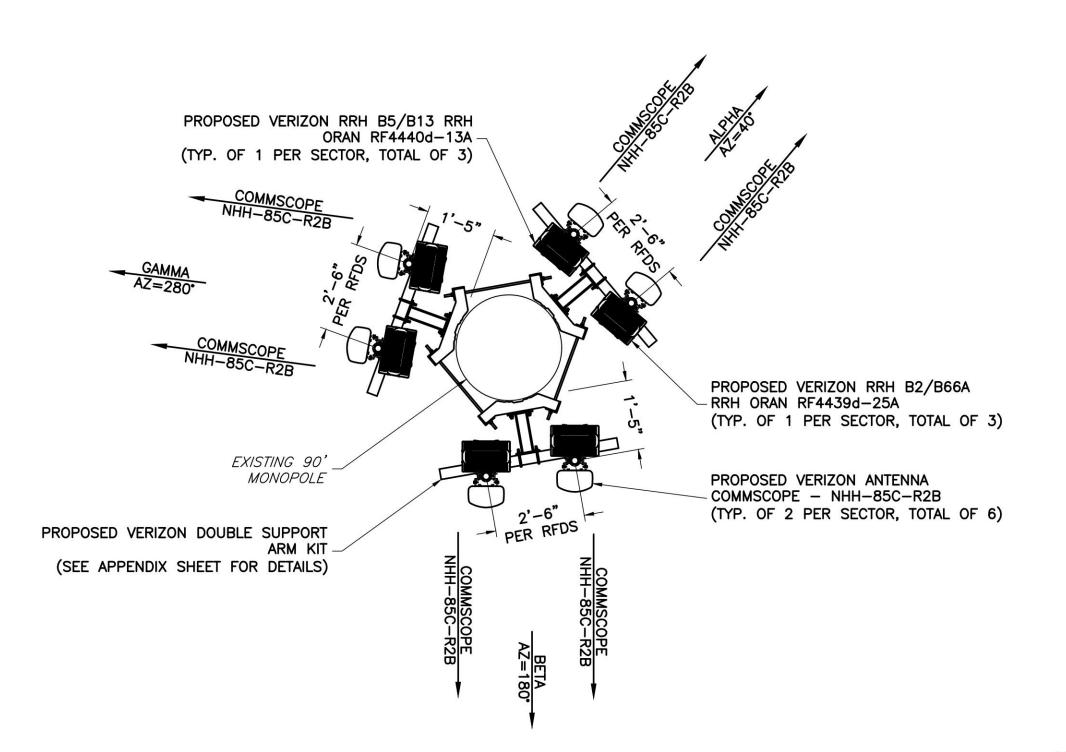
NOTES:
1. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.

CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.

3. CONTRACTOR TO VERIFY ALL PROPOSED AND EXISTING ANTENNA AND CABLES WERE CONSIDERED AND PASSED A STRUCTURAL ANALYSIS PERFORMED BY A LICENSED ENGINEER PRIOR TO INSTALLATION.







PROPOSED ANTENNA ORIENTATION PLAN @ 86' RAD CENTER



TOTALLY COMMITTED. NB+C ENGINEERING SERVICES, LLC. 120 EASTSHORE DRIVE, SUITE 300 GLEN ALLEN, VA 23059



1831 RADY COURT RICHMOND, VA 23222

PIEDMONT COLLEGE 5G L-SUB6 - CARRIER ADD NB+C PROJ. #100352 1804 MONTICELLO AVENUE CHARLOTTESVILLE, VA 22902 ALBEMARLE COUNTY

		R	EVISIONS	
S S				
HH.				
DES				
	1	09/22/22	FINAL ZDs	АМТ
	0	08/08/22	PRELIMINARY ZDs	АМТ
	REV	DATE	DESCRIPTION	BY
	DESIGN RECORD	0	1 09/22/22 0 08/08/22	1 09/22/22 FINAL ZDs 0 08/08/22 PRELIMINARY ZDs

EQUIPMENT SCHEDULE I

EXISTING ANTENNA ORIENTATION PLAN @ 86' RAD CENTER

STRUCTURAL NOTE:
THE PE STRUCTURAL ANALYSIS OF THE EXISTING STRUCTURE WITH THE EXISTING & PROPOSED LOADS WAS PERFORMED BY NETWORK BUILDING + CONSULTING, ENGINEERING SERVICES. DATED 08/02/2022, PROJECT# 100352.

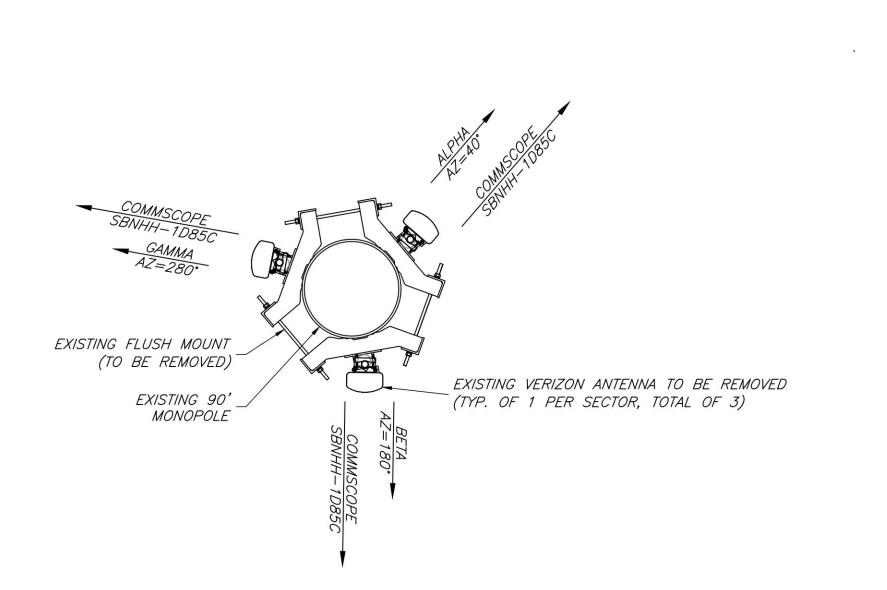
ANTENNA INFORMATION CHART (77' RAD CENTER)									
SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	RAD CENTER	AZIMUTH	MECHANICAL DOWN TILT	ELECTRICAL DOWN TILT	RRH QUANTITY & MODEL	
A1	PROPOSED	SAMSUNG	XXDWMM-12.5-65-8T-CBRS	77'	40°	0.	SEE RFDS	(1) SAMSUNG CBRS RRH RT-4401-48A	
A2	PROPOSED	SAMSUNG	INTEGRATED ANTENNA W/ RRH	77'	40°	0°	SEE RFDS	(1) SAMSUNG MT6407-77A	
B1	PROPOSED	SAMSUNG	XXDWMM-12.5-65-8T-CBRS	77'	180°	0°	SEE RFDS	(1) SAMSUNG CBRS RRH RT-4401-48A	
B2	PROPOSED	SAMSUNG	INTEGRATED ANTENNA W/ RRH	77'	180°	0.	SEE RFDS	(1) SAMSUNG MT6407-77A	
C1	PROPOSED	SAMSUNG	XXDWMM-12.5-65-8T-CBRS	77'	280°	0.	SEE RFDS	(1) SAMSUNG CBRS RRH RT-4401-48A	
C2	PROPOSED	SAMSUNG	INTEGRATED ANTENNA W/ RRH	77'	280°	0°	SEE RFDS	(1) SAMSUNG MT6407-77A	

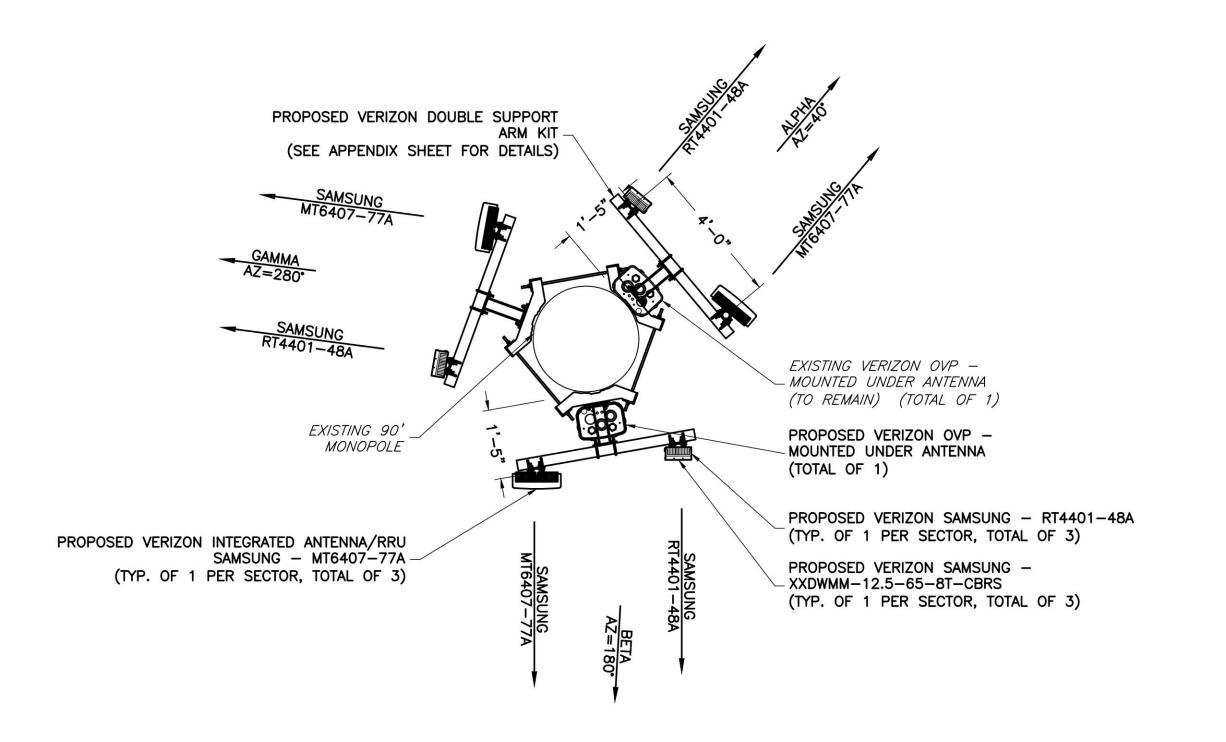
NOTES:

1. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.

CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.

3. CONTRACTOR TO VERIFY ALL PROPOSED AND EXISTING ANTENNA AND CABLES WERE CONSIDERED AND PASSED A STRUCTURAL ANALYSIS PERFORMED BY A LICENSED ENGINEER PRIOR TO INSTALLATION.











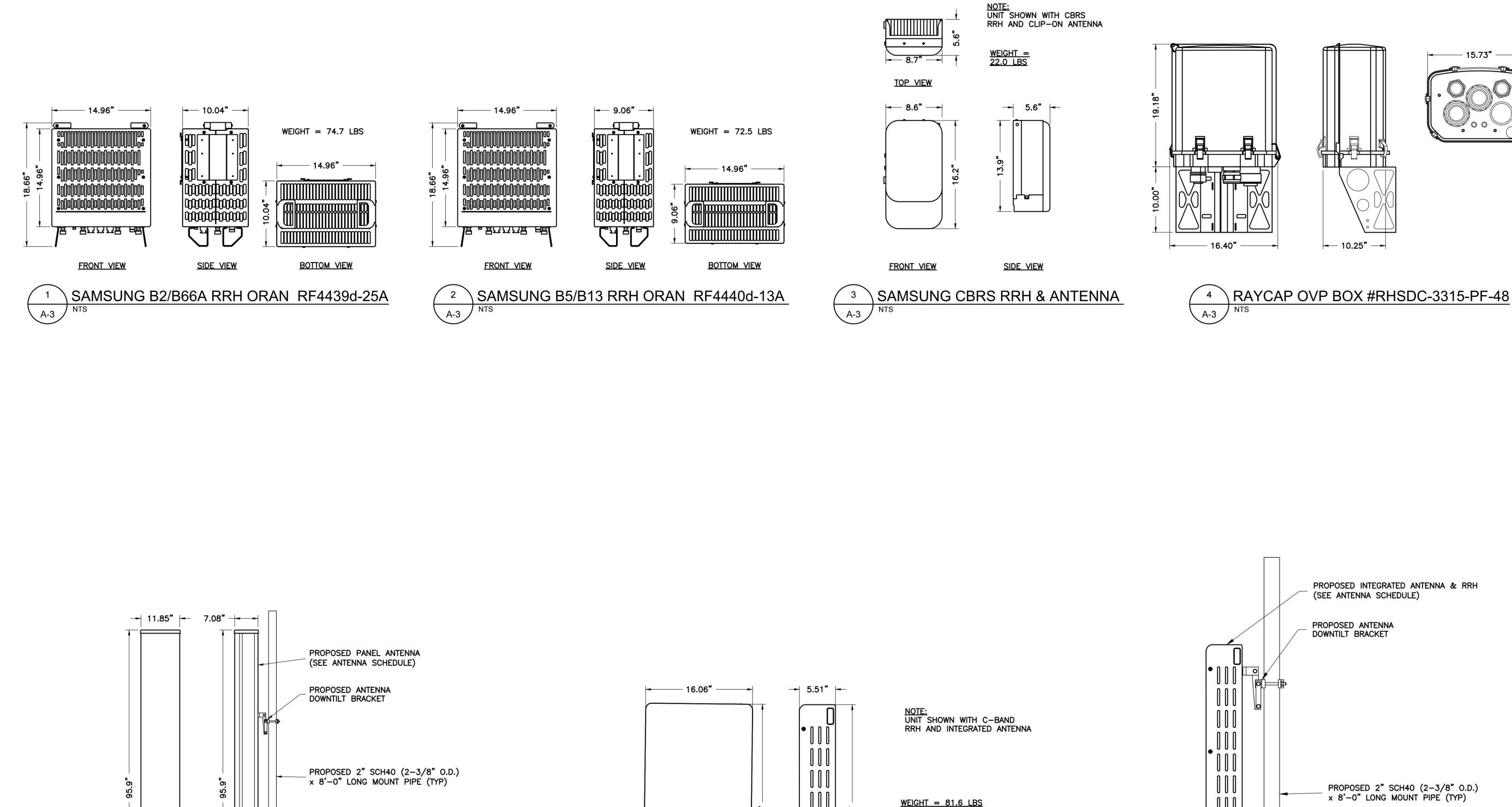
TOTALLY COMMITTED. NB+C ENGINEERING SERVICES, LLC. 120 EASTSHORE DRIVE, SUITE 300 GLEN ALLEN, VA 23059 804-548-4079

1831 RADY COURT RICHMOND, VA 23222

PIEDMONT COLLEGE 5G L-SUB6 - CARRIER ADD NB+C PROJ. #100352 1804 MONTICELLO AVENUE CHARLOTTESVILLE, VA 22902 ALBEMARLE COUNTY

		R	EVISIONS	
SOR				
REC				
<u>G</u> N				
DESIGN RECORD				
	1	09/22/22	FINAL ZDs	AMT
	0	08/08/22	PRELIMINARY ZDs	AMT
	REV	DATE	DESCRIPTION	BY
			<u> </u>	

EQUIPMENT SCHEDULE II



BRRR D

FRONT VIEW

A-3

SIDE VIEW

SAMSUNG MT6407-77A RRH & ANTENNA

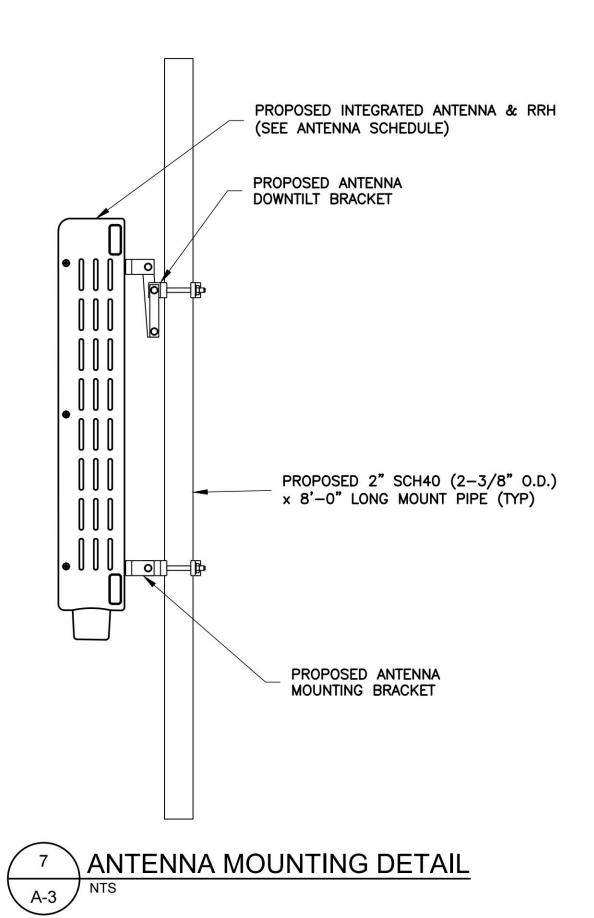
TOP VIEW

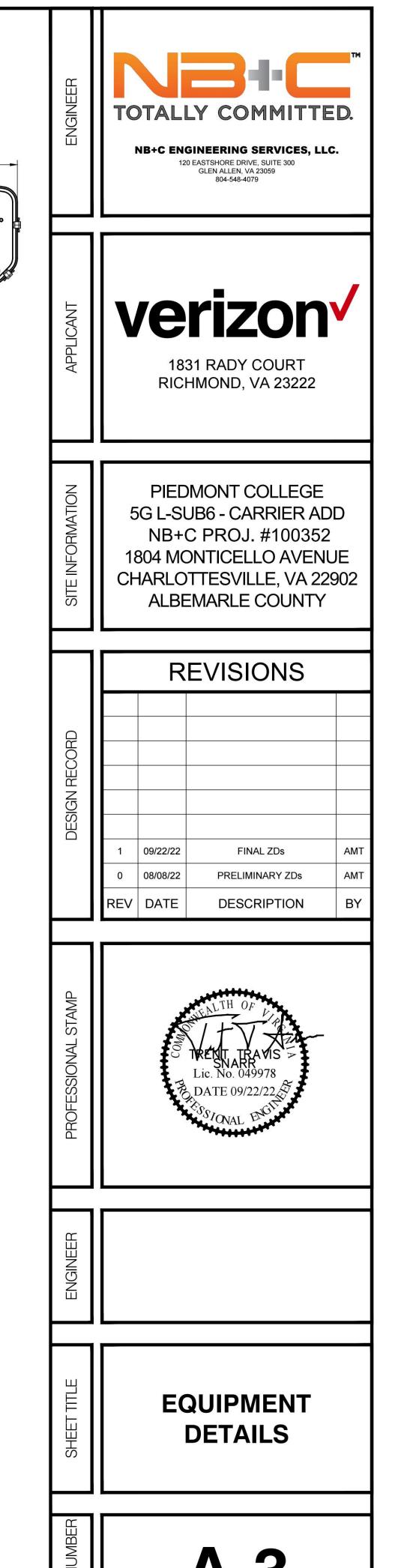
PROPOSED ANTENNA MOUNTING BRACKET

- 11.85"

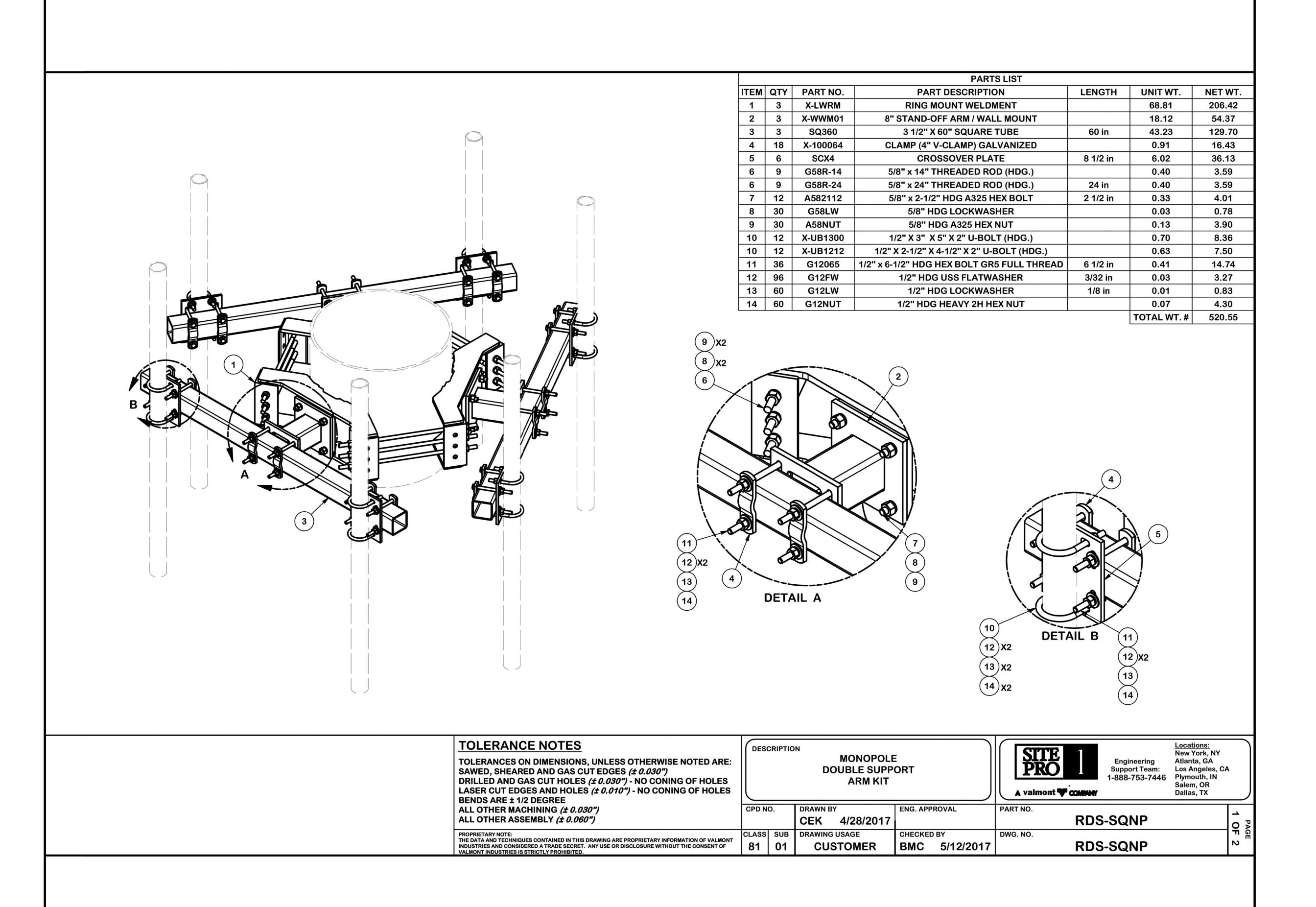
COMMSCOPE NHH-85C-R2B

ANTENNA WEIGHT = 50.9LBS





— 15.73**"** —





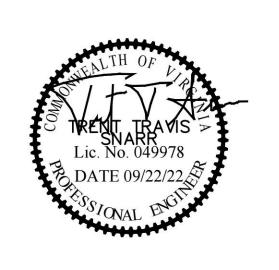
NB+C ENGINEERING SERVICES, LLC. 120 EASTSHORE DRIVE, SUITE 300 GLEN ALLEN, VA 23059 804-548-4079



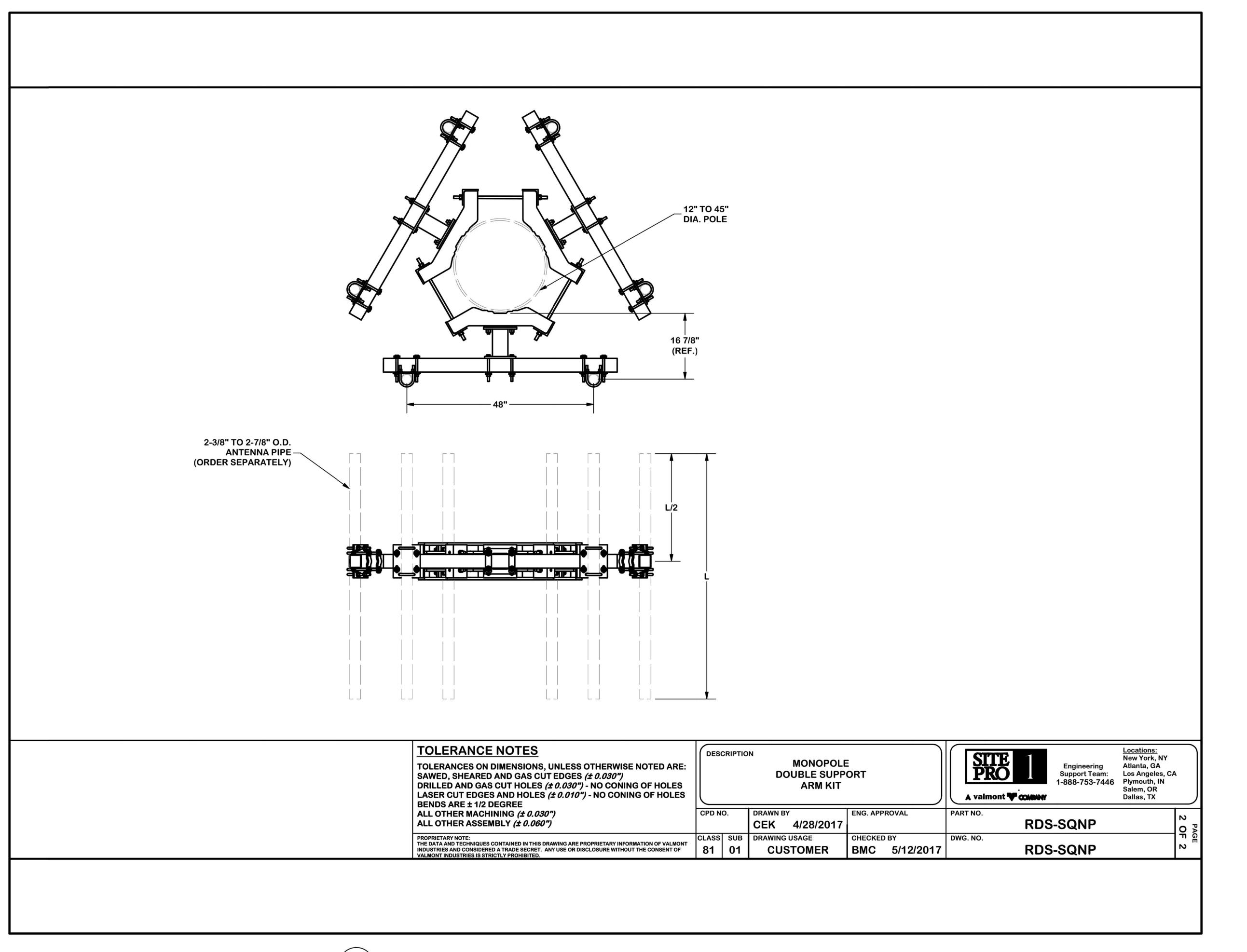
1831 RADY COURT RICHMOND, VA 23222

PIEDMONT COLLEGE 5G L-SUB6 - CARRIER ADD NB+C PROJ. #100352 1804 MONTICELLO AVENUE CHARLOTTESVILLE, VA 22902 ALBEMARLE COUNTY

		R	EVISIONS	
Q				
DESIGN RECORD				
RE(
IGN				
DES				
	1	09/22/22	FINAL ZDs	AMT
	0	08/08/22	PRELIMINARY ZDs	AMT
	REV	DATE	DESCRIPTION	BY



MOUNT SPECIFICATION SHEET I



NGINEER



NB+C ENGINEERING SERVICES, LLC.

120 EASTSHORE DRIVE, SUITE 300
GLEN ALLEN, VA 23059
804-548-4079

PLICANT



1831 RADY COURT RICHMOND, VA 23222

PIEDMONT COLLEGE 5G L-SUB6 - CARRIER ADD NB+C PROJ. #100352 1804 MONTICELLO AVENUE CHARLOTTESVILLE, VA 22902 ALBEMARLE COUNTY

	REVISIONS						
Ω							
S S							
JE							
<u>G</u> N							
DESIGN RECORD							
_	1	09/22/22	FINAL ZDs	AMT			
	0	08/08/22	PRELIMINARY ZDs	AMT			
	REV	DATE	DESCRIPTION	BY			

OFESSIONAL STAMP



NGINEER

MOUNT SPECIFICATION SHEET II

A-5