

**ABBREVIATIONS**

ABV.	ABBREVIATION	EQ.	EQUAL	MECH.	MECHANICAL
AC	ACOUSTIC(AL)	EQUIP.	EQUIPMENT	MET.	METAL
A/C	AIR CONDITIONING	EXIST.	EXISTING	MIN.	MINIMUM
ALT.	ALTERNATE	EX.	EXTERIOR	MISC.	MISCELLANEOUS
ALUM.	ALUMINUM	F.S.	FACE OF STUD	NAT.	NATURAL
A.B.	ANCHOR BOLT	FIN.	FINISH	N.	NORTH
APPROX.	APPROXIMATE	FIX.	FIXURE	N.I.C.	NOT IN CONTRACT
ARCH.	ARCHITECT(URAL)	FL.	FLOOR	N.T.S.	NOT TO SCALE
A.C.	ASPHALTIC CONCRETE	F.L.	FLOOR LINE	O.C.	ON CENTER
BM.	BEAM	F.D.	FLOOR DRAIN	O.D.	OUTSIDE DIAMETER
BLK(G)	BLOCKING	FLOUR.	FLOURESCENT	OPNG.	OPENING
BD.	BOARD	FT./	FOOT PER	OPP.	OPPOSITE
BOT.	BOTTOM	FTG.	FOOTING	PL.	PLATE
BLDC.	BUILDING	FDN.	FOUNDATION	PLYWD.	PLYWOOD
CAB.	CABINET	GAL.	GALLON	REINF.	REINFORCE(ING)
C.I.	CAST IRON	GALV.	GALVANIZED	RM.	ROOM
C.B.	CATCH BASIN	G.I.	GALVANIZED IRON	SCHED.	SCHEDULE
CLG.	CEILING	G.	GAS	SEC.	SECTION
CEM.	CEMENT	GA.	GAUGE	SHT.	SHEET
CER.	CERAMIC	GL.	GLASS	SIM.	SIMILAR
C.O.	CLEAN OUT	G.L.	GLUED LAMINATE	S.	SOUTH
CLR.	CLEAR	GYP.	GYPHUM	SPECS.	SPECIFICATIONS
COL.	COLUMN	HT.	HEIGHT	SQ.	SQUARE
CONC.	CONCRETE	H.M.	HOLLOW METAL	STD.	STANDARD
CONN.	CONNECTION	HORIZ.	HORIZONTAL	STL.	STEEL
CONT.	CONTINUE(OUS)	H.B.	HOSE BIBB	STRUCT.	STRUCTURAL
DET.	DETAIL	I.D.	INSIDE DIAMETER	SUSP.	SUSPENDED
DIAM.	DIAMETER	INSUL.	INSULATE(ION)	T & P	TELEPHONE & POWER
DIM.	DIMENSION	INT.	INTERIOR	THK.	THICK
DR.	DOOR	JT.	JOINT	T & B	TOP & BOTTOM
DBL.	DOUBLE	KIT.	KITCHEN	TYP.	TYPICAL
DN.	DOWN	LAB.	LABORATORY	U.N.O.	UNLESS NOTED OTHERWISE
DS.	DOWN SPOUT	LT.	LIGHT	VENT.	VENTILATION
DWG.	DRAWING	LIN.	LINEAL	VERT.	VERTICAL
D.F.	DRINKING FOUNTAIN	MFR.	MANUFACTUR(ER'S)	W.	WATER
E.A.	EACH	M.O.	MASONRY OPENING	WT.	WEIGHT
E.	EAST	MAT.	MATERIAL	W.W.M.	WELDED WIRE MESH
ELEC.	ELECTRIC(AL)	MAX.	MAXIMUM	W.	WEST
EL.	ELEVATION			W/	WITH
ENCL.	ENCLOSURE			WD.	WOOD

**PROJECT DESCRIPTION**

MODIFICATION TO AN EXISTING VERIZON WIRELESS COMMUNICATIONS UNMANNED SUBSTATION PER ZA CASE #: ZA 2005-3791(CU) TO CONSIST OF THE FOLLOWING:

- REMOVE TWENTY ONE (21) EXISTING ANTENNA(S).
- REMOVE THREE (3) EXISTING RRU(S). @ANTENNA LOCATION
- RELOCATE THREE (3) EXISTING RRU(S). FROM SHELTER TO TOWER
- INSTALL NINE (9) NEW PANEL ANTENNA(S). (3 PER SECTOR)
- INSTALL THREE (3) NEW DUAL ANTENNA MOUNT(S). (1 PER SECTOR)
- INSTALL THREE (3) NEW RRU(S). (1 PER SECTOR)
- INSTALL ONE (1) NEW OVP. @ANTENNA LOCATION
- INSTALL ONE (1) NEW OVP. @EQUIPMENT LOCATION
- INSTALL ONE (1) NEW 1 5/8" HYBRID CABLE.
- RETAIN SIX (6) EXISTING PANEL ANTENNA(S). (2 PER SECTOR)
- RETAIN ONE (1) EXISTING OVP. @ANTENNA LOCATION
- RETAIN ONE (1) EXISTING OVP. @EQUIPMENT LOCATION
- RETAIN ONE (1) EXISTING DISH.
- RETAIN ONE (1) EXISTING 1 5/8" HYBRID CABLE.
- RETAIN SIX (6) EXISTING 7/8" COAX CABLES.
- RETAIN TWO (2) EXISTING EW90 ELLIPTICAL CABLES.
- THE SIZE OF THE EXISTING EQUIPMENT LEASE AREA AND FACILITY HEIGHT WILL REMAIN UNCHANGED.

EXISTING # OF ANTENNAS: 27  
FINAL # OF ANTENNAS: 15

EXISTING # OF RRUS: 3  
FINAL # OF RRUS: 6

**CONSTRUCTION DATA:**

JURISDICTION: ---  
APN: TBD  
TYPE OF CONSTRUCTION: ---  
OCCUPANCY: ---  
ZONING: ---  
TRACT: TR ---  
LOT: FR ---  
BLOCK: NONE

# verizon

## SITE NAME: "NATIONAL CITY PLAZA"

(LSUB-6)

ATC SITE I.D.#: 300652

300 W. 28TH STREET, E  
NATIONAL CITY, CA 91950-7272

**LEGAL DESCRIPTION**

APN: TBD

LOTS ---- OF TRACT NO. ----, IN THE CITY OF ----, COUNTY OF ----, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 57, PAGES 60 AND 61 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

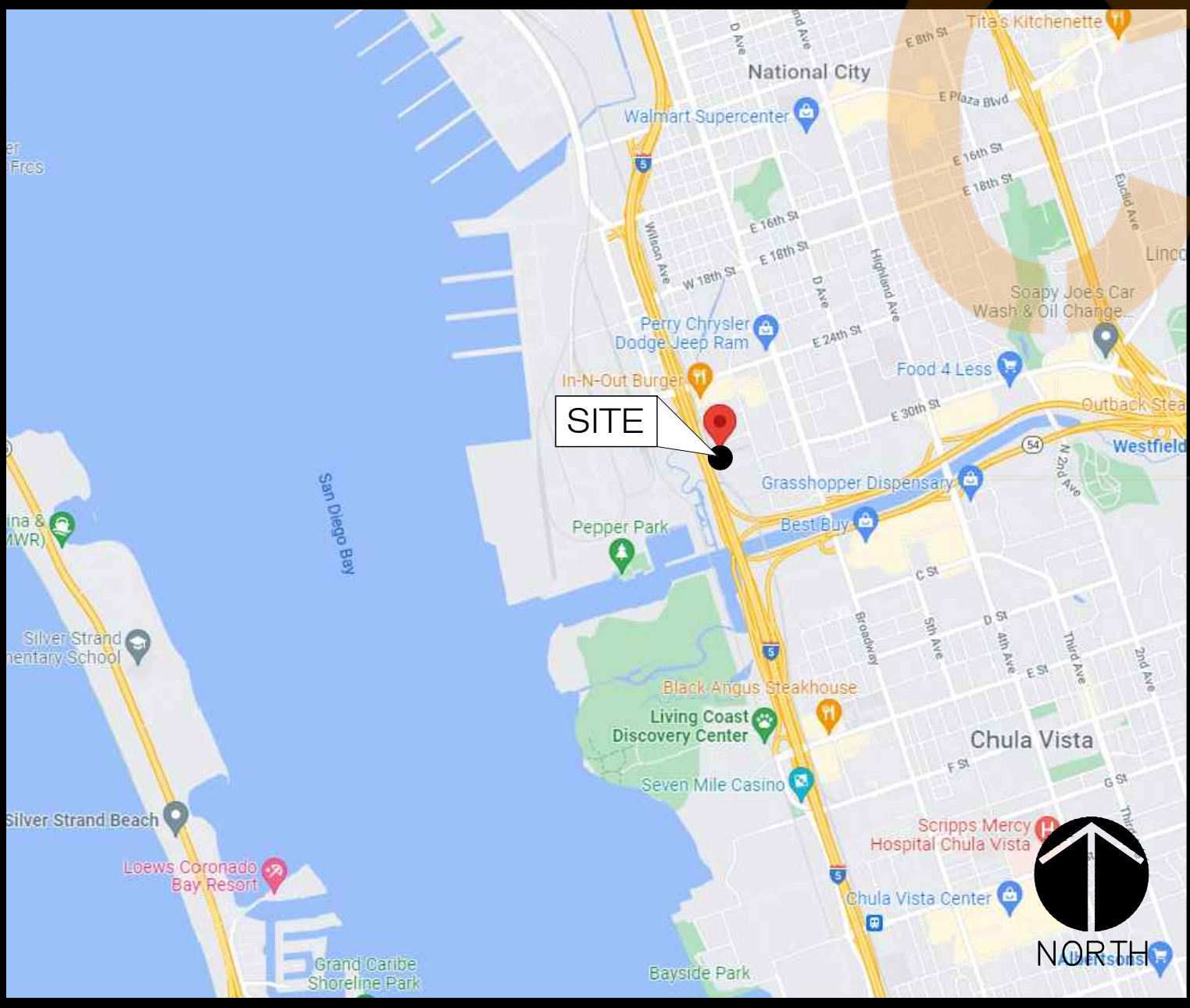
Dept. Approved Date	A&C	RE	RF	INT	EE	OPS	EE/OUT

**verizon**

15505 Sand Canyon Ave.  
Building "D", First Floor  
Irvine, CA, 92618 (949) 286-7000

SITE NAME:  
"NATIONAL CITY PLAZA"  
(L-SUB 6)  
300 W. 28TH STREET, E  
NATIONAL CITY, CA 91950-7272  
TITLE SHEET  
CONSTRUCTION DRAWINGS

**VICINITY MAP**



REFERENCE GOOGLE MAPS  
THIS VICINITY MAP NOT TO SCALE

**PROJECT TEAM**

**APPLICANT:**  
VERIZON WIRELESS  
15505 SAND CANYON AVE.  
BUILDING D, FIRST FLOOR  
IRVINE, CA. 92618

**APPLICANT'S AGENT:**  
BASE CONSULTING  
28562 OSO PKWY, D-233  
RANCHO SANTA MARGARITA, CA 92688  
CONTACT: TOD PETTY  
PH: (714) 292-6542

**ENGINEER:**  
TBD

**PROPERTY OWNER:**  
VERIZON NO PAY VENDOR  
300 W. 28TH STREET, E  
NATIONAL CITY, CA 91950-7272

**TOWER OWNER:**  
AMERICAN TOWER  
10 PRESIDENTIAL WAY  
WOBBURN, MA 01801

**PROJECT INFORMATION**

ALL WORK AND MATERIALS SHALL COMPLY WITH THE FOLLOWING:

2020 CITY OF LOS ANGELES AMENDMENT BUILDING CODE (L.A.B.C.) BASED ON 2019 C.B.C. (BASED ON 2018 I.B.C.) WITH LA CITY AMENDMENTS

2020 CITY OF LOS ANGELES AMENDMENT ELECTRICAL CODE BASED ON 2019 C.E.C. (BASED ON 2017 N.E.C.) WITH LA CITY AMENDMENTS

2020 CITY OF LOS ANGELES AMENDMENT MECHANICAL CODE BASED ON 2019 C.M.C. (WITH LA CITY AMENDMENTS)

2020 CITY OF LOS ANGELES AMENDMENT PLUMBING CODE BASED ON 2019 C.P.C. (BASED ON 2015 U.P.C.) WITH LA CITY AMENDMENTS

2020 CITY OF LOS ANGELES FIRE CODE (2019 N.F.P.A.) BASED ON 2019 C.F.C. (BASED ON 2018 I.F.C.) WITH LA CITY AMENDMENTS

2020 CITY OF LOS ANGELES GREEN BUILDING CODE BASED ON 2019 CALIFORNIA GREEN BUILDING STANDARD CODES, TITLE 24, PART 11 WITH LA CITY AMENDMENTS

AND ALL APPLICABLE CODES, LOCAL, CURRENT OSHA LAWS, T-24 ENERGY CONSERVATION, LISTS OF STANDARDS, AND DISABLED ACCESS REGULATIONS WHERE REQUIRED.

**APPROVALS**

APPROVED BY	DATE	INITIALS	COMMENTS
RF ENGINEER			
SITE DEV.			
SITE ACQ.			
PM			
COMMENTS:			

**RF DOCUMENT**

VERIZON WIRELESS RF DOCUMENT: 07/23/2021

**PROPRIETARY INFORMATION**

NOT FOR USE OR DISCLOSURE OUTSIDE VERIZON WIRELESS EXCEPT UNDER WRITTEN AGREEMENT

**SHEET INDEX**

SHEET NUMBER	DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES & SYMBOLS
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN
A-3	ANTENNA PLANS
A-4	ELEVATIONS
A-5	ELEVATIONS
A-6	ELEVATIONS
A-7	DETAILS
A-7.1	DETAILS
A-7.2	DETAILS
A-7.3	DETAILS

**NOTES**

- THE MAXIMUM NUMBER OF DIRECTIONAL CELLULAR ANTENNAS CURRENTLY INSTALLED IS TWELVE (12).
- THE MAXIMUM NUMBER OF DIRECTIONAL CELLULAR ANTENNA TO BE REMOVED IS NINE (9).
- THE MAXIMUM NUMBER OF DIRECTIONAL CELLULAR ANTENNAS TO BE INSTALLED IS ONE (1).
- THE SIZE, HEIGHT, DIRECTION AND LOCATION OF ANTENNAS SHALL BE ADJUSTED TO MEET SYSTEM REQUIREMENTS AS NEEDED
- ALL ITEMS, WHETHER EXISTING OR NEW, WHICH ARE WITHIN THE VERIZON WIRELESS LEASE AREA ARE TO BE APPROVED

**SPECIAL INSPECTIONS**

NONE

Revisions	EM						
	PRELIM						
	A	12/13/21					


T-1

Job No. xxxx

## SPECIAL INSPECTION & STRUCTURAL OBSERVATION NOTES

1. ITEMS REQUIRING SPECIAL INSPECTION AND/OR STRUCTURAL OBSERVATION FOR THIS PROJECT SHALL INCLUDE:
  - A. NONE
2. A CERTIFICATE OF SATISFACTORY COMPLETION OF THE WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED AND SUBMITTED TO THE INSPECTION SERVICES DIVISION.
3. AN APPLICATION TO PERFORM OFF-SITE FABRICATION MUST BE SUBMITTED TO THE INSPECTION SERVICES DIVISION FOR APPROVAL PRIOR TO FABRICATION.
4. A CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION MUST BE COMPLETED AND SUBMITTED TO THE INSPECTION SERVICES DIVISION PRIOR TO ERECTION OF PREFABRICATED COMPONENTS.
5. THE SPECIAL INSPECTIONS IDENTIFIED ARE IN ADDITION TO THOSE REQUIRED BY SEC. 108 OF THE BUILDING CODE, AS AMENDED. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A CITY INSPECTOR.
6. ALL OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR, CONTRACTOR, & INSPECTION SERVICES. THE STRUCTURAL OBSERVER SHALL SUBMIT A WRITTEN STATEMENT TO INSPECTION SERVICES THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES THAT HAVE NOT BEEN RESOLVED. THE STRUCTURE WILL NOT BE IN COMPLIANCE UNTIL THE DESIGNER HAS NOTIFIED INSPECTION SERVICES THAT ALL DEFICIENCIES ARE RESOLVED.



## SYMBOLS

- PROPERTY LINE
- DIMENSION LINE
- CENTERLINE
- COLUMN LINE/  
GRID LINE  
LETTERS IN ONE DIRECTION  
NUMBER IN THE OTHER DIRECTION
- SECTION CUT  
SECTION LETTER  
SHEET WHERE SECTION IS DRAWN
- DETAIL REFERENCE  
DETAIL NUMBER  
SHEET WHERE DETAIL IS DRAWN
- REVISION  
REVISION NUMBER WITH CLOUD  
AROUND REVISED AREA
- WORK POINT, DATUM, POINT,  
OR CONTROL POINT
- ROOM NUMBER
- WINDOW NUMBER
- DOOR NUMBER
- FLOOR PLAN NOTE  
(NUMBER)
- WALL TYPE  
(LETTER)

## CONSTRUCTION NOTES

1. HOURS OF WORK: CONTRACTOR TO OBSERVE BUSINESS HOURS OF 8 A.M. TO 6 P.M., M - F. ANY OTHER SPECIAL OR EXTENDED HOURS TO BE APPROVED BY OWNER REPRESENTATIVE.
2. STAGING/LOADING AREA: ALL WORK MUST BE ARRANGED TO AVOID INTERFERING WITH EXISTING TRAFFIC (PEDESTRIAN & MOTOR) AND BUSINESS. ALL EQUIPMENT & MATERIALS MUST BE STORED IN NEW EQUIPMENT ROOM ONLY, UNLESS PRIOR AGREEMENT IS MADE BETWEEN VERIZON WIRELESS PROJECT MANAGER, OWNER AND CONTRACTOR.
3. CONTRACTOR SHALL READ, UNDERSTAND, & ADHERE TO ALL NOTES ON THIS SHEET & ALL NOTES THROUGHOUT THIS SET OF CONSTRUCTION DOCUMENTS. ANY REQUIRED CHANGES AND/OR ADJUSTMENTS MUST BE MADE WITH THE PRIOR APPROVAL OF THE VERIZON WIRELESS PROJECT MANAGER AND THE ARCHITECT.
4. PROTECT ALL SURFACES & MATERIALS IN AND ADJACENT TO EQUIPMENT ROOM. ALSO PROTECT, PRESERVE AND CLEAN ALL AREAS; INCLUSIVE OF PATHS OF TRAVEL, IN AND BETWEEN ALL AREAS OF WORK.
5. CONTRACTOR TO MAKE APPOINTMENT WITH BUILDING OWNER REPRESENTATIVE PRIOR TO ANY X-RAY & CORE DRILLING THAT MAY AFFECT OTHER TENANTS.

Dept. Approved Date	
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**verizon**

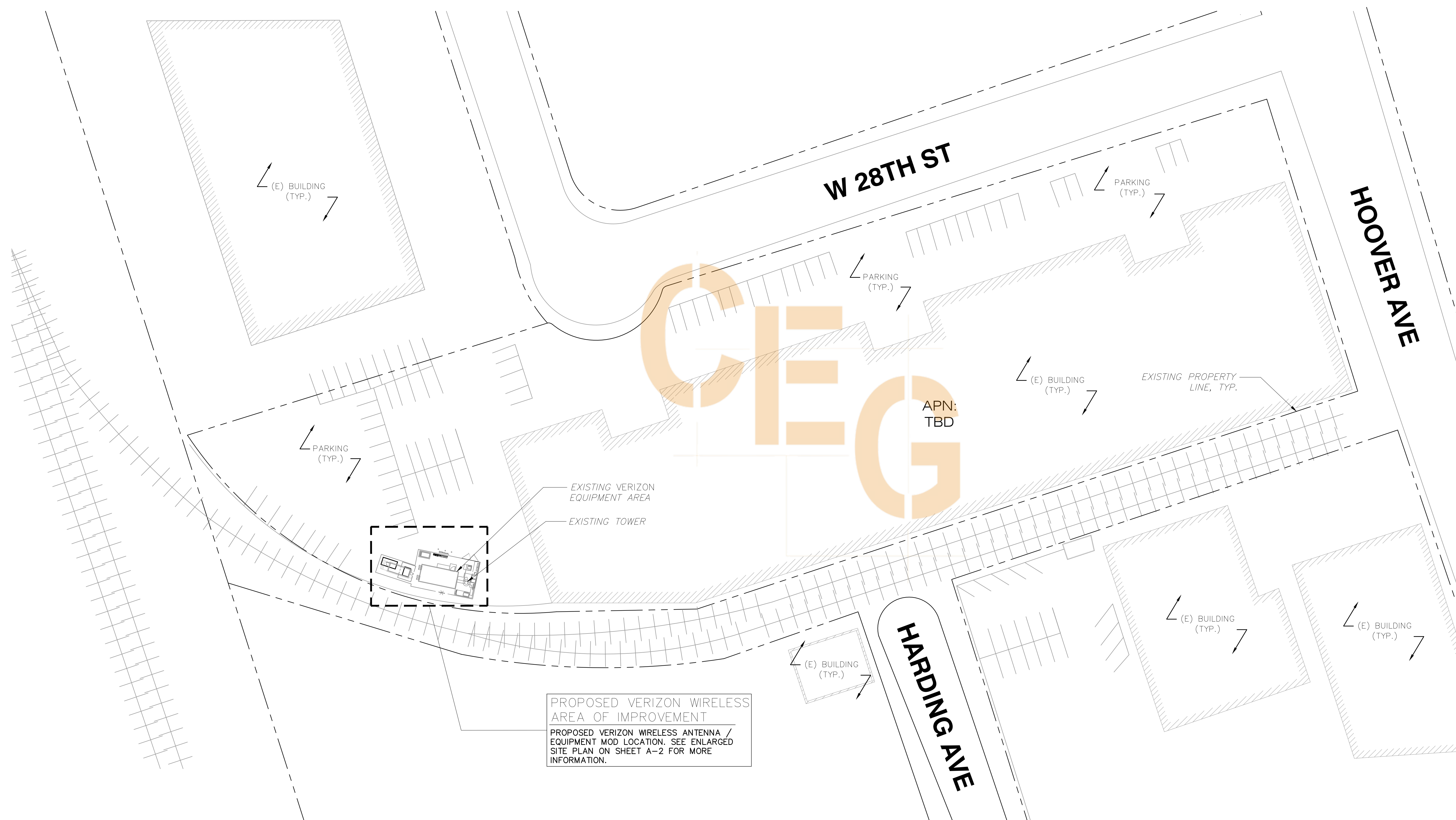
15505 Sand Canyon Ave.  
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(949) 286-7000

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(L-SUB 6)  
300 W. 28TH STREET, E  
NATIONAL CITY, CA 91950-7272  
GENERAL NOTES & SYMBOLS  
CONSTRUCTION DRAWINGS

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Revisions	
EM	PRELIM
A	12/13/21



PROPOSED VERIZON WIRELESS  
 AREA OF IMPROVEMENT  
 PROPOSED VERIZON WIRELESS ANTENNA /  
 EQUIPMENT MOD LOCATION. SEE ENLARGED  
 SITE PLAN ON SHEET A-2 FOR MORE  
 INFORMATION.

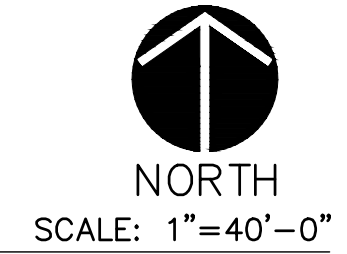
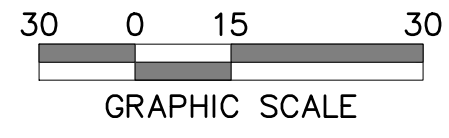
W 28TH ST

HOOVER AVE

HARDING AVE

APN:  
TBD

SITE PLAN



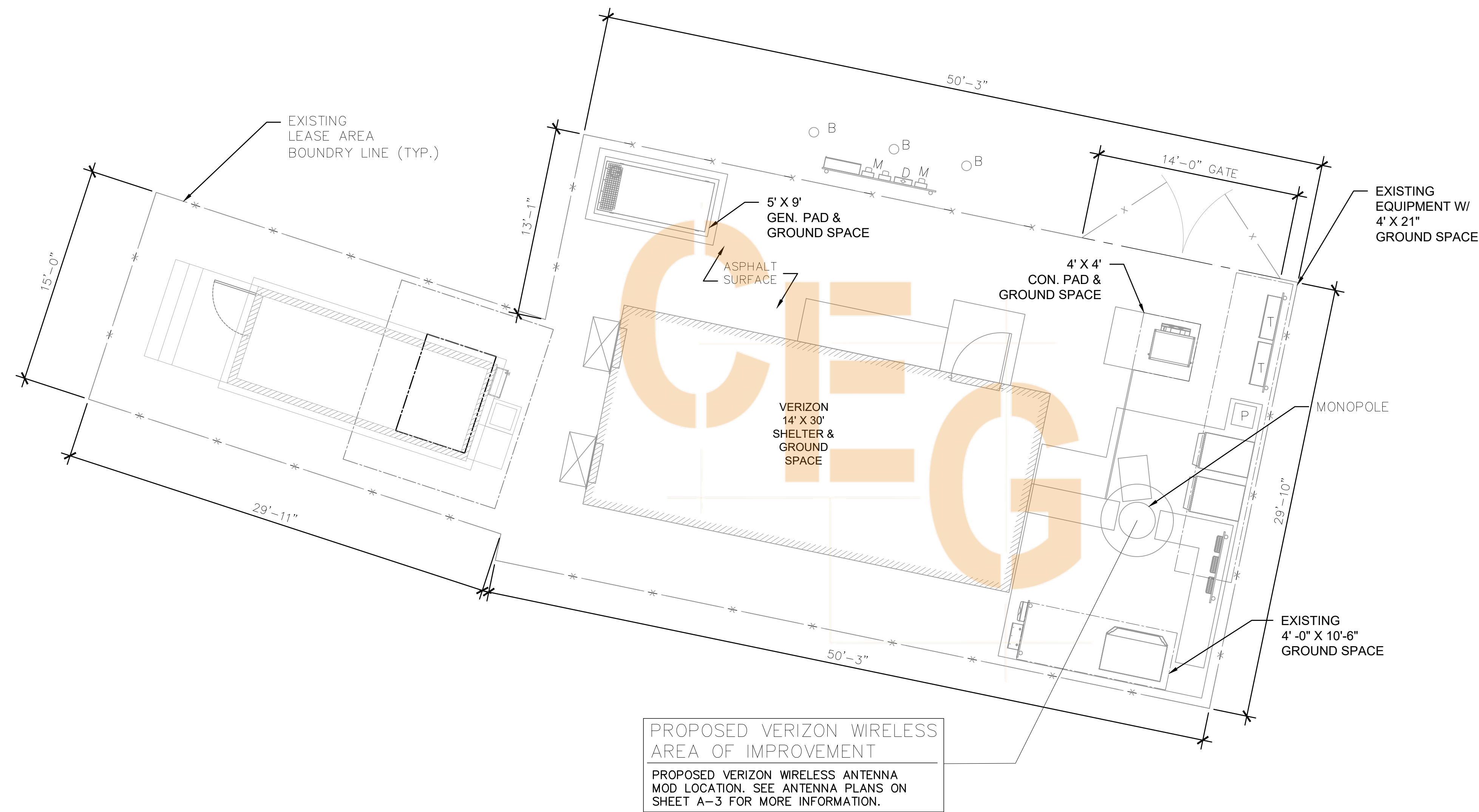
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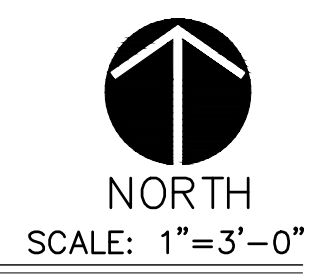
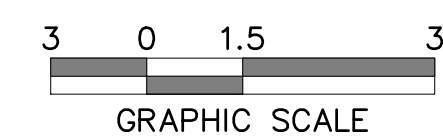
SITE NAME:  
 "NATIONAL CITY PLAZA"  
 (L-SUB 6)  
 300 W. 28TH STREET, E  
 NATIONAL CITY, CA 91950-7272  
 SITE PLAN  
 CONSTRUCTION DRAWINGS



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ENLARGED SITE PLAN



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ENLARGED SITE PLAN  
CONSTRUCTION DRAWINGS

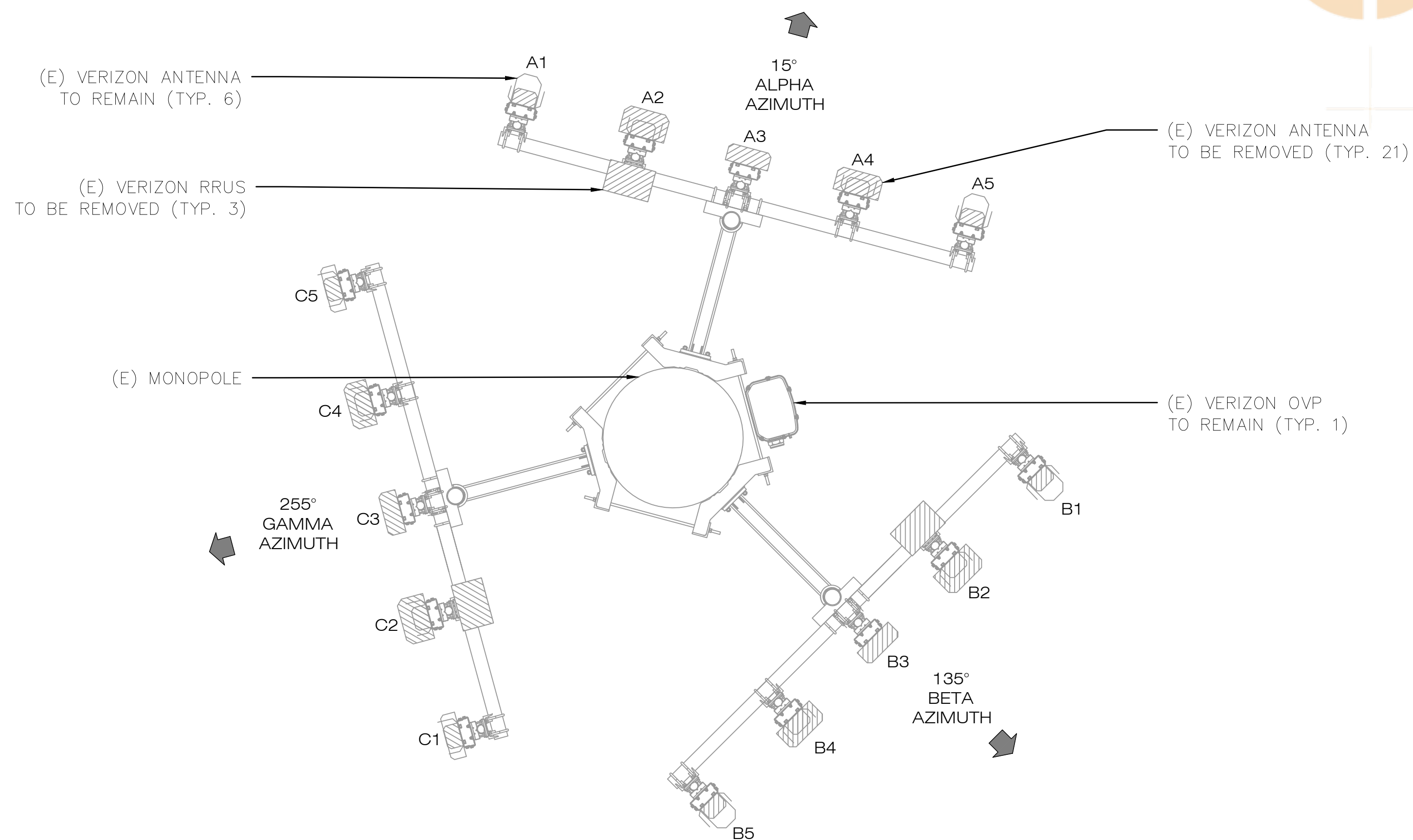
Revisions			
A	EM	PRELIM	12/13/21

A-2

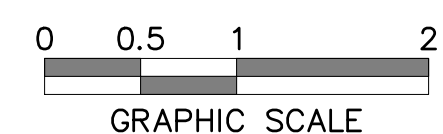
Job No. xxxx

EXISTING ANTENNA SCHEDULE

SECTOR	AZIM-UTH	CABLE RUN	CENTER LINE	CABLE TYPE/ SIZE	ANTENNA TYPE	RRUS/RAYCAP	TECHNOLOGIES
ALPHA 1	15°	-	64.5' 60.7'	-	UNKNOWN ALP 9209-N (5455)	RCMDC-3315-PF-48	CDMA
ALPHA 2	15°	-	64.5' 60.7'	-	UNKNOWN SBNH-1D6565B	RRUS12 B4	LTE/C-BAND
ALPHA 3	15°	-	60.7'	-	BXA-1850060/8CF4	-	LTE/C-BAND
ALPHA 4	15°	-	64.5' 60.7'	-	UNKNOWN UNKNOWN	-	-
ALPHA 5	15°	-	64.5' 60.7'	-	UNKNOWN ALP 9209-N (5455)	-	CDMA
BETA 1	135°	-	64.5' 60.7'	-	UNKNOWN ALP 9209-N (5455)	-	CDMA
BETA 2	135°	-	64.5' 60.7'	-	UNKNOWN SBNH-1D6565B	RRUS12 B4	LTE/C-BAND
BETA 3	135°	-	60.7'	-	BXA-1850060/8CF4	-	LTE/C-BAND
BETA 4	135°	-	64.5' 60.7'	-	UNKNOWN UNKNOWN	-	-
BETA 5	135°	-	64.5' 60.7'	-	UNKNOWN ALP 9209-N (5455)	-	CDMA
GAMMA 1	255°	-	64.5' 60.7'	-	UNKNOWN WPA-80063-4CF	-	CDMA
GAMMA 2	255°	-	64.5' 60.7'	-	UNKNOWN SBNH-1D6565B	RRUS12 B4	LTE/C-BAND
GAMMA 3	255°	-	60.7'	-	BXA-1850060/8CF4	-	LTE/C-BAND
GAMMA 4	255°	-	64.5' 60.7'	-	UNKNOWN UNKNOWN	-	-
GAMMA 5	255°	-	64.5' 60.7'	-	UNKNOWN WPA-80063-4CF	-	CDMA
-	0°	-	56'	-	4' HP DISH	-	-
TOTAL:				(6) 7/8" COAX (1) 1 5/8" HYBRID (2) EW90	(15) UNKNOWN (4) ALP 9209-N (5455) (2) WPA-80063-4CF (3) SBNH-1D6565B (3) BXA-1850060/8CF4 (1) 4' HP DISH	(1) RCMDC-3315-PF-48 (3) RRUS12 B4	



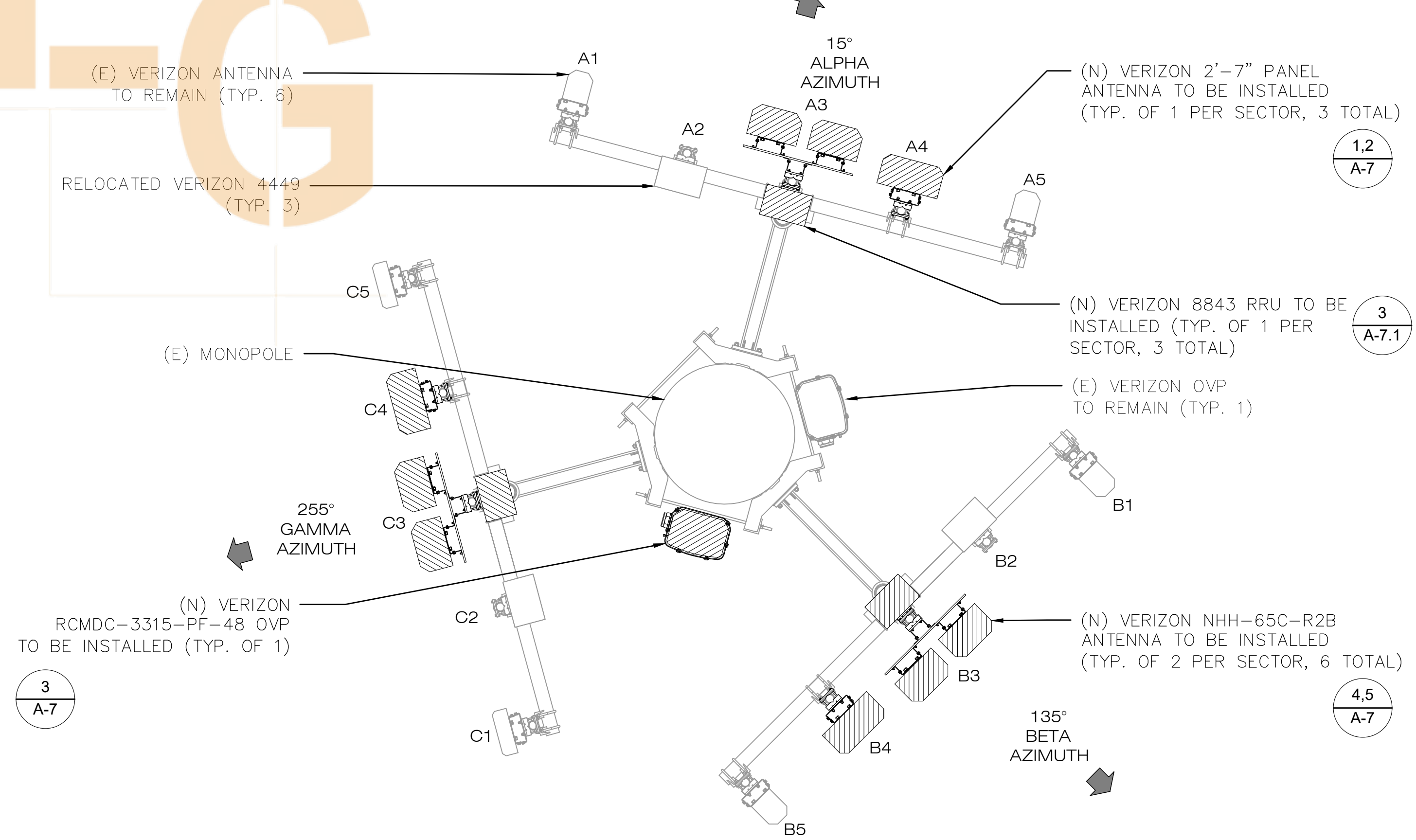
EXISTING ANTENNA PLAN



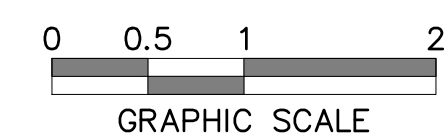
NORTH  
SCALE: 1/2"=1'-0"

NEW ANTENNA SCHEDULE

SECTOR	AZIM-UTH	CABLE RUN	CENTER LINE	CABLE TYPE/ SIZE	ANTENNA TYPE	RRUS/RAYCAP	TECHNOLOGIES
ALPHA 1	15°	-	60.7'	-	ALP 9209-N (5455)	RCMDC-3315-PF-48	CDMA
ALPHA 2	15°	-	61.2'	-	-	RRU 4449	-
ALPHA 3	15°	-	61.2'	-	(2) NHH-65C-R2B	RRU 8843	LTE/C-BAND
ALPHA 4	15°	-	61.2'	-	AIR6449	-	C-BAND
ALPHA 5	15°	-	60.7'	-	ALP 9209-N (5455)	-	CDMA
BETA 1	135°	-	60.7'	-	ALP 9209-N (5455)	RCMDC-3315-PF-48	CDMA
BETA 2	135°	-	61.2'	-	-	RRU 4449	-
BETA 3	135°	-	61.2'	-	(2) NHH-65C-R2B	RRU 8843	LTE/C-BAND
BETA 4	135°	-	61.2'	-	AIR6449	-	C-BAND
BETA 5	135°	-	60.7'	-	ALP 9209-N (5455)	-	CDMA
GAMMA 1	255°	-	60.7'	-	WPA-80063-4CF	-	CDMA
GAMMA 2	255°	-	61.2'	-	-	RRU 4449	-
GAMMA 3	255°	-	61.2'	-	(2) NHH-65C-R2B	RRU 8843	LTE/C-BAND
GAMMA 4	255°	-	61.2'	-	AIR6449	-	C-BAND
GAMMA 5	255°	-	60.7'	-	WPA-80063-4CF	-	CDMA
-	0°	-	56'	-	4' HP DISH	-	-
TOTAL:				(6) 7/8" COAX (1) 1 5/8" HYBRID (1) 1 5/8" HYBRID (2) EW90	(4) ALP 9209-N (5455) (2) WPA-80063-4CF (1) 4' HP DISH (6) NHH-65C-R2B (3) AIR6449	(1) RCMDC-3315-PF-48 (1) RCMDC-3315-PF-48 (3) RRU 4449 (3) RRU 8843	



NEW ANTENNA PLAN



NORTH  
SCALE: 1/2"=1'-0"

Dept. Approved Date	
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**verizon**

15505 Sand Canyon Ave.  
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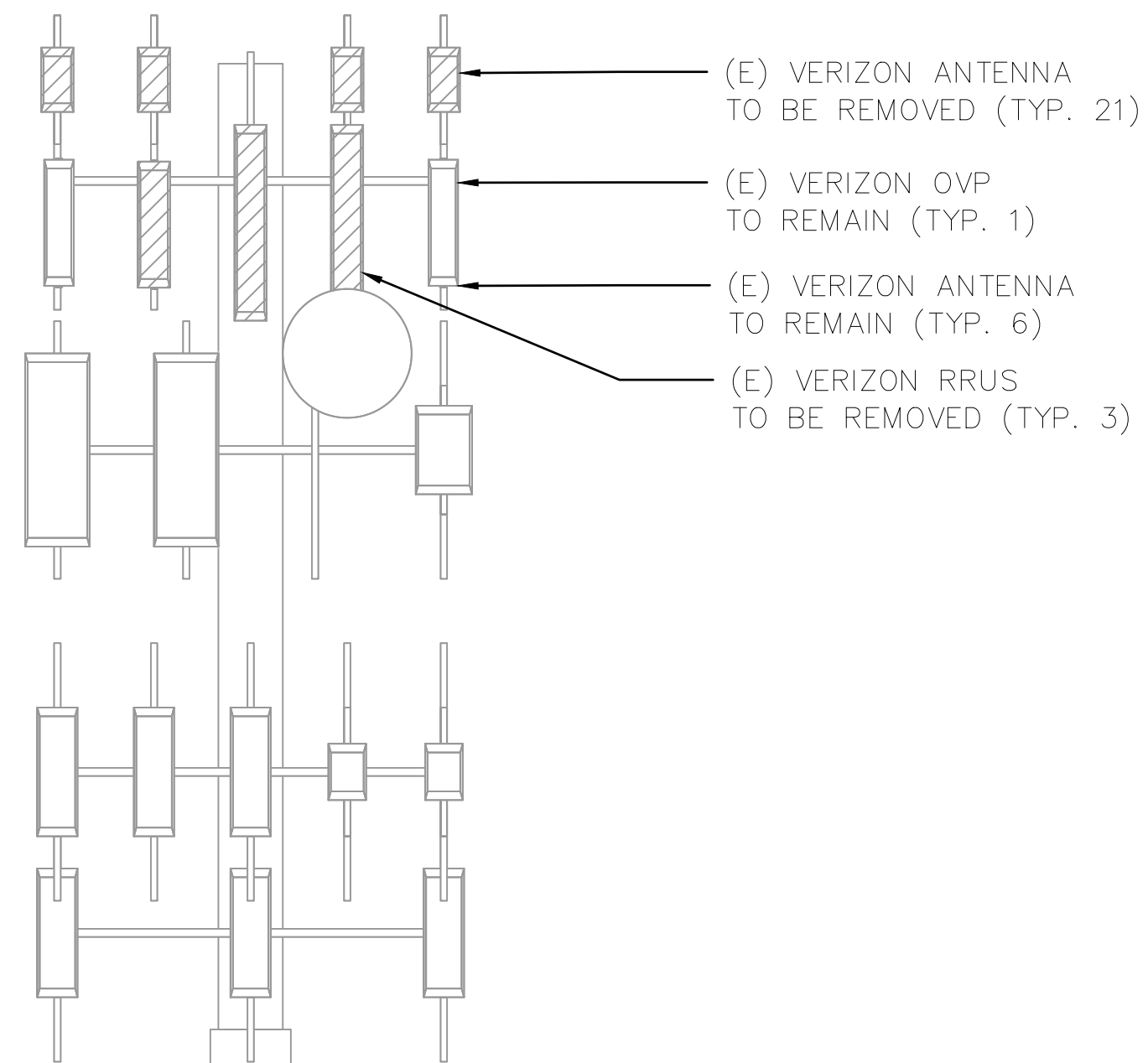
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ANTENNA PLANS  
CONSTRUCTION DRAWINGS

1,2	A-7.1
3	A-7.1

3	A-7
4,5	A-7

Revisions					
EM					
A	12/13/21				
	PRELIM				

- TOP OF (E) VERIZON ANTENNAS  
ELEV. @ 65.5'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 64.5'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 60.7'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 56'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 53'
  
- (E) CARRIER ANTENNAS  
RAD CENTER @ 43'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 38'



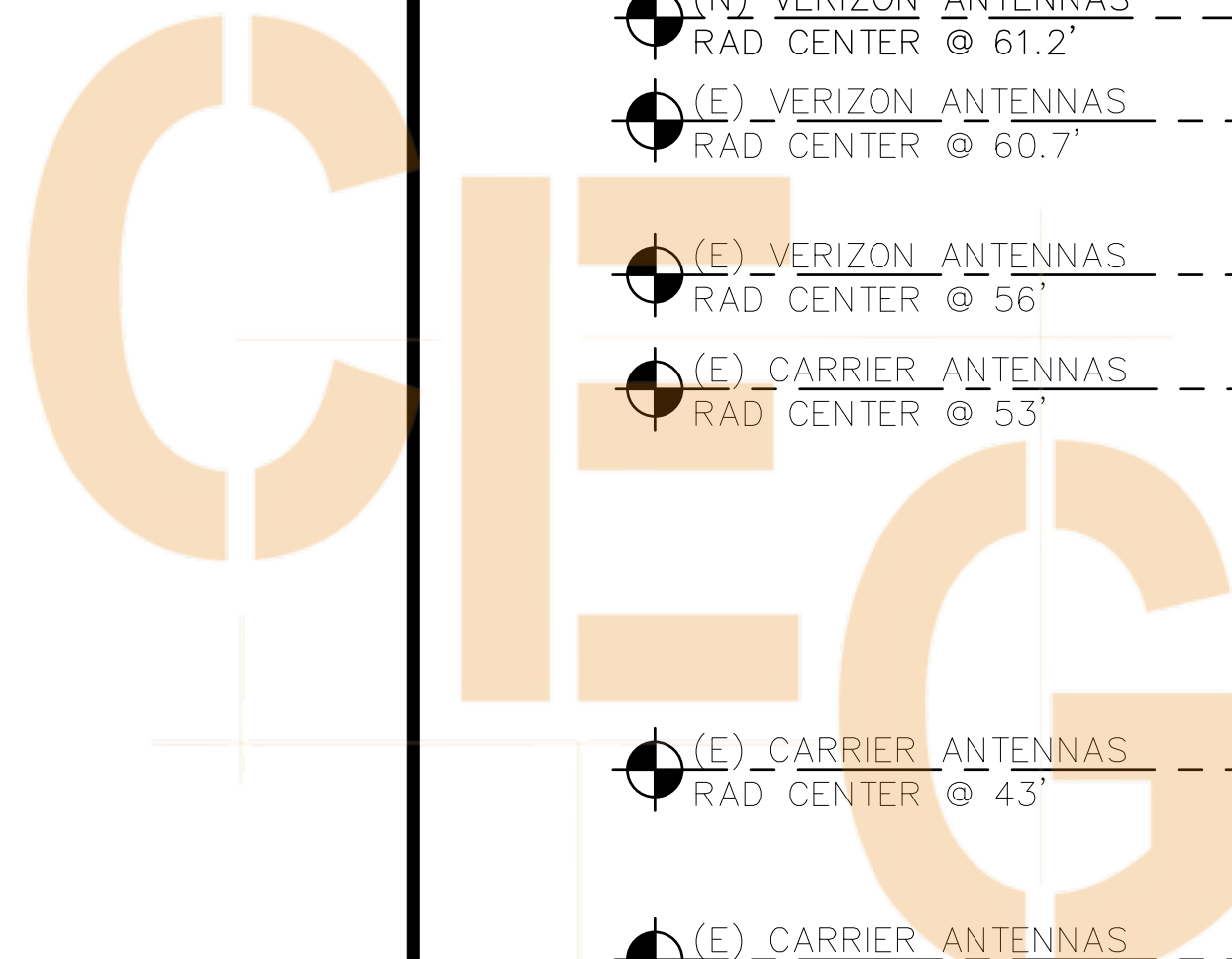
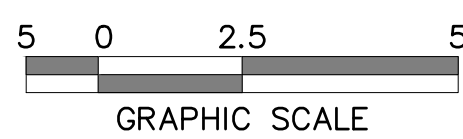
- (E) VERIZON ANTENNA  
TO BE REMOVED (TYP. 21)
- (E) VERIZON OVP  
TO REMAIN (TYP. 1)
- (E) VERIZON ANTENNA  
TO REMAIN (TYP. 6)
- (E) VERIZON RRU'S  
TO BE REMOVED (TYP. 3)

(E) MONOPOLE

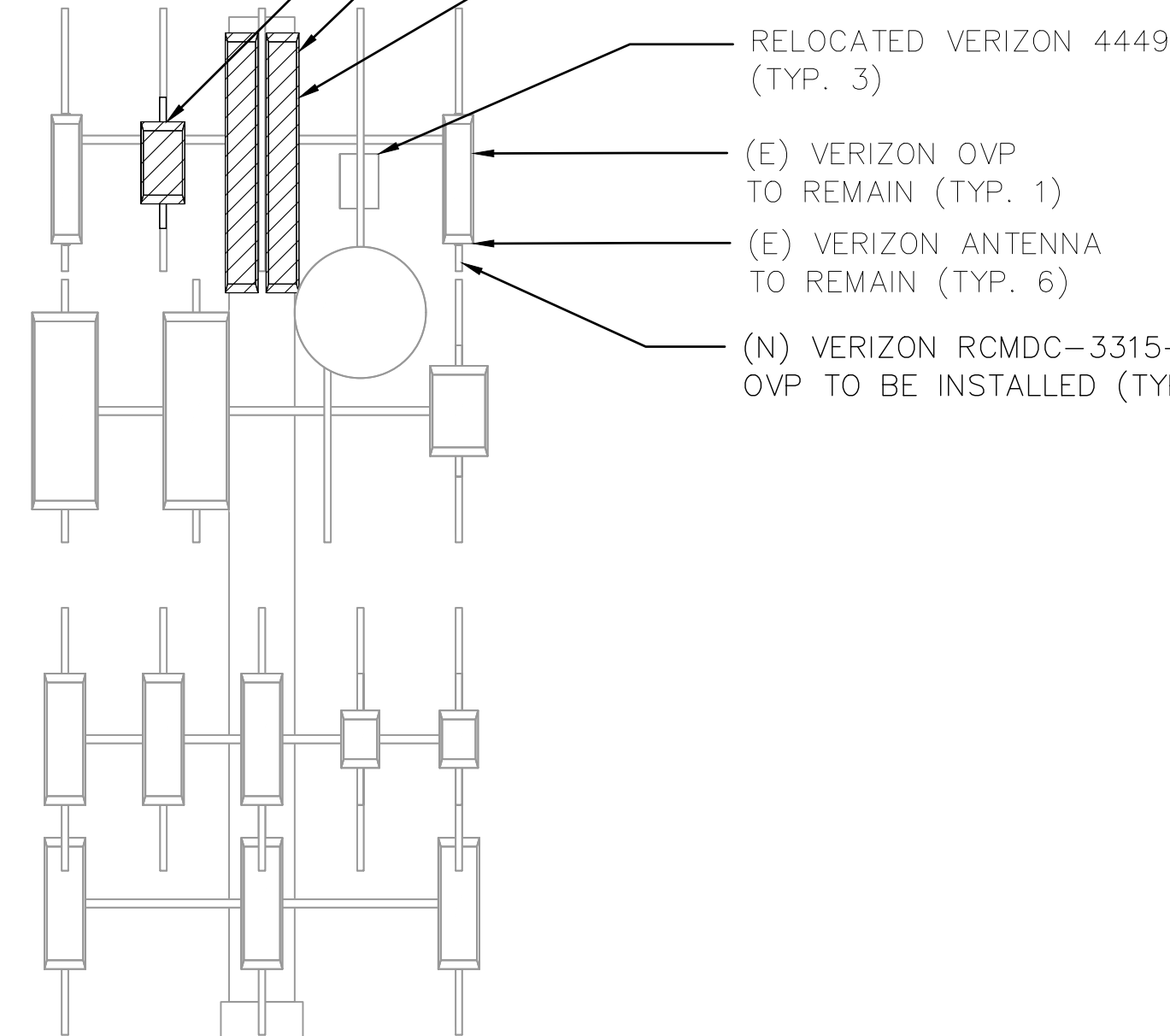
● TOP OF (E) BASE PLATE  
ELEV. @ 0'-0"

EXISTING EAST ELEVATION

SCALE: 1"=5'-0"



- TOP OF (N) VERIZON ANTENNAS  
ELEV. @ 64.2'
- (N) VERIZON ANTENNAS  
RAD CENTER @ 61.2'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 60.7'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 56'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 53'
  
- (E) CARRIER ANTENNAS  
RAD CENTER @ 43'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 38'



- (N) VERIZON 2'-7" PANEL  
ANTENNA TO BE INSTALLED  
(TYP. OF 1 PER SECTOR, 3 TOTAL) 1,2  
A-7
- (N) VERIZON 8843 RRU TO BE  
INSTALLED (TYP. OF 1 PER  
SECTOR, 3 TOTAL) 3  
A-7.1
- (N) VERIZON NHH-65C-R2B  
ANTENNA TO BE INSTALLED  
(TYP. OF 2 PER SECTOR, 6 TOTAL) 4,5  
A-7

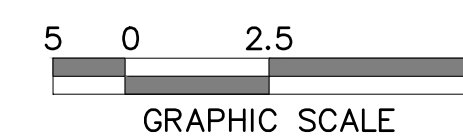
- RELOCATED VERIZON 4449  
(TYP. 3)
- (E) VERIZON OVP  
TO REMAIN (TYP. 1)
- (E) VERIZON ANTENNA  
TO REMAIN (TYP. 6)
- (N) VERIZON RCMD-3315-PF-48  
OVP TO BE INSTALLED (TYP. OF 1) 3  
A-7

(E) MONOPOLE

● TOP OF (E) BASE PLATE  
ELEV. @ 0'-0"

NEW EAST ELEVATION

SCALE: 1"=5'-0"



Dept. Approved Date	
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RF	
INT	
EE	
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EE/OUT	

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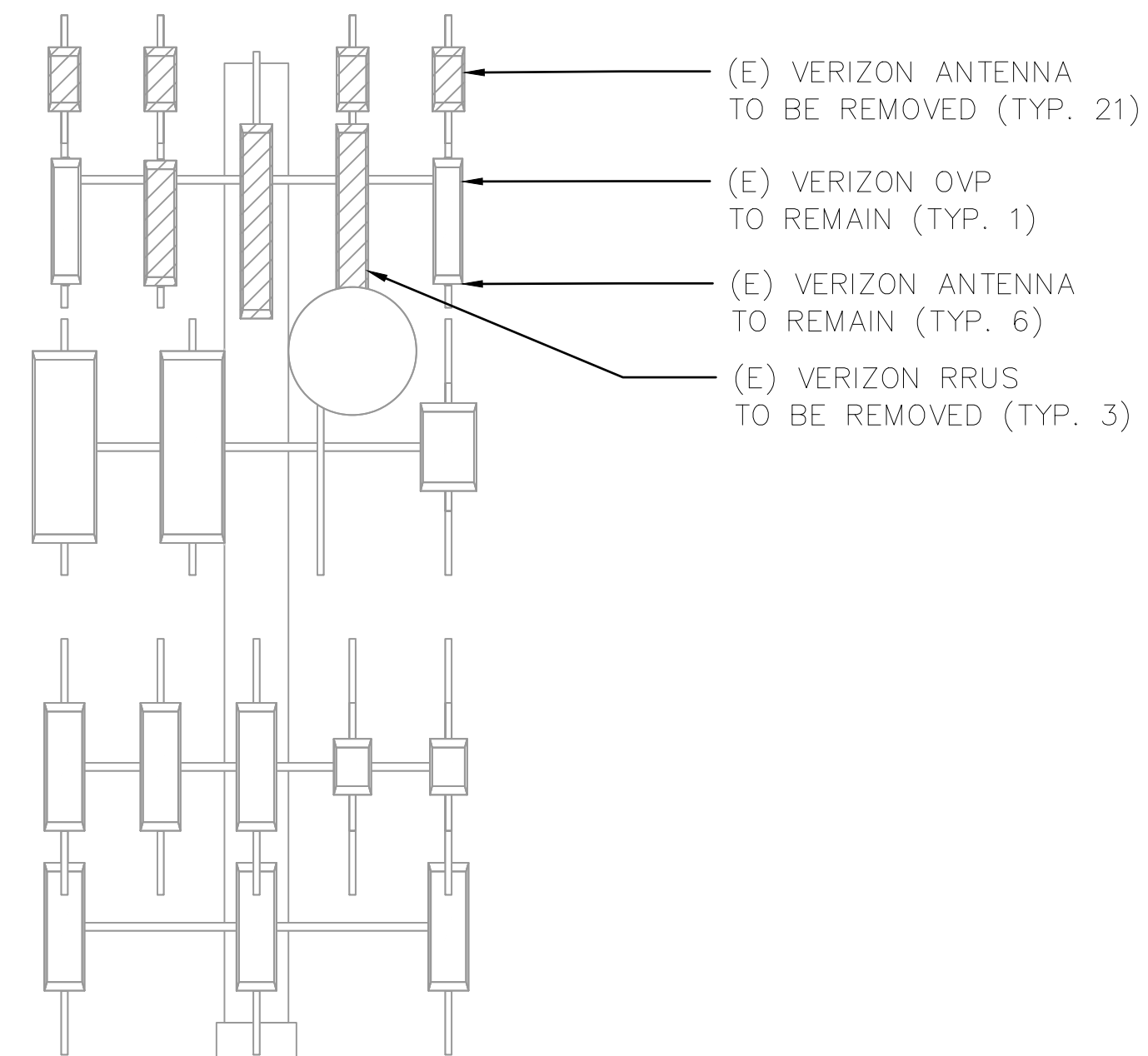
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ELEVATIONS  
CONSTRUCTION DRAWINGS

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EM	PRELIM
A	12/13/21

A-4

Job No. xxxx

- TOP OF (E) VERIZON ANTENNAS  
ELEV. @ 65.5'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 64.5'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 60.7'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 56'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 53'
  
- (E) CARRIER ANTENNAS  
RAD CENTER @ 43'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 38'



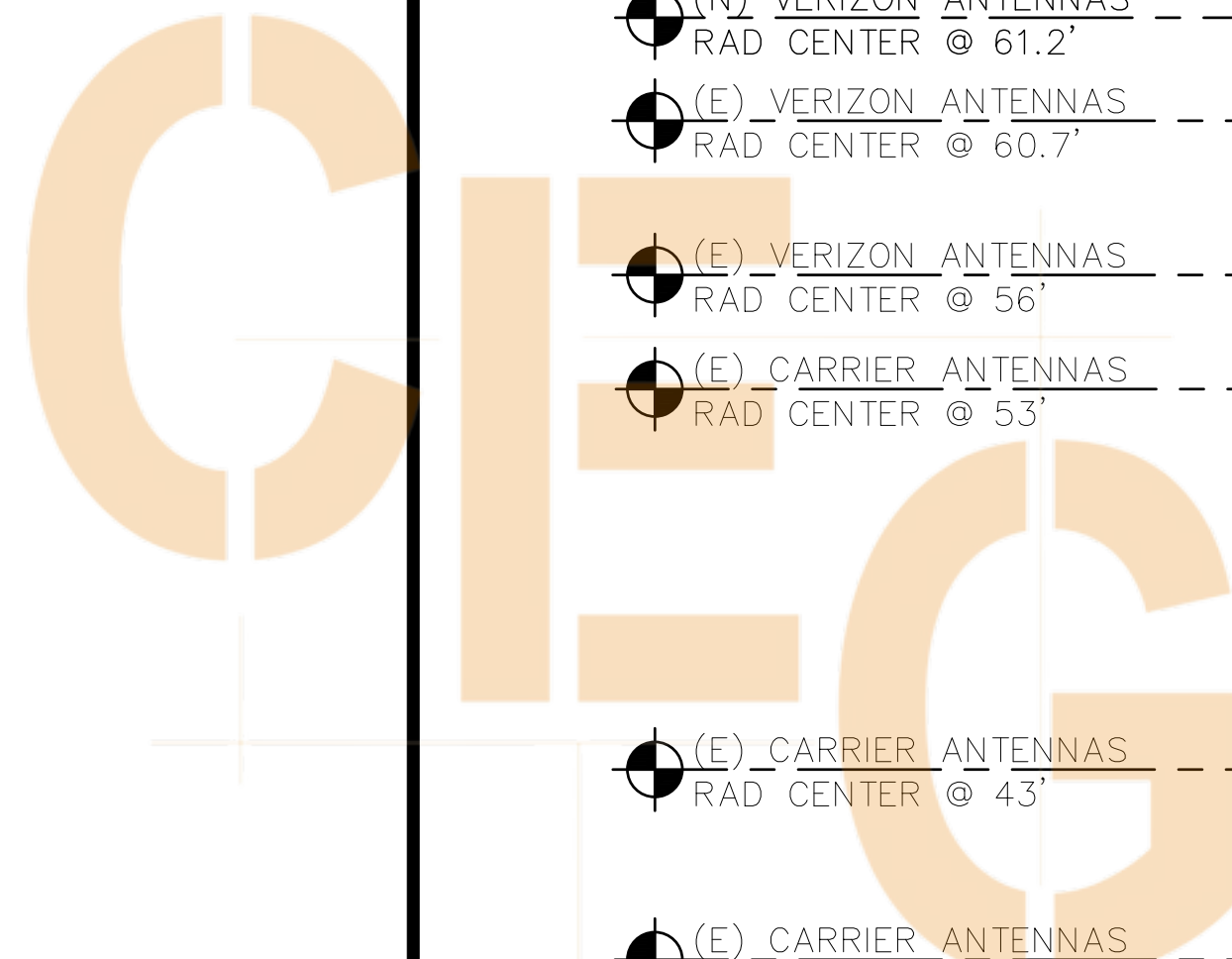
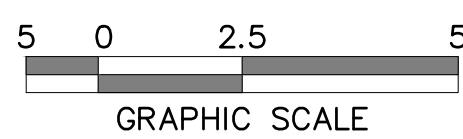
- (E) VERIZON ANTENNA  
TO BE REMOVED (TYP. 21)
- (E) VERIZON OVP  
TO REMAIN (TYP. 1)
- (E) VERIZON ANTENNA  
TO REMAIN (TYP. 6)
- (E) VERIZON RRU'S  
TO BE REMOVED (TYP. 3)

(E) MONOPOLE

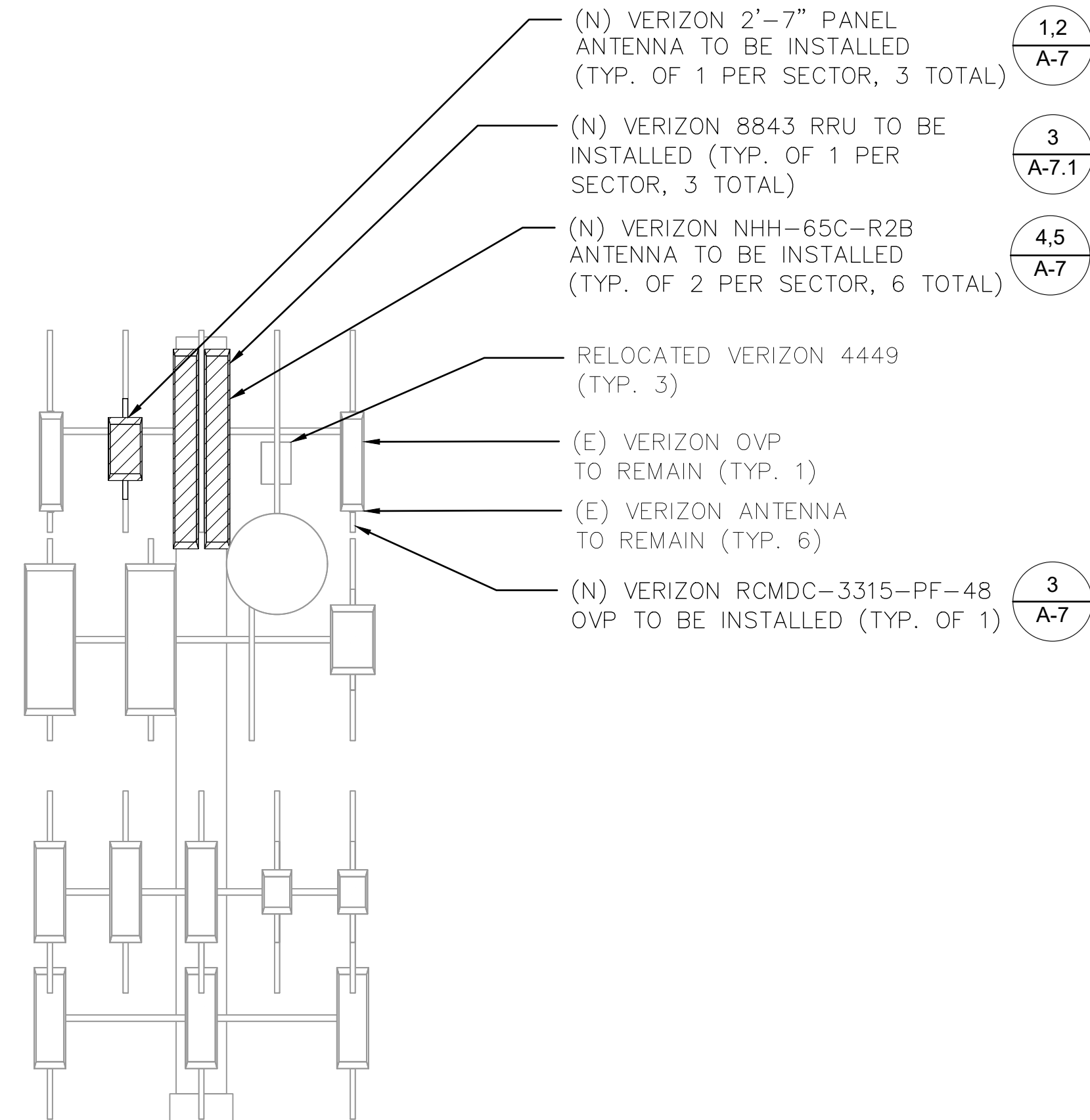
● TOP OF (E) BASE PLATE  
ELEV. @ 0'-0"

EXISTING WEST ELEVATION

SCALE: 1"=5'-0"



- TOP OF (N) VERIZON ANTENNAS  
ELEV. @ 64.2'
- (N) VERIZON ANTENNAS  
RAD CENTER @ 61.2'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 60.7'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 56'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 53'
  
- (E) CARRIER ANTENNAS  
RAD CENTER @ 43'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 38'



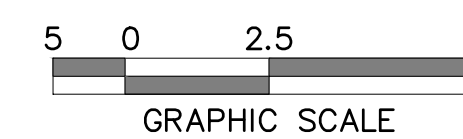
- (N) VERIZON 2'-7" PANEL  
ANTENNA TO BE INSTALLED  
(TYP. OF 1 PER SECTOR, 3 TOTAL) 1,2  
A-7
- (N) VERIZON 8843 RRU TO BE  
INSTALLED (TYP. OF 1 PER  
SECTOR, 3 TOTAL) 3  
A-7.1
- (N) VERIZON NHH-65C-R2B  
ANTENNA TO BE INSTALLED  
(TYP. OF 2 PER SECTOR, 6 TOTAL) 4,5  
A-7
- RELOCATED VERIZON 4449  
(TYP. 3)
- (E) VERIZON OVP  
TO REMAIN (TYP. 1)
- (E) VERIZON ANTENNA  
TO REMAIN (TYP. 6)
- (N) VERIZON RCMD-3315-PF-48  
OVP TO BE INSTALLED (TYP. OF 1) 3  
A-7

(E) MONOPOLE

● TOP OF (E) BASE PLATE  
ELEV. @ 0'-0"

NEW WEST ELEVATION

SCALE: 1"=5'-0"



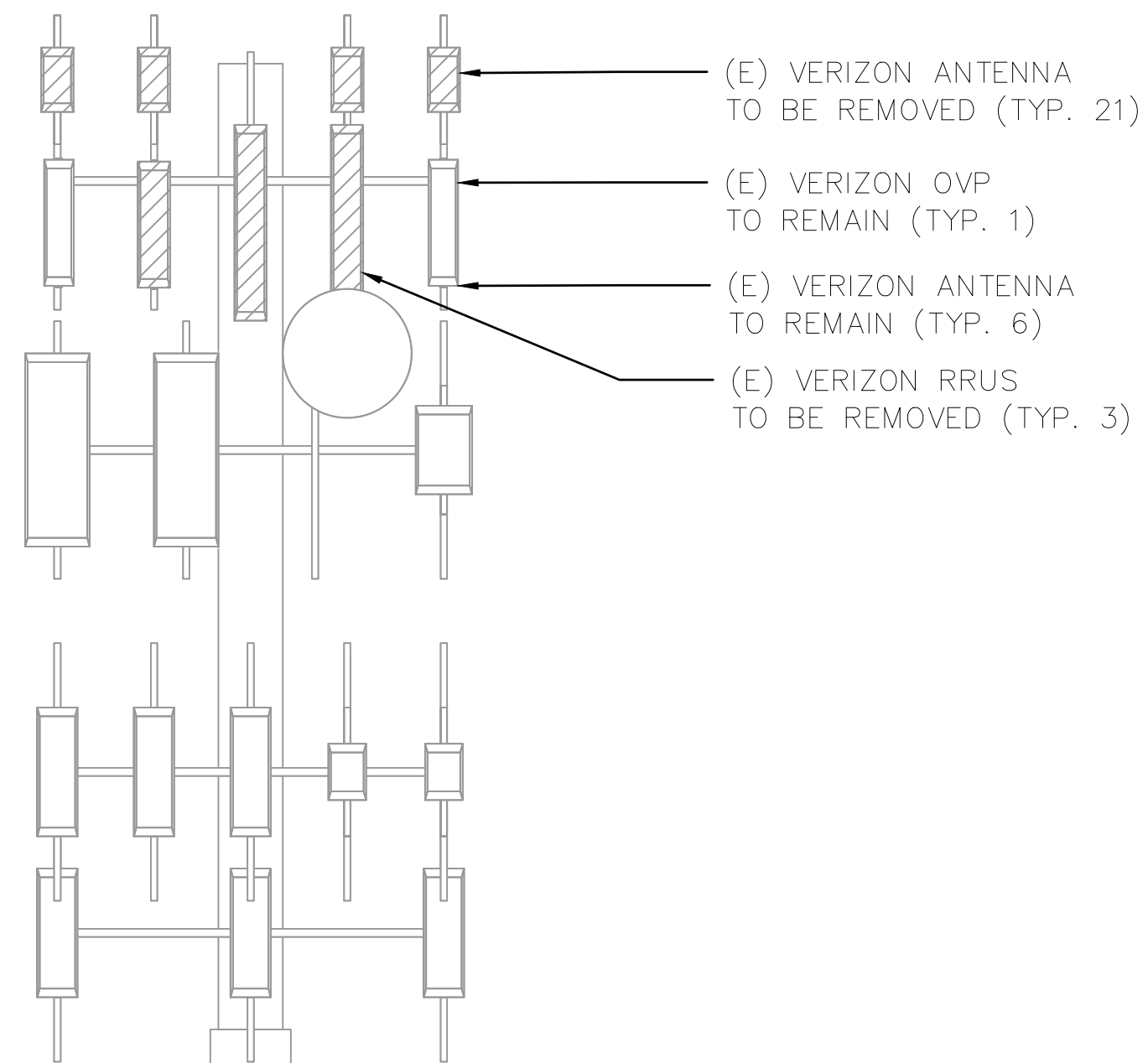
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CONSTRUCTION DRAWINGS

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EM					
A	12/13/21	PRELIM			


- TOP OF (E) VERIZON ANTENNAS  
ELEV. @ 65.5'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 64.5'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 60.7'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 56'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 53'
  
- (E) CARRIER ANTENNAS  
RAD CENTER @ 43'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 38'



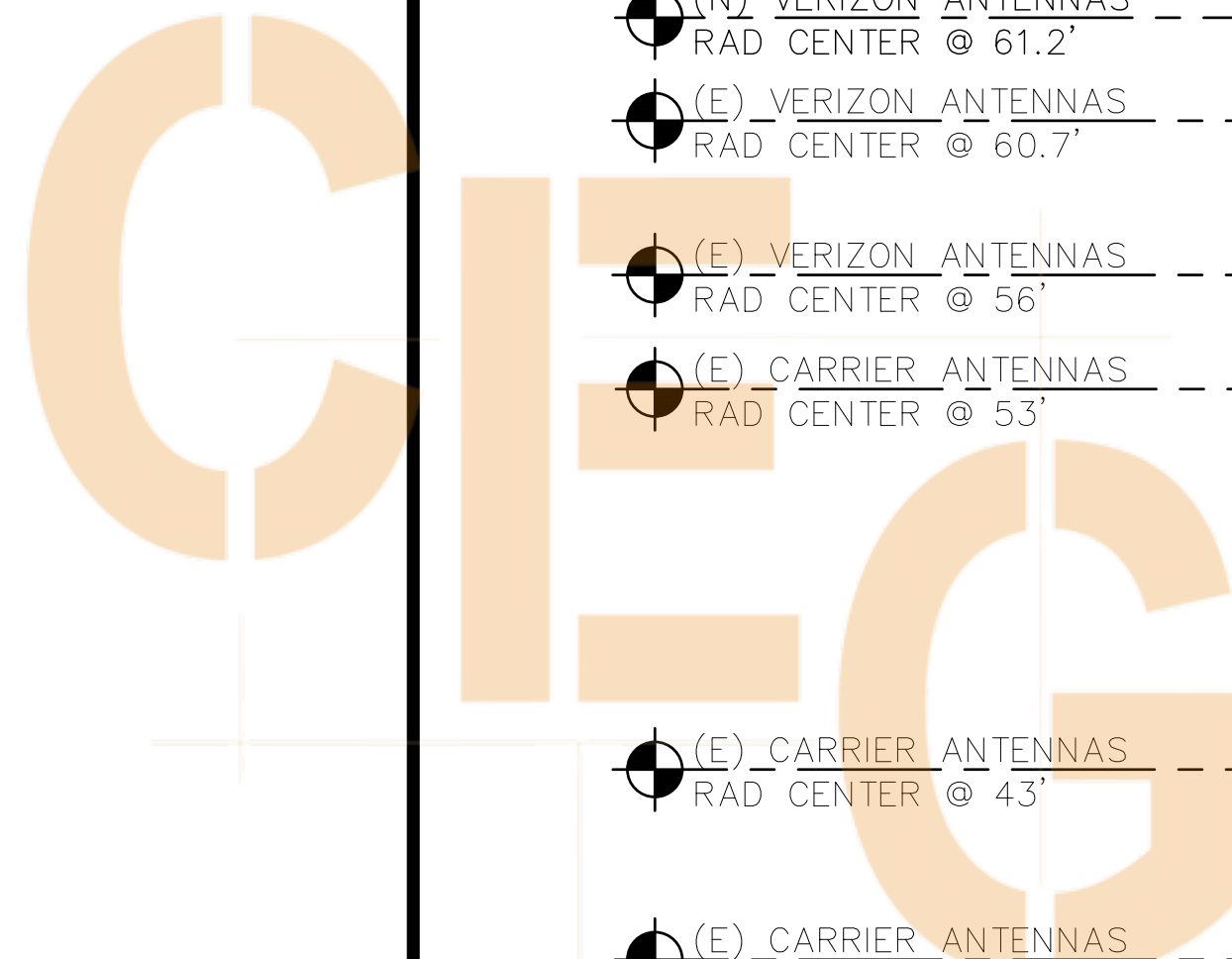
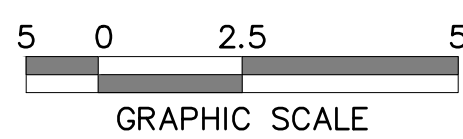
- (E) VERIZON ANTENNA  
TO BE REMOVED (TYP. 21)
- (E) VERIZON OVP  
TO REMAIN (TYP. 1)
- (E) VERIZON ANTENNA  
TO REMAIN (TYP. 6)
- (E) VERIZON RRU'S  
TO BE REMOVED (TYP. 3)

(E) MONOPOLE

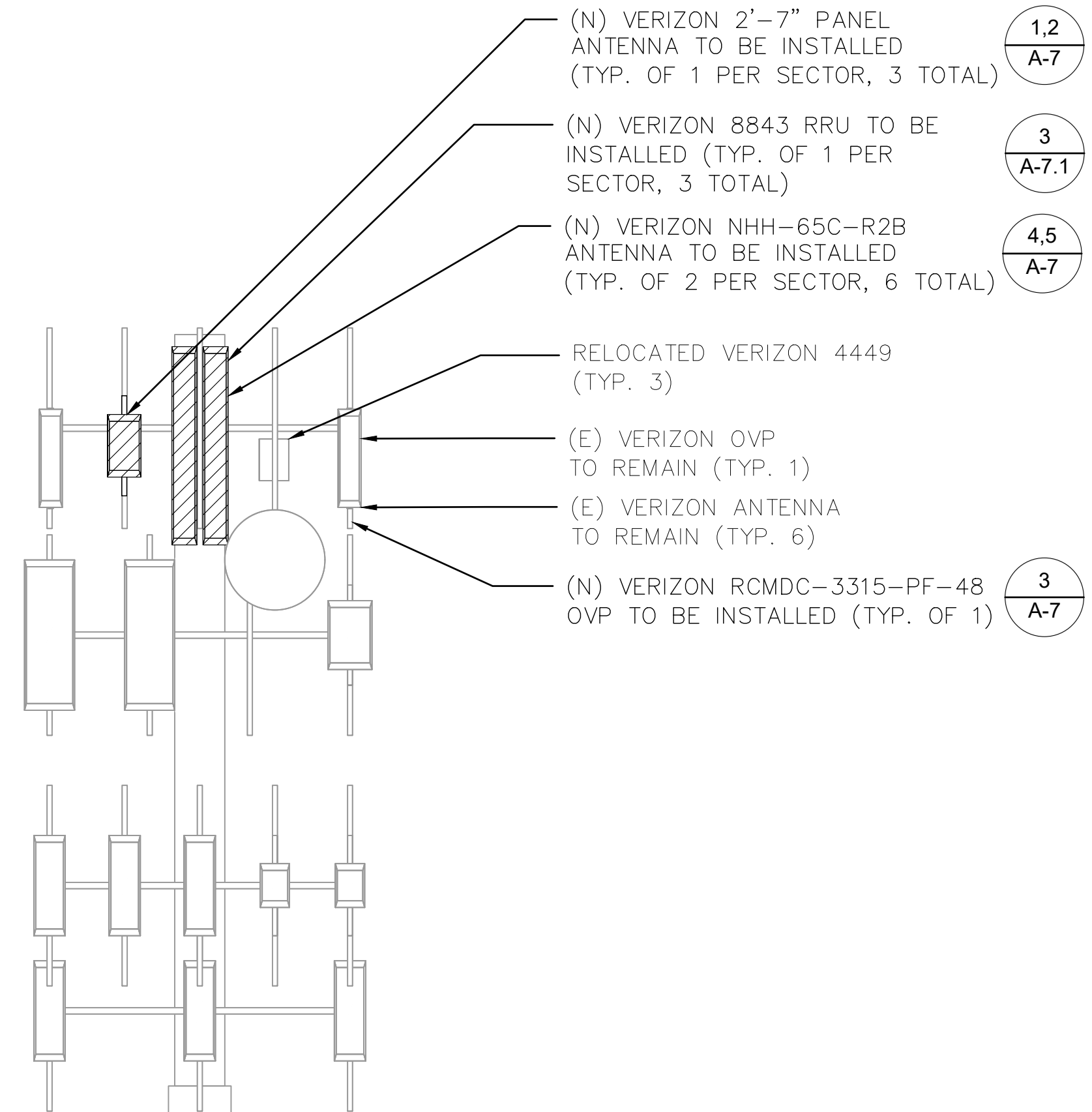
● TOP OF (E) BASE PLATE  
ELEV. @ 0'-0"

EXISTING NORTH ELEVATION

SCALE: 1"=5'-0"



- TOP OF (N) VERIZON ANTENNAS  
ELEV. @ 64.2'
- (N) VERIZON ANTENNAS  
RAD CENTER @ 61.2'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 60.7'
- (E) VERIZON ANTENNAS  
RAD CENTER @ 56'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 53'
  
- (E) CARRIER ANTENNAS  
RAD CENTER @ 43'
- (E) CARRIER ANTENNAS  
RAD CENTER @ 38'



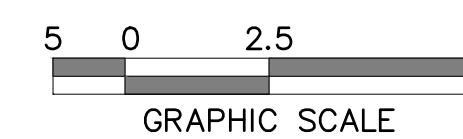
- (N) VERIZON 2'-7" PANEL  
ANTENNA TO BE INSTALLED  
(TYP. OF 1 PER SECTOR, 3 TOTAL) 1,2  
A-7
- (N) VERIZON 8843 RRU TO BE  
INSTALLED (TYP. OF 1 PER  
SECTOR, 3 TOTAL) 3  
A-7.1
- (N) VERIZON NHH-65C-R2B  
ANTENNA TO BE INSTALLED  
(TYP. OF 2 PER SECTOR, 6 TOTAL) 4,5  
A-7
- RELOCATED VERIZON 4449  
(TYP. 3)
- (E) VERIZON OVP  
TO REMAIN (TYP. 1)
- (E) VERIZON ANTENNA  
TO REMAIN (TYP. 6)
- (N) VERIZON RCMD-3315-PF-48  
OVP TO BE INSTALLED (TYP. OF 1) 3  
A-7

(E) MONOPOLE

● TOP OF (E) BASE PLATE  
ELEV. @ 0'-0"

NEW NORTH ELEVATION

SCALE: 1"=5'-0"



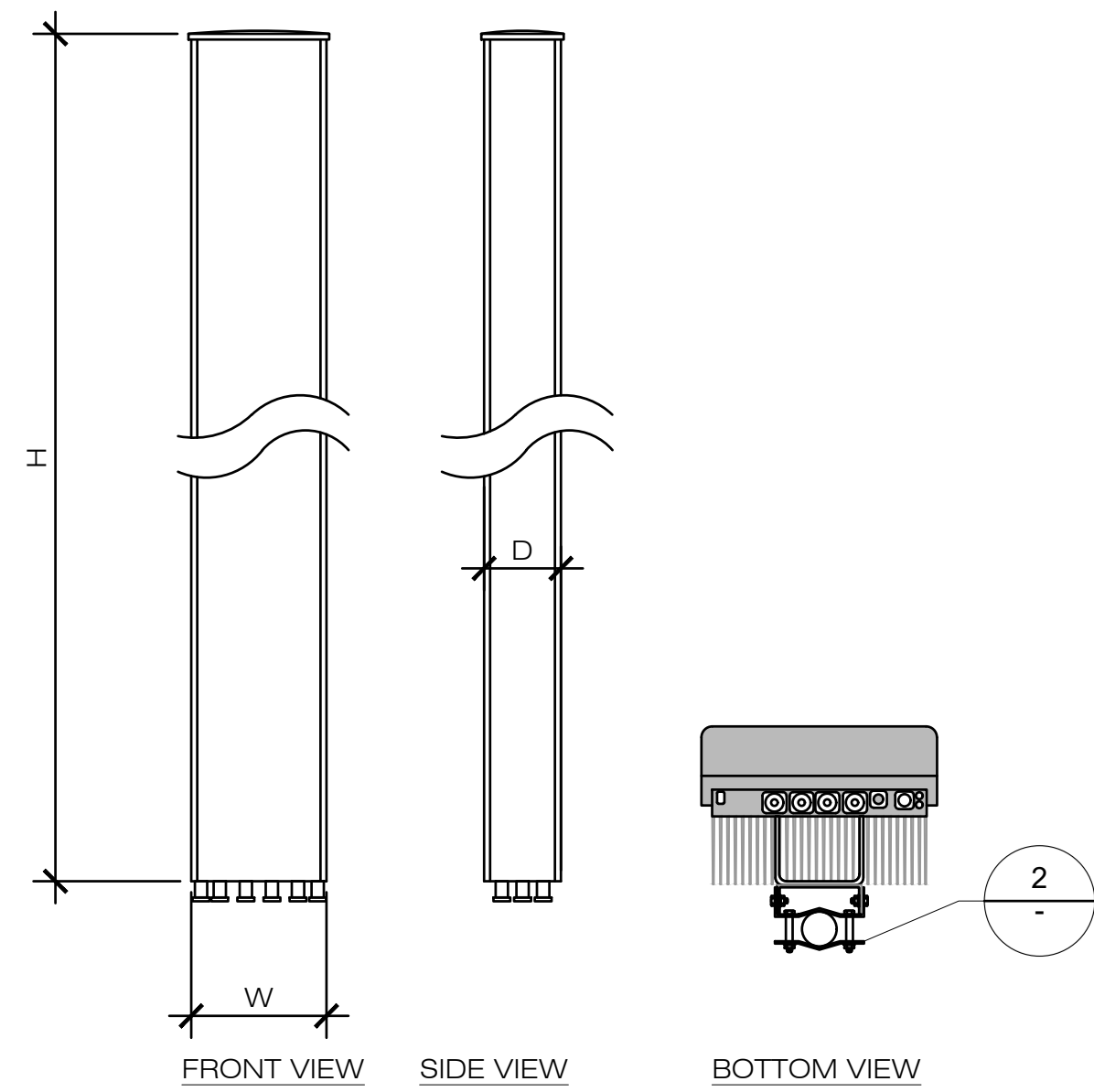
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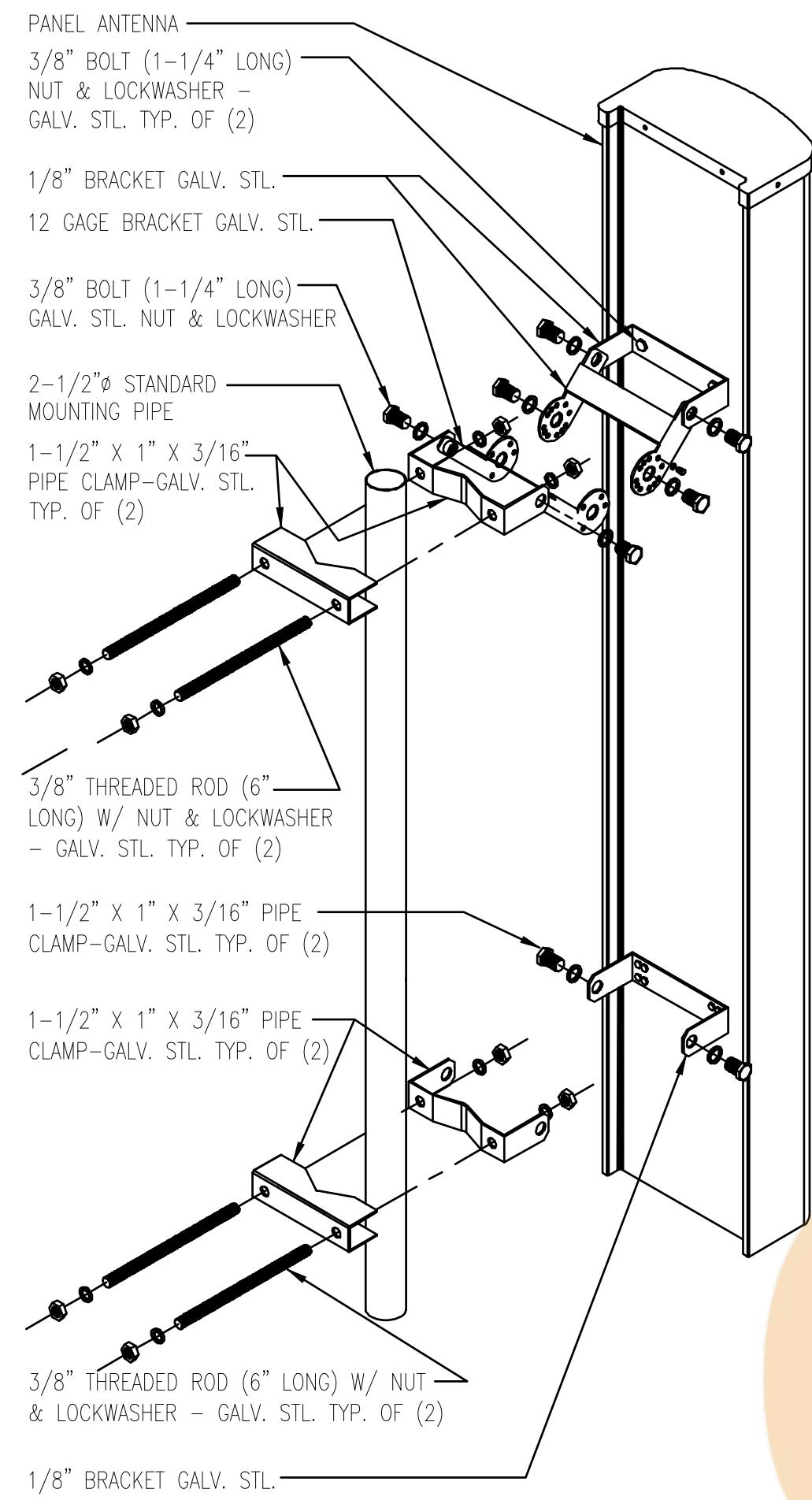
Revisions					
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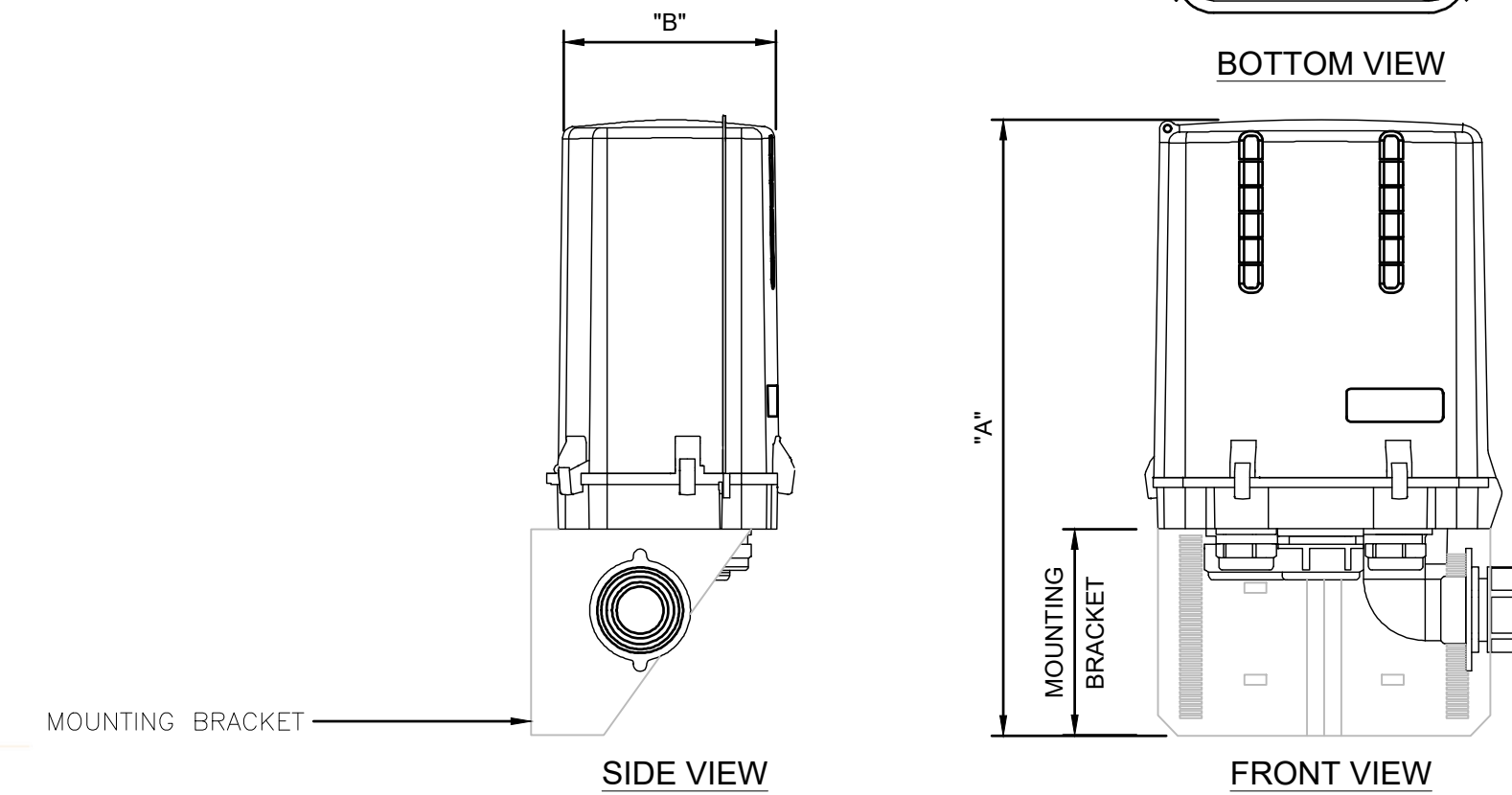



**ANTENNA DATA**

ANTENNA MODEL:	"ERICSSON" AIR6449-LS6
ANTENNA TYPE:	MULTIBAND
FREQUENCY RANGES:	3700 - 3980 MHZ
<b>ANTENNA PHYSICAL DATA</b>	
LENGTH (L):	30.8"
WIDTH (W):	16.1"
DEPTH (D):	10.8"
NET WEIGHT (WITHOUT MOUNTING KIT):	88#
RADOME MATERIAL:	FIBERGLASS (UV RESISTANT)



RAYCAP	3315
-	DC SURGE PROTECTOR
DIMENSIONS:	
A	19.2"
B	15.7"
C	10.3"
UNIT WEIGHT:	
26.9 LBS	



ERICSSON AIR6449 B77D/ C-BAND

SCALE:  
1" = 1'-0"

1 ANTENNA MOUNTING DETAIL

SCALE:  
1-1/2" = 1'-0"

2

RAYCAP RCMDC-3315-PF-48

SCALE:  
-

3

NHH-65C-R2B ANTENNA

SCALE:  
1-1/2" = 1'-0"

4

NHH-65C-R2B MOUNTING DETAIL

SCALE:  
1-1/2" = 1'-0"

5

NOT USED

SCALE:  
-

6

Dept.	Approved	Date
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RF		
INT		
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OPS		
EE/OUT		

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CONSTRUCTION DRAWINGS

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NOT USED

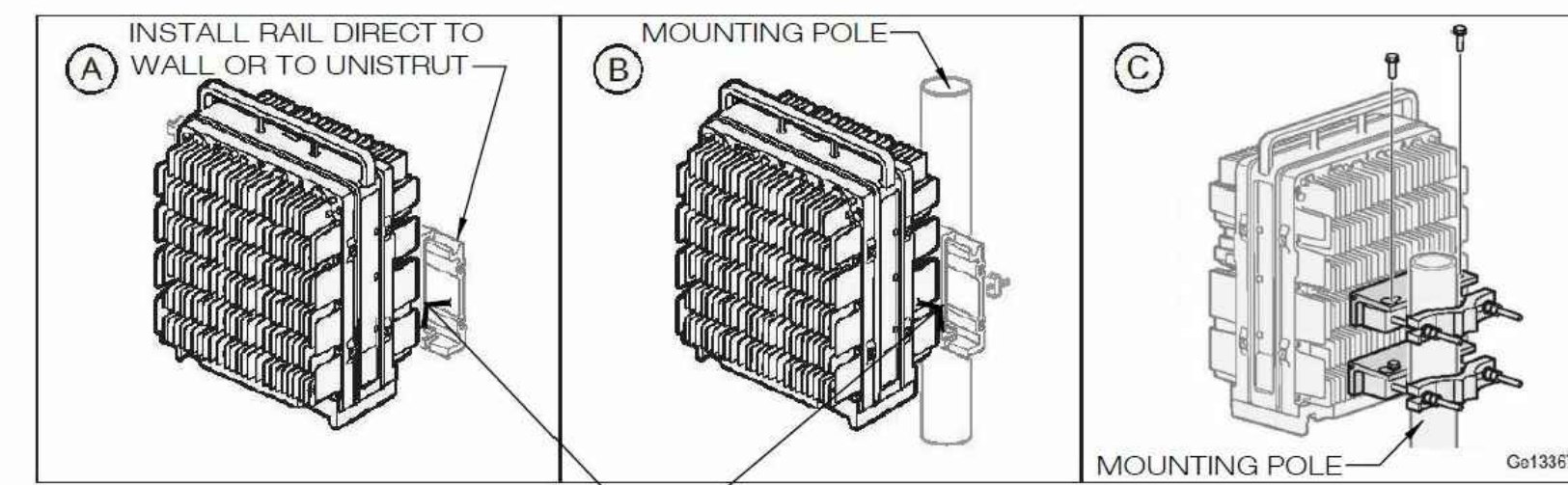
SCALE:  
1" = 1'-0"

1

NOT USED

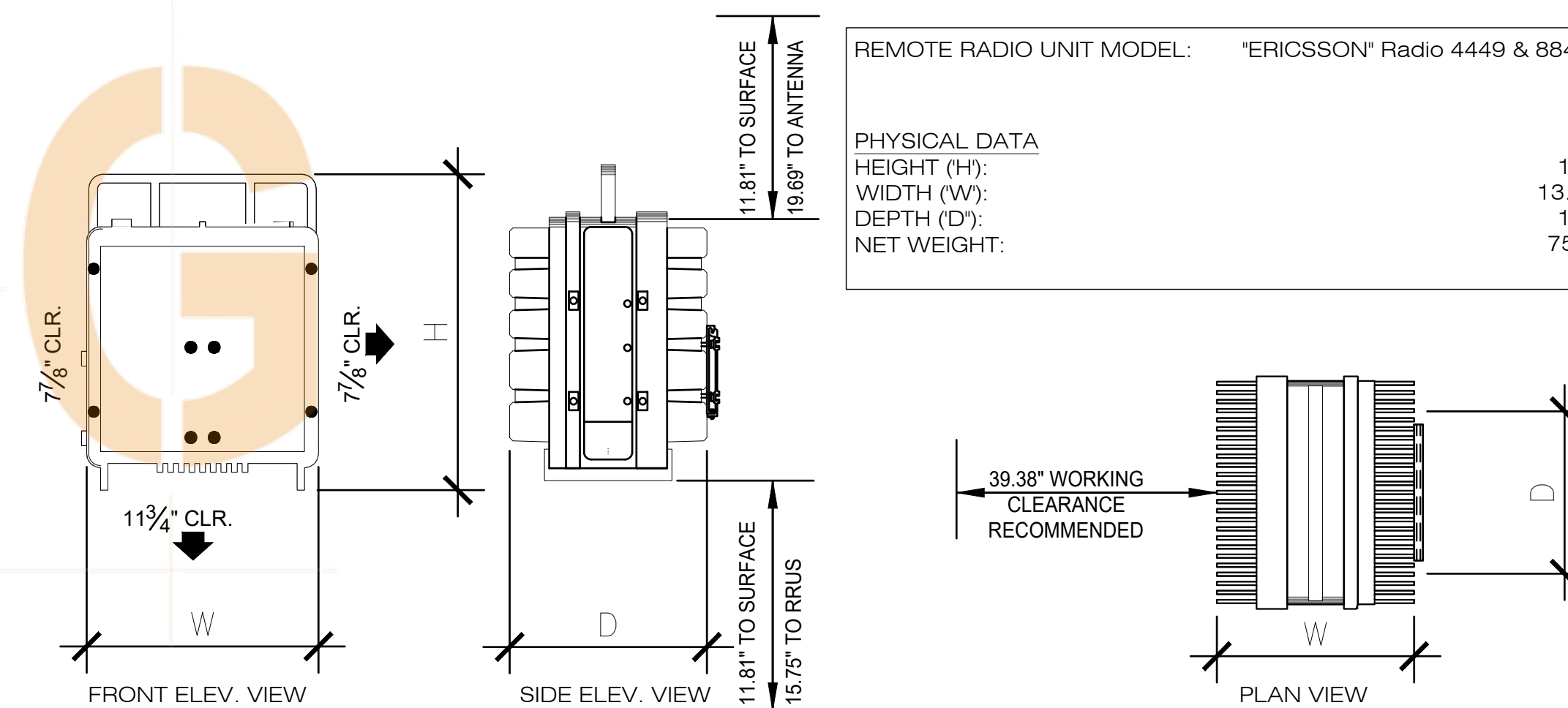
SCALE:  
1-1/2" = 1'-0"

2



NOTES:

- ERICSSON SUPPLIES THE RRU. VERIZON WIRELESS G.C. SHALL SUPPLY ALL OTHER MATERIALS AND INSTALL ALL MOUNTING HARDWARE.
- A SUPPORT FOR A SINGLE RRU SHALL HAVE A MINIMUM OF TWO ANCHORS/FASTENERS FOR EACH UNISTRUT CHANNEL.
- ANCHORS AND UNISTRUT CHANNEL SHALL HAVE HOT-DIPPED GALVANIZED FINISH.
- MOUNT RRU TO UNISTRUT WITH 3/8"Ø UNISTRUT BOLTING HARDWARE AND SPRING NUTS. TYPICAL FOUR PER BRACKET. SUBCONTRACTOR SHALL SUPPLY.
- NO PAINTING OF THE RRU OR SOLAR SHIELD IS ALLOWED.
- MOUNT JUNCTION BOX TO UNISTRUT WITH UNISTRUT BOLTING HARDWARE AND SPRING NUTS. TYPICAL FOUR PER BRACKET. SUBCONTRACTOR SHALL SUPPLY.
- INSTALL ANCHORS/FATENERS AT A SPACING OF NOT MORE THAN 24" o/c  
 -WOOD STUDS: 1/2"Ø LAG BOLTS w/ MIN. 1" EMBEDMENT IN WOOD.  
 -CONCRETE: 1/2"Ø HILTI KWIK BOLTS w/ 1 1/2" EMBEDMENT OR EQUAL.  
 -THROUGH BOLT: 1/4"Ø A36/A307 THREADED ROD w/ NTS/WASHERS.
- ANCHORED UNISTRUT SHALL HAVE HOT DIPPED GALVANIZED FINISH.



RRUS DETAIL / MOUNTING DETAIL

SCALE:  
1-1/2" = 1'-0"

3

NOT USED

SCALE:  
1-1/2" = 1'-0"

4

NOT USED

SCALE:  
1-1/2" = 1'-0"

5

NOT USED

SCALE:  
-

6

Dept.	Approved	Date
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639846

(Continued from page 1)

Attach a 627281 mounting bracket on the top and the bottom antenna plates respectively.



Figure 1. Methods for Antenna Assembly Using 627281 Mounting Brackets. (continued on page 3)

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Instruction Sheet

639846 Revision B, April 2017

Side-By-Side Mounting Kit  
BSAMNT-SBS-1-2

GENERAL INFORMATION

The BSAMNT-SBS-1-2 Mounting Kit allows two antennas to be joined together side-by-side and mounted to a tower as a single antenna. This kit can be used with antennas that have the same type mounting plate as shown in Figure 1.

PRE-INSTALLATION INSTRUCTIONS

- Thoroughly read the directions included in this bulletin before starting to assemble parts.
- Carefully remove all parts from the shipping boxes. Examine the antenna and hardware to ensure that all parts are enclosed and that there is no physical damage.
- Check to ensure that the antenna feed connector mates with the jumper cable.
- Verify that frequency range shown on the label on the back of the antenna matches the frequency range of the station equipment.
- Position the antennas so that the drain holes are directed down toward the ground.

GENERAL INFORMATION

- BSAMNT-SBS-1-2 kit is used to mount two antennas side-by-side. Kit's details as Figure 2.
- The BSAMNT-SBS-1-2 kit contains two 627281 mounting brackets and one BSAMNT-3 downtilt kit. Refer to Bulletin 639840-1, included with the BSAMNT-3 kit for proper antenna installation.

627281 MOUNTING BRACKET INSTALLATION

Using the 627281 mounting brackets and hardware provided, assemble two antennas side-by-side. Tighten the M10 nut with torque 37 N.m. Refer to Figures 1 and 3.

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Page 1 of 4

Instruction Sheet

639846

(Continued from page 3)

Refer to Bulletin 639840-1 for instructions on using the pipe mount and downtilt bracket(s) to attach the side-by-side antenna assembly to the mast. (Bulletin 639840-1 is included with the BSAMNT-3 kit.)

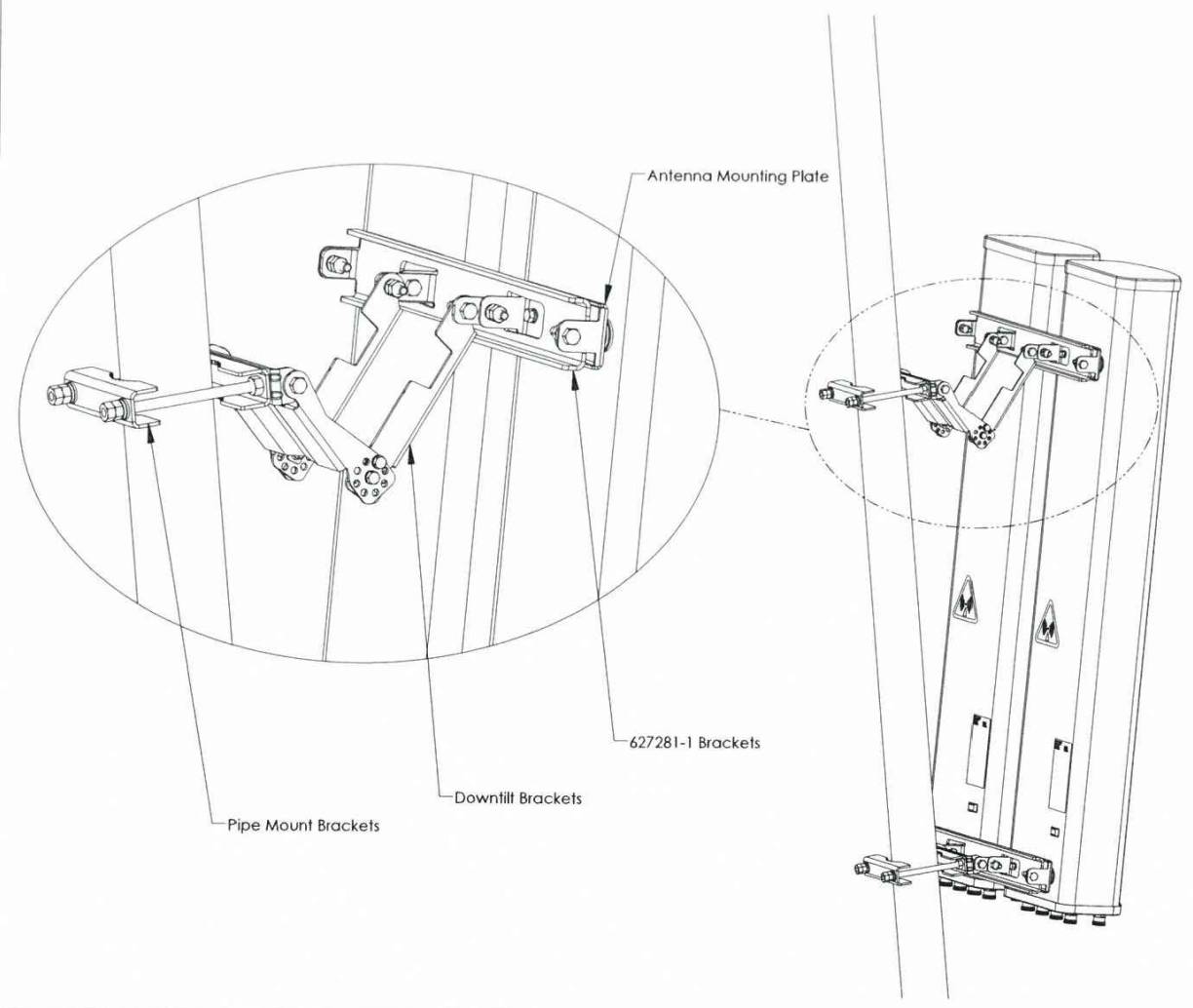


Figure 4. Antenna Assembly Attached to Mast Using BSAMNT-SBS-1-2 Mounting Kit.

SAFETY NOTICE

The installation, maintenance, or removal of an antenna requires qualified, experienced personnel. CommScope installation instructions are written for such installation personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

CommScope disclaims any liability or responsibility for the results of improper or unsafe installation practices. It is recommended that transmit power be turned off when the field installation is performed. Follow all applicable safety precautions as shown on this page.



Do not touch bare metal parts when power is applied. Do not touch bare metal parts when power is applied. Do not touch bare metal parts when power is applied.

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Instruction Sheet

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(Continued from page 2)



Figure 2. BSAMNT-SBS-1-2 kit.

ANTENNA MOUNTING PLATE ATTACHMENT TO MOUNTING BRACKET

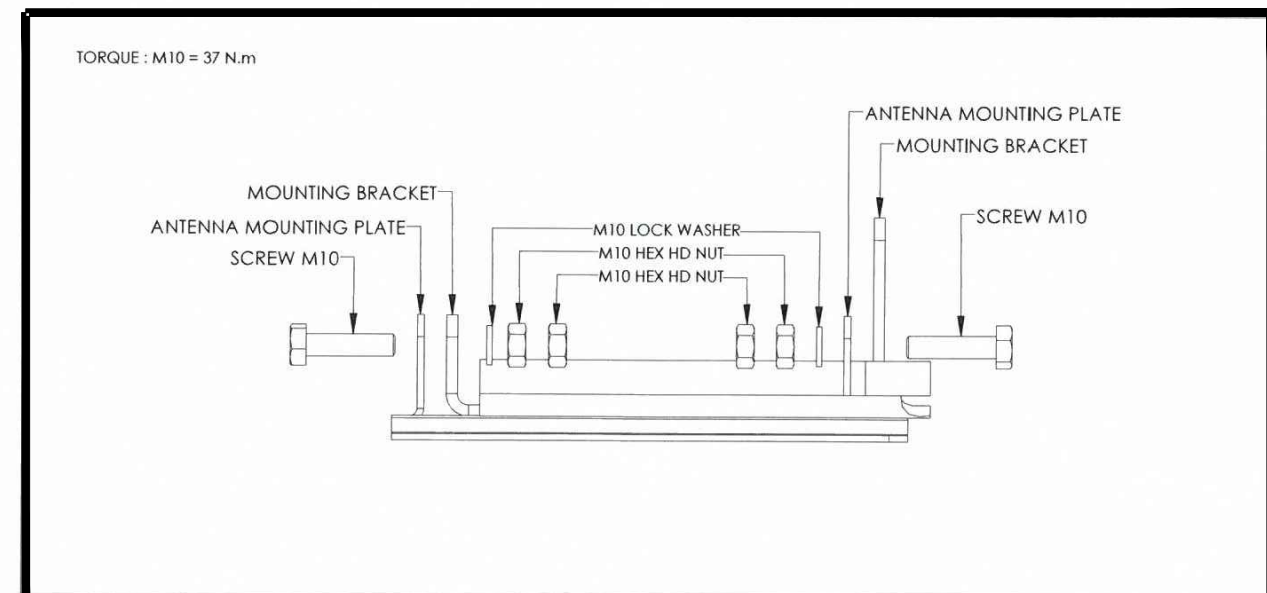


Figure 3. Attaching 627281 Mounting Bracket to Antenna.

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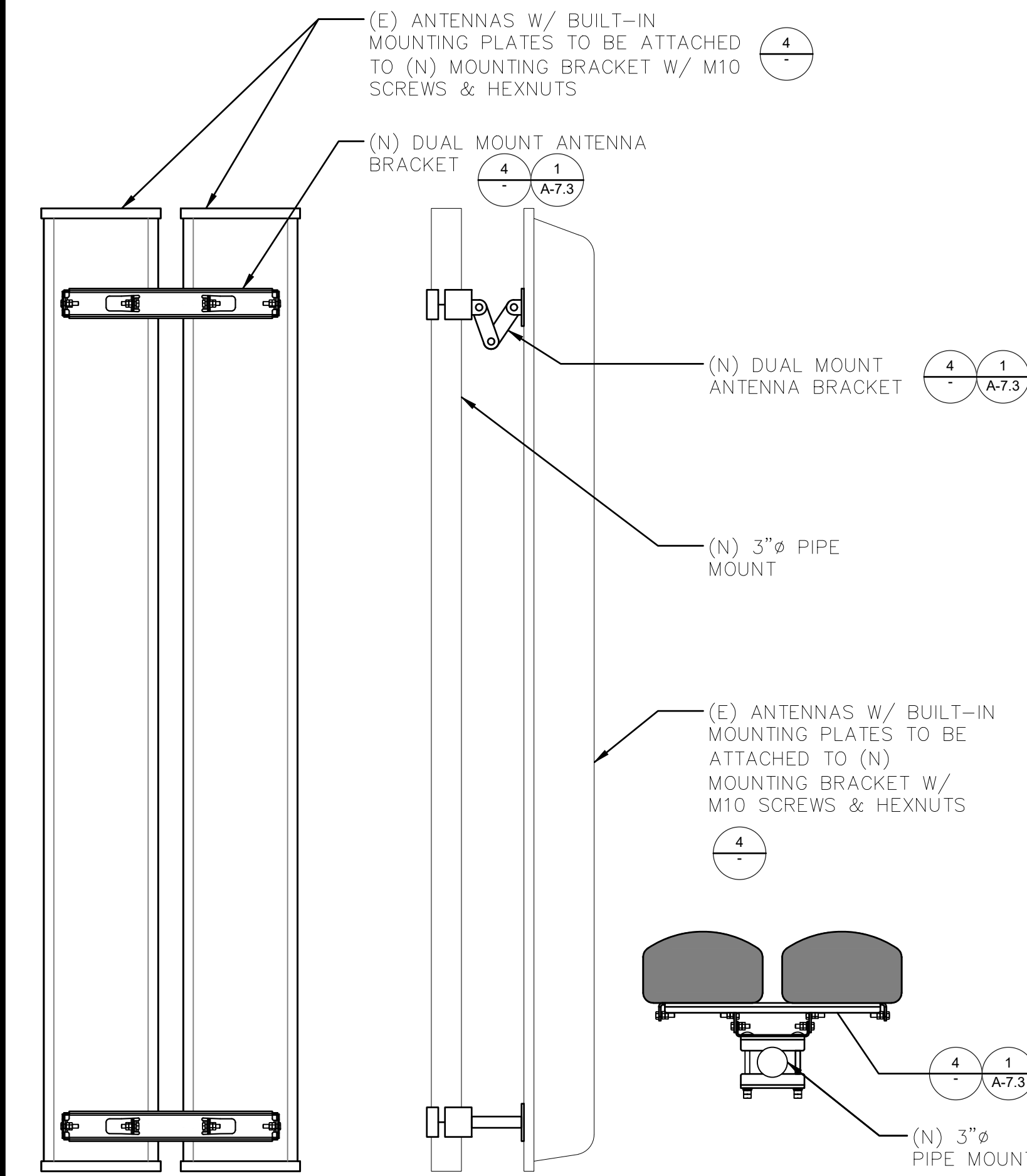
SCALE:

2

DUAL MOUNT ANTENNA/BRACKET DETAIL

SCALE:

3



BSAMNT-SBS-1-2

Side-By-Side Mounting Kit to mount two antennas on a pipe with 2.375 - 4.5 inch (60 - 115 mm) diameter

- Supports SBNHH and NHH 65° and 85° antennas

General Specifications

**Application** Outdoor  
**Color** Silver

Dimensions

**Compatible Diameter, maximum** 114.3 mm | 4.5 in  
**Compatible Diameter, minimum** 61 mm | 2.402 in

Material Specifications

**Material Type** Galvanized steel

Packaging and Weights

**Included** Brackets | Hardware  
**Packaging quantity** 1  
**Weight, net** 11.6 kg | 25.574 lb

Regulatory Compliance/Certifications

**Agency** CHINA-ROHS, ISO 9001:2015, REACH-SVHC, ROHS  
**Classification** Below maximum concentration value, Designed, manufactured and/or distributed under this quality management system, Compliant as per SVHC revision on www.commscope.com/ProductCompliance, Compliant



Included Products

BSAMNT-4 - Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

DUAL MOUNT ANTENNA BRACKET INSTALLATION

SCALE: 6" = 1'-0"

1

DUAL MOUNT ANTENNA BRACKET SPECIFICATIONS

SCALE:

4

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Revisions	EM	PRELIM
A	12/13/21	

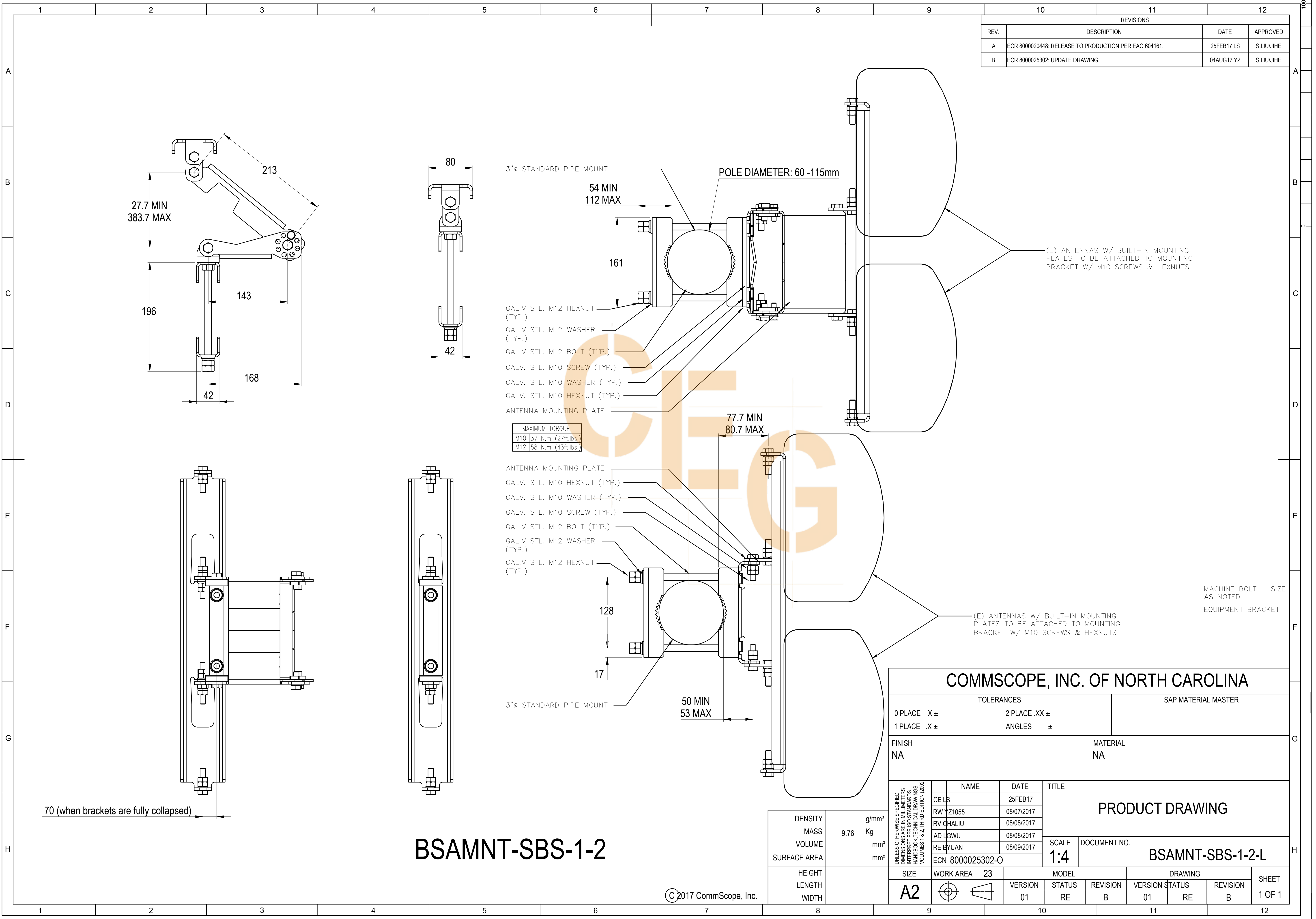
A-7.2  
Job No. xxxx

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	ECR 8000020448: RELEASE TO PRODUCTION PER EAO 604161.	25FEB17 LS	S.LIU/JIHE
B	ECR 8000025302: UPDATE DRAWING.	04AUG17 YZ	S.LIU/JIHE

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**BSAMNT-SBS-1-2**

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DENSITY	9.76	g/mm <sup>3</sup>
MASS		Kg
VOLUME		mm <sup>3</sup>
SURFACE AREA		mm <sup>2</sup>
HEIGHT		
LENGTH		
WIDTH		

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TOLERANCES  
 0 PLACE X±                      2 PLACE .XX±  
 1 PLACE .X±                      ANGLES ±

SAP MATERIAL MASTER

FINISH: NA                      MATERIAL: NA

NAME	DATE	TITLE
CE LS	25FEB17	PRODUCT DRAWING
RW YZ1055	08/07/2017	
RV CHALIU	08/08/2017	
AD LGWU	08/08/2017	
RE BYUAN	08/09/2017	

SCALE: 1:4      DOCUMENT NO. BSAMNT-SBS-1-2-L

SIZE	WORK AREA	MODEL	DRAWING			SHEET
A2	23		VERSION	REVISION	VERSION	REVISION
			01	RE	01	RE