

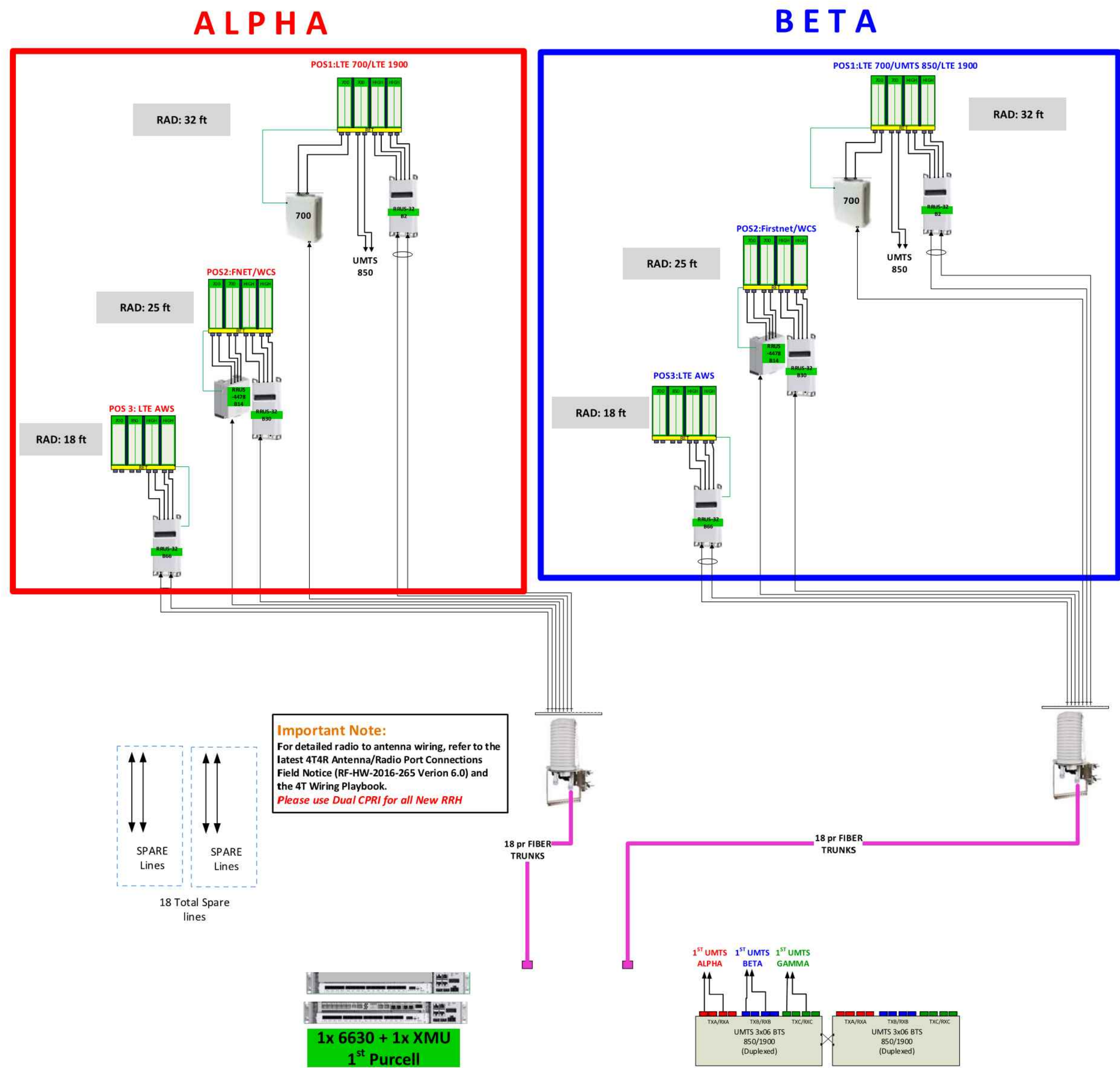
MRSFR041811 - 3701A0BMHK - LTE 2C
MRSFR040173 - 3701A0BNG1 - LTE 5C
MRSFR041265 - 3701A0BLTN - LTE 3C
MRSFR041531 - 3701A0BKXT - LTE 4C

CROWN CASTLE SITE ID: BU 845530


SITE TYPE: SHELTER/MONOPOLE


SHEET NUMBER:
T-1

[illegible]



Issued For:
CCL00093
HWY 4 -
HERCULES
3519 FRANKLIN
CANYON ROAD
HERCULES, CA 94547

PREPARED FOR

5001 Executive Parkway
San Ramon, California 94583


Vendor:


AT&T SITE NO: CCL00093
PROJECT NO: 213.0953
DRAWN BY: CTC
CHECKED BY: ALB

REV	DATE	DESCRIPTION
1	06/01/20	100% CD
	04/30/20	90% CD
	01/22/20	90% CD

LICENSED ARCHITECT
MANUEL S. TS/HAS
No. C-28021
Exp. 08-21
STATE OF CALIFORNIA

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ENGINEER, TO ALTER THIS DOCUMENT.

Architect:

MST ARCHITECTS
1520 River Park Drive
Sacramento, California 95815

SHEET TITLE:
PLUMBING
DIAGRAM

SHEET NUMBER:
T-2

1. PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES & LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON DRAWINGS.
2. CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
3. CONTRACTOR SHALL CONTACT USA (UNDERGROUND SERVICE ALERT) AT (800 227-2600, FOR UTILITY LOCATIONS, 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK, OR CONSTRUCTION.
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT & MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CBC / UBC'S REQUIREMENTS REGARDING EARTHQUAKE RESISTANCE, FOR, BUT NOT LIMITED TO, PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS, AND MECHANICAL EQUIPMENT. ALL WORK MUST COMPLY WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
6. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWINGS, SHALL NOT BE USED TO IDENTIFY OR ESTABLISH BEARING OF TRUE NORTH ON SITE. CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING & ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, & SHALL NOTIFY THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING WITH WORK IF ANY DISCREPANCY IS FOUND BETWEEN VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT / ENGINEER.
7. THE BUILDING DEPARTMENT ISSUING THE PERMITS SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK, OR AS OTHERWISE STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING JURISDICTION.
8. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE AREA LINES, UNLESS OTHERWISE NOTED.
9. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, & THEIR DIMENSIONS SHOWN ON THE PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. ARCHITECT / ENGINEER & OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF INFORMATION SHOWN ON PLANS, OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES & FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTORS SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES & METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
10. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, BOTH HORIZONTALLY & VERTICALLY, PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT/ ENGINEER FOR RESOLUTION & INSTRUCTION. NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED & CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTIONS MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK & EXPENSE.
11. ALL NEW & EXISTING UTILITY STRUCTURES ON SITE & IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
12. ANY DRAIN AND/OR FIELD TILE ENCOUNTERED OR DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK. SIZE, LOCATION & TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED & PLACED ON "AS-BUILT" DRAWINGS BY GENERAL CONTRACTOR, & ISSUED TO ARCHITECT / ENGINEER AT COMPLETION OF PROJECT.
13. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
14. INCLUDE MISCELLANEOUS ITEMS PER AT&T SPECIFICATIONS.

SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION.

THE EDITION OF THE AHJ ADOPTED CODES & STANDARDS IN EFFECT ON THE DATE OF THE CONTRACT AWARD SHALL GOVERN THE DESIGN.

SUBCONTRACTORS WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

- A. AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- B. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION
- C. TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G, STRUCTURAL STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES
- D. INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRICAL EQUIPMENT.
- E. IEEE 662.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")

TIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS:

- A. TELCORDIA GR-63 NETWORK EQUIPMENT-BUILDING SYSTEM (NEBS): PHYSICAL PROTECTION
- B. TELCORDIA GR-347 CENTRAL OFFICE POWER WIRING
- C. TELCORDIA GR-1275 GENERAL INSTALLATION REQUIREMENTS
- D. TELCORDIA GR-1503 COAXIAL CABLE CONNECTIONS


ANY & ALL OTHER LOCAL & STATE LAWS & REGULATIONS.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

B.	ANCHOR BOLT	HDR.	HEADER
ABV.	ABOVE	HGR.	HANGER
ACCA	ANTENNA CABLE COVER ASSEMBLY	HT.	HEIGHT
ADD1	ADDITIONAL	ICGB.	ISOLATED COPPER GROUND BUS
A.F.F.	ABOVE FINISHED FLOOR	IN. (")	INCH(ES)
A.F.G.	ABOVE FINISHED GRADE	INT.	INTERIOR
ALUM.	ALUMINUM	LB.(#)	POUND(S)
ALT.	ALTERNATE	L.B.	LAG BOLTS
ANT.	ANTENNA	L.F.	LINEAR FEET (FOOT)
APPRX.	APPROXIMATE(LY)	L.	LONG(ITUDINAL)
ARCH.	ARCHITECT(URAL)	MAS.	MASONRY
AWG.	AMERICAN WIRE GAUGE	M.AX.	MAXIMUM
BLDG.	BUILDING	M.B.	MACHINE BOLT
BLK.	BLOCK	MECH.	MECHANICAL
BLKG.	BLOCKING	MFR.	MANUFACTURER
BM.	BEAM	MIN.	MINIMUM
B.N.	BOUNDARY NAILING	MISC.	MISCELLANEOUS
BTCW.	BARE TINNED COPPER WIRE	MTL.	METAL
B.O.F.	BOTTOM OF FOOTING	(N)	NEW
B/U	BACK-UP CABINET	NO.(#)	NUMBER
CAB.	CABINET	N.T.S.	NOT TO SCALE
CANT.	CANTILEVER(ED)	O.C.	ON CENTER
C.I.P.	CAST IN PLACE	OPNG.	OPENING
CLG.	CEILING	P/C	PRECAST CONCRETE
CLR.	CLEAR	PCS	PERSONAL COMMUNICATION SERVICES
COL.	COLUMN	PLY.	PLYWOOD
CONC.	CONCRETE	PPC	POWER PROTECTION CABINET
CONN.	CONNECTION(OR)	PRC	PRIMARY RADIO CABINET
CONST.	CONSTRUCTION	P.S.F.	POUNDS PER SQUARE FOOT
CONT.	CONTINUOUS	P.S.I.	POUNDS PER SQUARE INCH
d	PENNY (NALS)	P.T.	PRESSURE TREATED
DBL.	DOUBLE	PWR.	POWER (CABINET)
DEPT.	DEPARTMENT	QTY.	QUANTITY
D.F.	DOUGLAS FIR	RAD.(R)	RADIUS
DIA.	DIAMETER	REF.	REFERENCE
DIAG.	DIAGONAL	REINF.	REINFORCEMENT(ING)
DIM.	DIMENSION	REQ D/	REQUIRED
DWG.	DRAWING(S)	RGs.	RIGID GALVANIZED STEEL
DWL.	DOWEL(S)	SCH.	SCHEDULE
EA.	EACH	SH.	SHEET
EL.	ELEVATION	SIM.	SIMILAR
ELEC.	ELECTRICAL	SPEC.	SPECIFICATIONS
ELEV.	ELEVATOR	SQ.	SQUARE
EMT.	ELECTRICAL METALLIC TUBING	S.S.	STAINLESS STEEL
E.N.	EDGE NAIL	STD.	STANDARD
ENG.	ENGINEER	STL.	STEEL
EQ.	EQUAL	STRUC.	STRUCTURAL
EXP.	EXPANSION	TEMP.	TEMPORARY
EXST.(E)	EXISTING	THK.	THICK(NESS)
EXT.	EXTERIOR	T.N.	TOE NAIL
FAB.	FABRICATION(OR)	T.O.A.	TOP OF ANTENNA
F.F.	FINISH FLOOR	T.O.C.	TOP OF CURB
F.G.	FINISH GRADE	T.O.F.	TOP OF FOUNDATION
FIN.	FINISH(ED)	T.O.P.	TOP OF PLATE (PARAPET)
FLR.	FLOOR	T.O.S.	TOP OF STEEL
FDN.	FOUNDATION	T.O.W.	TOP OF WALL
F.O.C.	FACE OF CONCRETE	TYP.	TYPICAL
F.O.M.	FACE OF MASONRY	U.G.	UNDER GROUND
F.O.S.	FACE OF STUD	U.L.	UNDERWRITERS LABORATORY
F.O.W.	FACE OF WALL	U.N.O.	UNLESS NOTED OTHERWISE
F.S.	FINISH SURFACE	V.I.F.	VERIFY IN FIELD
FT.(')	FOOT (FEET)	W	WIDE (WIDTH)
FTG.	FOOTING	w/	WITH
G.	GROWTH (CABINET)	WD.	WOOD
G.A.	G.AUGE	W.P.	WEATHERPROOF
GL.	GALVANIZED(E)	WT.	WEIGHT
G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER	C	CENTERLINE
GLB. (GLU-LAM)	GLUE LAMINATED BEAM	P	PLATE, PROPERTY LINE
GPS	GLOBAL POSITIONING SYSTEM		
GRND.	GROUND		

	BLDG. SECTION		(E) BRICK
	WALL SECTION		(E) MASONRY
	DETAIL		CONCRETE
	ELEVATION		EARTH
			GRAVEL
			PLYWOOD
			SAND
	DOOR SYMBOL		PLYWOOD
	WINDOW SYMBOL		SAND
	TILT-UP PANEL MARK		(E) STEEL
	PROPERTY LINE		MATCH LINE
	CENTERLINE		GROUND CONDUCTOR
	ELEVATION DATUM		OVERHEAD SERVICE CONDUCTORS
	GRID/COLUMN LINE		TELEPHONE CONDUIT
	KEYNOTE, DIMENSION ITEM		POWER CONDUIT
	KEYNOTE, CONSTRUCTION ITEM		COAXIAL CABLE
	WALL TYPE MARK		CHAIN LINK FENCE
	OFFICE		WOOD FENCE
	ROOM NAME		(P) ANTENNA
	ROOM NUMBER		(P) RRU
			(P) DC SURGE SUPPRESSION
			(F) ANTENNA
			(F) RRU
			(E) EQUIPMENT

PREPARED FOR

 **at&t**

5001 Executive Parkway
San Ramon, California 94583

AT&T SITE NO:	CCL00093
PROJECT NO:	213.0953
DRAWN BY:	CTC
CHECKED BY:	ALB

I	06/01/20	100% CD
	04/30/20	90% CD
	01/22/20	90% CD
REV	DATE	DESCRIPTION

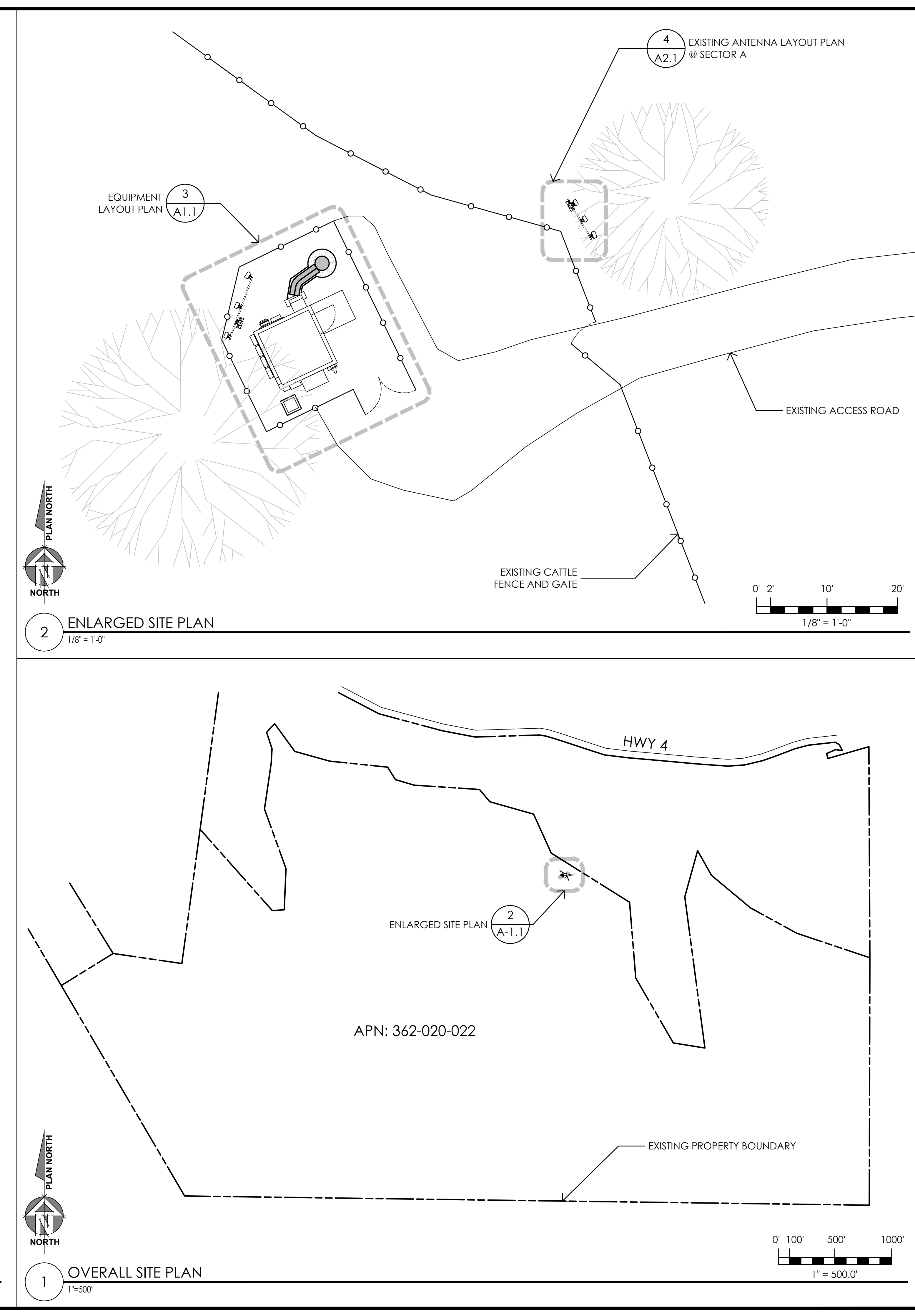
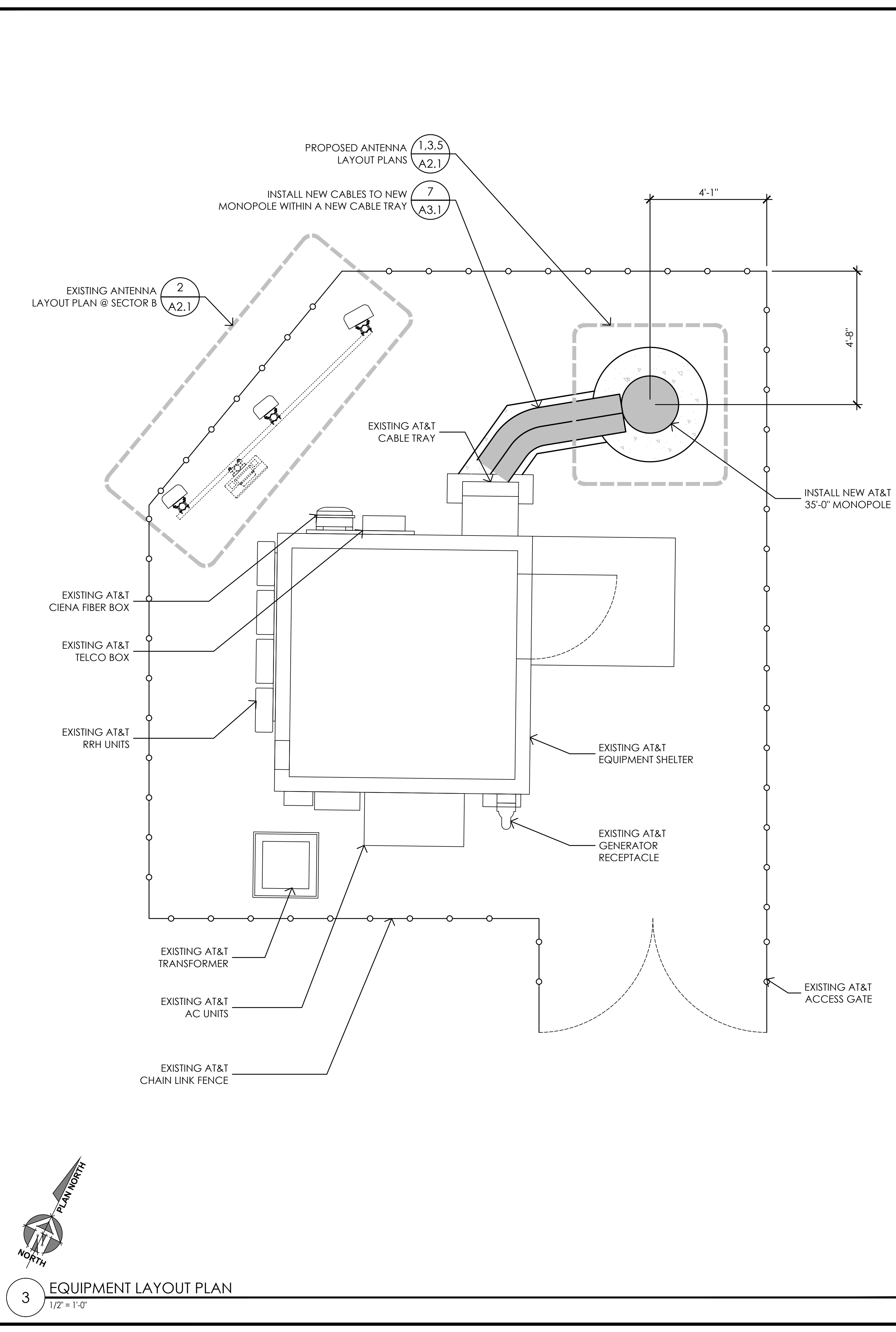
Architect:



MST ARCHITECTS

1520 River Park Drive
Sacramento, California 95815

SHEET NUMBER:
GN-1



Issued For:

CCL00093

HWY 4 - HERCULES

3519 FRANKLIN CANYON ROAD
HERCULES, CA 94547

PREPARED FOR

5001 Executive Parkway
San Ramon, California 94583

Vendor:

CROWN CASTLE

AT&T SITE NO: CCL00093

PROJECT NO: 213.0953

DRAWN BY: CTC

CHECKED BY: ALB

REV	DATE	DESCRIPTION
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	01/22/20	90% CD

Licensee:

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Architect:

MST ARCHITECTS
1520 River Park Drive
Sacramento, California 95815

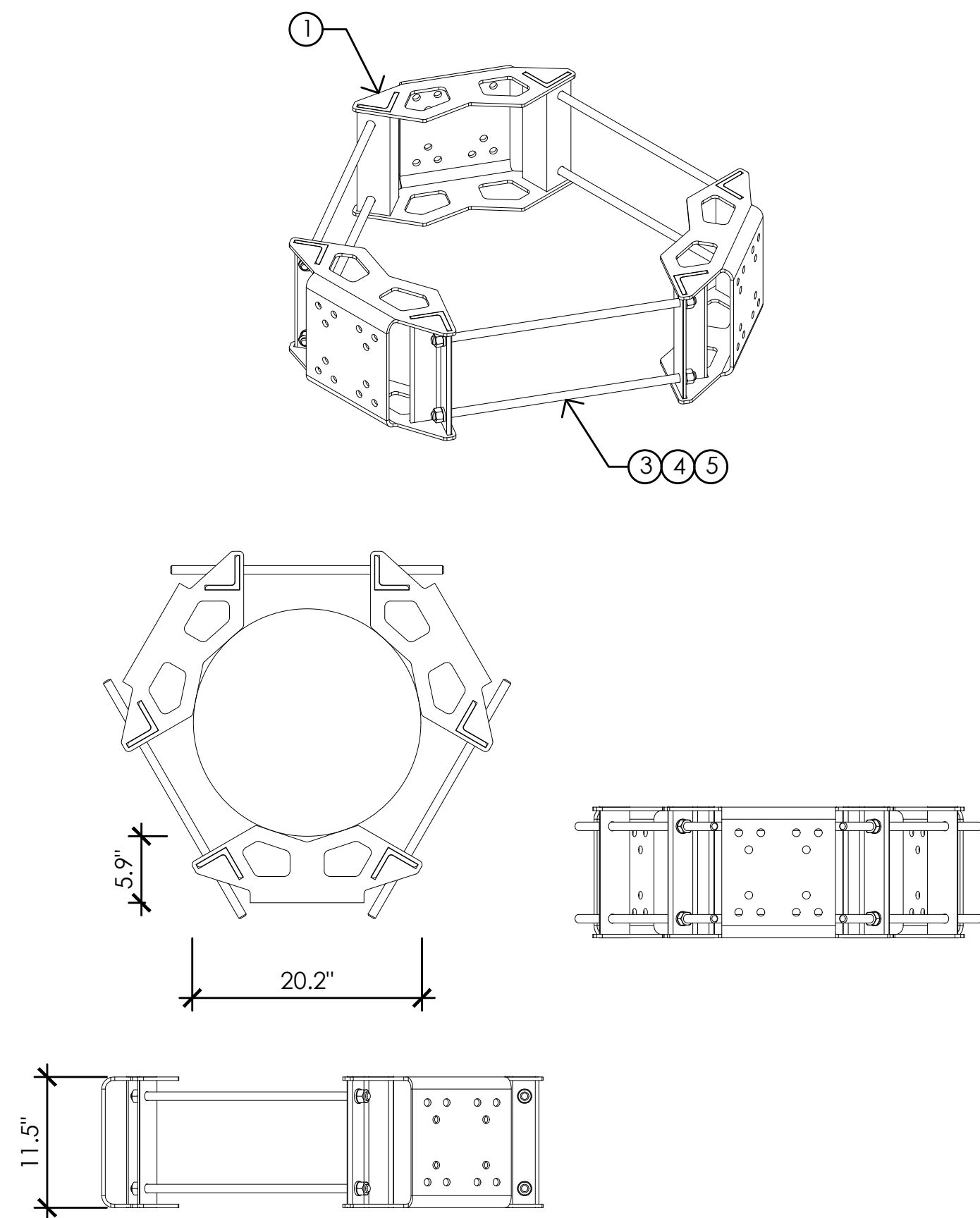
SHEET TITLE:

OVERALL SITE PLAN & EQUIPMENT LAYOUT PLAN

SHEET NUMBER:

A-1.1

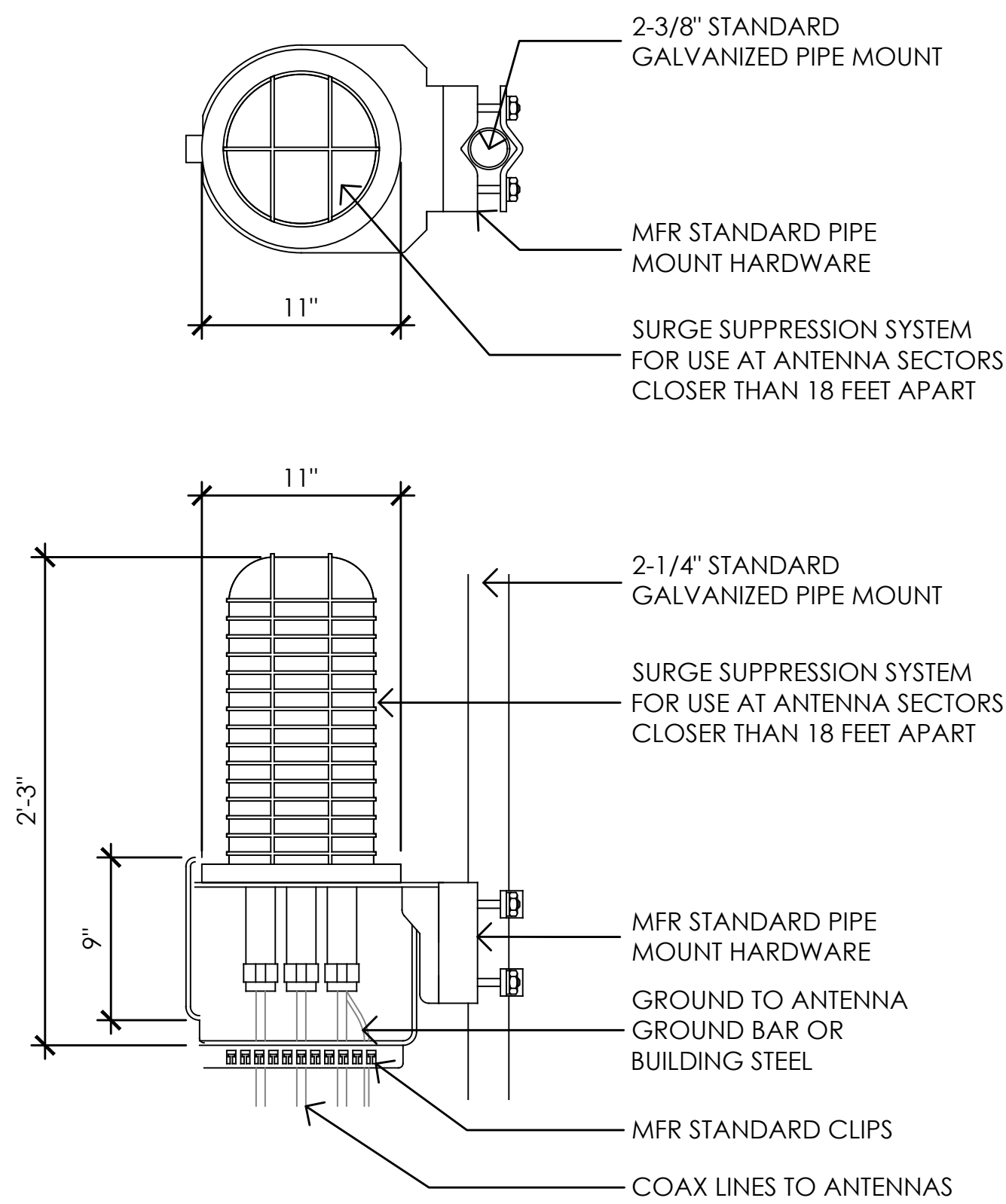
ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT
	RM1030	10" - 30" Ring Mount	3	33.35 LBS
	RM33H	HARDWARE KIT (ITEMS 3-5)	1	-
	MT-384-24	3/4" X 24" GALV. THREADED ROD	6	3.01 LBS
	GWL-06	3/4" GALV. LOCK WASHER	12	0.01 LBS
	GN-06	3/4" GALV. HEX NUT	12	0.02 LBS



6 10"-30" OD RINGMOUNT MC-RM1030-3
1" = 1'-0"

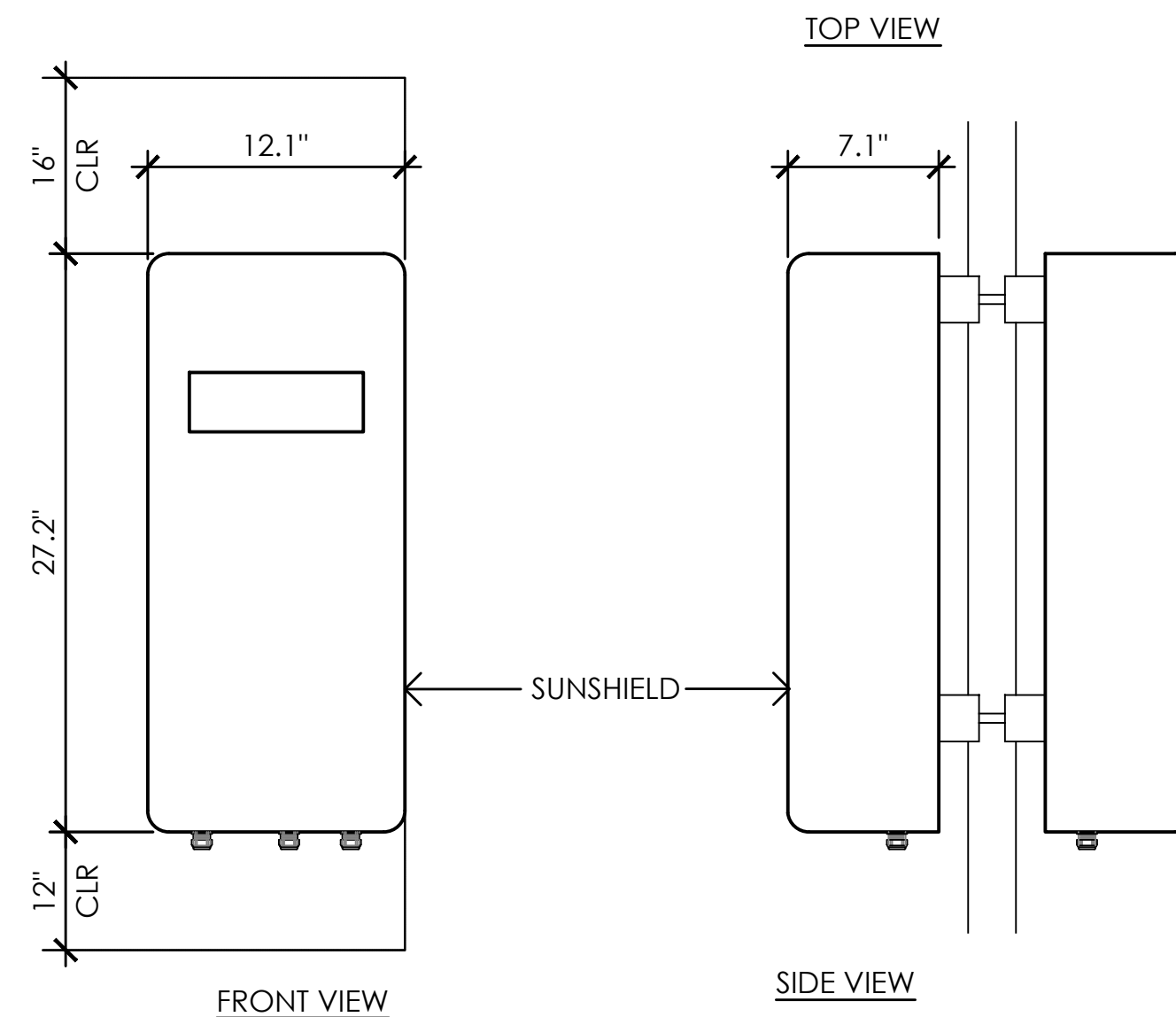
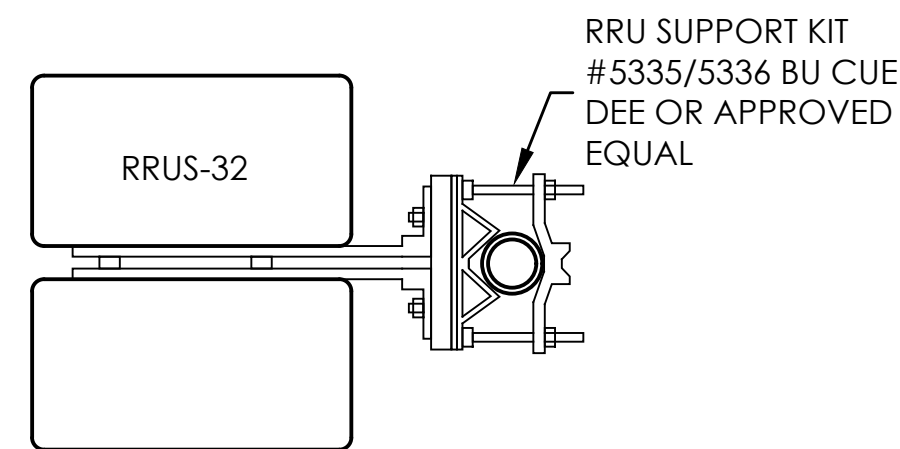
RAYCAP DC6-48-60-18-8F SURGE SUPPRESSION SOLUTION

COLOR: BLACK/SILVER
DIMENSIONS: 11" DIA X 27" TALL W/ 9" BASE
WEIGHT: 50 LBS.± (INCLUDING MOUNTING HARDWARE)



4 DC SURGE SUPPRESSION (SQUID)
1-1/2" = 1'-0"

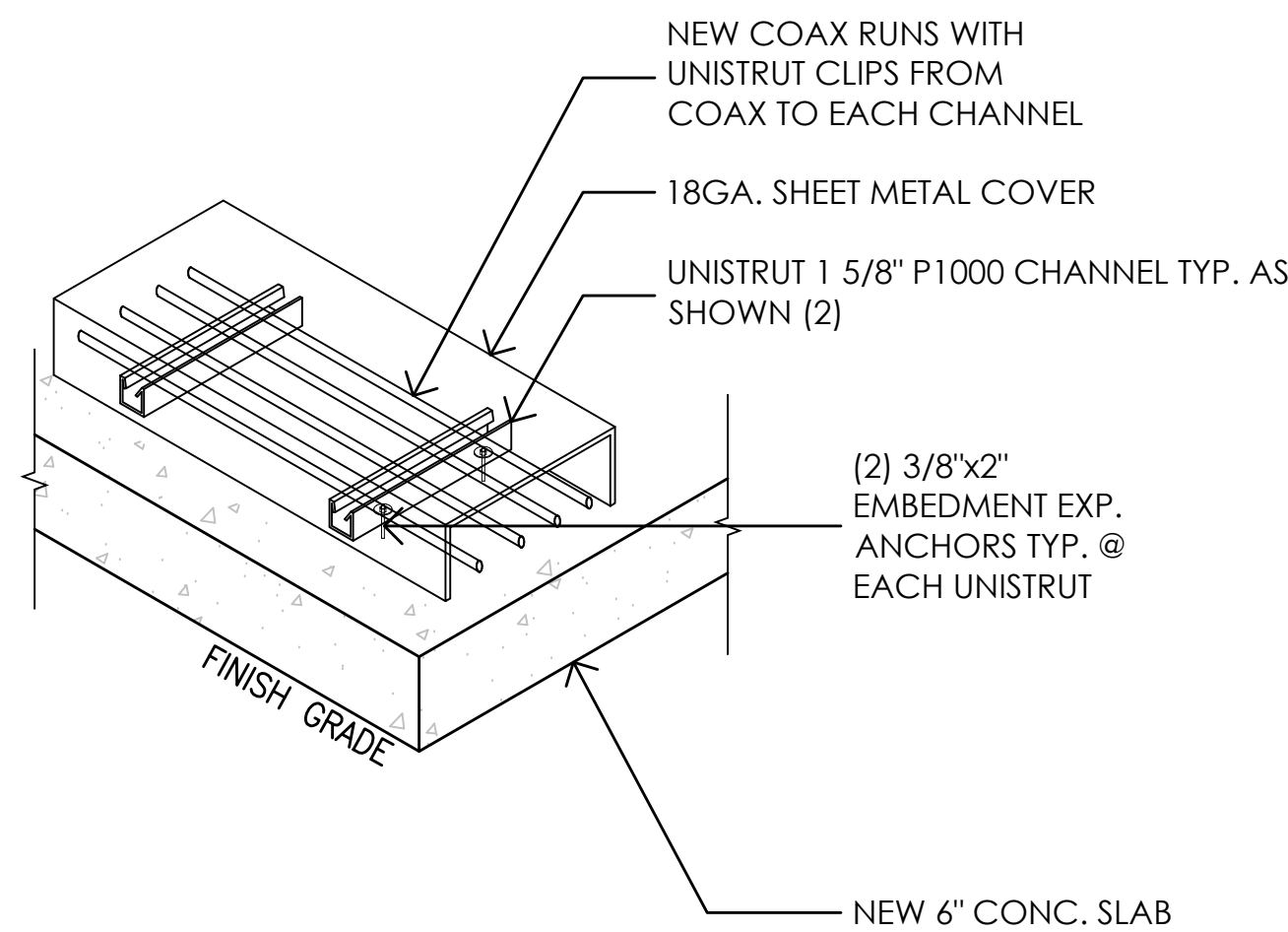
PASSIVE CONVECTION
FANLESS ENCLOSURE
UNIT WEIGHT: +/- 77.0 LBS



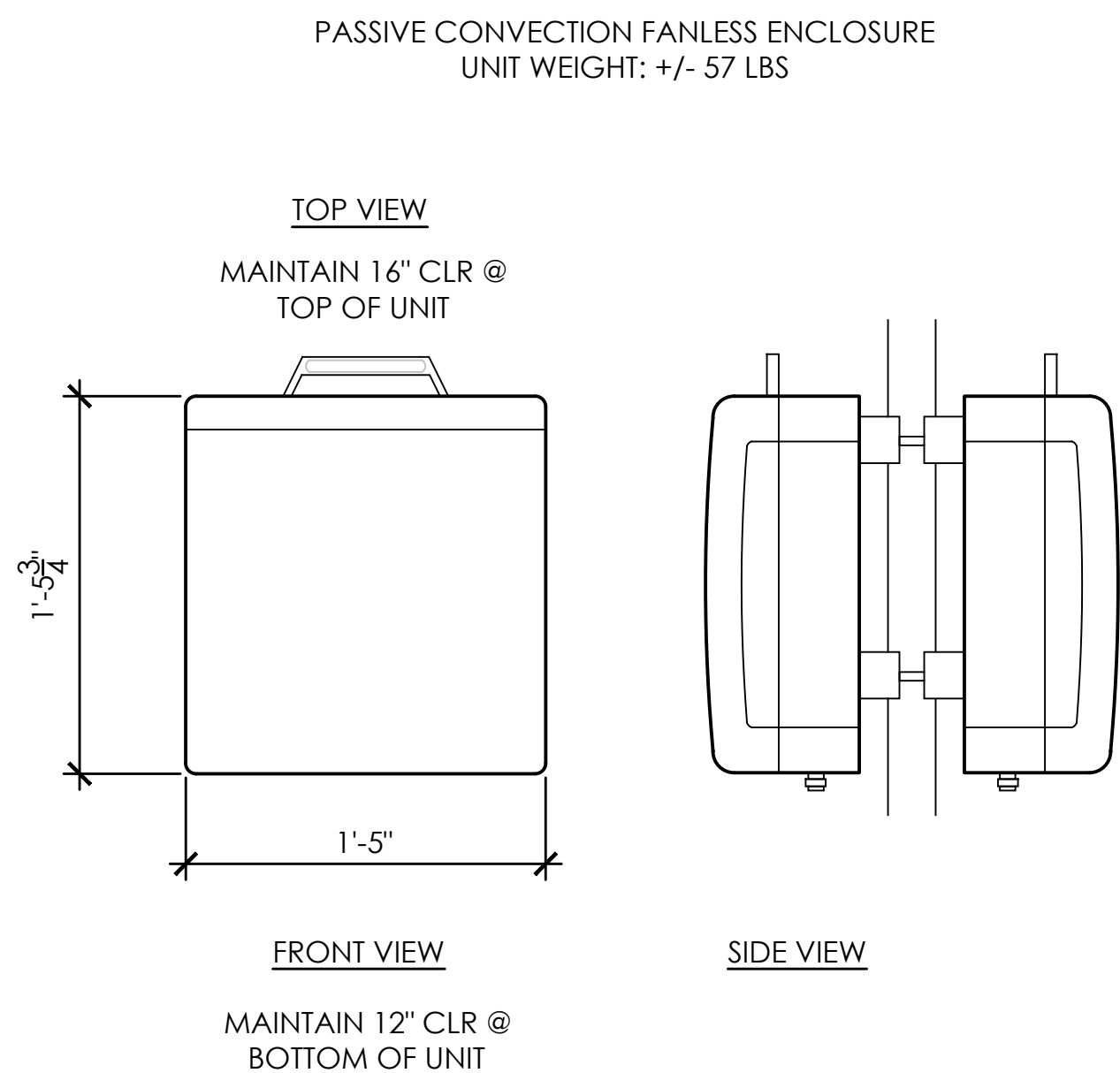
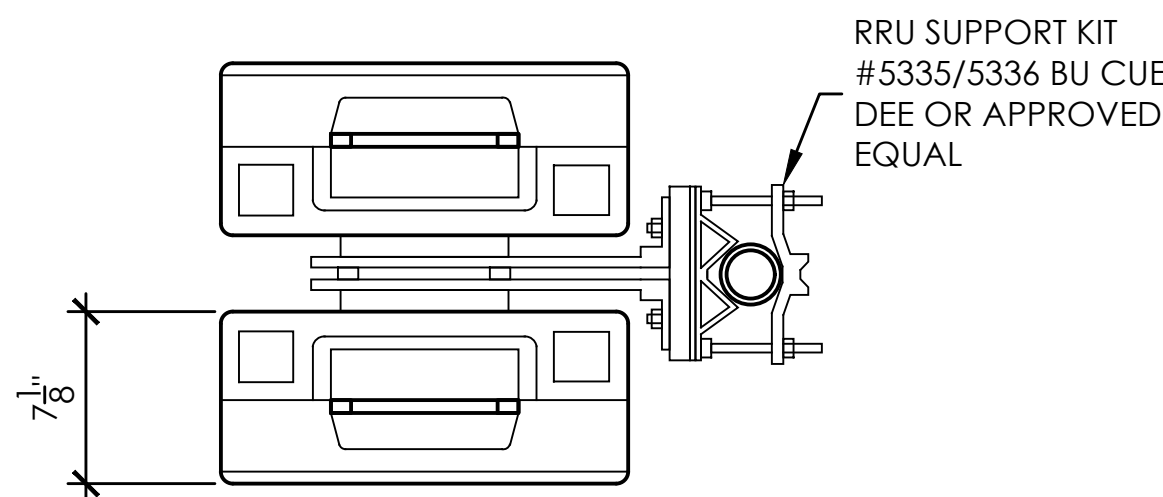
2 ERICSSON RRH-32 B2/B66 REMOTE RADIO UNIT
1-1/2" = 1'-0"

NOTE: PROVIDE UNISTRUT "L" BRACKET AT EACH
END OF P1000 CHANNEL TO ALLOW SHEET
METAL COVER SUPPORT.
(PROVIDE VANDAL PROOF SCREWS)

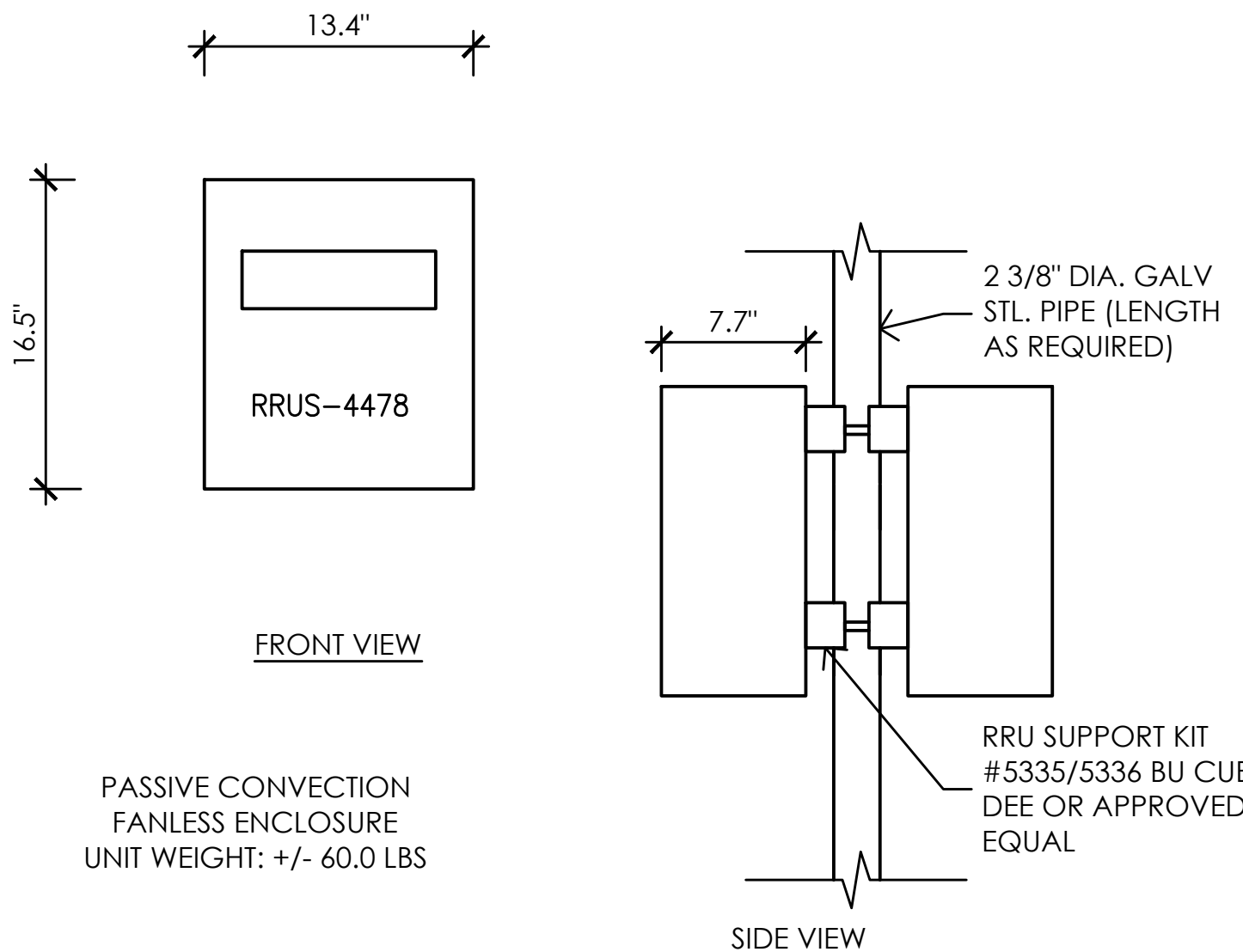
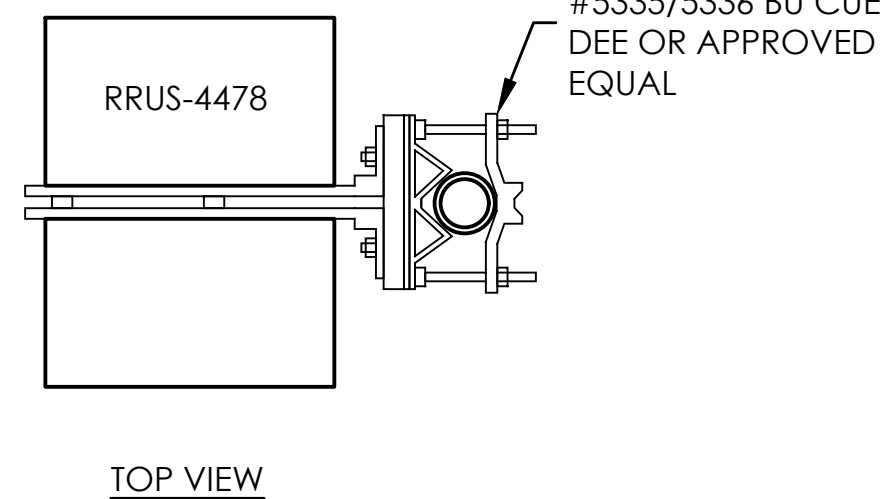
NOTE: RUN GROUND ALONG CABLE TRAY &
CONNECT TO (EGB) OR (MGB)



7 CABLE TRAY DETAIL
1" = 1'-0"

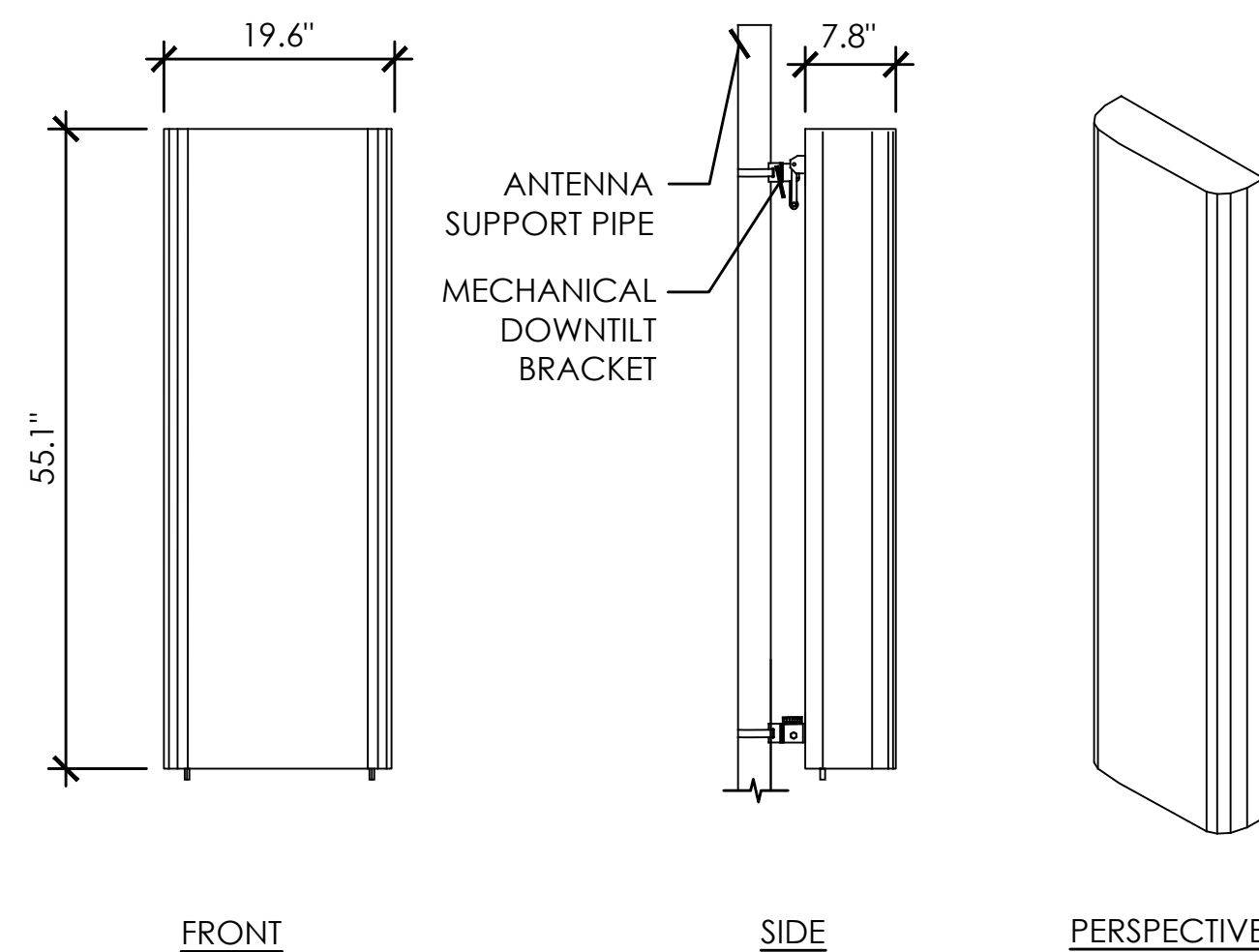


5 RRH UNIT (RRUS-11) MOUNTING DETAIL
1-1/2" = 1'-0"



3 RRUS 4478 MOUNTING DETAIL
1-1/2" = 1'-0"

EQUIPMENT SUBJECT TO CHANGE



ANTENNA = COMMSCOPE (NNHH-65A-R4)
WEIGHT = 68.3 LBS
DIMENSIONS = 55.1" (H) x 19.6" (W) x 7.8" (D)

1 PROPOSED ANTENNA SPEC
3/4" = 1'-0"

Issued For:

CCL00093
HWY 4 -
HERCULES

3519 FRANKLIN
CANYON ROAD
HERCULES, CA 94547

PREPARED FOR



5001 Executive Parkway
San Ramon, California 94583

Vendor:



AT&T SITE NO: CCL00093

PROJECT NO: 213.0953

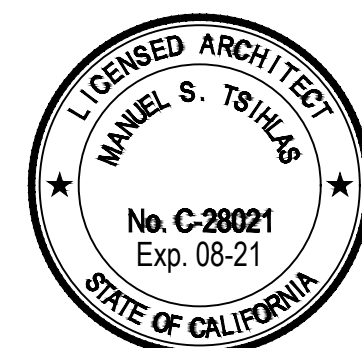
DRAWN BY: CTC

CHECKED BY: ALB

	06/01/20	100% CD
1	04/30/20	90% CD
	01/22/20	90% CD

REV	DATE	DESCRIPTION
-----	------	-------------

Licensee:



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Architect:

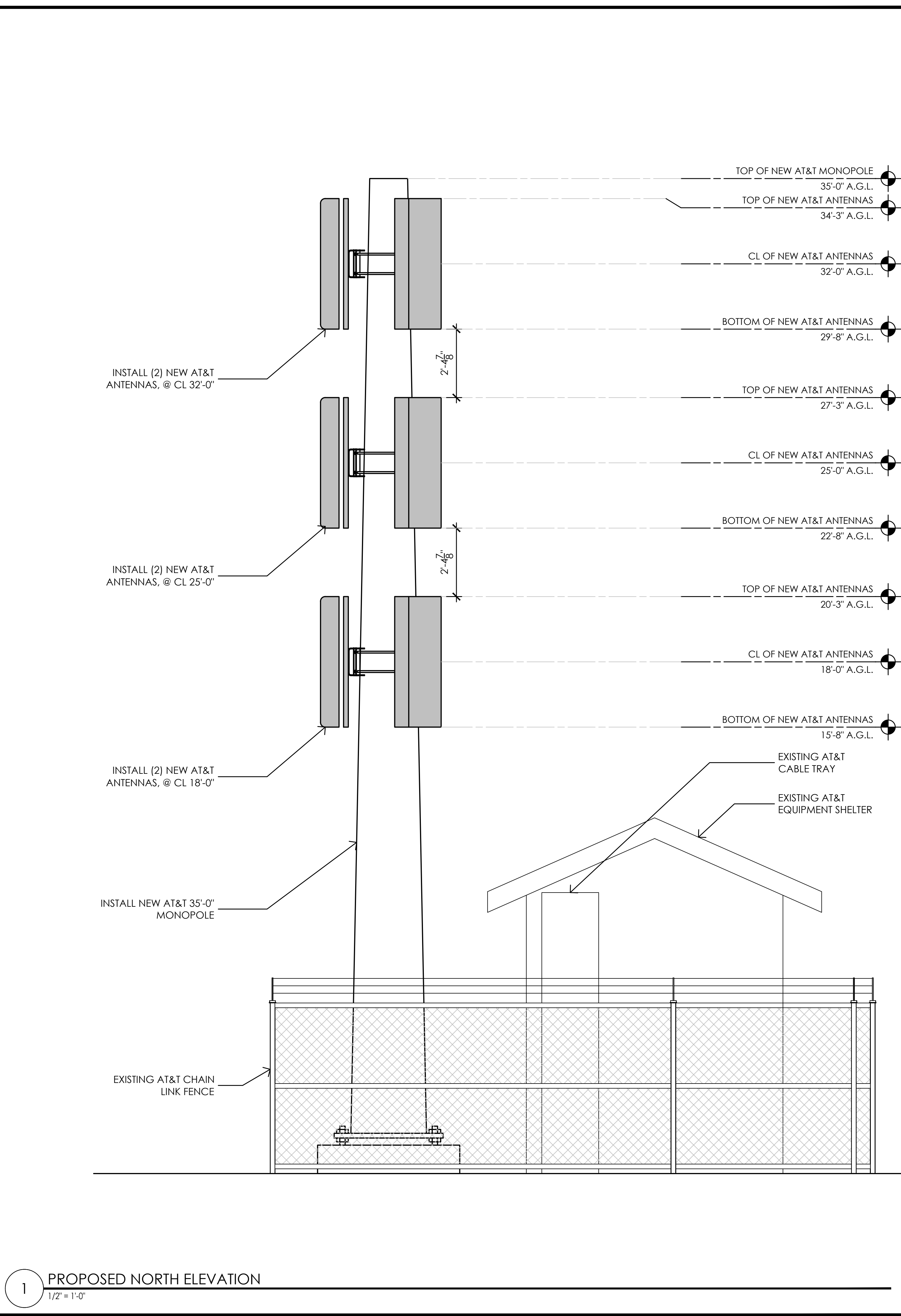
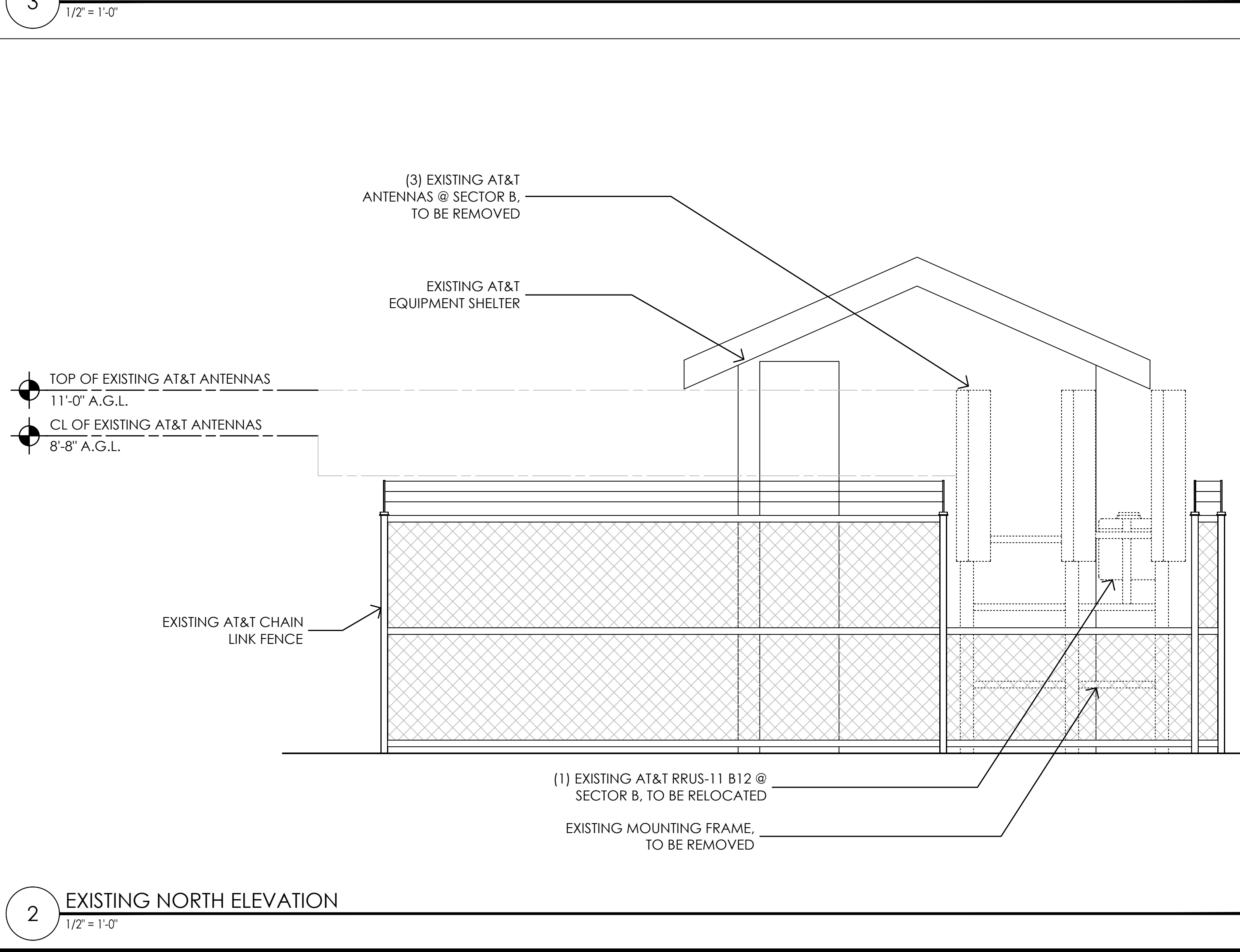
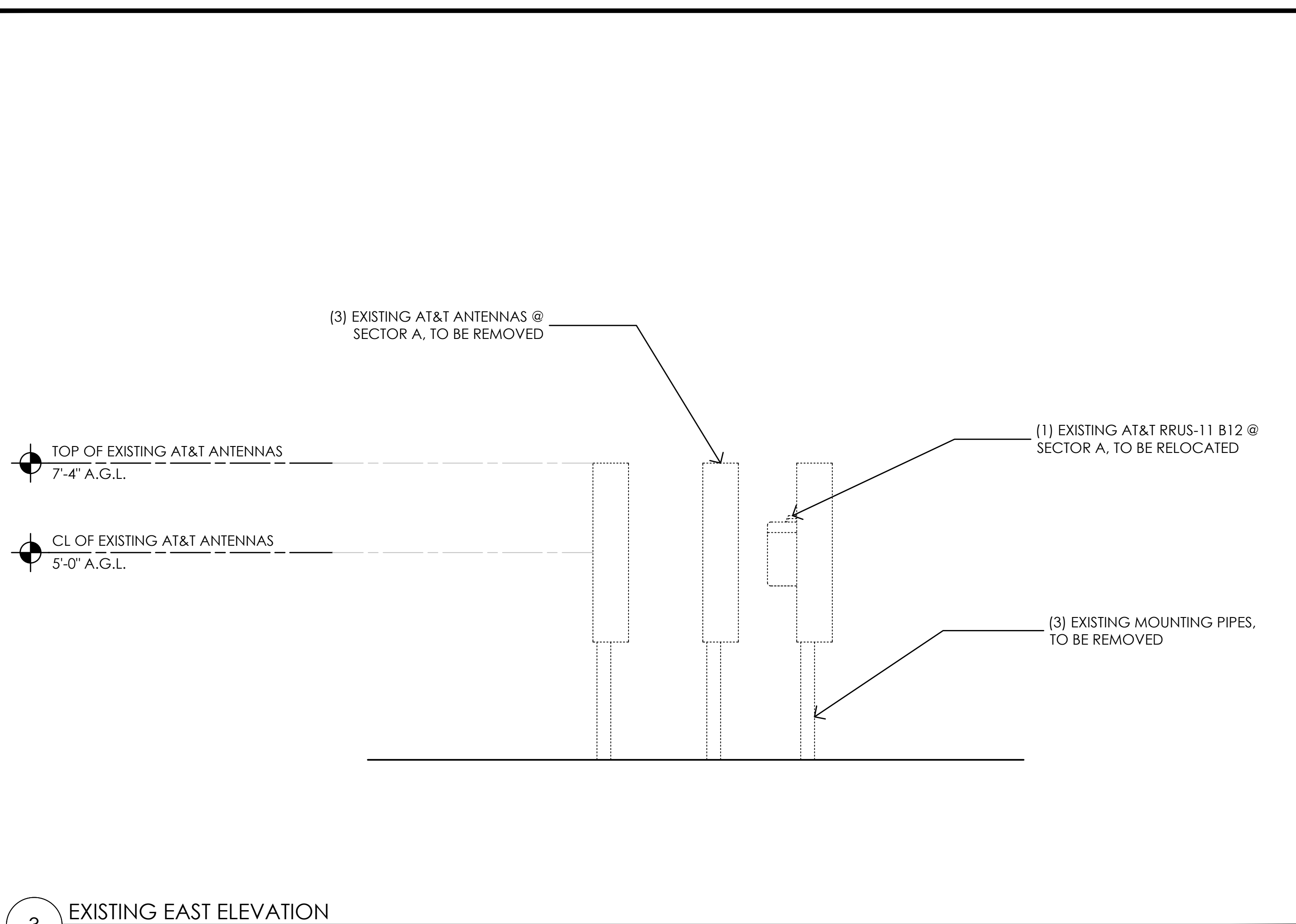


SHEET TITLE:

CONSTRUCTION
DETAILS

SHEET NUMBER:

A-3.1



Issued For:
CCL00093
HWY 4 -
HERCULES
3519 FRANKLIN
CANYON ROAD
HERCULES, CA 94547

PREPARED FOR

5001 Executive Parkway
San Ramon, California 94583

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Architect:

1520 River Park Drive
Sacramento, California 95815

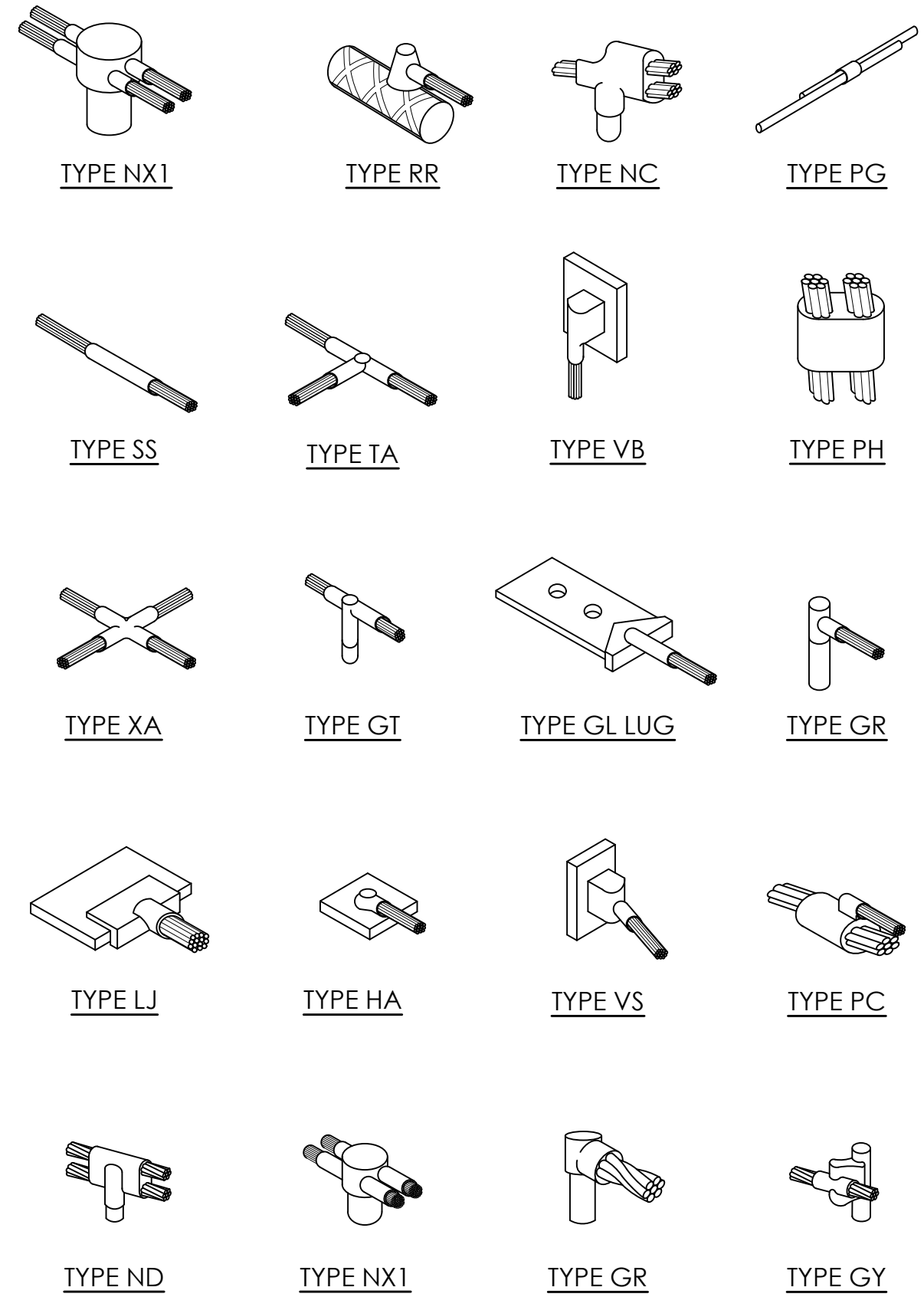
SHEET TITLE:
NORTH & EAST ELEVATIONS

SHEET NUMBER:
A-4.1

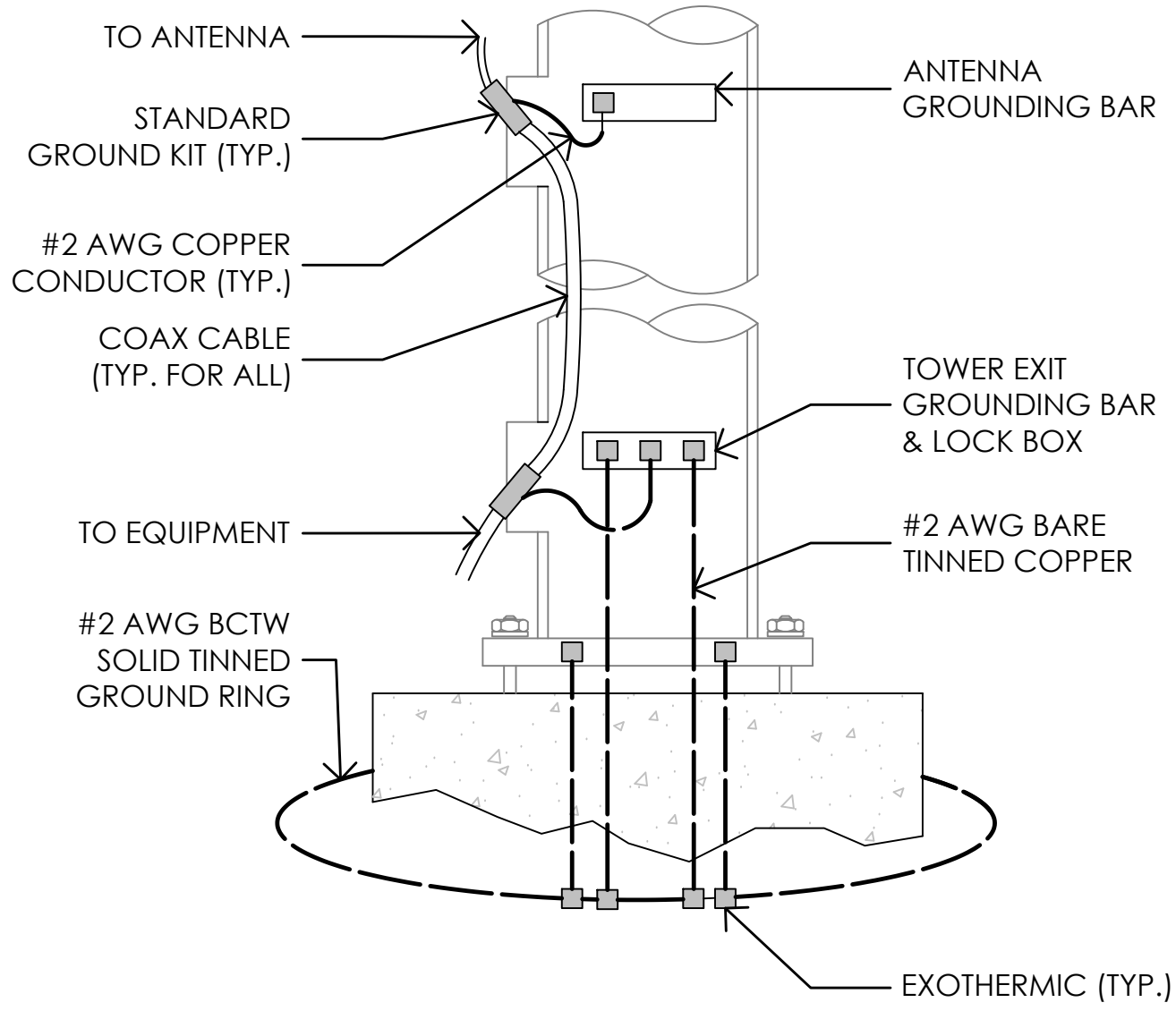


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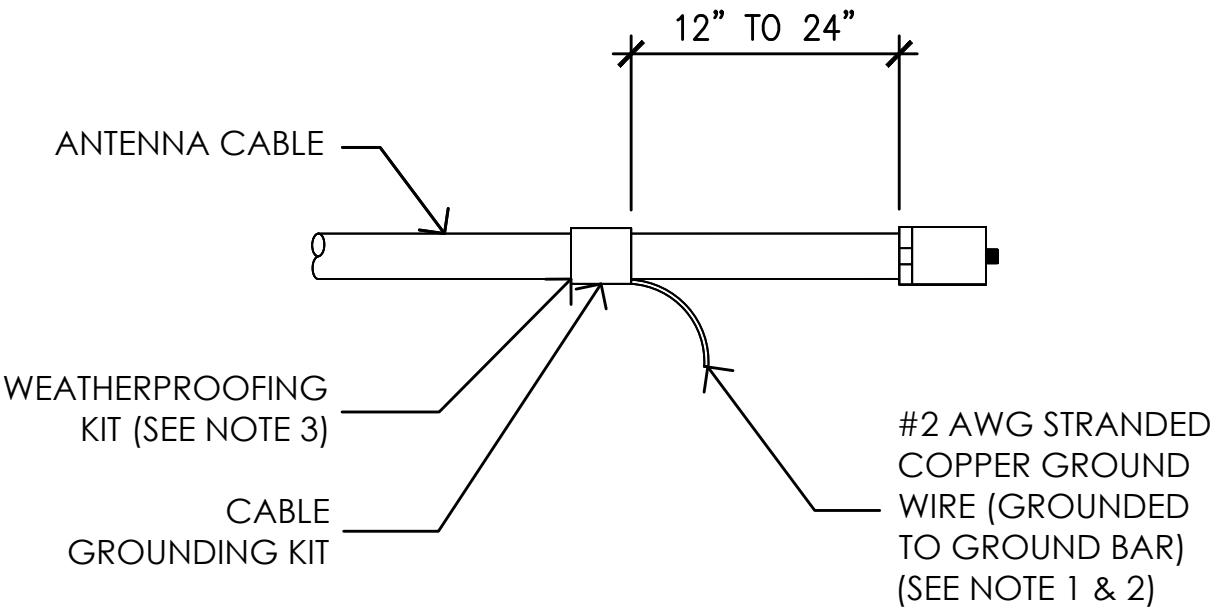
A-4.2



TYPICAL CADWELD TYPE CONNECTIONS



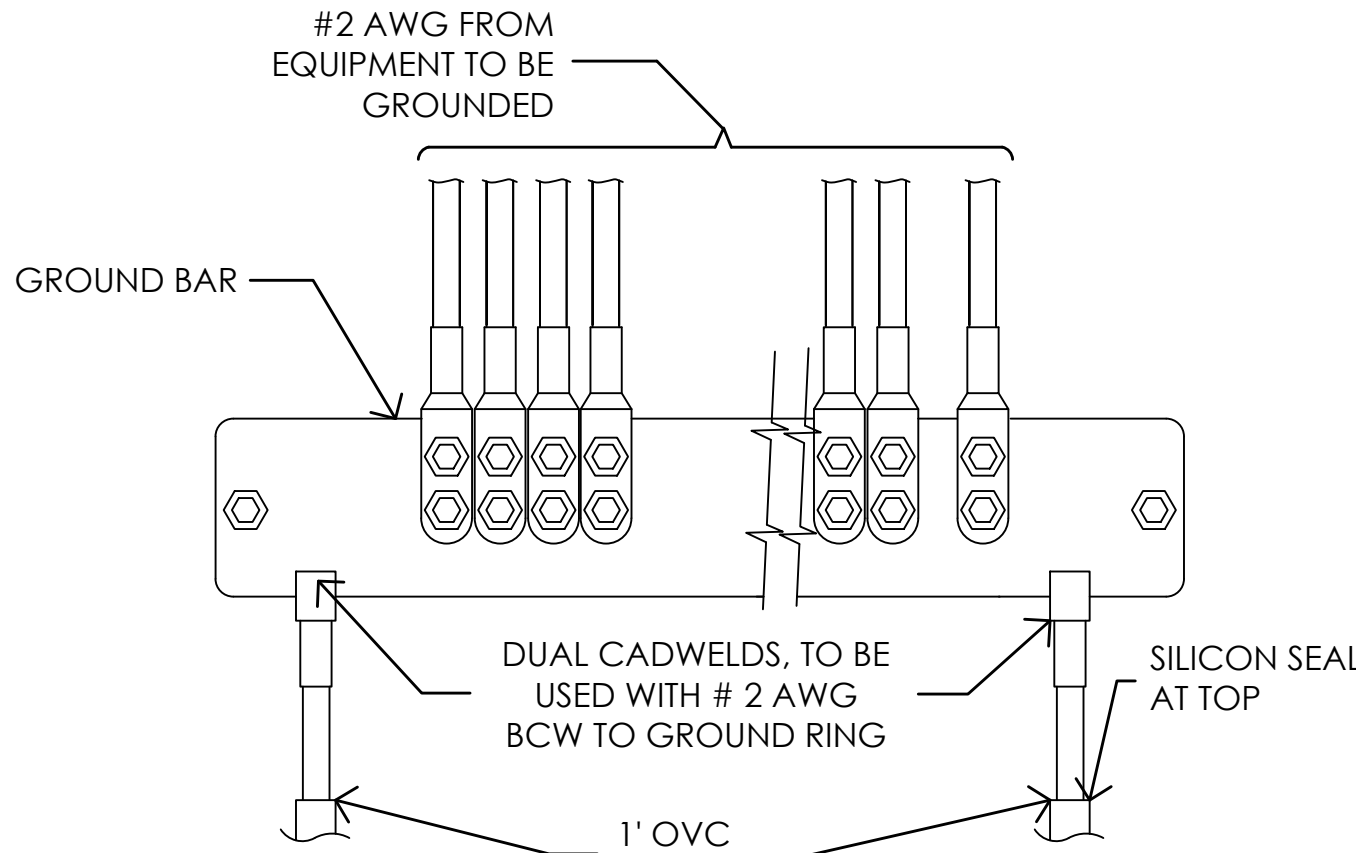
5 ANTENNA CABLE GROUNDING DETAIL
1/2" = 1'-0"



NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT WIRE DOWN TO GROUND BAR.
- GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
- WEATHER PROOFING SHALL BE (TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.)

4 CONNECTION OF GROUND KIT TO ANTENNA CABLE
1/2" = 1'-0"

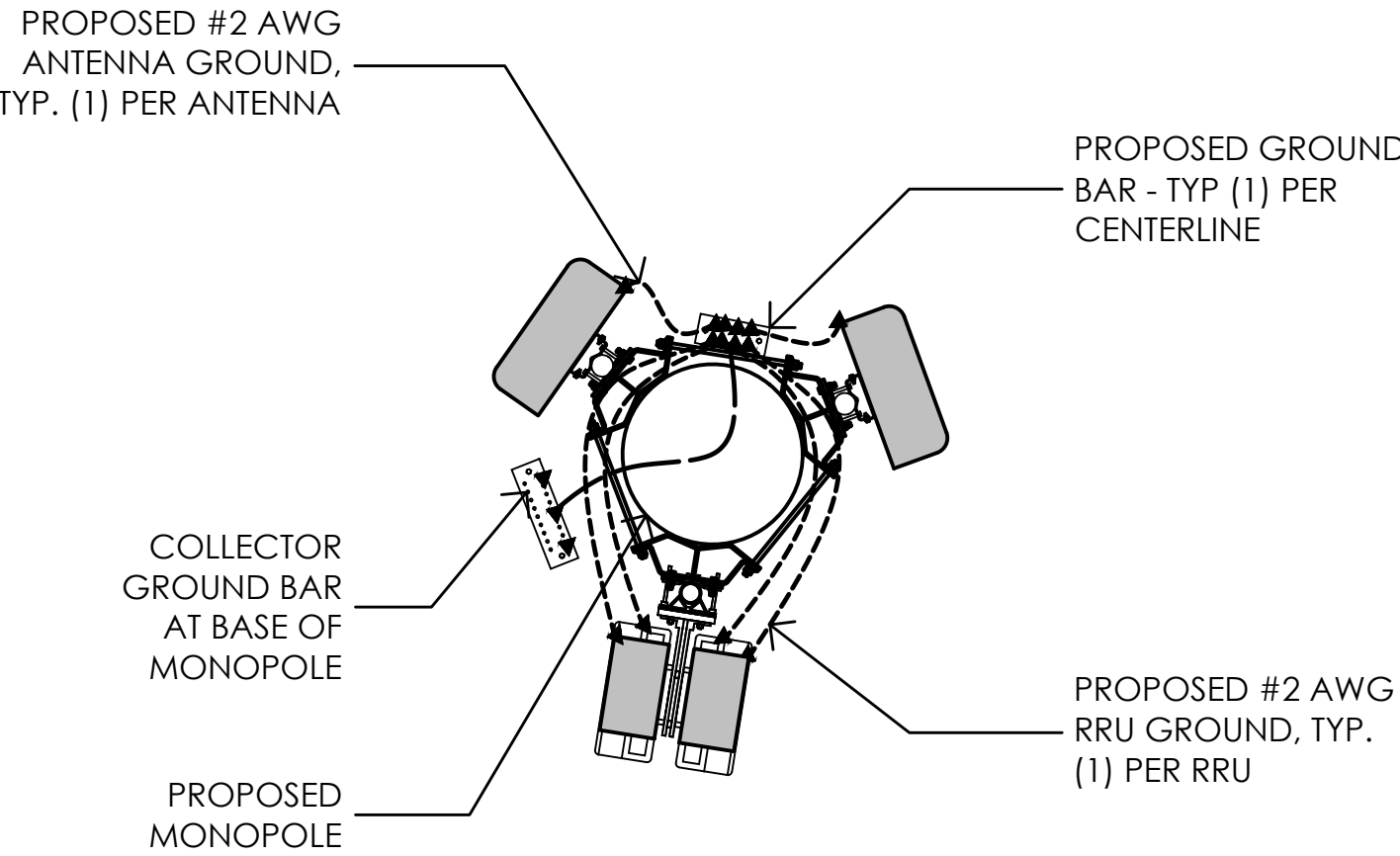


NOTES:

- CONTRACTOR TO UTILIZE KOPR-SHIELD (THANS & BETTS) ON ALL LUG CONNECTIONS OR APPROVED EQUAL
- ALL LUGS TO BE DUAL HOLE LONG BARREL AND CRIMPED TWICE WITH MFR'S RECOMMENDED TOOL

3 GROUND BAR CONNECTION DETAIL
1/2" = 1'-0"

- LEGEND
- GROUND RING
 - CADWELD CONNECTION (EXOTHERMIC WELD)
 - MECHANICAL CONNECTION



2 ANTENNA GROUNDING PLAN
1/2" = 1'-0"

- LEGEND
- GROUND RING
 - CADWELD CONNECTION (EXOTHERMIC WELD)
 - MECHANICAL CONNECTION

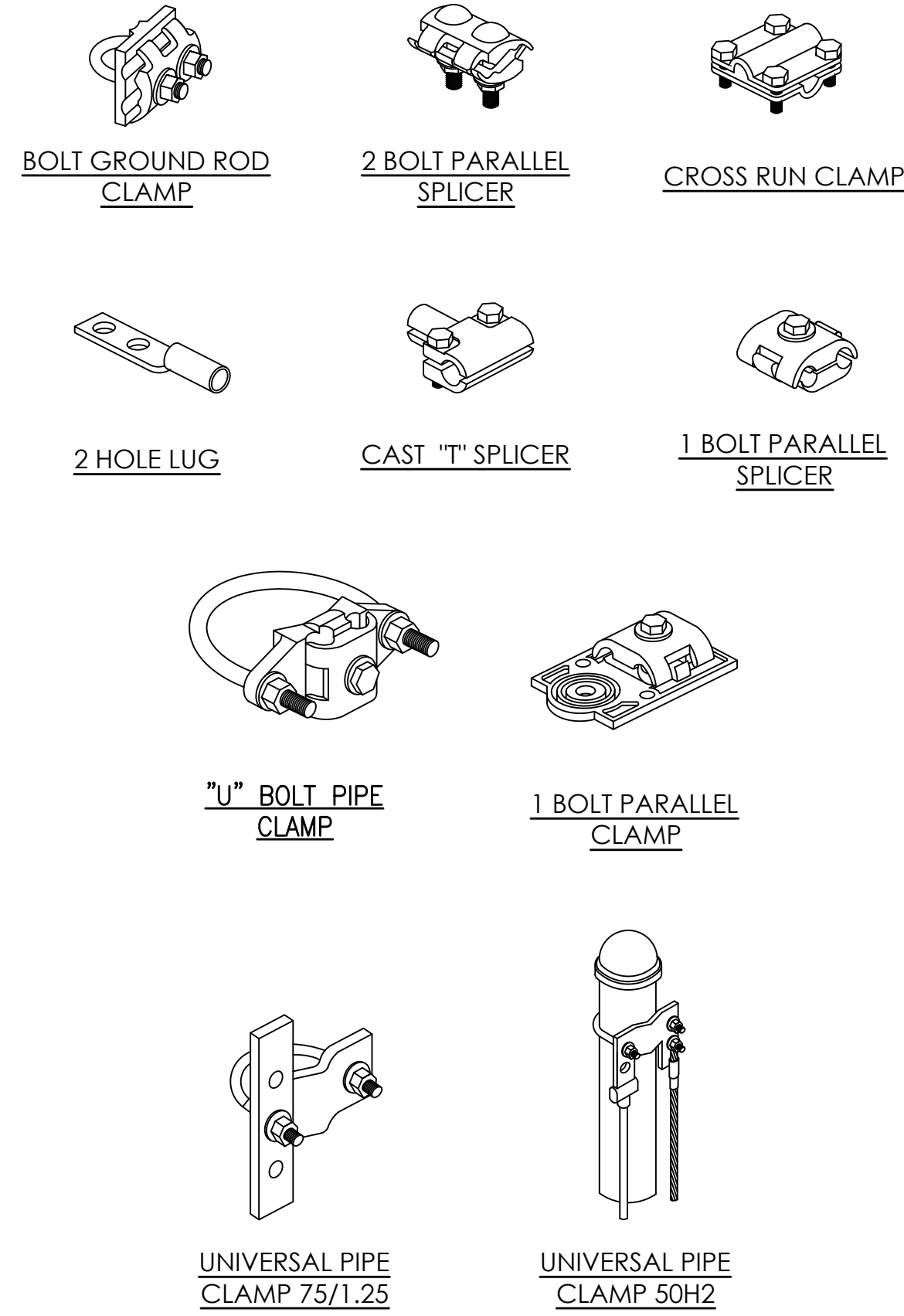
NOTES:

- GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
- CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND MANUFACTURER'S SPECIFICATIONS.
- ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED

1 EQUIPMENT GROUNDING DIAGRAM
1/2" = 1'-0"

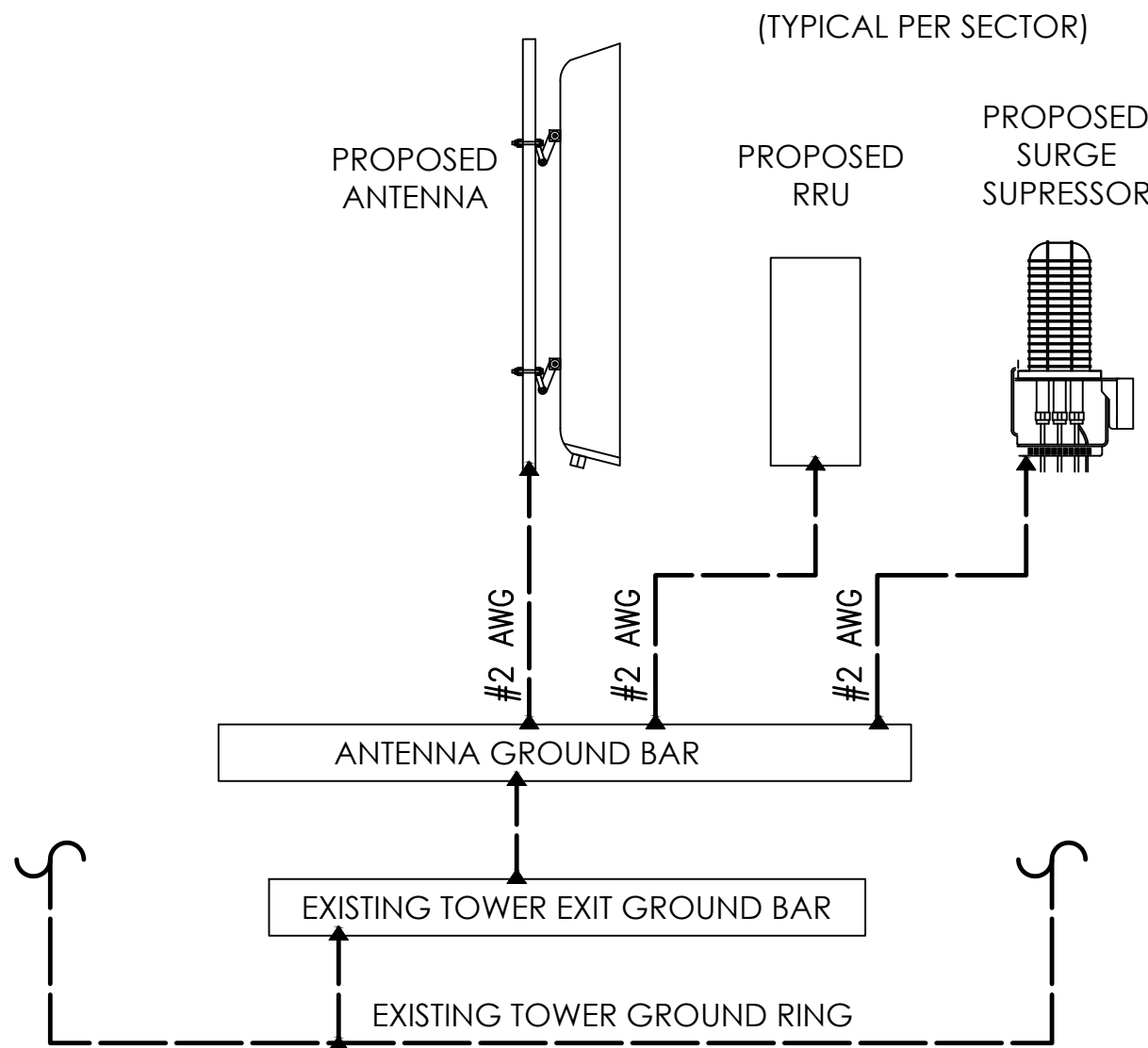
GROUNDING NOTES:

- ALL ELECTRICAL AND GROUNDING AT THE CELL SITE SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 780 (LATEST EDITION), AND MANUFACTURER SPECIFICATION.
- IF THE AC PANEL IN THE POWER CABINET IS WIRED AS SERVICE ENTRANCE, THE AC SERVICE GROUND CONDUCTOR SHALL BE CONNECTED TO GROUND ELECTRODE SYSTEM. WHEN THE AC PANEL IN THE POWER CABINET IS CONSIDERED A SUB-PANEL, THE GROUND WIRE SHALL BE INSTALLED IN THE AC POWER CONDUIT. THE INSTALLATION SHALL BE PER LOCAL AND NATIONAL ELECTRIC CODE (NFPA-70).
- EXOTHERMIC WELDING IS RECOMMENDED FOR GROUNDING CONNECTION WHERE PRACTICAL. OTHERWISE, THE CONNECTION SHALL BE MADE USING COMPRESSION TYPE-2 HOLES. LONG BARREL LUGS OR DOUBLE CRIMP CLAMP "C" CLAMP. THE COPPER CABLES SHALL BE COATED WITH ANTIOXIDANT (COPPER SHIELD) BEFORE MAKING THE CONNECTIONS. THE MANUFACTURER'S TORQUING RECOMMENDATIONS ON THE BOLT ASSEMBLY TO SECURE CONNECTIONS SHALL BE FOLLOWED.
- THE ANTENNA CABLES SHALL BE GROUND AT THE TOP AND BOTTOM OF THE VERTICAL RUN FOR LIGHTING PROTECTION. THE ANTENNA CABLE SHIELD SHALL BE BONDED TO A COPPER GROUND BUSS AT THE LOWER MOST POINT OF A VERTICAL RUN JUST BEFORE IT BEGINS TO BEND TOWARD THE HORIZONTAL PLANE. WIRE RUNS TO GROUND SHALL BE KEPT AS STRAIGHT AND SHORT AS POSSIBLE. ANTENNA CABLE SHIELD SHALL BE GROUND JUST BEFORE ENTERING THE CELL CABINET. ANY ANTENNA CABLES OVER 200 FEET IN LENGTH SHALL ALSO BE EQUIPPED WITH ADDITIONAL GROUNDING AT MID-POINT.
- ALL GROUNDING CONDUCTORS INSIDE THE BUILDING SHALL BE RUN IN CONDUIT RACEWAY SYSTEM, AND SHALL BE INSTALLED AS STRAIGHT AS PRACTICAL WITH MINOR BENDS TO AVOID OBSTRUCTIONS. THE BENDING RADIUS OF ANY #2 GROUNDING CONDUCTOR IS 8". PVC RACEWAY MAY BE FLEXIBLE OR RIGID PER THE FIELD CONDITIONS. GROUNDING CONDUCTORS SHALL NOT MAKE CONTACT WITH ANY METALLIC CONDUITS, SURFACES OR EQUIPMENT.
- PROVIDE PVC SLEEVES WHERE GROUNDING CONDUCTORS PASS THROUGH THE BUILDING WALLS AND /OR CEILINGS.
- INSTALL GROUND BUSHINGS ON ALL METALLIC CONDUITS AND BOND TO THE EQUIPMENT GROUND BUSS IN THE PANEL BOARD.
- GROUND ANTENNA BASES, FRAMES, CABLE RACKS AND OTHER METALLIC COMPONENTS WITH #2 GROUNDING CONDUCTORS AND CONNECT TO INSULATED SURFACE MOUNTED GROUND BARS. CONNECTION DETAILS SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS FOR GROUNDING.
- ALL PROPOSED GROUNDING CONDUCTORS SHALL BE ROUTED AND CONNECTED TO THE MAIN GROUND BAR OR EXISTING GROUND RING.



TYPICAL MECHANICAL TYPE CONNECTIONS

6 TYPICAL GROUNDING CONNECTIONS
1/2" = 1'-0"



Issued For:
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HWY 4 -
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REV	DATE	DESCRIPTION
1	06/01/20	100% CD
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	01/22/20	90% CD

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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

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SHEET TITLE:
**GROUNDING
PLAN & DETAILS**

SHEET NUMBER:
E-1.1