

PROJECT INFORMATION		
VZW SITE ID:	<b>CSP TRANSIT</b>	
LATITUDE:	38.81091666°	
LONGITUDE:	-104.8033056°	
ZONING JURISDICTION:	EL PASO COUNTY	
BP JURISDICTION:	PIKES PEAK REGIONAL BLDG. DEPT.	
PROJECT TYPE:	EXISTING STEALTH WINDMILL	
		<b>RE: DETAIL NUMBER</b>
STRUCTURE HEIGHT	55'-5"	A-3a and A-3b
B.O. CBAND ANTENNA	39'-0"	1 / A-4
EQUIPMENT AREA LOCATION:	FENCED LEASE AREA @ GRADE	A-2a and A-2b
NUMBER / SIZE OF CONDUITS	(2) - HYBRIDS	A-2
WIND LOAD	130mph	

# VERIZON WIRELESS

**SITE NAME: CSP TRANSIT**  
**MACRO SITE C-BAND MODIFICATION/UPGRADE**  
**LAT: 38.81091666°**  
**LONG: -104.8033056°**  
**1325 E. LAS VEGAS ST.**  
**COLORADO SPRINGS, CO 80903**



PLANS PREPARED BY:



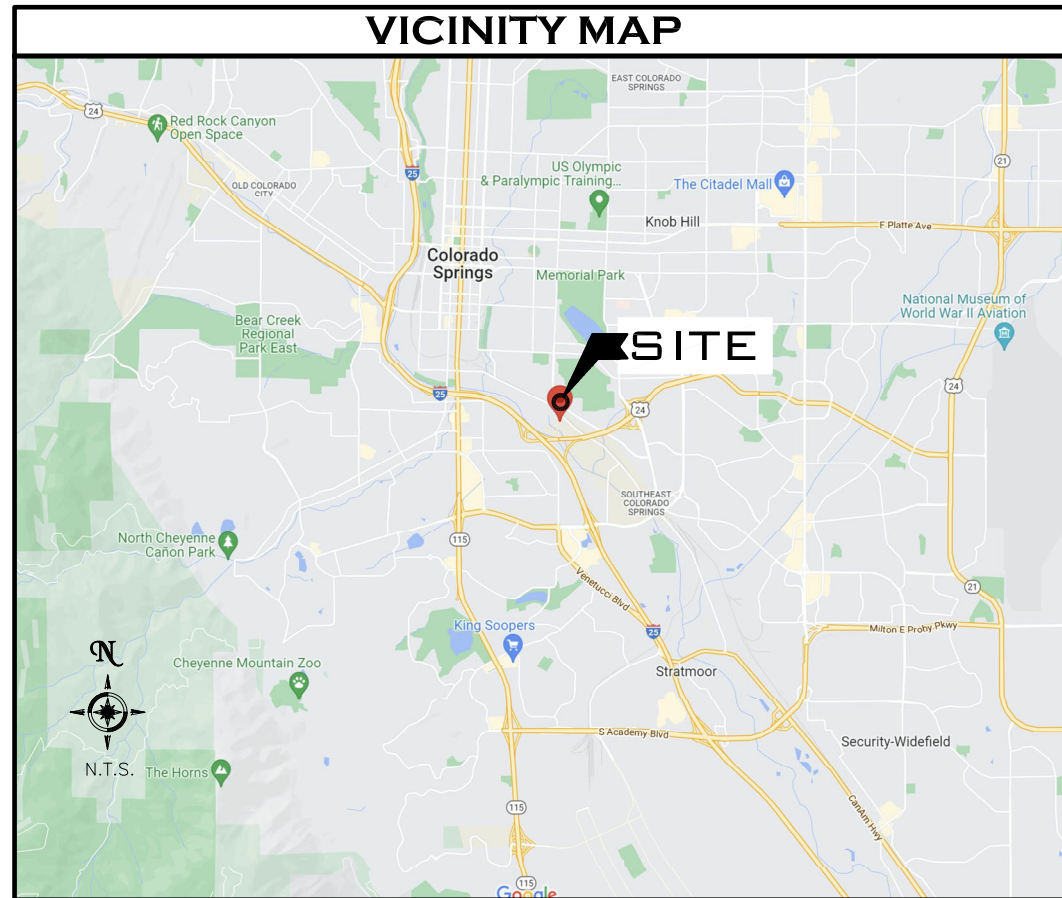
mobile: 303.870.2276  
office: 303.363.8574  
**AARON ZIMMER**  
architect  
aZ@ZYMR.co

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CONTACT INFORMATION	
<b>VERIZON WIRELESS:</b>	
<b>CONSTRUCTION ENGINEER:</b> VERIZON WIRELESS PROJ. MNGR. CONTACT: ANDREW COLE PHONE: 303-827-6279	<b>RF ENGINEER:</b> DESIGN ENGINEER CONTACT: JOE DAVIS PHONE: 913-522-6807
<b>REAL ESTATE SPECIALIST:</b> VZW SPECIALIST - SMALL CELL CONTACT: MAUREEN LOPEZ PHONE: 303-873-2668	<b>SITE ACQ. AGENT FOR VZW:</b> KAPPA CONSULTING CONTACT: GARRETT KENDALL PHONE: 720-365-7012
<b>ARCHITECT:</b> STUDIO-Z ARCHITECTURE, LLC CONTACT: AARON ZIMMER PHONE: 303-870-2276	<b>ELECTRICAL ENG.:</b> FRONT RANGE ELEC. ENGINEERING CONTACT: CARL FRETWELL PHONE: 303-408-5988
	<b>STRUCTURAL ENG.:</b> OTEGUI STRUCTURAL SERVICES CONTACT: MIKE OTEGUI PHONE: 720-981-5333



DRAWING INDEX	
SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
AS-1	ARCHITECTURAL SITE PLAN
A-1	ENLARGED EQUIPMENT AREA PLANS
A-2	ENLARGED ANTENNA AREA PLANS
A-3a	ELEVATIONS
A-3b	ELEVATIONS
A-4	SCREEN WALL DETAILS
A-5	RF ANTENNA DETAILS
A-6	RF ANTENNA DETAILS
A-7	RF RRH DETAILS
GN-1	GENERAL SITE AND UTILITY NOTES
GN-2	GENERAL SITE AND RF NOTES

NO.	DATE:	DESCRIPTION:	BY:
1	04/12/22	PRELIM CD SET	aZ
2	05/03/22	PRELIM CD REV-B	aZ
3	05/05/22	PRELIM CD REV-C	aZ

**ISSUE DATE:**  
**MAY.05.2022**

**SITE INFORMATION:**  
**CSP TRANSIT**  
  
**1325 E. LAS VEGAS ST.**  
**COLORADO SPRINGS, CO 80903**  
**EL PASO COUNTY**

SEAL:



ALL ANTENNA SECTORS  
INSTALLED ON STEALTH  
WINDMILL

EQUIPMENT LOCATED @  
GRADE BEHIND 8'h WOOD  
FENCE ENCLOSURE

**EXISTING INSTALLATION**

**PROJECT DESCRIPTION**  
EXISTING MACRO CELL SITE LOCATED IN CITY OF COLORADO SPRINGS.  
INSTALLATION CONSISTS OF (1) MACRO CELL SITE LINKED TO VERIZON NETWORK. ASSOCIATED EQUIPMENT IS LOCATED IN THE DESIGNATED EQUIPMENT AREA. ALL ANTENNAS (EXISTING) WILL BE REMOVED AND/OR MODIFIED FOR NEW RF DATA SHEETS. NEW ANTENNAS WILL BE ADDED FOR CBAND COVERAGE.  
  
VERIFY ALL REQUIRED SIGNAGE WITH EME REPORT.

**DO NOT SCALE DRAWINGS**  
CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

SHEET TITLE:  
**TITLE SHEET**  
**5G L-SUB6 - CARRIER ADD**

SHEET NUMBER:  
**T-1**

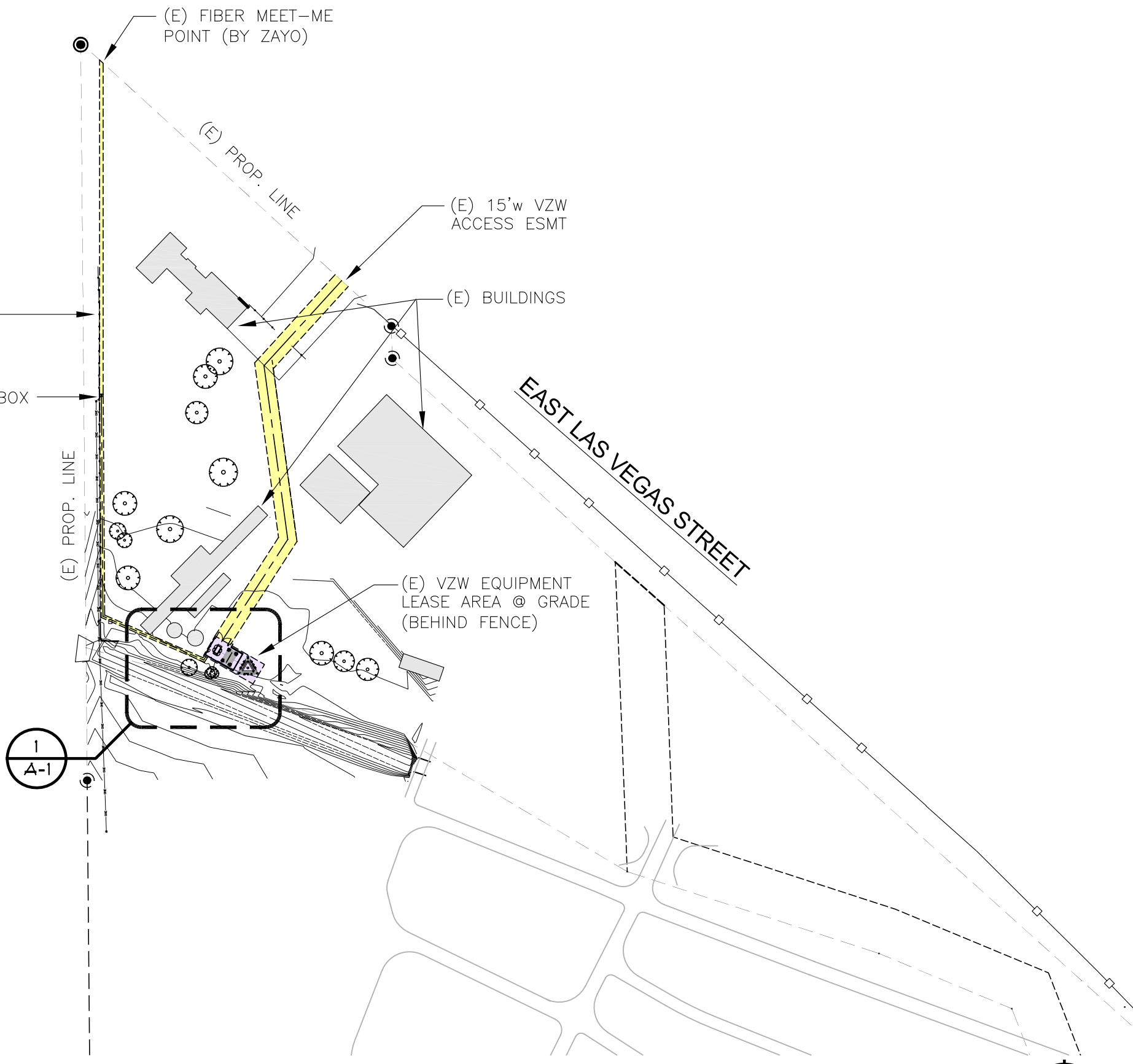
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PENETRATIONS/GROUNDING | RRRH/DIPLEXER | LEASE AREA | FIBER | POWER | HYBRID & COAX CABLES

**LEGEND:**

MONUMENT FOUND AS DESCRIBED	○
SITE BENCHMARK	◻
VENT PIPE	⊙
ROOF VENT	⊠
INDEX CONTOUR	---5050---
INTERMEDIATE CONTOUR	---5051---
WATERLINE	—W—
OVERHEAD UTILS	—OHU—
GAS LINE	—G—
STORM SEWER	—SD—
CHAIN LINK FENCE	—X—
NEW ELEC. LINE	—E—
NEW FIBER LINE	—FO—
WATER METER	⊕
ELECTRIC METER	⊠ <sup>EM</sup>
BOLLARD/POST	●
UTILITY POLE	⊗
GUY WIRE	→

**NOTE:**  
GC TO CONFIRM ALL U.G. EXISTING UTILITIES PRIOR TO CONSTRUCTION.



**SITE PLAN**  
1" = 100'-0"



PLANS PREPARED BY:



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EL PASO COUNTY

SEAL:

SHEET TITLE:

**SITE PLAN**

5G L-SUB6 - CARRIER ADD

SHEET NUMBER:

**AS-1**

PLANS PREPARED BY:



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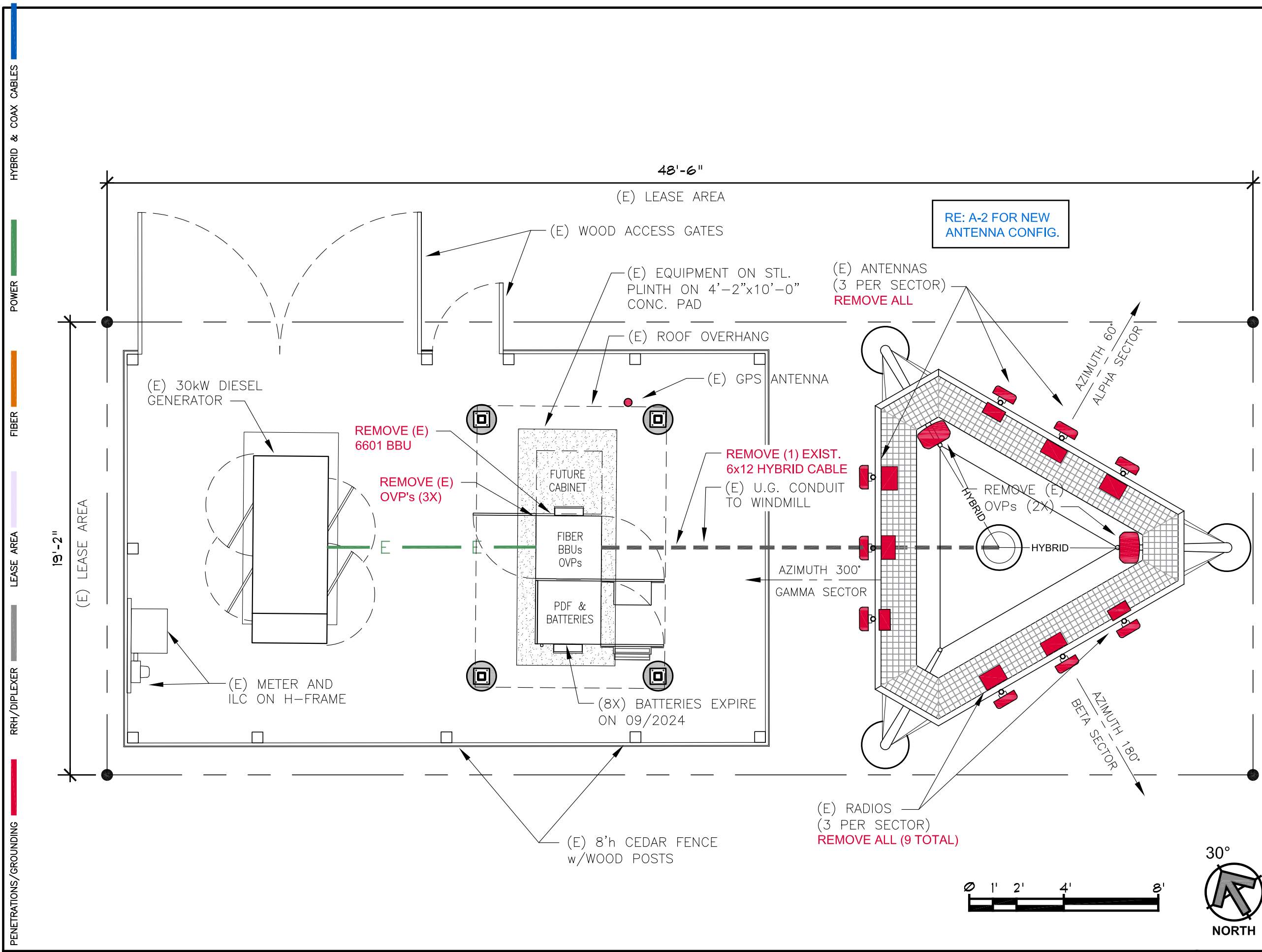
SITE INFORMATION:  
**CSP TRANSIT**  
  
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EL PASO COUNTY

SEAL:

SHEET TITLE:  
**LEASE AREA PLAN**

5G L-SUB6 - CARRIER ADD

SHEET NUMBER:  
**A-1a**



RE: A-2 FOR NEW ANTENNA CONFIG.

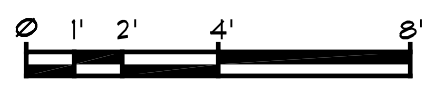
(E) ANTENNAS (3 PER SECTOR) REMOVE ALL

REMOVE (1) EXIST. 6x12 HYBRID CABLE

REMOVE (E) 6601 BBU

REMOVE (E) OVP's (3X)

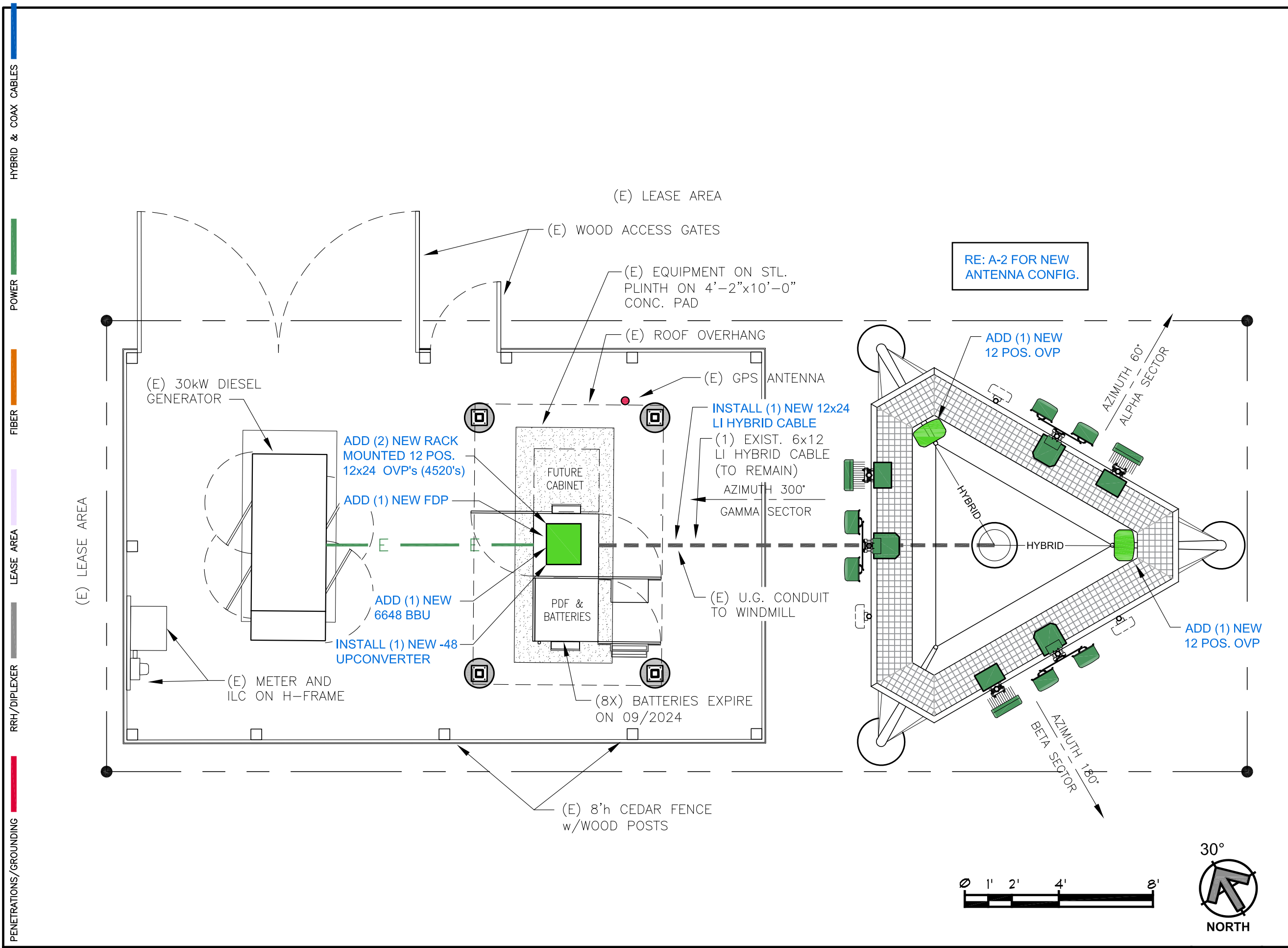
(E) RADIOS (3 PER SECTOR) REMOVE ALL (9 TOTAL)



SCALE:  
1/4" = 1'-0" 1



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HYBRID & COAX CABLES

POWER

FIBER

LEASE AREA

RRH/DIPLEXER

PENETRATIONS/GROUNDING

(E) LEASE AREA

(E) WOOD ACCESS GATES

(E) EQUIPMENT ON STL. PLINTH ON 4'-2"x10'-0" CONC. PAD

(E) ROOF OVERHANG

(E) 30kW DIESEL GENERATOR

(E) GPS ANTENNA

ADD (2) NEW RACK MOUNTED 12 POS. 12x24 OVP's (4520's)

ADD (1) NEW FDP

ADD (1) NEW 6648 BBU

INSTALL (1) NEW -48 UPCONVERTER

(E) METER AND ILC ON H-FRAME

(8X) BATTERIES EXPIRE ON 09/2024

(E) U.G. CONDUIT TO WINDMILL

(E) 8'h CEDAR FENCE w/WOOD POSTS

RE: A-2 FOR NEW ANTENNA CONFIG.

ADD (1) NEW 12 POS. OVP

AZIMUTH 60°  
ALPHA SECTOR

INSTALL (1) NEW 12x24 LI HYBRID CABLE

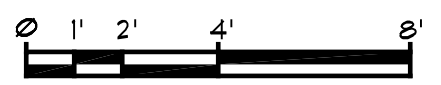
(1) EXIST. 6x12 LI HYBRID CABLE (TO REMAIN)

AZIMUTH 300°  
GAMMA SECTOR

HYBRID

ADD (1) NEW 12 POS. OVP

AZIMUTH 180°  
BETA SECTOR



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COLORADO SPRINGS, CO 80903  
EL PASO COUNTY

SEAL:

SHEET TITLE:  
**LEASE AREA PLAN**

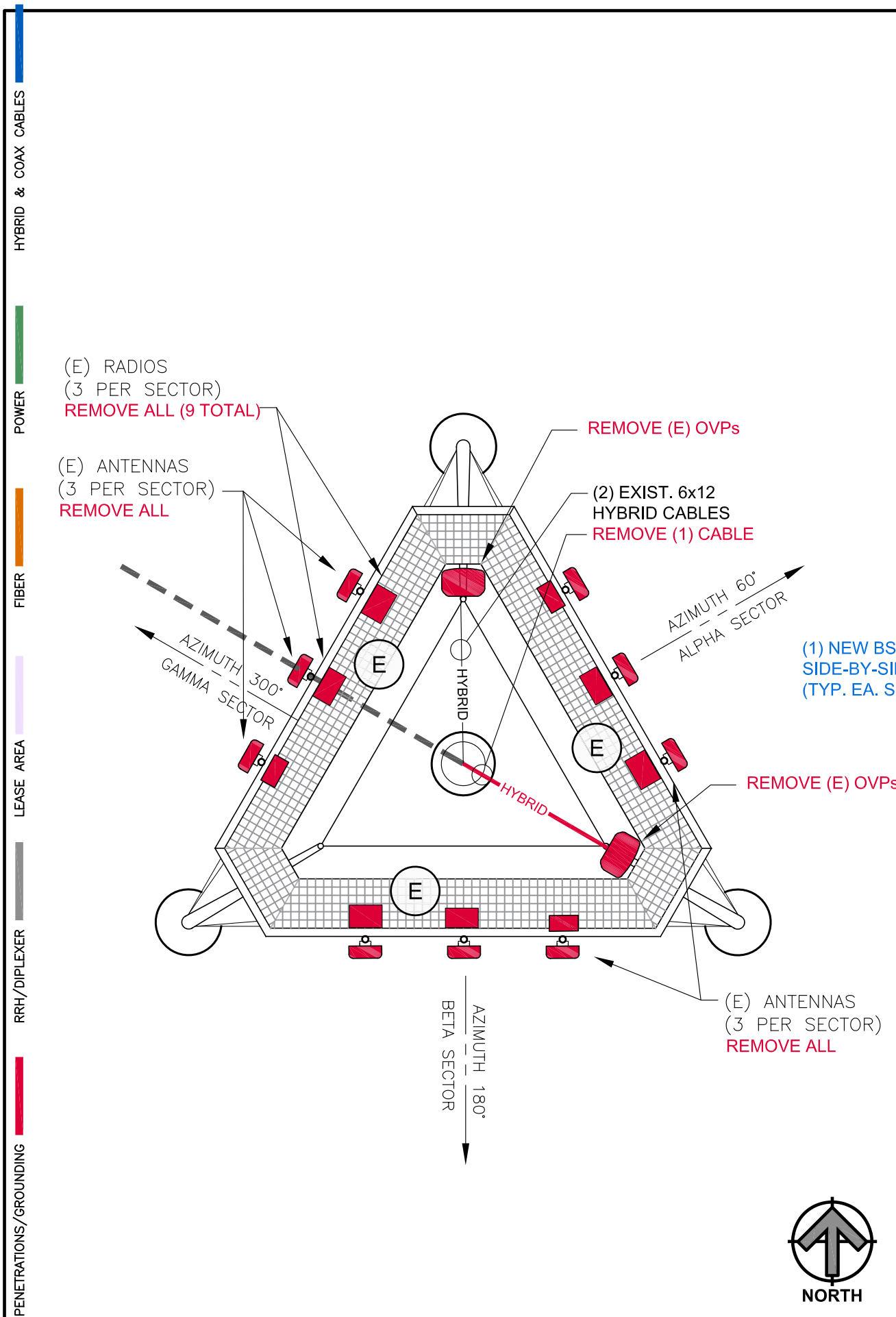
5G L-SUB6 - CARRIER ADD

SHEET NUMBER:  
**A-1b**

EQUIPMENT AREA CONFIGURATION - EXISTING

SCALE:  
1/4" = 1'-0" 1

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ANTENNA CONFIGURATION - EXISTING

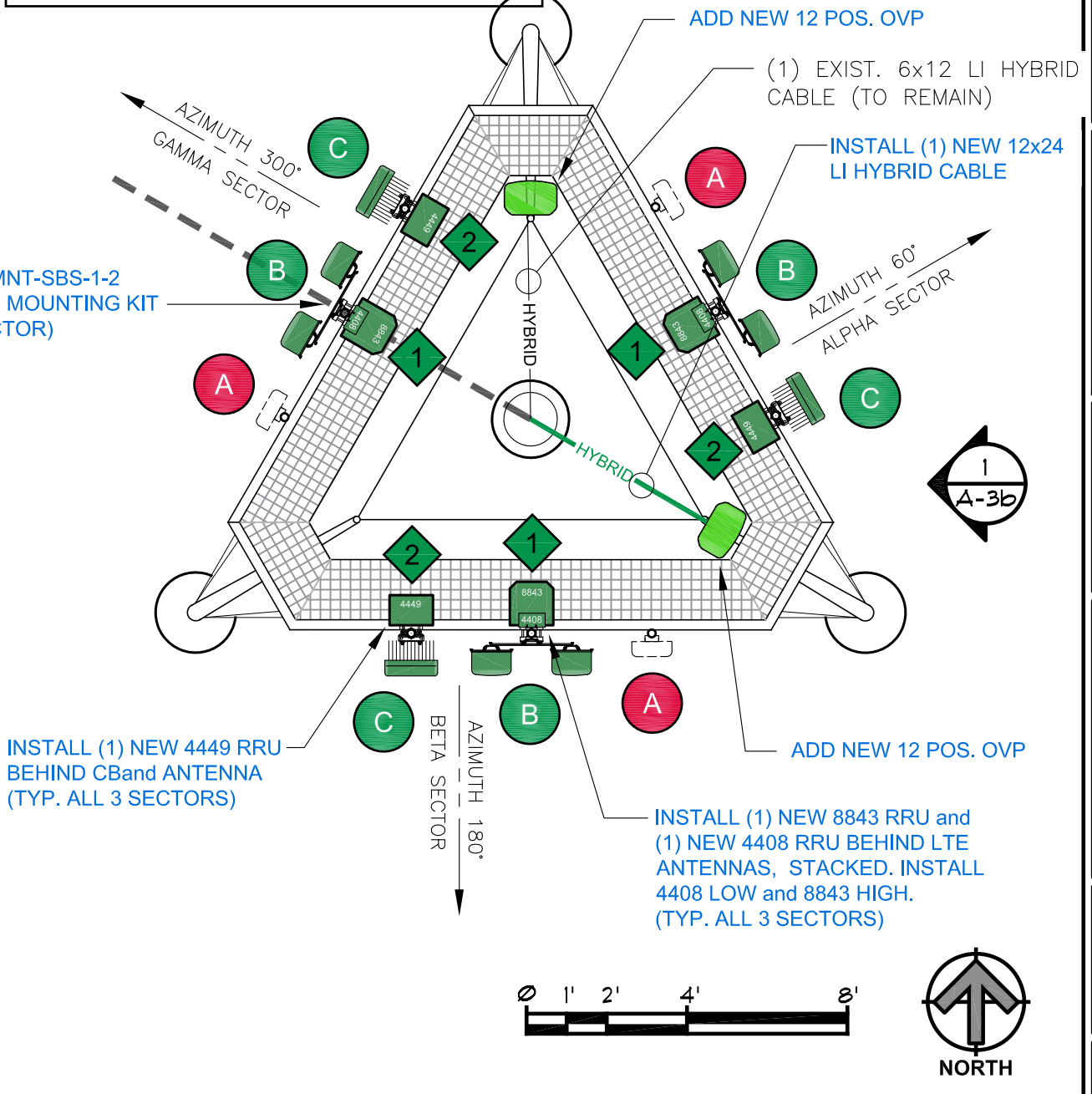
SCALE: 1/4" = 1'-0" 2

**ANTENNA SCHEDULE**

PER SECTOR:

- A** REMOVE UNUSED ANTENNA and RADIOS
- B** (1) NEW NHH-65B-R2B and (1) NEW NHHSS-65B-R2BT4 ANTENNA FOR LTE/CBRS (PAINT ANTENNAS)
- 1** (1) NEW 8843 RRU (UPPER POSITION) (1) NEW CBRS 4408 B48 RRU (LOWER POSITION)
- C** (1) NEW AIR 6449 ANTENNA FOR C-Band (TO BE 3M WRAPPED)
- 2** (1) NEW 4449 RRU

NEW PAINT and 3M WRAP COLOR:  
**RAL 8015 - CHESTNUT BROWN**  
 GC SHALL COOR'D. FINAL COLOR SELECTION WITH ARCHITECT PRIOR TO INSTALLATION.



ANTENNA CONFIGURATION - NEW

SCALE: 1/4" = 1'-0" 1



PLANS PREPARED BY:

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**MAY.05.2022**

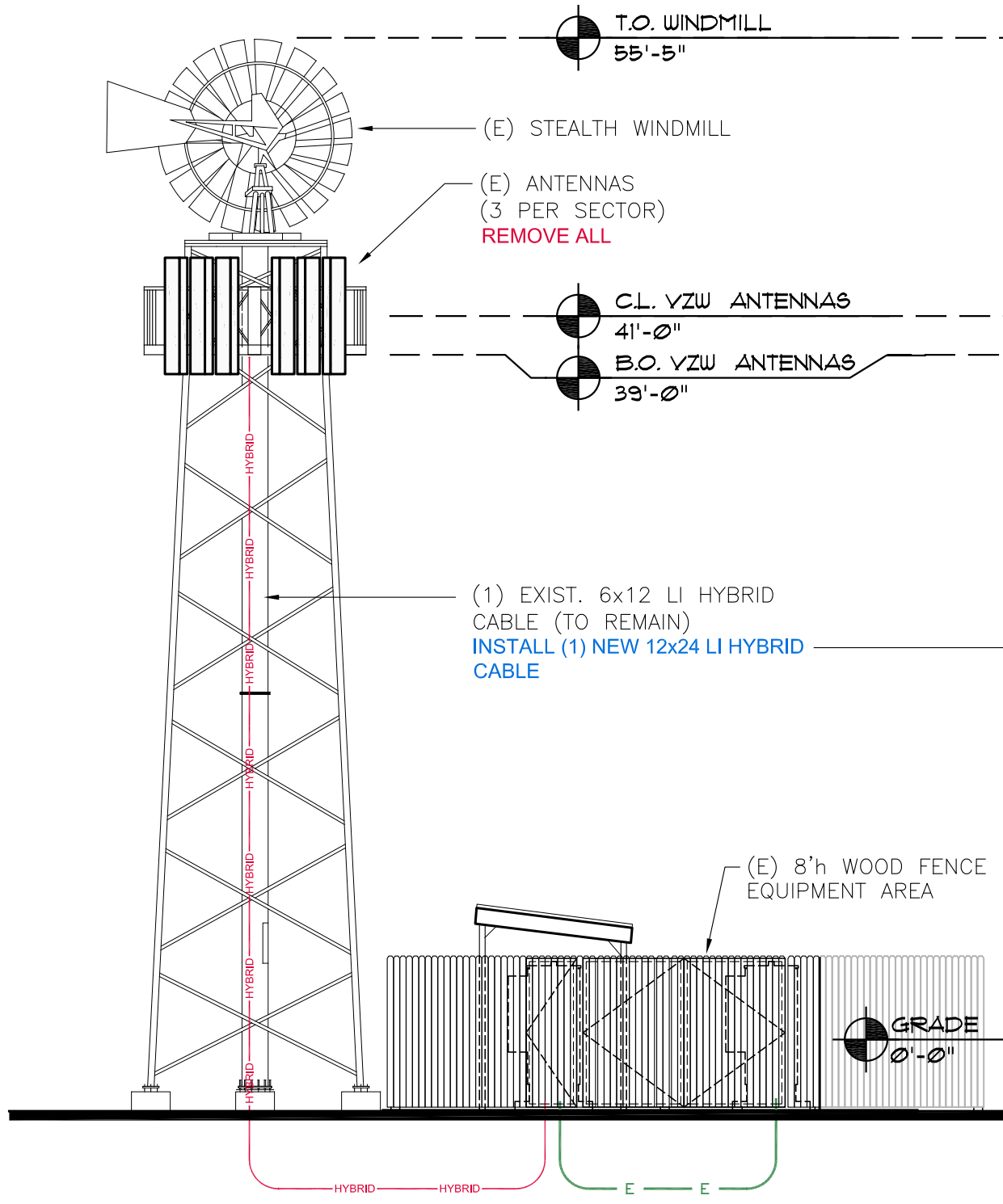
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 EL PASO COUNTY

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SHEET TITLE:  
**ENLARGED ANTENNA PLAN**  
 5G L-SUB6 - CARRIER ADD

SHEET NUMBER:  
**A-2**

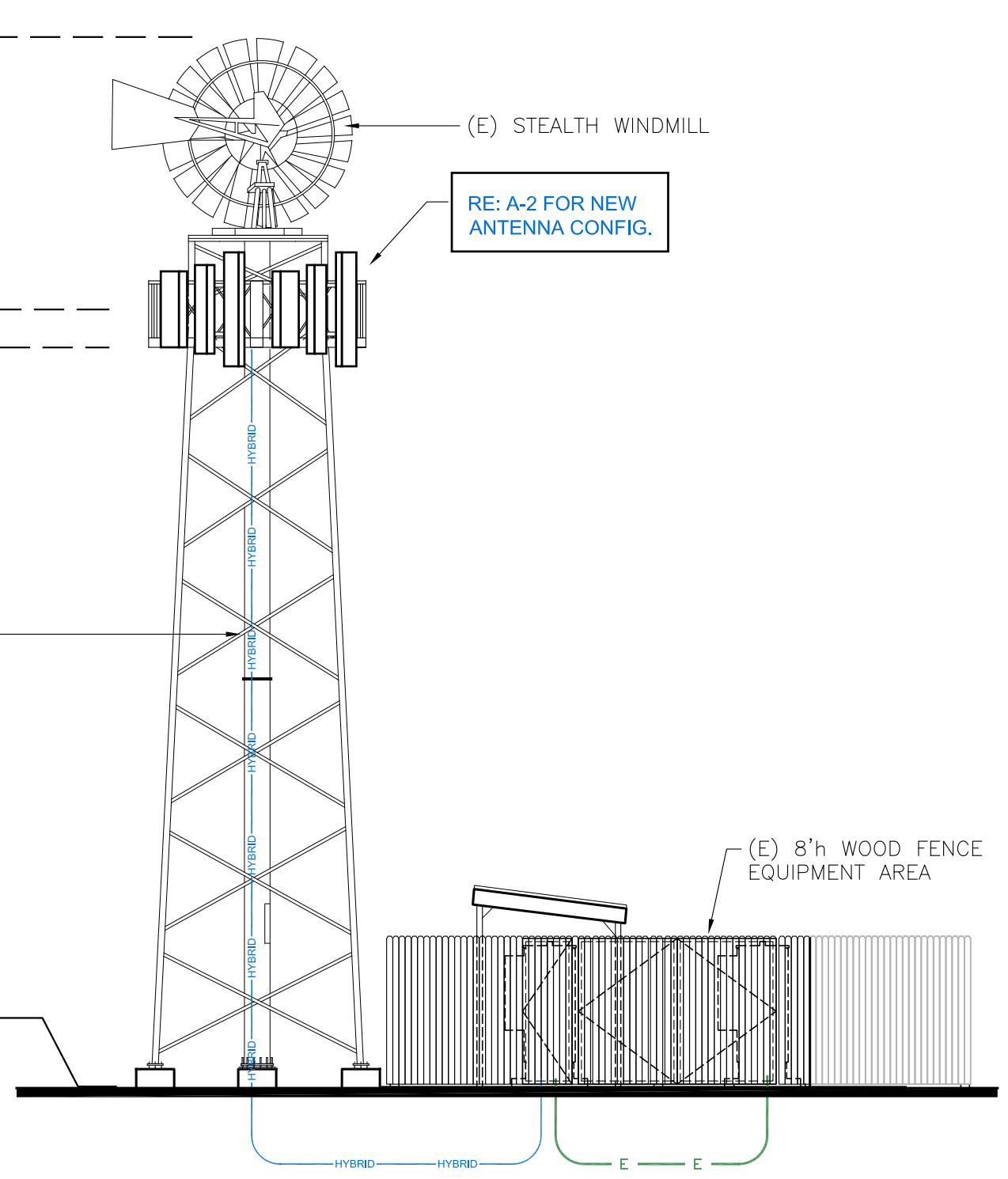
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EXISTING ELEVATION - NORTH ELEVATION

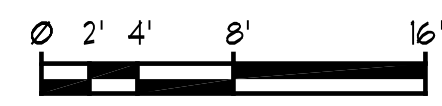
SCALE:  
1/8" = 1'-0" 2

NEW PAINT and 3M WRAP COLOR:  
RAL 8015 - CHESTNUT BROWN  
GC SHALL COOR'D. FINAL COLOR SELECTION  
WITH ARCHITECT PRIOR TO INSTALLATION.



NEW ELEVATION - NORTH ELEVATION

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



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ISSUE DATE:  
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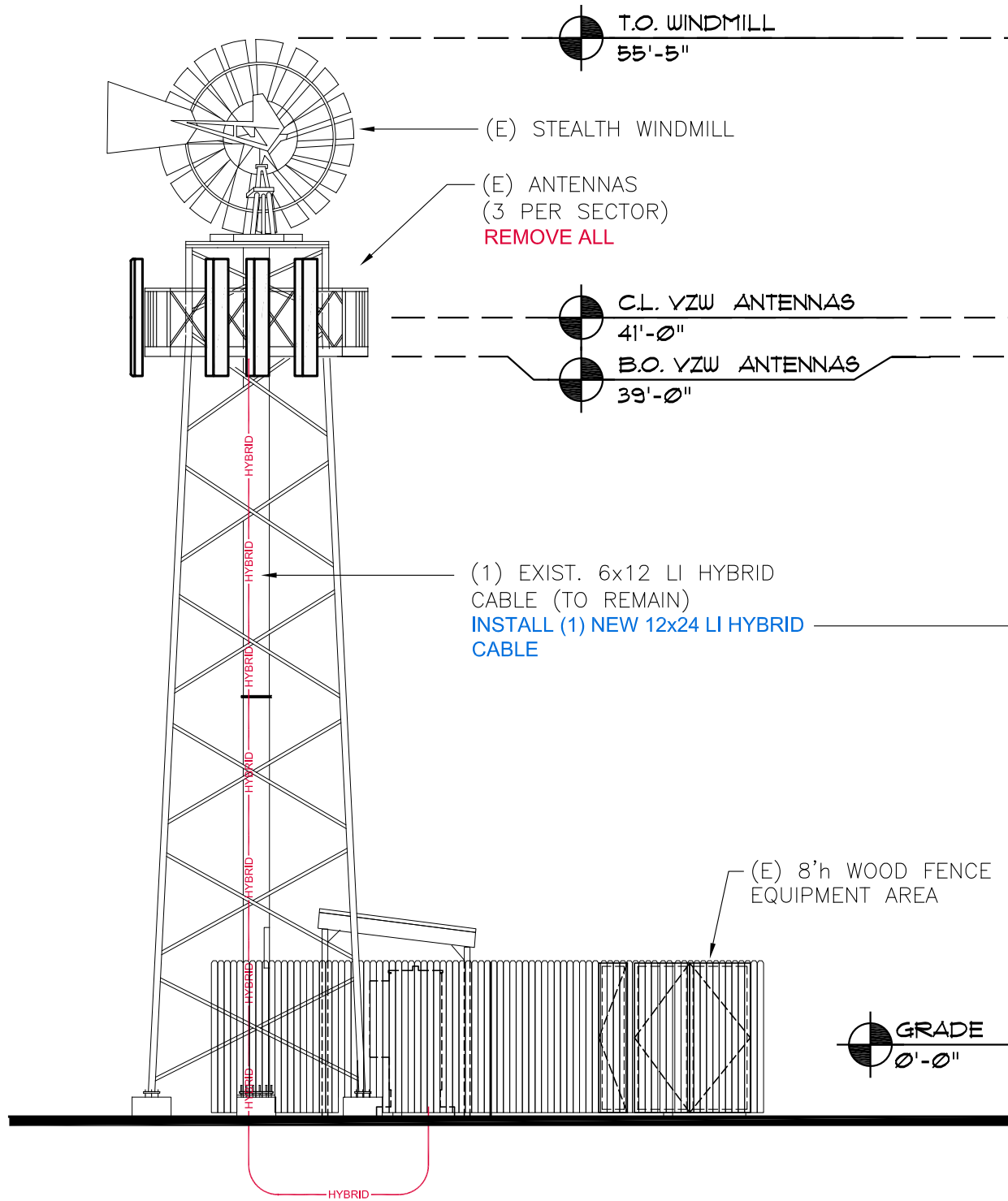
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1325 E. LAS VEGAS ST.  
COLORADO SPRINGS, CO 80903  
EL PASO COUNTY

SEAL:

SHEET TITLE:  
**SITE ELEVATION**  
  
5G L-SUB6 - CARRIER ADD

SHEET NUMBER:  
**A-3a**

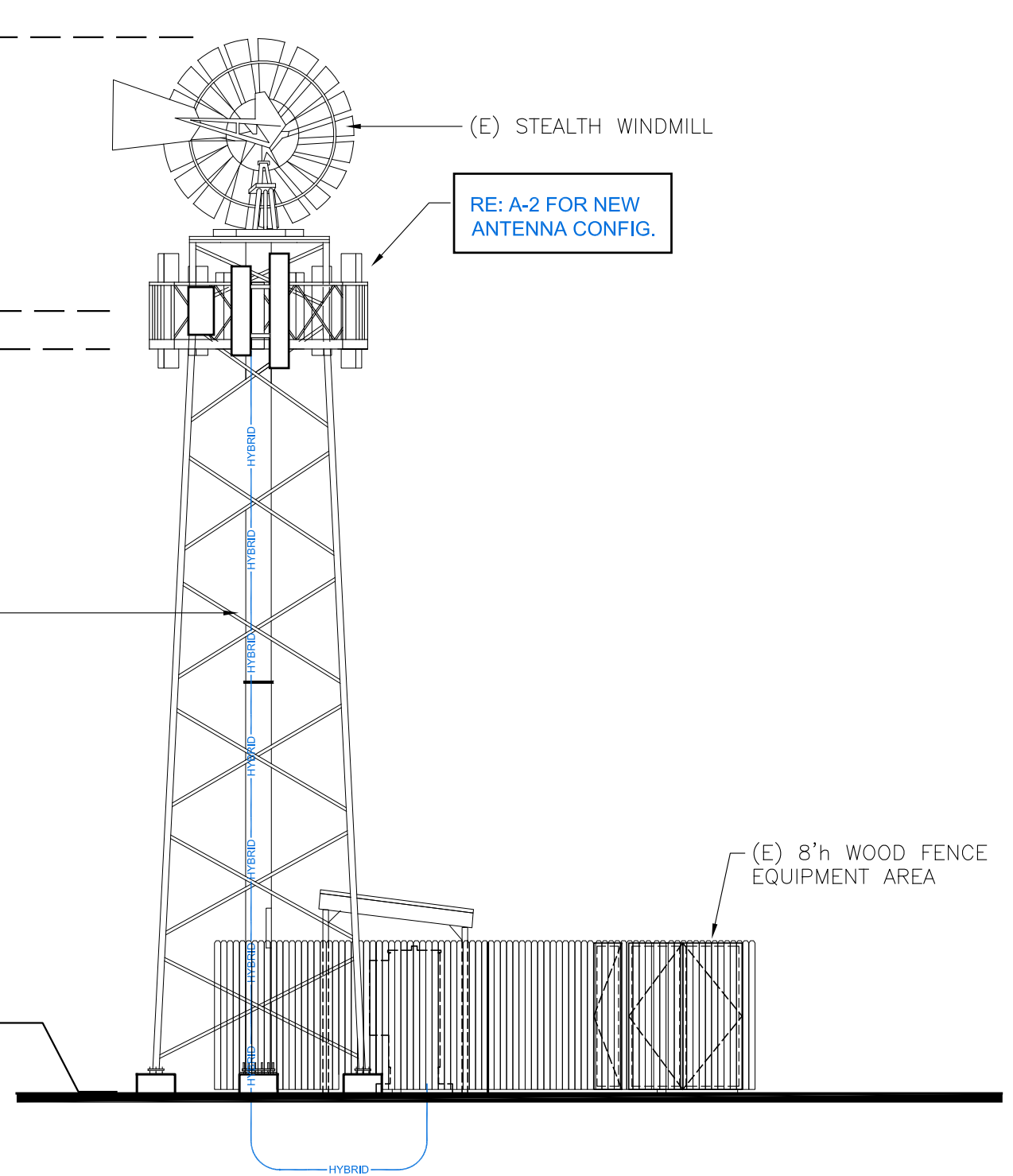
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EXISTING ELEVATION - EAST ELEVATION

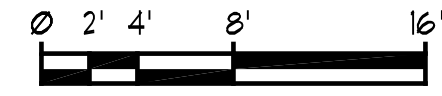
SCALE:  
1/8" = 1'-0" 2

NEW PAINT and 3M WRAP COLOR:  
RAL 8015 - CHESTNUT BROWN  
GC SHALL COOR'D. FINAL COLOR SELECTION WITH ARCHITECT PRIOR TO INSTALLATION.



NEW ELEVATION - EAST ELEVATION

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



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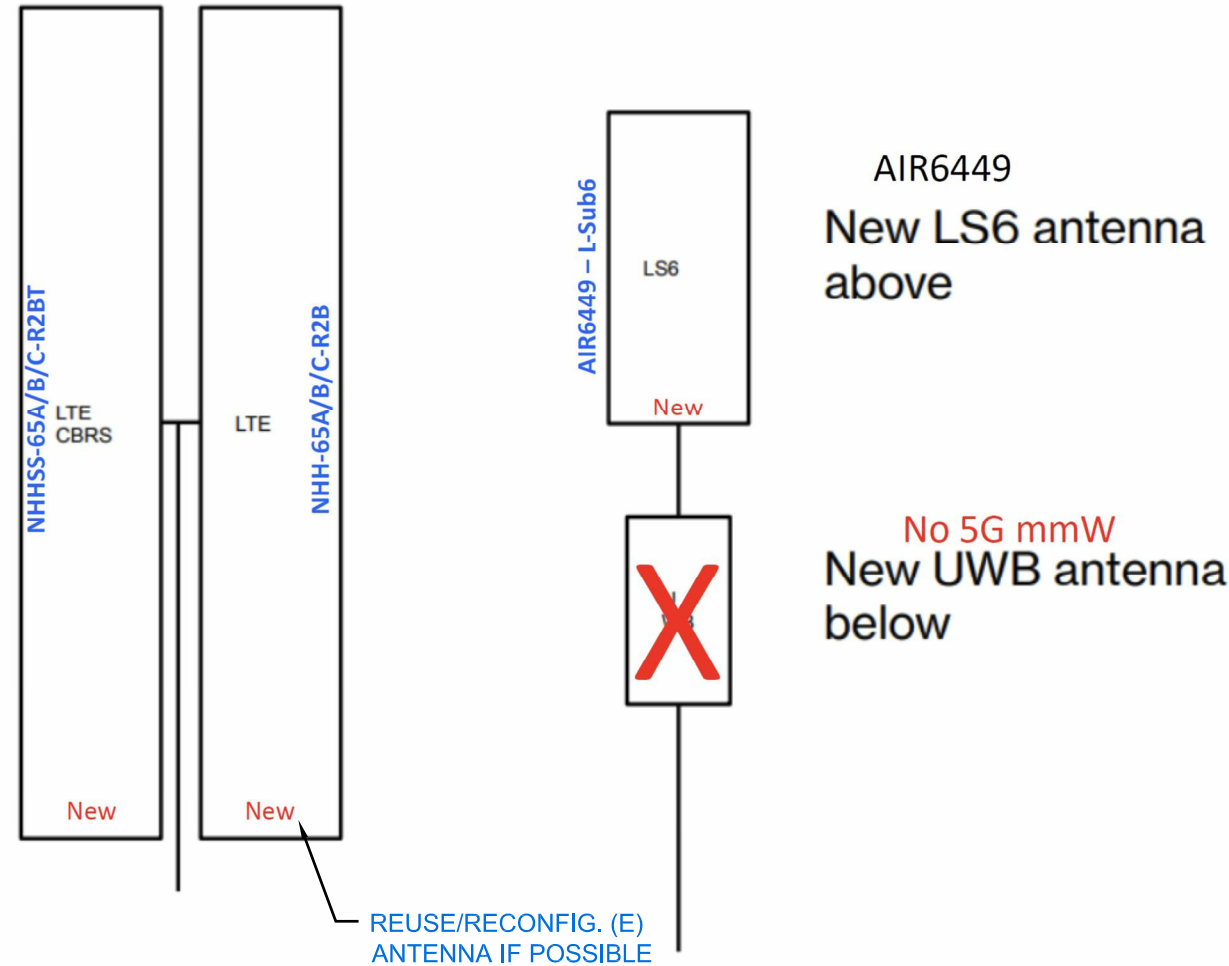
SHEET TITLE:  
**SITE ELEVATION**  
5G L-SUB6 - CARRIER ADD

SHEET NUMBER:  
**A-3b**



RFDS DATE: 5/3/2022

NOTE:  
ALL EXISTING ANTENNAS AND RADIOS WILL  
BE REMOVED/REMOVED/REPLACED WITH  
NEW MOUNTS, ANTENNAS, AND RADIOS.



**1 LTE Antenna Pair  
With CBRS and LS6**

Physical Characteristics

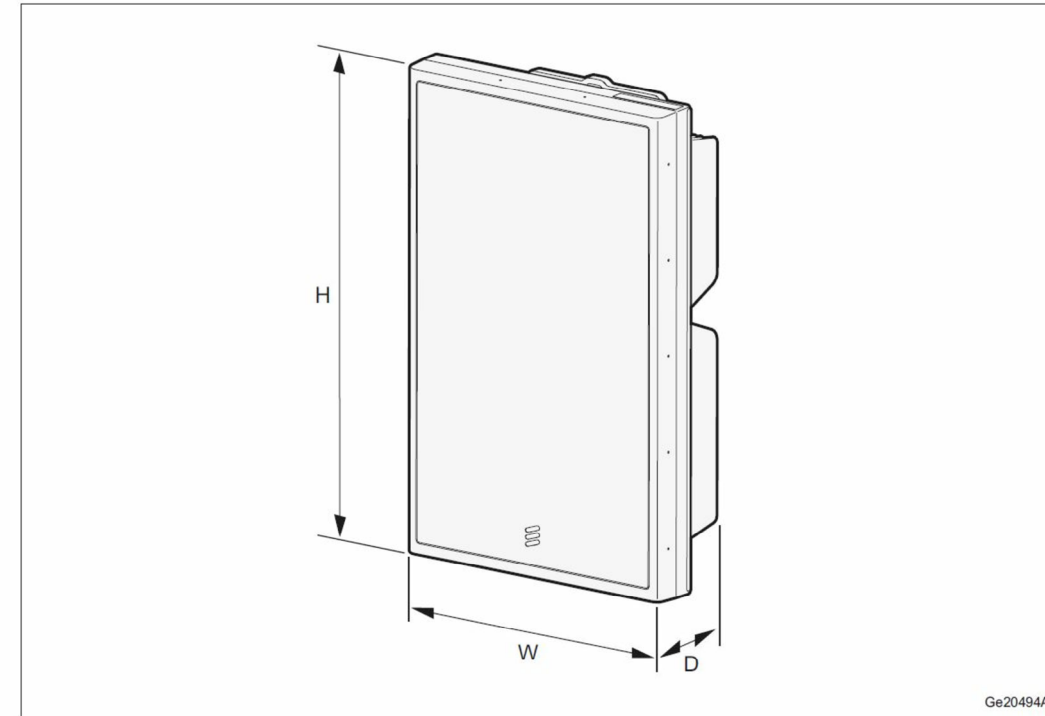


Figure 2 AIR Unit Dimensions

Table 7 AIR Unit Dimensions

AIR Unit Type	Height (H) × Width (W) × Depth (D)
AIR 6449 B41	841 × 521 × 217 mm
AIR 6449 B41K	841 × 521 × 217 mm
AIR 6449 B42	778 × 403 × 268 mm
AIR 6449 B43	778 × 403 × 268 mm
AIR 6449 B77D	30.6"×15.8"×10.5"
AIR 6449 B78M	778 × 403 × 268 mm



PLANS PREPARED BY:

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SEAL:

SHEET TITLE:  
**RF DETAILS**  
5G L-SUB6 - CARRIER ADD

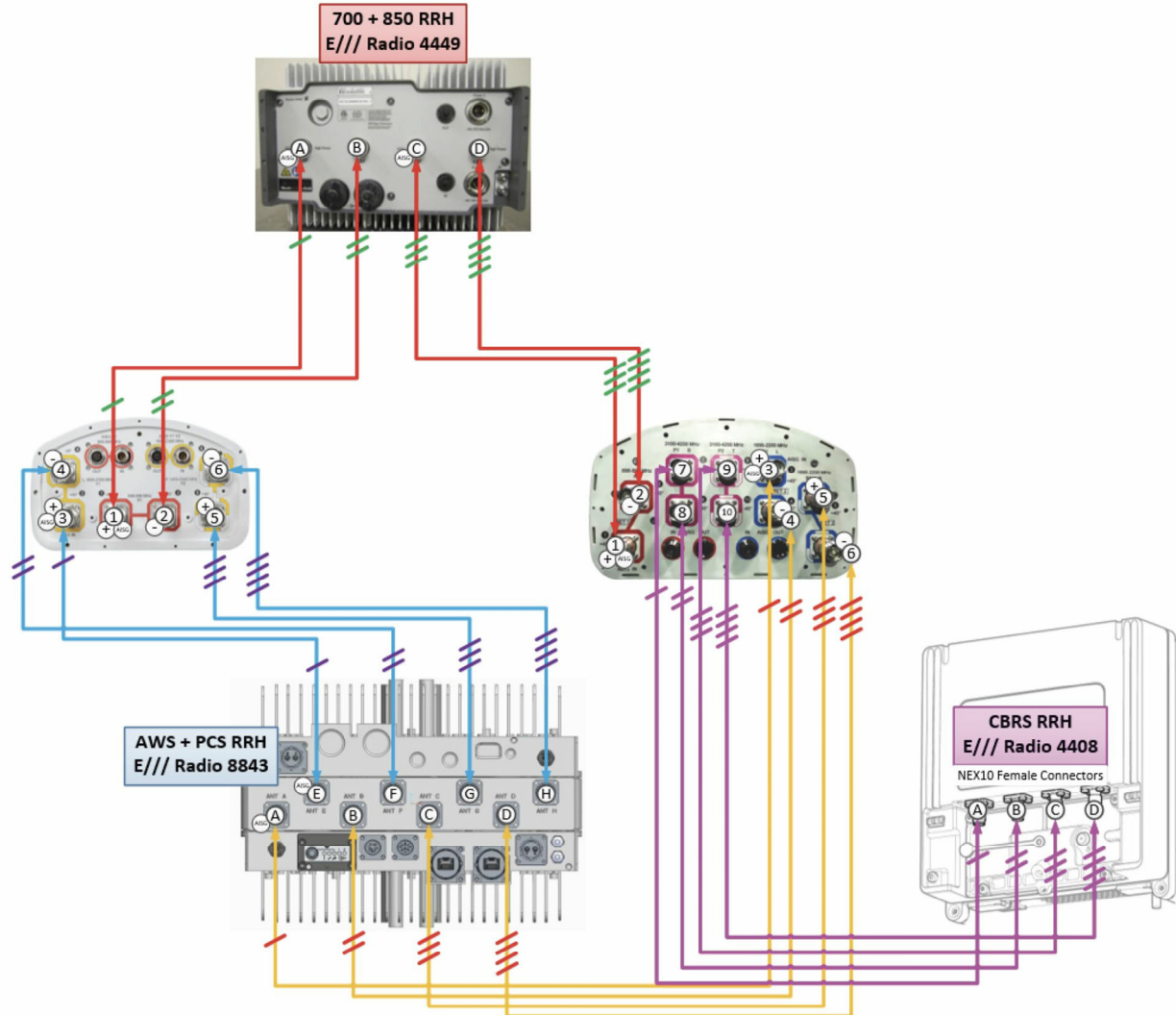
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**A-5**



RFDS DATE: 5/3/2022

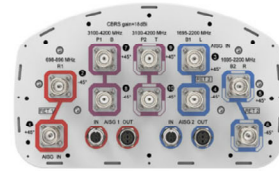
NOTE:  
ALL EXISTING ANTENNAS AND RADIOS WILL BE REMOVED/REMOVED/REPLACED WITH NEW MOUNTS, ANTENNAS, AND RADIOS.

**Commscope NHH + NHHSS -65A/B/C per sector**



INSTALL BOTH LTE ANTENNAS USING (1) NEW BSAMNT-SBS-1-2 "SIDE-BY-SIDE" MOUNTING KIT. INSTALL (1) NEW 4408 B48 RRH TO CENTER MOUNTING PIPE. (TYP. EA. SECTOR)

**NHHSS-65B-R2BT4**



10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100–4200 MHz, 65° HPBW, 2x RETs and 2x SBTs. Both high bands share the same electrical tilt.

- Perfect antenna to add 3.5GHz CBRS to macro sites
- Low band and mid band performance mirrors the performance of existing NHH hex port antennas
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- One LB RET and one HB RET. Both high bands are controlled by one RET to ensure same tilt level for 4x MIMO

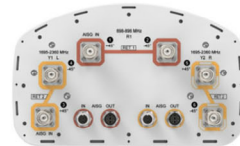
Dimensions

Width	301 mm   11.85 in
Depth	181 mm   7.126 in
Length	1828 mm   71.969 in
Net Weight, without mounting kit	23.1 kg   50.927 lb

COMMSCOPE NHHSS-65B-R2BT4 ANTENNA DATA SHEET

SCALE: 2  
N.T.S.

**NHH-65B-R2B**



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

Dimensions

Width	301 mm   11.85 in
Depth	180 mm   7.087 in
Length	1828 mm   71.969 in
Net Weight, without mounting kit	19.8 kg   43.651 lb

COMMSCOPE NHH-65B-R2B ANTENNA DATA SHEET

SCALE: 1  
N.T.S.



PLANS PREPARED BY:



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architect

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NO.	DATE:	DESCRIPTION:	BY:
1	04/12/22	PRELIM CD SET	aZ
2	05/03/22	PRELIM CD REV1	aZ

ISSUE DATE:

**MAY.03.2022**

SITE INFORMATION:

**CSP TRANSIT**

1325 E. LAS VEGAS ST.  
COLORADO SPRINGS, CO 80903  
EL PASO COUNTY

SEAL:

SHEET TITLE:

**RF DETAILS**

5G L-SUB6 - CARRIER ADD

SHEET NUMBER:

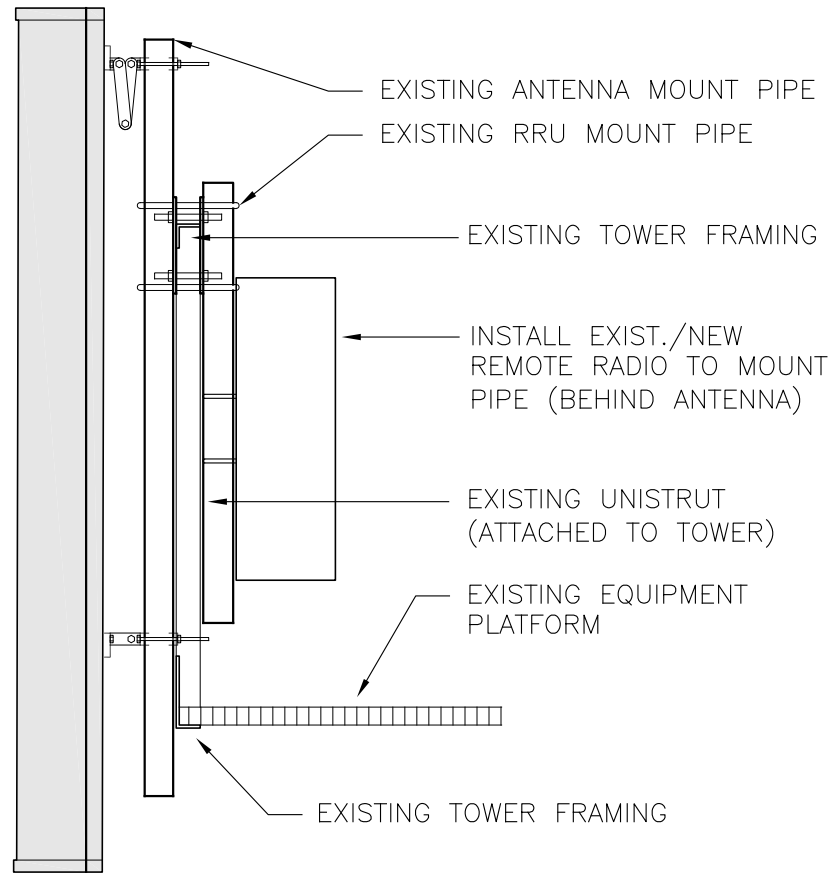
**A-6**

RF DATA SHEET - LTE PLUMBING DIAGRAM

N.T.S. 3

RFDS DATE: 5/3/2022

RE: A-2 FOR NEW ANTENNA CONFIG.



NOTE:  
 ALL EXISTING ANTENNAS AND RADIOS WILL BE REMOVED/REMOVED/REPLACED WITH NEW MOUNTS, ANTENNAS, AND RADIOS.

### RADIO 4449 – B13 & B5 4TX 4RX PER BAND

- 4 antenna ports, 4TX/4RX for 2 bands with common RF ports
- Up to 320W RF Power shared between 2 bands
  - Examples:
    - 4x40W on each band or
    - 2x60W each band on two high-power RF ports
- Carrier Capacity:
  - Up to 24 carrier and up to 10+25 MHz OBW for LTE
- 2 x 10 Gbps CPRI
- Size and Weight:

Radio 4449 - B13& B5	Height	Width	Depth	Weight
wo protruding items	15 in (380 mm)	13.2 in (335 mm)	9.3 in (235 mm)	70 lbs (31.7 Kg)
w protruding items	18 in (455 mm)	13.2 in (335 mm)	9.4 in (240 mm)	

- 48 VDC
- 2x20A fuse (2 power connectors, 2 or 3 wire)
- AISG TMA & RET support (2 Bias-T, 1 ALD port)
- Type 4.3-10 RF connectors
- 2 external alarms
- IP 65, -40 to +55 °C



Portrait Mount Only



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### CSP TRANSIT

1325 E. LAS VEGAS ST.  
 COLORADO SPRINGS, CO 80903  
 EL PASO COUNTY

SEAL:

SHEET TITLE:

### RF DETAILS

5G L-SUB6 - CARRIER ADD

SHEET NUMBER:

**A-7**

TYPICAL ANTENNA/RRU MOUNT

SCALE:  
 N.T.S. 4

ERICSSON 4449 REMOTE RADIO HEAD - EXISTING

SCALE:  
 N.T.S. 2

### RADIO 4408

Same building practice as Radio 2203/2208

- 4TX/4RX
- Tx Power 4x5W
- Up to 6 LTE carriers, IBW up to 150 MHz  
 ENM dependency (full support 6 carriers in ENM 20Q1)
- 2x 2.5/5/9.8/10.1Gbps CPRI
- Size and Weight:

Radio 4408 Single Radio	Height	Width	Depth	Weight
wo integrated antenna	8.4 in (213.5 mm)	7.9 in (200 mm)	4.2 in (105 mm)	10.2 lbs (4.6 Kg)
w integrated antenna	8.4 in (213.5 mm)	7.9 in (200 mm)	5.0 in (125 mm)	11.1 lbs (5.0 Kg)

- AC or -48 VDC Support Units, (single new version compared to 2208, dual SUP support release TBD)
- Integrated (Antenna 6524) or external antenna
- RF Connector: NEX10
- 2 external alarm
- IP 65
- 40 to +55 °C
- Operating Bands: B48/ CBRS

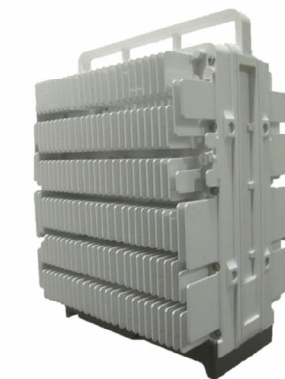


### RADIO 8843 – B2 & B66A 4TX 4RX PER BAND

- 8 antenna ports, 4TX/4RX for 2 bands with separate RF ports
- Up to 320W RF Power shared between 2 bands
  - Examples:
    - 4x40W on each band or
    - 4x20W on B2 and 4x60W on Band 66A
    - 2x60W on Band 2 and 2x80W on Band 66A
- Carrier Capacity:
  - Up to 24 carrier and up to 60+70 MHz OBW for LTE
- 2 x 10 Gbps CPRI
- Size and Weight:

Radio 8843 - B2 & B66A	Height	Width	Depth	Weight
wo protruding items	15 in (380 mm)	13.2 in (335 mm)	11.1 in (282 mm)	75 lbs (34.02 Kg)
w protruding items	18 in (455 mm)	13.2 in (335 mm)	11.3 in (287 mm)	

- 48 VDC
- 2x26A fuse (2 power connectors, 2 or 3 wire) (26A for 4x60W)
- AISG TMA & RET support (2 Bias-T, 1 ALD port)
- Type 4.3-10 RF connectors
- 2 external alarms
- IP 65, -40 to +55 °C



Portrait Mount Only

ERICSSON 4408 REMOTE RADIO HEAD - NEW

SCALE:  
 N.T.S. 3

ERICSSON 8843 REMOTE RADIO HEAD - EXISTING

SCALE:  
 N.T.S. 1



**GENERAL NOTES:**

**CODES:**

- (1) AT A MINIMUM, ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2017 REGIONAL BUILDING CODE AS ADOPTED BY PPRBD, AND THE FOLLOWING:
  - (A) 2015 VERSION OF THE INTERNATIONAL BUILDING CODE.
  - (B) FOR ELECTRICAL, REFERENCE AND COORDINATE WITH 2017 NATIONAL ELECTRIC CODE.
  - (C) FOR VERIZON STANDARDS USE NETWORK STANDARD VERIZON GUIDELINES.
  - (D) AMERICAN CONCRETE INSTITUTE, ACI 318-05, STANDARD BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
  - (E) AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AISC 9TH EDITION, MANUAL OF STEEL CONSTRUCTION.
  - (F) AMERICAN WELDING SOCIETY, AWS D1.1 2002 EDITION, STRUCTURAL WELDING CODE.
  - (G) STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS: ANSI/TIA-222-G-2009

(2) THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE PRESENT CONDITION OF ANY EXISTING BUILDINGS, LANDSCAPING, FENCING, EQUIPMENT, WALKS, DRIVES, AND ATTACHMENTS. IF ANY DAMAGE SHOULD OCCUR, THE CONTRACTOR IS RESPONSIBLE TO RESTORE THE DAMAGE TO A BETTER OR NEW CONDITION.

(3) THE NEW SMALL CELL IS UNMANNED AND NOT FOR HUMAN HABITAT. (HANDICAP ACCESS IS NOT REQ'D).

(4) OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH.

(5) DETAILS AND SCHEMATICS ARE TO PROPOSED TO SHOW END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY DEEM TO BE NECESSARY TO SUIT JOB CONDITIONS AND DIMENSIONS. SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

(6) CONTRACTOR SHALL PROVIDE CONTINUOUS SUPERVISION WHILE ANY SUBCONTRACTORS OR WORKMEN ARE ON THE JOB SITE AND SHALL SUPERVISE AND DIRECT ALL WORK. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND WITH COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

(7) DRAWINGS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY. THE WORK INDICATED ON THE DRAWINGS SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND APPURTENANCES, AND LABOR NECESSARY TO COMPLETE THE WORK. VERIFY ALL EQUIPMENT LOCATIONS WITH CONSTRUCTION MANAGER.

(8) THE DRAWINGS AND SPECIFICATIONS ARE A GENERAL DIRECTIVE FOR THE SCOPE OF WORK. EXACT DIMENSIONS AND LOCATIONS MAY CHANGE IN THE FIELD. THE CONTRACTOR IS TO VERIFY THE DIMENSIONS AND LOCATIONS AND REPORT ANY AND ALL DISCREPANCIES TO CONSTRUCTION MANAGER PRIOR TO COMMENCING THE RELATED WORK. ANY MINOR ERRORS OR OMISSIONS IN THE DRAWINGS AND SPECIFICATIONS, DOES NOT EXCUSE THE CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.

(9) PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL BECOME FAMILIAR WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT, INCLUDING DEMOLITION, STRUCTURAL AND ELECTRICAL INSTALLATIONS AND SHALL ADJUST BID ACCORDINGLY.

(10) CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS, DIMENSIONS, AND UTILITY LOCATIONS ON THE JOB SITE AND CONFIRM THAT WORK AS INDICATED ON THE CONSTRUCTION DOCUMENTS CAN BE ACCOMPLISHED AS SHOWN BEFORE PROCEEDING.

(11) NOTIFY CONSTRUCTION MANAGER OF ANY MAJOR DISCREPANCY REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS, AND OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK OR RELATED WORK IN QUESTION.

(12) INSTALL ALL EQUIPMENT AND MATERIALS PER MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED, OR WHERE CODES OR REGULATIONS TAKE PRECEDENCE.

(13) ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.

(14) ALL EQUIPMENT, SPECIFICATIONS, PERFORMANCE, INSTALLATION AND THEIR FINAL LOCATION ARE TO BE APPROVED BY CONSTRUCTION MANAGER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THEIR WORK WITH THE WORK AND CLEARANCE REQUIRED BY OTHERS RELATED TO SAID EQUIPMENT.

(15) ALL WORK PERFORMED AND MATERIALS SHALL MEET THE HIGHEST TRADE STANDARDS. CONFORM WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF GOVERNING AUTHORITY BEARING ON THE PERFORMANCE OF THE WORK.

(16) THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REDLINING THE CONSTRUCTION PLANS TO ILLUSTRATE THE AS-BUILT CONDITION OF THE SITE. THIS WILL BE DONE AFTER THE SITE HAS BEEN AWARDED THE FINAL INSPECTION. TWO COPIES OF REDLINED DRAWINGS WILL BE PROVIDED TO CONSTRUCTION MANAGER.

(17) PHOTOS SHALL BE TAKEN OF THE SITE AT THE REQUEST OF THE CONSTRUCTION MANAGER. ALL WORK TO BE BURIED OR HIDDEN MUST BE PHOTOGRAPHED AND INSPECTED BY CONSTRUCTION MANAGER PRIOR TO BACK FILLING ETC. UNLESS OTHERWISE SPECIFIED BY CONSTRUCTION MANAGER.

(18) ALL WORK IS BEING PERFORMED IN VARIOUS RIGHT-OF-WAY AND PROPERTY LOCATIONS. VERIFY ALL EQUIPMENT LOCATION/INSTALLATIONS WITH SURVEYED DATA. CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE FOR PROPER STORAGE LOCATIONS FOR MATERIALS.

(19) ALL WORK FOR CONSTRUCTION SHALL TAKE PLACE BETWEEN THE HOURS OF 7 A.M. TO 9 P.M., MONDAY THROUGH FRIDAY AND 8 A.M. TO 5 P.M. ON SATURDAYS. IF THERE IS AN ANTICIPATED NEED TO WORK OUTSIDE OF THE EXEMPTED HOURS FOR CONSTRUCTION, CONTRACTOR WILL NEED TO MAKE A REQUEST FOR NIGHTTIME NOISE VARIANCE AS ALLOWED BY THE CITY.

**SITE WORK:**

(1) RELATED WORK: CONSTRUCTION OF FOUNDATIONS, GROUNDING SYSTEM, AND UTILITY TRENCHES.

(2) QUALITY ASSURANCE:
(A) GRASS SEEDS SHALL BE APPLIED AND MAINTAINED AS RECOMMENDED BY THE CITY.
(B) VEGETATION LANDSCAPING WILL BE PLACED AND MAINTAINED, IF REQ'D. BY THE CITY.

(3) WARRANTY:
(A) IN ADDITION TO THE WARRANTY ON ALL CONSTRUCTION COVERED IN THE CONTRACT DOCUMENTS THE CONTRACTOR SHALL REPAIR ALL DAMAGE AND REPAIR AREA BACK AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE TO LEASE AREA PROPERTY OR SURROUNDING CAUSED BY CONSTRUCTION.
(B) DISTURBED AREAS WILL REFLECT GROWTH OF NEW GRASS COVER PRIOR TO FINAL INSPECTION.
(C) LANDSCAPING SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL INSPECTION.

(5) ALL FILL DIRT SHALL BE CLEAN AND NATURAL, FREE FROM ANY DELETERIOUS MATERIALS, ROOTS, ICE, SNOW, AND RUBBISH.

(6) ALL FILL OR STONE WILL BE PLACED IN MAXIMUM 8" LIFTS PRIOR TO COMPACTING.

(7) THE CONTRACTOR IS RESPONSIBLE TO ENSURE GROWTH OF THE SEED AND LANDSCAPING AREAS BY WATERING, STRAW, MULCH NET AND ANY OTHER PROPER LANDSCAPING METHOD NECESSARY.

(8) THE CONTRACTOR IS TO MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES. DO NOT ALLOW WATER TO STAND OR POND. ANY DAMAGE TO STRUCTURES OR WORK ON THE SITE CAUSED BY INADEQUATE MAINTENANCE OF DRAINAGE PROVISIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND ANY COST ASSOCIATED WITH REPAIRS FOR SUCH DAMAGE WILL BE AT THE CONTRACTORS EXPENSE.

(9) THE CONTRACTOR SHALL BE RESPONSIBLE TO CORRECT ALL DAMAGE TO THE SITE SUBSEQUENT TO THE INSTALLATION OF THE POWER AND FIBER LINES.

**DEMOLITION:**

1. EXISTING WORK AND SITE CONDITIONS TO REMAIN SHALL BE PROTECTED FROM DAMAGE, WORK DAMAGED BY CONTRACTOR SHALL BE REPAIRED TO MATCH EXISTING WORK.

2. AT THE END OF EACH WORK DAY AND DURING INCLEMENT WEATHER, CLOSE ALL EXTERIOR OPENINGS WITH WEATHERPROOF COVER.

3. DEMOLITION SHALL BE CONTROLLED TO PREVENT THE SPREAD OF DUST. REMOVE DEBRIS AND RUBBISH FROM THE SITE DAILY. DO NOT ALLOW DEBRIS AND TRASH TO ACCUMULATE ON SITE.

4. INSPECTIONS: REQUIRED BUILDING INSPECTORS SHALL BE ARRANGED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS. UNLESS OTHERWISE SPECIFIED BY JURISDICTION.

5. THE CONTRACTOR SHALL ORDER A FULL UTILITY LOCATE SERVICE PRIOR TO THE START OF CONSTRUCTION.

6. CONTRACTOR AND SUB-CONTRACTORS SHALL VERIFY ALL UTILITY SERVICE CONNECTION LOCATIONS AND VERIFY ALL DIMENSIONS AND NOTES PRIOR TO PROCEEDING WITH WORK. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, IRRIGATION, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES, WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, UTILITIES SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES.

7. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, OWNER AND PAFB.

8. THE CONTRACTOR SHALL COORDINATE LOCATION OF POLE AND EQUIPMENT WITH THE SURVEYOR OF RECORDED PRIOR TO COMMENCING WORK.

9. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE EQUIPMENT AND TOWER AREAS.

10. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND, NOR SHALL ANY FROZEN MATERIALS, SNOW OR ICE BE PLACED IN FILL OR EMBANKMENT.

11. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.

12. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. ALL DISTURBED LANDSCAPING SHALL BE REPLACED, RESEEDDED, AND REGROWN TO MATCH THE ORIGINAL CONDITION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

13. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

14. LANE CLOSURES, IF REQUIRED, OR OBSTRUCTIONS SHALL BE PROPERLY COORDINATED WITH CITY R.OW.

**UTILITY NOTES:**

(1) THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PROJECT PERMITS ASSOCIATED WITH CONSTRUCTION AND RELATED ACTIVITIES SUCH AS STREET OCCUPANCY, STREET CUT, EROSION CONTROL, AND PARK PERMITS.

(2) THE CONTRACTOR SHOULD REMOVE MATERIALS AND EQUIPMENT FROM THE ROW BY THE COST OF DAILY OPERATIONS.

(3) THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE COPY OF THE APPROVED PLANS, SPECIFICATIONS, AND STANDARDS ON THE JOB SITE AT ALL TIMES.

(5) THE CONTRACTOR SHALL NOTIFY PUBLIC WORKS RIGHT OF WAY FOR ANY CONSTRUCTION INSPECTIONS TWO DAYS BEFORE COMMENCING WORK IN THE ROW, AND UPON COMPLETION OF THE WORK.

(6) ALL WORK, INCLUDING CORRECTION WORK, IS SUBJECT TO NOTIFICATION AND INSPECTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.

(7) ALL TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SAFETY OF WORKERS PROVIDED FOR AS REQUIRED BY CURRENT OSHA REGULATIONS. CONTRACTOR SHALL ACCEPT SOLE LIABILITY AND RESPONSIBILITY FOR COMPLYING WITH ALL CURRENT OSHA REGULATIONS APPLICABLE TO ALL WORK IN PLANS.

(8) UTILITY PLAN REVIEW AND APPROVAL DOES NOT CONSTITUTE APPROVAL FOR ANY WORK ON, OVER, IN, OR UNDER PRIVATE PROPERTY.

(9) PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITIES TO COORDINATE SCHEDULING. SHOULD ANY CONFLICTS OR INTERRUPTIONS IN SERVICE BE REQUIRED, CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY SCHEDULING.

(10) THE CONTRACTOR SHALL MAINTAIN AT LEAST A 10' CLEAR ZONE TO UTILITIES AT ALL TIMES IN ACCORDANCE WITH CITY STANDARDS.

**ROADWAY NOTES:**

(1) ANY PORTION OF CONSTRUCTION OCCURRING IN THE PUBLIC ROADWAY SHALL COMPLY WITH THE PROVISIONS OF THE MOST CURRENT VERSION OF THE CITY STANDARD SPECIFICATIONS AND DETAILS.

(2) MATERIAL REMOVED FROM ANY PORTION OF THE ROADWAY SECTION MUST BE REPLACED IN ACCORDANCE WITH THE PUBLIC WORKS RULES AND REGULATIONS GOVERNING STREET CUTS.

(3) THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE TRAFFIC CONTROL THROUGHOUT THE PROJECT, INCLUDING PROPER TRAFFIC CONTROL DEVICES AND/OR PERSONNEL AS REQUIRED. AN APPROVED TRAFFIC CONTROL PLAN IS SUBJECT TO CDOT AND/OR ROW INSPECTION FOR APPROVAL PRIOR TO COMMENCING WORK IN PUBLIC ROW.

(4) PRIOR TO PROJECT CLOSE-OUT, ALL DISTURBED PORTIONS OF THE CITY ROW SHALL BE CLEANED UP AND RESTORED TO THEIR ORIGINAL CONDITION, SUBJECT TO CITY APPROVAL.

(5) RESTORATION IS REQUIRED FOR ANY HOLES OR CUTS MADE IN WALKING AND/OR PAVED SURFACES, INCLUDING TEST HOLES OR POTHOLING FOR INVESTIGATION ACTIVITIES FOR ANY LOCATES. PERMANENT PATCHING OF POTHLES OR CUTS IS ALSO REQUIRED IN ASPHALT AND CONCRETE PAVEMENTS. ALL RESTORATION SHALL BE PER CITY TRANSPORTATION STANDARDS AND DETAILS.

(6) THE CONTRACTOR SHALL PROTECT ALL STORM SEWER INLETS LOCATED ADJACENT TO THE WORK.

(7) THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS GENERATED BY CONSTRUCTION ACTIVITIES INTO THE CITY STORM SEWER SYSTEM IS STRICTLY PROHIBITED. DON'T BE A COUSIN EDDIE.

(8) THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS, AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT.

(9) CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL WASTE PRODUCTS GENERATED BY CONSTRUCTION ON A DAILY BASIS. DO NOT LEAVE CONSTRUCTION DEBRIS ON-SITE. THE CITY REQUIRES THAT IMPERVIOUS SURFACES WHICH ARE ADJACENT TO OR CONTAINED WITHIN THE CONSTRUCTION SITE BE SWEEPED ON A DAILY BASIS OR AS-NEEDED DURING THE DAY WHEN SEDIMENT AND OTHER MATERIALS ARE TRACKED OR DISCHARGED ON TO THEM. EITHER SWEEPING BY HAND OR USE OF A MACHINE IS ACCEPTABLE.

(10) THE CONTRACTOR SHALL PROTECT ALL STORM SEWER FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING, OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL WASTE PRODUCTS GENERATED BY SAID CUTTING OPERATIONS ON A DAILY BASIS OR AS NEEDED THROUGHOUT THE WORK DAY.

**PRE-CONSTRUCTION PERMITTING NOTES:**

- 1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE ENGINEERING SUPERVISOR AT THE PUBLIC WORKS/ROW MANAGEMENT INSPECTION OFFICE (719) 385-5463 TO OBTAIN THE PERMITS FOR CONSTRUCTION.
- 2. APPLICANT SHALL COORDINATE THE CLOSURE OF DRIVEWAYS IN THE PROJECT AREA WITH THE ADJACENT PROPERTIES. ACCESS MUST BE PROVIDED TO ALL BUILDINGS DURING CONSTRUCTION.

UPDATED 03/2022



**PLANS PREPARED BY:**



mobile: 303.870.2276 office: 303.363.8574 AARON ZIMMER architect aZ@ZyMR.co

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ISSUE DATE: MAY.03.2022

SITE INFORMATION: CSP TRANSIT 1325 E. LAS VEGAS ST. COLORADO SPRINGS, CO 80903 EL PASO COUNTY

SEAL:

SHEET TITLE: GENERAL, SITE, UTILITY, and DEMO NOTES 5G L-SUB6 - CARRIER ADD

SHEET NUMBER: GN-1



**ELECTRICAL NOTES:**

1. CONTRACTOR SHALL PERFORM ALL SITE SURVEY, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL VERIFY THAT ALL ELECTRICAL PANELS, METERING EQUIPMENT, AND DISCONNECTS MEET THE LOCAL UTILITY'S REQUIREMENTS PRIOR TO ORDERING MATERIALS OR INSTALLING ELECTRICAL EQUIPMENT. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
2. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
3. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANEL BOARD, PULL BOX, J-BOX, WITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.).
4. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
5. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.
6. ALL CONDUIT INSTALLED SHALL BE SURFACE MOUNTED OR DIRECT BURIAL UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL CARRY OUT THEIR WORK IN ACCORDANCE WITH ALL GOVERNING ELECTRICAL CODES.
8. CONTRACTOR RESPONSIBLE FOR PERMITS AND PAY ALL REQUIRED FEES.
9. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
10. ALL CONDUIT SHALL HAVE A PULL WIRE OR ROPE.
11. PROVIDE PROJECT MANAGER WITH (2) SETS OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS.
12. ALL MATERIALS SHALL BE U.L. LISTED.
13. ALL CONDUCTORS SHALL BE COPPER, UNLESS OTHERWISE NOTED.
14. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
15. WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.
16. GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER UNLESS OTHERWISE NOTED.
17. CONDUIT
  - A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3
  - B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTING SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
  - C. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT SHALL HAVE FULL SIZE EQUIPMENT GROUND WIRE.
  - D. UNDERGROUND CONDUIT SHALL BE P.V.C. SCHEDULE 80 (UNLESS NOTED OTHERWISE).
18. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUND TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.

**2.0 DEFINITIONS**

- AGB: ANTENNA GROUND BAR
- AWG: AMERICAN WIRE GAUGE
- CAD: WELDING: AN EXOTHERMIC WELDING PROCESS WHICH CREATES POSITIVE CONTACT OF POSITIVE CONTACT OF GROUNDING CONDUCTORS
- EMT: ELECTRICAL METAL TUBING (LIGHT GAUGE METAL CONDUIT) MGB MASTER GROUND BAR
- PVC: POLY VINYL CHLORIDE CONDUIT
- RFI: RADIO FREQUENCY INTERFERENCE
- THW: LETTER TYPE DESIGNATION FOR CONDUCTOR INSULATION THAT IS A MOISTURE AND HEAT RESISTANT THERMOPLASTIC WITH A MAXIMUM OPERATING TEMPERATURE OF 75 DEGREES CELSIUS OR 167 DEGREES FAHRENHEIT.

**RF LANGUAGE:**

1. PROPOSED VOLTAGE – THE POWER SUPPLIED TO THE SITE IS 120–240 VOLTS AC. THIS IS CONVERTED TO –48 VOLTS DC WHICH IS THEN SUPPLIED TO THE TRANSMITTERS.
2. MAXIMUM TRANSMISSION WATTAGE – THIS SITE WILL BE INSTALLED WITH (3) 28GHz/ 39GHz RADIOS WITH A MAX. OF 1 TOTAL WATT EA.
3. RADIO FREQUENCY – VERIZON WILL OPERATE ON THE FOLLOWING BAND: 28GHz/ 39GHz (TRANSMIT FROM 27,500 TO 28,300 MHz AND FROM 38,600 TO 39,400 MHz).
4. MICROWAVE EXPULSION – NO MICROWAVE RADIOS WILL BE USED AT THIS SITE.
5. MAXIMUM ALLOWABLE TRANSMISSION – THE FCC THRESHOLDS IN EIRP ARE AS FOLLOWS: PCS 1640 W/MHz, AWS 1640 W/MHz EIRP, LAA .05 W/MHz, CBRS 40 dBm (10 W) per 10 MHz, AND 28GHz/39GHz 75 dBm (31,623 W) per 100 MHz.



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**LIMITATION OF WARRANTY AND ARCHITECT'S WORK PRODUCT:**

If any mistakes, omissions, and/or discrepancies are found to exist within the work product, the Architect shall be notified immediately. Failure to promptly notify the Architect of such conditions shall absolve the Architect from any responsibility for the consequences of such failure. Modifications or contradictions to the plans taken without the knowledge, consent, or recommendation of the Architect shall transfer all responsibility to the parties taking said actions.

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NO.	DATE:	DESCRIPTION:	BY:
1	04/12/22	PRELIM CD SET	aZ
2	05/03/22	PRELIM CD REV1	aZ

**ISSUE DATE:**

**MAY.03.2022**

**SITE INFORMATION:**

**CSP TRANSIT**

1325 E. LAS VEGAS ST.  
COLORADO SPRINGS, CO 80903  
EL PASO COUNTY

**SEAL:**

**SHEET TITLE:**

**ELECTRICAL NOTES**

**5G L-SUB6 - CARRIER ADD**

**SHEET NUMBER:**

**GN-2**

UPDATED 03/2022