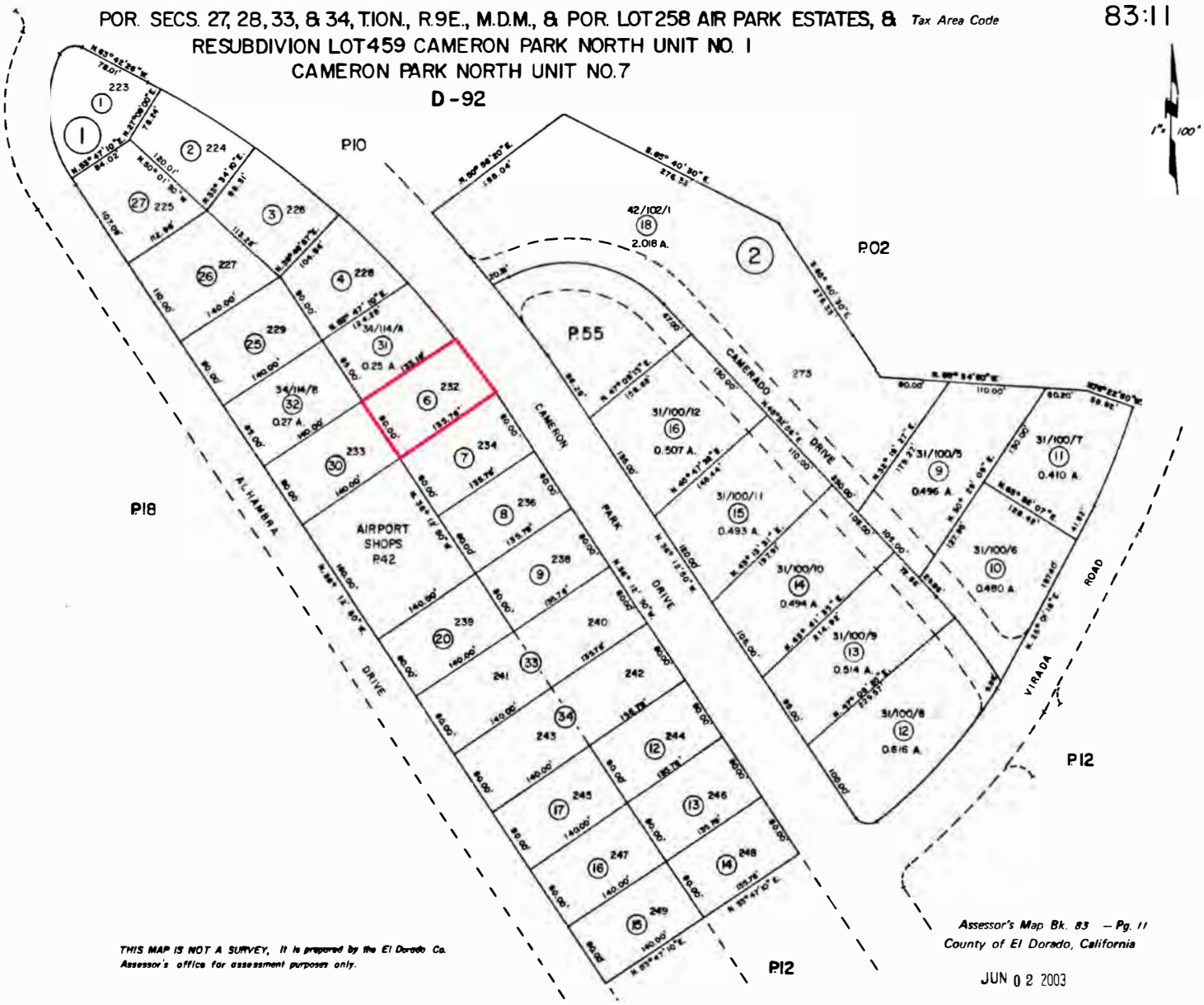
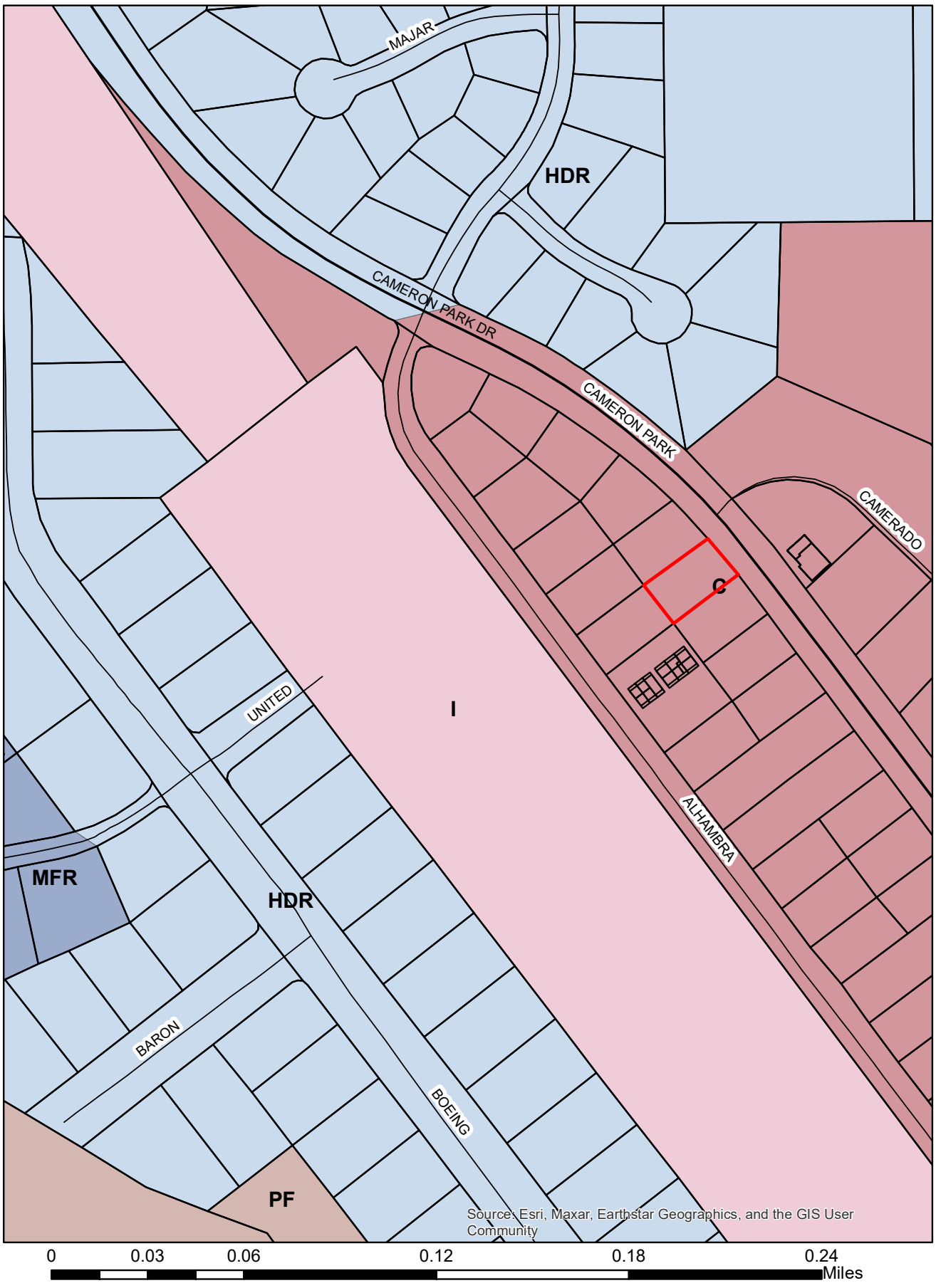
CUP-R22-0031 Alhambra Drive Monopine

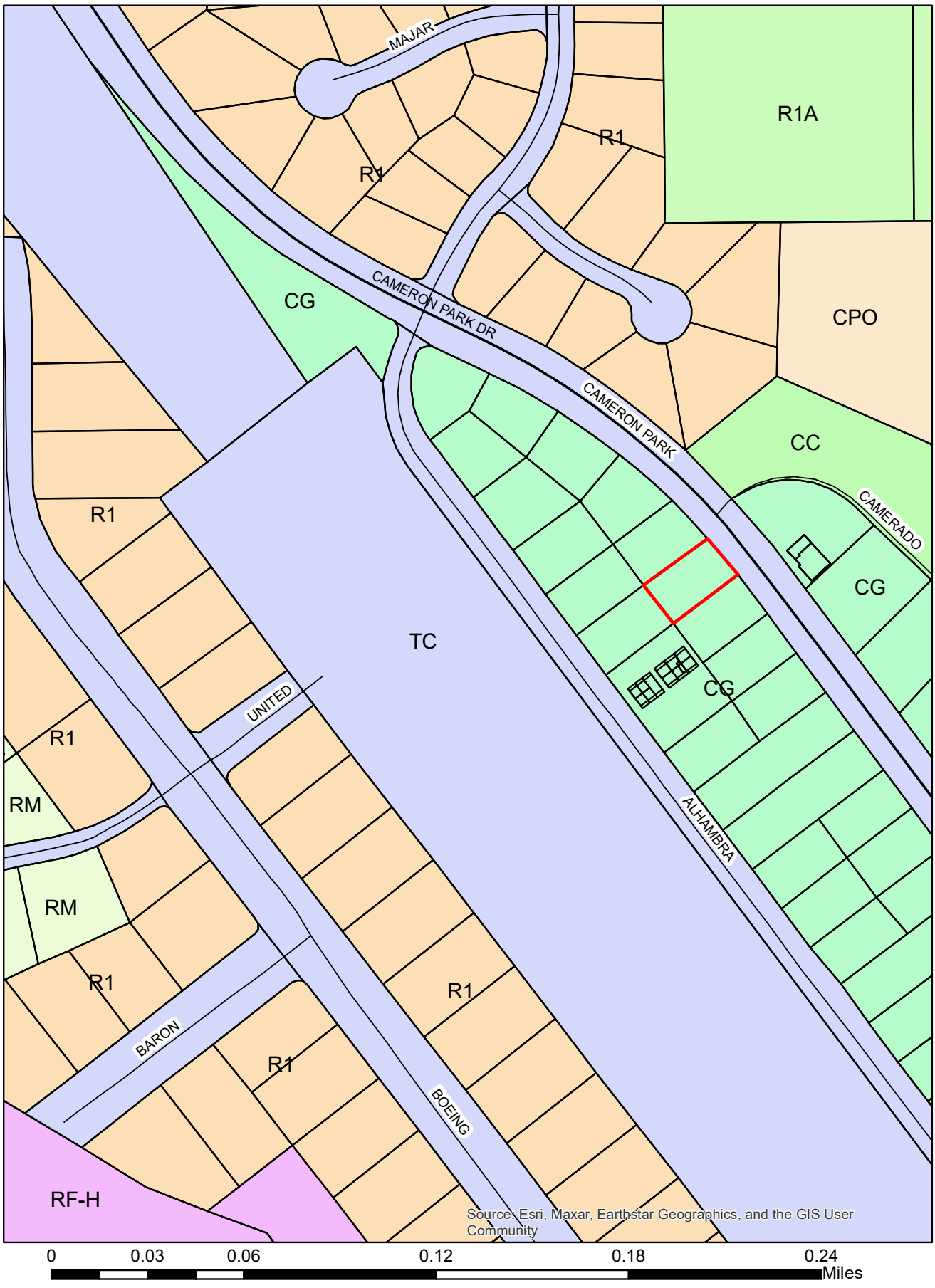
Exhibit A: Location Map



CUP-R22-0031 Alhambra Drive Monopine Exhibit B: Assessor's Parcel Map



CUP-R22-0031 Alhambra Drive Monopine Exhibit C: Land Use Designation Map



CUP-R22-0031 Alhambra Drive Monopine Exhibit D: Zoning Designation Map

CUP-R22-0031 Alhambra Drive Monopine Exhibit E: Aerial Site Map

T-Mobile

T-MOBILE SITE NUMBER: SC09948A
T-MOBILE SITE NAME: SA948 CAMERON PARK
SITE TYPE: MONOPOLE
TOWER HEIGHT: 50'-0"

BUSINESS UNIT #: 827264
SITE ADDRESS: 3027 ALHAMBRA DR. CAMERON PARK, CA 95682
COUNTY: EL DORADO COUNTY
JURISDICTION: EL DORADO COUNTY

ANCHOR

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	SA948 CAMERON PARK
SITE ADDRESS:	3027 ALHAMBRA DR. CAMERON PARK, CA 95682
COUNTY:	EL DORADO COUNTY
MAP/PARCEL #:	083-111-006
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	38° 41' 15.6114" N (38.68766992)
LONGITUDE:	120° 59' 20.2842" W (-120.98896800)
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	1299'
CURRENT ZONING:	PENDING
JURISDICTION:	EL DORADO COUNTY
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	CROWN CASTLE 2000 CORPORATE DR CANONSBURG, PA 15317
TOWER OWNER:	CCTM1 LLC ONE PARK PLACE, SUITE 300, DUBLIN, CA 94568
CARRIER/APPLICANT:	T-MOBILE 1755 CREEKSIDE OAKS DR. SUITE 190 SACRAMENTO, CA 95833
CROWN CASTLE USA INC. APPLICATION ID:	PENDING
ELECTRIC PROVIDER:	TBD
TELCO PROVIDER:	TBD

PROJECT TEAM

A&E FIRM:	TELCYTE INFRASTRUCTURE SERVICES 3450 N HIGLEY RD, SUITE 102 MESA, AZ 85215 CWOLFE@TELCYTE.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	4301 HACIENDA DRIVE, SUITE 410 PLEASANTON, CA 94588 PATRICE TIPTON - PROJECT MANAGER (949) 930-4350 GARY HORACE - CONSTRUCTION MANAGER (661) 330-3745 LAURA MANSFIELD - A&E SPECIALIST LAURA.MANSFIELD@CROWNCASTLE.COM (925) 737-1047
T-MOBILE CONTACT:	MICHELLE STEFFLER MICHELLE.STEFFLER@T-MOBILE.COM

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.0	SITE PLAN
C-2.1	EXISTING EQUIPMENT PLAN
C-2.2	FINAL EQUIPMENT PLAN
C-3	ELEVATIONS
C-4	ELEVATIONS
C-5	ANTENNA PLAN, MOUNTING DETAILS, & SCHEDULE
C-6	EQUIPMENT SPECIFICATIONS
C-7	EQUIPMENT SPECIFICATIONS
C-8	EQUIPMENT SPECIFICATIONS
E-1	AC PANEL SCHEDULE & ONE-LINE DIAGRAM
G-1	ANTENNA/GROUND EQUIPMENT GROUNDING DETAILS
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR FULL SIZE. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

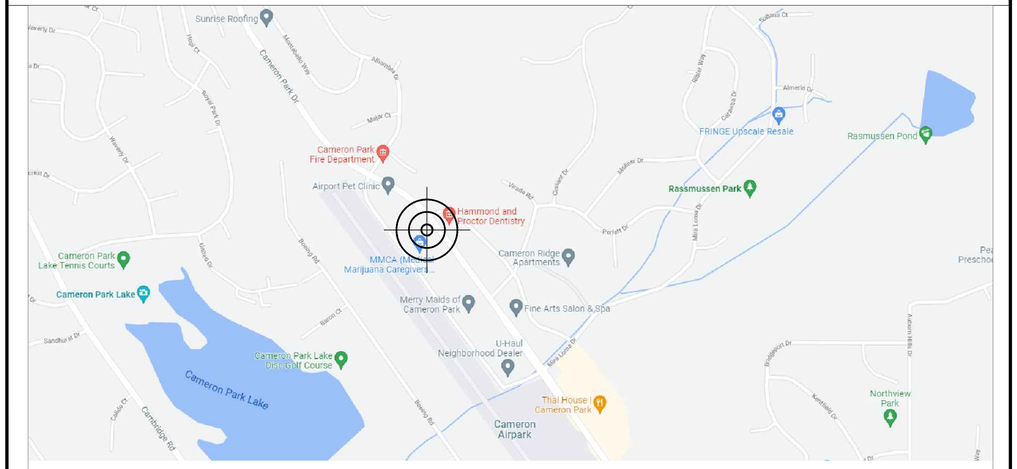
APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

	PRINT NAME	SIGNATURE	DATE
PROJECT MANAGER			
CONST. PM.			
RF ENGINEER			
SAC REP.			
PLAN CONSULTANT			
PROP. OWNER			
T-MOBILE REP.			

THE PARTIES ABOVE HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

LOCATION MAP



NO SCALE

APPLICABLE CODES/ REFERENCE DOCUMENTS

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

CODE TYPE	CODE
BUILDING	2019 CALIFORNIA BUILDING CODE (CBC)/2018 IBC
MECHANICAL	2019 CALIFORNIA MECHANICAL CODE (CMC)/2018 UMC
ELECTRICAL	2019 CALIFORNIA ELECTRICAL CODE (CEC)/2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	T.B.D
	T.B.D
MOUNT ANALYSIS:	T.B.D
	T.B.D

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

CALL CALIFORNIA ONE CALL
(800) 227-2600
CALL 3 WORKING DAYS
BEFORE YOU DIG!

811

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

TOWER SCOPE OF WORK
- REMOVE (3) ANTENNAS
- REMOVE (6) TMAS
- REMOVE (6) DIPLEXERS
- REMOVE (6) 7/8" COAX CABLES
- INSTALL (6) ANTENNAS
- INSTALL (6) RRUS
- INSTALL (2) 6X24 4AWG HCS 20M
- INSTALL (9) NEW MOUNTS (SITEPRO1 - FMA2)
- NEW MONOPOLE EXTENSION (NOT TO EXCEED 18" DIAMETER)

GROUND SCOPE OF WORK
- REMOVE (1) BB 6630
- REMOVE (6) RUS01 B2
- REMOVE (6) RUS01 B4
- INSTALL (2) BB 6648
- INSTALL (2) PSU 4813 vR2A (KIT)
- INSTALL (1) CSR IXRe V2 (GEN2)
- INSTALL (1) 6160 ENCLOSURE
- INSTALL (1) B160 BATTERY CABINET

CONFIG: 67E5A998E HYBRID

DESIGN PACKAGE BASED ON THE RFDS
REVISION: 7
DATE: 05/25/2022

DESIGN PACKAGE BASED ON THE APPLICATION
ID: PENDING
REVISION: PENDING

T-Mobile
1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE
200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

3027 ALHAMBRA DR.
CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	01/25/22	NP	PRELIMINARY	CW
B	02/03/22	NP	CLIENT REVISIONS	CW
C	05/03/22	MK	SOW CHANGE	CW
D	06/08/22	AK	CLIENT REVISIONS	CW
0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

REGISTERED PROFESSIONAL ENGINEER
TIM ALEXANDER
No. E18344
Exp. 3/31/2024
ELECTRICAL
STATE OF CALIFORNIA
SIGNED, 20 JUN 2022

SHEET NUMBER: T-1
REVISION: 0

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES, SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
3. ALL SITE WORK TO COMPLY WITH QAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE" AND LATEST VERSION OF TIA 1019 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
4. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS.
5. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
6. 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/OR LOCAL UTILITIES.
7. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.
8. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
9. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
10. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
11. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE PROJECT SPECIFICATIONS.
12. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
13. NOTICE TO PROCEED- NO WORK TO COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF A PURCHASE ORDER.
14. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN STANDARD CED-STD-10253 INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH THE ANSI/TIA-322 (LATEST EDITION).

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.
2. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
3. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8"ø ASTM A307 BOLTS UNLESS NOTED OTHERWISE.
4. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. SLAB FOUNDATION DESIGN ASSUMING ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

   CONCRETE CAST AGAINST EARTH.....3 IN.
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER.....2 IN.
   #5 AND SMALLER & WWF.....1 1/2 IN.
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
   SLAB AND WALLS.....3/4 IN.
   BEAMS AND COLUMNS.....1 1/2 IN.
5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE. IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

MASONRY NOTES:

1. HOLLOW CONCRETE MASONRY UNITS SHALL MEET A.S.T.M. SPECIFICATION C90, GRADE N. TYPE 1. THE SPECIFIED DESIGN COMPRESSIVE STRENGTH OF CONCRETE MASONRY (F'm) SHALL BE 1500 PSI.
2. MORTAR SHALL MEET THE PROPERTY SPECIFICATION OF A.S.T.M. C270 TYP. "S" MORTAR AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
3. GROUT SHALL MEET A.S.T.M. SPECIFICATION C475 AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI.
4. CONCRETE MASONRY SHALL BE LAID IN RUNNING (COMMON) BOND.
5. WALL SHALL RECEIVE TEMPORARY BRACING. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL GROUT IS FULLY CURED.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR-	----------
SUBCONTRACTOR-	GENERAL CONTRACTOR (CONSTRUCTION)
CARRIER-	T-MOBILE
TOWER OWNER-	CROWN CASTLE USA INC.
OEM-	ORIGINAL EQUIPMENT MANUFACTURER

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR AND CROWN CASTLE USA INC.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO SCALE AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR AND CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

ABBREVIATIONS AND SYMBOLS:

ABBREVIATIONS:

AGL	ABOVE GRADE LEVEL
BTS	BASE TRANSCEIVER STATION
(E)	EXISTING
MIN.	MINIMUM
REF	REFERENCE
RF	RADIO FREQUENCY
T.B.D.	TO BE DETERMINED
T.B.R.	TO BE RESOLVED
TYP	TYPICAL
REQ	REQUIRED
EGR	EQUIPMENT GROUND RING
AWG	AMERICAN WIRE GAUGE
MGB	MASTER GROUND BAR
EG	EQUIPMENT GROUND
BCW	BARE COPPER WIRE
SIAD	SMART INTEGRATED ACCESS DEVICE
GEN	GENERATOR
IGR	INTERIOR GROUND RING (HALO)
RBS	RADIO BASE STATION

SYMBOLS:

- SOLID GROUND BUS BAR
- SOLID NEUTRAL BUS BAR
- SUPPLEMENTAL GROUND CONDUCTOR
- 2-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
- SINGLE-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
- CHEMICAL GROUND ROD
- TEST WELL
- DISCONNECT SWITCH
- METER
- EXOTHERMIC WELD (CADWELD) (UNLESS OTHERWISE NOTED)
- MECHANICAL CONNECTION
- GROUNDING WIRE

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC. HILTI EPOXY ANCHORS ARE REQUIRED BY CROWN CASTLE USA INC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
5. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
6. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PLASTIC TAPE PER COLOR SCHEDULE. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID'S).
8. PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. POWER, CONTROL AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION WITH OUTER JACKET LISTED OR LABELED FOR THE LOCATION USED UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E. RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
21. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER).
22. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
23. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL; SHALL MEET OR EXCEED UL 50 AND RATED NEMA 1 (OR BETTER) INDOORS OR NEMA 3R (OR BETTER) OUTDOORS.
24. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
25. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
26. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
27. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
28. INSTALL PLASTIC LABEL ON THE METER CENTER TO SHOW "T-MOBILE".
29. ALL CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 AWG SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS, WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 TINNED SOLID IN 3/4" LIQUID TIGHT CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

NEC INSULATOR COLOR CODE

DESCRIPTION	PHASE/CODE LETTER	WIRE COLOR
240/120 1Ø	LEG 1	BLACK
	LEG 2	RED
AC NEUTRAL	N	WHITE
GROUND (EGC)	G	GREEN
VDC POS	+	*RED-POLARITY MARK AT TERMINATION
VDC NEG	-	*BLACK-POLARITY MARK AT TERMINATION
240V OR 208V, 3Ø	PHASE A	BLACK
	PHASE B	RED(ORG. IF HI LEG)
	PHASE C	BLUE
480V, 3Ø	PHASE A	BROWN
	PHASE B	ORANGE
	PHASE C	YELLOW

* SEE NEC 210.5(C)(1) AND (2)

T-Mobile

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SACRAMENTO, CA 95833

CROWN CASTLE

200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE INFRASTRUCTURE SERVICES

3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

3027 ALHAMBRA DR.
CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	01/25/22	NP	PRELIMINARY	CW
B	02/03/22	NP	CLIENT REVISIONS	CW
C	05/03/22	MK	SOW CHANGE	CW
D	06/08/22	AK	CLIENT REVISIONS	CW
0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

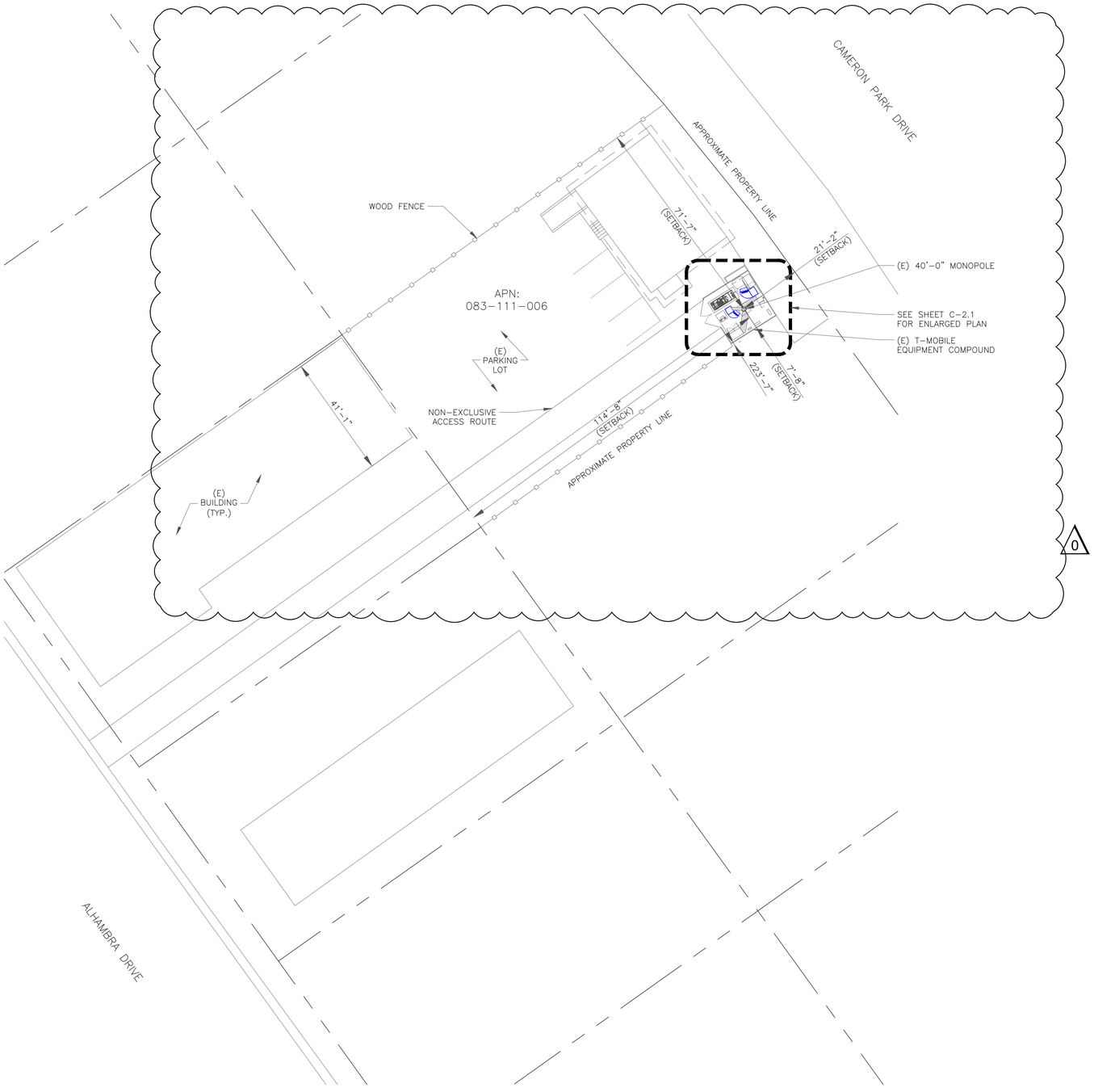
REGISTERED PROFESSIONAL ENGINEER
TIM ALEXANDER
No. E18344
Exp. 3/31/2024
ELECTRICAL
STATE OF CALIFORNIA
SIGNED, 20 JUN 2022

SHEET NUMBER: T-2

REVISION: 0

NOTE:

T–MOBILE OR ITS DESIGNERS SHALL REMOVE THE ANTENNAS AND ALL RELATED COMMUNICATION EQUIPMENT FROM THE SUBJECT PROPERTY WITHIN SIX MONTHS OF DETERMINATION BY THE DEPARTMENT DIRECTOR THAT THE PROPOSED FACILITIES ARE NO LONGER NEEDED, OR UTILIZED IN THE MANNER APPROVED BY THIS CONDITIONAL USE PERMIT.



1 SITE PLAN

SCALE: 20' 10' 0 20' 1"=20'-0" (FULL SIZE) 1"=40'-0" (11x17)

T-Mobile
1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE
200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

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CAMERON PARK, CA 95682

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C	05/03/22	MK	SOW CHANGE	CW
D	06/08/22	AK	CLIENT REVISIONS	CW
0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

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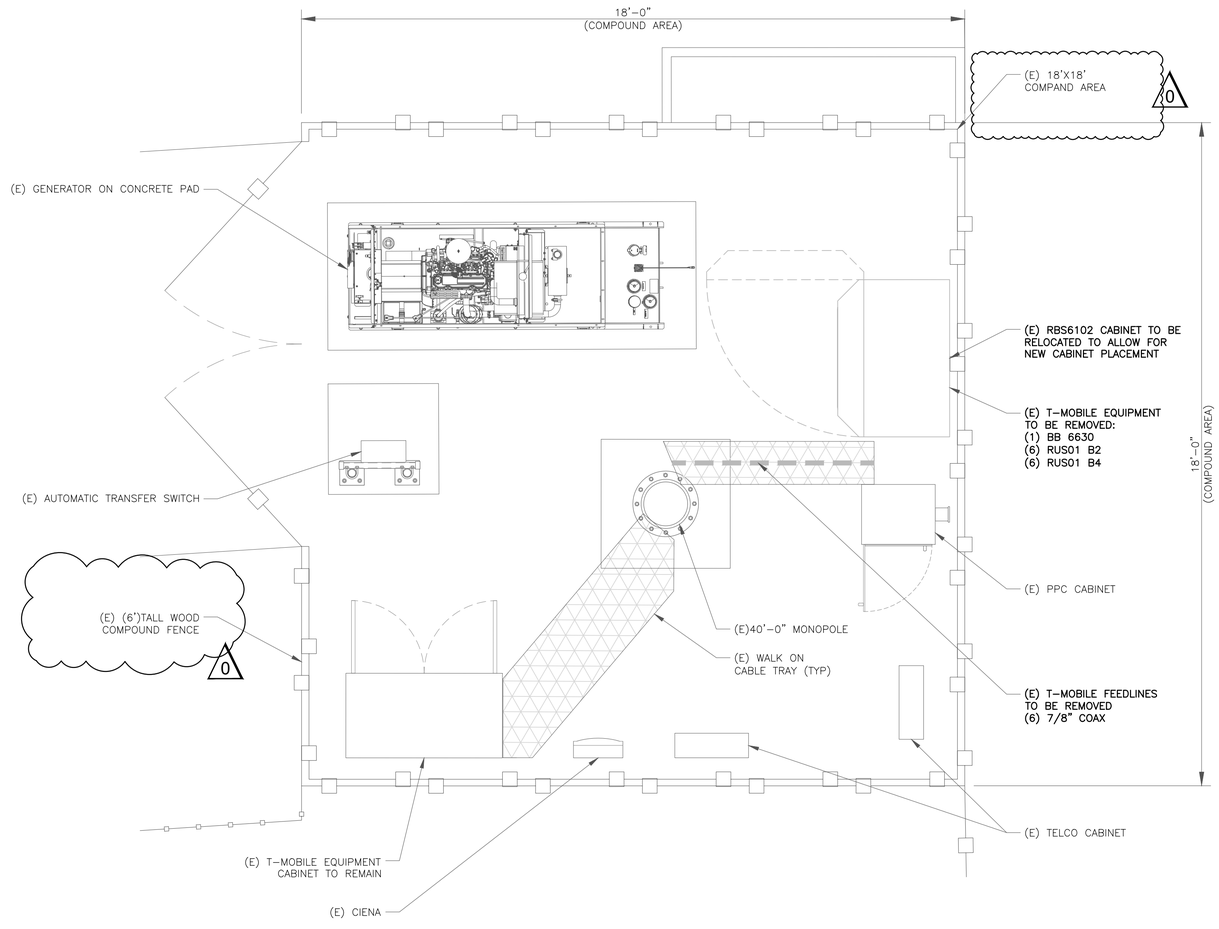
ELECTRICAL
STATE OF CALIFORNIA

SIGNED, 20 JUN 2022

SHEET NUMBER: C-1.0

REVISION: 0



1 EXISTING EQUIPMENT PLAN

SCALE: 2' 1' 0 2' 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)

N

T-Mobile
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INFRASTRUCTURE SERVICES
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MESA, AZ 85215

T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

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CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	01/25/22	NP	PRELIMINARY	CW
B	02/03/22	NP	CLIENT REVISIONS	CW
C	05/03/22	MK	SOW CHANGE	CW
D	06/08/22	AK	CLIENT REVISIONS	CW
0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

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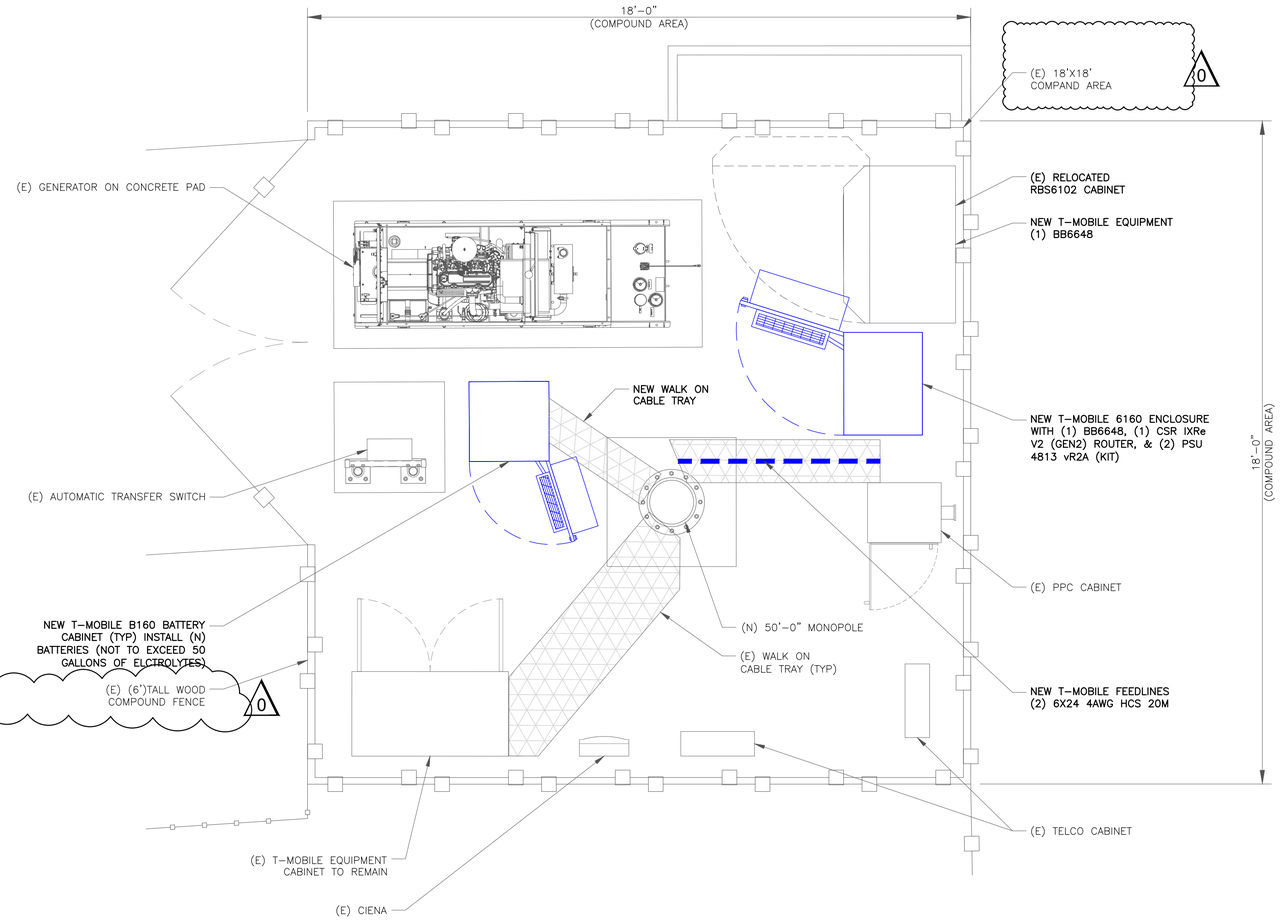
STATE OF CALIFORNIA

SIGNED, 20 JUN 2022

SHEET NUMBER: C-2.1

REVISION: 0



1 FINAL EQUIPMENT PLAN

SCALE: 2' 1' 0 2' 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)

N

CUP-R22-0031 Alhambra Drive Monopine Exhibit F: Site Plan

T-Mobile
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SACRAMENTO, CA 95833

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200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
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MESA, AZ 85215

T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

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CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

ISSUED FOR:

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B	02/03/22	NP	CLIENT REVISIONS	CW
C	05/03/22	MK	SOW CHANGE	CW
D	06/08/22	AK	CLIENT REVISIONS	CW
0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

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STATE OF CALIFORNIA

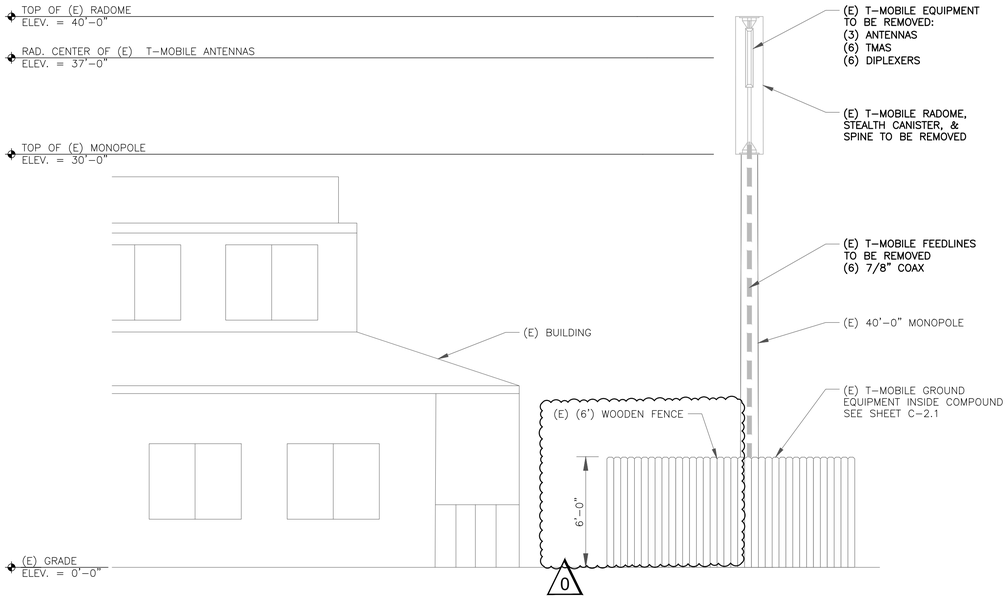
SIGNED, 20 JUN 2022

SHEET NUMBER: C-2.2

REVISION: 0

T–MOBILE EQUIPMENT

ANTENNA CL: 48'–0"
MOUNT CL: 40'–4"



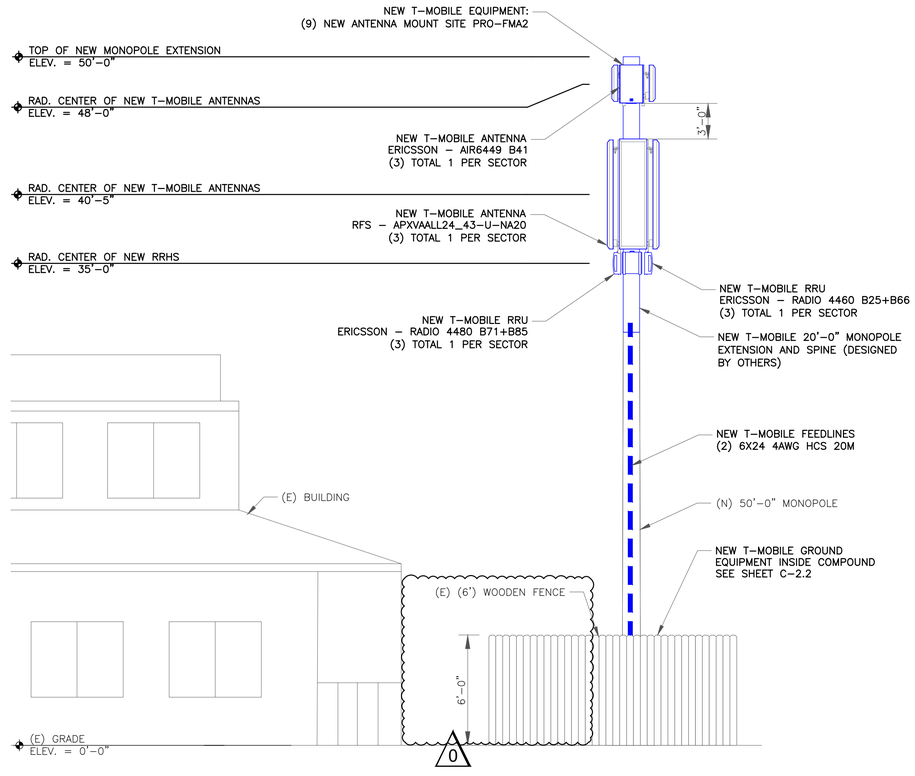
1 EXISTING SOUTHWEST ELEVATION

SCALE: 4' 2' 0 4' 3/16"=1'–0" (FULL SIZE) 3/32"=1'–0" (11x17)

NOTE:
- ALL NEW EXPOSED EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING ADJACENT BUILDING

T–MOBILE EQUIPMENT

ANTENNA CL: 48'–0"
MOUNT CL: 40'–4"



2 NEW SOUTHWEST ELEVATION

SCALE: 4' 2' 0 4' 3/16"=1'–0" (FULL SIZE) 3/32"=1'–0" (11x17)

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TELCYTE
INFRASTRUCTURE SERVICES
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MESA, AZ 85215

T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

3027 ALHAMBRA DR.
CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	01/25/22	NP	PRELIMINARY	CW
B	02/03/22	NP	CLIENT REVISIONS	CW
C	05/03/22	MK	SOW CHANGE	CW
D	06/08/22	AK	CLIENT REVISIONS	CW
0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

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STATE OF CALIFORNIA

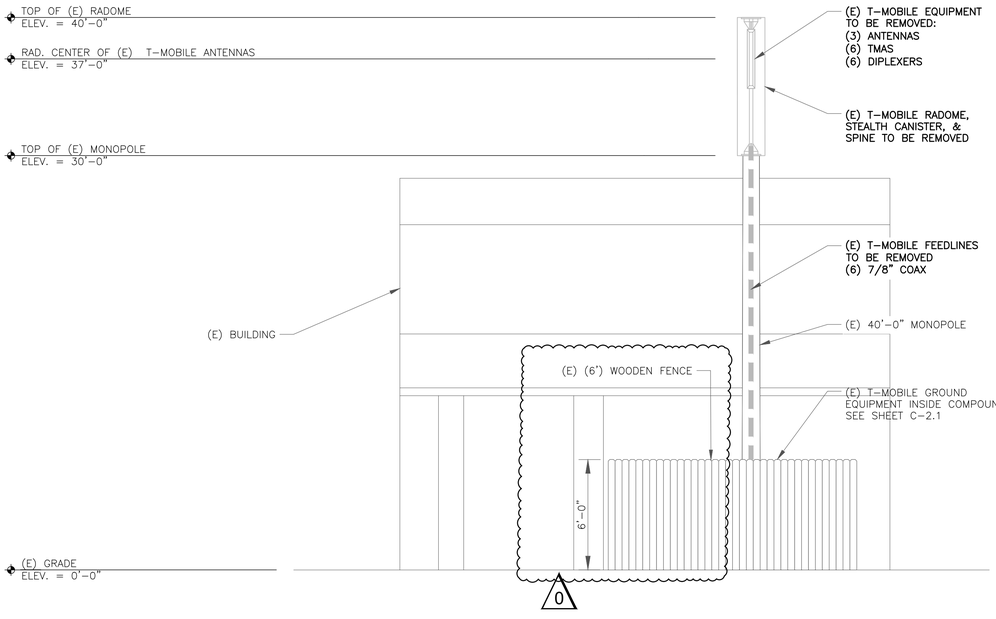
SIGNED, 20 JUN 2022

SHEET NUMBER: C-3

REVISION: 0

T-MOBILE EQUIPMENT

ANTENNA CL: 48'-0"
MOUNT CL: 40'-4"

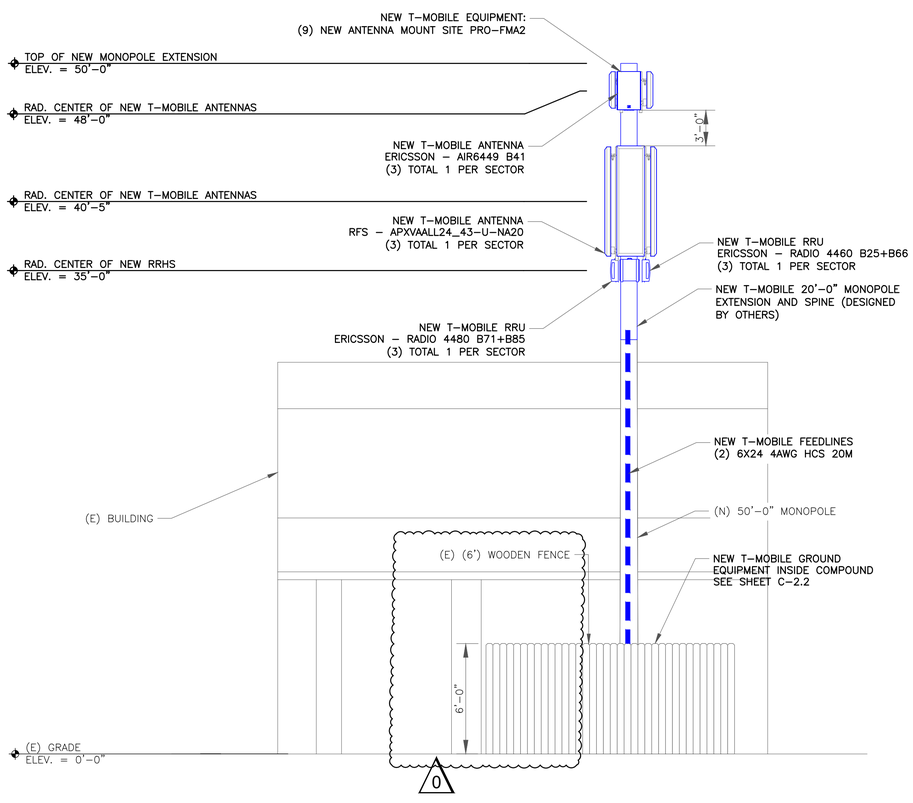


1 EXISTING SOUTHEAST ELEVATION
SCALE: 4' 2' 0 4' 3/16"=1'-0" (FULL SIZE) 3/32"=1'-0" (11x17)

NOTE:
- ALL NEW EXPOSED EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING ADJACENT BUILDING

T-MOBILE EQUIPMENT

ANTENNA CL: 48'-0"
MOUNT CL: 40'-4"



2 NEW SOUTHEAST ELEVATION
SCALE: 4' 2' 0 4' 3/16"=1'-0" (FULL SIZE) 3/32"=1'-0" (11x17)

T-Mobile
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SC09948A

BU #: 827264

3027 ALHAMBRA DR.
CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

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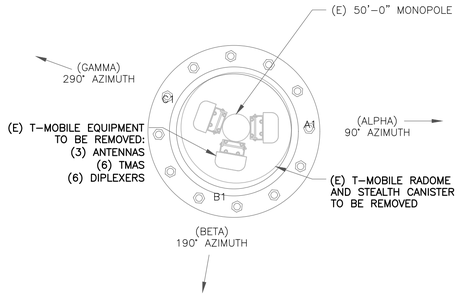
SHEET NUMBER: C-4

REVISION: 0



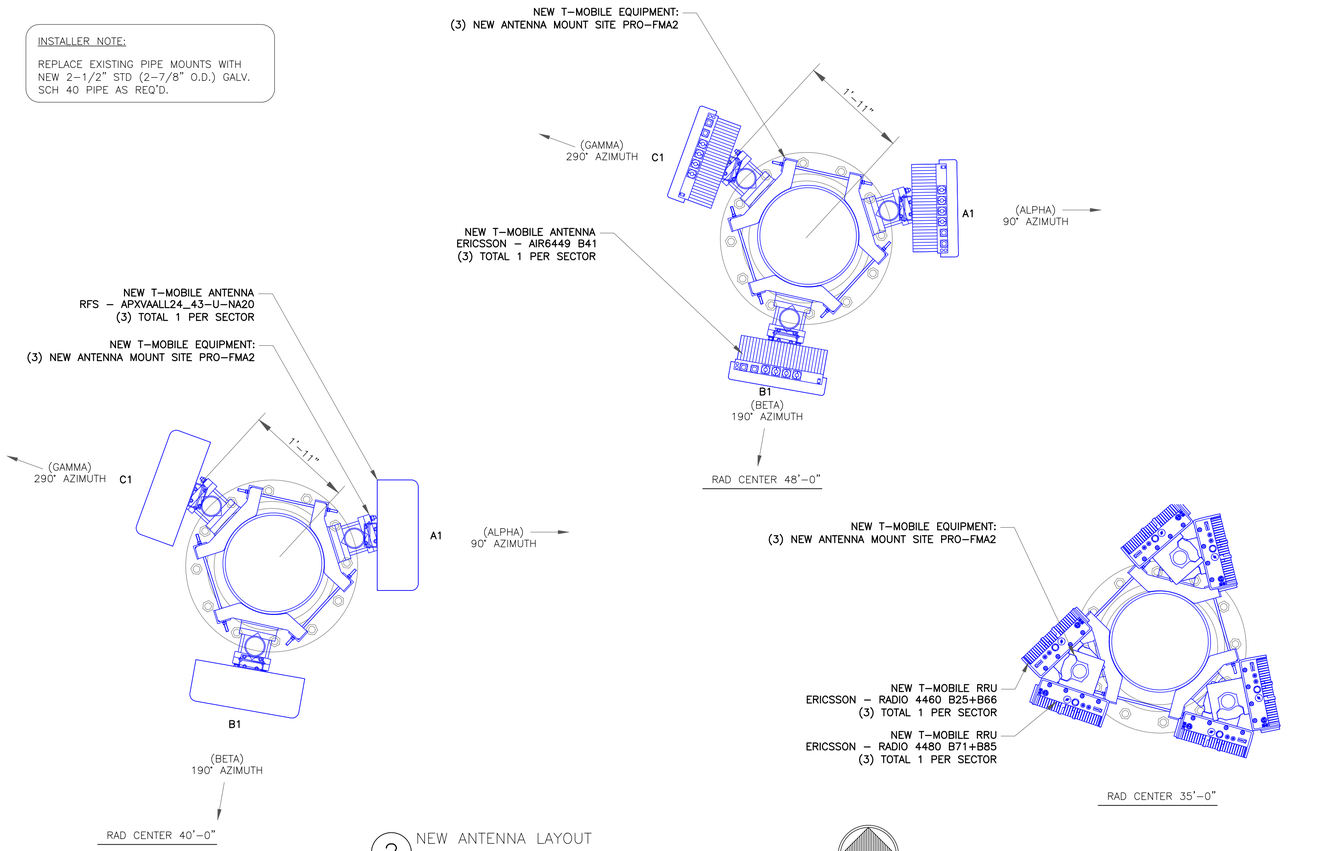
1 EXISTING ANTENNA LAYOUT

SCALE: 1' 6" 0 1' 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

N

INSTALLER NOTE:

REPLACE EXISTING PIPE MOUNTS WITH NEW 2-1/2" STD (2-7/8" O.D.) GALV. SCH 40 PIPE AS REQ'D.



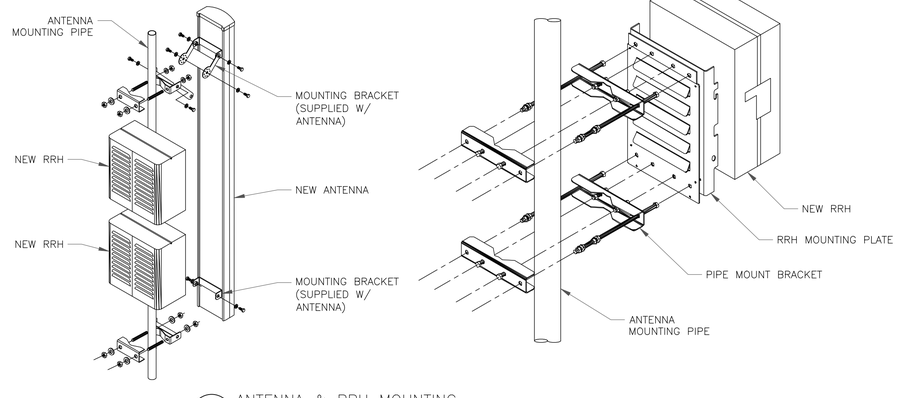
2 NEW ANTENNA LAYOUT

SCALE: 1' 6" 0 1' 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

N

INSTALLER NOTES:

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



3 ANTENNA & RRU MOUNTING

SCALE: NOT TO SCALE

ANTENNA SCHEDULE (VERIFY WITH CURRENT RFDS)

SECTOR	TECHNOLOGY		ANTENNA	RAD CENTER	HCS/COAX		RRU	ANTENNA AZIMUTH	
	EXISTING	PROPOSED			EXISTING	FINAL		EXISTING	PROPOSED
A1	U1900/L2100/G1900	L700/L600/N600/ L2100/L1900/G1900/U1900	RFS APXVAALL24_43-U-NA20	40'-0"	(6) 7/8" COAX	(2) 6X24 HCS 4AWG 20M	4480 B71+B85 4460 B25+B66	90°	90°
A2	–	L2500/N2500	ERICSSON AIR6449 B41	48'-0"			–	90°	90°
B1	U1900/L2100/G1900	L700/L600/N600/ L2100/L1900/G1900/U1900	RFS APXVAALL24_43-U-NA20	40'-0"			4480 B71+B85 4460 B25+B66	190°	190°
B2	–	L2500/N2500	ERICSSON AIR6449 B41	48'-0"			–	190°	190°
C1	U1900/L2100/G1900	L700/L600/N600/ L2100/L1900/G1900/U1900	RFS APXVAALL24_43-U-NA20	40'-0"			4480 B71+B85 4460 B25+B66	290°	290°
C2	–	L2500/N2500	ERICSSON AIR6449 B41	48'-0"			–	290°	290°

4 ANTENNA SCHEDULE

SCALE: NOT TO SCALE

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CROWN CASTLE
200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE
INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

3027 ALHAMBRA DR.
CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
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D	06/08/22	AK	CLIENT REVISIONS	CW
0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

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STATE OF CALIFORNIA
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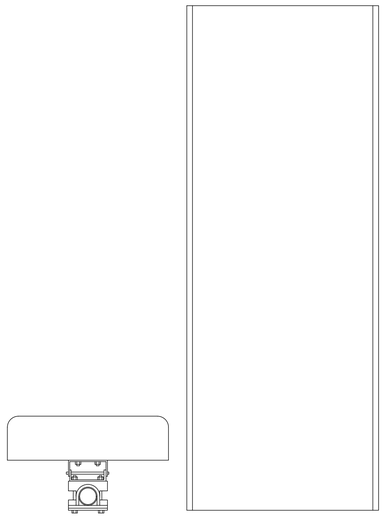
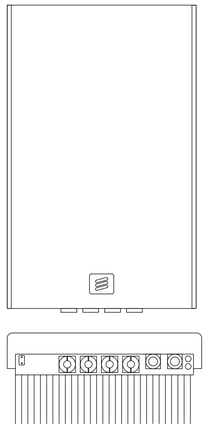
SHEET NUMBER: C-5

REVISION: 0



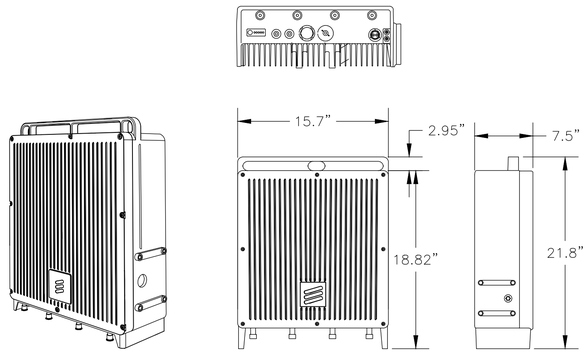
RFS – APXVAALL24_43-U-NA20
WEIGHT (WITHOUT MOUNTING HARDWARE): 119.0 LBS
SIZE (HxWxD): 95.9x24.0x8.9 IN.

1 RFS – APXVAALL24_43-U-NA20
SCALE: NOT TO SCALE



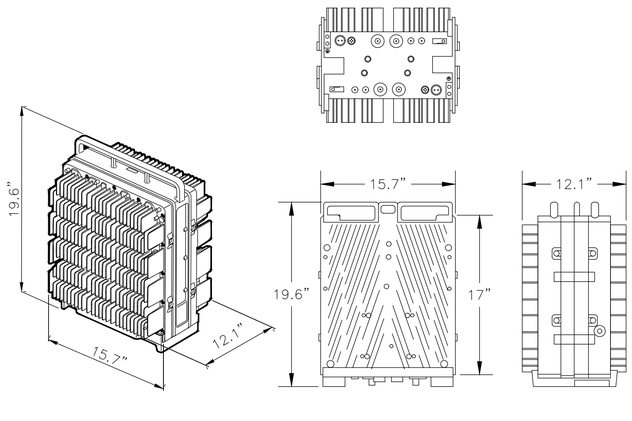
ERICSSON – AIR 6449 B41
ANTENNA
WEIGHT: 114.63 LBS
SIZE (HXWXD): 33.11X20.51X8.54 IN.

2 ERICSSON – AIR 6449 B41
SCALE: NOT TO SCALE



ERICSSON 4480 B71+B85
21.8" X 15.7" X 7.5"
WEIGHT: 77LBS

3 ERICSSON – RADIO 4480 B71+B85
SCALE: NOT TO SCALE



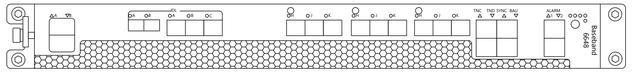
ERICSSON 4460 B25+B66
19.6" X 15.7" X 12.1"
WEIGHT: 109LBS

4 ERICSSON – RADIO 4460 B25+B66
SCALE: NOT TO SCALE

ERICSSON BASEBAND UNIT 6648

DC POWER SUPPLY	
NOMINAL VOLTAGE:	–48VDC
TEMPERATURE:	0 TO + 55 DEG C
DIMENSION:	19" W X 13.8"D
WEIGHT:	14.3 lbs

15 CPRI PORTS
MAXIMUM OF 24 CELLS (18 WITH NB-IOT)
2 OPTICAL (1/10Gbps)/2 ELECTRICAL (1Gbps) PORTS

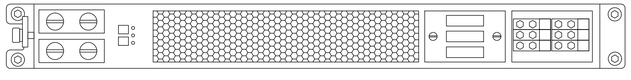


5 BB 6648 BASEBAND DETAIL
SCALE: NOT TO SCALE

PSU 4813
VOLTAGE BOOSTER

DC POWER SUPPLY	
NOMINAL VOLTAGE:	–38VDC
TEMPERATURE:	–40°C TO + 60° C
DIMENSION:	19" W X 13"D

TOTAL OUTPUT POWER 6000 WATTS (2000 W/PORT)



6 PSU 4813 vR2A (KIT) DETAIL
SCALE: NOT TO SCALE

T-Mobile
1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE
200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE
INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

3027 ALHAMBRA DR.
CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
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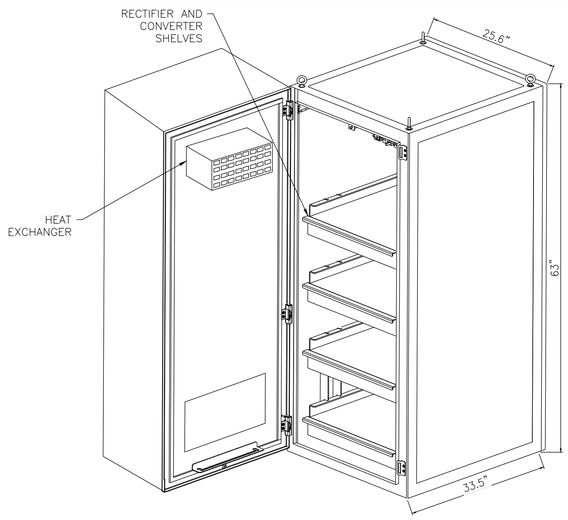
C	05/03/22	MK	SOW CHANGE	CW
D	06/08/22	AK	CLIENT REVISIONS	CW
0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

REGISTERED PROFESSIONAL ENGINEER
TIM ALEXANDER
No. E18344
Exp. 3/31/2024
ELECTRICAL
STATE OF CALIFORNIA

SIGNED, 20 JUN 2022

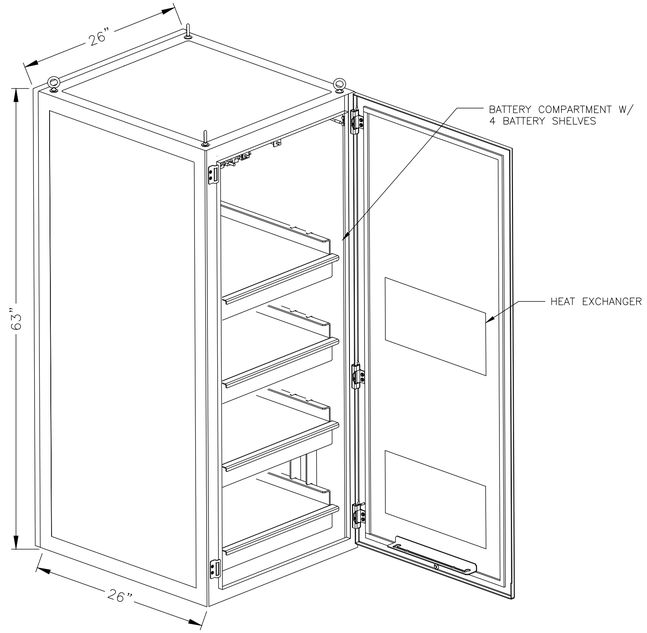
SHEET NUMBER: C-6

REVISION: 0

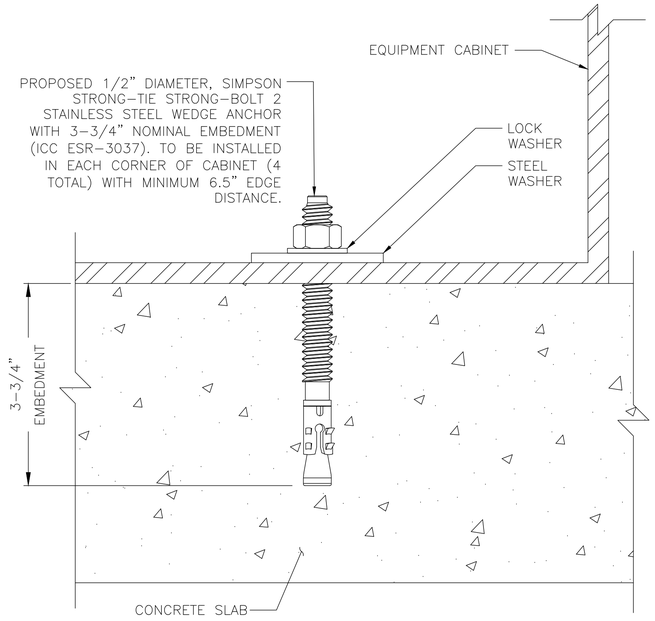


MECHANICAL SPECIFICATIONS:	
WEIGHT:	145 KG (EXCLUDING ACTIVE EQUIPMENT) 320 LBS (EXCLUDING ACTIVE EQUIPMENT)
DIMENSIONS: (H X W X D)	1600 X 650 X 850.9 MM (INCL. BASE FRAME) 63 X 25.6 X 33.5 IN. (INCL. BASE FRAME)
BASE FRAME HEIGHT:	150 MM 6 IN.
MOUNTING POSITION:	GROUND
ENCLOSURE MATERIAL:	ALUMINUM COLOR POWER PAINT NCS 2002-B
DOOR:	FRONT ACCESS
RACK TYPE:	19" (IEC 60297-3-100)
LOCKING TYPE:	PAD LOCK OR CYLINDER

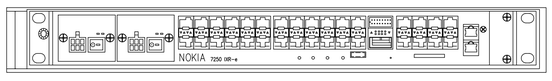
1 6160 ENCLOSURE
SCALE: NOT TO SCALE



2 B160 BATTERY CABINET
SCALE: NOT TO SCALE



3 CABINET ANCHOR BOLT DETAIL
SCALE: NOT TO SCALE



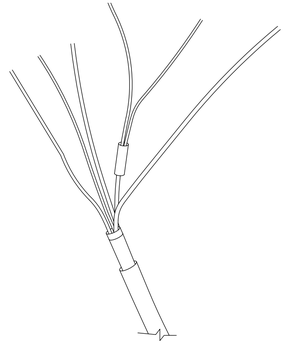
NOKIA CSR IXRE V2 ROUTER
WEIGHT: 11.2 LBS.
SIZE (HXWXD): 1.75 X 17.25 X 10.0 IN.

4 CSR IXRE V2 ROUTER DETAIL
SCALE: NOT TO SCALE

HYBRIFLEX 6X24 HCS

STRUCTURE	
CABLE TYPE	HYBRIFLEX®
SIZE	1-5/8"

MECHANICAL SPECIFICATIONS	
OUTER DIAMETER NOMINAL [MM (IN)]	50.7 (1.996)
CABLE WEIGHT [KG/M (LB/FT)]	3.42 (2.3)
MINIMUM BENDING RADIUS, SINGLE BEND [MM (IN)]	254 (10)
MINIMUM BENDING RADIUS, MULTI BENDS [MM (IN)]	508 (20)
RECOMMENDED / MAXIMUM CLAMP SPACING [M (FT)]	1 / 1.2 (3.25 / 4)



5 HCS CABLE DETAIL
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

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TELCYTE INFRASTRUCTURE SERVICES
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T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

3027 ALHAMBRA DR.
CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

ISSUED FOR:

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0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

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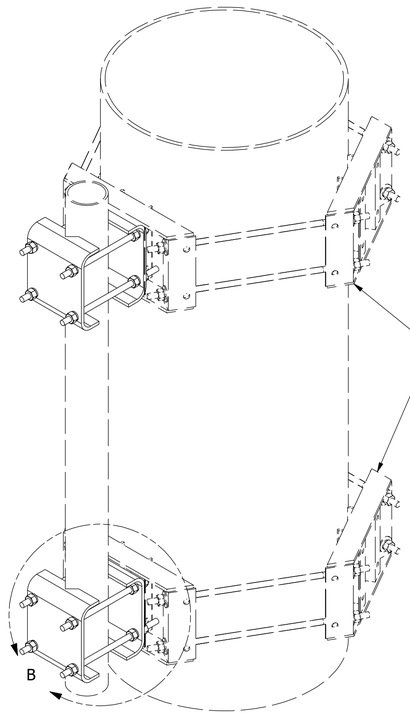
SHEET NUMBER: C-7
REVISION: 0

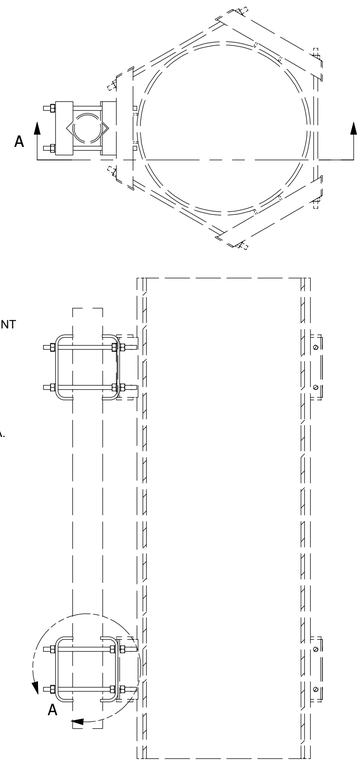
PARTS LIST						
ITE	QTYM	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	4	X-214130	BENT PLATE V-CLAMP	12 5/8 in	11.43	45.72
2	24	G58LW	5/8" HDG LOCKWASHER		0.03	0.63
3	24	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	3.12
4	8	G58R-14	5/8" x 14" THREADED ROD (HDG.)		0.35	2.81
					TOTAL WT. #	57.05



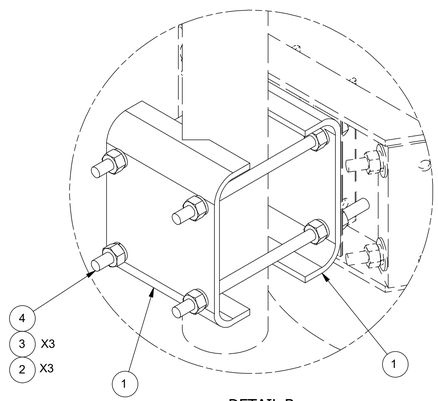
LWRM UNIVERSAL RING MOUNT
FOR POLES 12" TO 45" DIA.
(ORDERED SEPARATELY)

OR

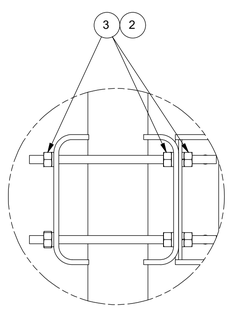
UGLM
MINI RING MOUNT
FOR POLES 10-1/2" TO 28" DIA.
(ORDERED SEPARATELY)



SECTION A-A



DETAIL B



DETAIL A

1 MOUNT DETAIL
SCALE: NOT TO SCALE

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SHEET NUMBER: C-8

REVISION: 0

1 EXISTING AC PANEL SCHEDULE
SCALE: NOT TO SCALE

2 PROPOSED AC PANEL SCHEDULE
SCALE: NOT TO SCALE

FAULT CALCULATIONS

FAULT AVAILABLE AT EXISTING 50 KVA XFMR (IMPEDANCE Z=1.9%):
SERVICE VOLTAGE: 120/240V, 1ø

I F.L. $= \frac{50 \times 1000}{240} = 208.33$ AMPS

MULTIPLIER $= \frac{100}{1.9} = 52.63$

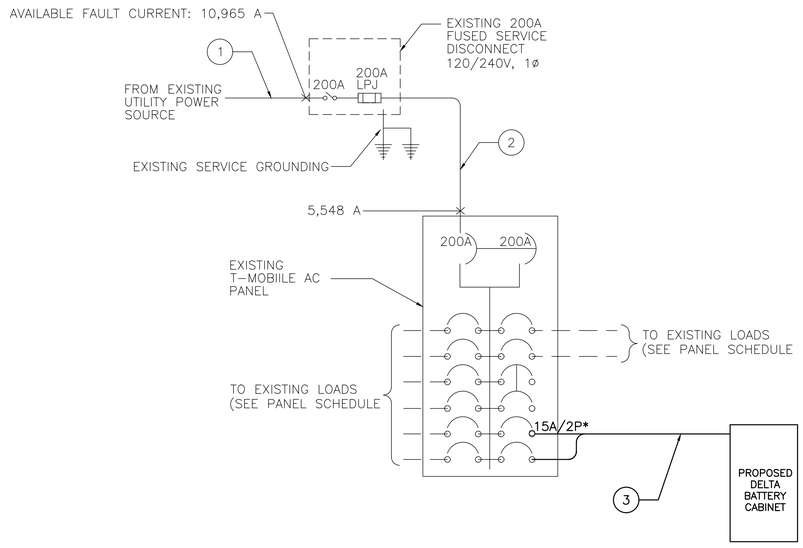
F1: AVAILABLE SHORT CIRCUIT CURRENT FROM UTILITY = 208.33 x 52.63 = 10,965 AMPS

FIND FACTOR "F" $= \frac{2.0 \times (\text{LENGTH IN FEET}) \times (\text{SHORT CIRCUIT CURRENT})}{(\text{CONSTANT FROM TABLE C}) \times (\text{LINE-TO-LINE VOLTAGE})}$

$F = \frac{2.0 \times 80 \times 10,965}{7,493 \times 240} = 0.976$

FIND FACTOR "M": $M = \frac{1}{1 + F}$ $M = 0.506$

F2: SHORT CIRCUIT CURRENT AT AC PANEL = M x AVAILABLE S.C. CURRENT
I = 5,548 AMPS



CIRCUIT SCHEDULE			
#	FROM	TO	CONFIGURATION
1	UTILITY SOURCE	METER/DISCONNECT	EXISTING
2	METER/DISCONNECT	EXISTING AC PANEL	EXISTING
3	EXISTING AC PANEL	(N) DELTA CABINET	(2) #14 Cu, (1) #14 GND, 1/2" CONDUIT

SHORT CIRCUIT CALCULATIONS

* SHORT CIRCUIT CALCULATIONS BASED ON 50 KVA TRANSFORMER WITH AN IMPEDANCE Z=1.9% AND AN 80' FEEDER LENGTH FROM THE TRANSFORMER TO THE AC POWER PANEL. CONTACT ENGINEER FOR REVISED CALCULATIONS, IF SIZE IS DIFFERENT.

POINT TO POINT METHOD FOR SHORT CIRCUIT CALCULATIONS ILLUSTRATED IN BUSSMAN MANUFACTURING PUBLICATION FORM SPD90.

3 SINGLE-LINE DIAGRAM
SCALE: NOT TO SCALE

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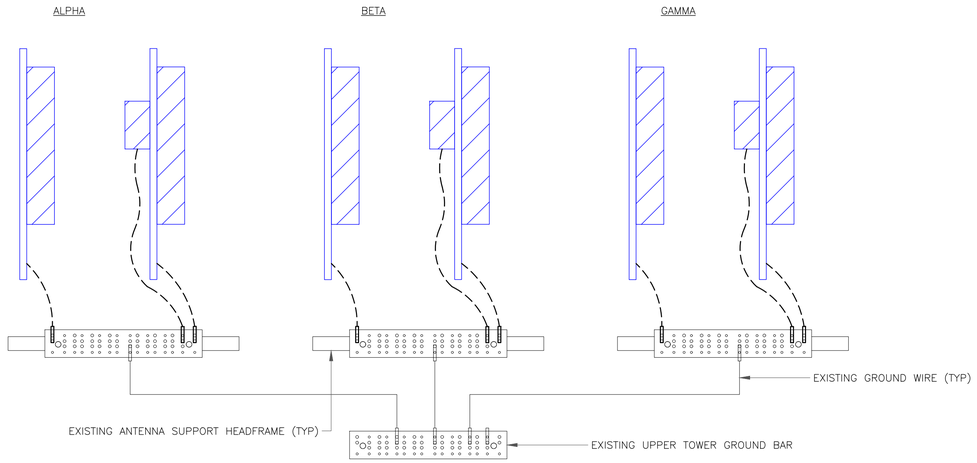
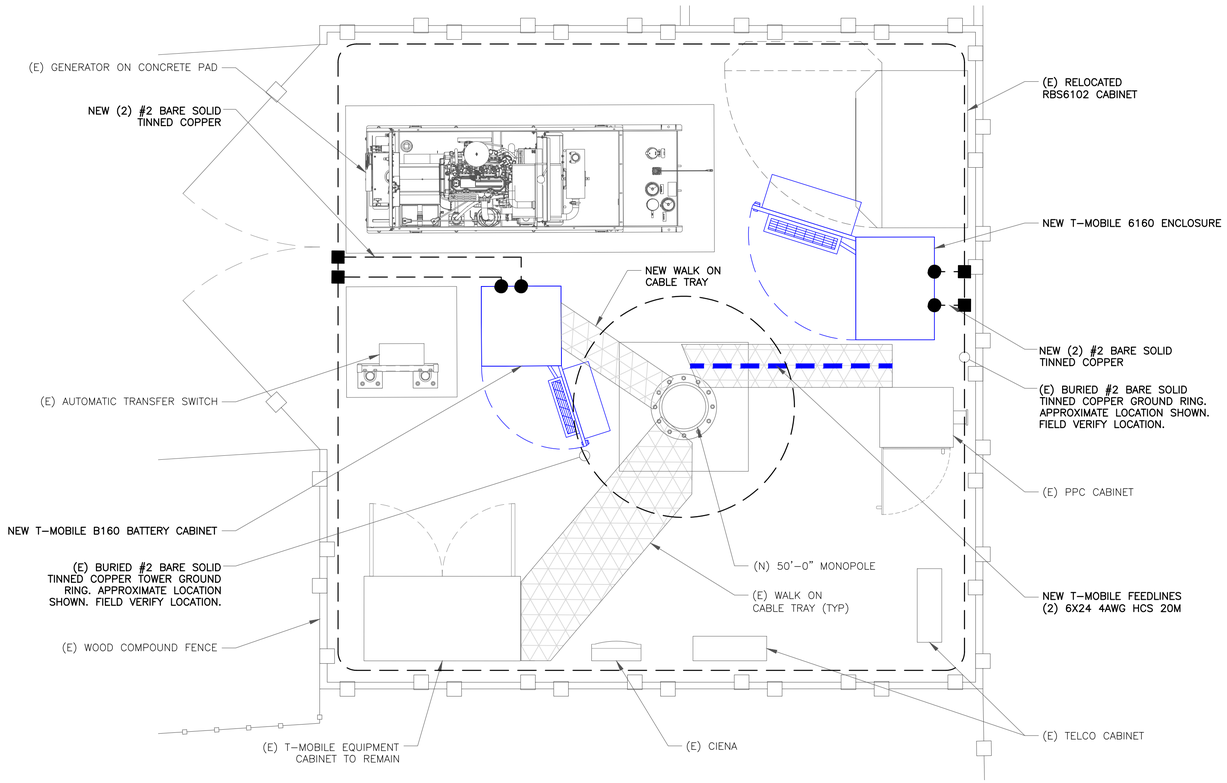
SHEET NUMBER: E-1
REVISION: 0



1 ANTENNA GROUND DIAGRAM
SCALE: NOT TO SCALE



2 EQUIPMENT GROUNDING (NO WORK)
SCALE: 2' 1' 0 2' 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)

N

GROUNDING LEGEND

- INSPECTION WELL VERIFY LOCATION W/ CONSTR. MGR.
- 5/8"x10'-0" COPPER CLAD GROUND ROD, 10' O.C. (TYP)
- #6 AWG STRANDED & INSULATED
- #2 AWG SOLID COPPER TINNED
- GROUND BUS BAR
- EXOTHERMIC WELD (CADWELD) (UNLESS OTHERWISE NOTED)
- MECHANICAL CONNECTION

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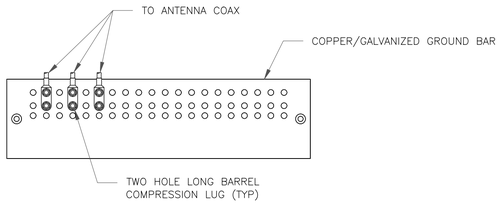
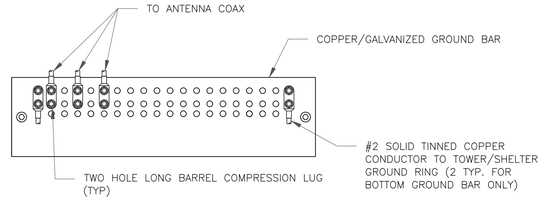


NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL.

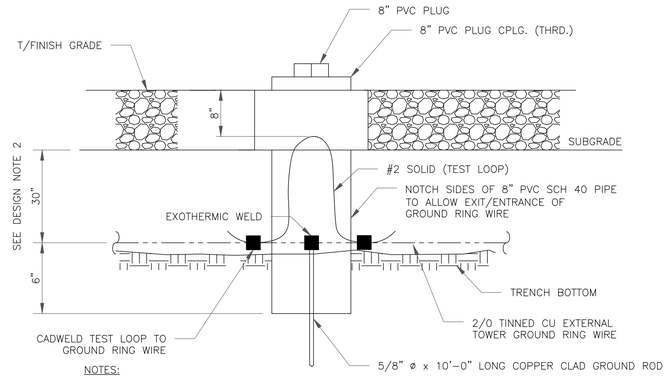
1 ANTENNA GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

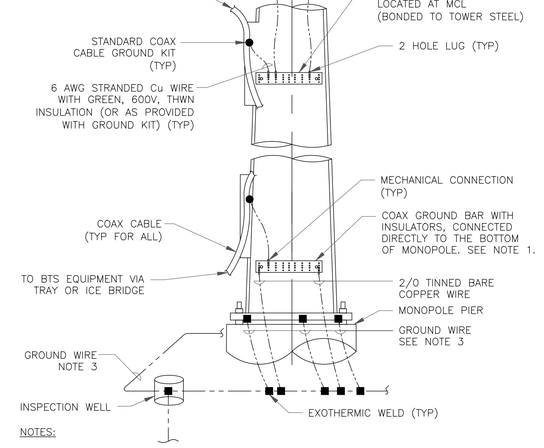
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

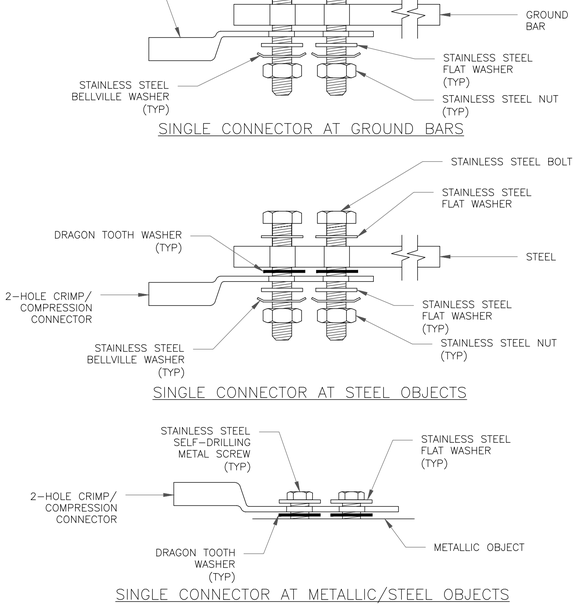
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



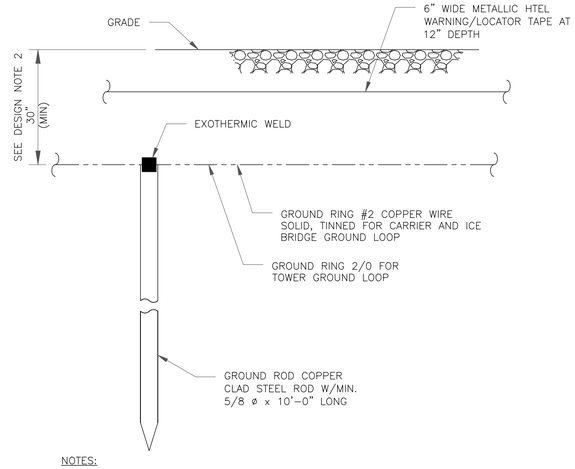
NOTES:

1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
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6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

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0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

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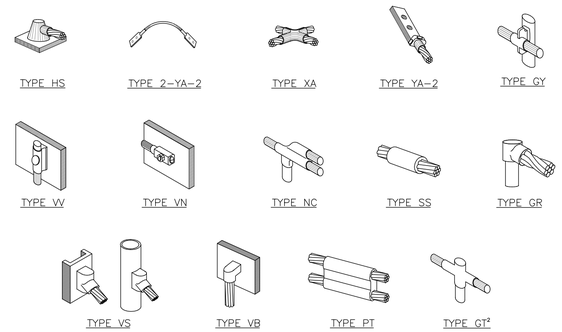
SHEET NUMBER: G-2
REVISION: 0

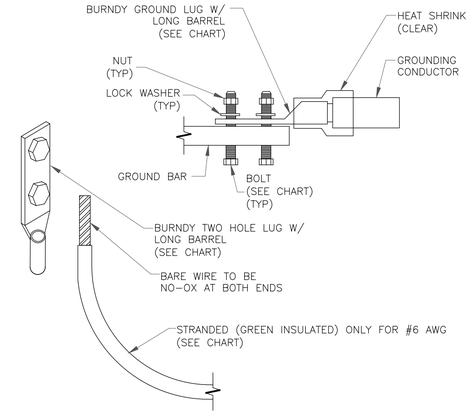


NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE

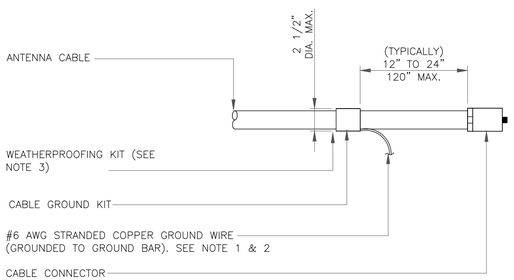
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER,GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

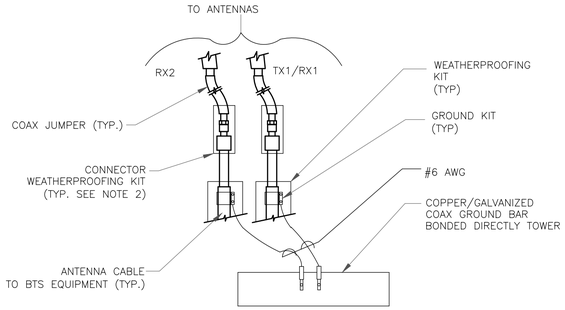
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

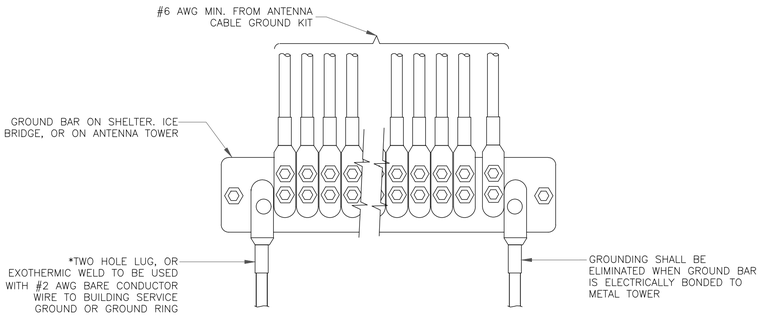
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



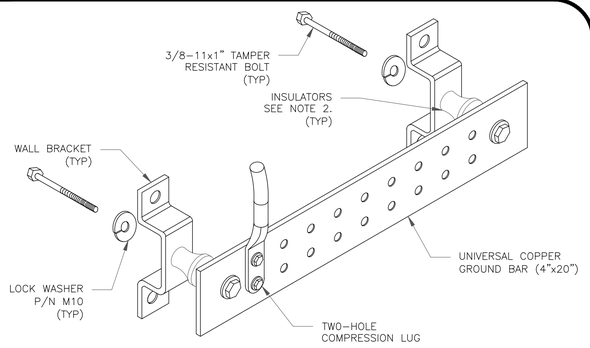
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



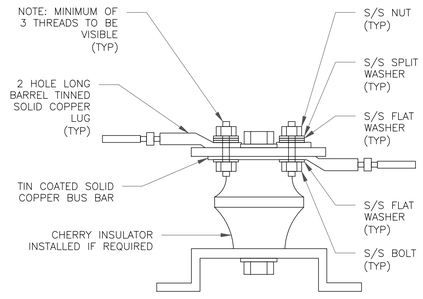
5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



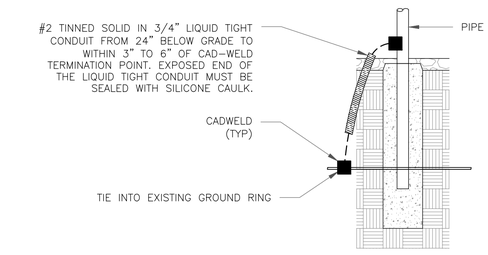
NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

T-Mobile
1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE
200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE
INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
SC09948A

BU #: 827264

3027 ALHAMBRA DR.
CAMERON PARK, CA 95682

EXISTING 50'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	01/25/22	NP	PRELIMINARY	CW
B	02/03/22	NP	CLIENT REVISIONS	CW
C	05/03/22	MK	SOW CHANGE	CW
D	06/08/22	AK	CLIENT REVISIONS	CW
0	06/17/22	MK	SUBMITTAL FOR PERMIT	JD

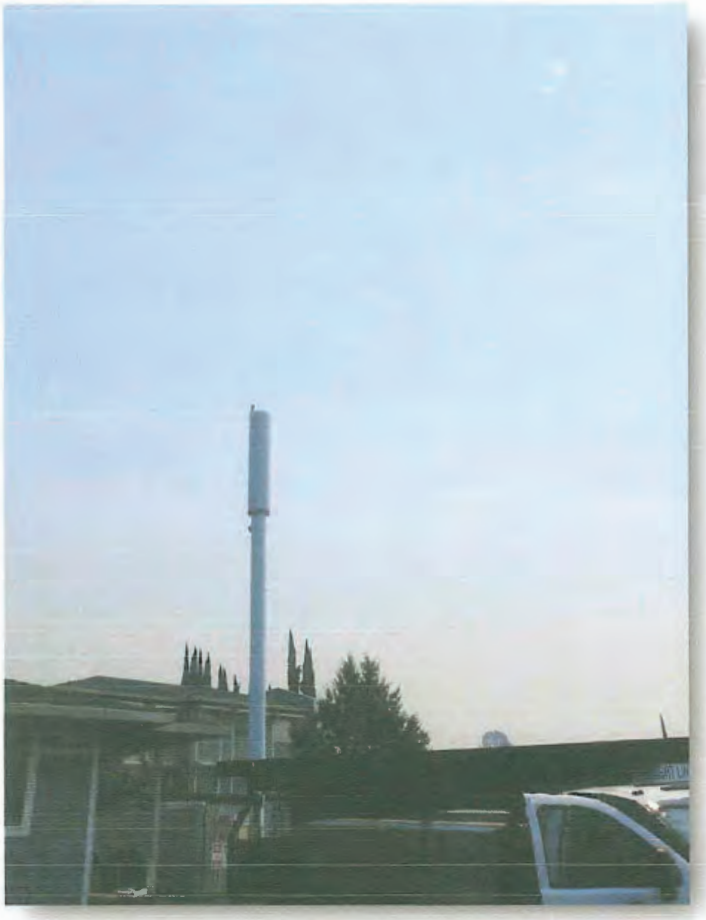
REGISTERED PROFESSIONAL ENGINEER
TIM ALEXANDER
No. E18344
Exp. 3/31/2024
ELECTRICAL
STATE OF CALIFORNIA
SIGNED, 20 JUN 2022

SHEET NUMBER: G-3
REVISION: 0

CROWN CASTLE

Site Name: SA948 Cameron Park **Site Number:** 827264 **Date:** 07/06/2022

Existing View



Proposed View

PREPARED BY: TELCYTE INFRASTRUCTURE SERVICES

This photo simulation is for illustration purposes only.

CUP-R22-0031 Alhambra Drive Monopine Exhibit G: Elevations

CROWN CASTLE

Site Name: SA948 Cameron Park **Site Number:** 827264 **Date:** 07/06/2022

Existing View

Proposed View

CUP-R22-0031Alhambra Drive Monopine
Exhibit G: Elevations
This photo simulation is for illustration purposes only.

PREPARED BY: TELCYTE INFRASTRUCTURE SERVICES

CROWN CASTLE

Site Name: SA948 Cameron Park **Site Number:** 827264 **Date:** 07/06/2022

Existing View

Proposed View

PREPARED BY: TELCYTE INFRASTRUCTURE SERVICES

CUP-R22-0031Alhambra Drive Monopine
Exhibit G: Elevations
This photo simulation is for illustration purposes only.

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A Qualtek Company

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info@sitesafe.com • www.sitesafe.com

Crown Castle on behalf of T-Mobile
Site BU Number – 827264
Application ID – 578251
Site Name – SA948 Cameron Park
Site Compliance Report

3027 Alhambra Drive
Cameron Park, CA 95682

Latitude: N38-41-15.60
Longitude: W120-59-20.30
Structure Type: Stealth Monopole

Report generated date: April 5, 2022
Report by: Leo Romero
Customer Contact: Belinda Livingston

T-Mobile will be compliant upon completion of the remediation identified in Section 2.2.

sealed 05apr2022

SiteSafe
A Quantum Company

Crown Castle on behalf of T-Mobile
SA948 Cameron Park - 827264
Radio Frequency (RF) Site Compliance Report

3027 Alhambra Drive, Cameron Park, CA 95682

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SiteSafe
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Table of Contents

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1 Executive Summary

Crown Castle on behalf of T-Mobile has contracted with Site Safe, LLC (Sitesafe), an independent Radio Frequency (RF) regulatory and engineering consulting firm, to determine whether the proposed communications site, 827264 - SA948 Cameron Park, located at 3027 Alhambra Drive, Cameron Park, CA, is in compliance with the Federal Communications Commission (FCC) Rules and Regulations for RF exposure.

This report contains a detailed summary of the RF environment at the site including:

- Diagram of the site
- Inventory of the make / model of all antennas
- Theoretical MPE based on modeling

This report addresses exposure to radio frequency electromagnetic fields in accordance with the FCC Rules and Regulations for all individuals, classified in two groups, "Occupational or Controlled" and "General Public or Uncontrolled."

T-Mobile will be compliant with the FCC Rules and Regulations, as described in OET Bulletin 65, **upon implementation of the proposed remediation.** The corrective actions needed to make this site compliant are located in Section 2.2.

T-Mobile proposes to make modifications to an existing site. The proposed antennas are noted as "Proposed" in the antenna table under Section 4.

This document and the conclusions herein are based on the information provided by Crown Castle on behalf of T-Mobile.

If you have any questions regarding RF safety and regulatory compliance, please do not hesitate to contact Sitesafe's Customer Support Department at (703) 276-1100.

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2 Site Compliance

2.1 Site Compliance Statement

Upon evaluation of the cumulative RF exposure levels from all operators at this site, Sitesafe has determined that:

T-Mobile will be compliant with the FCC Rules and Regulations, as described in OET Bulletin 65, **upon implementation of the proposed remediation.** The corrective actions needed to make this site compliant are located in Section 2.2.

The compliance determination is based on theoretical modeling, RF signage placement recommendations, proposed antenna inventory and/or the level of restricted access to the antennas at the site. Any deviation from the proposed T-Mobile deployment plan could result in the site being rendered non-compliant upon further evaluation.

2.2 Actions for Site Compliance

Based on common industry practice and our understanding of FCC and OSHA requirements, this section provides a statement of recommendations for site compliance. Additional RF alert signage recommendations have been proposed based on theoretical analysis of MPE levels. Where applicable, barriers can consist of locked doors, fencing, railing, rope, chain, paint striping or tape, combined with RF alert signage.

T-Mobile will be compliant if the following changes are implemented:

Base of Stealth Monopole

Ensure that a Warning sign is installed replacing the existing Caution sign.

Note: Ensure all existing signage documented in this report still exist on site unless otherwise indicated.

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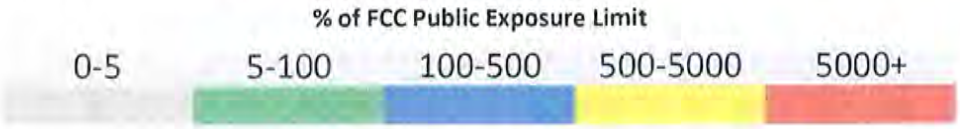
3 Analysis

3.1 RF Exposure Diagram

The RF diagram(s) below display theoretical percentage of the Maximum Permissible Exposure for all systems at the site. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix B.

The key at the bottom of each diagram indicates if percentages displayed are referenced to FCC **General Public** Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:



This table displays the maximum theoretical percentage of the FCC's General Public MPE limits:

	General Public Levels:		
Exposure Type:	**Maximum**	**Spatial Average**	**Spatial Average**
Reference Level:	**Antenna**	**Top of Building 1**	**Ground**
T-Mobile:	80,120.0%	19.0%	<1%
Composite:	80,120.0%	19.0%	<1%

Note: On the diagrams shown below, each level is marked with a height. For all diagrams that are marked as *Spatially Averaged*, the modeling program will spatially average the exposure within the area six feet above each set level. This provides an accurate spatial average of the percentage of the FCC's MPE limits within an accessible area.

In the RF exposure simulations below, all heights are reflected with respect to ground level. Each different area, rooftop, or platform level is labeled with its height relative to the main site level. Exposure is calculated appropriately based on the relative height and location of that area to all antennas. The analyzed elevations in the RF exposure simulations are as follows:

- Ground Level = 0'
- Building 1 = 10' and 18'
- Canopy = 14'

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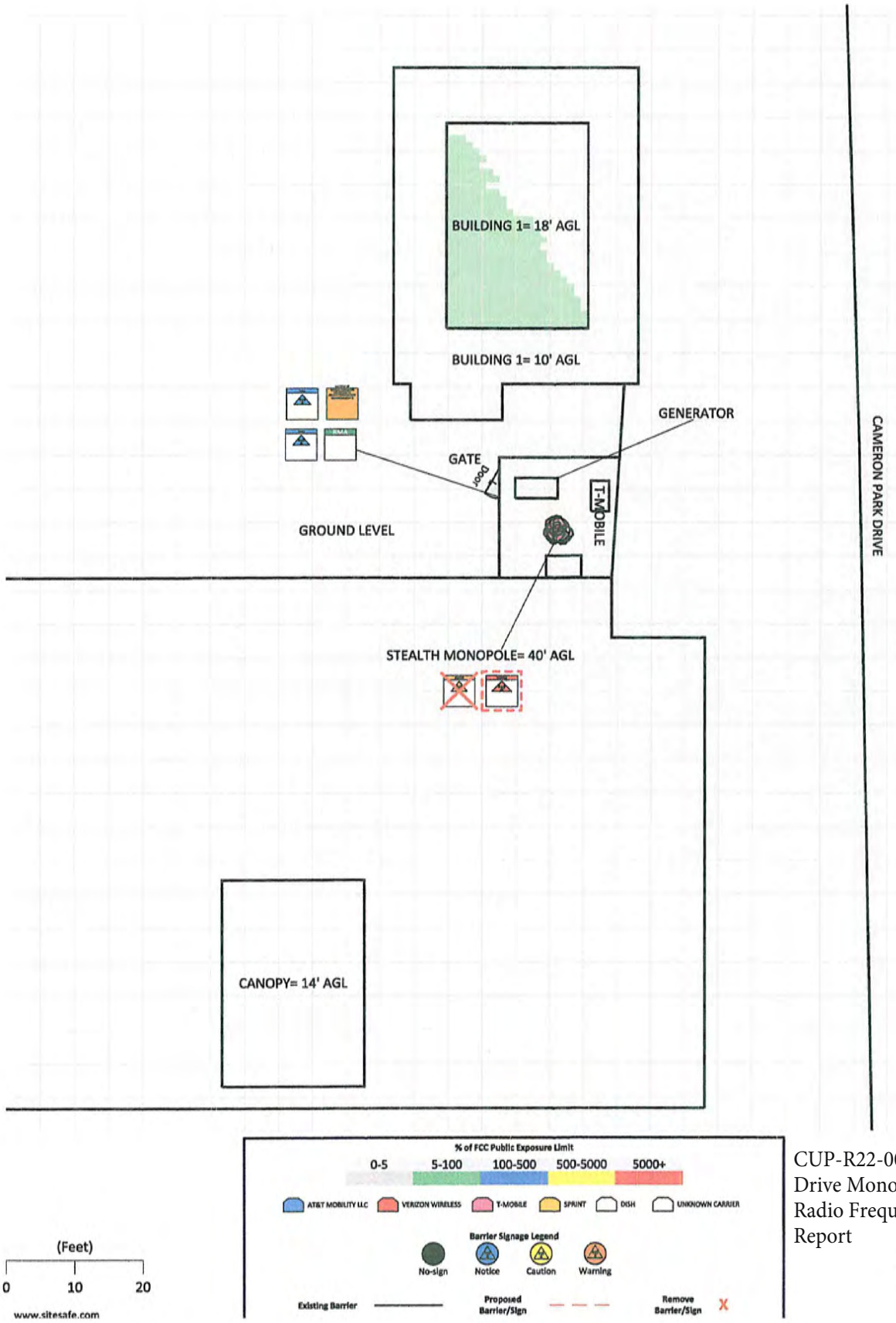
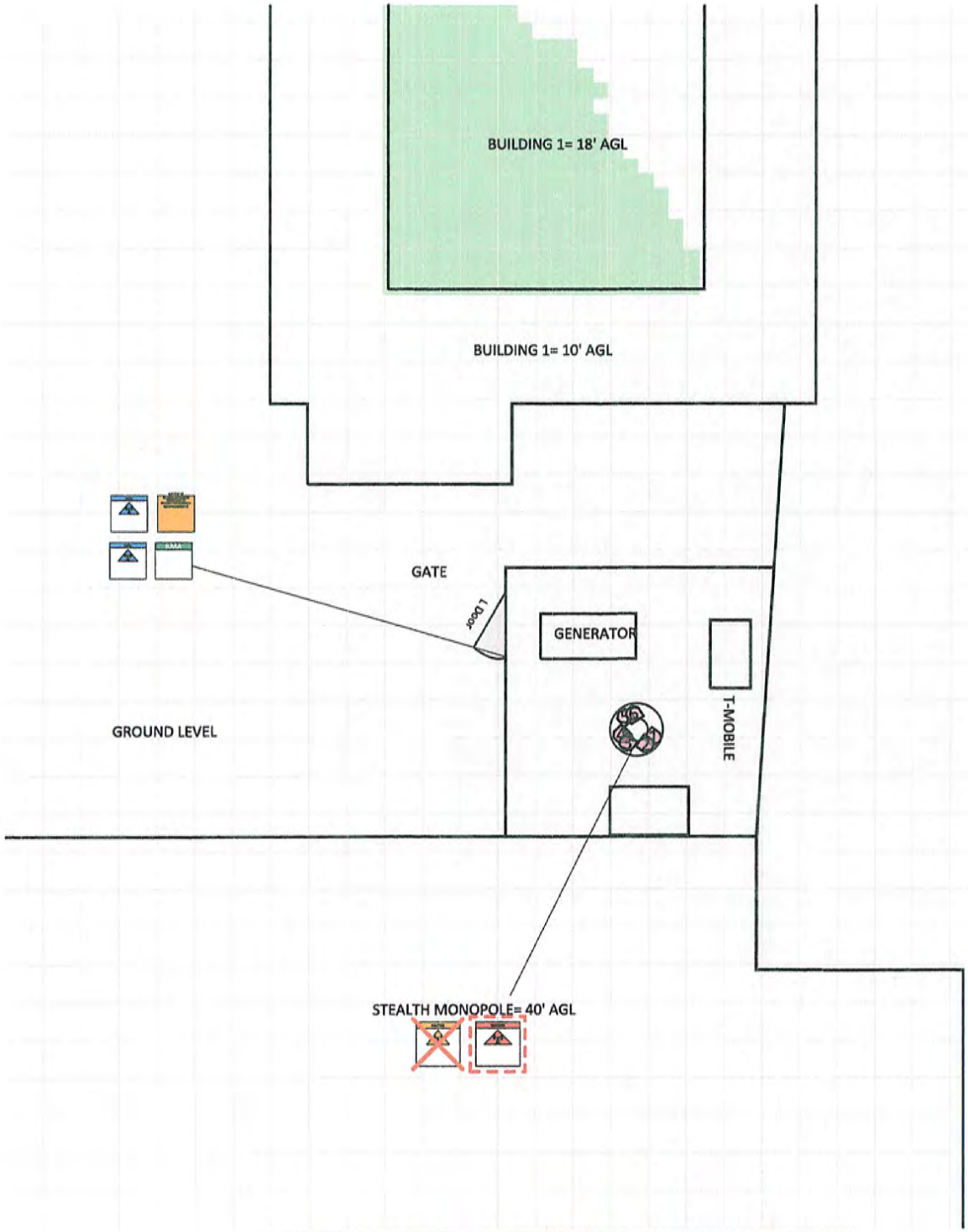
RF Exposure Simulation For: SA948 Cameron Park
Composite View

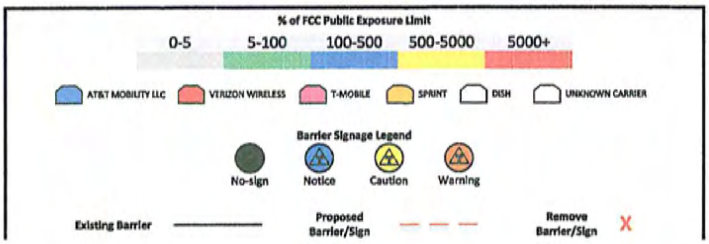


CUP-R22-0031 Alhambra Drive Monopine Exhibit H: Radio Frequency (RF) Report

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1

RF Exposure Simulation For: SA948 Cameron Park
Detailed View





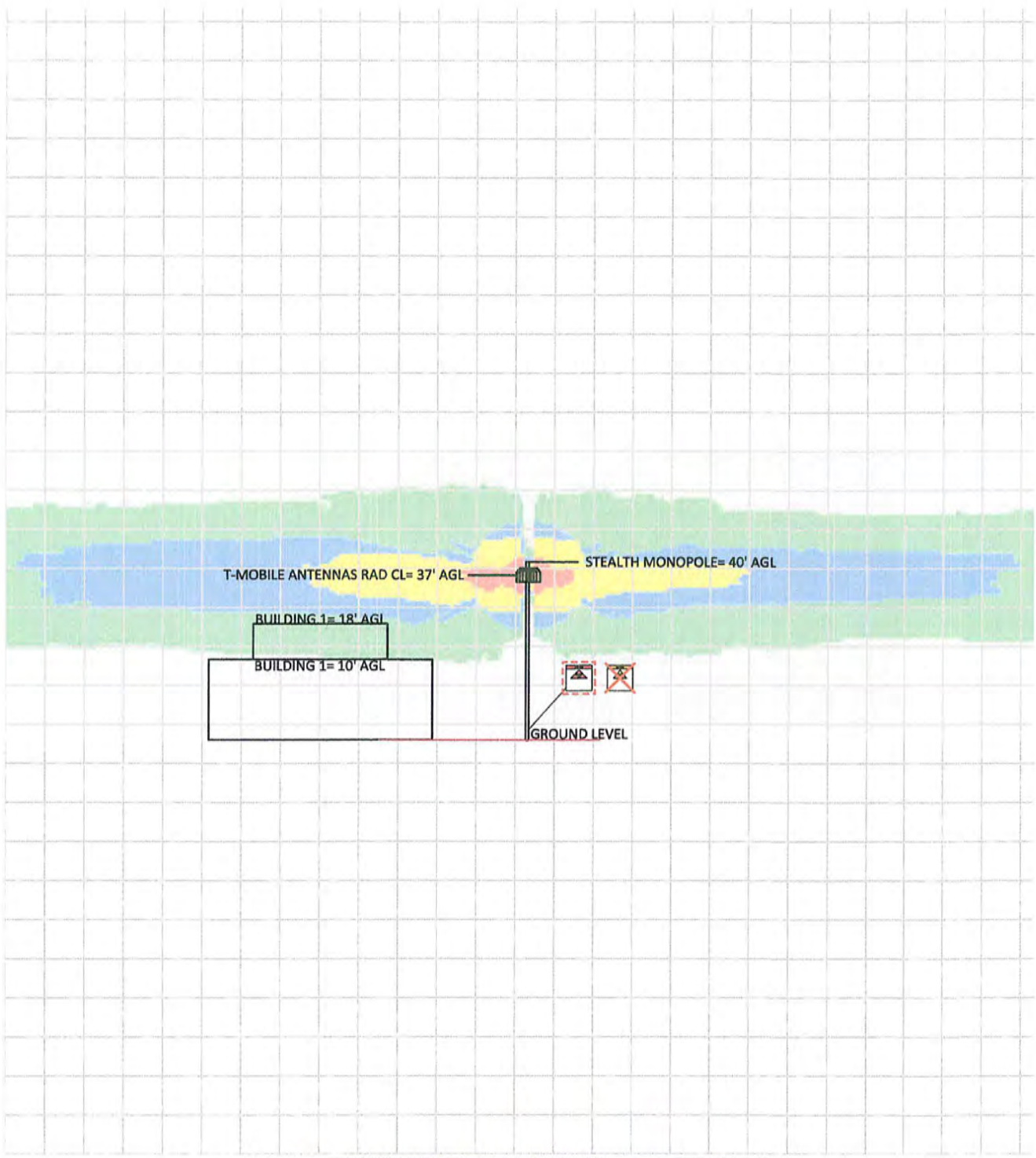
(Feet)
0 4.9 9.8

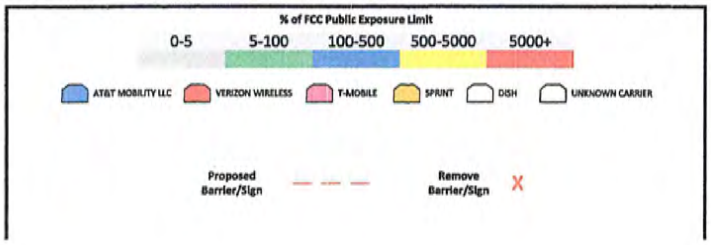
www.sitesafe.com

CUP-R22-0031 Alhambra Drive Monopine Exhibit H: Radio Frequency (RF) Report

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1

RF Exposure Simulation For: SA948 Cameron Park
Elevation View





(Feet)
0 15.4 30.8
www.sitesafe.com

CUP-R22-0031 Alhambra Drive Monopine Exhibit H: Radio Frequency (RF) Report

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1

4 Antenna Inventory

The Antenna Inventory shows all transmitting antennas at the site. This inventory was provided by the customer and was utilized by Sitesafe to perform theoretical modeling of RF exposure. The inventory coincides with the site diagrams in this report, identifying each antenna's location at 827264 - SA948 Cameron Park. The antenna information collected includes the following information:

- Licensee or wireless operator name
- Frequency or frequency band
- Transmitter power – Transmitter Power Output ("TPO"), Effective Radiated Power ("ERP"), or Equivalent Isotropic Radiated Power ("EIRP")
- Antenna manufacturer make, model, and gain

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The following antenna inventory was provided by the customer and was utilized to create the site model diagrams:

Ant ID	Operator	Antenna Make and Model	Type	TX Freq (MHz)	Technology	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBd)	Power	Power Type	Power Units	TX Count	Misc Loss	Total ERP (Watts)	Z (ft) (AGL)	MDT (Deg)	EDT (Deg)
1	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	600	LTE	90	62.8	8	13.35	100.00	TPO	Watt	1	0.00	2162.72	37	0	0
1	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	600	5G	90	62.8	8	13.35	100.00	TPO	Watt	1	0.00	2162.72	37	0	0
1	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	700	LTE	90	63.7	8	13.75	200.00	TPO	Watt	1	0.00	4742.75	37	0	0
1	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	1900	LTE	90	64.9	8	15.25	280.00	TPO	Watt	1	0.00	9379.03	37	0	0
1	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	2100	LTE	90	59.4	8	16.45	280.00	TPO	Watt	1	0.00	12363.97	37	0	0
2	T-MOBILE (Proposed)	Ericsson AIR6449	Panel	2500	LTE	90	12.5	2.8	22.65	150.00	TPO	Watt	1	0.00	27611.58	37	0	0
2	T-MOBILE (Proposed)	Ericsson AIR6449	Panel	2500	5G	90	12.5	2.8	22.65	150.00	TPO	Watt	1	0.00	27611.58	37	0	0
3	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	600	LTE	190	62.8	8	13.35	100.00	TPO	Watt	1	0.00	2162.72	37	0	0
3	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	600	5G	190	62.8	8	13.35	100.00	TPO	Watt	1	0.00	2162.72	37	0	0
3	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	700	LTE	190	63.7	8	13.75	200.00	TPO	Watt	1	0.00	4742.75	37	0	0
3	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	1900	LTE	190	64.9	8	15.25	280.00	TPO	Watt	1	0.00	9379.03	37	0	0
3	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	2100	LTE	190	59.4	8	16.45	280.00	TPO	Watt	1	0.00	12363.97	37	0	0
4	T-MOBILE (Proposed)	Ericsson AIR6449	Panel	2500	LTE	190	12.5	2.8	22.65	150.00	TPO	Watt	1	0.00	27611.58	37	0	0
4	T-MOBILE (Proposed)	Ericsson AIR6449	Panel	2500	5G	190	12.5	2.8	22.65	150.00	TPO	Watt	1	0.00	27611.58	37	0	0
5	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	600	LTE	290	62.8	8	13.35	100.00	TPO	Watt	1	0.00	2162.72	37	0	0
5	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	600	5G	290	62.8	8	13.35	100.00	TPO	Watt	1	0.00	2162.72	37	0	0
5	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	700	LTE	290	63.7	8	13.75	200.00	TPO	Watt	1	0.00	4742.75	37	0	0
5	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	1900	LTE	290	64.9	8	15.25	280.00	TPO	Watt	1	0.00	9379.03	37	0	0

Ant ID	Operator	Antenna Make and Model	Type	TX Freq (MHz)	Technology	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBd)	Power	Power Type	Power Units	TX Count	Misc Loss	Total ERP (Watts)	Z (ft) (AGL)	MDT (Deg)	EDT (Deg)
5	T-MOBILE (Proposed)	RFS APXVAALL24_43-U-NA20	Panel	2100	LTE	290	59.4	8	16.45	280.00	TPO	Watt	1	0.00	12363.97	37	0	0
6	T-MOBILE (Proposed)	Ericsson AIR6449	Panel	2500	LTE	290	12.5	2.8	22.65	150.00	TPO	Watt	1	0.00	27611.58	37	0	0
6	T-MOBILE (Proposed)	Ericsson AIR6449	Panel	2500	5G	290	12.5	2.8	22.65	150.00	TPO	Watt	1	0.00	27611.58	37	0	0

Note: The Z reference indicates antenna height above ground level (AGL). ERP values provided by the client and used in the modeling may be greater than are currently deployed. For additional modeling information, refer to Appendix B. Proposed equipment is tagged as *(Proposed)* under *Operator* or *Antenna Make and Model*.

5 Engineer Certification

The professional engineer whose seal appears on the cover of this document hereby certifies and affirms:

That I am registered as a Professional Engineer in the jurisdiction indicated in the professional engineering stamp on the cover of this document; and

That I, Michael A McGuire, am currently and actively licensed to provide (in this state/jurisdiction as indicated within the professional electrical engineering seal on the cover of this document) professional electrical engineering services, as an employee of Hurricane Hill Development Company, PLLC, a duly authorized/registered engineering firm (in this state, as applicable) on behalf of Site Safe, LLC; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Leo Romero.

April 5, 2022

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Appendix A – Statement of Limiting Conditions

Sitesafe will not be responsible for matters of a legal nature that affect the site or property.

Due to the complexity of some wireless sites, Sitesafe performed this analysis and created this report utilizing best industry practices and due diligence. Sitesafe cannot be held accountable or responsible for anomalies or discrepancies due to actual site conditions (i.e. mislabeling of antennas or equipment, inaccessible cable runs, inaccessible antennas or equipment, etc.) or information or data supplied by T-Mobile, the site manager, or their affiliates, subcontractors or assigns.

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, observed during the survey of the subject property or that Sitesafe became aware of during the normal research involved in performing this survey. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data provided by a second party and physical data collected by Sitesafe, the physical data will be used.

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Appendix B – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The site has been modeled with these assumptions to show the maximum RF energy density. Sitesafe believes this to be a *worst-case* analysis, based on best available data. Areas modeled to predict exposure exposure greater than 100% of the applicable MPE level may not actually occur but are shown as a *worst-case* prediction that could be realized real time. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Thus, at any time, if power density measurements were made, we believe the real-time measurements would indicate levels below those depicted in the RF exposure diagram(s) in this report. By modeling in this way, Sitesafe has conservatively shown exclusion areas – areas that should not be entered without the use of a personal monitor, carriers reducing power, or performing real-time measurements to indicate real-time exposure levels.

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Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible for taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site complies with FCC standards with regards to Human Exposure to Radio Frequency Electromagnetic Fields from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to a half-wave dipole antenna.

Gain (of an antenna) – The ratio, usually expressed in decibels, of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power density at the same distance. When not specified otherwise, the gain refers to the direction of maximum radiation. Gain may be considered for a specified polarization. Gain may be referenced to an isotropic antenna (dBi) or a half-wave dipole (dBd) antenna.

General Population/Uncontrolled Environment – Defined by the FCC as an area where RF exposure may occur to persons who are *unaware* of the potential for exposure and who have no control over their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use its industry specific knowledge of antenna models to select a worst-case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

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Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC as an area where RF exposure may occur to persons who are **aware** of the potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of RF exposure on humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency Exposure or Electromagnetic Fields – Electromagnetic waves that are propagated from antennas through space.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy a 6-foot tall human body will absorb while present in an electromagnetic field of energy.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.

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Appendix C – Rules & Regulations

Explanation of Applicable Rules and Regulations

The FCC has set forth guidelines in OET Bulletin 65 for human exposure to radio frequency electromagnetic fields. Specific regulations regarding this topic are listed in Part 1, Subpart I, of Title 47 in the Code of Federal Regulations. Currently, there are two different levels of MPE - General Public MPE and Occupational MPE. An individual classified as Occupational can be defined as an individual who has received appropriate RF training and meets the conditions outlined below. General Public is defined as anyone who does not meet the conditions of being Occupational. FCC and OSHA Rules and Regulations define compliance in terms of total exposure to total RF energy, regardless of location of or proximity to the sources of energy.

It is the responsibility of all licensees to ensure these guidelines are maintained at all times. It is the ongoing responsibility of all licensees composing the site to maintain ongoing compliance with FCC rules and regulations. Individual licensees that contribute less than 5% MPE to any total area out of compliance are not responsible for corrective actions.

OSHA has adopted and enforces the FCC's exposure guidelines. A building owner or site manager can use this report as part of an overall RF Health and Safety Policy. It is important for building owners/site managers to identify areas in excess of the General Population MPE and ensure that only persons qualified as Occupational are granted access to those areas.

Occupational Environment Explained

The FCC definition of Occupational exposure limits apply to persons who:

- are exposed to RF energy as a consequence of their employment;
- have been made aware of the possibility of exposure; and
- can exercise control over their exposure.

OSHA guidelines go further to state that persons must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

In order to consider this site an Occupational Environment, the site must be controlled to prevent access by any individuals classified as the General Public. Compliance is also maintained when any non-occupational individuals (the General Public) are prevented from accessing areas indicated as Red or Yellow in the attached RF exposure diagram. In addition, a person must be aware of the RF environment into which they are entering. This can be accomplished by an RF Safety Awareness class, and by appropriate written documentation such as this Site Compliance Report.

All T-Mobile employees who require access to this site must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

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Appendix D – General Safety Recommendations

The following are *general recommendations* appropriate for any site with accessible areas in excess of 100% General Public MPE. These recommendations are not specific to this site. These are safety recommendations appropriate for typical site management, building management, and other tenant operations.

1. All individuals needing access to the main site (or the area indicated to be in excess of General Public MPE) should wear a personal protective monitor (PPM), successfully complete proper RF Safety Awareness training, and have and be trained in the use of appropriate personal protective equipment.

2. All individuals needing access to the main site should be instructed to read and obey all posted placards and signs.

3. The site should be routinely inspected and this or similar report updated with the addition of any antennas or upon any changes to the RF environment including:

- adding new antennas that may have been located on the site
- removing of any existing antennas
- changes in the radiating power or number of RF emitters

4. Post the appropriate **NOTICE**, **CAUTION**, or **WARNING** sign at the main site access point(s) and other locations as required. Note: Please refer to RF Exposure Diagrams in Section 3.1 to inform <u>everyone</u> who has access to this site that beyond posted signs there may be levels in excess of the limits prescribed by the FCC. In addition to RF Advisory Signage, a RF Guideline Signage is recommended to be posted at the main site access point(s). The signs below are examples of signs meeting FCC guidelines.

5. Ensure that the site door remains locked (or appropriately controlled) to deny access to the general public if deemed as policy by the building/site owner.

6. For a General Public environment the five color levels identified in this analysis can be interpreted in the following manner:

- Gray represents areas predicted to be at 5% or less of the General Public MPE limits. *The General Public can access these areas with no restrictions.*

- Green represents areas predicted to be between 5% and 100% of the General Public MPE limits. *The General Public can access these areas with no restrictions.*
- Blue represents areas predicted to be between 100% and 500% of the General Public MPE limits. *The General Public should be restricted from accessing these areas.*
- Yellow represents areas predicted to be between 500% and 5000% of the General Public MPE limits. *The General Public should be restricted from accessing these areas.*
- Red represents areas predicted to be greater than 5000% of the General Public MPE limits. *The General Public should be restricted from accessing these areas.*

7. For an Occupational environment the five color levels identified in this analysis can be interpreted in the following manner:

- Gray represents areas predicted to be at 1% or less of the Occupational MPE limits. *Workers can access these areas with no restrictions.*
- Green represents areas predicted to be between 1% and 20% of the Occupational MPE limits. *Workers can access these areas with no restrictions.*
- Blue represents areas predicted to be between 20% and 100% of the Occupational MPE limits. Workers can access these areas assuming they have basic understanding of EME awareness and RF safety procedures and understand how to limit their exposure.
- Yellow represents areas predicted to be between 100% and 1000% of the Occupational MPE limits. Workers can access these areas assuming they have basic understanding of EME awareness and RF safety procedures and understand how to limit their exposure. Transmitter power reduction and/or time-averaging may be required.
- Red represents areas predicted to be greater than 1000% of the Occupational MPE limits. These areas are not safe for workers to be in for prolonged periods of time. Special procedures must be adhered to, such as lockout/tagout or transmitter power reduction, to minimize worker exposure to EME.

8. Use of a Personal Protective Monitor (PPM): When working around antennas, Sitesafe strongly recommends the use of a PPM. Wearing a PPM will properly forewarn the individual prior to entering an RF exposure area.

Keep a copy of this report available for all persons who must access the site. They should read this report and be aware of the potential hazards with regards to RF and MPE limits.

Additional Information

Additional RF information is available at the following sites:
https://www.fcc.gov/general/radio-frequency-safety-0
https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety

OSHA has additional information available at:
https://www.osha.gov/SLTC/radiofrequencyradiation/index.html

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Appendix E – Regulatory Basis

FCC Rules and Regulations

In 1996, the Federal Communications Commission (FCC) adopted regulations for evaluating the effects of RF exposure in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

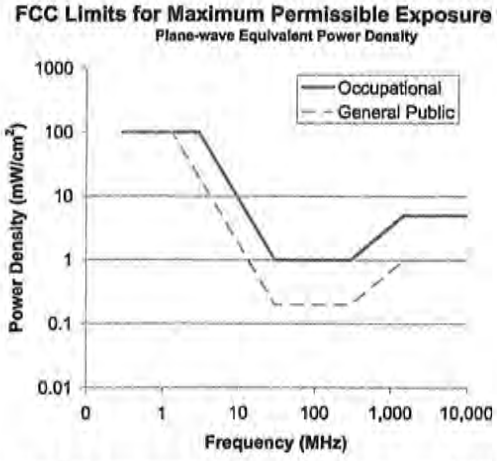
FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limits. The General Public limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF hazard signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF hazard signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

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Appendix F – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a worker's understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet-based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Site RF Exposure Diagram(s): Section 3 of this report contains RF Diagram(s) that outline various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst-case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

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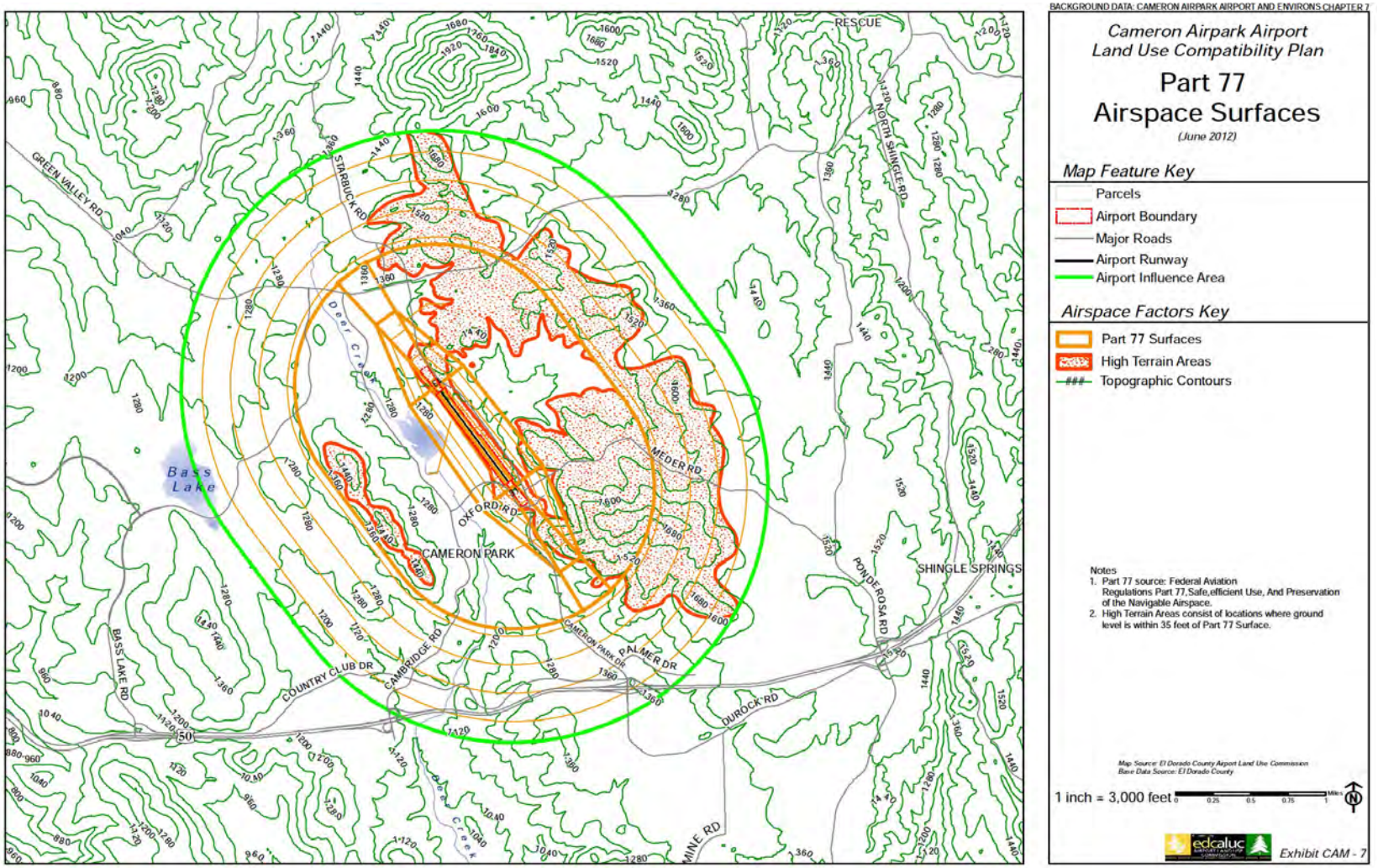
Alhambra Drive Cell Tower Expansion

November 07, 2022

Cameron Park Airport District


BACKGROUND DATA: CAMERON AIRPARK AIRPORT AND ENVIRON'S CHAPTER 7
Cameron Airpark Airport
Land Use Compatibility Plan
Part 77
Airspace Surfaces
(June 2012)
Map Feature Key
Parcels
Airport Boundary
Major Roads
Airport Runway
Airport Influence Area
Airspace Factors Key
Part 77 Surfaces
High Terrain Areas
Topographic Contours
Notes
1. Part 77 source: Federal Aviation Regulations Part 77,Safe,efficient Use, And Preservation of the Navigable Airspace.
2. High Terrain Areas consist of locations where ground level is within 35 feet of Part 77 Surface.
Map Source: El Dorado County Airport Land Use Commission
Base Data Source: El Dorado County
1 inch = 3,000 feet
Exhibit CAM - 7
RESCUE
GREEN VALLEY RD
STARBUCK RD
NORTH SHINGLE RD
Deer Creek
Bass Lake
OXFORD RD
MEDER RD
CAMERON PARK
SHINGLE SPRINGS
PONDEROSA RD
BASS LAKE RD
COUNTRY CLUB DR
CAMBRIDGE RD
CAMERON PARK DR
PALMER DR
DUROCK RD
MINE RD


Rassmussen Park
Hammond and
Proctor Dentistry
Cameron Park Lake
Cameron
Airpark
Bonanza Park
Deer Creek
Chantry Dental
El Dorado Superior Ct
Ewert Carie
200 m
Camera: 2,298 m

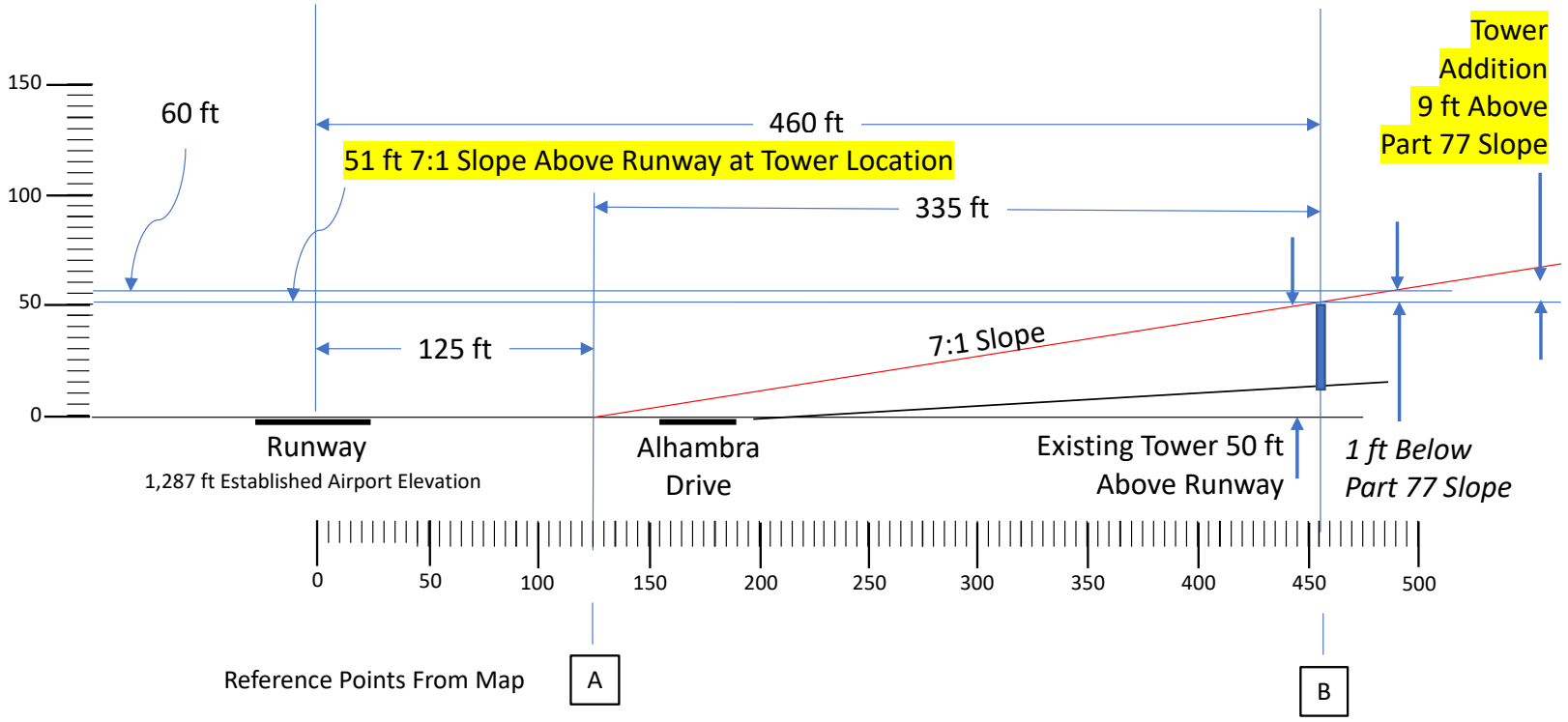

B
460 feet
From Runway
Center Line
125 feet
From Runway
Center Line
A
Google
100%
20 m
Camera: 552 m 38°41'14"N 120°59'24"W
387 m
3D


Tower
Approximate
7:1 Transition Slope


Tower
Approximate
7:1 Transition Slope

Alhambra Drive Cell Tower Expansion – FAA Part 77 Airspace Analysis

November 07, 2022



LENGTHS AND DISTANCES ARE APPROXIMATE


PREFS
+038.686930° / -120.990278° ↑1267ft
MAIL
MAP
11/06/22
N
15:34:17
LOG
-05
00
-00.6°
+06.8°
+05
+10
+05
SHOW EXTRAS...
031° N31E 0551mils TRUE
WHAT'S NEW...
ZERO
A-B
CAL
N
030
060
COLOR
0.5 X
S


3025
U-HAUL
Truck Share 24/7
Central-Ride Van

CPAD Response Letter

- Dated August 19, 2022
- An FAA request form 7460-1, Notice of Proposed Construction or Alteration shall be filed with the FAA copied to CalTrans Division of Aeronautics and Cameron Park Airport District
- Has this been filed with FAA?
- EDC ALUP Chapter 4.4 Airspace Protection,

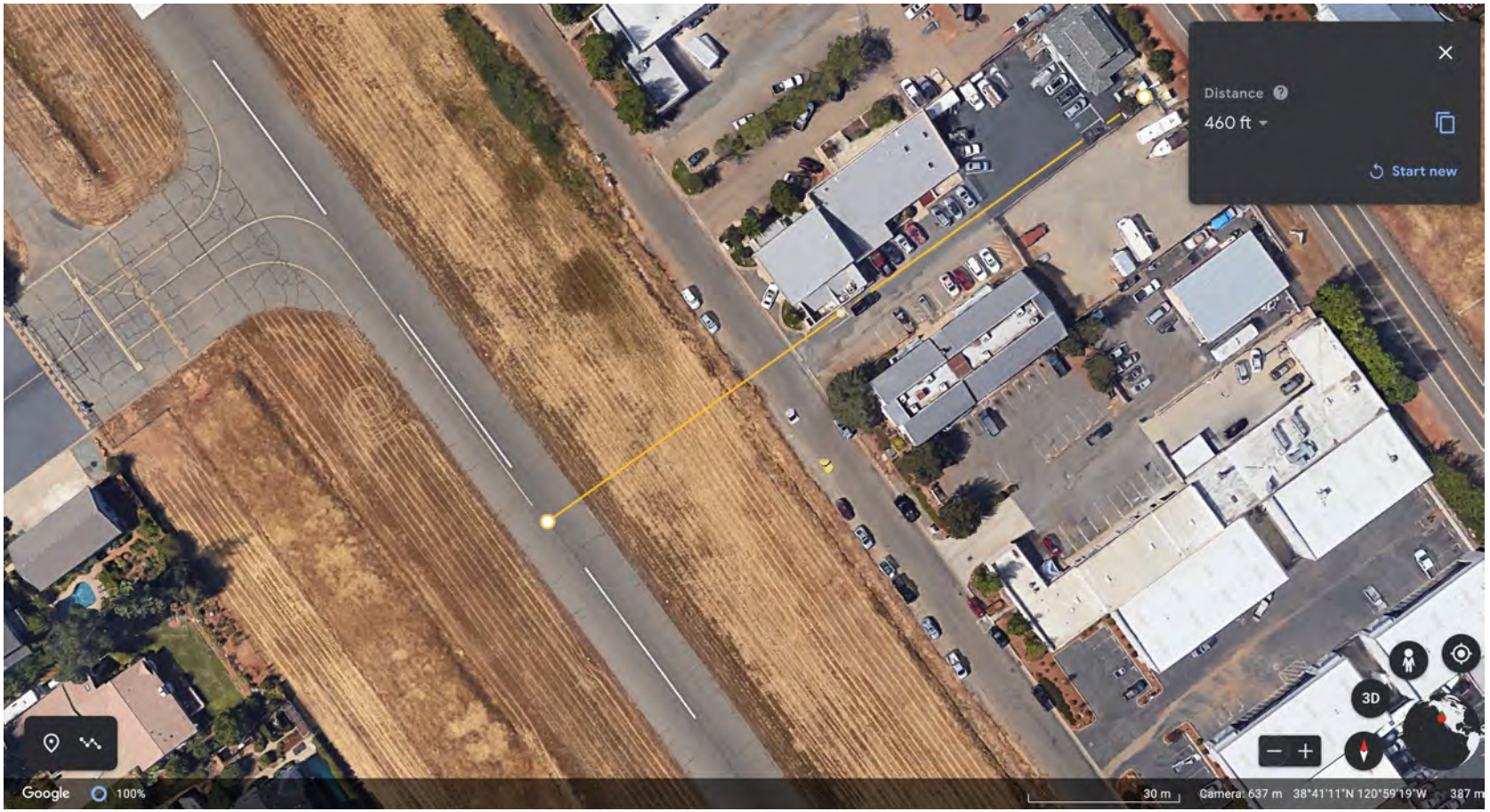
EDC Airport Land Use Compatibility Plan (ALUC)

- Chapter 4.4 Airspace Protection,
  - Chapter 4.4.4 Requirements for FAA Notification of Proposed Construction or Alternations. The project proponent. is responsible for notifying the FAA about proposed construction that may affect navigable airspace.39 The following is ALUC policy on this topic.

    (a) Reference to FAA notification requirements is included here for informational purposes only, not as an ALUC policy. Local agencies should inform project proponents of the requirements for FAA notification.

    (b) Any proposed development project that includes construction of a structure or other object and that must be referred to the ALUC for a consistency review in accordance with Policies 2.4.3 or 2.4.5 shall include a copy of the completed FAR Part 77 notification form (Form 7460-1) submitted to the FAA, if applicable, and the findings of the FAA's aeronautical study (i.e., notice of determination letter). A proposed project may be referred to the ALUC in advance of the completion of the FAA aeronautical study. However, the completed study must be forwarded to the ALUC when available and the ALUC may reconsider its previous consistency determination if the FAA study provides new information and airspace protection was a factor in the ALUC's determination.

Backup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3D
Google
100%
30 m
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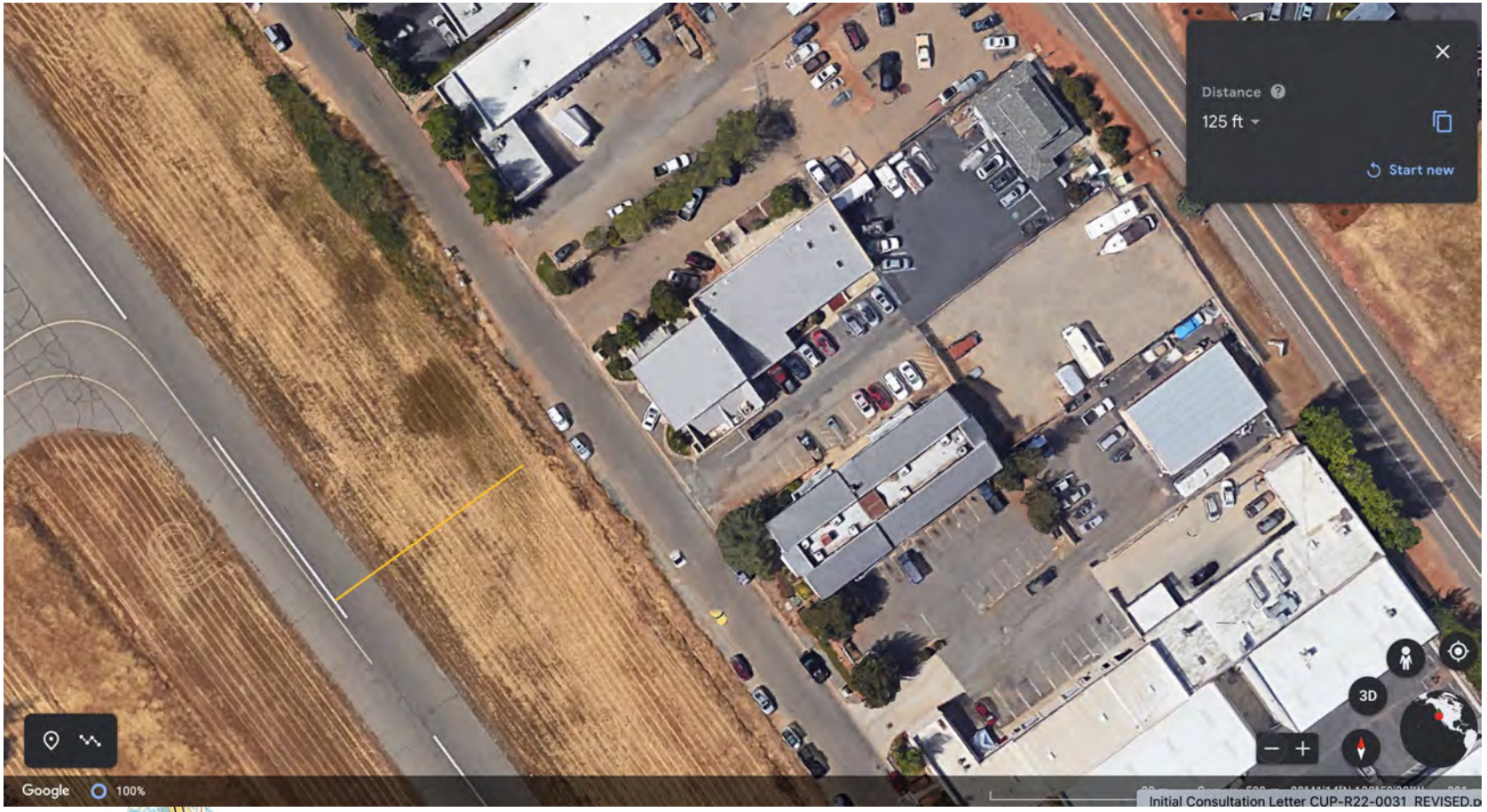
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3D
Google
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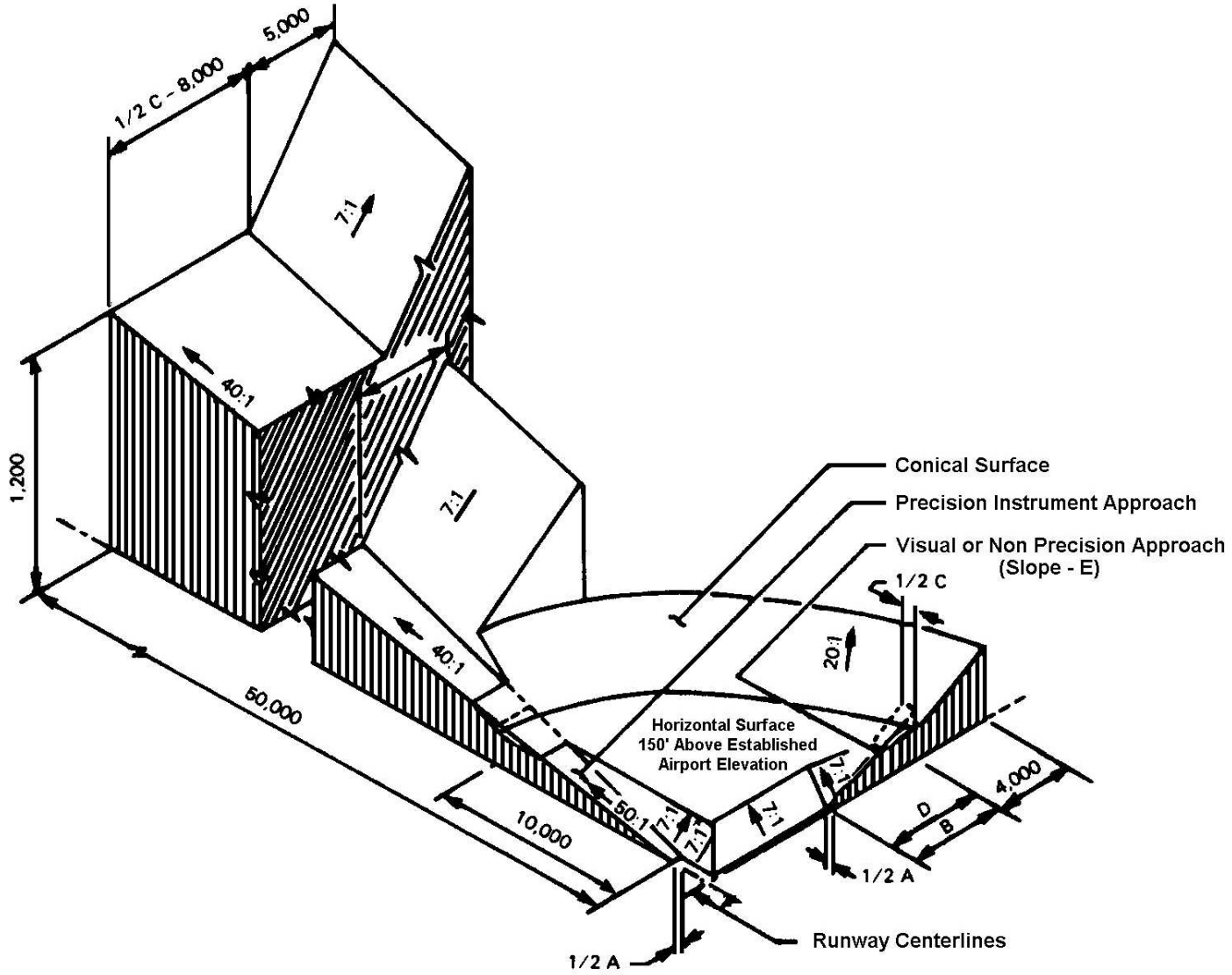
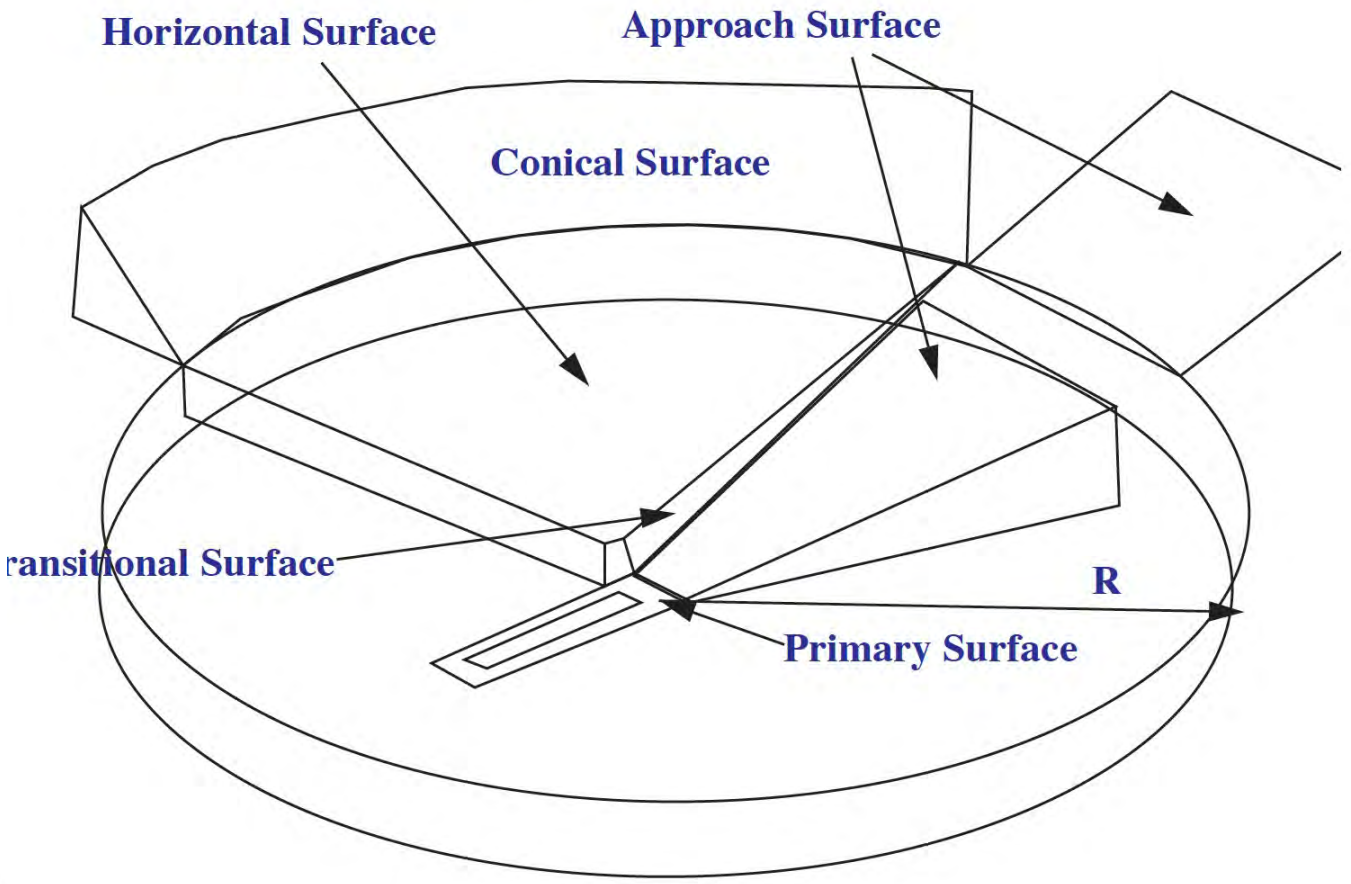
Initial Consultation Letter CUP-R22-0031_REVISED.p


5,000
1/2 C – 8,000
7:1
40:1
1,200
7:1
40:1
50,000
10,000
50:1
7:1
7:1
7:1
7:1
Horizontal Surface
150' Above Established
Airport Elevation
Conical Surface
Precision Instrument Approach
Visual or Non Precision Approach
(Slope - E)
1/2 C
20:1
4,000
D
B
1/2 A
1/2 A
Runway Centerlines

Graphical Depiction



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-21088-OE
Prior Study No.
2002-AWP-171-OE

Issued Date: 11/13/2023

Susan Bottone
Crown Castle USA-SB
8000 Avalon Blvd. Suite 700
Alpharetta, GA 30009

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Tower 827264 SA948 Cameron Park
Location:	CAMERON PARK, CA
Latitude:	38-41-15.60N NAD 83
Longitude:	120-59-20.30W
Heights:	1292 feet site elevation (SE)
	55 feet above ground level (AGL)
	1347 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure should continue to be marked/lighted utilizing red lights.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Air Missions (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

This determination expires on 05/13/2025 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before December 13, 2023. In the event an interested party files a petition for review, it must contain a full statement of the basis upon which the petition is made. Petitions can be submitted to the Manager, Rules and Regulations Group via email at OEPetitions@faa.gov, or via mail to Federal Aviation Administration, Air Traffic Organization, Rules and Regulations Group, Room 425, 800 Independence Ave, SW., Washington, DC 20591. FAA encourages the use of email to ensure timely processing.

This determination becomes final on December 23, 2023 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. Any questions regarding your petition, contact Rules and Regulations Group via telephone (202) 267-8783.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed

structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact Justin Hetland, at (847) 294-8084, or justin.hetland@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-21088-OE.

Signature Control No: 561883044-604532451 (DNH)
David Maddox
Manager, Obstruction Evaluation Group

Attachment(s)
Additional Information
Frequency Data
Map(s)

cc: FCC

AERONAUTICAL STUDY NO. 2022-AWP-21088-OE

Abbreviations:
AGL - Above Ground Level
AMSL - Above Mean Sea Level
IFR - Instrument Flight Rules
NEH - No Effect Height
NM - Nautical Mile
RWY - Runway
VFR - Visual Flight Rules

Part 77 - Title 14 Code of Federal Regulations (CFR) Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace

1. LOCATION OF PROPOSED CONSTRUCTION
Crown Castle USA's proposed height increase to an existing tower (827264 SA948 Cameron Park) at 55 feet AGL/1347 feet AMSL, has been identified as an obstruction under Part 77 standards. The proposed structure is located 0.23 nautical miles northeast of the Cameron Park Airport (O61) airport reference point (ARP) in Cameron Park, CA. O61 elevation is 1292 feet AMSL.

2. OBSTRUCTION STANDARDS EXCEEDED
Section 77.19(e) - Transitional Surface, these surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline. The proposed structure would exceed the transitional surface for the existing RWY 13/31 by 23 feet.

3. EFFECT ON AERONAUTICAL OPERATIONS
a. The impact on arrival, departure, and en route procedures for aircraft operating under VFR follows: The VFR traffic pattern airspace is not penetrated.

b. The impact on arrival, departure, and en route procedures for aircraft operating under IFR follows: No impacts to any instrument approach procedure minimums at O61.

c. The impact on all planned public-use airports and aeronautical facilities follows: Study did not disclose any significant adverse effect on existing or proposed public-use or military airports or navigational facilities, nor would the proposed structure affect the capacity of any known existing or planned public-use or military airport.

d. The cumulative impact resulting from the proposed construction or alteration of a structure when combined with the impact of other existing or proposed structures is not considered to be significant.

4. CIRCULATION AND COMMENTS RECEIVED
As a result of the negotiation process the sponsor requested the study to be circularized. The proposal was circularized for public comment on October 2, 2023, to all known aviation interests and to non-aeronautical interests that may be affected by the proposal. No letters of objection were received.

5. DETERMINATION - NO HAZARD TO AIR NAVIGATION

It is determined that the proposed structure would not have a substantial adverse effect on the safe and efficient use of navigable airspace by aircraft.

6. BASIS FOR DECISION

Part 77 establishes standards for determining obstructions to air navigation. A structure that exceeds one or more of these standards is presumed to be a hazard to air navigation unless the obstruction evaluation study determines otherwise. Just because a proposed structure exceeds a Part 77 surface does not automatically make it a hazard. In this case the proposal would exceed the transitional surface by the value shown above, however, it would not conflict with airspace required to conduct normal VFR traffic pattern operations. There are no IFR impacts and the VFR traffic pattern airspace is not impacted. The proposal was sent out for public comment with no letters of objection being received against the structure. The continued incorporation of obstruction lighting will provide additional pilot conspicuity for VFR and IFR pilots flying in the vicinity of O61 airport.

7. CONDITIONS

The structure shall continue to be lighted as outlined in Chapters 4, 5 (Red) & 15 of the Advisory Circular AC 70/7460-1M. The advisory circular is available online at https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1038519

Within five days after the structure reaches its greatest height, proponent is required to file a FAA form 7460-2, Actual Construction notification, at the OE/AAA website (http://oeaaa.faa.gov). This actual construction notification will be the source document detailing the site location, site elevation, structure height, and date structure was built for the FAA to map the structure on aeronautical charts and update the national obstruction database.

Frequency Data for ASN 2022-AWP-21088-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W

TOPO Map for ASN 2022-AWP-21088-OE

Sectional Map for ASN 2022-AWP-21088-OE