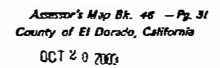


CUP23-0013 Majestic Trail Monopine
Exhibit A: Location Map

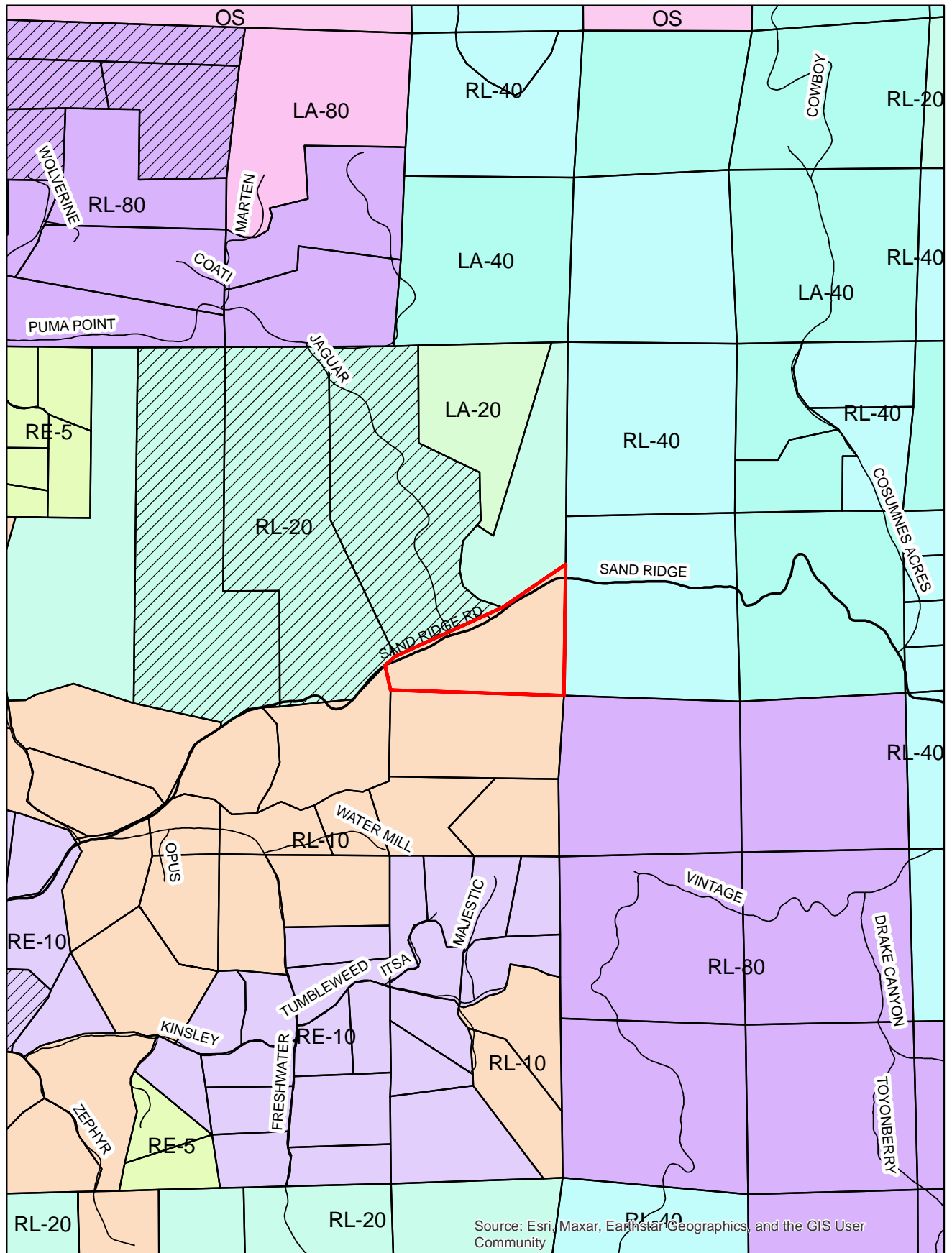
0 312.5 625 1,250 1,875 2,500 Feet



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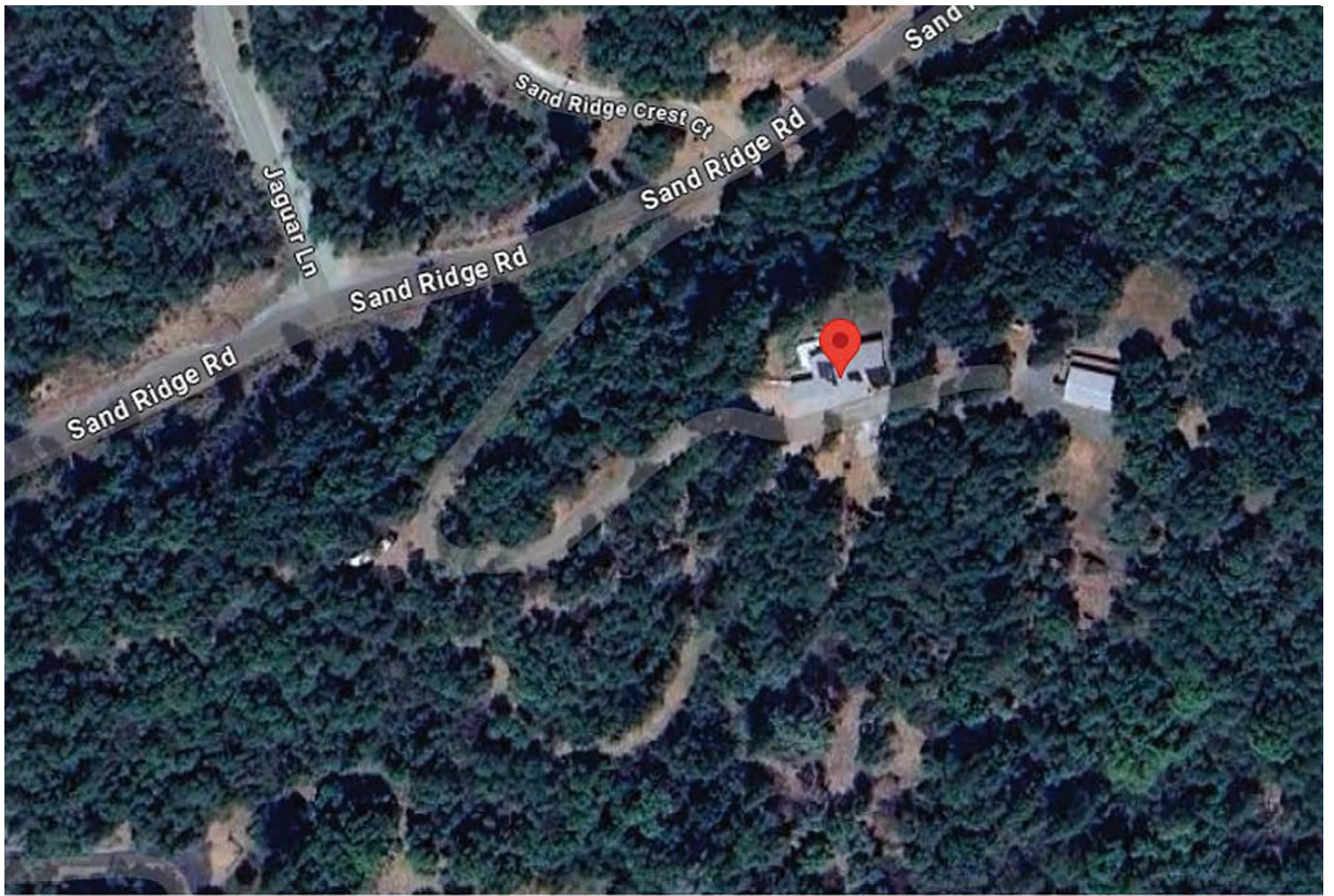
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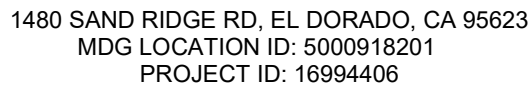
CUP23-0013 Majestic Trail Monopine
Exhibit D: Zoning Designation Map

0 312.5 625 1,250 1,875 2,500 Feet





CUP23-0013 Majestic Trail Monopine Exhibit E: Aerial Site Map

[illegible]

PROJECT GENERAL NOTES

1. THIS FACILITY IS AN UNLICENSED WIRELESS TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGNOSTIC OUTLINE ONLY, UNLESS NOTED OTHERWISE.
3. THE SCOPE OF WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRM THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PAY FOR PERMIT FEES, AND TO OBTAIN SAID PERMITS AND TO COORDINATE INSPECTIONS.
6. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK OR ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
7. CALL BEFORE YOU DIG: CONTRACTOR IS REQUIRED TO CALL 811 (NATIONWIDE "CALL BEFORE YOU DIG" HOTLINE) AT LEAST 72 HOURS BEFORE DIGGING.
8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL OBEY ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
9. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. CONTRACTOR SHALL ALSO COORDINATE ALL PORTIONS OF THE WORK UNDER THE CONTRACT, INCLUDING CONTRACT AND COORDINATION WITH THE CONSTRUCTION MANAGER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF THE PROJECT MANAGER.
11. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS AND RUBBER. REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMODGES OF ANY NATURE.
12. 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 DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
13. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND ALL OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES.
14. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
15. THE CONTRACTOR SHALL PROVIDE A TOILET FACILITY DURING ALL PHASES OF CONSTRUCTION.
16. SUFFICIENT MONUMENTATION WAS NOT RECOVERED TO ESTABLISH THE POSITION OF THE BOUNDARY LINES SHOWN HEREON. THE BOUNDARY REPRESENTED ON THIS MAP IS BASED ON COMPILED RECORD DATA AND BEST FIT ONTO EXISTING IMPROVEMENTS. IT IS POSSIBLE FOR THE LOCATION OF THE SUBJECT PROPERTY TO SHIFT FROM THE PLACEMENT SHOWN HEREON WITH ADDITIONAL FIELD WORK AND RESEARCH. THEREFORE ANY SPATIAL REFERENCE MADE OR SHOWN BETWEEN THE RELATIONSHIP OF THE BOUNDARY LINES SHOWN HEREON AND EXISTING GROUND FEATURES, EASEMENTS OR LEASE AREA IS INTENDED TO BE APPROXIMATE AND IS SUBJECT TO VERIFICATION BY RESOLVING THE POSITION OF THE BOUNDARY LINES.
17. THE CONTRACTOR TO VERIFY THE LATEST/CURRENT BY DESIGN.
18. WHERE APPLICABLE, CONTRACTOR SHALL PROVIDE SEPARATE PLANS, SPECIFICATIONS, FEES AND PERMITS FOR ANY REVISION TO ANY FIRE SPRINKLER AND/OR ALARM SYSTEM ON THE PREMISES AS MAY BE NEEDED TO COMPLETE THE WORK DEPICTED HEREON, USING A LICENSED SUBCONTRACTOR FOR ALL SUCH WORK.

CONSTRUCTION NOTES

1. EXISTING BUILDING CONSTRUCTION CONDITIONS INDICATED ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO PROCEEDING WITH CONSTRUCTION OR ORDERING OF MATERIALS. IF EXISTING CONDITIONS DO NOT ALLOW FOR DETAILS OF CONSTRUCTION AS SHOWN ON THESE DRAWINGS, NOTIFY ENGINEER OF RECORD FOR RESOLUTION PRIOR TO PROCEEDING. CONTRACTOR SHALL EXPOSE AND REVIEW EXISTING CONDITIONS IN A TIMELY MANNER SUCH THAT ALTERNATE DESIGNS OR DETAILS, IF REQUIRED, MAY BE GENERATED WITHOUT DELAY TO THE PROJECT.
2. DURING CONSTRUCTION, THE CONTRACTOR SHALL NOT ALTER, DAMAGE OR REMOVE ANY PART OF THE EXISTING STRUCTURE UNLESS SPECIFICALLY DETAILED ON THESE DRAWINGS.
3. THE INTENT OF THESE DRAWINGS IS THAT THE WORK OF THE ADDITION, ALTERATION, REHABILITATION, OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH THE 2022 CBC. CBC SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NONCOMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL COMPLY WITH THE 2022 CBC, A CHANGE ORDER, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE PREPARED AND SUBMITTED TO AND APPROVED BY THE BUILDING DEPARTMENT PRIOR TO PROCEEDING WITH THE WORK.
4. ALL WORK AND MATERIALS SHOWN ARE NEW UNLESS INDICATED AS EXISTING (E).
5. IT MAY BE NECESSARY TO REMOVE ARCHITECTURAL FINISHES, PLUMBING PIPES AND FITURES, ELECTRICAL CONDUIT, FITURES, PANELS, BOXES, TELEPHONE OR FIRE ALARM WIRING AND FITURES OR OTHER NON-STRUCTURAL ITEMS TO INSTALL STRUCTURAL WORK AND MATERIALS SHOWN ON THESE DRAWINGS. SUCH ITEMS SHALL BE REMOVED, REPAIRED AND/OR REPLACED TO MATCH PRE-CONSTRUCTION CONDITIONS AT THE CONTRACTORS EXPENSE.
6. ALL WEATHER PROOFING, INCLUDING BUT NOT LIMITED TO TORMCH DOWN, CHALKING, 7-FLASHING OR ANY OTHER MATERIAL, THAT MAY BE ALTERED DURING INSTALLATION SHALL BE REPAIRED REPLACED AND/OR MODIFIED TO ENSURE THE BUILDING AT THE INSTALLATION SITE IS WEATHER PROOF.
7. ANY PROPOSED SUBSTITUTIONS FOR STRUCTURAL MEMBERS, HARDWARE, ANCHOR TYPES, OR DETAILING INDICATED IN THESE DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE OWNER OF RECORD PRIOR TO ORDERING MATERIALS. SUCH REVIEW SHALL BE BASED ON A TIME AND MATERIALS BASIS TO THE CONTRACTOR WITH NO GUARANTEE THAT THE SUBSTITUTION WILL BE ALLOWED.
8. CONTRACTOR SHALL MAINTAIN ALL ROOF AREAS HAVE POSITIVE SLOPE TO ALL EXISTING ROOF DRAINS. PROVIDE ADDITIONAL CRACKS OR BUILD UP ROOFING AS REQUIRED TO PROVIDE POSITIVE DRAINAGE AROUND ALL NEW CONSTRUCTION INCLUDING ANY CURBS, SLEEPERS, SUPPORT BASES, ETC.

EXPANSION & EPOXY ANCHORS

1. EXPANSION AND EPOXY ANCHORS SHALL BE IN CONFORMANCE WITH ALL REQUIREMENTS OF THE 2022 CALIFORNIA BUILDING CODE (CBC).
2. ALL ANCHORS PROVIDED SHALL BE INCLUDED IN EVALUATION REPORTS OF THE INTERNATIONAL CODE COUNCIL (ICC), AND SHALL BE EVALUATED FOR 2021 ICC MINIMUM REQUIREMENTS IN THE ICC REPORT.
3. CONCRETE EXPANSION ANCHORS SHALL BE KIMB BOLT T22 BY HULT INC., TULSA, OKLAHOMA AS PER ICC REPORT NO. ESR-4266 OR APPROVED EQUIVALENT.
4. CMU EXPANSION ANCHORS SHALL BE KIMB BOLT T22 BY HULT INC., TULSA, OKLAHOMA AS PER ICC REPORT NO. ESR-4561 OR APPROVED EQUIVALENT. ANCHORS SHALL BE INSTALLED A MINIMUM OF 1" FROM ANY VERTICAL MORTAR JOINT TYPICAL. ANCHORS TO BE SPACED 8" ON-CENTER MINIMUM AND LIMITED TO ONE ANCHOR PER CELL.
5. CONCRETE ADHESIVE EPOXY ANCHORS SHALL BE HIT-RE-800 V3 BY HULT INC., TULSA, OKLAHOMA AS PER ICC REPORT NO. ESR-3814 OR APPROVED EQUIVALENT.
6. GROUT FILLED CMU ADHESIVE EPOXY ANCHORS SHALL BE HIT-HY-200 BY HULT INC., TULSA, OKLAHOMA AS PER ICC REPORT NO. ESR-3063 OR APPROVED EQUIVALENT.
7. INSTALL EXPANSION AND EPOXY ANCHORS WITH SPECIAL INSPECTION IN ACCORDANCE WITH THE 2022 CBC, TABLE 1703.4, AND ALL REQUIREMENTS OF THE MANUFACTURER, THE MANUFACTURER'S ICC APPROVAL, AND THESE DRAWINGS.
8. EXPANSION ANCHORS SHALL BE 304/316 STAINLESS STEEL. LOCAL EPOXY ANCHOR THREADED ROD SHALL BE ASTM F593 CH1 (316) (X" TO ¾") OR F593 CH1 (316) (¾" TO 1½") STAINLESS STEEL. U.O.N.
9. LOCATE AND AVOID REINFORCEMENT AND OTHER EMBEDDED ITEMS WHEN INSTALLING ANCHORS. TYPICAL SEE CONCRETE CORE DRILLING NOTES FOR ADDITIONAL INFORMATION.
10. THE SPECIAL INSPECTOR MUST MAKE PERIODIC INSPECTIONS DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE AND DIMENSIONS, CONCRETE MEMBER THICKNESS, ANCHOR SPACING, EDGE DISTANCES, TIGHTENING TORQUE, HOLE DIAMETER, DEPTH AND CLEANLINESS, ANCHOR EMBEDMENT AND ADHERENCE TO MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE NOTE 11 BELOW FOR FREQUENCY OF INSPECTIONS.
11. SIX OF ALL ANCHORS, INCLUDING ALTERNATE BOLTS IN A GROUP OF ANCHORS, SHALL BE INSPECTED PER NOTE TO ABOVE AND TORQUE TESTED FOR THE ICC REPORT TEST VALUES NOTED BELOW:

80 T22
CONCRETE TORQUE TEST VALUES:

¾"-30 FT LB ¾"-40 FT LB ¾"-60 FT LB ¾"-125 FT LB

CMU TORQUE TEST VALUES:

¾"-15 FT LB ¾"-25 FT LB ¾"-35 FT LB ¾"-50 FT LB

EPOXY ANCHOR
CONCRETE TORQUE TEST VALUES:

¾"-30 FT LB
(CONCRETE TENSION TEST VALUES TO BE DETERMINED AS NEEDED, A RET WILL BE ISSUED IF NEEDED DURING CONSTRUCTION TO ESTABLISH THE REQUIRED TENSION TEST VALUES)

CONCRETE NOTES

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-19. CONCRETE MIX DESIGN SHALL BE REVIEWED BY AN INDEPENDENT TESTING LABORATORY AND SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW.
2. CONTRACTOR SHALL VERIFY SITE CONDITIONS & ALL DIMENSIONS PRIOR TO STARTING WORK. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES FOR RESOLUTION PRIOR TO PROCEEDING.
3. ALL CONCRETE SHALL BE A MINIMUM 5 SACK MIX WITH A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS.
4. CEMENT SHALL CONFORM TO ASTM C150, TYPE I.
5. CONCRETE AGGREGATES SHALL CONFORM TO ASTM C33.
6. ALL REINFORCING STEEL SHALL BE GRADE 60 AND CONFORM TO ASTM A615 UNLESS OTHERWISE NOTED. SEE PLAN FOR SIZE AND PLACEMENT.
7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A604.
8. REINFORCING STEEL SHALL BE FABRICATED ACCORDING TO "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION".
9. MINIMUM LAP SPICE SHALL BE 5 BAR DIAMETERS UNLESS OTHERWISE NOTED.
10. MINIMUM BEND DIAMETER SHALL BE 5 BAR DIAMETERS UNLESS OTHERWISE NOTED.
11. MINIMUM REINFORCING COVERAGE IS 1" UNLESS OTHERWISE NOTED.
12. BOTTOM OF ALL FOOTING TRENCHES SHALL BE CLEAN AND LEVEL. REMOVE ALL DEBRIS BEFORE PLACING ANY CONCRETE.
13. ALL ANCHOR BOLTS & TREADED ROD SHALL BE ASTM F1554, OR 36 MINIMUM UNLESS OTHERWISE NOTED, NEW, & WITHOUT SIGNIFICANT RUST.
15. A 1" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE UNLESS OTHERWISE NOTED.
16. REINFORCING, DOMELS, BOLTS, ANCHORS, SLEEVES, ETC. TO BE EMBEDDED IN CONCRETE SHALL BE SECURELY POSITIONED BEFORE PLACING CONCRETE.
17. ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED BY MOTORIZED VIBRATORY MEANS AND THOROUGHLY WORKED AROUND REINFORCEMENT, EMBEDDED ITEMS AND INTO CORNERS OF FORMS.

CONCRETE CORE/DRILLING NOTES

1. WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWDER DRIVEN PINS IN EXISTING NON-PRESTRESSED OR POST-TENSIONED REINFORCED CONCRETE (MILD REINFORCED), USE CARE & CAUTION TO AVOID CUTTING OR DAMAGING THE (E) REINFORCING BARS. WHEN INSTALLING ANCHORS INTO (E) PRE-STRESSED OR POST-TENSIONED CONCRETE LOCATE THE PRE-STRESSED OR POST-TENSIONED TENDONS BY USING A NON-DESTRUCTIVE METHOD, SUCH AS X-RAY, AT POINT OF PENETRATION, PRIOR TO INSTALLATION. EXERCISE EXTREME CARE & CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF TWO INCHES BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN. WHEN CORING EXISTING REINFORCED CONCRETE OF ANY CONSTRUCTION TYPE (PRE-STRESSED, POST-TENSIONED OR MILD REINFORCED), LOCATE THE EXISTING REINFORCING BY USING A NON-DESTRUCTIVE METHOD, SUCH AS X-RAY, PRIOR TO CORING. EXERCISE EXTREME CARE & CAUTION TO AVOID CUTTING OR DAMAGING ANY REINFORCING DURING CORING. MAINTAIN A MINIMUM CLEARANCE OF TWO INCHES BETWEEN REINFORCEMENT AND THE CORE. THE MAXIMUM SIZE OF ANY CORE IS TO BE 4" DIAMETER AND THE MINIMUM SPACING BETWEEN CORES IS TO BE TWICE THE CORE DIAMETER (I.E. 12" SPACING FOR A 6" DIAMETER CORE).
2. INSPECTOR IS TO BE PRESENT DURING ALL CORE DRILLING OPERATIONS TO VERIFY THAT NO REINFORCING CAGES, TENDONS, OR REBAR HAVE BEEN CUT. (SEE NOTE 5 BELOW)
3. THE INSPECTOR SHALL SUBMIT A WRITTEN REPORT TO THE OWNER.
4. THE INSPECTIONS INDICATED IN NOTES 3 AND 4 ABOVE ARE NOT REQUIRED FOR A CONCRETE FILL OVER METAL DECK APPLICATION WHERE INDICATED ON THE CONSTRUCTION DRAWINGS.

STRUCTURAL STEEL NOTES

1. ALL STEEL CONSTRUCTION INCLUDING FABRICATION, ERECTION AND MATERIALS SHALL COMPLY WITH ALL REQUIREMENTS OF THE 2016 AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND THE 2022 CBC.
2. ALL STRUCTURAL STEEL SHALL BE ASTM A36 UNLESS OTHERWISE NOTED. ALL WF (WIDE FLANGE) & WT (TEE) SHAPES TO BE ASTM A992 (F_y=50,000 PSI) UNLESS NOTED OTHERWISE. ALL STRUCTURAL TUBING (TS OR HSS) SHALL BE ASTM A500 GRADE B (F_y=45,000 PSI). ALL STEEL PIPE SHALL BE ASTM A53 (TYPE E OR S, GRADE B (F_y=35,000 PSI)) SCHEDULE 40 WITH OUTSIDE DIAMETERS GIVEN UNLESS OTHERWISE NOTED.
3. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES UNLESS OTHERWISE NOTED AND SHALL CONFORM TO AISC & AWS D14. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE D2.4 IN THE AISC SPECIFICATION. PAINTED SURFACES SHALL BE TOUCHED UP.
4. ALL WELDING SHALL BE PERFORMED BY QUALIFIED, CERTIFIED WELDERS.
5. HIGH STRENGTH BOLTS SHALL BE GALVANIZED ASTM F1554/F1554M GRADE A325 MINIMUM. BOLT CONNECTIONS SHALL BE BEARING TYPE. SEE PLANS FOR LOCATION, NUMBER, & SIZE OF BOLTS.
6. HIGH STRENGTH BOLT NUTS SHALL BE ASTM A563/A563M AND WASHERS SHALL BE ASTM A308/A308M.
7. TREADED RODS SHALL BE SAE J429, GRADE 2 U.O.N.
8. ALL HOLES FOR BOLTED CONNECTIONS SHALL BE 1/8" LARGER THAN THE NOMINAL BOLT DIAMETER. USE STANDARD AISC GAGE AND PITCH FOR BOLTS EXCEPT AS NOTED OTHERWISE. HOLES FOR ANCHOR BOLTS IN BASE PLATES MAY BE AISC "OVERSIZE" HOLES WHERE ACCOMPANIED BY OVERSIZED HARDENED HOT DIPPED GALVANIZED WASHERS.
9. ALL SHOP FABRICATED STEEL STRUCTURAL MEMBERS FOR EXTERIOR USE SHALL BE HOT DIP GALVANIZED PER ASTM A123 AFTER FABRICATION & PAINTED PER CUSTOMER SPECIFICATIONS AS REQUIRED. STEEL FOR INTERIOR USE SHALL BE SHOP COAT OR GALVANIZED & PAINTED.
10. ALL FIELD FABRICATED GALVANIZED STEEL THAT IS CUT, GROUND, DRILLED, WELDED OR DAMAGED SHALL BE TREATED WITH "ZINC RICH" HOT DIPPING SPRAY OR COATING. NO RAW STEEL SHALL BE EXPOSED.
11. AT ALL WEB STIFFENER PLATES LEAVE 3/8" (OR 1/2" IF W/ANCHOR IS LARGER) HOLE @ WEB/FLANGE INTERSECTION UNLESS NOTED OTHERWISE.
12. IF BOLTS AT ANTENNA & ROU MOUNT TO BE GALVANIZED SAE J429, GRADE 2 WITH WPP, NUTS U.O.N.
13. ALL STRUCT MEMBERS USED IN EXTERIOR APPLICATIONS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 OR ASTM A153.
14. ALL STAINLESS STEEL BOLTED CONNECTIONS SHALL BE ASTM F594-09 (2015), GROUP 1 OR 2 AND STAINLESS STEEL NUTS SHALL BE ASTM F594-09 (2015).

TRENCHING NOTES

1. CALL BEFORE YOU DIG: CONTRACTOR IS REQUIRED TO CALL 811 (NATIONWIDE "CALL BEFORE YOU DIG" HOTLINE) AT LEAST 72 HOURS BEFORE DIGGING.
2. VERIFY ALL TRENCHING REQUIREMENTS WITH SERVING UTILITIES.
3. RESTORE GRADE TO ORIGINAL CONDITION OR BETTER.
4. RETURN FILL TO SOIL OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM STANDARDS.
5. RESTORE CUT CONCRETE OR ASPHALT TO ORIGINAL CONDITION OR BETTER.



Issued For:

MAJESTIC TRAIL

1480 SAND RIDGE ROAD
EL DORADO, CA 95623

PREPARED FOR

2770 SHADELANDS DR. BLDG 11
WALNUT CREEK, CA 94598

NOTED:

www.complite.com

MSG LOCATION ID: 500978201

PROJECT NO: 1894406

DESIGNED BY: D. HAYES

CHECKED BY: S. SAYEGH

APPROVED BY:

ISSUE STATUS

DATE: 10/22/23 CD: ROK D.H.

REV: DATE DESCRIPTION C.H.

DESCRIPTION:

PRELIMINARY:
NOT FOR CONSTRUCTION

KEVIN R. SORSENSEN
54469

FOR A VIOLATION OF LAW FOR ANY PERSON,
VIOLATION OF ANY FEDERAL, STATE OR
LOCAL LAW OR ANY PROFESSIONAL
REGULATIONS, TO SIGN THIS DOCUMENT.

ENGINEER:

Stratellite Engineering
10000 E. 1st Ave., Suite 100, Colorado Springs, CO 80901
Tel: 719.575.1111 Fax: 719.575.1112
www.stratellite-engineering.com

SHEET TITLE:

GENERAL
NOTES

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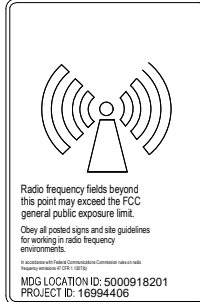
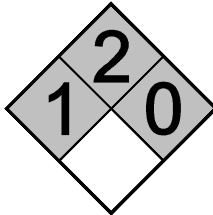
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SIGNAGE AND STRIPING INFORMATION

1. THE FOLLOWING INFORMATION IS A GUIDELINE WITH RESPECT TO PREVAILING STANDARDS LIMITING HUMAN EXPOSURE TO RADIO FREQUENCY ELECTROMAGNETIC FIELDS (RF-EMF) FROM THE SITE'S EMI REPORT OR ANY LOCAL, STATE OR FEDERAL GUIDELINES OR REGULATION SHOULD BE IN CONFLICT WITH ANY PART OF THESE STANDARDS. THE TYPE, THE LOCATION, THE INTENSITY OR REGULATION SHALL BE FOLLOWED AND OVERRIDDEN THE LESSER.
2. THE PUBLIC LIMIT OF RF EXPOSURE ALLOWED BY VERIZON WIRELESS IS 1mW/cm^2 AND THE OCCUPATIONAL LIMIT OF RF EXPOSURE ALLOWED BY VERIZON WIRELESS IS 5mW/cm^2
3. IF THE BOTTOM OF THE ANTENNA IS MOUNTED (8) EIGHT FEET ABOVE THE GROUND OR ROOF LINE OF THE PERSONAL COMMUNICATION SYSTEM (PCS) AND DOES NOT EXCEED THE PUBLIC LIMIT OF RF EXPOSURE THERE IS NO STRIPPING OR BARRICADES SHOULD BE NEEDED.
4. IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND NOT SEEN BY ANY PERSON ON THE ROOF, WARNING SIGNS SHOULD NOT BE LOCKED OR THERE IS AN EXISTING FIRE EGRESS, THEN BOTH BARRICADES AND STRIPPING WILL BE NEEDED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES AND STRIPPING WILL BE DETERMINED BY THE CONTRACTOR BY THE EMI REPORT FOR THE SITE. BEFORE OR SHORTLY AFTER THE CONSTRUCTION OF THE SITE, USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPPING.
5. IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS NOT EXCEEDED AND THE PUBLIC DOES NOT PUBLICLY ACCESS TO THE PUBLIC LIMIT (ACCESS DOOR IS LOCKED), THEN JUST STRIPPING OUT TO THE PUBLIC LIMIT WILL BE NEEDED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE STRIPPING WILL BE DETERMINED BY THE EMI REPORT FOR THE SITE. BEFORE OR SHORTLY AFTER THE CONSTRUCTION OF THE SITE, USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH STRIPPING.
6. ALL TRANSMIT ANTENNAS REQUIRE A (3) THREE LANGUAGE WARNING SIGN WRITTEN IN ENGLISH, SPANISH, AND CHINESE. THIS SIGN WILL BE PROVIDED BY THE CONTRACTOR BY THE VERIZON WIRELESS CONSTRUCTION MANAGER AT THE TIME OF CONSTRUCTION. THE LARGER SIGN SHALL BE PLACED AT ALL ROOF ACCESS LOCATIONS AND THE SMALLER SIGN SHALL BE PLACED AT ALL ROOF ACCESS LOCATIONS. THE SIGN SHALL BE PLACED ON THE ANTENNAS THEMSELVES OR ON THE OUTSIDE OF THE ANTENNA ENCLOSURES IN A MANNER THAT IS EASILY SEEN BY ANY PERSON ON THE ROOF. WARNING SIGNS SHALL COMPLY WITH ANSI Z59.2 COLOR, SYMBOL, AND CONTENT CONVENTIONS. ALL SIGNS WILL HAVE VERIZON WIRELESS'S NAME AND THE COMPANY CONTACT INFORMATION (e.g. TELEPHONE NUMBER) TO REPORT ANY ACCESS TO THE PUBLIC LIMIT. THE VERIZON WIRELESS TELEPHONE NUMBER WILL BE PROVIDED TO THE CONTRACTOR BY THE VERIZON WIRELESS CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION.
7. PHOTOS OF ALL STRIPPING, BARRICADES, AND SIGNAGE WILL BE PART OF THE CONSTRUCTION RECORD. THE CONTRACTOR SHALL BE TURNED INTO THE VERIZON WIRELESS CONSTRUCTION PROJECT MANAGER AT THE END OF CONSTRUCTION. STRIPPING SHALL BE DONE WITH FADE RESISTANT YELLOW SAFETY TAPE IN A CROSS HATCH PATTERN. ALL BARRICADES SHALL BE MADE OF 2" X 4" CROSS HATCH MATERIAL. SO THAT THEY DO NOT BLOCK OR INTERFERE WITH THE OPERATION OF THE SITE, AND SHALL BE PAINTED WITH FADE RESISTANT YELLOW SAFETY TAPE. THE CONTRACTOR SHALL PROVIDE ALL RF FREQUENCY BARRICADES NEEDED AND SHALL PROVIDE THE VERIZON WIRELESS CONSTRUCTION PROJECT MANAGER WITH A DETAILED SHOP DRAWING OF EACH BARRICADE.
8. ALL REQUIRED SIGNAGE WILL BE INSTALLED AS NEEDED AND FIELD



① TYPICAL ADDRESS SIGN DETAIL
(@ LEASE AREA ACCESS DOOR)



2 TYPICAL CAUTION SIGN

NOTE: SIGN TO BE PERMANENTLY
MOUNTED AT ANTENNA LOCATION



③ TYPICAL HAZARD SIGN

Issued For:

MAJESTIC TRAIL

1480 SAND RIDGE ROAD
EL DORADO, CA 95623

PREPARED FOR



MDG LOCATION ID:	5000918201
PROJECT NO:	16994406
DRAWN BY:	D. HAYES
CHECKED BY:	S. SAVIG
APPROVED BY:	-

ISSUE STATUS					
0	10/20/23	CD 90%	D.H.		
REV	DATE	DESCRIPTION	CAD		

PRELIMINARY:
NOT FOR
CONSTRUCTION

KEVIN R. SORENSEN
S4469

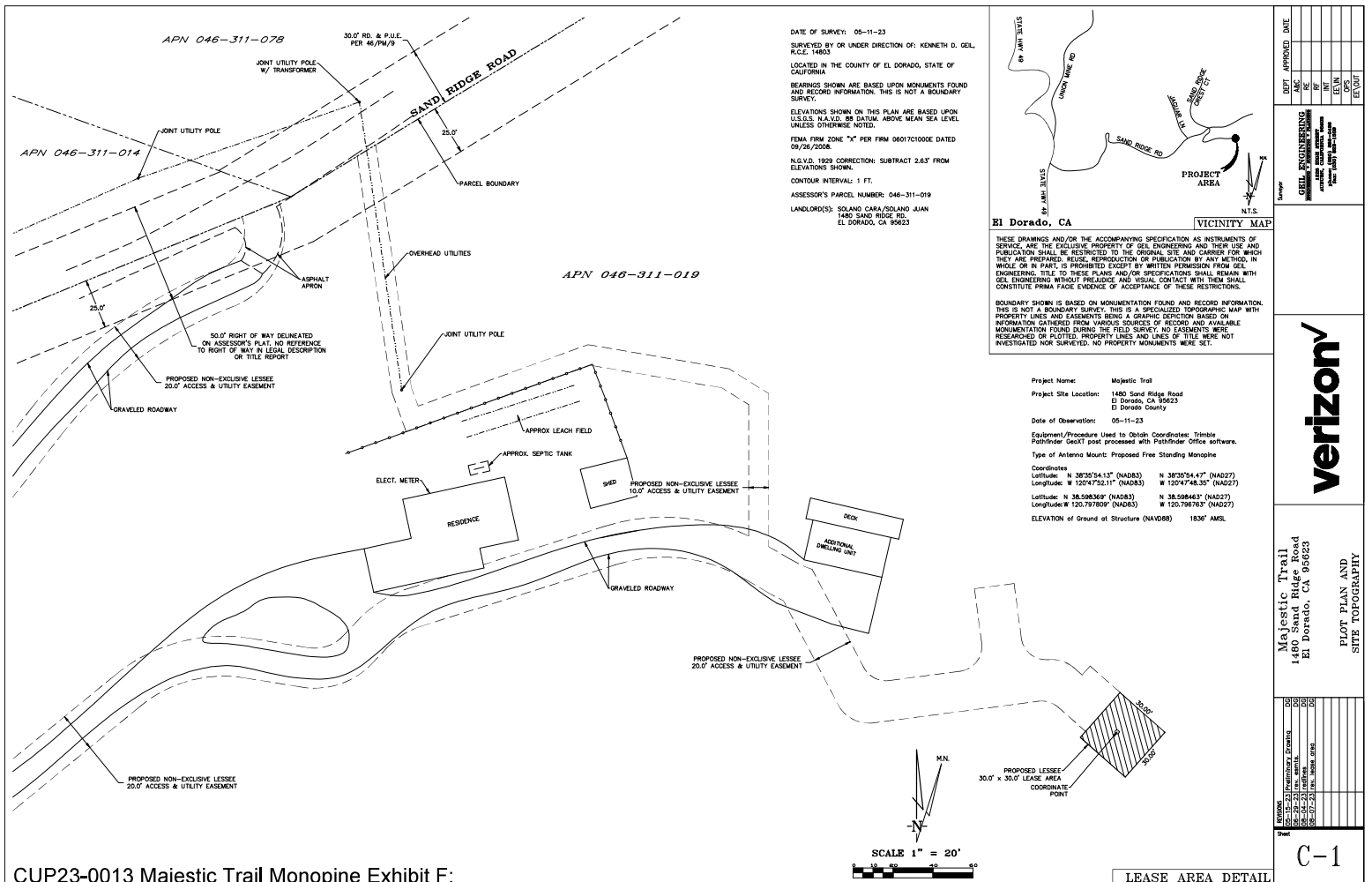
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THIS DOCUMENT.

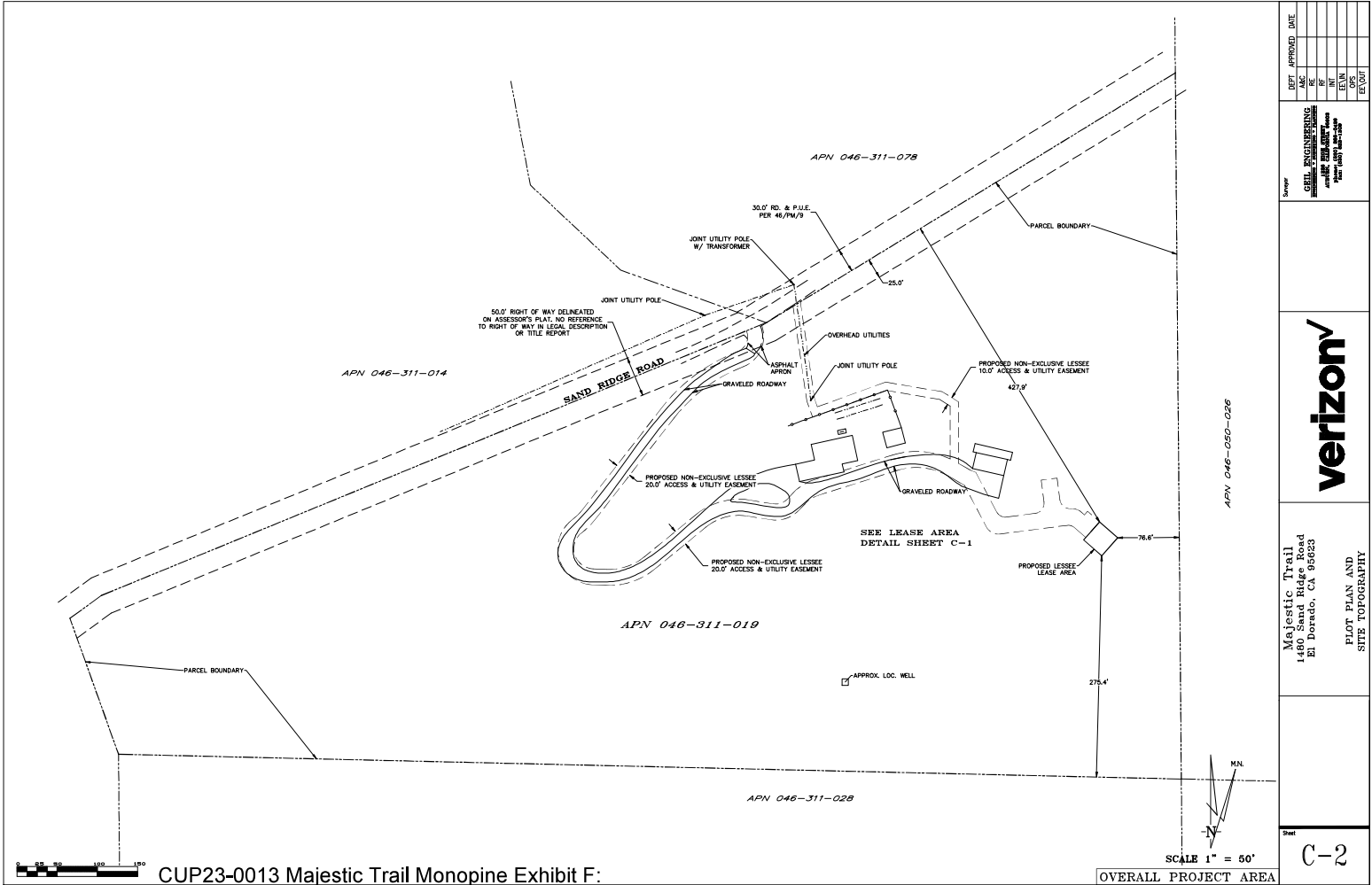


SHEET TITLE:

SIGNAGE DETAILS

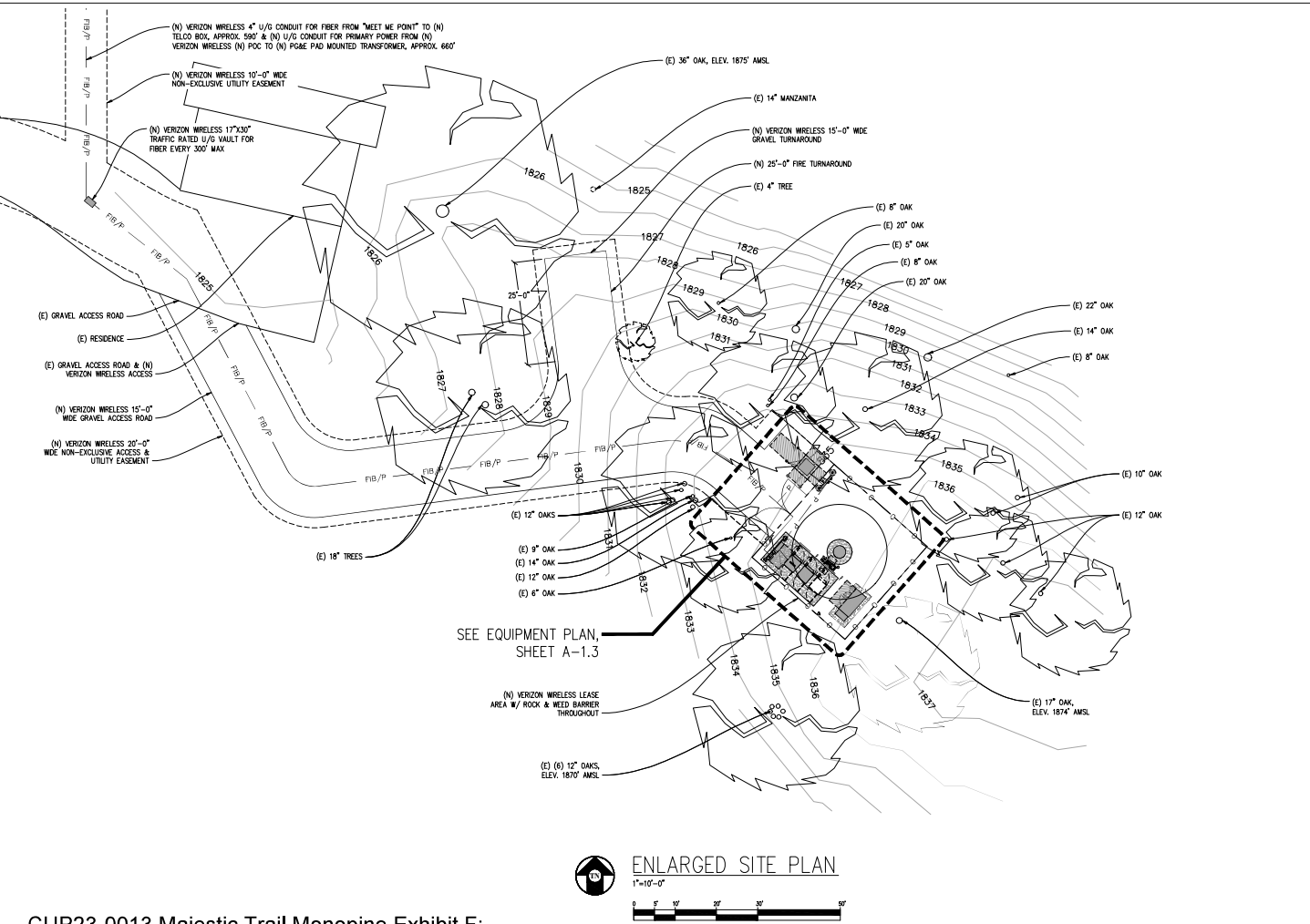
SHEET NUMBER:
T-1.3





CUP23-0013 Majestic Trail Monopine Exhibit F:

OVERALL PROJECT AREA



CUP23-0013 Majestic Trail Monopine Exhibit F:

Issued For:
MAJESTIC TRAIL
 1480 SAND RIDGE ROAD
 EL DORADO, CA 95623
 PREPARED FOR:
verizon
 2770 SHADELANDS DR. BLDG 11
 WALNUT CREEK, CA 94598
 VERIZON:

 WDC LOCATION ID: 5000918201
 PREPARED BY: 18994406
 DRAWN BY: D. HAYES
 CHECKED BY: S. SAVIG
 APPROVED BY:

ISSUE STATUS			
NO.	DATE	DESCRIPTION	BY
0	10/20/23	CD POS	D.H.

License:
**PRELIMINARY:
NOT FOR
CONSTRUCTION**
 KEVIN R. SORENSON
 54469
THIS IS A VIOLATION OF LAW FOR ANY PERSON
UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER TO ADHERE TO THIS DOCUMENT.

ENGINEER:

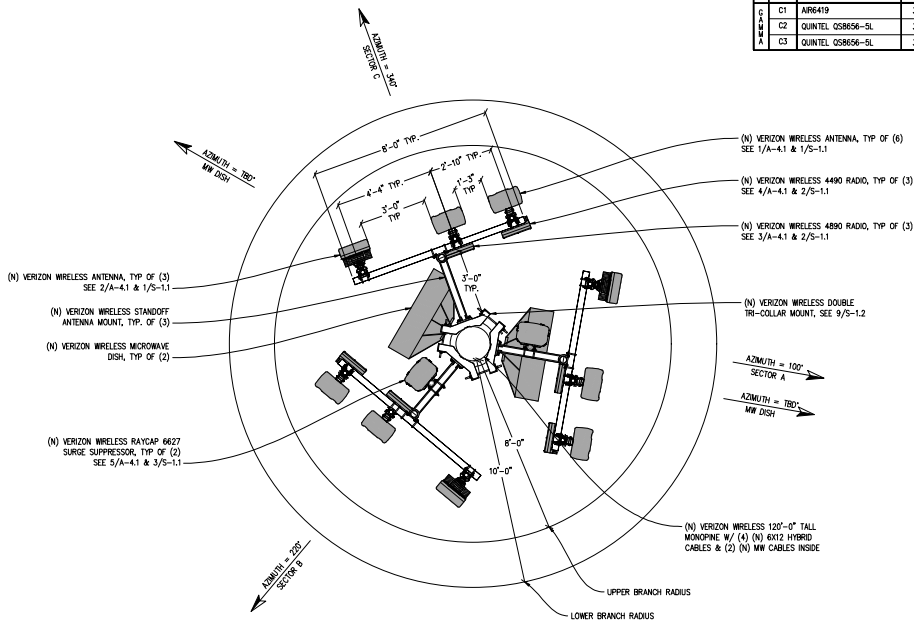
Kevin R. Sorenson, P.E., 1874 E. 1st St., Suite 100, El Dorado, CA 95623
 Contact: Kevin Sorenson, P.E. Phone: 916.486.5533
 E-Mail: krsorenson@sorensoneng.com Fax: 916.486.5533
 Sorenson Engineering, Inc. is an Equal Opportunity Employer. Minorities and women are encouraged to apply.

SHEET TITLE:
**ENLARGED SITE
PLAN**

SHEET NUMBER:
A-1.2

ANTENNA & CABLE SCHEDULE (PRELIMINARY & SUBJECT TO CHANGE)						
SECTOR	ANTENNA MODEL NO.	AZIMUTH	CENTERLINE	RRU NO'S & MODEL #	# OF HYBRID CABLES	LENGTH OF CABLES
A B A	A1 AIR419	100°	±10°-90°	-	(2) 6x12	±120' (1) 6627
	A2 QUNTEL OS8656-SL	100°	±100°-0°	(1) RRUS-4890	SHARED	-
	A3 QUNTEL OS8656-SL	100°	±100°-0°	(1) RRUS-4490	SHARED	-
B 1 A	B1 AIR419	220°	±10°-90°	-	(2) 6x12	±120' (1) 6627
	B2 QUNTEL OS8656-SL	220°	±100°-0°	(1) RRUS-4890	SHARED	-
	B3 QUNTEL OS8656-SL	220°	±100°-0°	(1) RRUS-4490	SHARED	-
C A M	C1 AIR419	340°	±10°-90°	-	SHARED	-
	C2 QUNTEL OS8656-SL	340°	±100°-0°	(1) RRUS-4890	SHARED	-
	C3 QUNTEL OS8656-SL	340°	±100°-0°	(1) RRUS-4490	SHARED	-

NOTE:
1. ANTENNA POSITIONS ARE LEFT TO RIGHT FROM BACK OF SECTOR.
2. EQUIPMENT IS PRELIMINARY & SUBJECT TO CHANGE.



ANTENNA PLAN



- NOTES:
1. ALL (N) VERIZON WIRELESS ANTENNAS, ANTENNA MOUNTS, ANTENNA EQUIPMENT, & EXPOSED CABLES TO BE PAINTED TO MATCH (N) MONOPINE & BE FULLY WITHIN MONOPINE BRANCH RADIUS.
 2. ALL (N) VERIZON WIRELESS ANTENNAS TO BE COVERED IN MONOPINE SOCKS & AIR ANTENNAS TO BE COVERED IN 3M FILM.

CUP23-0013 Majestic Trail Monopine Exhibit F:

Issued For:

MAJESTIC TRAIL

1480 SAND RIDGE ROAD
EL DORADO, CA 95623

PREPARED FOR

verizon

2770 SHADELANDS DR. BLDG 11
WALNUT CREEK, CA 94598

VERIFIED:

COMPLETE
Wireless Consulting, Inc.

MERCEDOCATION ID: 5000918201
PROJECT NO: 16P94046
DESIGNED BY: D. HAYES
CHECKED BY: S. SAVIG
APPROVED BY:

ISSUE STATUS

REV	DATE	DESCRIPTION	CHKD
0	10/20/23	CD ROW	D.H.

LICENSURE:

**PRELIMINARY:
NOT FOR
CONSTRUCTION**

KEVIN R. SORNGSEN
54469

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ENGINEER:

Strateline Engineering
Civil & Mechanical Engineering

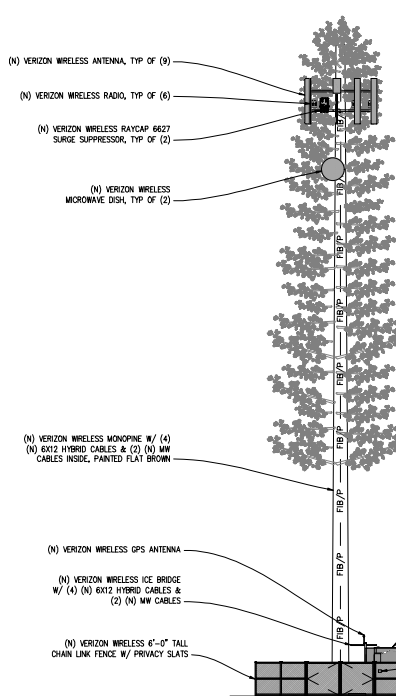
Strateline Engineering, Inc. is a professional engineering firm. The firm is not responsible for the design or construction of any project. The firm is not responsible for the design or construction of any project. The firm is not responsible for the design or construction of any project.

SHEET TITLE:

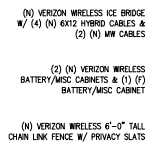
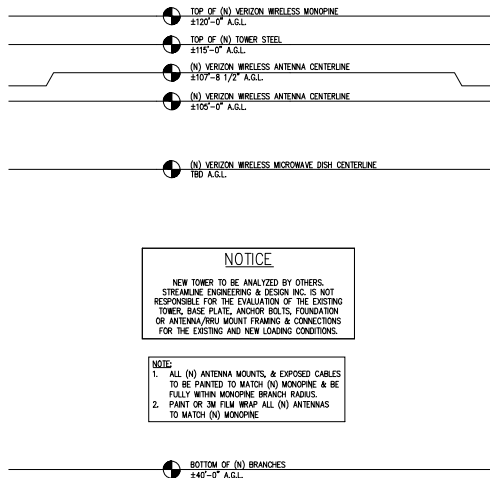
ANTENNA PLAN

SHEET NUMBER:

A-2.1



NORTHWEST ELEVATION
1/8"=1'-0"



SOUTHWEST ELEVATION
1/8"=1'-0"

CUP23-0013 Majestic Trail Monopine Exhibit F:

Issued For:

MAJESTIC TRAIL

1480 SAND RIDGE ROAD
EL DORADO, CA 95623

PREPARED FOR

verizon

2770 SHADELANDS DR. BLDG 11
WALNUT CREEK, CA 94598

VERIFIED:

COMPLETE
Wireless Consulting, Inc.

MISC LOCATION ID: 5000918201
PROJECT NO: 16994606
DESIGNED BY: D. HAYES
CHECKED BY: S. SAVIG
APPROVED BY:

ISSUE STATUS			
REV	DATE	DESCRIPTION	CAD
0	10/20/23	CD ROW	D.H.

LOCATED:

**PRELIMINARY:
NOT FOR
CONSTRUCTION**

KEVIN R. SORNGSEN
54469

I, R. A. VILLALBA, OF LAW FOR ANY PERSON, SHALL NOT BE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALLOW THE DOCUMENT.

ENGINEER:

Streamline Engineering
ENGINEERING INC.

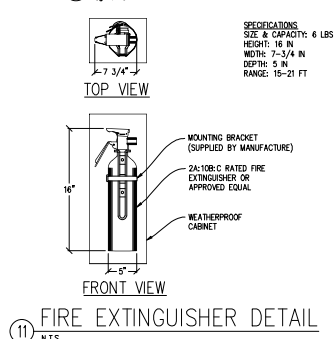
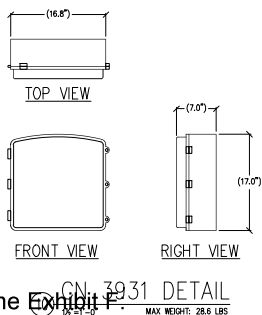
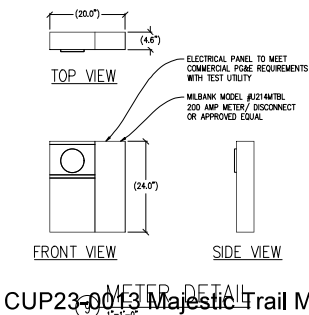
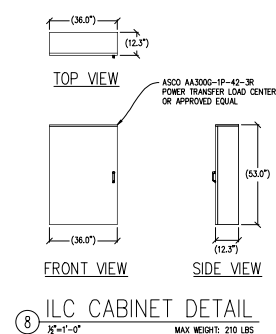
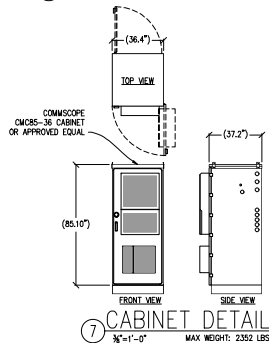
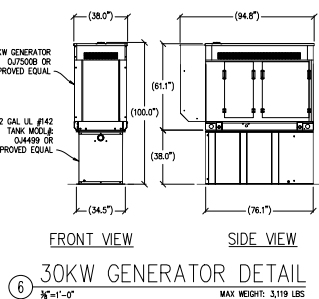
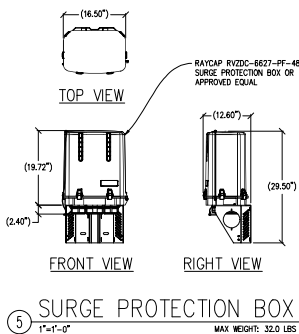
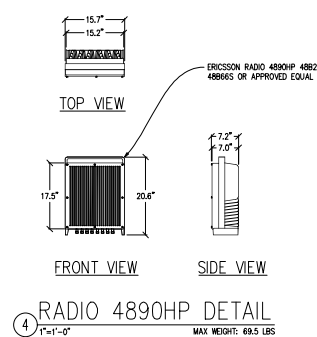
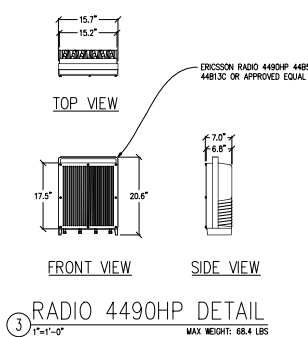
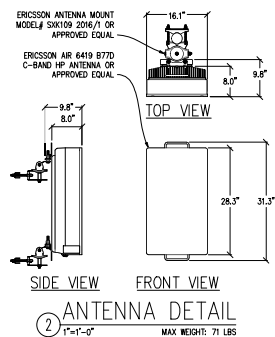
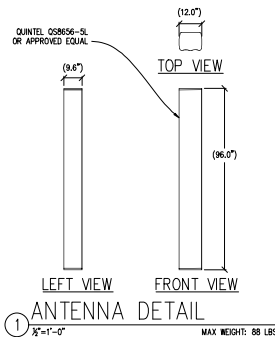
10000 10th Street, Suite 100, Walnut Creek, CA 94598
925-938-1000
www.streamline-engineering.com
I, Kevin R. Sorngsen, am the duly Licensed Professional Engineer, No. 54469, State of California, in the State of California, and I am the Engineer of Record for this project.

SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-3.1



CUP23-0013 Majestic Trail Monopine Exhibit F

Issued For:

MAJESTIC TRAIL

1480 SAND RIDGE ROAD
EL DORADO, CA 95623

PREPARED FOR

verizon

2770 SHADELANDS DR, BLDG 11
WALNUT CREEK, CA 94598

DESIGNED BY

COMPLETE
Wireless Consulting, Inc.

FIELD LOCATION ID: 5000918201

PROJECT NO: 16994404

DESIGNED BY: D. HAYES

CHECKED BY: S. SAVIG

APPROVED BY:

ISSUE STATUS

NO.	DATE	DESCRIPTION	BY
0	10/29/23	CD 90%	D.J.H.
1		REVISION	C.H.

LICENSURE:

**PRELIMINARY:
NOT FOR
CONSTRUCTION**

KEVIN R. SORHSEN
54469

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ENGINEER TO ALTER THE DOCUMENTS.

ENGINEER

Streaming Engineering

16441 Shadelands Dr., Suite C, Walnut Creek, CA 94598
909.476.1111
www.streaming-engineering.com
I am a duly Licensed Professional Engineer in the State of California, License No. 54469, and I certify that the information on this drawing was prepared by me or under my direct supervision and I am a duly Licensed Professional Engineer in the State of California.

SHEET TITLE:

**ANTENNA
DETAILS**

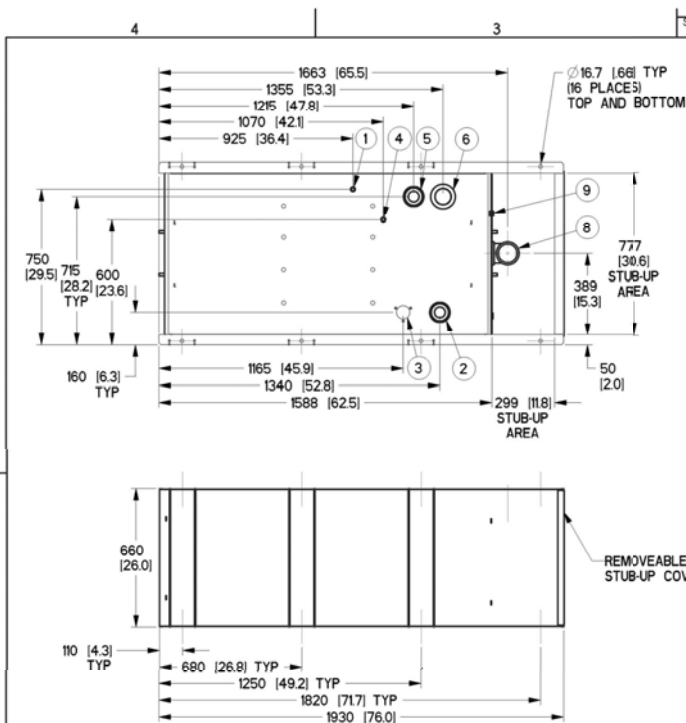
SHEET NUMBER:

A-4.1

[illegible]

BATTERY TYPE:	ENERSYS POWERSAFE SBS 190F		
NUMBER OF UNITS W/BATTERIES	2		
NUMBER OF BATTERIES :	16		
MATERIAL:	ELECTROLYTE	VOLUME: 2.34 GALLONS	BATTERY TOTAL: 37.44 GALLONS
MATERIAL:	ACID	WEIGHT: 10.1 LBS	BATTERY TOTAL: 161.6 LBS
MATERIAL:	LEAD	WEIGHT: 95.8 LBS	BATTERY TOTAL: 1532.8 LBS
TOTAL KWH:	190AH X 12V X 16 / 1000 = 36.48 KWH		

24-1178 D 18 of 52



I/N	DESCRIPTION	FUNCTION
1	3/8" NPT COUPLING	FUEL SUPPLY
2	2" NPT WELD FLANGE	FUEL FILL
3	FUEL LEVEL GAUGE	ELECTRONIC SENDER/VISUAL GAUGE
4	3/8" NPT COUPLING	FUEL RETURN
5	2" NPT WELD FLANGE	NORMAL VENT
6	3" NPT WELD FLANGE	INNER TANK EMERGENCY VENT
7	1/2" NPT HALF COUPLING	OUTER TANK LEAK DETECTOR
8	3" NPT STRAIGHT PIPE	OUTER TANK EMERGENCY VENT
9	1/2" NPT HALF COUPLING	FLUID BASIN ALARM

TANK P/N	OJ21610ST03
TOTAL CAPACITY	524 [138]
USABLE CAPACITY	501 [132]
DRY WEIGHT	329 [725]

CAPACITY: LITER [GALLONS]
WEIGHT: KILOGRAMS [POUNDS]
DIMENSIONS: MM [INCH]

UL #142 LISTED

DRAWING CREATED FROM PRO/ENGINEER 3D FILE. ECO MODIFICATION TO BE APPLIED TO SOLID MODEL ONLY.

INSTALLATION DRAWING

GENERAC POWER SYSTEMS OWNS THE COPYRIGHT OF THIS DRAWING WHICH IS SUPPLIED IN CONFIDENCE AND MAY NOT BE COPIED, REPRODUCED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE EXPRESS WRITTEN CONSENT OF GENERAC POWER SYSTEMS.

ELECTRONICALLY APPROVED
INTSIC WINDCHILL

GENERAC			
TITLE INSTALL BASETANK A-GRP 132 GAL WITH FLUID CONTAINMENT			
ISSUE DATE:	SIZE	CAGE NO	DWG NO
	B	N/A	0K0428
SCALE 0.063	WT-KG	SHEET 1 of 1	
REV		A	

MAJESTIC TRAIL
1480 SAND RIDGE ROAD
EL DORADO, CA 95623

PREPARED FOR
verizon
2770 SHADELANDS DR, BLDG 11
WALNUT CREEK, CA 94598

Vendor
COMPLETE
Wireless Consulting, Inc.

MOD LOCATION ID: 5030918201
PROJECT NO: 18994406
DRAWN BY: D. MATTHEWS
CHECKED BY: S. SAVAGE
APPROVED BY:

ISSUE STATUS			
REV	DATE	DESCRIPTION	CAUSE
0	10/20/23	CD 90%	D.H.

PRELIMINARY:
NOT FOR
CONSTRUCTION
KEVIN R. SORENSEN
54469

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ENGINEER
Streamline Engineering
1400 River Valley Road, Suite 100, River Valley, MN 55077
Phone: (763) 943-8800
Fax: (763) 943-8801
Email: streamline@streamlineeng.com
www.streamlineeng.com

SHEET TITLE:
GENERATOR
SPECIFICATIONS

SHEET NUMBER:
A-5.3

CUP23-0013 Majestic Trail Monopine Exhibit F:

Clay & Bailey Mfg. Co.

366 Female Thread High Flow Emergency Vent for Aboveground Storage Tanks

Features:
All Aluminum Construction is lightweight for easy handling and installation. Also, no vent towers. From accidental or wandering. Buna N O Ring provides a vapor resistant seal. Spring Actuated Vent assures accurate opening pressure. Pressure relief set at +0.5 PSI. Clay & Bailey vents can be used in all variety of Aboveground Storage Tank Equipment installations where volatile fuel handling petroleum equipment is required.

Airflow

Part #	Size	Weight/lbs.	Size	W/Screen	W/O Screen
366-05-2000	2"	3	2"	66,880 SCFH	71,750 SCFH
366-05-4000	4"	9	4"	134,880 SCFH	143,500 SCFH
366-05-6000	6"	15	6"	198,500 SCFH	209,250 SCFH
366-05-8000	8"	21	8"	237,000 SCFH	251,750 SCFH
366-05-10000	10"	27	10"	280,552 SCFH	331,289 SCFH

UL US LISTED

Clay & Bailey emergency vents comply with various codes -
Petroleum Equipment Institute (PEI) 05-200; Underwriters Laboratories Inc. UL-142, UL-2005, UL-2244, UL-2503; Underwriters Laboratories of Canada (ULC-5601); National Fire Protection Agency NFPA 30, NFPA 30A, American Petroleum Institute API 2000.

1/20/10

Clay & Bailey Mfg. Co.

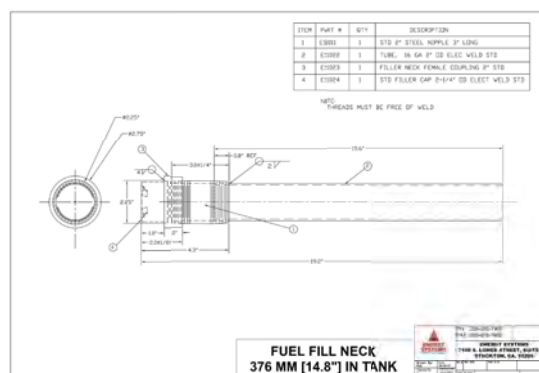
401 Mushroom Vent

Features:
Mushroom-style (see flow vent) is made of cast iron with a 8 mesh galvanized screen. Shroud vent flap prevents back condensation from entering vent lines. NPT thread is standard. Also available in galvalume. (Shaw)

Airflow

Part #	Size	Weight/lbs.	Size	W/Screen	W/O Screen
401-05-2000	2"	3	2"	66,880 SCFH	71,750 SCFH
401-05-4000	4"	9	4"	134,880 SCFH	143,500 SCFH
401-05-6000	6"	15	6"	198,500 SCFH	209,250 SCFH
401-05-8000	8"	21	8"	237,000 SCFH	251,750 SCFH
401-05-10000	10"	27	10"	280,552 SCFH	331,289 SCFH

1/20/10

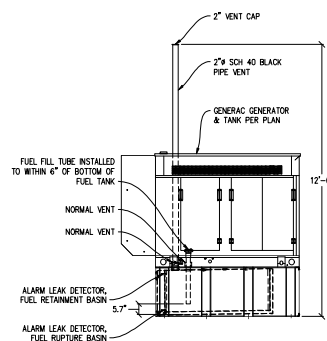
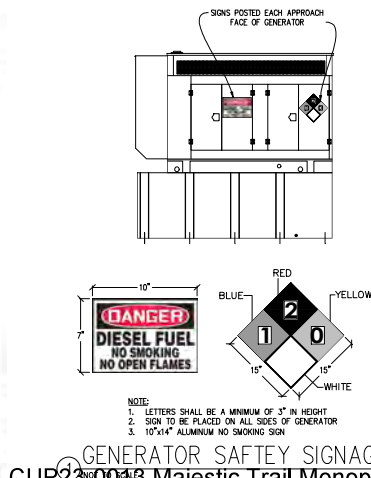


096500

FUEL ALARM LEAK DETECTOR

1. LETTERS SHALL BE A MINIMUM OF 3" IN HEIGHT
2. SIGN TO BE PLACED ON ALL SIDES OF GENERATOR
3. 10"x14" ALUMINUM NO SMOKING SIGN

096500



GENERATOR SAFETY SIGNAGE
GENERATOR VENT & FILL DETAIL

Issued For:
MAJESTIC TRAIL
1480 SAND RIDGE ROAD
EL DORADO, CA 95623

PREPARED FOR
verizon
2770 SHADELANDS DR. BLDG 11
WALNUT CREEK, CA 94598

DESIGNED BY
COMPLETE
WIRELESS CONSULTING, INC.

MOD. LOCATION ID: 3000918201
PROJECT NO: 16994404
DESIGNED BY: D. HAYES
CHECKED BY: S. SAVIG
APPROVED BY:

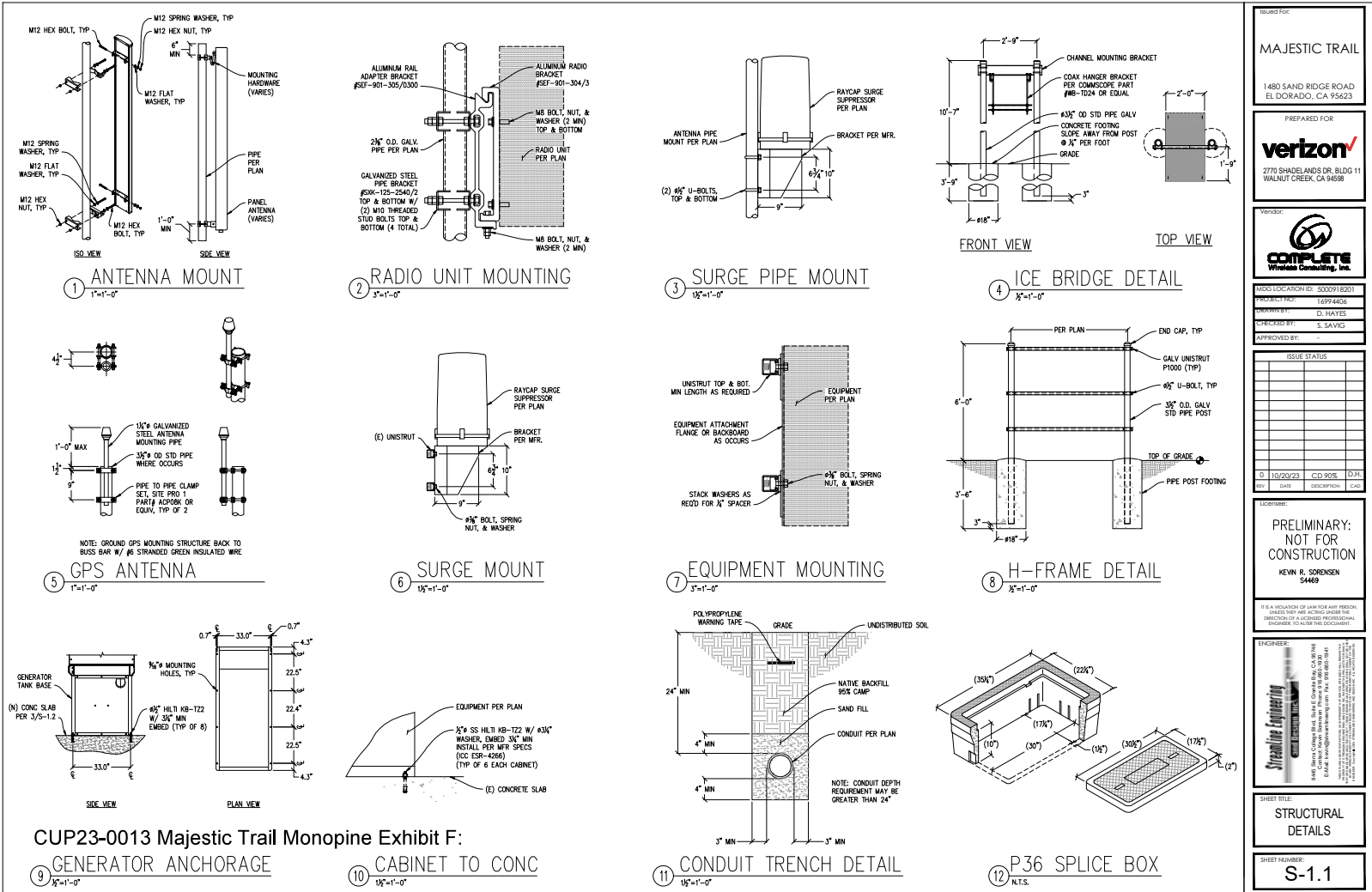
ISSUE STATUS			
NO.	DATE	DESCRIPTION	CHKD
1			
2			
3			
4			
5			
6			
7			
8	10/29/23	CD 90%	D.H.
9			
10			

PRELIMINARY:
NOT FOR CONSTRUCTION
KEVIN R. SPOHREN
54469

ENGINEER
Streamline Engineering
10000 1st Street, Suite 100, Walnut Creek, CA 94598
925-938-1000
www.streamline-engineering.com

SHEET TITLE:
GENERATOR SPECIFICATIONS

SHEET NUMBER:
A-5.4



Issued For:

MAJESTIC TRAIL

1480 SAND RIDGE ROAD
EL DORADO, CA 95623

PREPARED FOR:

verizon

2770 SHADELANDS DR. BLDG 11
WALNUT CREEK, CA 94598

DESIGNER:

COMPLITE
Wireless Consulting, Inc.

PROJECT LOCATION ID: 5000918201

PROJECT NO: 16994406

DESIGNED BY: D. HAYES

CHECKED BY: S. SAVIG

APPROVED BY:

ISSUE STATUS

NO.	DATE	DESCRIPTION	CAUSE

REVISIONS:

**PRELIMINARY:
NOT FOR CONSTRUCTION**

KEVIN R. SORRENSEN
54469

IF A REVISION OR CHANGE IS MADE FOR ANY REASON, THE REVISION MUST BE APPROVED BY THE DESIGNER OF A LICENSED PROFESSIONAL ENGINEER TO AVOID THE OCCURRENCE OF A VIOLATION OF THE PROFESSIONAL ENGINEER ACT.

ENGINEER:

Strateline Engineering

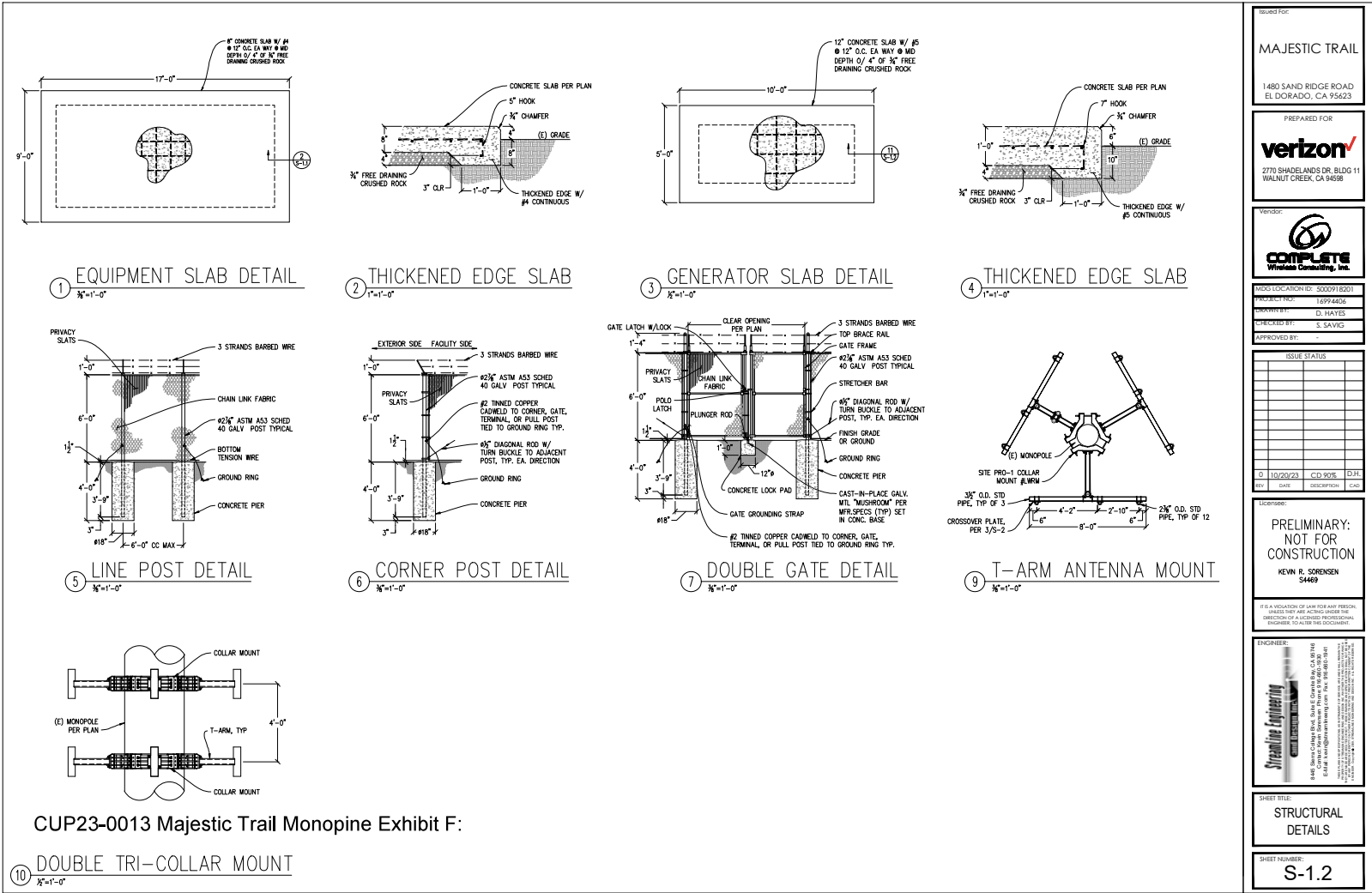
16455 Sierra Circle, Suite 100, Walnut Creek, CA 94597
Tel: 925.938.4444
Fax: 925.938.4444
Email: info@stratelineeng.com
Website: www.stratelineeng.com

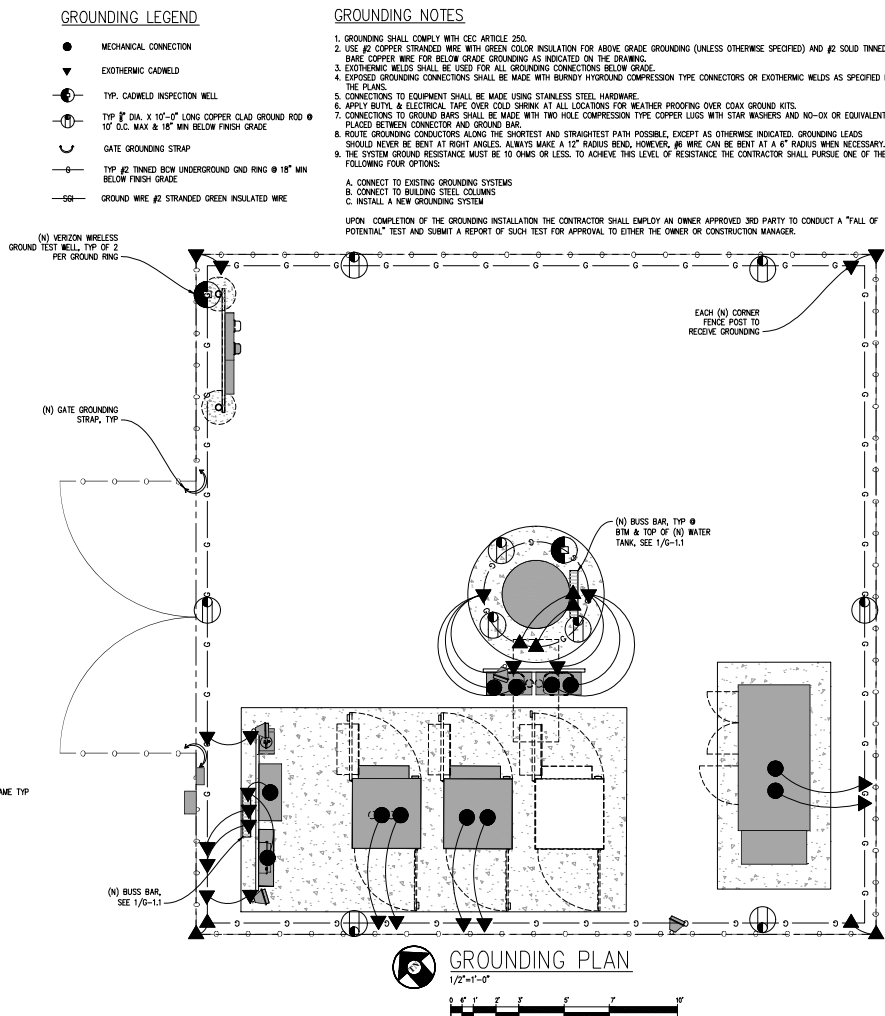
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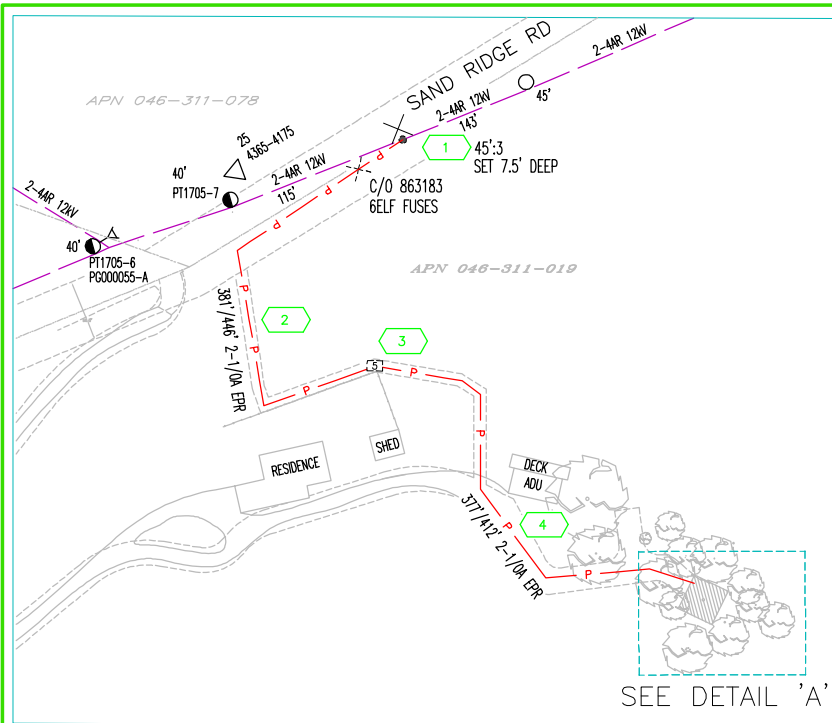
**STRUCTURAL
DETAILS**

SHEET NUMBER:

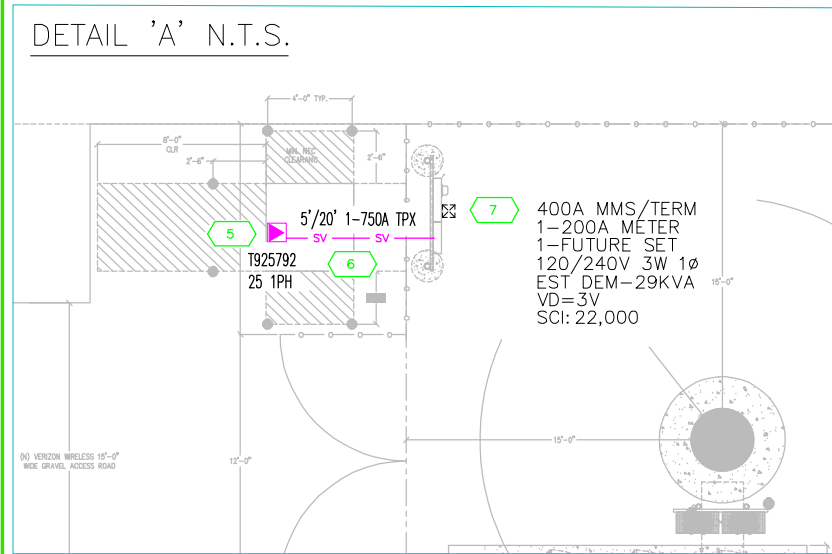
S-1.1







DETAIL 'A' N.T.S.



CONSTRUCTION NOTES:

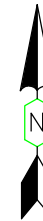
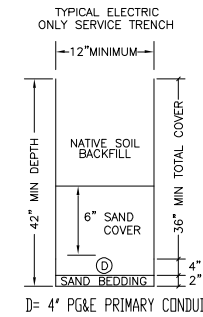
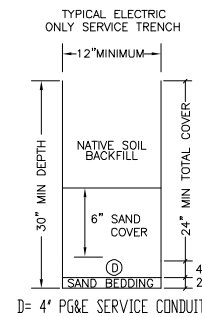
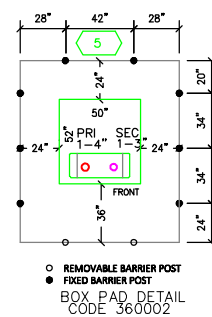
- LOC 1)
INSTALL 45' CL3 POLE & INSTALL PT44H RISER CUTOUTS W/ 6ELF FUSES.
- LOC 2)
INSTALL 446' OF 2-1/0A EPR PRIMARY IN APPLICANT INSTALLED 4" CONDUIT ~ CODE 01-6472.
- LOC 3)
INSTALL STRAIGHT SPLICES & RACK CABLE IN APPLICANT INSTALLED 3'X5'X3'6" PRIMARY ENCLOSURE ~ CODE 02-1171.
- LOC 4)
INSTALL 412' OF 2-1/0A EPR PRIMARY IN APPLICANT INSTALLED 4" CONDUIT ~ CODE 01-6472.
- LOC 5)
INSTALL 25KVA PMTX ON APPLICANT INSTALLED 50" x 52" BOX PAD ~ CODE 360002.
- LOC 6)
INSTALL 20' OF 750A TPX SERVICE IN APPLICANT INSTALLED 4" CONDUIT ~ CODE 01-6472.
- LOC 7)
INSTALL 1 CL200 METER.

2 CABLE & PULLING DATA FOR ENCLOSURE						
TOTAL LENGTHS: FEEDER			1PH DIST.		3PH DIST.	
FROM ENCLOSURE	NO. of CABLES	CABLE TYPE	ESTIMATED TENSION	ACTUAL TENSION	GALLONS LUBE	FRY END PACKS
LOC 1	2	1/0A	567LBS		2.5	2
LOC 3	2	1/0A	256LBS		2.5	2

4 CABLE & PULLING DATA FOR ENCLOSURE						
TOTAL LENGTHS: FEEDER			1PH DIST.		3PH DIST.	
FROM ENCLOSURE	NO. of CABLES	CABLE TYPE	ESTIMATED TENSION	ACTUAL TENSION	GALLONS LUBE	FRY END PACKS
LOC 3	2	1/0A	554LBS		2.5	2
LOC 5	2	1/0A	285LBS		2.5	2

5

COORDINATE #
100000169092
LOADING DISTRICT
SUMMER-INTERIOR
TX SIZE - 25
KVA 1Ø - 29
KVA 3Ø - N/A
% L.F. - 61%



CUP23-0013 Majestic Trail Monopine Exhibit F:

PRIMARY VOLTAGE: 12 kV		VOLTAGE AREA: 1	
LATITUDE: 38.598369		LONGITUDE: -120.797809	
SOURCE SIDE DEVICE: 13793		SUB & CIRCUIT: DIAMOND SPRINGS 1105	
DSGN SAG: INTRM		RAPTOR ZONE: NO	
LOADING AREA: INTRM		ARRESTER DIST: 1	
CORROSION AREA: NON		INSULATION DIST: D	
EXEMPT EQUIP. INST: YES		FIRE AREA: SRA-TIER 2	
CONSTRUCTION SKETCH		CELL TOWER SITE - MAJESTIC TRAIL	
1480 SAND RIDGE RD. EL DORADO		NO ENVIRONMENTAL ISSUES	
EST: TIM BERGER		628.253.6316	
ADE: GARY ALEMANIA		707.317.5509	
SUPV: JOAQUIN FLOREZ		559.347.5129	
REP: M KHO		530.889.3266	
PLNR: MINHANG NGUYEN		916.599.2849	
NOTIF: 126623968		JPA: PG236060HT	
SCALE: NTS		DATE: 08/30/2023	
PM: 35475295		SHEET: 1 OF 1	



CUP23-0013 Majestic Trail Monopine Exhibit G: Photosimulations

Existing



Proposed



view from Sand Ridge Road looking west at site

Allvance Sim

verizon

617358286 Majestic Trail
1480 Sand Ridge Rd, El Dorado, CA
Photosims Produced on 7-5-2023

CUP23-0013 Majestic Trail Monopine Exhibit G: Photosimulations

Existing



Proposed



view from Sand Ridge Road looking south at site

AdvanceSim

verizon

617358286 Majestic Trail
1480 Sand Ridge Rd, El Dorado, CA
Photosims Produced on 7-5-2023

CUP23-0013 Majestic Trail Monopine Exhibit G: Photosimulations

Existing



Proposed



view from Sand Ridge Road looking east at site

AdvanceSim

verizon

617358286 Majestic Trail
1480 Sand Ridge Rd, El Dorado, CA
Photosims Produced on 7-5-2023

CUP23-0013 Majestic Trail Monopine Exhibit G: Photosimulations

Radio Frequency - Electromagnetic Energy (RF-EME) Jurisdictional Report

Site No. 781368
Majestic Trail
1480 Sand Ridge Road
El Dorado, California 95623
El Dorado County
38° 35' 54.13" N, -120° 47' 52.11" W NAD83

EBI Project No. 6223002741
July 19, 2023



Prepared for:
Verizon Wireless
c/o Complete Wireless Consulting, Inc.
2009 V Street
Sacramento, CA 95818



CUP23-0013 Majestic Trail Monopine Exhibit H: Radio Frequency (RF) Report

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION.....	2
2.0 SITE DESCRIPTION	2
3.0 WORST-CASE PREDICTIVE MODELING	3
4.0 MITIGATION/SITE CONTROL OPTIONS	4
5.0 SUMMARY AND CONCLUSIONS	5
6.0 LIMITATIONS	5

APPENDICES

- APPENDIX A CERTIFICATIONS**
- APPENDIX B RADIO FREQUENCY ELECTROMAGNETIC ENERGY SAFETY / SIGNAGE PLANS**
- APPENDIX C FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS**

EXECUTIVE SUMMARY

Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by Verizon Wireless ("Verizon") to conduct radio frequency electromagnetic (RF-EME) modeling for Verizon Site 781368 located at 1480 Sand Ridge Road in El Dorado, California to determine RF-EME exposure levels from proposed Verizon communications equipment at this site. As described in greater detail in Appendix C of this report, the Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for the general public and for occupational activities. This report summarizes the results of RF-EME modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

Statement of Compliance

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

As presented in the sections below, based on worst-case predictive modeling, there are no modeled areas on any accessible rooftop or ground-level walking/working surface related to the proposed antennas that exceed the FCC's occupational or general public exposure limits at this site. Additionally, there are areas where workers who may be elevated above the rooftop or ground may be exposed to power densities greater than the occupational limits. Therefore, workers should be informed about the presence and locations of antennas and their associated fields.

At the nearest walking/working surfaces to the Verizon antennas, the maximum power density generated by the Verizon antennas is approximately **10.63** percent of the FCC's general public limit (**2.13** percent of the FCC's occupational limit).

The composite exposure level from all carriers on this site is approximately **10.63** percent of the FCC's general public limit (**2.13** percent of the FCC's occupational limit) at the nearest walking/working surface to each antenna.

Recommended control measures are outlined in Section 4.0 and within the Site Safety Plan (attached); Verizon should also provide procedures to shut down and lockout/tagout this wireless equipment in accordance with Verizon's standard operating protocol. Non-telecom workers who will be working in areas of exceedance are required to contact Verizon since only Verizon has the ability to lockout/tagout the facility, or to authorize others to do so.

1.0 INTRODUCTION

Radio frequency waves are electromagnetic waves from the portion of the electromagnetic spectrum at frequencies lower than visible light and microwaves. The wavelengths of radio waves range from thousands of meters to around 30 centimeters. These wavelengths correspond to frequencies as low as 3 cycles per second (or hertz [Hz]) to as high as one gigahertz (one billion cycles per second).

Personal Communication (PCS) facilities used by Verizon in this area will potentially operate within a frequency range of 700 to 5000 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed a distance above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of in areas in the immediate vicinity of the antennas.

MPE limits do not represent levels where a health risk exists, since they are designed to provide a substantial margin of safety. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size or health.

2.0 SITE DESCRIPTION

This project site includes the following proposed wireless telecommunication antennas on a monotree located at 1480 Sand Ridge Road in El Dorado, California.

Ant #	Sector	Operator	Antenna Make	Antenna Model	Technology and Frequency (MHz)	Azimuth (Degrees)	Mechanical Downtilt (Degrees)	Horizontal Beamwidth (Degrees)	Aperture (feet)	Total Power Input (Watts)	Transmitter Count	Antenna Gain (dBd)	Total ERP (Watts)	Total EIRP (Watts)
1	Alpha	Verizon	QUINTEL	SON_QS8656-5 700	LTE 700	100	0	61	8.0	120	2	13.15	2478.46	4064.67
1	Alpha	Verizon	QUINTEL	SON_QS8656-5 850	LTE/5G 850	100	0	58	8.0	120	2	13.35	2595.26	4256.23
1	Alpha	Verizon	QUINTEL	SON_QS8656-5 1900	LTE 1900	100	0	62	8.0	240	4	15.05	7677.35	12590.85
2	Alpha	Verizon	QUINTEL	SON_QS8656-5 700	LTE 700	100	0	61	8.0	120	2	13.15	2478.46	4064.67
2	Alpha	Verizon	QUINTEL	SON_QS8656-5 850	LTE/5G 850	100	0	58	8.0	120	2	13.35	2595.26	4256.23
2	Alpha	Verizon	QUINTEL	SON_QS8656-5 2100	LTE 2100	100	0	60	8.0	240	4	15.75	9020.10	14792.96
3	Alpha	Verizon	ERICSSON	SON_AIR6419 TB 03.21.2023 3700 VZW	L-Sub6 3700	100	0	11	2.4	320	1	23.45	70819.03	116143.21
4	Beta	Verizon	QUINTEL	SON_QS8656-5 700	LTE 700	220	0	61	8.0	120	2	13.15	2478.46	4064.67
4	Beta	Verizon	QUINTEL	SON_QS8656-5 850	LTE/5G 850	220	0	58	8.0	120	2	13.35	2595.26	4256.23
4	Beta	Verizon	QUINTEL	SON_QS8656-5 1900	LTE 1900	220	0	62	8.0	240	4	15.05	7677.35	12590.85
5	Beta	Verizon	QUINTEL	SON_QS8656-5 700	LTE 700	220	0	61	8.0	120	2	13.15	2478.46	4064.67
5	Beta	Verizon	QUINTEL	SON_QS8656-5 850	LTE/5G 850	220	0	58	8.0	120	2	13.35	2595.26	4256.23
5	Beta	Verizon	QUINTEL	SON_QS8656-5 2100	LTE 2100	220	0	60	8.0	240	4	15.75	9020.10	14792.96
6	Beta	Verizon	ERICSSON	SON_AIR6419 TB 03.21.2023 3700 VZW	L-Sub6 3700	220	0	11	2.4	320	1	23.45	70819.03	116143.21
7	Gamma	Verizon	QUINTEL	SON_QS8656-5 700	LTE 700	340	0	61	8.0	120	2	13.15	2478.46	4064.67

Ant #	Sector	Operator	Antenna Make	Antenna Model	Technology and Frequency (MHz)	Azimuth (Degrees)	Mechanical Downtilt (Degrees)	Horizontal Beamwidth (Degrees)	Aperture (feet)	Total Power Input (Watts)	Transmitter Count	Antenna Gain (dBd)	Total ERP (Watts)	Total EIRP (Watts)
7	Gamma	Verizon	QUINTEL	SON_QS8656-5 850	LTE/5G 850	340	0	58	8.0	120	2	13.35	2595.26	4256.23
7	Gamma	Verizon	QUINTEL	SON_QS8656-5 1900	LTE 1900	340	0	62	8.0	240	4	15.05	7677.35	12590.85
8	Gamma	Verizon	QUINTEL	SON_QS8656-5 700	LTE 700	340	0	61	8.0	120	2	13.15	2478.46	4064.67
8	Gamma	Verizon	QUINTEL	SON_QS8656-5 850	LTE/5G 850	340	0	58	8.0	120	2	13.35	2595.26	4256.23
8	Gamma	Verizon	QUINTEL	SON_QS8656-5 2100	LTE 2100	340	0	60	8.0	240	4	15.75	9020.10	14792.96
9	Gamma	Verizon	ERICSSON	SON_AIR6419 TB 03.21.2023 3700 VZV	L-Sub6 3700	340	0	11	2.4	320	1	23.45	70819.03	116143.21

• Note there are 3 Verizon antennas per sector at this site. For clarity, the different frequencies for each antenna are entered on separate lines.

Ant #	NAME	X	Y	Antenna Radiation Centerline	Z-Height Adjacent Building	Z-Height Ground
1	Verizon	23.6	0.0	105.0	85.0	105.0
2	Verizon	23.1	3.7	105.0	85.0	105.0
3	Verizon	22.3	6.6	107.7	87.7	107.7
4	Verizon	16.9	8.7	105.0	85.0	105.0
5	Verizon	14.0	6.2	105.0	85.0	105.0
6	Verizon	11.6	4.5	107.7	87.7	107.7
7	Verizon	13.2	1.7	105.0	85.0	105.0
8	Verizon	16.9	2.9	105.0	85.0	105.0
9	Verizon	19.0	3.7	107.7	87.7	107.7

• Note the Z-Height represents the distance from the antenna centerline.

The above tables contain an inventory of proposed Verizon Antennas and other carrier antennas if sufficient information was available to model them. Note that EBI uses an assumed set of antenna specifications and powers for unknown and other carrier antennas for modeling purposes. The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general population/uncontrolled exposure limits for members of the general public that may be exposed to antenna fields. While access to this site is considered controlled, the analysis has considered exposures with respect to both controlled and uncontrolled limits as an untrained worker may access adjacent rooftop locations. Additional information regarding controlled/uncontrolled exposure limits is provided in Appendix C. Appendix B presents a site safety plan that provides a plan view of the monotree with antenna locations.

3.0 WORST-CASE PREDICTIVE MODELING

EBI has performed theoretical MPE modeling using RoofMaster™ software to estimate the worst-case power density at the site's nearby broadcast levels resulting from operation of the antennas. RoofMaster™ is a widely-used predictive modeling program that has been developed by Waterford Consultants to predict RF power density values for rooftop and tower telecommunications sites

produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. Using the computational methods set forth in Federal Communications Commission (FCC) Office of Engineering & Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields" (OET-65), RoofMaster™ calculates predicted power density in a scalable grid based on the contributions of all RF sources characterized in the study scenario. At each grid location, the cumulative power density is expressed as a percentage of the FCC limits. Manufacturer antenna pattern data is utilized in these calculations. RoofMaster™ models consist of the Far Field model as specified in OET-65 and an implementation of the OET-65 Cylindrical Model (Sula9). The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

For this report, EBI utilized antenna and power data provided by Verizon and compared the resultant worst-case MPE levels to the FCC's occupational/controlled exposure limits outlined in OET Bulletin 65. The assumptions used in the modeling are based upon information provided by Verizon and information gathered from other sources. The parameters used for modeling are summarized in the Site Description antenna inventory table in Section 2.0.

There are no other wireless carriers with equipment installed at this site.

Based on worst-case predictive modeling, there are no modeled areas on any accessible rooftop or ground-level walking/working surface related to the proposed Verizon antennas that exceed the FCC's occupational or general public exposure limits at this site. At the nearest walking/working surfaces to the Verizon antennas, the maximum power density generated by the Verizon antennas is approximately 10.63 percent of the FCC's general public limit (2.13 percent of the FCC's occupational limit). The composite exposure level from all carriers on this site is approximately 10.63 percent of the FCC's general public limit (2.13 percent of the FCC's occupational limit) at the nearest walking/working surface to each antenna.

The Site Safety Plan also presents areas where Verizon Wireless antennas contribute greater than 5% of the applicable MPE limit for a site. A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

The inputs used in the modeling are summarized in the Site Description antenna inventory table in Section 2.0. A graphical representation of the RoofMaster™ modeling results is presented in Appendix B. Microwave dish antennas are designed for point-to-point operations at the elevations of the installed equipment rather than ground level coverage. The maximum power density generated by all carrier antennas, including microwaves and panel antennas, is included in the modeling results presented within this report.

4.0 MITIGATION/SITE CONTROL OPTIONS

EBI's modeling indicates that there are no areas in front of the Verizon antennas that exceed the FCC standards for occupational or general public exposure. All exposures above the FCC's safe limits require that individuals be elevated above the rooftop/ground. In accordance with the official Verizon Wireless Signage and Demarcation Policy for tower structures, no signage is recommended at this site.

Barriers are recommended for installation when possible to block access to the areas in front of the antennas that exceed the FCC general public and/or occupational limits. Barriers may consist of rope,

chain, or fencing. Painted stripes should only be used as a last resort. There are no barriers recommended on this site.

These protocols and recommended control measures have been summarized and included with a graphic representation of the antennas and associated signage and control areas in a RF-EME Site Safety Plan, which is included as Appendix B. Individuals and workers accessing the monotree should be provided with a copy of the attached Site Safety Plan, made aware of the posted signage, and signify their understanding of the Site Safety Plan.

To reduce the risk of exposure, EBI recommends that access to areas associated with the active antenna installation be restricted and secured where possible. All workers and individuals, including arborists and landscapers, accessing the monotree along with nearby elevated structures or trees within areas exceeding the general public MPE must be made aware of the presence and locations of antennas and their associated fields, where applicable.

5.0 SUMMARY AND CONCLUSIONS

EBI has prepared a Radiofrequency – Electromagnetic Energy (RF-EME) Compliance Report for telecommunications equipment installed by Verizon Site Number 781368 located at 1480 Sand Ridge Road in El Dorado, California to determine worst-case predicted RF-EME exposure levels from wireless communications equipment installed at this site. This report summarizes the results of RF-EME modeling in relation to relevant Federal Communications Commission (FCC) RF-EME compliance standards for limiting human exposure to RF-EME fields.

As presented in the sections above, based on the FCC criteria, there are no modeled areas on any accessible rooftop or ground-level walking/working surface related to the proposed antennas that exceed the FCC's occupational or general public exposure limits at this site.

Workers should be informed about the presence and locations of antennas and their associated fields. Recommended control measures are outlined in Section 4.0 and within the Site Safety Plan (attached); Verizon should also provide procedures to shut down and lockout/tagout this wireless equipment in accordance with Verizon's standard operating protocol. Non-telecom workers who will be working in areas of exceedance are required to contact Verizon since only Verizon has the ability to lockout/tagout the facility, or to authorize others to do so.

6.0 LIMITATIONS

This report was prepared for the use of Verizon Wireless. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information provided by the client. The observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to EBI so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.

Appendix A


Certifications

Radio Frequency - Electromagnetic Energy (RF-EME) Jurisdictional Report
EBI Project No. 6223002741
Site No. 781368
1480 Sand Ridge Road, El Dorado, California

Preparer Certification

I, Nathaniel Boucher, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified "occupational" under the FCC regulations.
- I am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation.
- I have reviewed the data provided by the client and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.



Reviewed and Approved by:



sealed 19jul2023

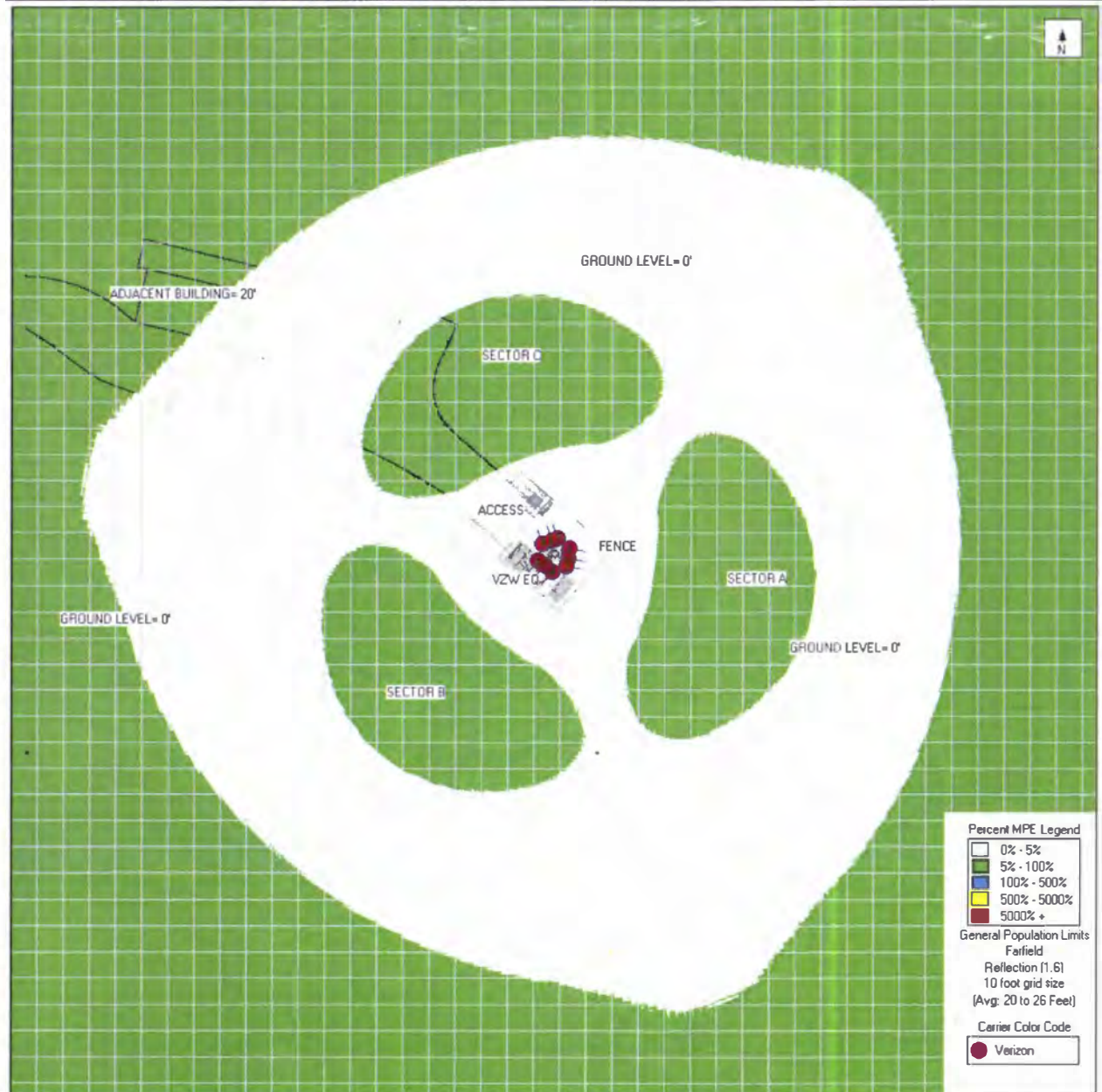
Michael McGuire
Electrical Engineer
mike@h2dc.com

Note that EBI's scope of work is limited to an evaluation of the Radio Frequency – Electromagnetic Energy (RF-EME) field generated by the antennas and broadcast equipment noted in this report. The engineering and design of the building and related structures, as well as the impact of the antennas and broadcast equipment on the structural integrity of the building, are specifically excluded from EBI's scope of work.

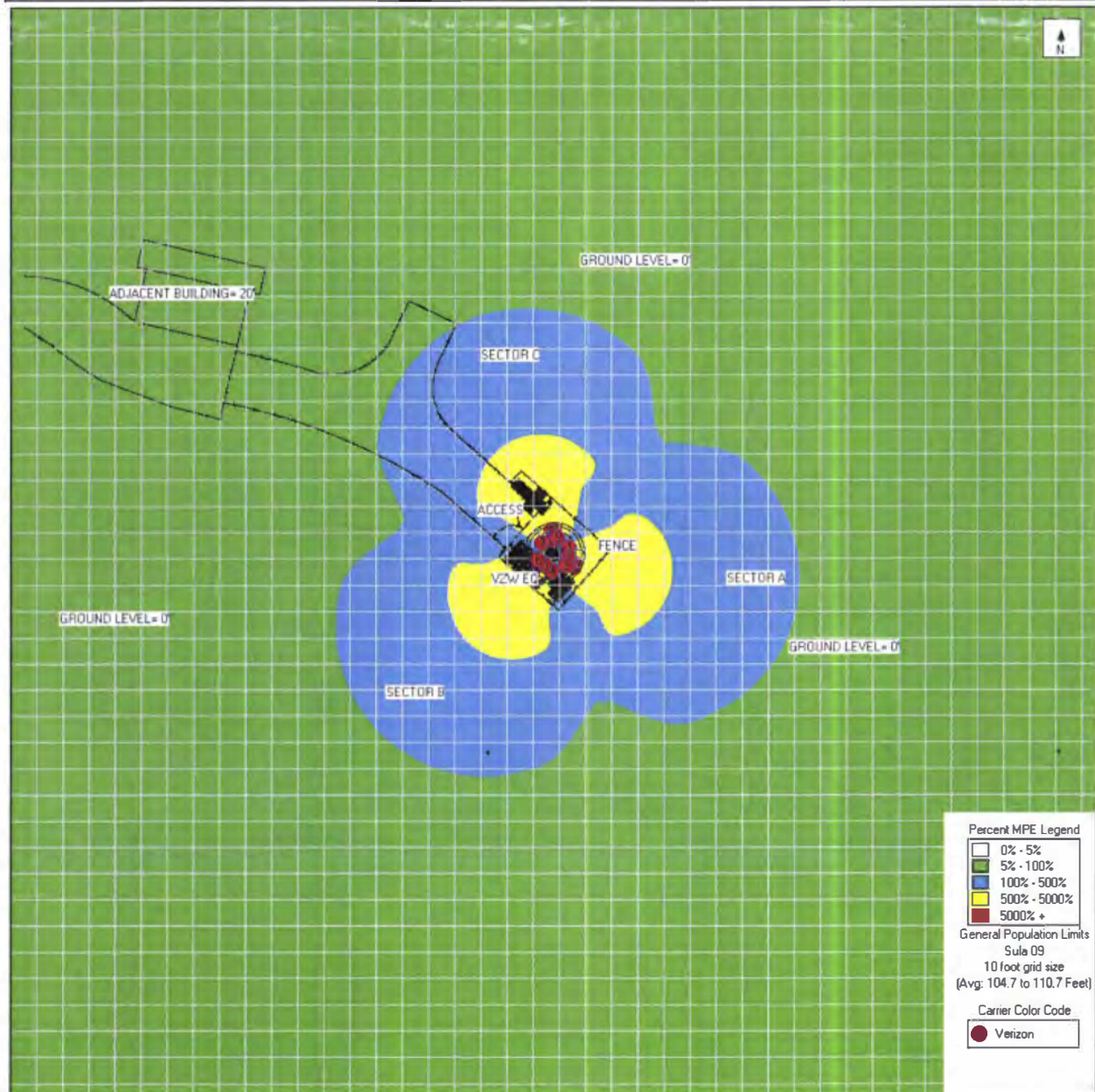
Appendix B

Radio Frequency Electromagnetic Energy Safety Information and Signage Plans

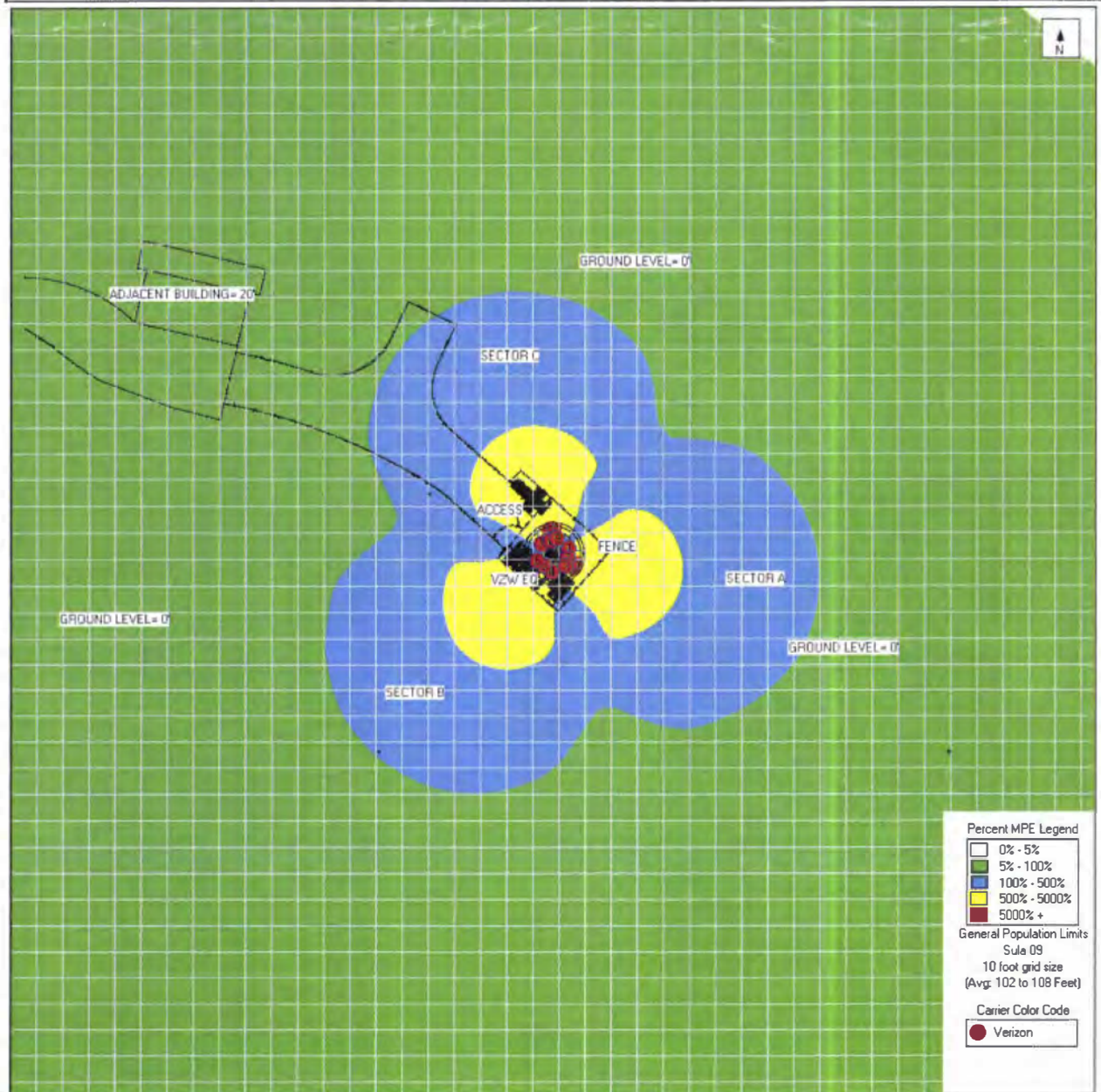
Nearest Walking Surface (Adjacent Building)

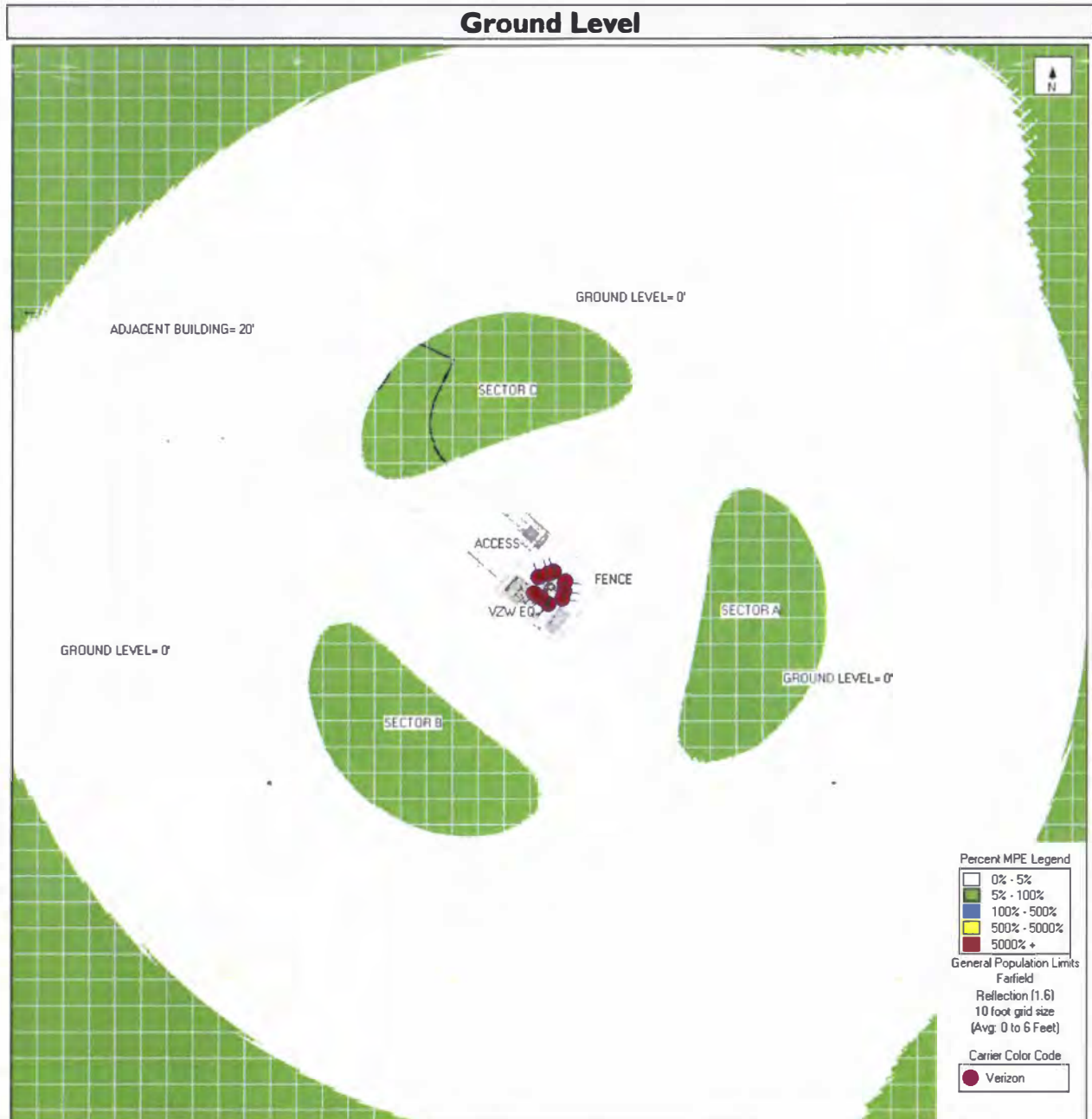


Upper Antenna Face Level

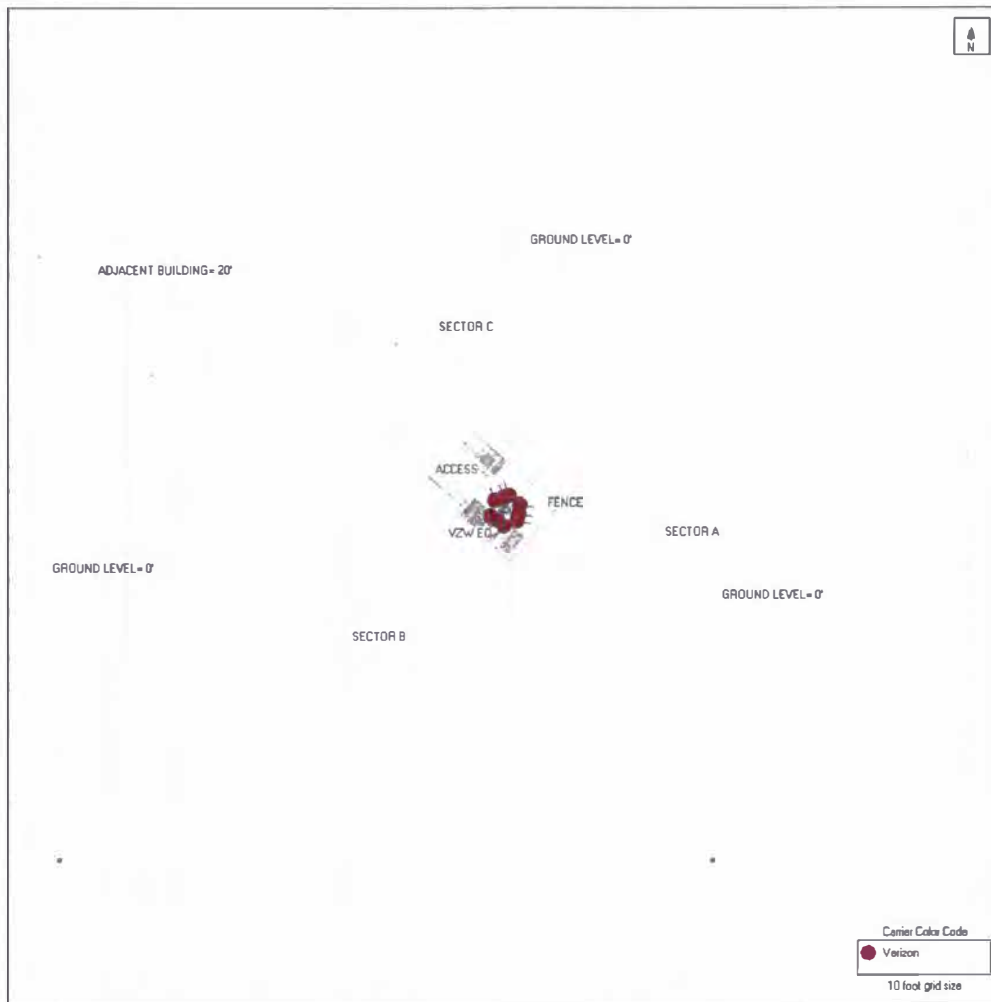







Lower Antenna Face Level





Verizon Signage Plan


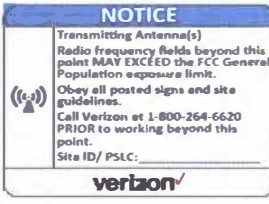

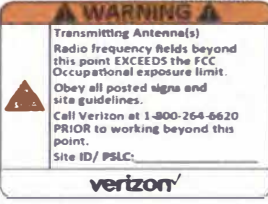
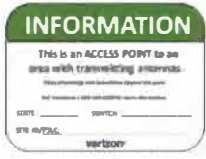


Sign	Posting Instructions	Required Signage / Mitigation
	Securely post at every point of access to the site in a manner conspicuous to all individuals entering thereon as indicated in the signage plan.	Signage not required.
	Securely post at every point of access to the site in a manner conspicuous to all individuals entering thereon as indicated in the signage plan.	Signage not required.
	Securely post in a manner conspicuous to all individuals entering thereon as indicated in the signage plan.	Signage not required.
	Securely post in a manner conspicuous to all individuals entering thereon as indicated in the signage plan.	Signage not required.
	Securely post in a manner conspicuous to all individuals entering thereon as indicated in the signage plan.	Signage not required.

RF Signage and Safety Information

RF Signage

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personnel exposures in excess of the FCC guidelines. These areas must be demarcated by conspicuously posted signage that identifies the potential exposure. Signage **MUST** be viewable regardless of the viewer's position.

GUIDELINES	Category Two - Notice	Category Three - Caution	Category Four - Warning
This sign will inform anyone of the basic precautions to follow when entering an area with transmitting radiofrequency equipment.	This sign indicates that RF emissions may exceed the FCC General Population MPE limit. <ul style="list-style-type: none">• Sign Color Blue• Sign Signal Word "Notice"	This sign indicates that RF emissions may exceed the FCC Occupational MPE limit. <ul style="list-style-type: none">• Sign Color Yellow• Sign Signal Word "Caution"	This sign indicates that RF emissions may exceed at least 10x the FCC Occupational MPE limit. <ul style="list-style-type: none">• Sign Color Orange for Warning• Sign Signal Word "Warning"
			
Category One - Information Information signs are used as a means to provide contact information for any questions or concerns. They will include specific cell site identification information and the Verizon Wireless Network Operations Center phone number. <ul style="list-style-type: none">• Sign Color Green• Sign Signal Word "Information"			

Physical Barriers

Physical barriers are control measures that require awareness and participation of personnel. Physical barriers are employed as an additional administration control to complement RF signage and physically demarcate an area in which RF exposure levels may exceed the FCC General Population limit. **Example:** chain-connected stanchions

Indicative Markers

Indicative markers are visible control measures that require awareness and participation of personnel, as they cannot physically prevent someone from entering an area of potential concern. Indicative markers are employed as an additional administration control to complement RF signage and visually demarcate an area in which RF exposure levels may exceed the FCC General Population limit. **Example:** paint stripes

Occupational Safety and Health Administration (OSHA) Requirements

A formal adopter of FCC Standards, OSHA stipulates that those in the Occupational classification must complete training in the following: RF Safety, RF Awareness, and Utilization of Personal Protective Equipment. OSHA also provides options for Hazard Prevention and Control:

Hazard Prevention	Control
<ul style="list-style-type: none">• Utilization of good equipment• Enact control of hazard areas• Limit exposures• Employ medical surveillance and accident response	<ul style="list-style-type: none">• Employ Lockout/Tag out• Utilize personal alarms & protective clothing• Prevent access to hazardous locations• Develop or operate an administrative control program

Appendix C

Federal Communications Commission (FCC) Requirements

The FCC has established Maximum Permissible Exposure (MPE) limits for human exposure to Radiofrequency Electromagnetic (RF-EME) energy fields, based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general public/uncontrolled exposure limits for members of the general public.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general public/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

General public/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Table I and Figure I (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a particular facility and are "time-averaged" limits to reflect different durations resulting from controlled and uncontrolled exposures.

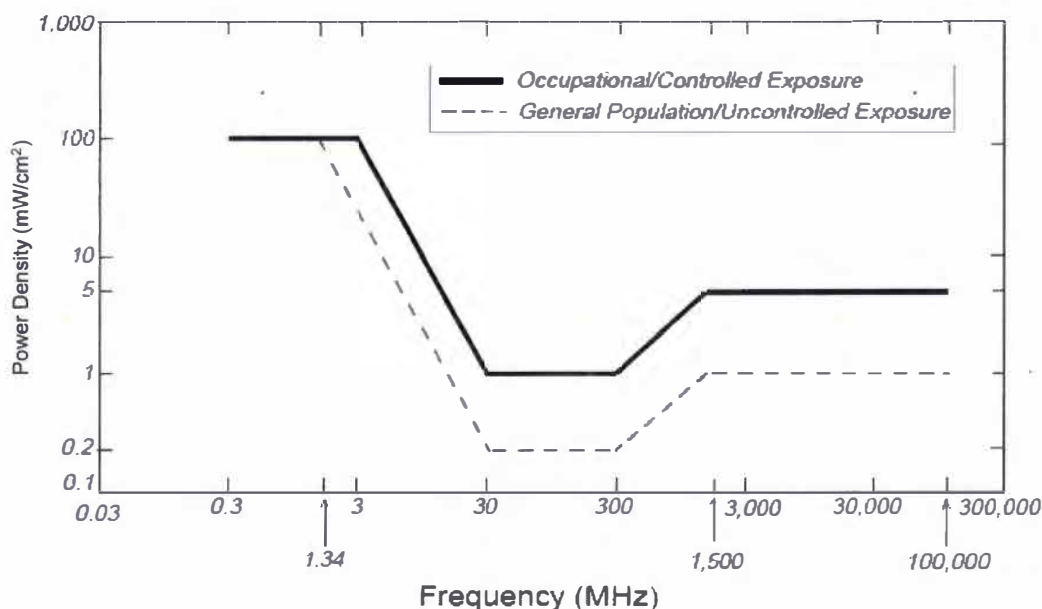
The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm²). Known as the power density, the FCC has established for equipment operating at frequencies range from 300 Mhz to 1,500 Mhz the Occupational/Controlled limit of $(f/300)$ mW/cm² where f is the Frequency in (MHz) and the General Population / Uncontrolled limit of $(f/1500)$ mW/cm² where f is the Frequency in (MHz). For equipment operating at frequency ranges from 1900 MHz to 100,000 MHz, the FCC's occupational MPE is 5.0 mW/cm² and an uncontrolled MPE limit of 1.0 mW/cm². These limits are considered protective of these populations.

Table 1: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
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
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
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
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)

* Plane-wave equivalent power density

Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)
Plane-wave Equivalent Power Density



MPE limits are designed to provide a substantial margin of safety. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

Personal Communication (PCS) facilities used by Verizon in this area will potentially operate within a frequency range of 700 to 2100 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of areas directly in front of the antennas.

FCC Compliance Requirement

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.