



# SITE ID: BA61730S

## PROJECT TYPE: HARDENING

# VB: BRENTWOOD MONOPOLE

Mastec As-Built  
Sign *Caleb Cabel*  
Date 2-27-24

280 CAMINO DIABLO  
BRENTWOOD, CA 94513

**RECEIVED** on 1/7/2025 **CDLP24-02016**  
By Contra Costa County  
Department of Conservation and Development

Prepared For:  
**T-Mobile**  
1200 CONCORD AVENUE, SUITE 500  
CONCORD, CA 94520

Engineer:  
**THE CBR GROUP**  
2840 HOWE ROAD, SUITE E  
MARTINEZ, CA 94553  
www.TheCBRGroup.com

T-Mobile ID:  
BA61730S  
Site Name:  
VB: BRENTWOOD MONOPOLE  
Site Address:  
280 CAMINO DIABLO  
BRENTWOOD, CA 94513

CONTRA COSTA COUNTY  
BUILDING INSPECTION REVISION  
PERMIT NUMBER  
BIMIC22-009426  
11:52 am, Apr 24, 2023  
REVIEWED  
By: Vikram Dhalwal

This job may need to comply with local fire district ordinances  
Please contact the Fire Department plan check staff.  
Central Contra Costa Fire District - (925) 941-3300  
Contra Costa County Building Inspection Department  
By: Vikram Dhalwal 11:53 am, Apr 24, 2023

Structural Reviewed  
By: Cyrus Solis  
7:59 am, Apr 25, 2023

Issued For: CONSTRUCTION

REV	DATE	DESCRIPTION	BY
B	07/29/2022	100%CDs FOR REVIEW	ALR
A	06/28/2022	90%CDs FOR REVIEW	TK

Jurisdiction:  
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.

Licenser:  
  
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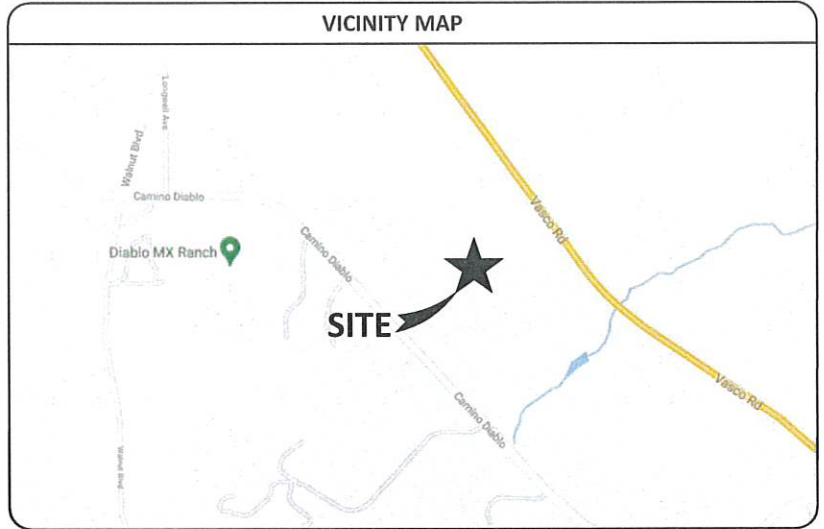
Sheet Title:  
TITLE SHEET

Sheet Number:  
**T-1**

**PROJECT DESCRIPTION**  
THIS IS AN UNMANNED WIRELESS TELECOMMUNICATION FACILITY FOR T-MOBILE. SCOPE OF WORK CONSISTS OF THE FOLLOWING:  
1. INSTALL (1)(N) DIESEL GENERATOR  
2. INSTALL (1)(N) RAISED GENERATOR CONCRETE PAD  
3. INSTALL (1)(N) AUTOMATIC TRANSFER SWITCH (ATS)  
4. INSTALL (1)(N) PORTABLE FIRE EXTINGUISHER INSIDE (N) FIRE EXTINGUISHER CABINET  
5. REPLACE PORTION OF (E) CHAIN-LINK FENCE WITH (N) GATE

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**PROJECT TEAM**  
**APPLICANT / LESSEE:**  
T-MOBILE  
1200 CONCORD AVENUE, SUITE 500  
CONCORD, CA 94520  
**APPLICANT / ENGINEER:**  
THE CBR GROUP  
2840 HOWE ROAD, SUITE E  
MARTINEZ, CA 94553  
PH: (925) 246-3212  
EMAIL: tmoprojects@thecbrgroup.com



**PROJECT INFORMATION**  
**CURRENT USE:**  
UNMANNED TELECOMMUNICATIONS FACILITY  
**PROPOSED USE:**  
UNMANNED TELECOMMUNICATIONS FACILITY  
**STRUCTURE TYPE:**  
MONOPOLE  
**APN:**  
003-020-010  
**LATITUDE:**  
37.873305  
**LONGITUDE:**  
-121.684222  
**JURISDICTION:**  
CONTRA COSTA COUNTY  
**PROPERTY OWNER:**  
G3 ENTERPRISES INC.  
502 EAST WHITMORE AVE.  
MODESTO, CA 95358 800-321-8747  
**POWER AGENCY:**  
PG&E  
245 MARKET STREET  
SAN FRANCISCO, CA 94105  
**TELEPHONE AGENCY:**  
AT&T CALIFORNIA  
5001 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

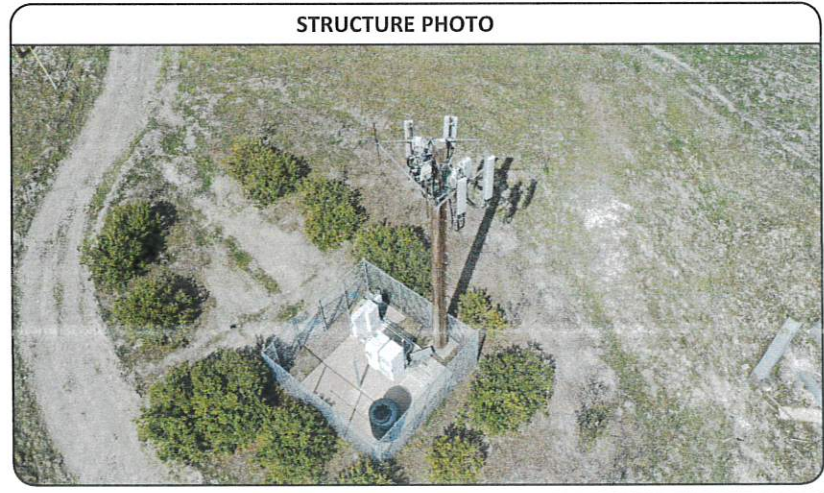
**CODE COMPLIANCE**  
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.  
1) 2019 CALIFORNIA BUILDING CODE (CBC)  
2) 2019 CALIFORNIA RESIDENTIAL CODE (CRC)  
3) 2019 CALIFORNIA HISTORICAL BUILDING CODE (CHBC)  
4) 2019 CALIFORNIA EXISTING BUILDING CODE (CEBC)  
5) 2019 CALIFORNIA GREEN BUILDINGS STANDARDS CODE (COBSC)  
6) 2019 CALIFORNIA FIRE CODE (CFC)  
7) 2019 CALIFORNIA MECHANICAL CODE (CMC)  
8) 2019 CALIFORNIA PLUMBING CODE (CPC)  
9) 2019 CALIFORNIA ELECTRICAL CODE (CEC)  
10) 2019 CALIFORNIA ENERGY CODE (CEC)  
11) 2018 NFPA 101, LIFE SAFETY CODE  
12) 2016 NFPA 72, NATIONAL FIRE ALARM CODE AS AMENDED BY CA  
13) 2016 NFPA 13, FIRE SPRINKLER CODE AS AMENDED BY CA  
14) G.O. 95

**OCCUPANCY AND CONSTRUCTION TYPE**  
OCCUPANCY : U (UNMANNED COMMUNICATIONS FACILITY)  
CONSTRUCTION TYPE: -  
**ACCESSIBILITY REQUIREMENTS**  
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, ACCESSIBILITY ACCESS AND REQUIREMENTS ARE NOT REQUIRED, IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE, PART 2, TITLE 24, SECTION 1103B.1, EXCEPTION 1 & SECTION 1134B.2.1, EXCEPTION 4.

**RADIO FREQUENCY DATA PLAN**

REVISION LEVEL	DATE:
-	-

**GENERAL CONTRACTOR NOTES**  
DO NOT SCALE DRAWINGS  
THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE AT 24" x 36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOBSITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME.



**GENERAL CONSTRUCTION NOTES**

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE, THE LATEST EDITION AND ALL OTHER APPLICABLE CODES AND ORDINANCES.
- CONTRACTOR SHALL VISIT THE JOB SITE TO BECOME FAMILIAR HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL ALSO BE RESPONSIBLE TO BECOME FAMILIAR WITH THE CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO ATTENTION OF THE ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF THE KNOWLEDGE OF THE FIELD CONDITIONS.
- PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND APPURTENANCES, AND LABOR NECESSARY TO EFFECT ALL INSTALLATION AS INDICATED ON THE DRAWINGS. OWNER PROVIDED MATERIALS WILL INCLUDE THE FOLLOWING BUT NOT LIMITED TO, UNLESS NOTED OTHERWISE:
  - ANTENNAS
  - RADIOS
  - TOWER-MOUNTED AMPLIFIERS (TMA)
  - MULTIPLEXERS
  - CABLES (COAX, HCS, JUMPER)S
  - ENCLOSURES AND BASEUNITS
  - MOUNTINGS
  - INTEGRATED LOAD CENTER
- DIMENSIONS SHOWN ARE TO BE FINISH SURFACED UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE WORK.
- DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING, AND SHALL RECEIVE IN WRITING AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACTOR DOCUMENTS.
- CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST CONSTRUCTION SKILLS AND ATTENTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS.
- CONTRACTOR SHALL COORDINATE HIS WORK WITH THE SUPERINTENDENT OF BUILDINGS & GROUNDS AND SCHEDULE HIS ACTIVITIES AND WORKING HOURS IN ACCORDANCE WITH THE REQUIREMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THEIR WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTION OF THE WORK.
- INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SURFACES, EQUIPMENT, IMPROVEMENTS PIPING ETC. AND IMMEDIATELY REPAIR ANY DAMAGE THAT OCCURS DURING CONSTRUCTION.
- IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., MUST BE CLEARLY UNDERSTOOD THAT REINFORCING STEEL SHALL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES (UNLESS NOTED OTHERWISE). LOCATIONS OF REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT
- REPAIR ALL EXISTING WALL SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND IN WITH ADJACENT SURFACES.
- SEAL PENETRATIONS THROUGH FIRE RATED AREA WITH U.L. LIST AND FIRE CODE APPROVED MATERIALS.
- KEEP CONTRACT AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH. EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OF THE OWNER SHALL BE REMOVED. LEAVE PREMISE IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.
- MINIMUM BEND RADIUS OF ANTENNA CABLES SHALL BE IN ACCORDANCE WITH CABLE MANUFACTURERS RECOMMENDATIONS.
- ALL EXISTING INACTIVE SEWER, WATER, GAS ELECTRIC, AND OTHER UTILITY, 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 APPLICABLE REGULATORY AUTHORITIES.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION SHALL BE IN CONFORMANCE WITH JURISDICTION OR STATE AND LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL AND COORDINATE WITH LOCAL REGULATORY AUTHORITIES.
- ALL CONSTRUCTION IS TO ADHERE TO T-MOBILE INTEGRATED CONSTRUCTION STANDARDS UNLESS CALIFORNIA CODE IS MORE STRINGENT.
- THE INTENT OF THE PLANS AND SPECIFICATIONS TO PERFORM THE CONSTRUCTION IN ACCORDANCE WITH THE CALIFORNIA BUILDING STANDARDS CODE, TITLES 19 AND 24, CALIFORNIA CODE OF REGULATIONS SHALL ANY CONDITIONS DEVELOP NOT COVERED BY THE APPROVED PLANS AND SPECIFICATIONS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE JURISDICTION BEFORE PROCEEDING WITH THE WORK.

**SPECIAL INSPECTION NOTES:**

- SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION OF HLTI STAINLESS STEEL ANCHOR BOLTS ACCORDING TO ICC-ESR-1917, SEC. 4.4. THE INSTALLATION OF ANCHOR BOLTS BY OTHER MANUFACTURERS ARE NOT ALLOWED.
- HLTI ANCHORS SHALL BE INSTALLED IN NORMAL WEIGHT CONCRETE WITH A MINIMUM CONCRETE STRENGTH OF 2,500 PSI AT 28 DAYS. UNDER NO CIRCUMSTANCES SHALL THE ANCHORS BE INSTALLED IN MASONRY CONCRETE.
- HOLES TO RECEIVE EXPANSION/WEDGE ANCHORS SHALL BE 1/8" LARGER IN DIAMETER THAN THE ANCHOR BOLTS, DOWEL OR ROD.
- THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE INSTALLATION OF HLTI ANCHORS DOES NOT CUT THE EXISTING REBARS IN CONCRETE. ANY ISSUES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.

**GENERAL RF NOTES:**

- ALL ANTENNAS AND ANTENNA CABLES SHALL BE FURNISHED BY THE CELL CARRIER AND INSTALLED BY ANTENNA INSTALLATION CONTRACTOR.
- PRIOR TO INSTALLATION OF ANTENNAS, THE CONTRACTOR SHALL VERIFY THAT THE AZIMUTH AND DIMENSIONS SHOWN ON THE PLANS MATCH ACTUAL FIELD CONDITIONS.
- ANTENNA INSTALLATION CONTRACTOR SHALL PROVIDE ALL CONDUIT, CABLE TRAYS, GROUND KITS, CLAMPS, GROUNDS, ETC., FOR COMPLETE INSTALLATION OF ANTENNAS AND CABLES SHOWN AND INTENDED AS REQUIRED FOR A COMPLETE OPERATING SYSTEM IN ACCORDANCE WITH T-MOBILE WIRELESS STANDARDS.
- ANTENNA CONDUIT SHALL INCLUDE FACTORY-MADE LARGE RADIUS SWEEPS AT ALL CHANGES IN DIRECTION. SWEEP RADII SHALL BE AS REQUIRED TO MEET COAX MANUFACTURER'S MINIMUM BENDING RADII.
- ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC WITH STEEL BENDS. ALL EXPOSED CONDUIT ABOVE GRADE LEVEL SHALL BE IMC (INTERMEDIATE METAL CONDUIT) OR RIGID GALVANIZED. ALL EXPOSED CONDUIT PROTECTED IN A BUILDING OR ON A ROOF SHALL BE EMT (ELECTRICAL METALLIC TUBING) OR UN-STABILIZED, PAINTED, SCHEDULE 80 PVC.
- IN HIGH TRAFFIC AREAS OR WHERE SUSCEPTIBLE TO DAMAGE, CONTRACTOR SHALL PROVIDE FORMED 14-GA GALVANIZED SHEET METAL COVER OVER COAXIAL CABLE ROUTES. WHERE CABLE IS RUN ON THE WALL, ATTACH UNISTRUT TO WALL AND COVER WITH 14-GA GALVANIZED FORMED SHEET METAL COVER OR MATERIAL AS DIRECTED BY T-MOBILE WIRELESS PROJECT MANAGER.
- VERIFY ROUTE AND LENGTH OF CABLE PRIOR TO CUTTING. ADJUST INDICATED ROUTE AS REQUIRED TO CLEAR EXISTING OBSTRUCTIONS AND MAINTAIN REQUIRED CLEARANCE FROM EXISTING EQUIPMENT AND FACILITIES.
- MAXIMUM LENGTH OF 7/8" COAXIAL CABLE SHALL BE 140 FEET. MAXIMUM LENGTH OF 1-5/8" COAXIAL CABLE SHALL BE 240 FEET.
- VERIFY MODEL NUMBERS OF ANTENNAS WITH T-MOBILE WIRELESS SERVICES.
- THE CONTRACTOR SHALL PROVIDE TESTING OF ANTENNAS AND SHALL PROVIDE DOCUMENTATION TO THE CELL CARRIER PROJECT MANAGER.
- INSTALL EMBOSSED ALUMINUM IDENTIFICATION TAGS AT THE END OF THE MAIN COAXIAL CABLE RUNS, ALONG WITH THE END OF THE JUMPER CABLE LOCATED WITHIN THE PLINTH SECTION OF THE BTS UNIT.

**SITE WORK NOTES**

- DO NOT EXCAVATE OR DISTURB THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.
- DO NOT SCALE BUILDING DIMENSIONS FROM DRAWING.
- SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS-BUILT DRAWINGS BY GENERAL CONTRACTOR AND ISSUED TO ARCHITECT/ENGINEER AT COMPLETION OF PROJECT.
- ALL EXISTING UTILITIES, FACILITIES, CONDITIONS AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
- CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR SOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH AS INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE. CONTRACTOR SHALL CALL LOCAL DIGGER HOT LINE FOR UTILITY LOCATIONS 48 HOURS PRIOR TO CONSTRUCTION.
- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
- GRADING OF THE SITE WORK AREA IS TO BE SMOOTH AND CONTINUOUS IN SLOPE AND IS TO FEATHER INTO EXISTING GRADES AT THE GRADING LIMITS.
- ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC. SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
- STRUCTURAL FILES SUPPORTING PAVEMENT SHALL BE COMPACTED TO 95% OF MAXIMUM STANDARD PROCTOR DRY DENSITY.
- NEW GRADES NOT IN BUILDING AND DRIVEWAY IMPROVEMENT AREA TO BE ACHIEVED BY FILLING WITH APPROVED CLEAN FILL AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY.
- ALL FILLS SHALL BE PLACED IN UNIFORM LIFTS. THE LIFTS THICKNESS SHOULD NOT EXCEED THAT WHICH CAN BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE.
- ALL FILLS PLACED ON EXISTING SLOPES THAT ARE STEEPER THAN 10 HORIZONTAL TO 1 VERTICAL SHALL BE PROPERLY BENCHED INTO THE EXISTING SLOPE AS DIRECTED BY A GEO-TECHNICAL ENGINEER.
- CONTRACTOR SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO PAPERS, TRASH, WEEDS, BRUSHES OR ANY OTHER DEPOSITS WILL REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE DISPOSED OF OFF-SITE BY THE GENERAL CONTRACTOR.
- ALL TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH THE IMPROVEMENTS SHALL BE PROTECTED BY THE GENERAL CONTRACTOR.
- ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY GENERAL CONTRACTOR WITH LOCAL UTILITY COMPANY, TELEPHONE COMPANY, AND OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.

**ENVIRONMENTAL NOTES**

- ALL WORK PERFORMED SHALL BE DONE IN ACCORDANCE WITH ISSUED PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF FINES AND PROPER CLEAN UP FOR AREAS IN VIOLATION.
- CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION FOR PROTECTION OF ADJACENT PROPERTIES, ROADWAYS AND WATERWAYS AND SHALL BE MAINTAINED IN PLACE THROUGH FINAL JURISDICTIONAL INSPECTION & RELEASE OF SITE.
- CONTRACTOR SHALL INSTALL/CONSTRUCT ALL NECESSARY SEDIMENT/SILT CONTROL FENCING AND PROTECTIVE MEASURES WITHIN THE LIMITS OF SITE DISTURBANCE PRIOR TO CONSTRUCTION.
- NO SEDIMENT SHALL BE ALLOWED TO EXIT THE PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ADEQUATE MEASURE FOR CONTROLLING EROSION. ADDITIONAL SEDIMENT CONTROL FENCING MAY BE REQUIRED IN ANY AREAS SUBJECT TO EROSION.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES WITH SILT AND EROSION CONTROL MEASURES MAINTAINED ON THE DOWNSTREAM SIDE OF SITE DRAINAGE. ANY DAMAGE TO ADJACENT PROPERTY AS A RESULT OF EROSION WILL BE CORRECTED AT THE CONTRACTOR EXPENSE.

- CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTIONS AND ANY REPAIRS OF ALL SEDIMENT CONTROL MEASURES INCLUDING SEDIMENT REMOVAL AS NECESSARY.
- CLEANING OF VEGETATION AND TREE REMOVAL SHALL BE ONLY AS PERMITTED AND BE HELD TO A MINIMUM. ONLY TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED.
- SEEDING AND MULCHING AND/OR SODDING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE PROJECT FACILITIES AFFECTING LAND DISTURBANCE.
- CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND PREVENT ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS, AND CHECK DAMS.
- RIP RAP OF SIZES INDICATED SHALL CONSIST OF CLEAN, HARD, SOUND, DURABLE, UNIFORM #3 QUALITY STONE FREE OF ANY DETRIMENTAL QUANTITY OF SOFT, FRAGILE, THIN, ELONGATED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ALKALI, OR OTHER DELETERIOUS SUBSTANCES.

**FOUNDATION, EXCAVATION AND BACKFILL NOTES**

- ALL FINAL GRADED SLOPES SHALL BE A MAXIMUM OF 3 HORIZONTAL TO 1 VERTICAL.
- ALL EXCAVATIONS PREPARED FOR PLACEMENT OF CONCRETE SHALL BE OF UNDISTURBED SOIL, SUBSTANTIALLY HORIZONTAL AND FREE FROM ANY LOOSE, UNSUITABLE MATERIAL OR FROZEN SOILS, AND WITHOUT THE PRESENCE OF POUNDING WATER. DOWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED WHEN REQUIRED. COMPACTION OF SOILS UNDER CONCRETE PAD FOUNDATIONS SHALL NOT BE LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR THE SOIL IN ACCORDANCE WITH ASTM D1557.
- CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC OR UNSUITABLE MATERIAL IF INADEQUATE BEARING CAPACITY IS REACHED AT THE DESIGNED EXCAVATION DEPTH. THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION SHALL BE FILLED WITH CONCRETE OF SAME TYPE SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. ANY STONE SUB-BASE MATERIAL, IF USED, SHALL NOT SUBSTITUTE FOR REQUIRED THICKNESS OF CONCRETE.
- ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND ALSO FORTH PRIOR TO BACK FILLING. BACK-FILL SHALL CONSIST OF APPROVED MATERIAL SUCH AS EARTH, LOAM, SANDY CLAY, SAND, AND GRAVEL, OR SOFT SHALE, FREE FROM CLOS OR LARGE STONES OVER 2-1/2" MAX DIMENSION. ALL BACK FILL SHALL BE PLACED IN COMPACTED LAYERS.
- ALL FILL MATERIALS AND FOUNDATION BACK FILL SHALL BE PLACED IN MAXIMUM 6" THICK LIFTS BEFORE COMPACTION. EACH LIFT SHALL BE WETTED IF REQUIRED AND COMPACTED TO NOT LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR SOIL IN ACCORDANCE WITH ASTM D1557.
- NEWLY PLACED CONCRETE FOUNDATION SHALL CURE A MINIMUM OF 72 HOURS PRIOR TO BACK-FILL.
- FINISHED GRADING SHALL BE SLOPED TO PROVIDE POSITIVE DRAINAGE AND PREVENT STANDING WATER. THE FINAL (FINISH) ELEVATION OF SLAB FOUNDATION SHALL SLOPE AWAY IN ALL DIRECTIONS FROM THE CENTER. FINISH GRADE OF CONCRETE PADS SHALL BE A MINIMUM OF 4 INCHES ABOVE FINISH GRADE ELEVATIONS. PROVIDE SURFACE FILL GRAVEL TO ESTABLISH SPECIFIED ELEVATIONS WHERE REQUIRED.
- NEWLY GRADED SURFACE AREAS TO RECEIVE GRAVEL SHALL BE COVERED WITH GEOTEXTILE FABRIC TYPE: TYPAR-3401 AS MANUFACTURED BY "CONSTRUCTION MATERIAL 1-800-239-384" OR AN APPROVED EQUIVALENT, SHOWN ON PLANS. THE GEOTEXTILE FABRIC SHALL BE BLACK IN COLOR TO CONTROL THE RECURRENT OF VEGETATIVE GROW AND EXTEND TO WITHIN 1 FOOT OUTSIDE THE SITE PERIMETER OR ELECTRICAL GROUNDING SYSTEM PERIMETER WHICH EVER IS GREATER. ALL FABRIC SHALL BE COVERED WITH A MINIMUM OF 4" DEEP COMPACTED STONE OR GRAVEL AS SPECIFIED, I.E. FDOT TYPE NO. 57 FOR FENCED COMPOUND, FDOT TYPE NO.67 FOR ACCESS DRIVE AREA.
- IN ALL AREAS TO RECEIVE FILL, REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM VERTICAL TO 4 HORIZONTAL SUCH AS THAT FILL MATERIAL WILL BIND WITH EXISTING/PREPARED SOIL SURFACE.
- WHEN SUB-GRADE OR PREPARED GROUND SURFACE HAS A DENSITY LESS THAN THAT REQUIRED FOR THE FILL MATERIAL, SCARIFY THE GROUND SURFACE TO DEPTH REQUIRED, PULVERIZE, MOISTURE-CONDITION AND/OR AERATE THE SOIL AND RECOMPACT TO THE REQUIRED DENSITY PRIOR TO PLACEMENT OF FILLS.
- IN AREAS WHICH EXISTING GRAVEL SURFACING IS REMOVED OR DISTURBED DURING CONSTRUCTION OPERATIONS, REPLACE GRAVEL SURFACING TO MATCH ADJACENT GRAVEL SURFACING WHICH RESTORED TO THE SAME THICKNESS AND COMPACTION AS SPECIFIED. ALL RESTORED GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES.
- EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AN REUSED WITH THE CONDITION THAT ANY UNFAVORABLE AMOUNTS OF ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ANY ADDITIONAL GRAVEL RESURFACING MATERIAL AS NEEDED TO PROVIDE A FULL DEPTH COMPACTED SURFACE THROUGHOUT SITE.
- GRAVEL SUB SURFACE SHALL BE PREPARED TO REQUIRED COMPACTION AND SUB GRADE ELEVATIONS BEFORE GRAVEL SURFACING IS PLACED AND/OR RESTORED. ANY LOOSE OR DISTURBED MATERIALS SHALL BE THROUGHOUT COMPACTED AND ANY DEPRESSIONS IN THE SUB-GRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL SHALL NOT USED FOR FILLING DEPRESSIONS IN THE SUB-GRADE.
- PROTECT EXISTING GRAVEL SURFACING AND SUB-GRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING "MATS" OR OTHER SUITABLE PROTECTION DESIGNED TO SPREAD EQUIPMENT LOADS AS MAY BE NECESSARY. REPAIR ANY DAMAGE TO EXISTING GRAVEL SURFACING OR SUB-GRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR'S OPERATIONS.
- DAMAGE TO EXISTING STRUCTURES AND/OR UTILITIES RESULTING FROM CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AND/OR REPLACED TO OWNER'S SATISFACTION AT NO ADDITIONAL COST TO THE CONTRACT.
- ALL SUITABLE BORROW MATERIAL FOR BACKFILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES AT NO ADDITIONAL COST TO THE CONTRACT.

**CONTRA COSTA COUNTY**  
**BUILDING INSPECTION DIVISION**  
PERMIT NUMBER: **BIMIC 22-009426**  
THIS PLANS MUST BE KEPT ON THE PREMISES AND ACCESSIBLE TO INSPECTORS BY 8:00 AM.  
11:52 am, Apr 24, 2023  
**REVIEWED**  
FOR COMPLIANCE WITH CONSTRUCTION PERMITS & CODES THE SIGNATURE OF THIS DOCUMENT SHALL NOT BE HELD FOR PERMIT OR TO BE AN APPROVAL OF THE QUALITY OR SAFETY OF THE WORK OR THE DESIGN OR THE PLAN. NO CHANGES SHALL BE MADE WITHOUT AUTHORIZATION FROM THE BUILDING OFFICIAL.  
By: **Vikram Dhalwal**

**Sign** *Gabele*  
**Date** **2-27-24**

Prepared For:

**T-Mobile**  
1200 CONCORD AVENUE, SUITE 500  
CONCORD, CA 94520

Engineer:

**THE CBR GROUP**  
2840 HOWE ROAD, SUITE E  
MARTINEZ, CA 94553  
www.TheCBRGroup.com

T-Mobile ID:  
**BA617305**

Site Name:  
**VB: BRENTWOOD MONOPOLE**

Site Address:  
**280 CAMINO DIABLO  
BRENTWOOD, CA 94513**

Issued For:  
**CONSTRUCTION**

REV	DATE	DESCRIPTION	BY
B	07/29/2022	100%CDs FOR REVIEW	ALR
A	06/28/2022	90%CDs FOR REVIEW	TK

Jurisdiction:

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.

Licenser:

**REGISTERED PROFESSIONAL ENGINEER**  
**PAVIT PANKAJ**  
No. C-95621  
*Pavit Pankaj*  
CIVIL  
STATE OF CALIFORNIA

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Sheet Title:  
**GENERAL NOTES**

Sheet Number:  
**GN-1**

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Prepared For:



1200 CONCORD AVENUE, SUITE 500  
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Engineer:



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Sheet Title:  
SITE SIGNAGE

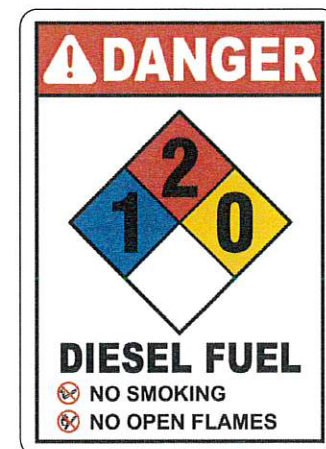
Sheet Number:  
GN-2

Mastec As-Built  
Sign Cohl Cohl  
Date 2-27-24

CONTRA COSTA COUNTY  
BUILDING INSPECTION DIVISION  
PERMIT NUMBER  
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By: Vikram Dhaliwal

NOTES:

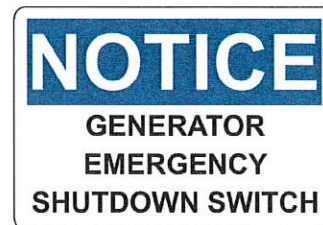
- CONTRACTOR TO PROVIDE REQUIRED SIGNAGE FOR ELECTRICAL PANELS, DISCONNECTS, TRANSFER SWITCHES, ETC. PER CEC ARTICLE 702.7



SIZE: 7" X 10"  
LOCATION: PLACE ON TWO (2) VISIBLE SIDES OF GENERATOR TANK



SIZE: 7" X 10"  
LOCATION: PLACE ON TWO (2) VISIBLE SIDES OF GENERATOR TANK



SIZE: 5" X 3"  
LOCATION: PLACE NEAR GENERATOR E-STOP

EMERGENCY CONTACTS:

T-MOBILE CONTACT: NAME (XXX) XXX-XXXX  
PHONE #:

SITE OWNER CONTACT: NAME (XXX) XXX-XXXX  
PHONE #:

SIZE: 5" X 3"  
LOCATION: PLACE ON EXTERIOR T-MOBILE LEASE AREA



SIZE: 11" X 11"  
LOCATION: PLACE ON TWO (2) VISIBLE SIDES OF GENERATOR TANK

FIRE DEPARTMENT NOTES:

- UNDER THE T-MOBILE PROJECT MANAGER'S DIRECTION, THE CONTRACTOR SHALL PROVIDE "HET" HIGH-PERFORMANCE FIRE STOP SYSTEM #55601 AT ALL FIRE-RATED PENETRATION INSTALLED PER MANUFACTURER'S LATEST INSTALLATION SPECIFICATION.
- ALL PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES SHALL BE CONSTRUCTED SO AS TO MAINTAIN AN EQUAL OR GREATER FIRE RATING.
- BUILDING UNDERGOING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE IN ACCORDANCE WITH CFC CHAPTER 33 (FIRE SAFETY DURING CONSTRUCTION & DEMOLITION).
- NEW AND EXISTING BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION. THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND. (CFC SECTION 505 PREMISES IDENTIFICATION)
- DECORATIVE MATERIALS SHALL BE MAINTAINED IN ACCORDANCE WITH CFC CHAPTER 8.
- VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS, PUMPS, TANKS, WATER LEVELS AND TEMPERATURES, CRITICAL AIR PRESSURES, AND WATERFLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE ELECTRICALLY SUPERVISED BY A LISTED FIRE ALARM CONTROL UNIT. (CFC SECTION 903.4)
- INSTALLATION OF FIRE ALARM SYSTEMS SHALL BE IN ACCORDANCE WITH CFC SECTION 907.
- PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN ACCORDANCE WITH CFC SECTIONS 906.1 & 906.2 AND CALIF. CODE OR REGULATIONS TITLE 19, DIVISION 1, CHAPTER 3.
- CONTRACTOR SHALL VERIFY IN FIELD THE EXISTENCE OR INSTALLATION OF A FIRE EXTINGUISHER WITH A MINIMUM RATING OF 1A-10BC, WITH A CHARGE STATUS ACCEPTABLE TO THE LOCAL FIRE AUTHORITY HAVING JURISDICTION.
- COMPLETE PLANS AND SPECIFICATIONS FOR ALARM SYSTEMS FIRE-EXTINGUISHING SYSTEMS, INCLUDING AUTOMATIC SPRINKLERS AND OTHER FIRE-PROTECTION SYSTEMS SHALL BE SUBMITTED TO FIRE AND LIFE SAFETY FOR REVIEW AND APPROVAL IN INSTALLATION. (CFC SECTION 901.2)
- AT NO TIME WILL ANY FLAMMABLE OR COMBUSTIBLE LIQUID WILL BE STORED ON SITE.
- THE AREA NEEDS TO BE CLEAR OF WEEDS, GRASS, BRUSH, TRASH, AND ANY OTHER COMBUSTIBLE MATERIALS WITH A MINIMUM TO TEN (10) FEET IN ALL DIRECTIONS FROM GENERATOR.

7 GENERATOR SIGNAGE  
N.T.S.

1 FIRE DEPARTMENT NOTES  
N.T.S.

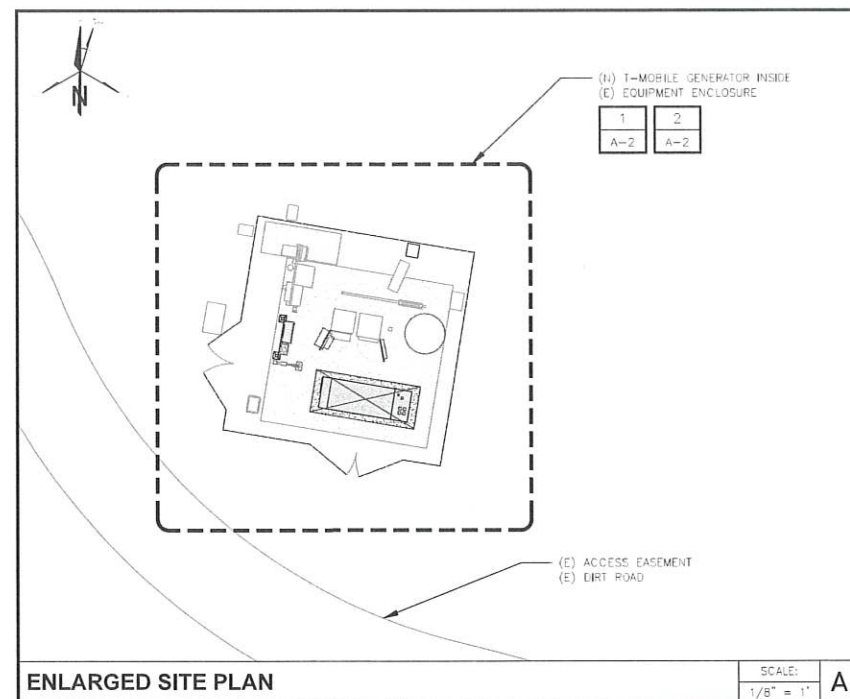
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**SYMBOLS & ABBREVIATIONS**

- GRID REFERENCE
- DETAIL REFERENCE
- ELEVATION REFERENCE
- SECTION REFERENCE
- MATCH LINE
- WORK POINT
- SPOT ELEVATION (DATUM)
- REVISION
- BREAK LINE
- CENTERLINE
- PROPERTY/LEASE LINE
- FENCE
- GROUNDING LINE
- UNDERGROUND SERVICE CONDUCTORS
- OVERHEAD SERVICE CONDUCTORS
- BRICK
- CONCRETE
- MASONRY
- SAND
- EARTH
- GRAVEL
- PLYWOOD
- STEEL
- NEW
- EXISTING
- TYPICAL
- ABOVE GROUND LEVEL
- UNLESS NOTED OTHERWISE
- NOT TO SCALE
- TO BE DETERMINED
- EXISTING LUMINAIRE
- EXISTING UTILITY POLE
- FOUNDATION MONUMENT
- GROUND WELL
- SET POINT



**Mastec As Built**  
 Sign *Cable Cable*  
 Date 2-27-24



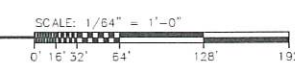
CONTRA COSTA COUNTY  
 BUILDING INSPECTION DIVISION  
 PERMIT NUMBER  
**BIMC22-009426**  
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 By: Vikram Dhalwal

CONTRA COSTA COUNTY  
 CONSERVATION AND DEVELOPMENT  
 COMMUNITY DEVELOPMENT DIVISION  
 HAS ONLY APPROVED THE FOLLOWING:

Approved pursuant to CDWM22-00043  
 non-substantial changes from the plans

ANY DEVIATIONS, MODIFICATIONS, OR ADDITIONS TO THIS PLAN MUST BE REVIEWED AND APPROVED BY CONTRA COSTA COUNTY COMMUNITY DEVELOPMENT BEFORE MODIFICATION.

PLANNING APPROVED BY:  
 Maria Lara-Lomus on Jan 6, 2023.



Prepared For:

**T-Mobile**  
 1200 CONCORD AVENUE, SUITE 500  
 CONCORD, CA 94520

Engineer:

**THE CBR GROUP**  
 2840 HOWE ROAD, SUITE E  
 MARTINEZ, CA 94553  
 www.TheCBRGroup.com

T-Mobile ID:  
 BA61730S

Site Name:  
 VB: BRENTWOOD MONOPOLE

Site Address:  
 280 CAMINO DIABLO  
 BRENTWOOD, CA 94513

Issued For:  
 CONSTRUCTION

REV	DATE	DESCRIPTION	BY
B	07/29/2022	100%CDs FOR REVIEW	ALR
A	06/28/2022	90%CDs FOR REVIEW	TK

Jurisdiction:

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Licensors:

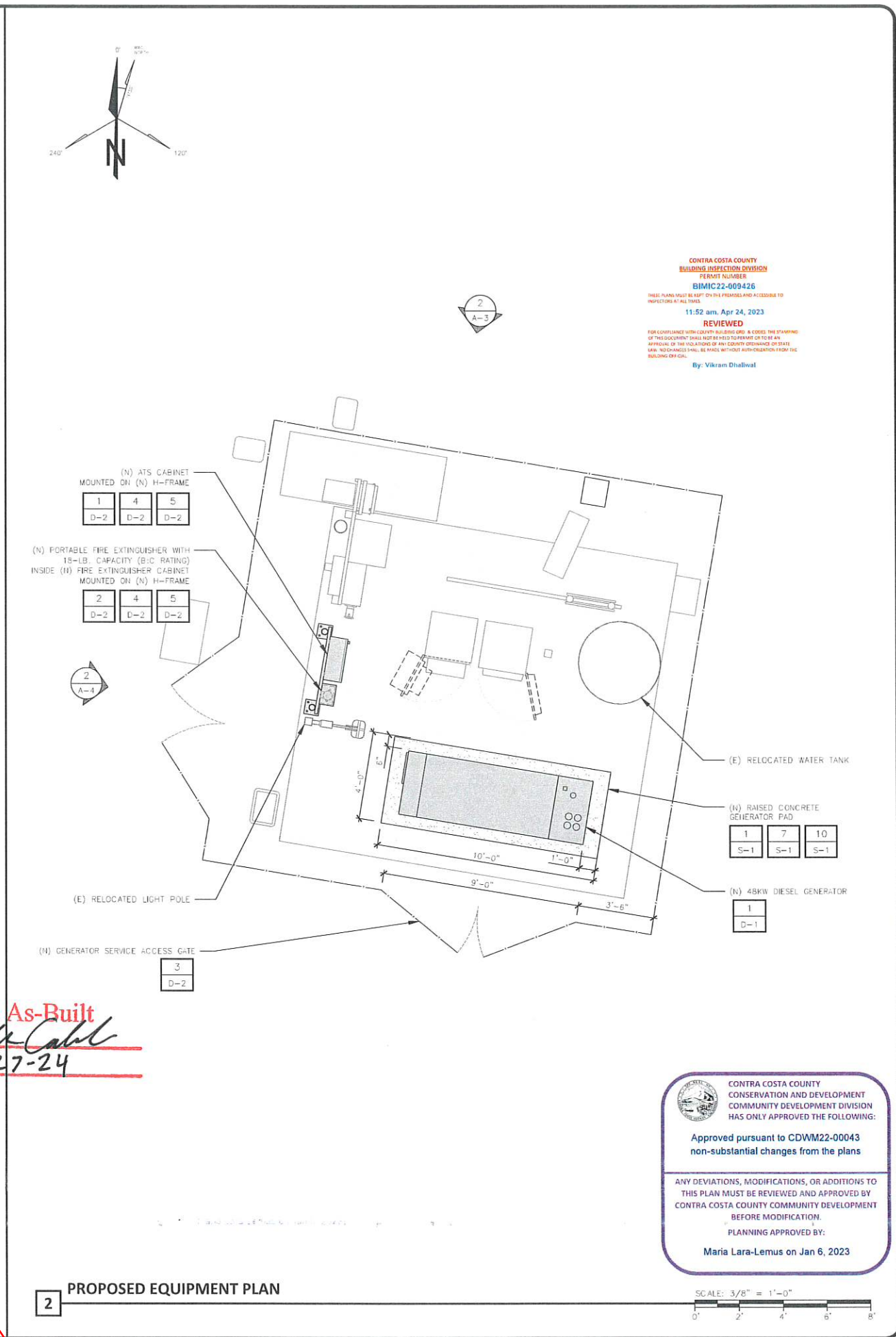
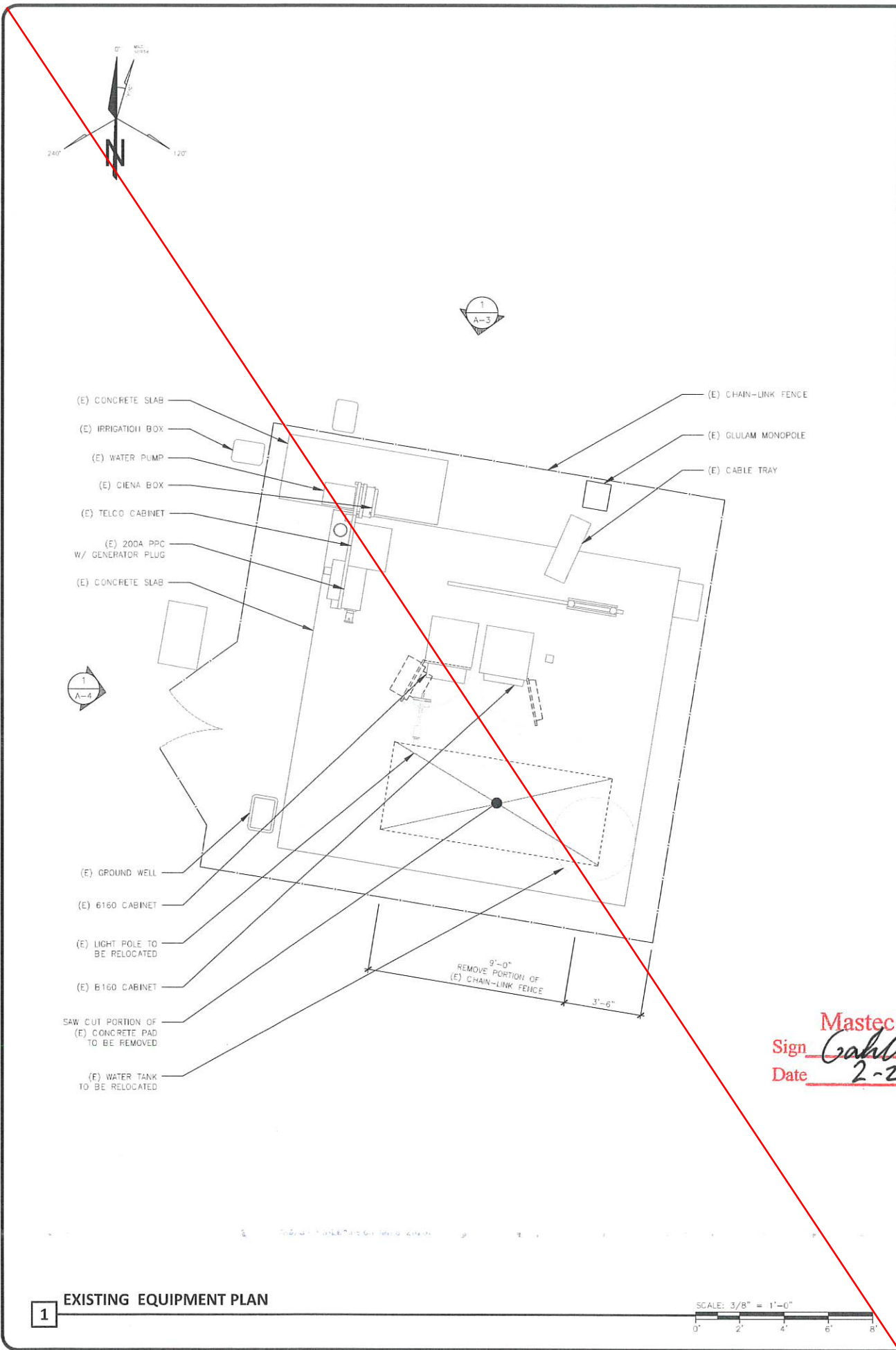
**REGISTERED PROFESSIONAL ENGINEER**  
 No. C-95621  
 STATE OF CALIFORNIA

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Sheet Title:  
**OVERALL SITE PLAN**

Sheet Number:  
**A-1**

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CONTRA COSTA COUNTY  
 BUILDING INSPECTION DIVISION  
 PERMIT NUMBER  
**BIMIC22-009426**  
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 REVIEWED  
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 LAW. NO CHANGES SHALL BE MADE WITHOUT AUTHORIZATION FROM THE  
 BUILDING DIVISION.  
 By: Vikram Dhalwal

CONTRA COSTA COUNTY  
 CONSERVATION AND DEVELOPMENT  
 COMMUNITY DEVELOPMENT DIVISION  
 HAS ONLY APPROVED THE FOLLOWING:  
**Approved pursuant to CDWM22-00043  
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 THIS PLAN MUST BE REVIEWED AND APPROVED BY  
 CONTRA COSTA COUNTY COMMUNITY DEVELOPMENT  
 BEFORE MODIFICATION.  
 PLANNING APPROVED BY:  
**Maria Lara-Lemus on Jan 6, 2023**

Prepared For:

**T-Mobile**  
 1200 CONCORD AVENUE, SUITE 500  
 CONCORD, CA 94520

Engineer:

**THE CBR GROUP**  
 2840 HOWE ROAD, SUITE E  
 MARTINEZ, CA 94553  
 www.TheCBRGroup.com

T-Mobile ID:  
**BA61730S**

Site Name:  
**VB: BRENTWOOD MONOPOLE**

Site Address:  
**280 CAMINO DIABLO  
 BRENTWOOD, CA 94513**

Issued For:  
**CONSTRUCTION**

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A	06/28/2022	90%CDs FOR REVIEW	TK

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 ALTER THIS DOCUMENT.

Licenser:

**REGISTERED PROFESSIONAL ENGINEER**  
 MASTEC PANKEY  
 No. C-95621  
 CIVIL  
 STATE OF CALIFORNIA

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Sheet Title:  
**EXISTING AND PROPOSED  
 EQUIPMENT PLANS**

Sheet Number:  
**A-2**

Prepared For:  
**T-Mobile**  
 1200 CONCORD AVENUE, SUITE 500  
 CONCORD, CA 94520

Engineer:  
**THE CBR GROUP**  
 2840 HOWE ROAD, SUITE E  
 MARTINEZ, CA 94553  
 www.TheCBRGroup.com

T-Mobile ID:  
 BA617305

Site Name:  
 VB: BRENTWOOD MONOPOLE


Site Address:  
 280 CAMINO DIABLO  
 BRENTWOOD, CA 94513

Issued For:  
 CONSTRUCTION

REV	DATE	DESCRIPTION	BY
D	09/14/2023	PLAN CHECK COMMENTS #2	WM
C	01/05/2023	PLAN CHECK COMMENTS	ALR
B	11/02/2022	100%CDs FOR REVIEW	ALR
A	06/28/2022	90%CDs FOR REVIEW	TK

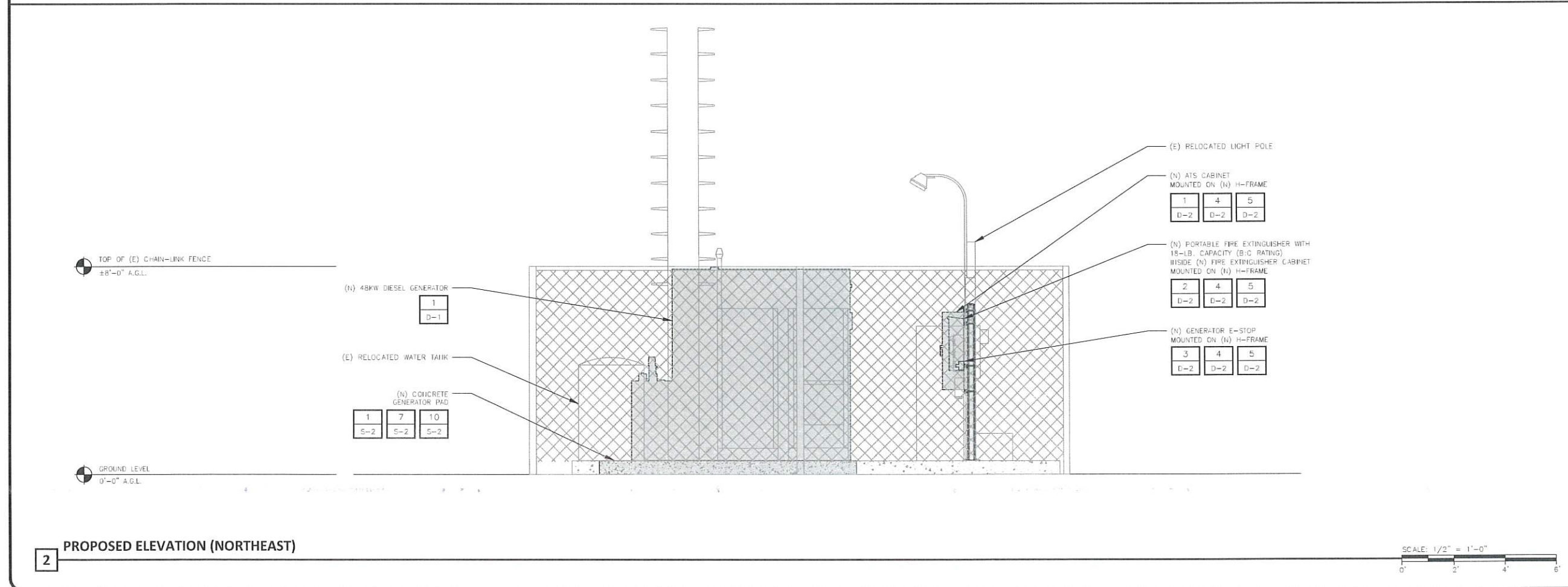
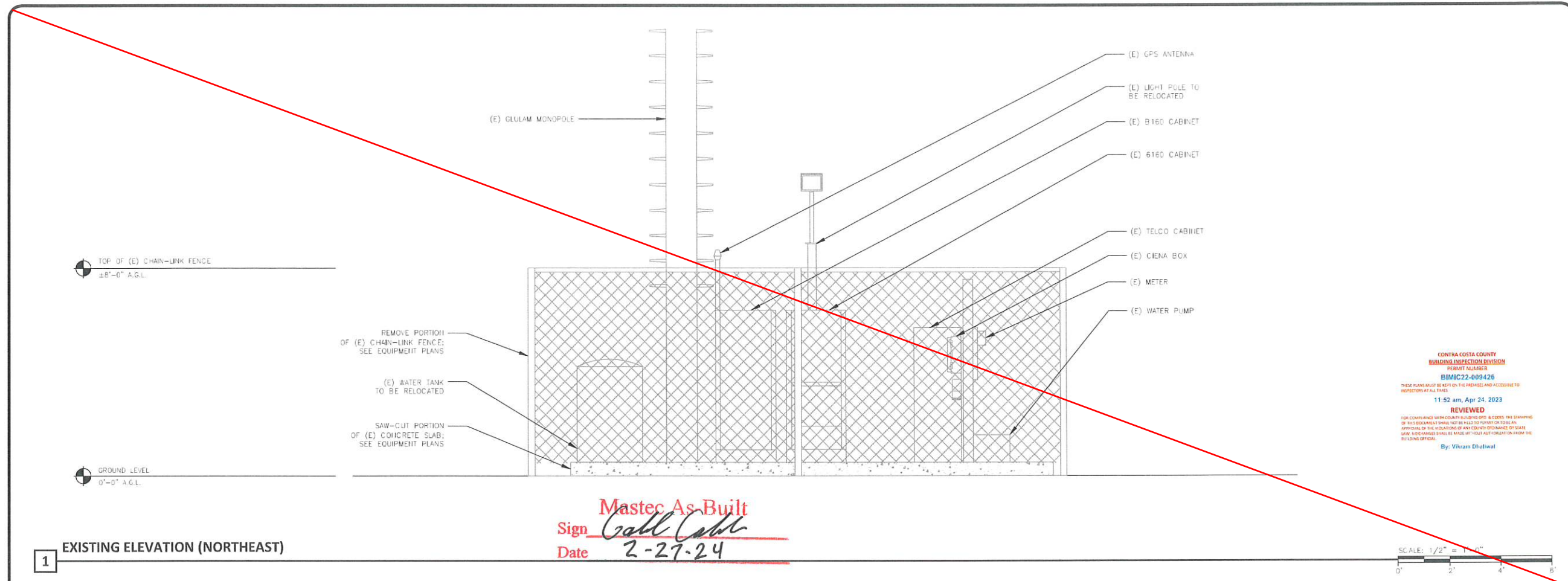
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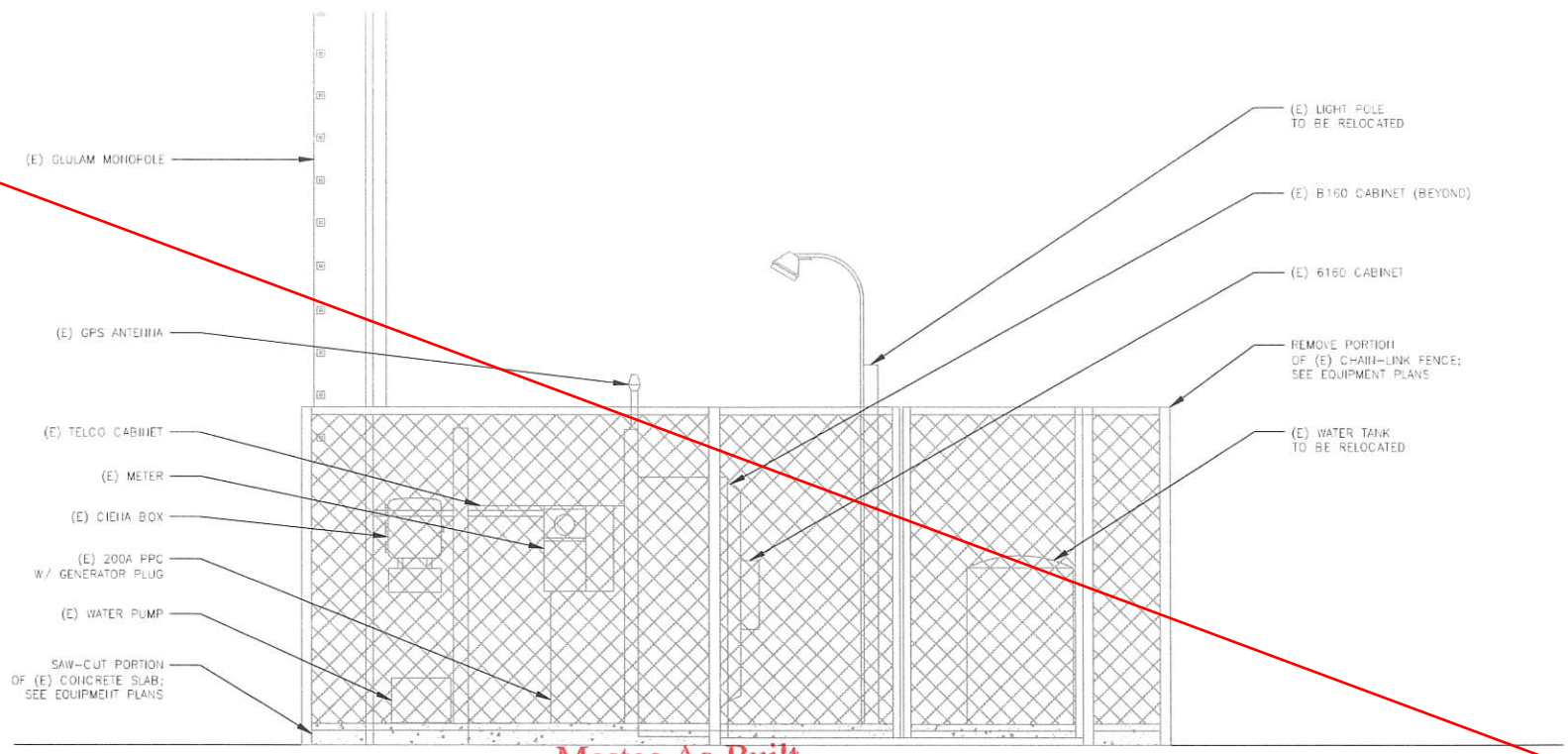
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Sheet Title:  
 EXISTING AND PROPOSED ELEVATIONS (NORTHEAST)

Sheet Number:  
**A-3**





- (E) GLULAM MONOPOLE
- (E) GPS ANTENNA
- (E) TELCO CABINET
- (E) METER
- (E) CIEHA BOX
- (E) 200A PPC W/ GENERATOR PLUG
- (E) WATER PUMP
- SAW-CUT PORTION OF (E) CONCRETE SLAB; SEE EQUIPMENT PLANS

- (E) LIGHT POLE TO BE RELOCATED
- (E) B160 CABINET (BEYOND)
- (E) 6160 CABINET
- REMOVE PORTION OF (E) CHAIN-LINK FENCE; SEE EQUIPMENT PLANS
- (E) WATER TANK TO BE RELOCATED

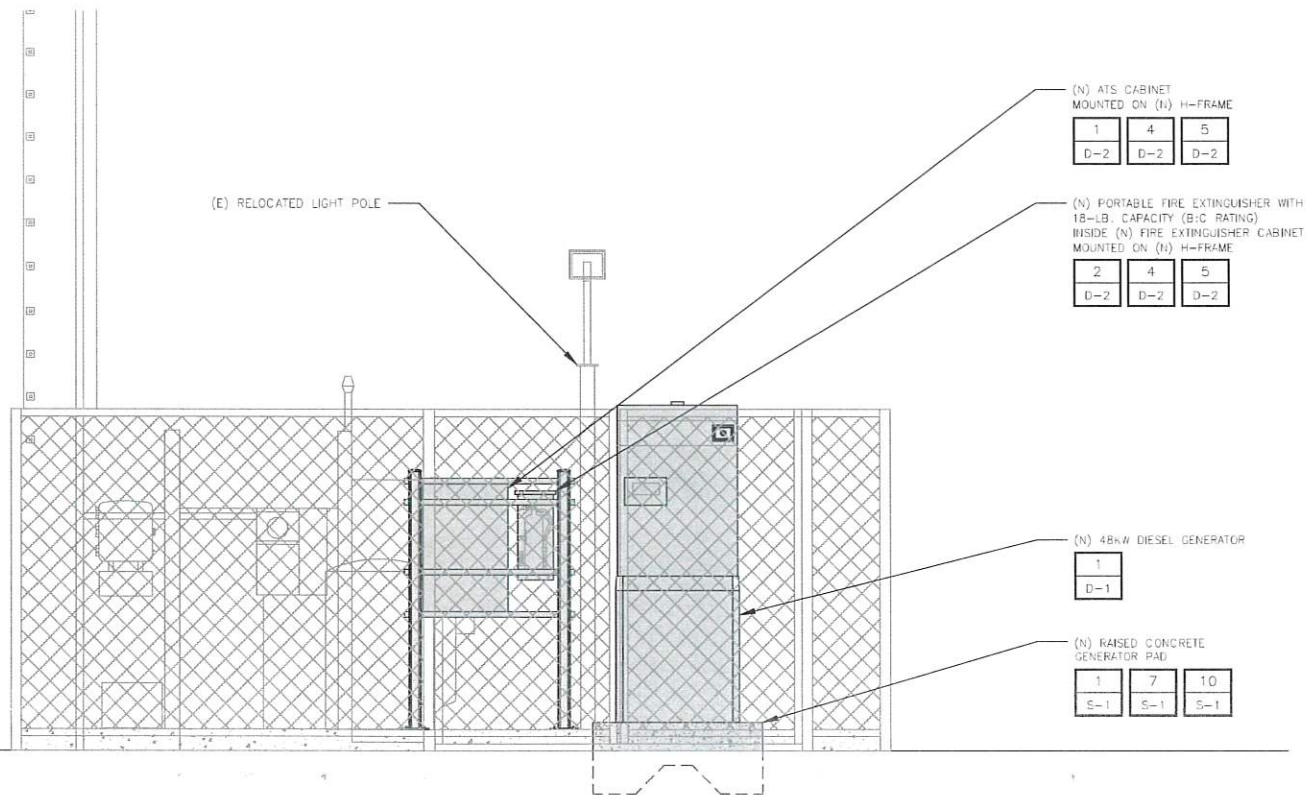
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 By: Vikram Dhalwal

**Mastec As-Built**  
 Sign *Gabe Cobb*  
 Date 2-27-24

GROUND LEVEL  
 0'-0" A.G.L.

SCALE: 1/2" = 1'-0"  
 0 2 4 6

**1** EXISTING ELEVATION (NORTHWEST)



(E) RELOCATED LIGHT POLE

(N) ATS CABINET MOUNTED ON (H) H-FRAME  

1	4	5
D-2	D-2	D-2

(N) PORTABLE FIRE EXTINGUISHER WITH 18-LB. CAPACITY (B-C RATING) INSIDE (N) FIRE EXTINGUISHER CABINET MOUNTED ON (H) H-FRAME  

2	4	5
D-2	D-2	D-2

(N) 48kW DIESEL GENERATOR  

1
D-1

(N) RAISED CONCRETE GENERATOR PAD  

1	7	10
S-1	S-1	S-1

CONTRA COSTA COUNTY  
 CONSERVATION AND DEVELOPMENT  
 COMMUNITY DEVELOPMENT DIVISION  
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 PLANNING APPROVED BY:  
**Maria Lara-Lemus on Jan 6, 2023**

GROUND LEVEL  
 0'-0" A.G.L.

SCALE: 1/2" = 1'-0"  
 0 2 4 6

**2** PROPOSED ELEVATION (NORTHWEST)

Prepared For:  
**T-Mobile**  
 1200 CONCORD AVENUE, SUITE 500  
 CONCORD, CA 94520

Engineer:  
**THE CBR GROUP**  
 2840 HOWE ROAD, SUITE E  
 MARTINEZ, CA 94553  
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T-Mobile ID:  
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Sheet Title:  
**EXISTING AND PROPOSED ELEVATIONS (NORTHWEST)**

Sheet Number:  
**A-4**





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NOT USED

SCALE: N.T.S. 12

NOT USED

SCALE: N.T.S. 9

NOT USED

SCALE: N.T.S. 6

MANUFACTURER: GENERAC  
PART NUMBER: 061129E  
HEIGHT: 4.0"  
WIDTH: 4.0"  
DEPTH: 3.44"  
ENCLOSURE: NEMA 4X (SURFACE-MOUNT)  
NOTE: USE MANUFACTURER SUPPLIED MOUNTING HARDWARE

TOP VIEW FRONT VIEW SIDE VIEW

OR APPROVED EQUIVALENT

Prepared For:

**T-Mobile**

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CONCORD, CA 94520

Engineer:

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D	03/14/2023	PLAN CHECK COMMENTS #2	WM
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B	11/02/2022	100%CDs FOR REVIEW	ALR
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Jurisdiction:

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Licensors:

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Sheet Title:  
DETAILS

Sheet Number:  
**D-2**

NOT USED

SCALE: N.T.S. 11

NOT USED

SCALE: N.T.S. 8

EQUIPMENT MOUNT TO PIPE MAST DETAIL

SCALE: N.T.S. 5

(N) EQUIPMENT MOUNTED PER MANUFACTURER'S SPECIFICATIONS  
(N) P1000 UNISTRUT (TOP AND BOTTOM)  
(N) 1/2" "U" BOLTS AND WASHERS (PER UNISTRUT)  
(N) OR (E) PIPE MAST  
3/8" BOLT, SPRING NUT, AND WASHER AS REQ'D. (TOP AND BOTTOM)

GENERATOR E-STOP DETAIL

SCALE: N.T.S. 3

MANUFACTURER: STRIKE FIRST USA  
MODEL: H00C-10  
HEIGHT: 25.0"  
WIDTH: 12.0"  
WEIGHT: 50 LBS. (NET)  
FINISH: BAKED RED ENAMEL  
NOTE: FIRE EXTINGUISHER SOLD SEPARATELY. USE MANUFACTURER SUPPLIED MOUNTING HARDWARE

TOP VIEW FRONT VIEW SIDE VIEW

OR APPROVED EQUIVALENT

NOT USED

SCALE: N.T.S. 10

H-FRAME DETAIL

SCALE: N.T.S. 4

UNISTRUT PIPE/CONDUIT CLAMP P1119 OR P255B-35 (GALV.), TYP.; FOLLOW MANUFACTURER RECOMMENDATIONS FOR BOLT TORQUE  
3-1/2" O.D. POST  
DETAIL "B-B"  
UNISTRUT P1000 (GALV.)  
3-1/2" SCH 40 PIPE (GALV) OR 3-1/2" RGS CONDUIT (GALV)  
UNISTRUT P1000 (GALV.)  
UNISTRUT P1000 (GALV.)  
UNISTRUT P1000 (GALV.)  
TOP OF CONCRETE SLAB  
PIPE CAP, TYP.  
DETAIL "A-A"  
(4) 1/2" KWIK BOLT T22 WITH MINIMUM 2-1/2" EMBEDMENT INTO CONCRETE  
8" x 3/8" STEEL PLATE  
3-1/2" O.D. POST  
TOP OF SLAB  
8" MIN. TO EDGE OF CONCRETE

NOTE: SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION OF THE ANCHOR BOLTS ACCORDING TO ICC-ESR #4266

AUTOMATIC TRANSFER SWITCH DETAIL

SCALE: N.T.S. 1

MANUFACTURER: GENERAC  
MODEL: RX5C200A3  
HEIGHT: 36.0"  
WIDTH: 24.0"  
DEPTH: 10.0"  
WEIGHT: 185 LBS. (NET)  
NOTE: USE MANUFACTURER SUPPLIED MOUNTING HARDWARE

ELECTRICAL INFO:  
OPERATING VOLTAGE: 120/240 1Ø  
GTS RATED AMPS: 200 AMPS  
ENCLOSURE: NEMA 1  
UL RATING: UL/CUL  
FAULT CURRENT RATING: 25,000 AMPS  
LUG RANGE: 400 MCM - #4

TOP VIEW FRONT VIEW SIDE VIEW

OR APPROVED EQUIVALENT

NOT USED

SCALE: N.T.S. 1

**GENERAL STRUCTURAL NOTES:**

**DESIGN CRITERIA PER SECTION 1603A IN CBC 2019**

**WIND**

1. BASIC DESIGN WIND SPEED, V, MILES PER HOUR = 93
2. RISK CATEGORY = II
3. EXPOSURE CATEGORY = C

**SEISMIC**

4. RISK CATEGORY = II
5. SEISMIC IMPORTANCE FACTOR,  $I_e = 1.0$
6. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS,  $S_s = 1.484$  &  $S_1 = 0.5216$
7. SITE CLASS = D
8. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS,  $S_{DS} = 1.188$  &  $S_{D1} = 0.59$
9. SEISMIC DESIGN CATEGORY = D

1. SPECIFIC NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
2. LOADS TO THE BUILDING AND/OR EXISTING STRUCTURES EXCEEDING THE LOADS INDICATED ON THE PLANS, OR ANY LOADS EXCEEDING 400 LBS. THAT ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE REPORTED TO THE ENGINEER-ON-RECORD.
3. THE STRUCTURAL DRAWINGS SHOW THE REQUIREMENTS FOR THE COMPLETED STRUCTURE ONLY. TEMPORARY WORKS REQUIRED TO COMPLETE THE CONSTRUCTION PROCESS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER-ON-RECORD SHALL NOT BE RESPONSIBLE FOR THE DESIGN OR FIELD VERIFICATION OF TEMPORARY AND ANCILLARY WORK.
4. THE RESPONSIBILITY FOR THE DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, UNDERPINNING, AND SHORING REQUIRED TO SAFELY RETAIN ALL GRADES AND STRUCTURES SHALL BEAR ON THE CONTRACTOR.
5. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON A STRUCTURE. LOADS SHALL NOT EXCEED THE DESIGN LIVE LOAD INDICATED. WHERE THE STRUCTURE HAS NOT ATTAINED FINAL DESIGN STRENGTH, ADEQUATE SHORING AND/OR BRACING SHALL BE INSTALLED.

**SPECIAL INSPECTION NOTES:**

1. SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION OF HILTI ANCHOR BOLTS ACCORDING TO ICC-ESR-4868. THE INSTALLATION OF ANCHOR BOLTS BY OTHER MANUFACTURERS ARE NOT ALLOWED.
2. HILTI ANCHORS SHALL BE INSTALLED IN NORMAL WEIGHT CONCRETE WITH A MINIMUM CONCRETE STRENGTH OF 2,500 PSI AT 28 DAYS. UNDER NO CIRCUMSTANCES SHALL THE ANCHORS BE INSTALLED IN MASONRY CONCRETE.
3. HOLES TO RECEIVE EXPANSION/WEDGE ANCHORS SHALL BE 1/8" LARGER IN DIAMETER THAN THE ANCHOR BOLTS, DOWEL OR ROD.
4. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE INSTALLATION OF HILTI ANCHORS DOES NOT CUT THE EXISTING REBARS IN CONCRETE. ANY ISSUES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.

**STRUCTURAL STEEL**

1. ALL STEEL WORK SHALL BE IN ACCORDANCE WITH STEEL CONSTRUCTION MANUAL, 15th EDITION AND ALL EXTERIOR EXPOSED STEEL AND HARDWARE SHALL BE HOT-DIPPED GALVANIZED. FILL MODIFICATIONS ARE TO BE COATED WITH ZINC-ENRICHED PAINT.
2. STEEL SECTIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING ASTM STANDARDS:  
-ANGLE, BARS, AND CHANNELS: ASTM A36, 36 KSI  
-W-SHAPES: ASTM 1992, 50 KSI  
-HSS SECTION: ASTM A513-E, 35 KSI
3. ALL WELDING SHALL BE PERFORMED USING E70 (LOW HYDROGEN) ELECTRODES BY AWS CERTIFIED WELDERS. WELDING SHALL CONFORM TO AISC AND THE LATEST EDITION OF AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A307 BOLTS UNLESS NOTED OTHERWISE. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYP. 3/4" DIA. CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL COLD-GALVANIZE ALL RAW STEEL AS REQUIRED DURING CONSTRUCTION PROCESS.

**FOUNDATION, EXCAVATION AND BACKFILL NOTES**

1. ALL FINAL GRADED SLOPES SHALL BE A MAXIMUM OF 3 HORIZONTAL TO 1 VERTICAL.
2. ALL EXCAVATIONS PREPARED FOR PLACEMENT OF CONCRETE SHALL BE OF UNSUITABLE SOIL, SUBSTANTIALLY HORIZONTAL AND FREE FROM ANY LOOSE, UNSUITABLE MATERIAL OR FROZEN SOILS, AND WITHOUT THE PRESENCE OF POUNDING WATER. DRAINAGE FOR EXCESS GROUND WATER SHALL BE PROVIDED WHEN REQUIRED. COMPACTION OF SOILS UNDER CONCRETE PAD FOUNDATIONS SHALL NOT BE LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR THE SOIL IN ACCORDANCE WITH ASTM D1557.
3. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC OR UNSUITABLE MATERIAL. IF INADEQUATE BEARING CAPACITY IS REACHED AT THE DESIGNED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION SHALL BE FILLED WITH CONCRETE OF SAME TYPE SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. ANY STONE SUB-BASE MATERIAL, IF USED, SHALL NOT SUBSTITUTE FOR REQUIRED THICKNESS OF CONCRETE.
4. ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND ALSO FORTH PRIOR TO BACK FILLING. BACK-FILL SHALL CONSIST OF APPROVED MATERIAL SUCH AS EARTH, LOAM, SANDY CLAY, SAND, AND GRAVEL, OR SOFT SHALE, FREE FROM CLODS OR LARGE STONES OVER 2-1/2" MAX. DIMENSION. ALL BACK FILL SHALL BE PLACED IN COMPACTED LAYERS.
5. ALL FILL MATERIALS AND FOUNDATION BACK FILL SHALL BE PLACED IN MAXIMUM 6" THICK LIFTS BEFORE COMPACTION. EACH LIFT SHALL BE WETTED IF REQUIRED AND COMPACTED TO NOT LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR SOIL IN ACCORDANCE WITH ASTM D1557.
6. NEWLY PLACED CONCRETE FOUNDATION SHALL CURE A MINIMUM OF 72 HOURS PRIOR TO BACK-FILL.
7. FINISHED GRADING SHALL BE SLOPED TO PROVIDE POSITIVE DRAINAGE AND PREVENT STANDING WATER. THE FINAL (FINISH) ELEVATION OF SLAB FOUNDATION SHALL SLOPE AWAY IN ALL DIRECTIONS FROM THE CENTER. FINISH GRADE OF CONCRETE PADS SHALL BE A MINIMUM OF 4 INCHES ABOVE FINISH GRADE ELEVATIONS. PROVIDE SURFACE FILL GRAVEL TO ESTABLISH SPECIFIED ELEVATIONS WHERE REQUIRED.
8. NEWLY GRADED SURFACE AREAS TO RECEIVE GRAVEL SHALL BE COVERED WITH GEOTEXTILE FABRIC TYPE: TYPAR-3401 AS MANUFACTURED BY "CONSTRUCTION MATERIAL 1-800-239-3847" OR AN APPROVED EQUIVALENT, SHOWN ON PLANS. THE GEOTEXTILE FABRIC SHALL BE BLACK IN COLOR TO CONTROL THE RECURRENCE OF VEGETATIVE GROWTH AND EXTEND TO WITHIN 1 FOOT OUTSIDE THE SITE FENCING OR ELECTRICAL GROUNDING SYSTEM PERIMETER WHICH EVER IS GREATER. ALL FABRIC SHALL BE COVERED WITH A MINIMUM OF 4" DEEP COMPACTED STONE OR GRAVEL AS SPECIFIED, I.E. FOOT TYPE NO. 57 FOR FENCED COMPOUND, FOOT TYPE NO.67 FOR ACCESS DRIVE AREA.
9. IN ALL AREAS TO RECEIVE FILL, REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM VERTICAL TO 4 HORIZONTAL SUCH AS THAT FILL MATERIAL WILL BIND WITH EXISTING/PREPARED SOIL SURFACE.
10. WHEN SUB-GRADE OR PREPARED GROUND SURFACE HAS A DENSITY LESS THAN THAT REQUIRED FOR THE FILL MATERIAL, SCARIFY THE GROUND SURFACE TO DEPTH REQUIRED, PULVERIZE, MOISTURE-COONDITION AND/OR AERATE THE SOIL AND RECOMPACT TO THE REQUIRED DENSITY PRIOR TO PLACEMENT OF FILL.
11. IN AREAS WHICH EXISTING GRAVEL SURFACING IS REMOVED OR DISTURBED DURING CONSTRUCTION OPERATIONS, REPLACE GRAVEL SURFACING TO MATCH ADJACENT GRAVEL SURFACING AND RESTORED TO THE SAME THICKNESS AND COMPACTION AS SPECIFIED. ALL RESTORED GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES.
12. EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED WITH THE CONDITION THAT ANY UNFAVORABLE AMOUNTS OF ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ANY ADDITIONAL GRAVEL RESURFACING MATERIAL AS NEEDED TO PROVIDE A FULL DEPTH COMPACTED SURFACE THROUGHOUT SITE.
13. GRAVEL SUB SURFACE SHALL BE PREPARED TO REQUIRED COMPACTION AND SUB GRADE ELEVATIONS BEFORE GRAVEL SURFACING IS PLACED AND/OR RESTORED. ANY LOOSE OR DISTURBED MATERIALS SHALL BE THROUGHOUT COMPACTED AND ANY DEPRESSIONS IN THE SUB-GRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL SHALL NOT USED FOR FILLING DEPRESSIONS IN THE SUB-GRADE.
14. PROTECT EXISTING GRAVEL SURFACING AND SUB-GRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING "MATS" OR OTHER SUITABLE PROTECTION DESIGNED TO SPREAD EQUIPMENT LOADS AS MAY BE NECESSARY. REPAIR ANY DAMAGE TO EXISTING GRAVEL SURFACING OR SUB-GRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR'S OPERATIONS.
15. DAMAGE TO EXISTING STRUCTURES AND/OR UTILITIES RESULTING FROM CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AND/OR REPLACED TO OWNER'S SATISFACTION AT NO ADDITIONAL COST TO THE CONTRACT.
16. ALL SUITABLE BORROW MATERIAL FOR BACKFILL OF THE SITE SHALL BE INCLUDED IN THE BID EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES AT NO ADDITIONAL COST TO THE CONTRACT.

**CONCRETE AND REINFORCING STEEL**

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH CHAPTER 19 OF THE BUILDING CODE, ACI 318-16, ACI 301-16 AND THE "CAST-IN-PLACE CONCRETE SPECIFICATIONS".
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS UNLESS NOTED OTHERWISE.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE.
4. DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS SHALL BE PRE-FORMED IN ACCORDANCE WITH ACI 315 (DETAILS AND DETAILING OF CONCRETE REINFORCEMENT).
5. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
6. LAP SPLICES CLASS "B" AND ALL HOOKS SHALL BE STANDARD UNLESS NOTED OTHERWISE.
7. WATER MAY BE ADDED TO CONCRETE ON-SITE TO OBTAIN SPECIFIED SLUMPS PROVIDED THAT IT IS ADDED WITHIN ONE HOUR OF BATCHING AND SITE-ADDED WATER IS SPECIFIED ON THE BATCH REPORT. SITE-ADDED WATER SHALL NOT COMPROMISE THE STRENGTH OR SLUMP OF THE CONCRETE.
8. CONCRETE SHALL NOT BE PLACED BEYOND 1-1/2 HOURS FOLLOWING BATCHING.
9. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE UNLESS NOTED OTHERWISE IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
10. WHERE CONCRETE IS PLACED AGAINST EXISTING CONCRETE SURFACES, THE EXISTING CONCRETE SURFACES SHALL BE THOROUGHLY CLEANED AND ROUGHENED TO A MINIMUM AMPLITUDE OF 1/4-INCH. A CONCRETE BONDING AGENT SHALL BE APPLIED TO THE EXISTING CONCRETE SURFACE.
11. READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94.
12. FLYASH SHALL CONFORM TO ASTM C618, CLASS F. FLYASH SHALL BE LIMITED TO NO MORE THAN 20% OF THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS IN THE CONCRETE, UNLESS NOTED OTHERWISE.
13. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33.
14. NORMAL WEIGHT CONCRETE SHALL HAVE A MAXIMUM DRY DENSITY OF 150 PCF.
15. MINIMUM CONCRETE COMPRESSIVE STRENGTHS AT 28 DAYS, MAXIMUM SLUMPS, AND MAXIMUM WATER/CEMENT RATIOS SHALL BE 2,500 PSI, 4" +/- 1", AND 0.45.
16. SLUMPS INDICATED ARE PRIOR TO PLASTICIZER ADDITIVES.
17. CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED.
18. CONCRETE COVER FOR REINFORCEMENT STEEL SHALL BE ACCORDING TO ACI 318-19, TABLE 20.6.1.3.1:

CONCRETE EXPOSURE	MEMBER	REINFORCEMENT	SPECIFIED COVER, IN.
CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND	ALL	ALL	3
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	ALL	NO. 6 THROUGH NO.18 BARS NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER	1-1/2
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	SLABS, JOISTS, AND WALLS	NO. 14 AND NO.18 BARS NO.11 BAR AND SMALLER	1-1/2
	BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES	PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS	1-1/2

**CONCRETE MASONRY**

1. MORTAR SHALL BE HAVE TYPE "S" WITH A MINIMUM 1,500 PSI AT 28 DAYS. GROUT SHALL BE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS AND ALL GROUT SHALL BE CONSOLIDATED WITH A MECHANICAL VIBRATOR.
2. CONCRETE MASONRY UNITS SHALL BE MEDIUM WEIGHT (115 PCF) UNITS CONFORMS TO ASTM C90, GRADE N-1, 1' M OF 1,500 PSI.
3. ALL CELLS IN CONCRETE BLOCKS SHALL BE FILLED SOLID WITH GROUT, EXCEPT AS NOTED IN THE DRAWINGS OR SPECIFICATIONS. CELL SHALL BE IN VERTICAL ALIGNMENT. DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CORES CONTAINING STEEL. ALL BOND BEAM BLOCK SHALL BE "DEEP CUT" UNITS.
4. ALL CELLS CONTAINING REINFORCING STEEL OR EMBEDDED ITEMS AND ALL CELLS IN RETAINING WALLS AND WALLS BELOW GRADE SHALL BE SOLID GROUTED. ALL HORIZONTAL REINFORCING STEEL SHALL BE PLACED IN BOND OR Lintel BEAM UNITS.
5. WHEN GROUTING IS STOPPED FOR ONE LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE GROUT POUR 1-1/2" BELOW TOP OF THE UPPERMOST UNIT. LOW LIFT CONSTRUCTION, MAXIMUM GROUT POUR HEIGHT IS 4 FEET.
6. PROVIDE INSPECTION AND CLEAN OUT HOLES AT BASE OF VERTICAL CELLS HAVING GROUT LIFTS IN EXCESS OF 4'-0" OF HEIGHT.
7. PROVIDE ONE BAR DIAMETER (A MINIMUM OF 1/2") GROUT BETWEEN MAIN REINFORCING AND MASONRY UNITS.
8. SAND SHALL BE CLEAN, SHARP AND WELL GRADED, AND FREE FROM INJURIOUS AMOUNTS OF DUST, LUMPS, SHALE, ALKALI OR ORGANIC MATERIAL.
9. BRICK SHALL CONFORM TO ASTM C-62 AND SHALL BE GRADE MW OR BETTER.

**POST-INSTALLED ADHESIVE ANCHORS NOTES:**

1. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704 AND 1705 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.
2. ADHESIVE ANCHOR INSTALLERS SHALL BE TRAINED BY A QUALIFIED REPRESENTATIVE OF THE ADHESIVE MANUFACTURER ON THE PROPER PROCEDURES AND TECHNIQUES FOR INSTALLATION.
3. ADHESIVE SHALL BE STORED ON THE JOBSITE IN A COOL, DRY LOCATION IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS.
4. ADHESIVE ANCHORS SHALL NOT BE USED FOR OVERHEAD INSTALLATION.
5. POST-INSTALLED ADHESIVE ANCHORS SHALL BE AS FOLLOWS, U.N.O.

MATERIAL	ANCHOR
NW & LW CONCRETE	HILTI HIT-HY 200 (ESR-4868)

6. THREADED RODS FOR ADHESIVE ANCHORS SHALL CONFORM TO ASTM F1554 GR 36, U.N.O. NUTS FOR ANCHOR RODS SHALL CONFORM TO ASTM A563, GR A HEX.
7. ANCHORS SHALL BE OF THE TYPE, DIAMETER, AND MINIMUM DIMENSIONAL REQUIREMENTS (EMBEDMENT, SPACING, AND EDGE DISTANCE) AS INDICATED ON THE DRAWINGS.
8. ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH DRILLING EQUIPMENT OF THE TYPE REQUIRED IN THE MANUFACTURER'S PUBLISHED EVALUATION REPORT. HOLES SHALL BE CLEANED IN CONFORMANCE WITH THE ANCHOR MANUFACTURER'S INSTRUCTIONS.
9. WHEN INSTALLING ANCHORS IN EXISTING REINFORCED CONCRETE OR MASONRY, AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS.

CONTRA COSTA COUNTY  
BUILDING INSPECTION DIVISION  
PERMIT NUMBER  
**BIMIC22-009426**  
"THIS PERMIT IS VALID ONLY ON THE PREMISES AND ACCESSIBLE TO INSPECTORS AT ALL TIMES."  
11:52 am, Apr 24, 2023  
REVIEWED  
FOR COMPLIANCE WITH COUNTY BUILDING ORD. & CODES. THE STAMPING OF THIS DOCUMENT SHALL NOT BE HELD RESPONSIBLE FOR THE ENFORCEMENT OF THE VIOLATIONS BY ANY COUNTY DEPARTMENT OR STATE LAW ENFORCEMENT SHALL BE MADE WITHOUT ADVICE FROM FROM THE BUILDING OFFICE.  
By: Vikram Dhalwal

**Mastec As-Built**  
Sign *Goddard*  
Date 2-27-24

Prepared For:

**T-Mobile**  
1200 CONCORD AVENUE, SUITE 500  
CONCORD, CA 94520

Engineer:

**THE CBR GROUP**  
2840 HOWE ROAD, SUITE E  
MARTINEZ, CA 94553  
www.TheCBRGroup.com

T-Mobile ID:

BA61730S

Site Name:

VB: BRENTWOOD MONOPOLE

Site Address:

280 CAMINO DIABLO  
BRENTWOOD, CA 94513

Issued For:

CONSTRUCTION			
REV	DATE	DESCRIPTION	BY
D	03/14/2023	PLAN CHECK COMMENTS #2	WM
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Licenser:



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Sheet Title:

STRUCTURAL NOTES

Sheet Number:

**S-1**

Prepared For:  
**T-Mobile**  
 1200 CONCORD AVENUE, SUITE 500  
 CONCORD, CA 94520


Engineer:  
**THE CBR GROUP**  
 2840 HOWE ROAD, SUITE E  
 MARTINEZ, CA 94553  
 www.TheCBRGroup.com

T-Mobile ID:  
 BA617305  
 Site Name:  
 VB: BRENTWOOD MONOPOLE  
 Site Address:  
 280 CAMINO DIABLO  
 BRENTWOOD, CA 94513

Issued For:  
**CONSTRUCTION**

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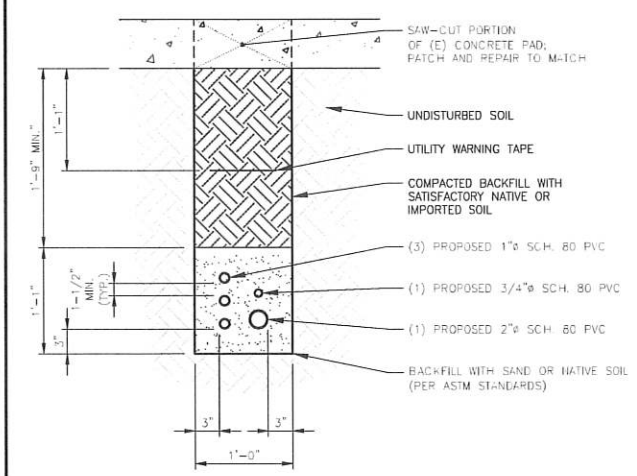
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Licenser:  
  
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Sheet Title:  
**STRUCTURAL DETAILS**

Sheet Number:  
**S-2**

CONTRA COSTA COUNTY  
 BUILDING INSPECTION DIVISION  
 PERMIT NUMBER  
 BIMIC22-009426  
 THIS PLAN MUST BE KEPT ON THE PREMISES AND ACCESSIBLE TO INSPECTORS AT ALL TIMES.  
 11:52 am, Apr 24, 2023  
 REVIEWED  
 FOR COMPLIANCE WITH COUNTY WELDING ORD. & CODES THE DRAFTING OF THIS DOCUMENT SHALL NOT BE HELD RESPONSIBLE TO BE AN APPROVAL OF THE VIOLATION OF ANY COUNTY ORDINANCE OR STATE LAW. REVISIONS SHALL BE MADE WITHOUT AN INDICATION FROM THE BUILDING OFFICIAL.  
 By: Vikram Dhalwal



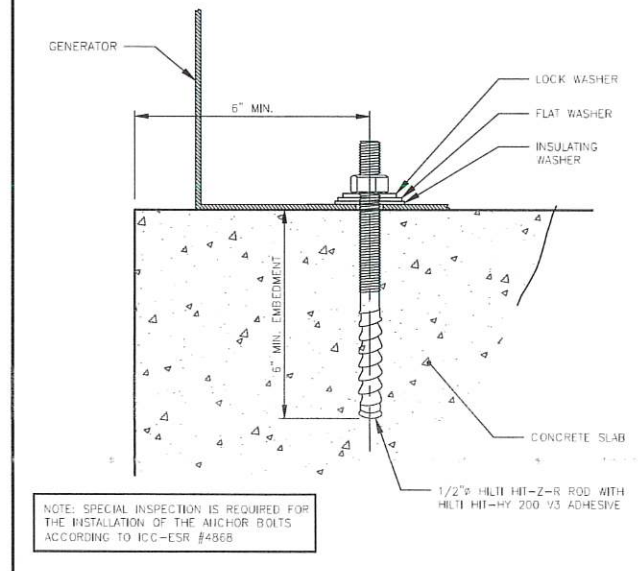
SCALE: 5 TRENCH DETAIL N.T.S. 2

**CONCRETE AND REINFORCING STEEL NOTES:**

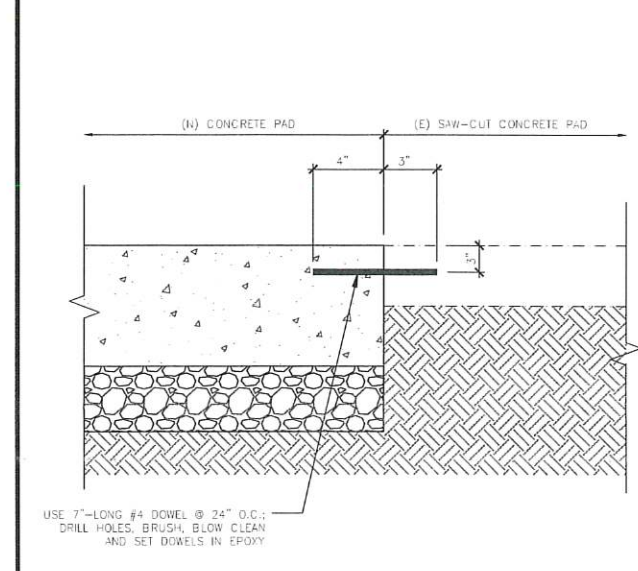
- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION PER CAST-IN-PLACE CONCRETE.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE.
- REINFORCING STEEL SHALL 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.
- 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 & WAF .....1 1/2 IN.  
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:  
 SLAB AND WALL .....3/4 IN.  
 BEAMS AND COLUMNS .....1 1/2 IN.
- A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR SHALL BE PER MANUFACTURER'S WRITTEN 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 ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL, UNLESS NOTED OTHERWISE. SPECIAL INSPECTIONS, WHEN REQUIRED BY GOVERNING CODES SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MINIMUM ALLOWABLE LOADS.
- GRAVEL SHALL BE NATURAL OR CRUSHED STONE WITH 100% PASSING 1 INCH SIEVE.
- DIMENSIONS SHOWN ARE EXACT MINIMUM PAD SIZES REQUIRED FOR EQUIPMENT LAYOUTS - CONTRACTOR MAY ROUND UP TO THE NEAREST FOOT (OR HALF FOOT) IF LEASE AREA AND SPACE PERMIT.

SCALE: 7 CONCRETE PAD DETAIL N.T.S. 1

Mastec As-Built  
 Sign Gold Gold  
 Date 2-27-24



SCALE: 10 GENERATOR ANCHORAGE DETAIL N.T.S. 7



SCALE: 10 (N) TO (E) CONCRETE PAD DETAIL N.T.S. 10

SCALE: 12 NOT USED N.T.S.

SCALE: 9 NOT USED N.T.S.

SCALE: 6 NOT USED N.T.S.

SCALE: 3 NOT USED N.T.S.

SCALE: 11 NOT USED N.T.S.

SCALE: 8 NOT USED N.T.S.

SCALE: 5 NOT USED N.T.S.

SCALE: 2 TRENCH DETAIL N.T.S.



NOTES:

1. ALL SERVICE EQUIPMENT AND INSTALLATIONS SHALL COMPLY WITH NEC, UTILITY COMPANY AND LOCAL CODE REQUIREMENTS.
2. WIRES TO END OF FLEXIBLE NONMETALLIC CONDUIT. COIL 3"-0" AT END OF FLEXIBLE NONMETALLIC CONDUIT & TAG.
3. PULL ONE GROUND CONDUCTOR PER FLEXIBLE NONMETALLIC CONDUIT. FOR ALL OTHER CIRCUITS PULL A SEPARATE CONDUCTOR.
4. ALL GFCI RECEPTACLES TO HAVE A DEDICATED GROUND WIRE.
5. EQUIPMENT TERMINATION LUGS AND CONDUCTORS ARE RATED AT A MINIMUM OF 75° C.
6. KAIC OF NEW BREAKER (S) TO MATCH EXISTING.
7. CONTRACTOR TO VERIFY NUMBER AND SIZE OF ALL CIRCUITS REQUIRED WITH T-MOBILE PRIOR TO START CONSTRUCTION.

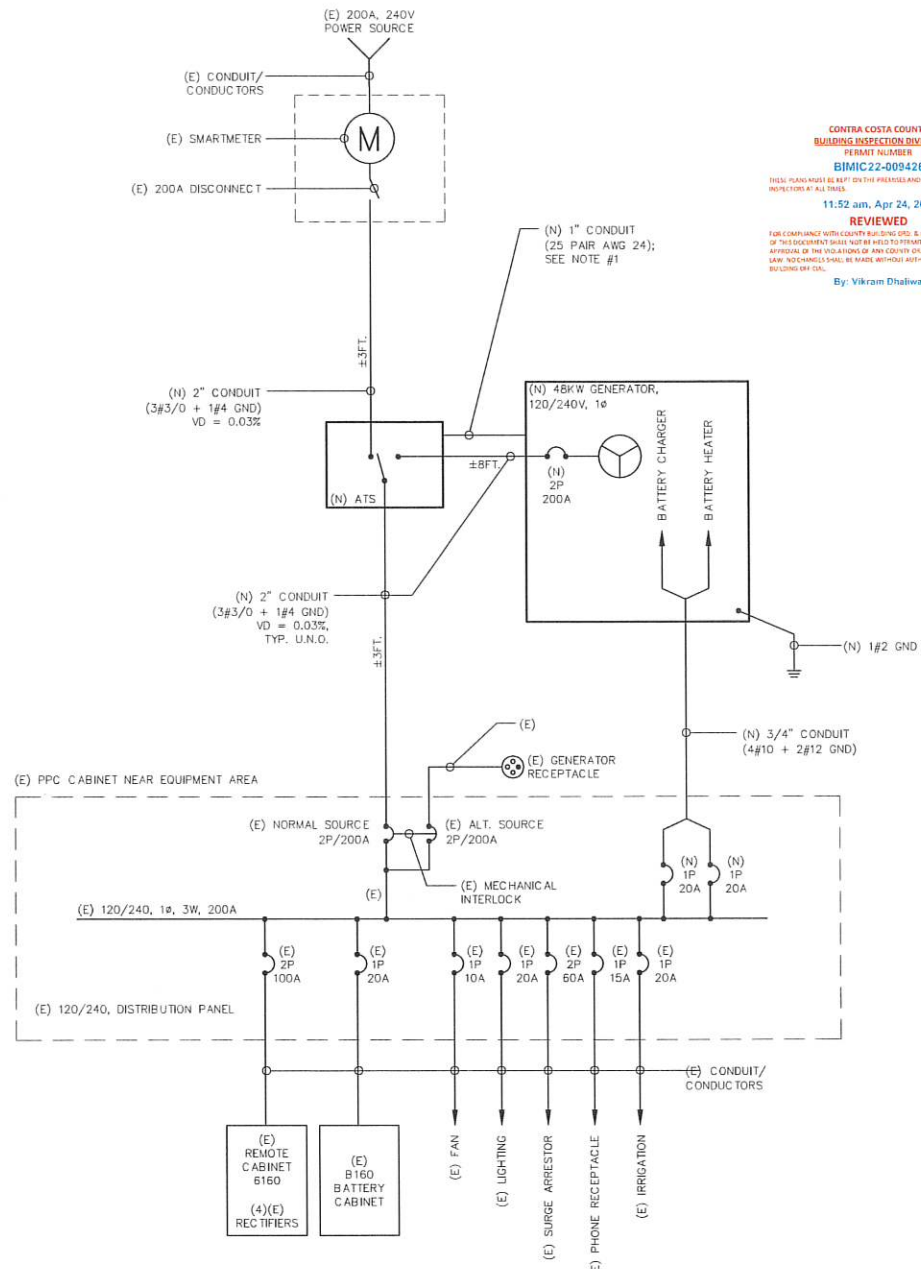
LOAD	DESCRIPTION	POLE	LOAD PER PHASE (VA)		TRIP	LOAD PER PHASE (VA)		POLE	DESCRIPTION
			A	B		A	B		
1	SPARE	1			60	3600		2	(E) SURGE ARRESTOR
2	(E) B160 BATTERY CABINET	1	1200		20	3600		2	
3	(H) BATTERY CHARGER	1	360		*20	8640		2	(E) REMOTE CABINET 6160
4	(H) BATTERY HEATER	1	360		*20	8640		2	
5	(E) FAN	1	200		10	180		1	(E) PHONE RECEPTACLE
6	(E) LIGHTING	1	300		20	1000		1	(E) IRRIGATION
SUBTOTAL CONTINUOUS			1860	560		12240	13240	SUBTOTAL CONTINUOUS (x 1.25)	
SUBTOTAL NON-CONTINUOUS			0	0		180	0	SUBTOTAL NON-CONTINUOUS	
PANEL DESIGNATION: ELECTRICAL PANEL (ITEM 1)      MAIN LUGS: N/A									
MAIN BREAKER:		200 AMP	CYCLE:		60	VOLTAGE:		120/240	TOTAL VA
MAIN BREAKER A.I.C. RATING:		65,000 A.I.C.	PHASE:		1	TOTAL VA		35055	
BRANCH BREAKER A.I.C. RATING:		10,000 A.I.C.	WIRES:		3	NEUTRAL:		200 AMPS	TOTAL AMPS
BRANCH BREAKER TYPE:		-	MAIN COPPER BUS:		200 AMP	TOTAL VA		146.1	

- ASSUMED LOAD FOR (E) BREAKER
- (N) BREAKER IN (E) DISTRIBUTION PANEL
- ① ADD (N) 20A-1P BREAKER AT POSITION 1 FOR (N) BATTERY CHARGER AND ADD (N) 20A-1P BREAKER AT POSITION 2 FOR (H) BATTERY HEATER.

Mastec As-Built  
 Sign *Gabe Cohen*  
 Date 2-27-24

**1** EXISTING PANEL SCHEDULE WITH NEW LOAD  
 N.T.S.

**2** SINGLE LINE DIAGRAM  
 N.T.S.



CONTRA COSTA COUNTY  
 BUILDING INSPECTION DIVISION  
 PERMIT NUMBER  
 BIMIC22-009426  
 11:52 am, Apr 24, 2023  
 REVIEWED  
 FOR COMPLIANCE WITH CALIFORNIA BUILDING & CODES. THE STAMPING OF THIS DOCUMENT SHALL NOT BE HELD TO BE AN APPROVAL OF THE VIOLATIONS OF ANY OTHER ORDINANCE OF STATE LAW. NO CHANGES SHALL BE MADE WITHOUT AUTHORIZATION FROM THE BUILDING DEPT.  
 By: Vikram Dhalwal

- NOTES:
1. FOR START-UP AND CONTROL, REFER TO SPECIFICATIONS OF GENERATOR AND ATS FOR CONNECTION.
  2. THE GENERATOR IS FURNISHED WITH A DISTRIBUTION CIRCUIT BREAKER LOCKABLE IN THE OPEN POSITION.
  3. CONTROL WIRING PROVIDED AND TERMINATED BY GENERAC.

Prepared For:  
**T-Mobile**  
 1200 CONCORD AVENUE, SUITE 500  
 CONCORD, CA 94520

Engineer:  
**THE CBR GROUP**  
 2840 HOWE ROAD, SUITE E  
 MARTINEZ, CA 94553  
 www.TheCBRGroup.com

T-Mobile ID:  
 BA617305  
 Site Name:  
 VB: BRENTWOOD MONOPOLE  
 Site Address:  
 280 CAMINO DIABLO  
 BRENTWOOD, CA 94513

Issued For:  
 CONSTRUCTION

REV	DATE	DESCRIPTION	BY
B	07/29/2022	100%CDs FOR REVIEW	ALR
A	06/28/2022	90%CDs FOR REVIEW	TK

Jurisdiction:

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.

Licenser:  

 JAMES D. BURWOOD  
 No. 19043  
 ELECTRICAL ENGINEER  
 STATE OF CALIFORNIA

Sheet Title:  
**PANEL SCHEDULE AND SINGLE LINE DIAGRAM**

Sheet Number:  
**E-2**

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NOT USED SCALE: N.T.S. 12

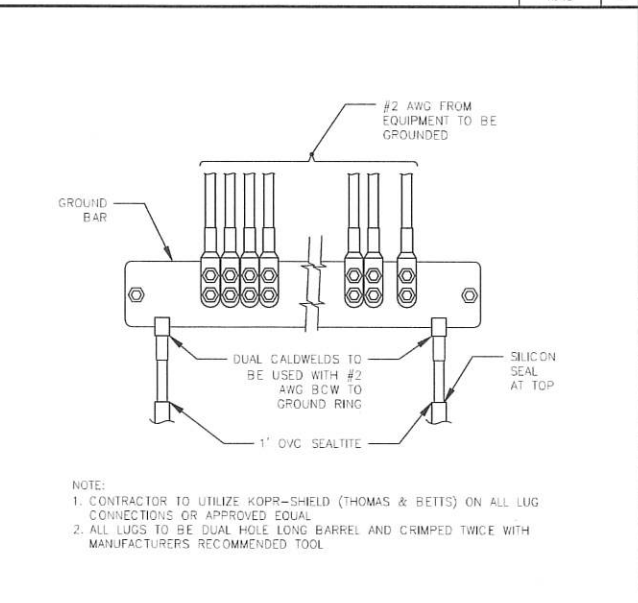
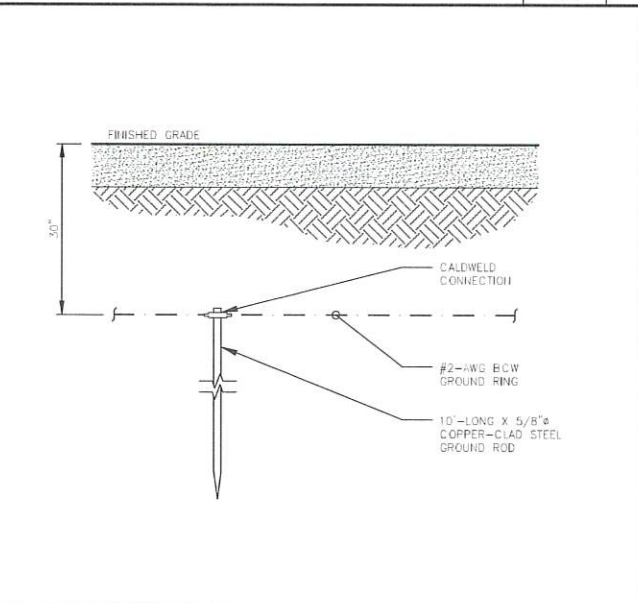
**GROUND RING TRENCH DETAIL**

SCALE: N.T.S. 9

**EXOTHERMIC WELD CONNECTION**

SCALE: N.T.S. 6

CONTRA COSTA COUNTY  
BUILDING INSPECTION DIVISION  
PERMIT NUMBER  
**BIMIC22-009426**  
THIS PLAN MUST BE KEPT ON THE PREMISES AND ACCESSIBLE TO INSPECTORS AT ALL TIMES  
11:52 am, Apr 24, 2023  
**REVIEWED**  
FOR COMPLIANCE WITH COUNTY BUILDING DEPT. & CODES. THE STAMPING OF THIS DOCUMENT DOES NOT BE HELD RESPONSIBLE FOR THE APPROVAL OF THE VIOLATIONS OF ANY COUNTY ORDINANCE OR STATE LAW. THIS REVIEW SHALL BE MADE WITHOUT AUTHORIZATION FROM THE BUILDING OFFICE.  
By: Vikram Dhalwal



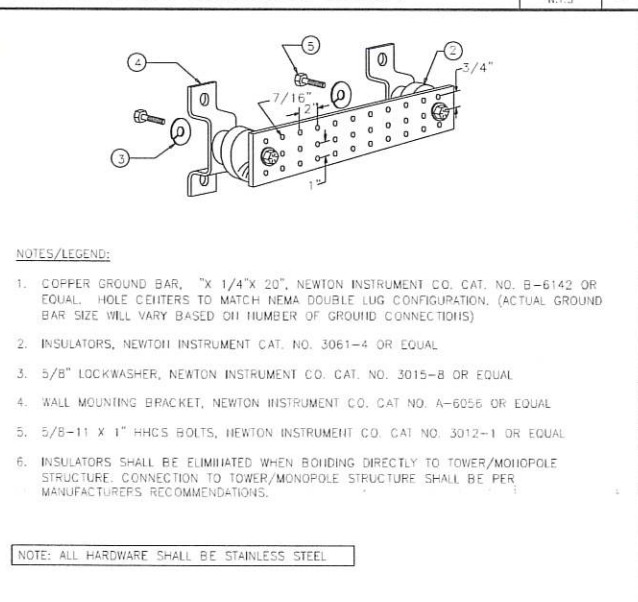
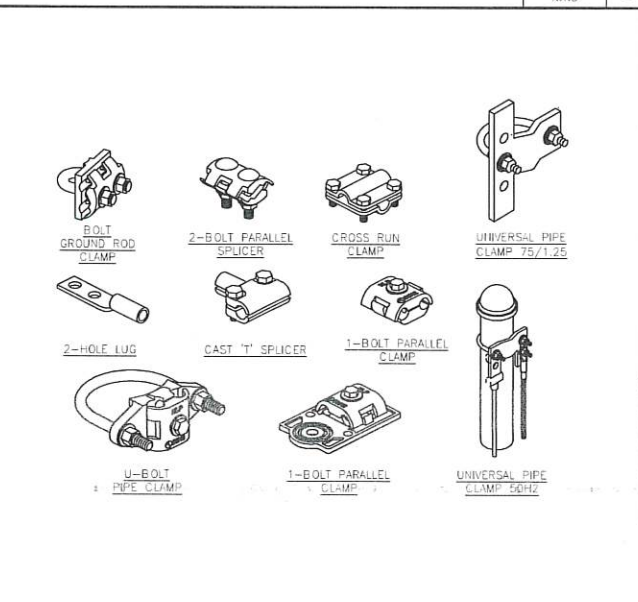
NOT USED SCALE: N.T.S. 11

**GROUND ROD DETAIL**

**GROUND BAR CONNECTION DETAIL**

SCALE: N.T.S. 5

**Mastec As-Built**  
Sign Coall Coall  
Date 2-27-24



1. ALL HARDWARE 18-8 STAINLESS STEEL, INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8 INCH DIAMETER OR LARGER.
2. FOR GROUND BOND TO STEEL ONLY: INSERT A CALCIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. WHEN THE SCOPE OF WORK REQUIRES THE ADDITION OF A GROUNDING BAR TO AN EXISTING TOWER, THE SUBCONTRACTOR SHALL OBTAIN APPROVAL FROM THE TOWER OWNER PRIOR TO MOUNTING THE GROUNDING BAR TO THE TOWER.
4. ALL DETAILS ARE SHOWN ON GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
5. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING #2 GROUND WIRES AND CONNECT TO SURFACE MOUNTED GROUND BUS BARS AS SHOWN. FOLLOW ANTENNA AND BTS MANUFACTURER'S PRACTICES FOR GROUNDING REQUIREMENTS. GROUND COAX SHIELD AT BOTH ENDS USING MANUFACTURER'S PRACTICES. ALL UNDERGROUND WATER PIPES, METAL CONDUITS AND GROUNDS THAT ARE A PART OF THIS SYSTEM SHALL BE BONDED TOGETHER.
6. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE, 5 OHMS MAXIMUM. PROVIDE SUPPLEMENTAL GROUNDING RODS AS REQUIRED TO ACHIEVE SPECIFIED OHMS READING. GROUNDING AND OTHER OPTIONAL TESTING WILL BE WITNESSED BY THE T-MOBILE REPRESENTATIVE.
7. NOTIFY ENGINEER OF RECORD IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
8. BARE GROUNDING CONDUCTOR SHALL BE HARD DRAWN TINNED COPPER SIZES AS NOTED ON PLAN.
9. ALL HORIZONTALLY RUN GROUNDING CONDUCTORS SHALL BE INSTALLED MINIMUM 12\"/>
- 10. ALL GROUND CONDUCTORS SHALL BE RUN AS STRAIGHT AND SHORT AS POSSIBLE, WITH A MINIMUM 12\"/>
- 11. ALL SUPPORT STRUCTURES, CABLE CHANNEL WAYS OR WIRE GUIDES SHALL BE BONDED TO GROUND SYSTEM AT A POINT NEAREST THE MAIN GROUNDING BUS "MGB" (OR DIRECTLY TO GROUND-RING).
- 12. ACCEPTABLE CONNECTIONS FOR GROUND SYSTEM SHALL BE:
  - a. BURNDY, HY-GRADE U.L. LISTED CONNECTORS FOR INDOOR USE OR AS APPROVAL BY T-MOBILE.
  - b. COLDWELD, EXOTHERMIC WELD (WELDED CONNECTIONS)
  - c. TWO - (2) HOLE TINNED COPPER COMPRESSION (LONG BARREL) FITTINGS (BUS BAR CONNECTIONS)
- 13. ALL CRIMPED CONNECTIONS SHALL HAVE EMBOSSED MANUFACTURER'S DIEMARK VISIBLE AT THE CRIMP (RESULTING FROM USE OF PROPER CRIMPING DEVICE). PRIOR TO ANY LUG-BUSBAR CONNECTIONS, THE BUSBAR SHALL BE CLEANED BY USE OF "SCOTCH-BRITE" OR PLAIN STEEL WOOL AS TO REMOVE ALL SURFACE OXIDATION AND CONTAMINANTS. A COATING OF "NO-OX-ID" SHALL BE APPLIED TO THE CONNECTION SURFACES. ALL CONNECTION HARDWARE SHALL BE TYPE 316 SS (NOT ATTRACTED TO MAGNETS).
- 14. ELECTRICAL SERVICE EQUIPMENT GROUNDING SHALL COMPLY WITH CEC AND SHALL BOND ALL EXISTING AND NEW GROUNDING ELECTRODES. NEW GROUNDING ELECTRODE SHALL INCLUDE BUT NOT LIMITED TO GROUND RODS, GROUND RING IF SERVICE IS WITHIN THE RADIO EQUIPMENT LOCATION, BUILDING STEEL IF APPLICABLE, COLD WATER CONNECTIONS MUST BE MADE ON THE STREET SIDE OF MAIN SHUT-OFF VALVE.
- 15. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION ACCORDING TO SITE CONDITIONS.
- 16. ALL GROUNDING CONDUCTORS: #2 AWG SOLID BARE TINNED COPPER WIRE UNLESS OTHERWISE NOTED.
- 17. GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED, FURNISHED AND INSTALLED BY THE VENDOR.
- 18. GROUND RING SHALL BE LOCATED A MINIMUM OF 24\"/>
- 19. INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1'-0\"/>
- 20. EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST; TREAT WITH A COLD GALVANIZED SPRAY.
- 21. GROUND BARS: A. EQUIPMENT GROUND BUS BAR (EGB) LOCATED AT BOTTOM OF ANTENNA POLY/MAST FOR MAKING GROUNDING JUMPER CONNECTIONS TO COAX FEEDER CABLES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. JUMPERS (FURNISHED BY OWNERS) SHALL BE INSTALLED AND CONNECTED BY ELECTRICAL CONTRACTOR. B. MAIN GROUND BUS BAR (MGB) LOCATED NEAR THE BASE OF THE RADIO EQUIPMENT CABINET(S) SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- 22. ALL GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.
- 23. FOLLOW C.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.
- 24. GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED (2 MINIMUM).
- 25. IF EQUIPMENT IS IN A C.L. FENCE ENCLOSURE, GROUND ONLY CORNER POSTS AND SUPPORT POSTS OR GATE. IF CHAIN LINK IS USED, THEN GROUND LID ALSO.
- 26. GROUNDING @ PPC CABINET SHALL BE VERTICALLY INSTALLED.
- 27. ALL GROUNDING FOR ANTENNAS SHALL BE CONNECTED SO THAT IT WILL BY-PASS MAIN BUSS BAR.
- 28. ALL EMT RIGS SHALL BE GROUNDED AND HAVE A BUSHING, NO PVC ABOVE GROUND.
- 29. USE SEPARATE HOLES FOR GROUNDING @ BUSS BAR. NO "DOUBLING-UP" OF LUGS.
- 30. POWER AND TELCO CABS SHALL BE GROUNDED (BONDED) TOGETHER.
- 31. NO "L" AND "B" ALLOWED ON GROUNDING.
- 32. PROVIDE STAINLESS STEEL CLAM AND BRASS TAGS ON COAX @ ANTENNAS AND DOGHOUSE.

NOT USED SCALE: N.T.S. 10

**MECHANICAL CONNECTION**

**GROUND BAR DETAIL**

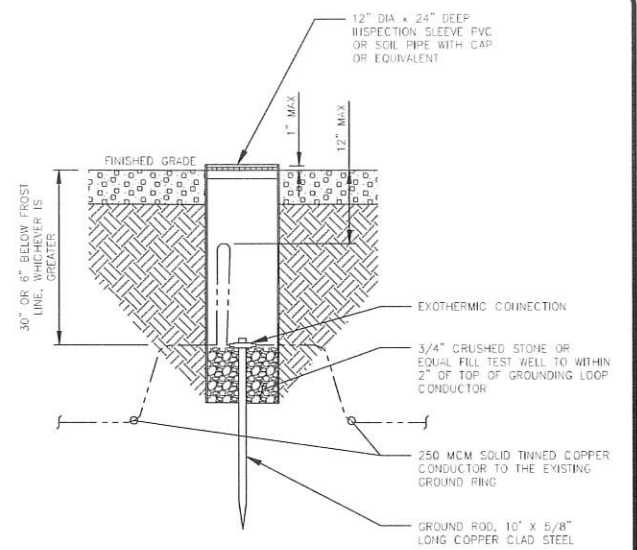
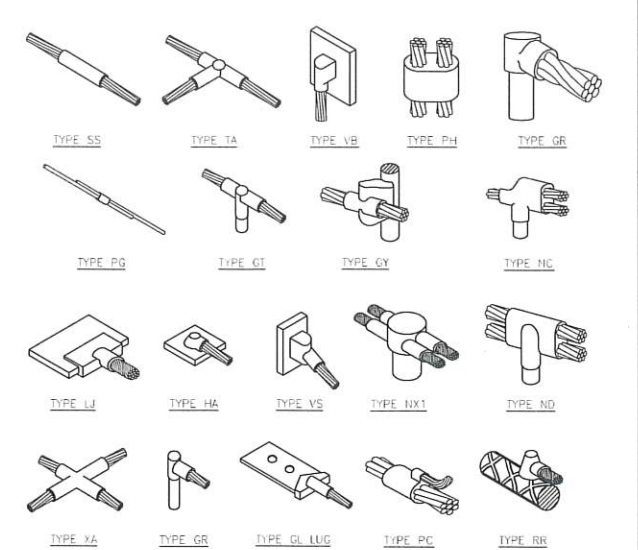
SCALE: N.T.S. 7

NOT USED SCALE: N.T.S. 10

**MECHANICAL CONNECTION**

**GROUND BAR DETAIL**

SCALE: N.T.S. 4



Prepared For:  
**T-Mobile**  
1200 CONCORD AVENUE, SUITE 500  
CONCORD, CA 94520

Engineer:  
**THE CBR GROUP**  
2840 HOWE ROAD, SUITE E  
MARTINEZ, CA 94553  
www.TheCBRGroup.com

T-Mobile ID:  
BA61730S

Site Name:  
VB: BRENTWOOD MONOPOLE

Site Address:  
280 CAMINO DIABLO  
BRENTWOOD, CA 94513

Issued For:  
**CONSTRUCTION**

REV	DATE	DESCRIPTION	BY
B	07/29/2022	300%CDs FOR REVIEW	ALR
A	06/28/2022	90%CDs FOR REVIEW	TK

Jurisdiction:  
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Licenser:  
**REGISTERED PROFESSIONAL ENGINEER**  
JAMES DRUMMOND  
No. E-19043  
Exp. 3/31/24  
ELECTRICAL  
STATE OF CALIFORNIA  
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:  
**ELECTRICAL DETAILS**

Sheet Number:  
**E-3**

**1** **GROUNDING NOTES**  
N.T.S.