Verizon

VERIZON SITE NUMBER: 300189

SHEET#

MURPHY AVENUE - SITE ADDRESS:

BUSINESS UNIT #:877196

13145 MURPHY AVE SAN MARTIN, CA 95046

SANTA CLARA

COUNTY OF SANTA CLARA

VERIZON SITE NAME:

BATTAGLIA RANCH A - C COUNTY:

DRAWING INDEX

SHEET DESCRIPTION

MONOPOLE

TITLE SHEET

PARCEL PLAN

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EQUIPMENT DETAILS

ELECTRICAL DETAILS

ELECTRICAL DETAILS

GROUNDING DETAILS

GROUNDING DETAILS

ANTENNA PLANS

EXISTING COMPOUND PLAN

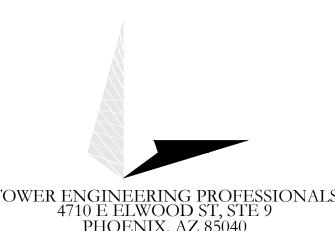
PROPOSED COMPOUND PLAN

JURISDICTION: 35'-0" MODIFIED TO 50'-0"

VERIZON FUZE PROJECT#: 16119501

BELLEVUE, WA 98008





VERIZON SITE NUMBER:

BU #: **877196**

13145 MURPHY AVE

EXISTING 35'-0" MODIFIED

ISSUED FOR:					
REV	DATE	DRWN	DESCRIPTION	DES./QA	
В	10/21/21	GVM	PRELIMINARY	JFJ	
0	03/09/22	DRS	CONSTRUCTION	JFJ	
1	06/03/22	ORG	CONSTRUCTION	JFJ	
2	08/31/22	ORG	CONSTRUCTION	JFJ	
3	11/17/22	KRS	CONSTRUCTION	JFJ	

4710 E ELWOOD ST, STE 9 PHOENIX, AZ 85040 OFFICE: (480) 285-0036

300189

101 AUTO REPAIR

SAN MARTIN, CA 95046

TO 50'-0" MONOPOLE

ISSUED FOR:				
DATE	DRWN	DESCRIPTION	DES./QA	
10/21/21	GVM	PRELIMINARY	JFJ	
03/09/22	DRS	CONSTRUCTION	JFJ	
06/03/22	ORG	CONSTRUCTION	JFJ	
08/31/22	ORG	CONSTRUCTION	JFJ	
11/17/22	KRS	CONSTRUCTION	JFJ	
	10/21/21 03/09/22 06/03/22 08/31/22	DATE DRWN 10/21/21 GVM 03/09/22 DRS 06/03/22 ORG 08/31/22 ORG	DATE DRWN DESCRIPTION 10/21/21 GVM PRELIMINARY 03/09/22 DRS CONSTRUCTION 06/03/22 ORG CONSTRUCTION 08/31/22 ORG CONSTRUCTION	

LOCATION MAP J-Save Moving & NO SCALE

DRIVING DIRECTIONS FROM VERIZON LOCAL OFFICE (VERIZON, 6965 CAMINO ARROYO, GILROY, CA 95020,) HEAD SOUTH TOWARD CAMINO ARROYO. TURN RIGHT. TURN LEFT TOWARD CAMINO ARROYO. TURN LEFT TOWARD CAMINO ARROYO. TURN LEFT ONTO CAMINO ARROYO. USE THE 3RD FROM THE LEFT LANE TO TURN LEFT AT THE 1ST CROSS STREET ONTO CA-152 W. TURN RIGHT TO MERGE WITH US-101 N. FOLLOW US-101 N TO E SAN MARTIN AVE IN SAN MARTIN. TAKE EXIT 362 FROM US-101 N. MERGE WITH US-101 N. TAKE EXIT 362 FOR SAN MARTIN AVE. CONTINUE ON E SAN MARTIN AVE. DRIVE TO MURPHY AVE . TURN LEFT ONTO E SAN MARTIN AVE. TURN LEFT ONTO MURPHY AVE. DESTINATION WILL BE ON THE RIGHT.

SITE INFORMATION

13145 MURPHY AVE

SAN MARTIN, CA 95046

CROWN CASTLE USA INC. SITE NAME:

SITE ADDRESS:

SITE TYPE:

101 AUTO REPAIR

TOWER HEIGHT:

SANTA CLARA COUNTY: MAP/PARCEL #: AREA OF CONSTRUCTION: **EXISTING** LATITUDE: 37° 5' 6.61"

-121° 36' 4.79" LONGITUDE: NAD83 LAT/LONG TYPE: GROUND ELEVATION 285 FT **CURRENT ZONING:**

COUNTY OF SANTA CLARA JURISDICTION:

OCCUPANCY CLASSIFICATION: U

TYPE OF CONSTRUCTION:

A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR

HUMAN HABITATION PROPERTY OWNER: SUMNER LEASING LLC

CARRIER/APPLICANT:

TELCO PROVIDER:

TOWER OWNER:

13145 MURPHY AVE SAN MARTIN, CA 95046 CROWN CASTLE

14301 HACIENDA DR SUITE 104

PLEASANTON, CA 94588 **VERIZON WIRELESS**

3245 158TH AVENUE MS 231 BELLEVUE, WA 98008

ELECTRIC PROVIDER:

PACIFIC GAS & ELECTRIC

(800) 743-5000

TBD

APPROVALS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR

XISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE

AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN

WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING

WITH THE WORK OR BE RESPONSIBLE FOR SAME.

DATE SIGNATURE

PROJECT TEAM

A&E FIRM:

TOWER ENGINEERING PROFESSIONALS 4710 E ELWOOD ST, STE 9

PHOENIX, AZ 85040 OFFICE: (480) 285-0036

CROWN CASTLE USA INC. DISTRICT CONTACTS:

---- - PROJECT MANAGER

---- - CONSTRUCTION MANAGER

SABRINA LANCASTER SABRINA. LANCASTER@CROWN CASTLE.COM

CONTRACTOR PMI REQUIREMENTS

https://pmi.vxwsmart.com PMI ACCESSED AT SMART TOOL VENDOR PROJECT NUMBER 16119501 VzW LOCATION CODE (PSLC) 300189

*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT

MOUNT MODIFICATION REQUIRED

VzW APPROVED SMART KIT VENDORS

REFER TO MOUNT MODIFICATION DRAWINGS PAGE FOR VzW SMART KIT APPROVED VENDORS

APPLICABLE CODES/REFERENCE **DOCUMENTS**

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

> CODE TYPE CODE BUILDING 2019 CBC/2018 IBC **MECHANICAL** 2019 CMC/2018 IMC ELECTRICAL 2019 CEC/2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: BLACK & VEATCH CORP.

DATED: 08/23/2021 MOUNT ANALYSIS: BY OTHERS

DATED:

REVISION: 1

RFDS REVISION: 1 DATED: 05/13/2021 ORDER ID: 582266

> CALL CALIFORNIA ONE CALL (800) 227-2600 CALL 3 WORKING DAYS

> > BEFORE YOU DIG!

PROJECT DESCRIPTION

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

TOWER SCOPE OF WORK:

- INSTALL (9) ANTENNAS
- INSTALL (6) RADIOS
- INSTALL (1) OVP BOX
- INSTALL (3) DUAL ANTENNA BRACKETS • INSTALL (1) COMPACT MOUNT
- INSTALL (1) MOUNT ADAPTER
- INSTALL 15' TOWER EXTENSION

GROUND SCOPE OF WORK:

- INSTALL (1) VERIZON 10'-0"X 7'-0" CONCRETE PAD
- INSTALL (1) VERIZON 11'-0"X 7'-0" CONCRETE PAD
- INSTALL (1) VERIZON RF CABINET
- INSTALL (1) VERIZON BATTERY CABINET • INSTALL (1) VERIZON GPS ANTENNA
- INSTALL (2) VERIZON SERVICE LIGHTS
- INSTALL (1) VERIZON H-FRAME
- INSTALL (1) VERIZON FIBER DISTRIBUTION BOX
- INSTALL (1) VERIZON H-FRAME MOUNTED ATS
- INSTALL (1) VERIZON H-FRAME MOUNTED PPC
- INSTALL (3) VERIZON 1-5/8" HYBRID LINE (SHARED)
- INSTALL (1) VERIZON DUS41 UNIT WITHIN RF CABINET
- INSTALL (1) VERIZON 2" CONDUIT FOR POWER • INSTALL (2) VERIZON 4" CONDUIT FOR HYBRID
- INSTALL (1) VERIZON 30KW GENERATOR
- REMOVE EXISTING CURB

Dan A. Reidenbach, P.E. Professional Engineer License: #92372

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

SHEET NUMBER:

REVISION:

11/17/22

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

- 1. NOTICE TO PROCEED- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
- 2. "LOOK UP" CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT
- THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS. AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED-STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION)
- 5. ALL SITE WORK TO COMPLY WITH QAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- 11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- 12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY
- 13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES
- 14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- 15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- 16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED URFACE APPLICATION.
- 17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- 18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- 19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION
- 20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- 22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION CONTRACTOR:
- CARRIER: VERIZON TOWER OWNER: CROWN CASTLE USA INC.
- 2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS. METHODS. TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING
- WITH ANY SUCH CHANGE OF INSTALLATION. 11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN
- DRAWINGS 12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY
- DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC. 13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- 14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEFL:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE. 2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED
- TO BE 1000 psf. 3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
- #4 BARS AND SMALLER... #5 BARS AND LARGER....
- .60 ksi THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH... CONCRETE EXPOSED TO EARTH OR WEATHER: #6 BARS AND LARGER ...
- #5 BARS AND SMALLER... .1-1/2" CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
- SLAB AND WALLS BEAMS AND COLUMNS ..
- 7. A TOOLED EDGE OR 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.

GREENFIELD GROUNDING NOTES:

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL—OF—POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE
- 4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. 11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- 12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS. 13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- 14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- 15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- 16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- 17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC. 18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- 19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- 20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
- 21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

ELECTRICAL INSTALLATION NOTES:

CIRCUIT ID'S).

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED
- AND TRIP HAZARDS ARE ELIMINATED. 3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- 4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO
- REQUIREMENT OF THE NATIONAL ELECTRICAL CODE. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT
- ADOPTED CODE PRE THE GOVERNING JURISDICTION. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE
- LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE
- CONFIGURATION. WIRE CONFIGURATION. POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS 8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- 10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- 11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- 12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TO CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- 13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
- 14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE
- 15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS
- 16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS. 17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE
- GRADE PVC CONDUIT. 18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION
- OCCURS OR FLEXIBILITY IS NEEDED. 19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET
- SCREW FITTINGS ARE NOT ACCEPTABLE. 20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND
- 21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS
- (WIREMOLD SPECMATE WIREWAY).
- 22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- 23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE. MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED
- MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE 24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY—COATED OR NON—CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- 26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED 🖡 NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- 27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- 28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY. 29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "VERIZON".
- 30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

COND	UCTOR COL	OR CODE	
SYSTEM	CONDUCTOR	COLOR	
	A PHASE	BLACK	
120/240V, 1Ø	B PHASE	RED	
120/2400, 10	NEUTRAL	WHITE	
	GROUND	GREEN	
	A PHASE	BLACK	
	B PHASE	RED	
120/208V, 3Ø	C PHASE	BLUE	
	NEUTRAL	WHITE	
	GROUND	GREEN	
	A PHASE	BROWN	
	B PHASE	ORANGE OR PURPLE	
277/480V, 3Ø	C PHASE	YELLOW	
	NEUTRAL	GREY	
	GROUND	GREEN	
DC VOLTAGE	POS (+)	RED**	
DC VOLIAGE	NEG (-)	BLACK**	

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

FACILITY INTERFACE FRAME

LONG TERM EVOLUTION

NATIONAL ELECTRIC CODE

MASTER GROUND BAR

RADIO BASE STATION

REMOTE ELECTRIC TILT

REMOTE RADIO HEAD

REMOTE RADIO UNIT

RADIO FREQUENCY DATA SHEET

SMART INTEGRATED DEVICE

TOWER MOUNTED AMPLIFIER

UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM

GLOBAL POSITIONING SYSTEM

GLOBAL SYSTEM FOR MOBILE

** POLARITY MARKED AT TERMINATION

ABBREVIATIONS:

GEN

GPS

GSM

LTE

MGB

MW

NEC

QTY

RECT

RBS

RET

RFDS

RRU

SIAD

TMA

TYP

UMTS

W.P.

ANTENNA EXISTING

GENERATOR

MICROWAVE

PROPOSED

QUANTITY

RECTIFIER

TYPICAL

WORK POINT

POWER PLANT

APWA UNIFORM COLOR CODE:

WHITE PROPOSED EXCAVATION TEMPORARY SURVEY MARKINGS LECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES

GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS

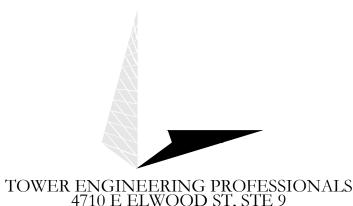
POTABLE WATER ECLAIMED WATER, IRRIGATION, AND SLURRY LINES

SEWERS AND DRAIN LINES

BELLEVUE, WA 98008



PLEASANTON, CA 94588



VERIZON SITE NUMBER: 300189

PHOENIX, AZ 85040

OFFICE: (480) 285-0036

BU #: **877196 101 AUTO REPAIR**

13145 MURPHY AVE SAN MARTIN, CA 95046

EXISTING 35'-0" MODIFIED TO 50'-0" MONOPOLE

E		ISSUED FOR:						
	REV	DATE	DRWN	DESCRIPTION	DES./Q			
	A	09/09/21	KBA	PRELIMINARY	GVM			
	В	10/21/21	GVM	PRELIMINARY	JFJ			
	0	03/09/22	DRS	CONSTRUCTION	JFJ			
	1	06/03/22	ORG	CONSTRUCTION	JFJ			



Dan A. Reidenbach, P.E. Professional Engineer License: #92372

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SHEET NUMBER:

REVISION:

06/03/22

SITE PLAN DISCLAIMER:

PROPERTY LINES AND STRUCTURES HAVE BEEN DIGITIZED FROM PREVIOUS PLAN SETS OR FROM ASSESSORS MAPS. CROWN CASTLE USA INC. HAS NOT COMPLETED A SITE SURVEY AND THEREFORE MAKES NO CLAIMS AS TO THE ACCURACY OF INFORMATION
DEPICTED ON THIS SHEET

20' NON EXCLUSIVE ACCESS & UTILITY EASEMENT DESCRIPTION

A 20.00 FOOT WIDE EASEMENT FOR INGRESS, EGRESS, PARKING, TURNAROUND

PURPOSES & UTILITIES, OVER A PORTION OF LOT 64, AS SHOWN UPON THE MAP ENTITLED, "SAN MARTIN RANCH MAP NO, 2", FILED FOR RECORD IN THE

CALIFORNIA, ON JANUARY 27, 1893 IN BOOK G OF MAPS AT PAGE 39, LYING 10.00 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCING AT THE SOUTHEASTERLY MOST CORNER OF SAID LOT 64, THENCE ON AND ALONG THE SOUTHERLY LINE OF SAID LOT 64, S 66° 51' 48' W, A DISTANCE OF 59.67 FEET; THENCE LEAVING SAID SOUTHERLY LINE, N 23° 08'

OFFICE OF THE COUNTY RECORDER OF SANTA CLARA COUNTY, STATE OF

COURSE 1) THENCE N 66°51'48" E. A DISTANCE OF 59.67 FEET TO THE WESTERLY RIGHT OF WAY LINE OF MURPHY AVENUE, A PUBLIC STREET, AND

A PORTION OF LOT 64, AS SHOWN UPON THE MAP ENTITLED, "SAN MARTIN RANCH MAP NO. 2". FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SANTA CLARA COUNTY, STATE OF CALIFORNIA, ON JANUARY

27, 1893 IN BOOK G OF MAPS AT PAGE 39, AND BEING MORE PARTICULARLY

COMMENCING AT THE SOUTHEASTERLY MOST CORNER OF SAID LOT 64, THENCE ON AND ALONG THE SOUTHERLY LINE OF SAID LOT 64, S 66° 51' 48" W, A DISTANCE OF 59.67; THENCE CONTINUING S 66° 51' 48" W, A DISTANCE OF 31.50 FEET; THENCE N 23° 08' 12' W, A DISTANCE OF 12.00 FEET TO THE

COURSE 1) THENCE CONTINUING N 23° 08' 12' W, A DISTANCE OF 7.00 FEET;

COURSE 4) THENCE S 66° 51' 48" W, A DISTANCE OF 11.00 FEET TO THE

A PORTION OF LOT 64, AS SHOWN UPON THE MAP ENTITLED, "SAN MARTIN RANCH MAP NO. 2", FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SANTA CLARA COUNTY, STATE OF CALIFORNIA, ON JANUARY 27, 1893 IN BOOK G OF MAPS AT PAGE 39, AND BEING MORE PARTICULARLY

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COURSE 1) THENCE CONTINUING S 66° 51' 48" W, A DISTANCE OF 11.00 FEET;

DISTANCE OF 59.67; THENCE CONTINUING S 66° 51' 48" W, A DISTANCE OF

COURSE 4) THENCE S 23° 08' 12" E, A DISTANCE OF 7.00 FEET TO THE

COURSE 2) THENCE N 23° 08' 12' W, A DISTANCE OF 7.00 FEET; COURSE 3) THENCE N 66° 51' 48" E, A DISTANCE OF 11.00 FEET;

CONTAINING 77 SQUARE FEET (0.02 ACRES), MORE OR LESS.

COURSE 2) THENCE N 66° 51' 48" E, A DISTANCE OF 11.00 FEET; COURSE 3) THENCE S 23° 08' 12" E, A DISTANCE OF 7.00 FEET

CONTAINING 77 SQUARE FEET (0.02 ACRES), MORE OR LESS.

12" W, A DISTANCE OF 10.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 1,193 SQUARE FEET (0.0274 ACRES), MORE OR LESS.

THE TERMINUS OF THIS DESCRIPTION.

EXISTING LEASE NO.1 DESCRIPTION:

DESCRIBED AS FOLLOWED:

POINT OF BEGINNING:

POINT OF BEGINNING.

DESCRIBED AS FOLLOWED:

POINT OF BEGINNING.

EXISTING LEASE NO.2 DESCRIPTION:

20.50 FEET TO THE POINT OF BEGINNING:

APN: 825-37-083 ±37' LATERAL (E) VERIZON FIBER P.O.C. APN: 825-37-036 ±252' N-S TRENCH - (E) POWER VAULT (E) U/G FIBER ROUTE TO SITE APN: 82537039 (E) 4" U/G PVC CONDUIT WITH 750 AMP TPX CABLE ZONING: RR-5A (E) VERIZON 3'-0" WIDE UTILITY EASEMENT (TYP) ACROTY (E) #3 BOX (E) CHAINLINK FENCE APN: 825-37-035 -(E) CMU ENCLOSURE (E) BUILDING -(E) 35'-0" MODIFIED TO 50'-0" MONOPOLE TOWER ±72' TO SITE







VERIZON SITE NUMBER: 300189

> BU #: **877196** 101 AUTO REPAIR

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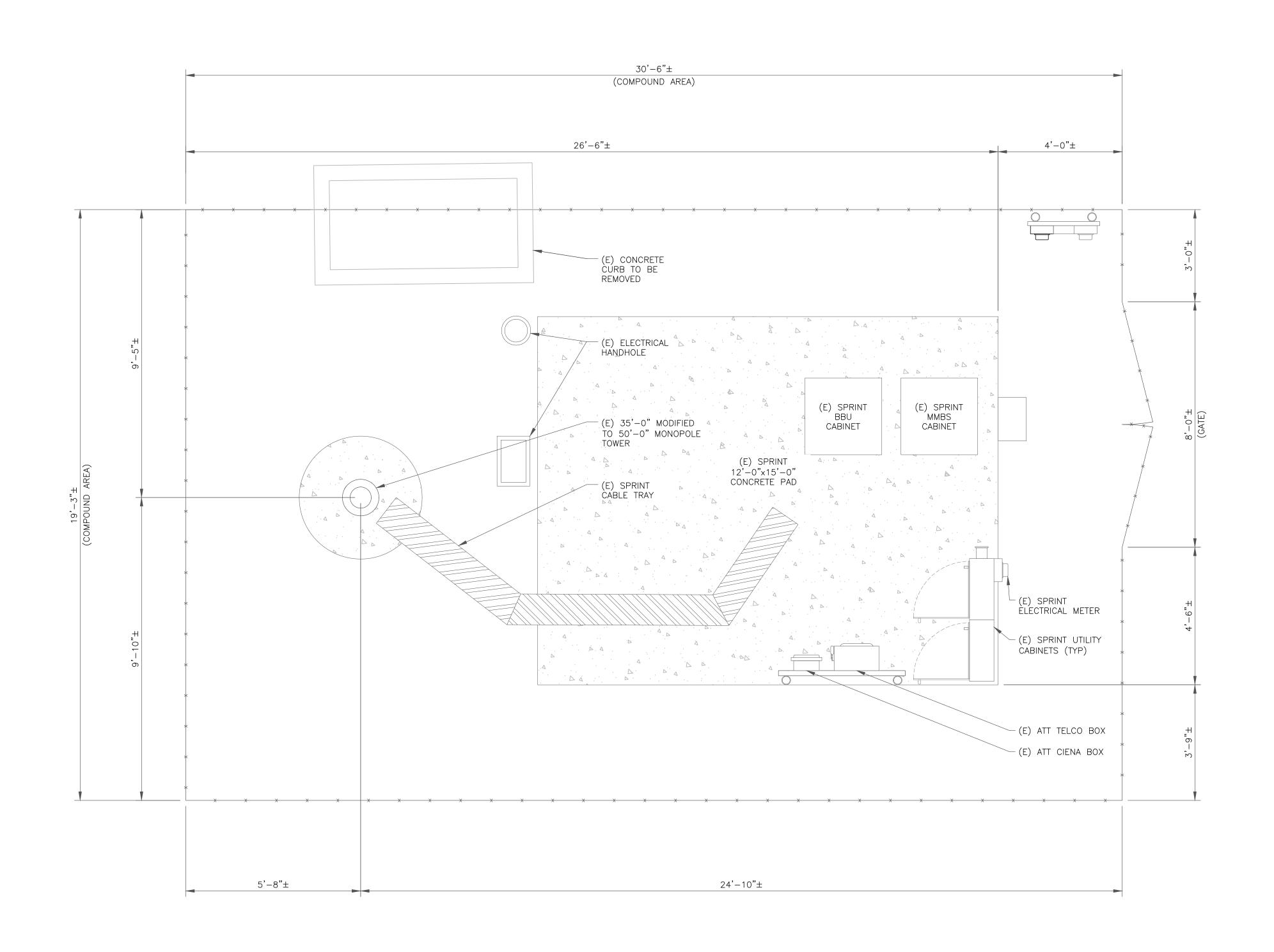


Dan A. Reidenbach, P.E.

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2	08/31/22	ORG	CONSTRUCTION	JFJ	



08/31/22

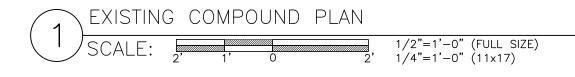
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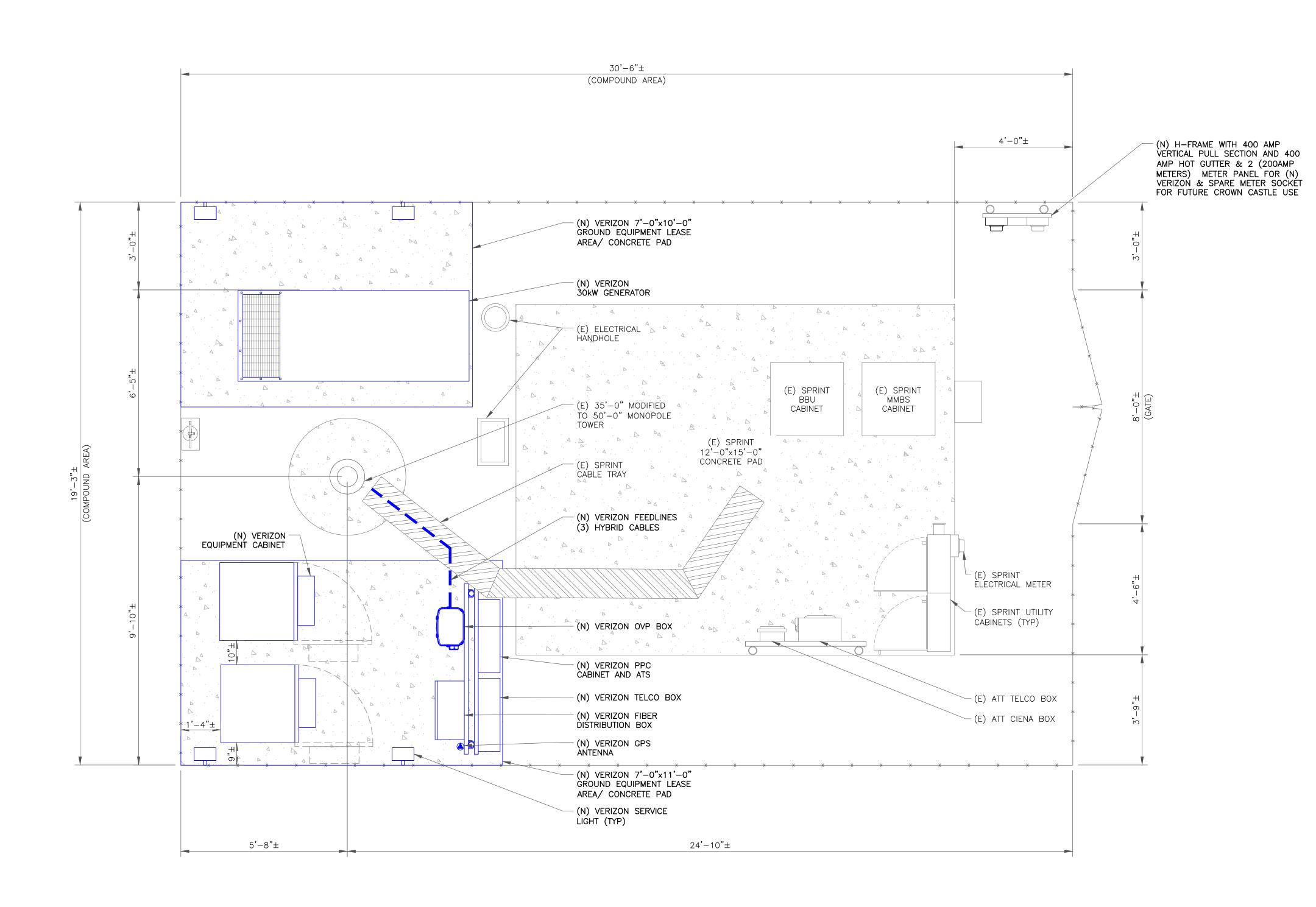
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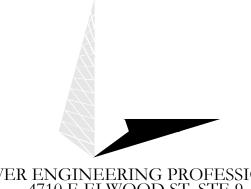












TOWER ENGINEERING PROFESSIONALS 4710 E ELWOOD ST, STE 9 PHOENIX, AZ 85040 OFFICE: (480) 285-0036

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3	11/17/22	KRS	CONSTRUCTION	JFJ		



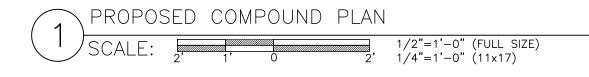
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REVISION:

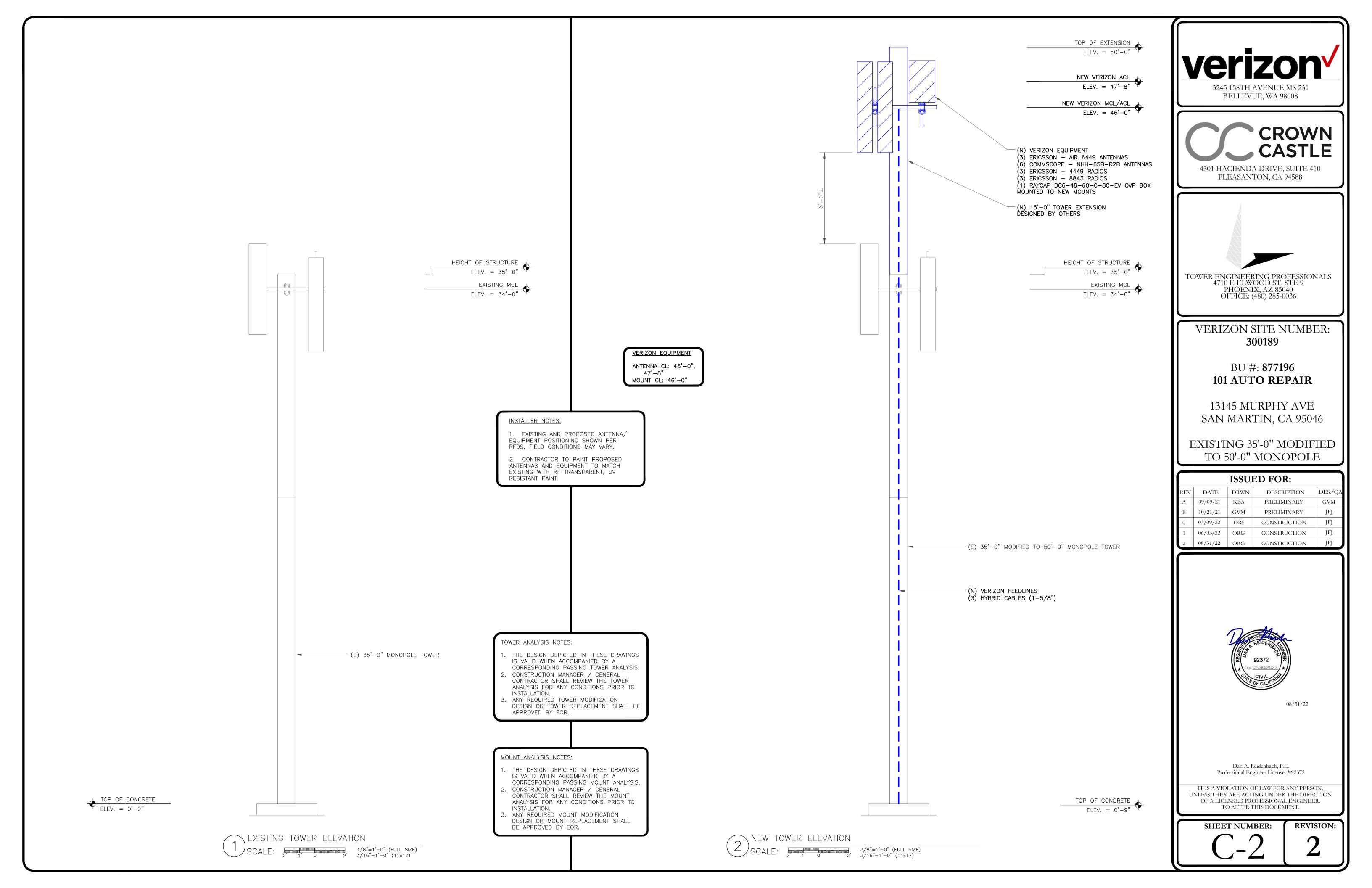
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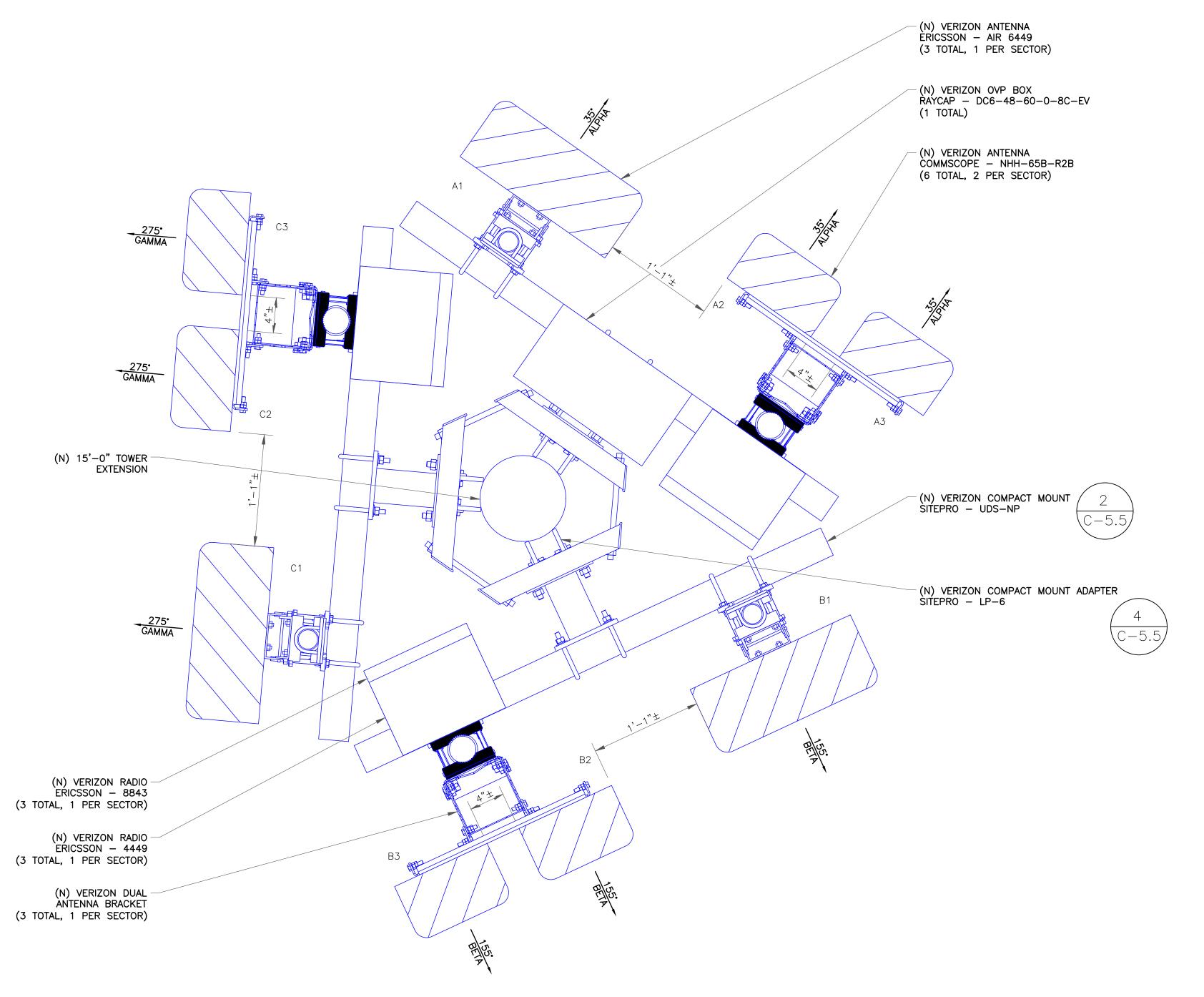
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"LOOK UP" — CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:

THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

NOTES:

REFERENCE C-4 FOR FINAL EQUIPMENT SCHEDULE.

- REFERENCE C-5.1 THRU C-5.5 FOR NEW EQUIPMENT SPECIFICATIONS.
- 6. CONTRACTOR TO VERIFY ALL ANTENNA TIP
 HEIGHTS DO NOT EXCEED BEACON BASE HEIGHT.
 TOWER DOES NOT HAVE CLIMBING FACILITIES.
 MANLIFT REQUIRED FOR ELEVATED WORK.
- 5. NEW EQUIPMENT TO BE PAINTED WITH RF TRANSPARENT, UV RESISTANT, OUTDOOR RATED PAINT TO MATCH EXISTING.

MOUNT ANALYSIS NOTES:

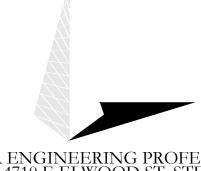
- THE DESIGN DEPICTED IN THESE DRAWINGS
 IS VALID WHEN ACCOMPANIED BY A
 CORRESPONDING PASSING MOUNT ANALYSIS.
 CONSTRUCTION MANAGER / GENERAL
- CONSTRUCTION MANAGER / GENERAL
 CONTRACTOR SHALL REVIEW THE MOUNT
 ANALYSIS FOR ANY CONDITIONS PRIOR TO
 INSTALLATION.
 ANY REQUIRED MOUNT MODIFICATION DESIGN

OR MOUNT REPLACEMENT SHALL BE APPROVED BY EOR.

3245 158TH AVENUE MS 231 BELLEVUE, WA 98008



4301 HACIENDA DRIVE, SUITE 410 PLEASANTON, CA 94588



TOWER ENGINEERING PROFESSIONALS 4710 E ELWOOD ST, STE 9 PHOENIX, AZ 85040 OFFICE: (480) 285-0036

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08/31/22

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SHEET NUMBER:

C-3

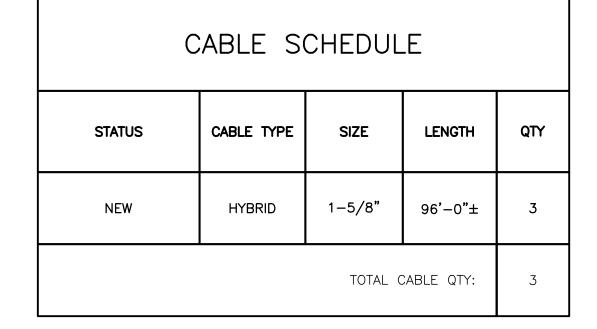
REVISION:

1 NEW ANTENNA PLAN

" (FULL SIZE) (11×17)

ANTENNA/RRH SCHEDULE MECHANICAL DOWNTILTS ELECTRICAL DOWNTILTS ANTENNA MANUFACTURER ANTENNA CENTERLINE TOWER EQUIPMENT AZIMUTH SECTOR ANTENNA MODEL TOWER EQUIPMENT QTY/MODEL STATUS MANUFACTURER Α1 NEW AIR 6449 47'-8" 35° RAYCAP (1) DC6-48-60-0-8C-EV **ERICSSON** A2 NEW COMMSCOPE NHH-65B-R2B 35° (1) RADIO 4449 46'-0" ERICSSON 46'-0" A3 COMMSCOPE NHH-65B-R2B 35° (1) RADIO 8843 NEW ERICSSON В1 47'-8" 155° NEW AIR 6449 **ERICSSON** B2 NEW COMMSCOPE NHH-65B-R2B 46'-0" 155° (1) RADIO 4449 ERICSSON 46'-0" 155° В3 COMMSCOPE NHH-65B-R2B (1) RADIO 8843 NEW ERICSSON C1 47'-8" 275° NEW AIR 6449 **ERICSSON** 275° (1) RADIO 4449 C2 NEW COMMSCOPE NHH-65B-R2B 46'-0" ERICSSON 46'-0" 275° C3 NEW COMMSCOPE NHH-65B-R2B (1) RADIO 8843 **ERICSSON**

NOTE - NEW ANTENNA/EQUIPMENT SHOWN IN BOLD









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EXISTING 35'-0" MODIFIED TO 50'-0" MONOPOLE

	ISSUED FOR:						
REV	DATE	DRWN	DESCRIPTION	DES./QA			
A	09/09/21	KBA	PRELIMINARY	GVM			
В	10/21/21	GVM	PRELIMINARY	JFJ			
0	03/09/22	DRS	CONSTRUCTION	JFJ			
1	06/03/22	ORG	CONSTRUCTION	JFJ			
2	08/31/22	ORG	CONSTRUCTION	JFJ			



08/31/22

Dan A. Reidenbach, P.E. Professional Engineer License: #92372

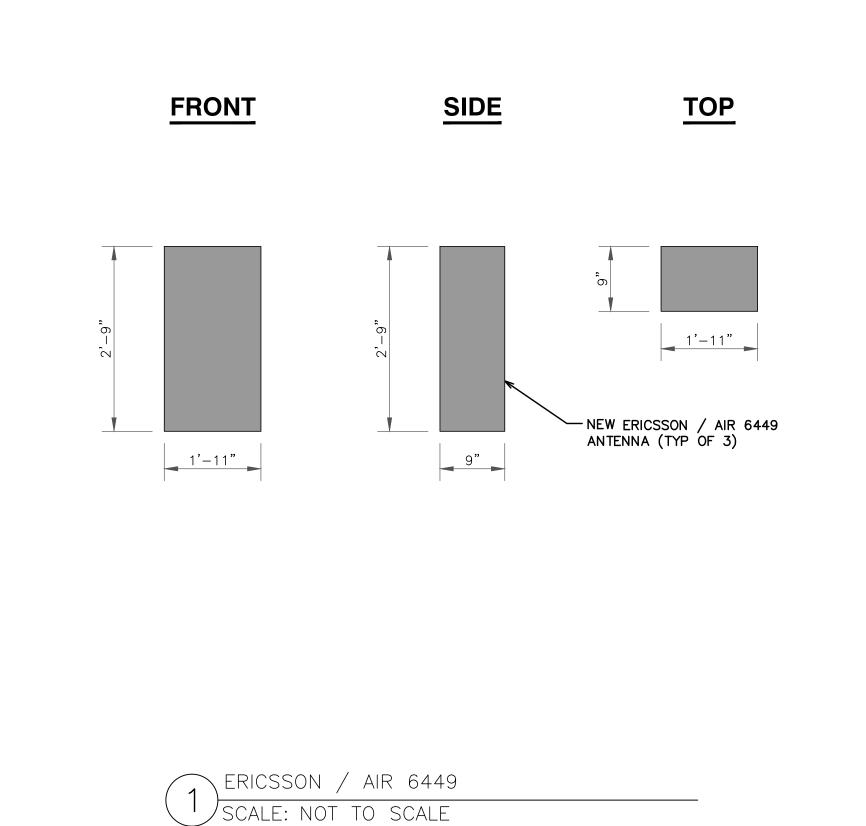
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

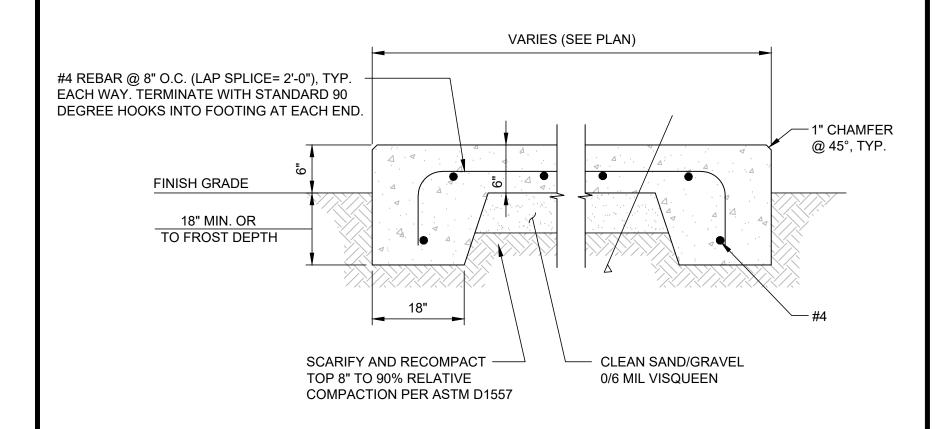
SHEET NUMBER:

C-4

PER: REVISION:

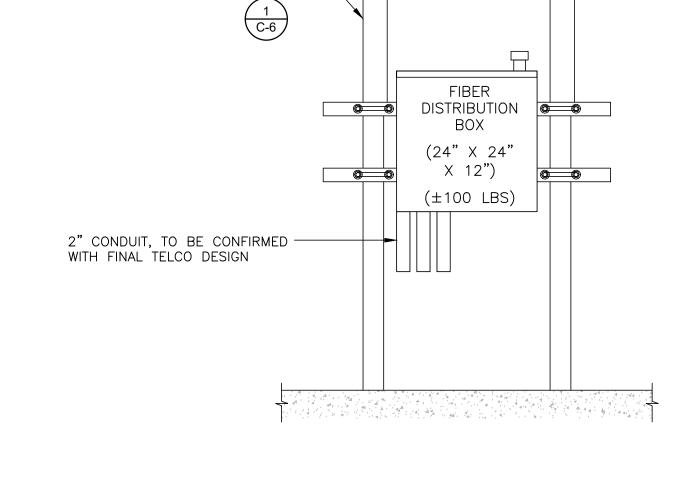
^{* -} CONTRACTOR TO REFERENCE MOST RECENT RFDS FOR MECHANICAL AND ELECTRICAL DOWNTILTS





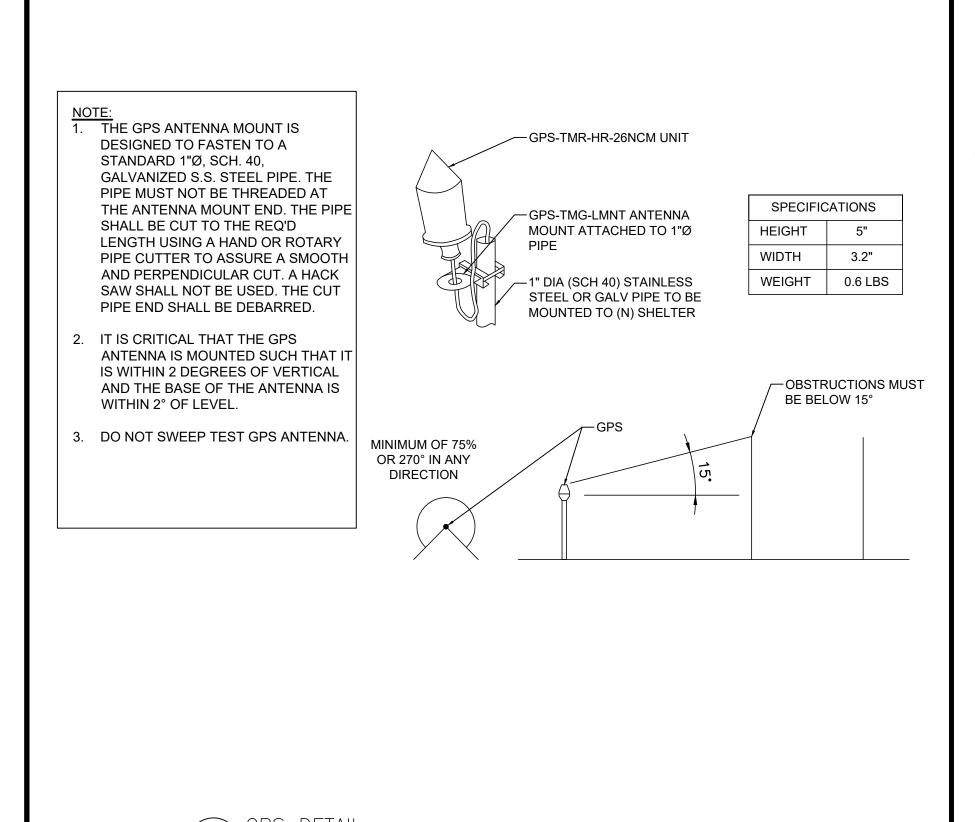
CONCRETE PAD

SCALE: NOT TO SCALE

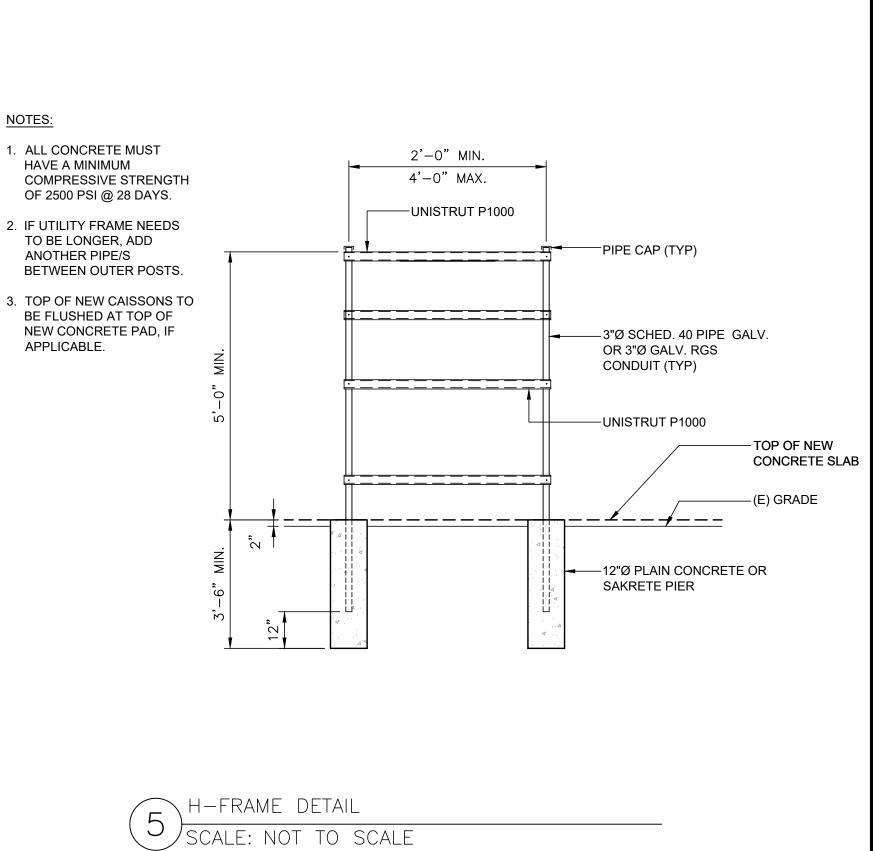


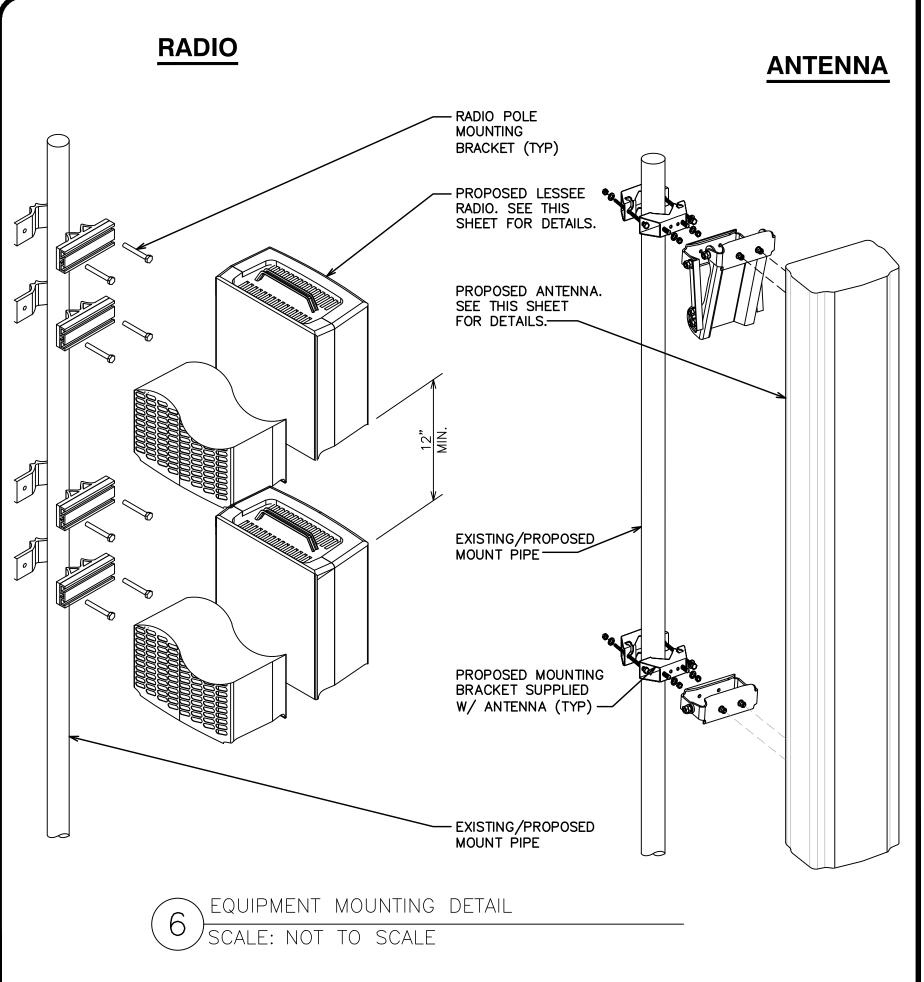
NEW H-FRAME PER DETAIL

FIBER DISTRUBUTION BOX ON H-FRAME SCALE: NOT TO SCALE



SCALE: NOT TO SCALE











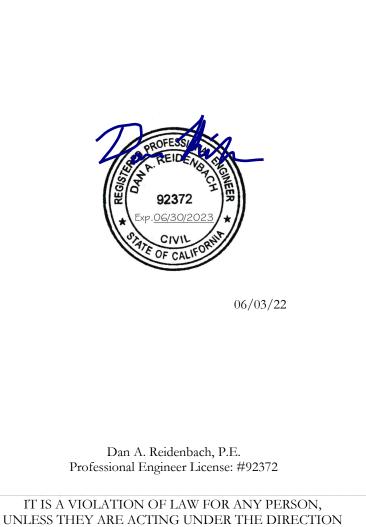
VERIZON SITE NUMBER: 300189

> BU #: **877196** 101 AUTO REPAIR

13145 MURPHY AVE SAN MARTIN, CA 95046

EXISTING 35'-0" MODIFIED TO 50'-0" MONOPOLE

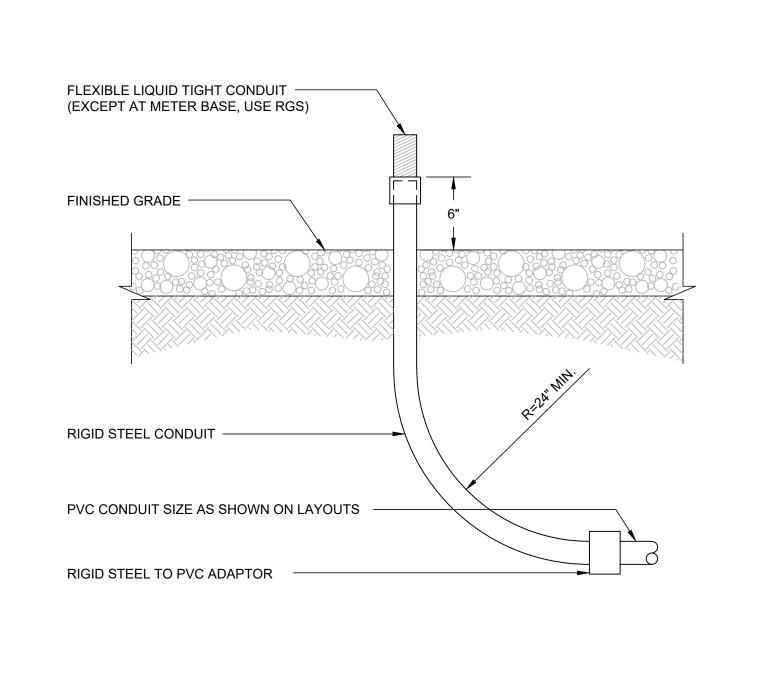
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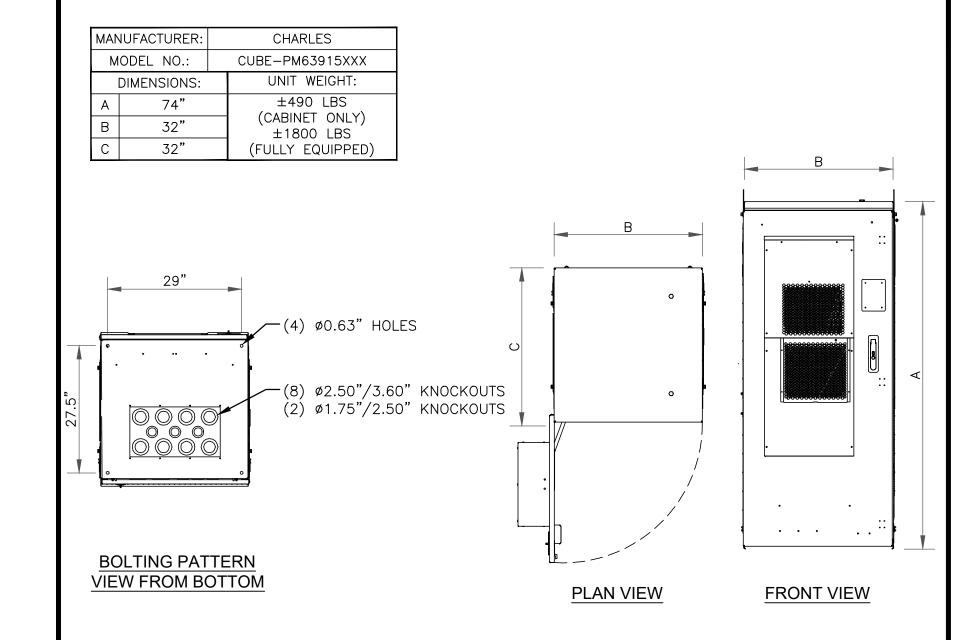


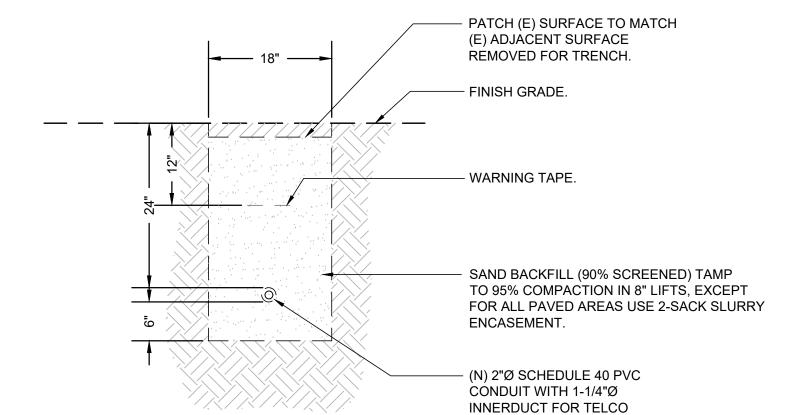
SHEET NUMBER:

REVISION:

OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.







1. ALL DIMENSIONS SHOWN ARE

2. ELECTRICAL CONTRACTOR TO INCLUDE REMOVAL OF SPOILS.

TELECO TRENCH DETAIL

SCALE: NOT TO SCALE

TLX100-8

4.13"

15.69"

42.2LBS

97 AH

103 AH

NICKEL-CADMIUM

MINIMUM CLEAR.

MANUFACTURER:

MODEL NO:

HEIGHT:

WIDTH:

DEPTH:

WEIGHT:

VOLTAGE:

NOMINAL CAPACITY:

RATED CAPACITY:

BATTERY TYPE:

ELECTROLYTE CONTENT: 1.92 GAL

TOWER ENGINEERING PROFESSIONALS 4710 E ELWOOD ST, STE 9 PHOENIX, AZ 85040 OFFICE: (480) 285-0036

verizon

BELLEVUE, WA 98008

4301 HACIENDA DRIVE, SUITE 410 PLEASANTON, CA 94588

CROWN

VERIZON SITE NUMBER: 300189

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EXISTING 35'-0" MODIFIED TO 50'-0" MONOPOLE

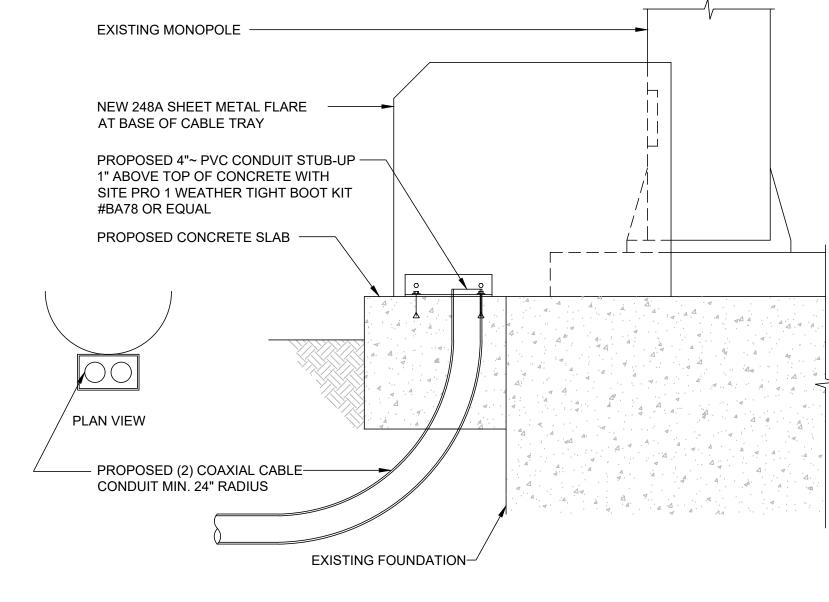


Dan A. Reidenbach, P.E. Professional Engineer License: #92372

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SHEET NUMBER:

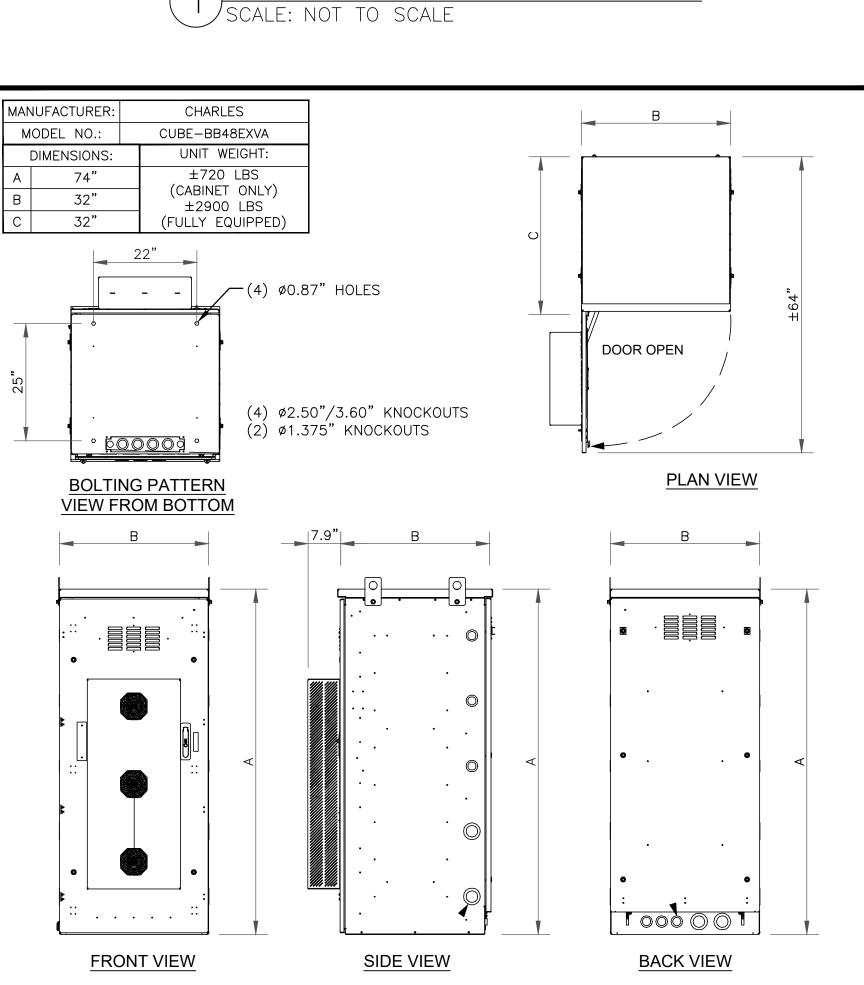
CHARLES CUBE PM63915XXX CABINET CONDUIT SNUB-UP DETAIL SCALE: NOT TO SCALE



(<u>5</u>)	CONDUIT/TOWER STUB UP DETAIL SCALE: NOT TO SCALE
(3)	SCALE: NOT TO SCALE

9.6V (8 HR TO 1.45 VPC @ 20° C)

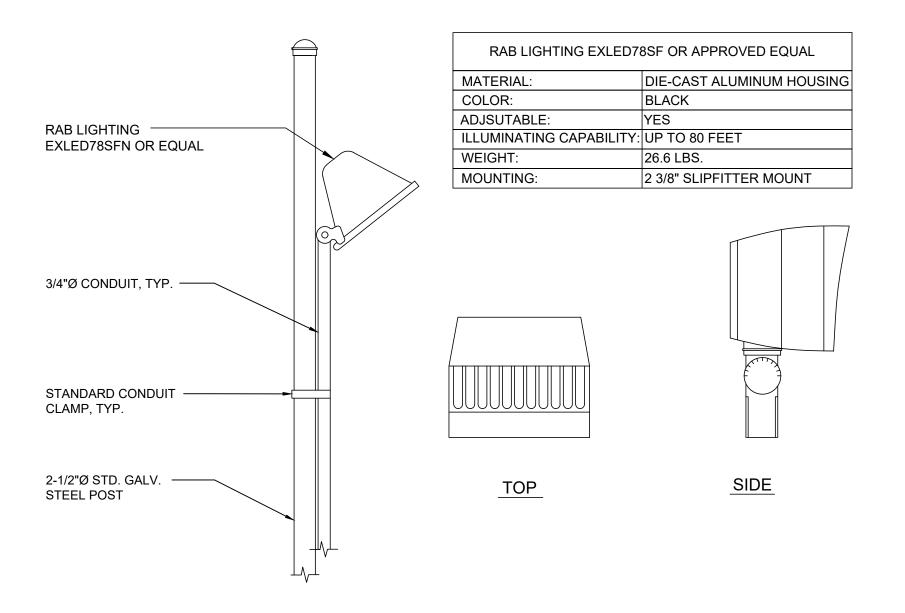
BATTERY DETAIL SCALE: NOT TO SCALE



CHARLES CUBE BB48EXVA

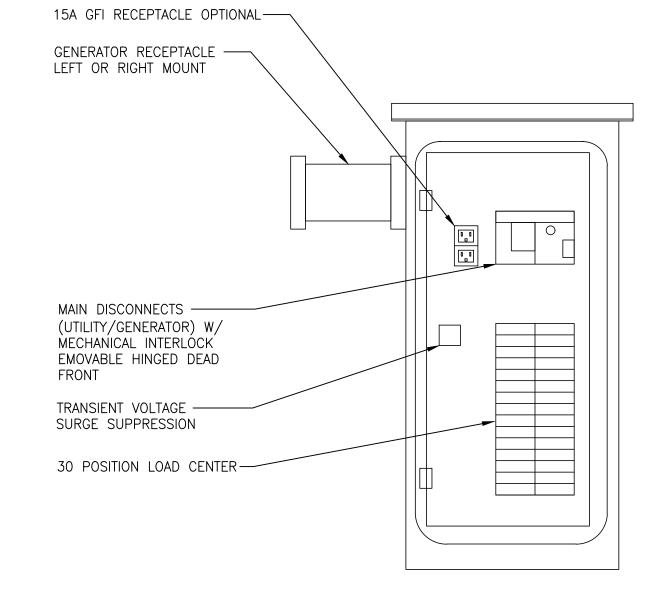
SCALE: NOT TO SCALE

ISSUED FOR: REV DATE DRWN DESCRIPTION DES./QA 09/09/21 KBA PRELIMINARY GVM PRELIMINARY 10/21/21 GVM CONSTRUCTION 03/09/22 DRS CONSTRUCTION



SERVICE LIGHT DETAIL

SCALE: NOT TO SCALE



SCALE: NOT TO SCALE

NOTICE

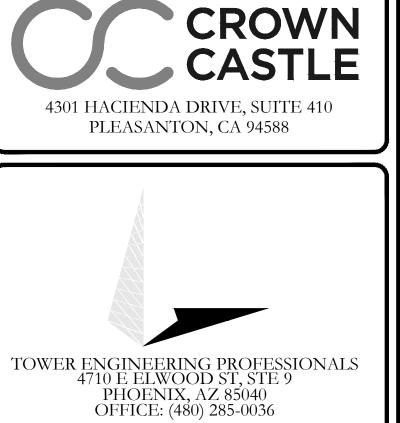
Radio frequency fields beyond this point may exceed the FCC general public exposure limit.

Obey all posted signs and site guidelines for working in radio frequency

In accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1307(b)

environments.

EMERSON POWER PANEL 120/240 VAC, 1 PHASE, 3WIRE 7 GROUND				
HEIGHT (H)	40"			
WIDTH (W)	20"			
DEPTH (D)	10"			
WEIGHT 80 lbs.				



verizon

BELLEVUE, WA 98008

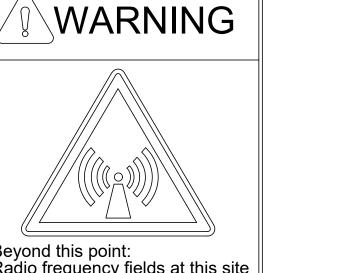
VERIZON SITE NUMBER: 300189

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13145 MURPHY AVE SAN MARTIN, CA 95046

EXISTING 35'-0" MODIFIED TO 50'-0" MONOPOLE

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2	08/31/22	ORG	CONSTRUCTION	JFJ
3	11/17/22	KRS	CONSTRUCTION	JFJ



Beyond this point: Radio frequency fields at this site exceed the FCC rules for human exposure.

Failure to obey all posted signs and site guidelines for working in radio frequency environments could result in serious injury. In accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1307(b)

Beyond this point: Radio frequency fields at this site may exceed FCC rules for human

For your safety, obey all posted signs and site guidelines for working in radio

In accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1307(b)

exposure.

frequency environments.

EMERSON CAC-A75201090 POWER PANEL OR APPROVED EQUAL

CAUTION

DANGER

WARNING TAPE WITH -MATCH EXISTING TRACE WIRE FINISH GRADE EXISTING FINISH GRADE — COMPACT BACKFILL (90% COMPACTION) OR SLURRY 24" (MIN) UNDISTURBED NATIVE SOIL 36" (MIN) WARNING TAPE-12" (MIN) HVAC CONDUIT WARNING TAPE-COMPACTED SAND BEDDING (4" MIN.) POWER CONDUITS AS REQUIRED -(SEE PLAN) EXISTING FIBER CONDUIT 24" (MIN)

> TRENCH DETAIL SCALE: NOT TO SCALE

WARNING THIS FACILITY CONTAINS **CORROSIVE LIQUID TOXIC LIQUID CLASS 1 WATER REACTIVE LIQUID**



SIGNAGE DETAIL SCALE: NOT TO SCALE SHEET NUMBER:

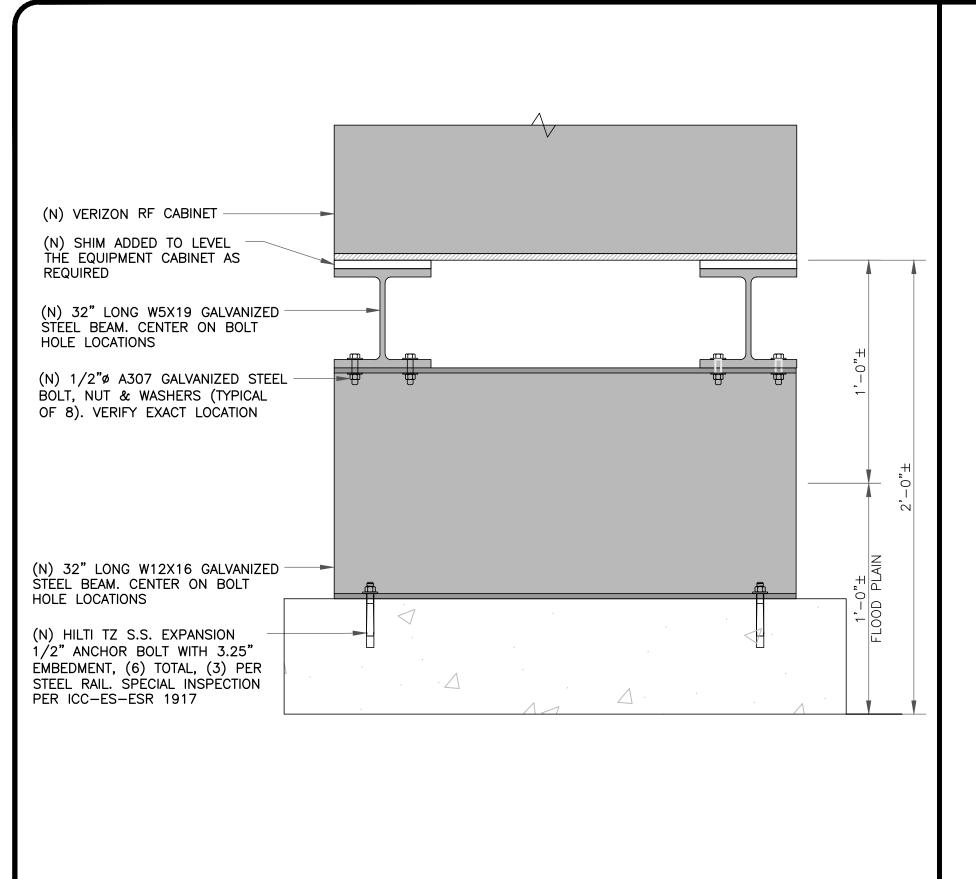
Dan A. Reidenbach, P.E.

Professional Engineer License: #92372

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REVISION:

11/17/22

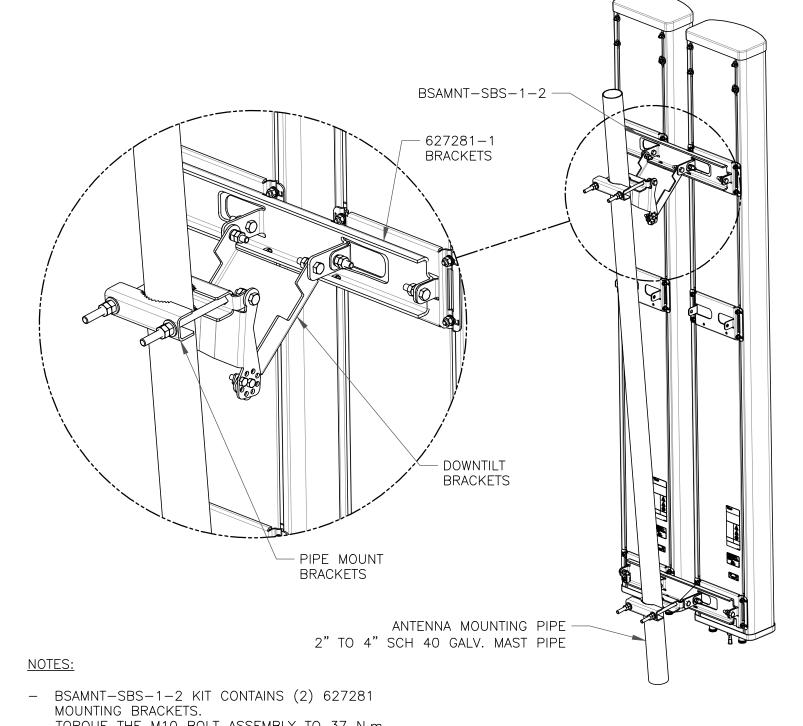


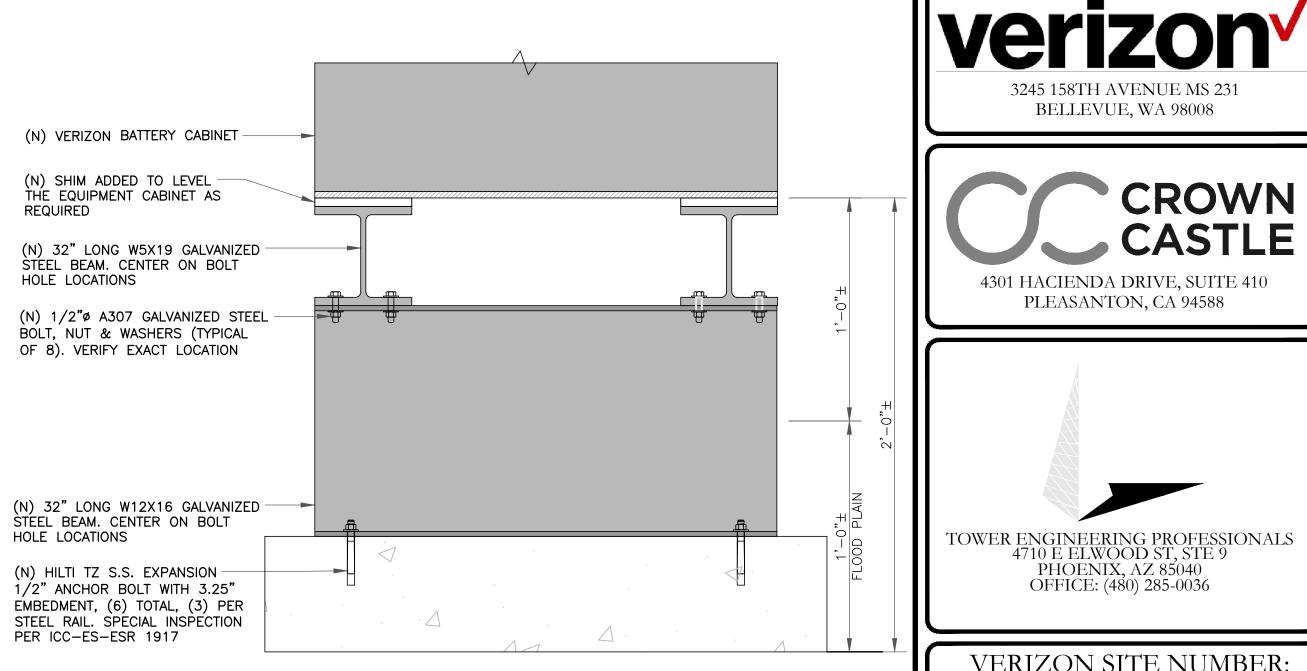
RF CABINET MOUNTING

SCALE: NOT TO SCALE

GENERATOR MOUNTING

SCALE: NOT TO SCALE







BELLEVUE, WA 98008

4301 HACIENDA DRIVE, SUITE 410

PLEASANTON, CA 94588

CROWN

VERIZON SITE NUMBER: 300189

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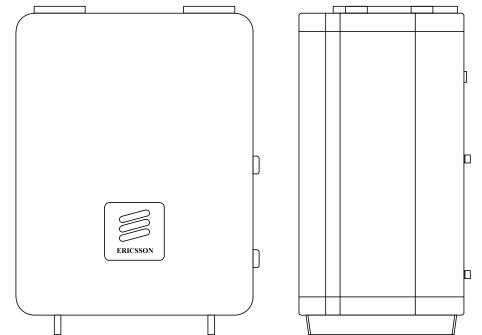


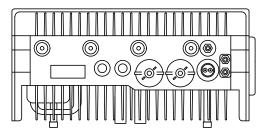
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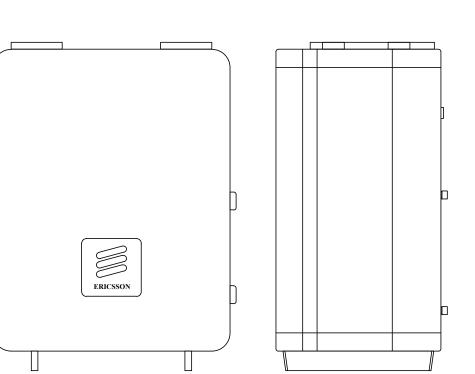
SHEET NUMBER:

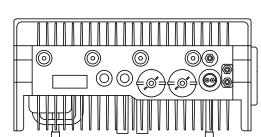
REVISION:





(5) RADIO 4449

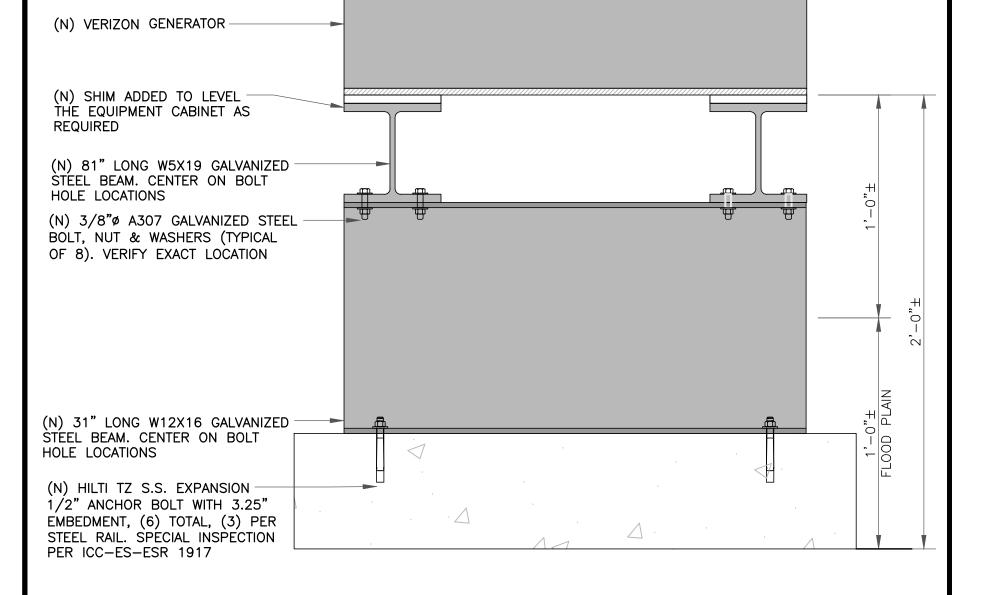


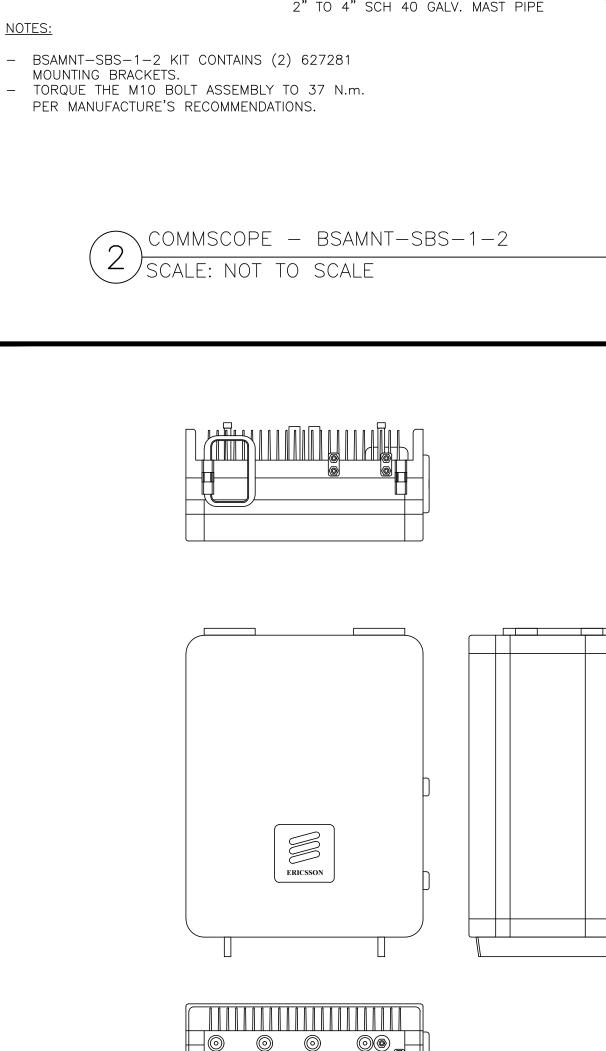


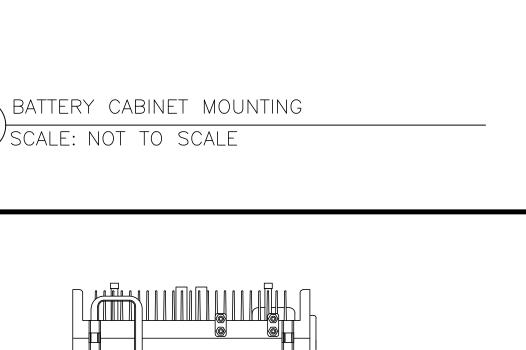
ERICSSON

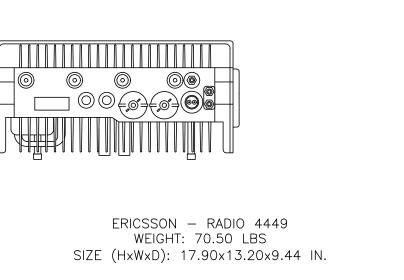
ERICSSON - RADIO 8843

WEIGHT: 70.50 LBS

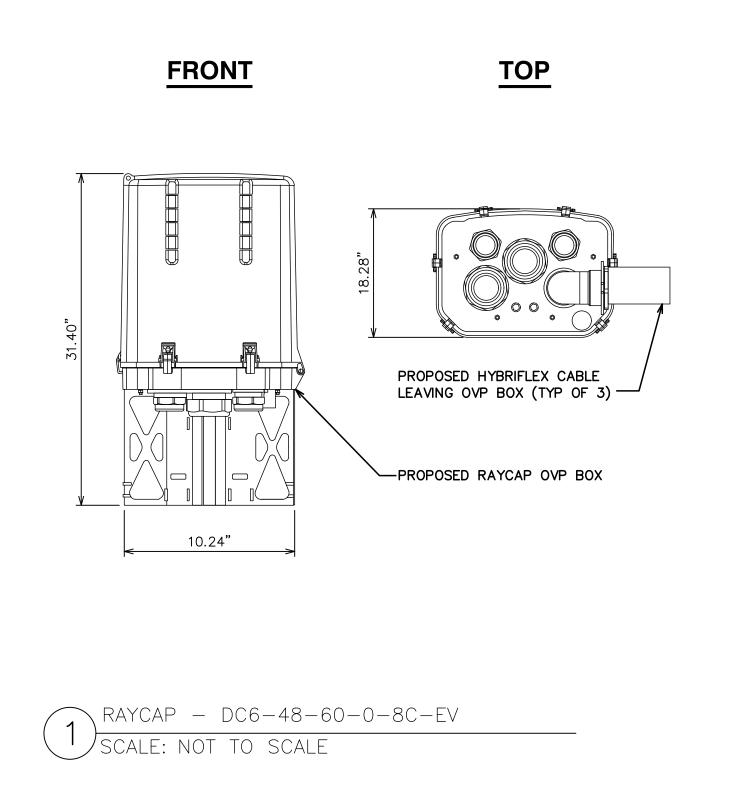


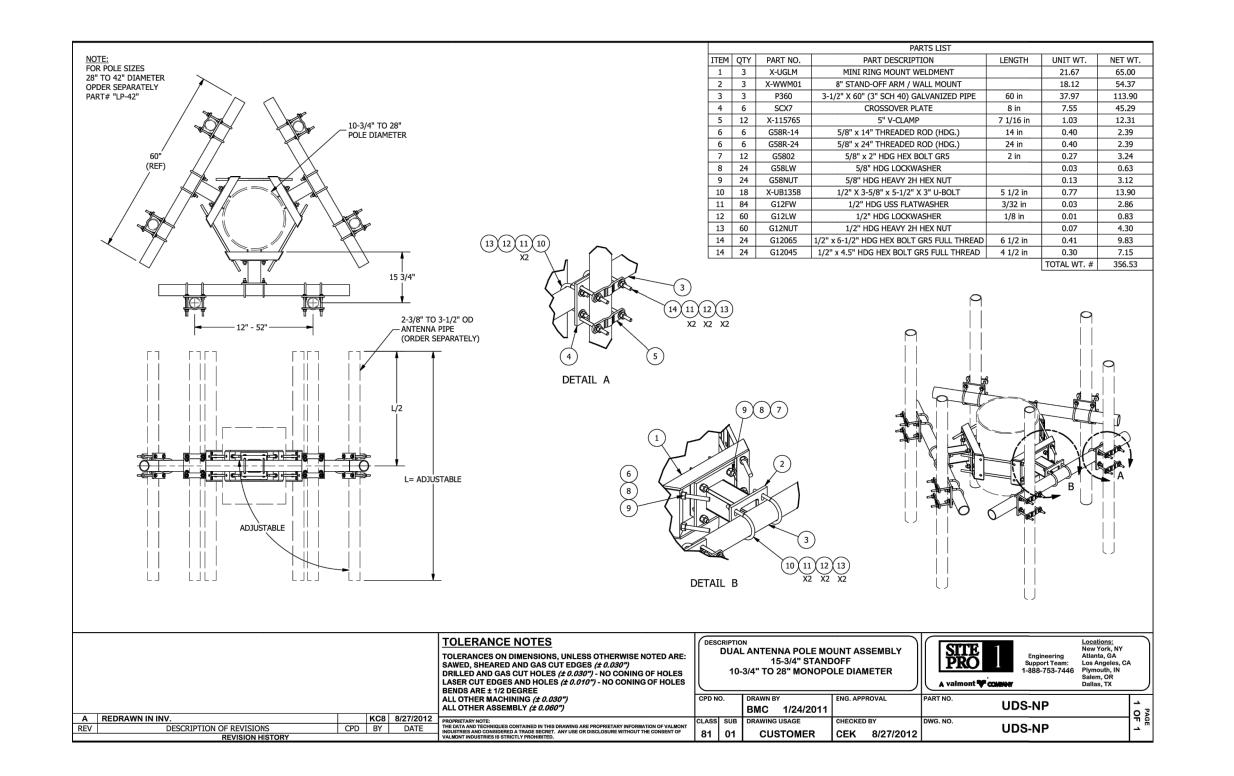




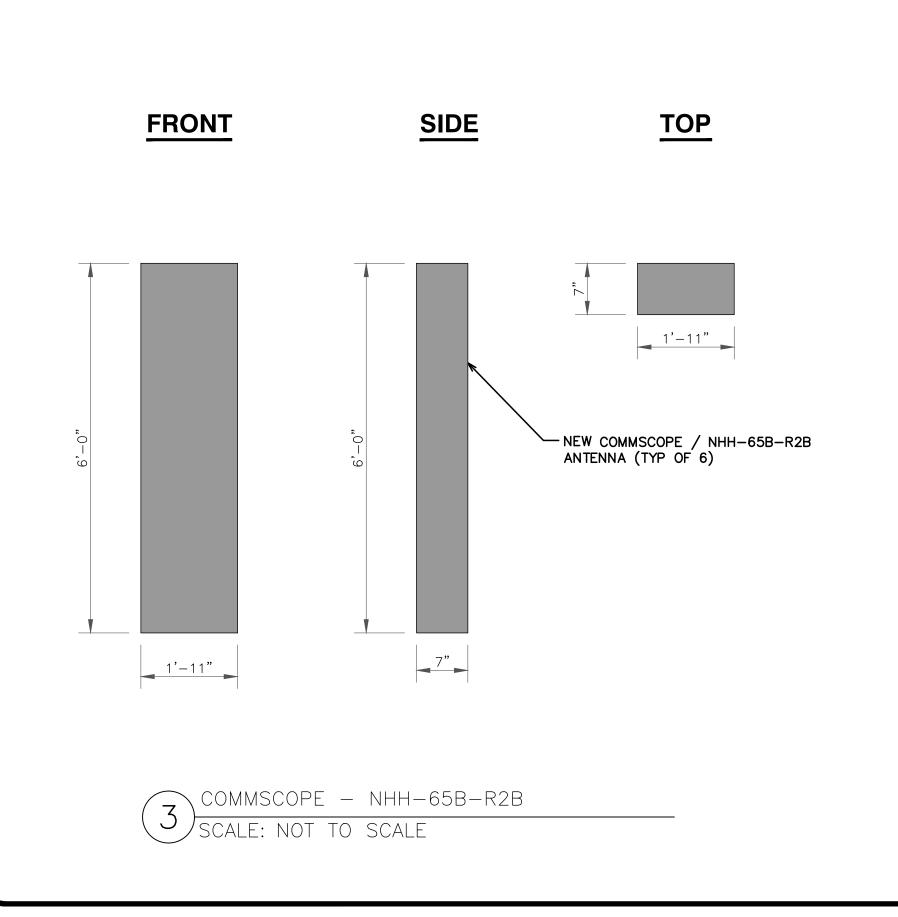


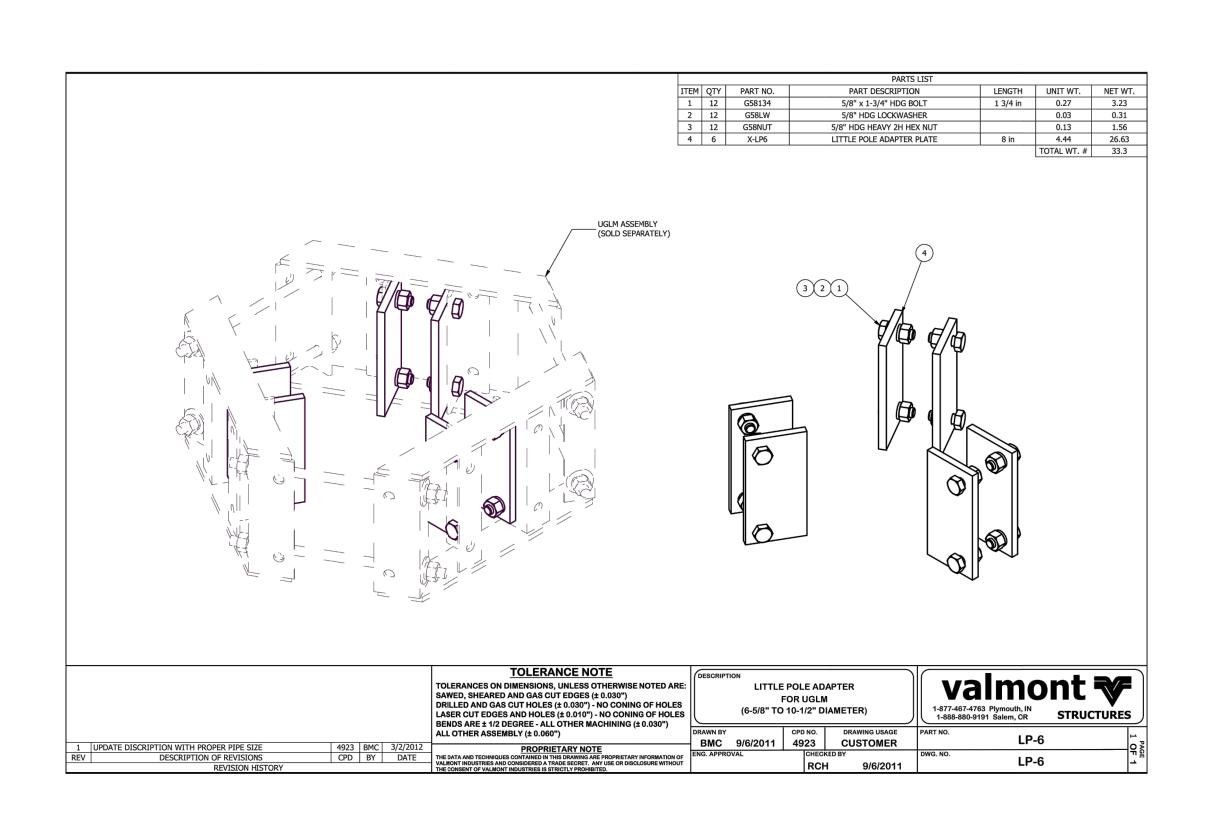
WEIGHT: 71.9 LBS SIZE (HxWxD): 15.00x13.20x10.90 IN. (6) SCALE: NOT TO SCALE





2 COMPACT MOUNT DETAIL SCALE: NOT TO SCALE





COMPACT MOUNT ADAPTER DETAIL

SCALE: NOT TO SCALE







VERIZON SITE NUMBER: 300189

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08/31/22

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HEET NUMBER:

2

Standby Power Rating 30 kW, 38 kVA, 60 Hz

Prime Power Rating* 27 kW, 34 kVA, 60 Hz



Image used for illustration purposes only

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.



UL142 CSA C22.2, ULC S601

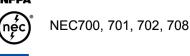
UL2200, UL6200, UL1236, UL489,



BS5514 and DIN 6271



NFPA 37, 70, 99, 110



ISO 3046, 7637, 8528, 9001

NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41

Powering Ahead

For over 60 years, Generac has provided innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial applications under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

SD030 | 2.2L | 30 kW INDUSTRIAL DIESEL GENERATOR SET

GENERAC INDUSTRIAL

EPA Certified Stationary Emergency

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATION	S

Make	Perkins	
EPA Emissions Compliance	Stationary Emergency	
EPA Emissions Reference	See Emission Data Sheet	
Cylinder #	4	
Туре	In-Line	
Displacement - in ³ (L)	135 (2.22)	
Bore - in (mm)	3.3 (84)	
Stroke - in (mm)	3.9 (100)	
Compression Ratio	23.3:1	
Intake Air Method	Turbocharged	
Cylinder Head	Cast Iron	
Piston Type	Aluminum	
Crankshaft Type	Forged Steel	

Engine Governing			
Governor	Electronic Isochronous		
Frequency Regulation (Steady State)	±0.5%		
Lubrication System			

Full-Flow

11.2 (10.6)

Cooling System Cooling System Type Closed Recovery Water Pump Type Pre-Lubed, Self Sealing Fan Type Pusher Fan Speed - RPM Fan Diameter - in (mm) 18 (457) Fuel System Fuel Type Ultra Low Sulfur Diesel Fuel #2

i dei Type	Ollia Low Guilai Diesei i aei #2
Fuel Specifications	ASTM
Fuel Filtering (Microns)	5
Fuel Inject Pump	Distribution Injection Pump
Fuel Pump Type	Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Line - in (mm)	0.31 (7.9) ID
Fuel Return Line - in (mm)	0.2 (4.8) ID

Engine Electrical System	
System Voltage	12 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC

Negative

ALTERNATOR SPECIFICATIONS

Oil Pump Type

Oil Filter Type

Crankcase Capacity - qt (L)

Standard Model	K0035124Y21	Standard Excitation	Synchronous Brushless
Poles	4	Bearings	Single Sealed
Field Type	Revolving	Coupling	Direct via Flexible Disc
Insulation Class - Rotor	H	Load Capacity - Standby	100%
Insulation Class - Stator	Н	Prototype Short Circuit Test	Yes
Total Harmonic Distortion	<5% (3-Phase Only)	Voltage Regulator Type	Digital
Telephone Interference Factor (TIF)	< 50	Number of Sensed Phases	All
,		Regulation Accuracy (Steady State)	±0.25%

Ground Polarity



ALTERNATOR SYSTEM

Class H Insulation Material

Rotor Dynamically Spin Balanced

Internal Genset Vibration Isolation

Separation of Circuits - High/Low Voltage

Separation of Circuits - Multiple Breakers

• 2 Year Limited Warranty (Standby Rated Units)

1 Year Limited Warranty (Prime Rated Units)

Silencer Mounted in the Discharge Hood

Full Load Capacity Alternator

Protective Thermal Switch

Wrapped Exhaust Piping

Standard Factory Testing

(Enclosed Unit Only)

Auto/Off/Manual Switch

Modbus[®] Protocol

Single Point Ground

Sealed Boards

E-Stop (Red Mushroom-Type)

Predictive Maintenance Algorithm

16 Channel Remote Trending

NFPA110 Level I and II (Programmable)

0.2 msec High Speed Remote Trending

Customizable Alarms, Warnings, and Events

GENERATOR SET

Amortisseur Winding (3-Phase Only)

UL2200 GENprotect[™]

2/3 Pitch

Skewed Stator

Brushless Excitation

Sealed Bearing

- **ENGINE SYSTEM**
- Oil Drain Extension Air Cleaner
- Level 1 Fan and Belt Guards (Open Set Only) Stainless Steel Flexible Exhaust Connection

EPA Certified Stationary Emergency

STANDARD FEATURES

 Factory Filled Oil and Coolant Radiator Duct Adapter (Open Set Only)

SD030 | 2.2L | 30 kW

INDUSTRIAL DIESEL GENERATOR SET

- Critical Silencer (Enclosed Unit Only) Engine Coolant Heater
- **FUEL SYSTEM**
- Fuel Lockoff Solenoid Primary Fuel Filter

COOLING SYSTEM

- Closed Coolant Recovery System UV/Ozone Resistant Hoses
- Factory-Installed Radiator Radiator Drain Extension 50/50 Ethylene Glycol Antifreeze

ELECTRICAL SYSTEM Battery Charging Alternator

- Battery Cables Battery Tray Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor

CONTROL SYSTEM



Digital H Control Panel- Dual 4x20 Display

Program Functions Programmable Crank Limiter

- 7-Day Programmable Exerciser Special Applications Programmable Logic Controller
- RS-232/485 Communications All Phase Sensing Digital Voltage Regulator 2-Wire Start Capability

Audible Alarms and Shutdowns

Not in Auto (Flashing Light)

SD030 | 2.2L | 30 kW

EPA Certified Stationary Emergency

MOTOR STARTING CAPABILITIES (skVA)

FUEL CONSUMPTION RATES*

COMBUSTION AIR REQUIREMENTS

COOLING

ENGINE

Rated Engine Speed

lorsepower at Rated kW*

Standby - See Bulletin 0187500SSB

Prime - See Bulletin 0187510SSB

OPERATING DATA

POWER RATINGS

INDUSTRIAL DIESEL GENERATOR SET

- Date/Time Fault History (Event Log) Isochronous Governor Control Waterproof/Sealed Connectors

Three-Phase 120/240 VAC @0.8pf

Three-Phase 277/480 VAC @0.8pf

Three-Phase 346/600 VAC @0.8pf

Fuel Pump Lift- ft (m)

Total Fuel Pump Flow (Combustion + Return) - gph (Lph

16.6 (63)

Maximum Operating Ambient Temperature

Maximum Additional Radiator Backpressure

ft/min (m/min) 1,181 (360)

159 (1,096)

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

psi (kPa)

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Maximum Operating Ambient Temperature (Before Derate)

Flow at Rated Power - cfm (m³/min)

EXHAUST

Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards.

Coolant System Capacity

Heat Rejection to Coolant

 Rust-Proof Fasteners with Nylon Washers to Protect Finish High Performance Sound-Absorbing Material

GENERAC INDUSTRIAL

- (Sound Attenuation Enclosures) Gasketed Doors
- Upward Facing Discharge Hoods (Radiator and Exhaust)

ENCLOSURE (If Selected)

· Stainless Steel Lift Off Door Hinges Stainless Steel Lockable Handles RhinoCoat[™] - Textured Polyester Powder Coat Paint

FUEL TANKS (If Selected)

- UL 142/ULC S601
- Double Wall Normal and Emergency Vents
- Sloped Top Sloped Bottom
- Factory Pressure Tested
- Rupture Basin Alarm Fuel Level
- Check Valve In Supply and Return Lines RhinoCoat[™] - Textured Polyester Powder Coat Paint
- Stainless Steel Hardware

- Coolant Temperature
- Battery Voltage Alarms and Warnings Time and Date Stamped
- Password Parameter Adjustment Protection Alarms and Warnings

Alarm Information Automatically Annunciated **Full System Status Display**

Amps: 104

Amps: 90

Amps: 45

Amps: 36

Percent Load

25%

50%

75%

BTU/hr (kW)

cfm (m3/hr)

in H₂O (kPa)

Exhaust Temperature (Rated Output)

88 (2.5)

Vlax. Allowable Backpressure (Post Turbocharger) inHg (kPa)

* Fuel supply installation must accommodate fuel

consumption rates at 100% load.

See Bulletin No. 0199280SSD

30 kW

skVA vs. Voltage Dip

120/240 VAC 1Ø 30% 277/480 VAC 3Ø 30% 208/240 VAC 3Ø 30%

A0035044N21 20 K0035124Y21 61 K0035124Y21 46 A0040044N21 24 K0040124Y21 76 K0040124Y21

A0050044N21 31 K0050124Y21 98 K0050124Y21

- Power Output (kW) Power Factor
- · kW Hours, Total, and Last Run
- Real/Reactive/Apparent Power All Phase AC Voltage All Phase Currents
- Oil Pressure Coolant Temperature

Frequency

 Coolant Level Engine Speed Battery Voltage

Alarms and Warnings Oil Pressure

- Coolant Level Engine Overspeed
- Snap Shots of Key Operation Parameters During
- Alarms and Warnings Spelled Out (No Alarm Codes)

GENERAC INDUSTRIAL

Standby

1.0 (3.7)

1.4 (5.2)

2.0 (7.5)

2.8 (10.5)

14.9 (56.2)

2.5 (9.5)

128.638 (136)

2,800 (4,757)

122 (50)

Standby

296.6 (8.4)

1.5 (5.1)

892 (478)

SD030 | 2.2L | 30 kW

INDUSTRIAL DIESEL GENERATOR SET **EPA Certified Stationary Emergency**

DIMENSIONS AND WEIGHTS*

SD030 | 2.2L | 30 kW

EPA Certified Stationary Emergency

CONFIGURABLE OPTIONS

O Critical Silencer (Open Set Only)

Level 1 Fan and Belt Guards (Enclosed Units Only)

ENGINE SYSTEM

Radiator Stone Guard

O NPT Flexible Fuel Line

ELECTRICAL SYSTEM

ALTERNATOR SYSTEM

Anti-Condensation Heater

Extended Factory Testing

8 Position Load Center

Pad Vibration Isolation

ENGINE SYSTEM

Fluid Containment Pan

CONTROL SYSTEM

Battery Disconnect Switch

ENGINEERED OPTIONS

Coolant Heater Isolation Ball Valves

O Spare Inputs (x4) / Outputs (x4)

O Permanent Magnet Excitation

Alternator Upsizing

Tropical Coating

GENERATOR SET

10A UL Listed Battery Charger

FUEL SYSTEM

Battery Warmer

Oil Heater

INDUSTRIAL DIESEL GENERATOR SET

CIRCUIT BREAKER OPTIONS

O Main Line Circuit Breaker

Electronic Trip Breakers

ENCLOSURE

Steel Enclosure

Aluminum Enclosure

for Availability)

Enclosure Heater

O 2nd Main Line Circuit Breaker

Weather Protected Enclosure

Level 1 Sound Attenuation

Level 2 Sound Attenuation

AC/DC Enclosure Lighting Kit

Door Open Alarm Switch

Damper Alarm Contacts

5 Year Limited Warranty

ALTERNATOR SYSTEM

3rd Breaker System

GENERATOR SET

Special Testing

Level 2 Sound Attenuation with Motorized Dampers

O Up to 200 MPH Wind Load Rating (Contact Factory

WARRANTY (Standby Gensets Only)

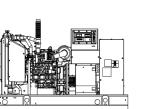
2 Year Extended Limited Warranty

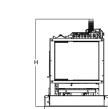
5 Year Extended Limited Warranty

7 Year Extended Limited Warranty

10 Year Extended Limited Warranty

Shunt Trip and Auxiliary Contact





	OPEN S	ET	
	Run Time - Hours	Usable Capacity - Gal (L)	
	No Tank	-	7
	19	54 (204)	7
w	47	132 (500)	7

Run Time - Hours	Usable Capacity - Gal (L)	LxWxH-in (mm)	Weight - Ibs (kg)
No Tank	-	76.0 (1,930) x 37.4 (950) x 44.8 (1,138)	1,456 - 1,641 (661 - 745)
19	54 (204)	76.0 (1,930) x 37.4 (950) x 57.8 (1,468)	1,936 - 2,121 (879 - 963)
47	132 (500)	76.0 (1,930) x 37.4 (950) x 69.8 (1,773)	2,166 - 2,351 (983 - 1,067)
67	190 (719)	76.0 (1,930) x 37.4 (950) x 79.3 (2,014)	2,380 - 2,565 (1,081 - 1,165)
75	211 (799)	76.0 (1,930) x 37.4 (950) x 81.8 (2,078)	2,375 - 2,560 (1,078 - 1,162)
107	300 (1,136)	92.9 (2,360) x 37.4 (950) x 85.3 (2,167)	2,438 - 2,623 (1,106 - 1,190)

GENERAC | INDUSTRIAL

O NFPA 110 Compliant 21-Light Remote Annunciator

O Remote E-Stop (Break Glass-Type, Surface Mount)

Remote E-Stop (Red Mushroom-Type, Flush Mount)

CONTROL SYSTEM

Surface Mount)

O 100 dB Alarm Horn

Ground Fault Annunciation

○ 10A Engine Run Relay

120V GFCI and 240V Outlets

O 8 in (203.2 mm) Fill Extension

O 13 in (330.2 mm) Fill Extension

19 in (482.6 mm) Fill Extension

5 Gallon Spill Box Return Hose

Fuel Level Switch and Alarm

Fire Rated Stainless Steel Fuel Hose

Overfill Protection Valve

5 Gallon Spill Box

Tank Risers

12' Vent System

FUEL TANKS

O UL2085 Tank

Stainless Steel Tanks

GENERAC INDUSTRIAL

Weight - lbs (kg)

Rev. C 10/19/2020

Special Fuel Tanks

Vent Extensions

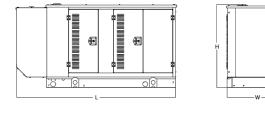
O Remote Communication - Modem

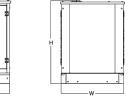
FUEL TANKS (Size On Last Page)

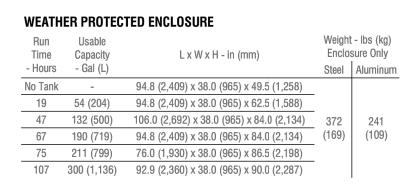
Remote Relay Assembly (8 or 16)

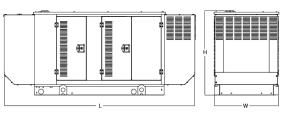
Oil Temperature Indication and Alarm

O Remote E-Stop (Red Mushroom-Type,



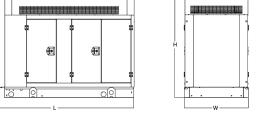






LEVEL 1 SOUND ATTENUATED ENCLOSURE

	- Hours	Capacity	L x W x H - in (mm)	Enclosure Only	
	- Hours	- Gal (L)		Steel	Aluminum
1	No Tank	-	112.5 (2,857) x 38.0 (965) x 49.5 (1,258)		
	19	54 (204)	112.5 (2,857) x 38.0 (965) x 62.5 (1,588)		
	47	132 (500)	112.5 (2,857) x 38.0 (965) x 74.5 (1,893)	505	338
	67	190 (719)	112.5 (2,857) x 38.0 (965) x 84.0 (2,134)	(229)	(153)
	75	211 (799)	112.5 (2,857) x 38.0 (965) x 86.5 (2,198)		
	107	300 (1,136)	112.5 (2,857) x 38.0 (965) x 90.0 (2,287)		



LEVEL 2 SOUND ATTENUATED ENCLOSURE

Run Time - Hours	Usable Capacity	L x W x H - in (mm)	Weight - Ibs (kg) Enclosure Only		
- Hours	- Gal (L)		Steel	Aluminum	
No Tank	-	94.8 (2,409) x 38.0 (965) x 49.5 (1,258)			
19	54 (204)	94.8 (2,409) x 38.0 (965) x 62.5 (1,588)			
47	132 (500)	94.8 (2,409) x 38.0 (965) x 74.5 (1,893)	510	341	
67	190 (719)	106.0 (2,692) x 38.0 (965) x 84.0 (2,134)	(231)	(155)	
75	211 (799)	94.8 (2,409) x 38.0 (965) x 86.5 (2,198)			
107	300 (1,136)	94.8 (2,409) x 38.0 (965) x 90.0 (2,287)			

* All measurements are approximate and for estimation purposes only. Specification characteristics may change without notice. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.

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PLEASANTON, CA 94588

BELLEVUE, WA 98008



VERIZON SITE NUMBER: 300189

> BU #: **877196** 101 AUTO REPAIR

13145 MURPHY AVE SAN MARTIN, CA 95046

EXISTING 35'-0" MODIFIED TO 50'-0" MONOPOLE

ISSUED FOR:						
REV	DATE	DRWN	DESCRIPTION	DES./QA		
В	10/21/21	GVM	PRELIMINARY	JFJ		
0	03/09/22	DRS	CONSTRUCTION	JFJ		
1	06/03/22	ORG	CONSTRUCTION	JFJ		
2	08/31/22	ORG	CONSTRUCTION	JFJ		
3	11/17/22	KRS	CONSTRUCTION	JFJ		



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REVISION:

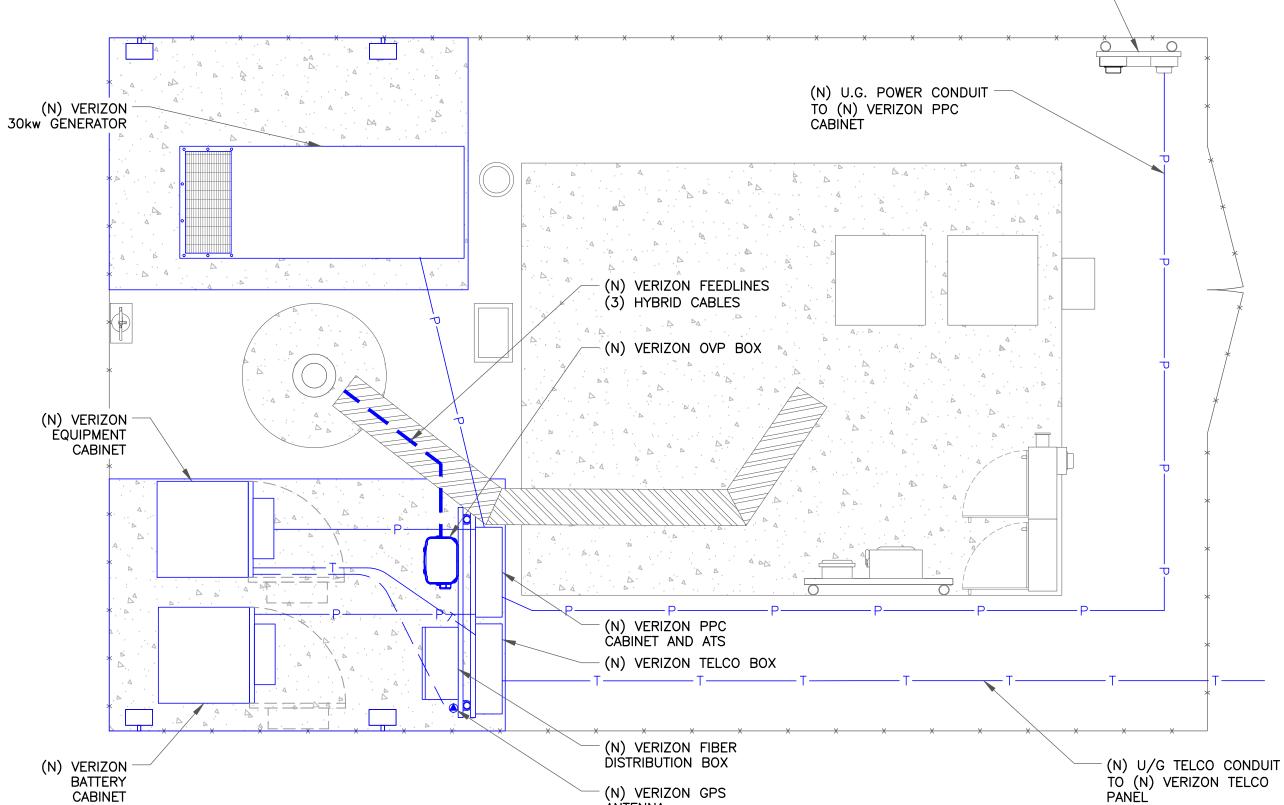
11/17/22

Dan A. Reidenbach, P.E. Professional Engineer License: #92372

ELECTRICAL DETAILS NOTES:

- 1. EXISTING EQUIPMENT LAYOUT WAS MADE USING INFORMATION PROVIDED BY CROWN CASTLE. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
- 2. CONTRACTOR TO ENSURE THAT ALL T-MOBILE EQUIPMENT IS INSTALLED INSIDE T-MOBILE'S LEASE AREA, INCLUDING BUT NOT LIMITED TO, EQUIPMENT CABINETS, UTILITY CABINETS, H-FRAMES, ETC.
- 3. CONTRACTOR TO VERIFY THAT ALL T-MOBILE EQUIPMENT IS INSTALLED TO MEET THE WORKING CLEARANCE REQUIREMENTS OF NEC 110.26

(N) H-FRAME WITH 400 AMP -VÉRTICAL PULL SECTION AND 400 AMP HOT GUTTER & 2 (200AMP METERS) METER PANEL FOR (N) VERIZOŃ & SPARE METER SOCKÉT FOR FUTURE CROWN CASTLE USE

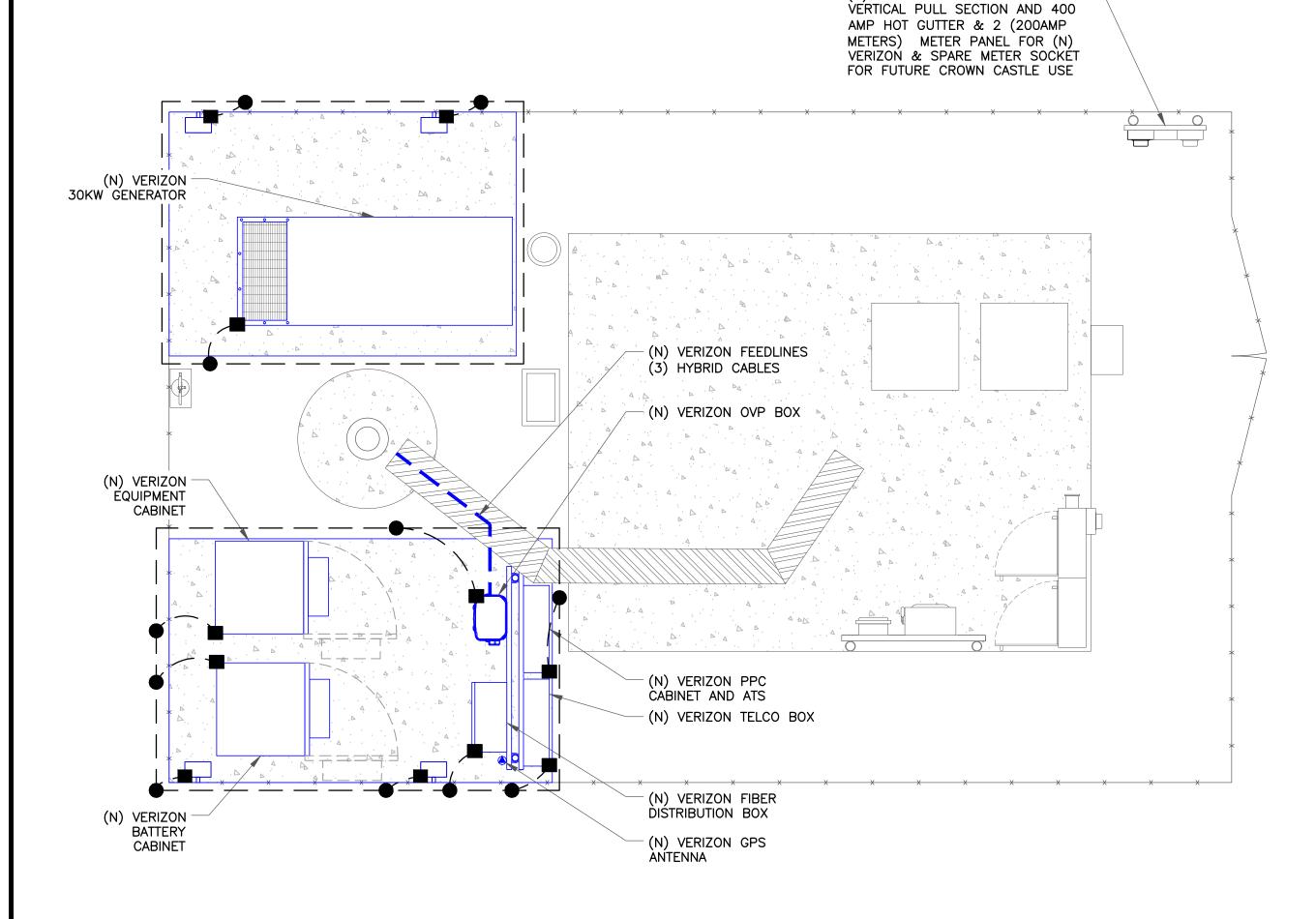


ANTENNA

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- 3. CONTRACTOR TO VERIFY THAT ALL T-MOBILE EQUIPMENT IS INSTALLED TO MEET THE WORKING CLEARANCE REQUIREMENTS OF NEC 110.26
- 4. CONTRACTOR TO VERIFY CONDITION AND LOCATION OF ALL EXISTING GROUNDING EQUIPMENT PRIOR TO CONSTRUCTION. TEP DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, GROUND RINGS, GROUND RODS, AND GROUND BARS.

LEGEND MECHANICAL CONNECTION EXOTHERMIC CONNECTION ANTENNA GROUND BAR MASTER GROUND BAR



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

(N) H-FRAME WITH 400 AMP -







TOWER ENGINEERING PROFESSIONALS 4710 E ELWOOD ST, STE 9 PHOENIX, AZ 85040 OFFICE: (480) 285-0036

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11/17/22

Mark Quakenbush, P.E. Professional Engineer License: #23287

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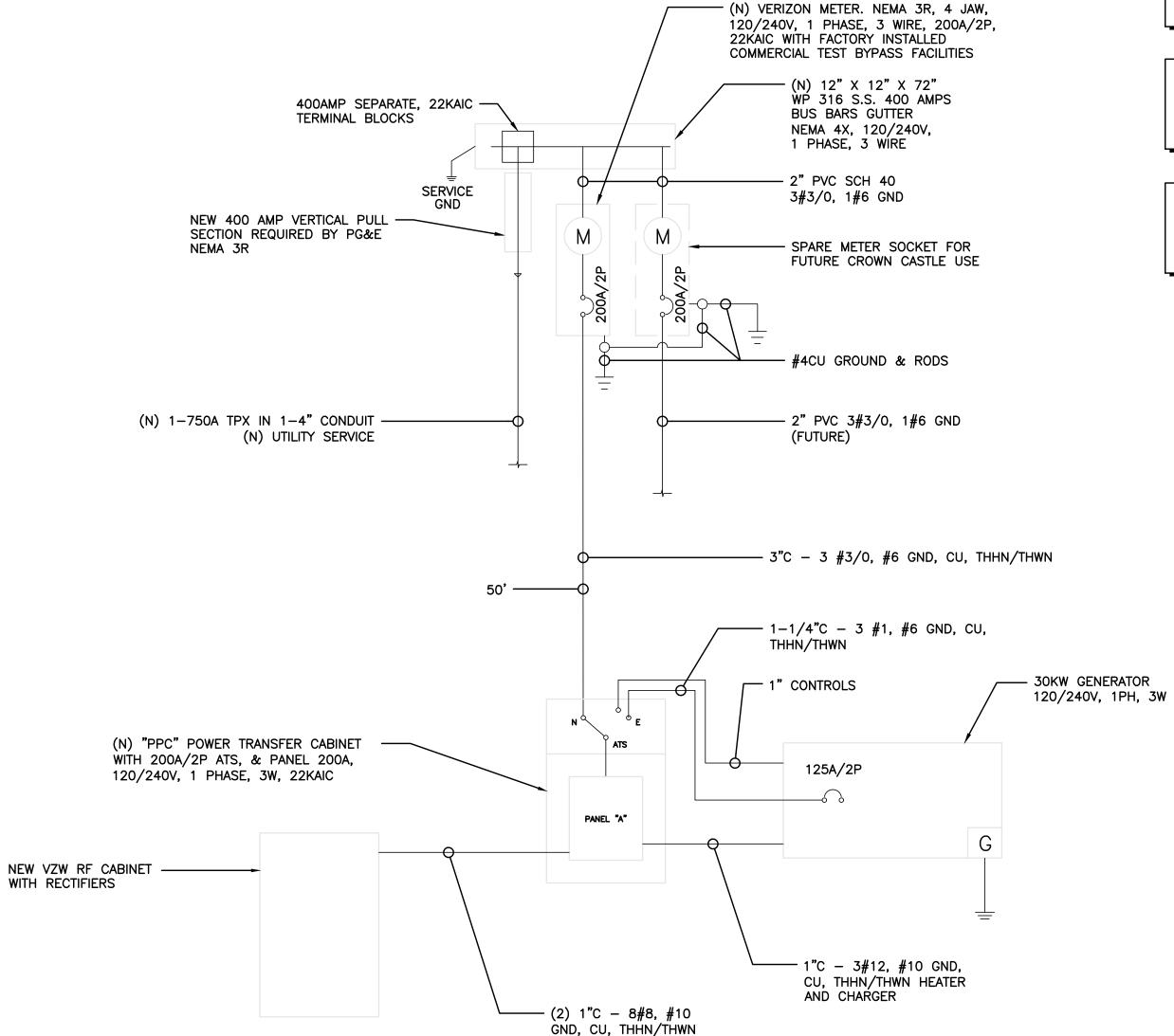
PROPOSED GROUNDING PLAN

	AC POWER PANEL (EXSITING)										
	120/240 VOLTS 1 PHASE	SU	3 V RFACE	VIRE MOUN	ΓED			200A, 2 POLE MAIN BREAKER			
NO.	LOAD SERVED	ØA VA	ØB VA	AMP / POLE	L1	L2	AMP / POLE	ØA VA	ØB VA	LOAD SERVED	NO.
1	CDADE (OFF)	0	_	45 /0	_	_	50 /0	0	0 -	SPARE (OFF)	2
3	SPARE (OFF)	_	0	15/2	_	50/2	30/2	_	0		4
5	SDARE (OFF)	0	_	15 /0	1000	_	20/1	1000	_	BATTERY CHARGER	6
7	SPARE (OFF)	_	0	15/2	_	1000	20/1	_	1000	HEATER	8
9	RECEPTACLE	180	_	20/1	180	_	70 /0	0	_	CUDOE CUDDDECCOD	10
11	LIGHT	_	75	20/1	_	75	30/2	_	0	SURGE SUPPRESSOR	12
13	DECTIFIED	1000	_	70 /0	2000	_	70 /2	1000	00 –	DECTIFIED	14
15	RECTIFIER	_	1000	30/2	_	2000	30/2	_	1000	RECTIFIER	16
17	DECTIFIED	1000	_	30/2 2000	_	70 /0	1000	_	DESTIFIED	18	
19	RECTIFIER	_	1000		_	2000	30/2	_	1000	RECTIFIER	20
21	DEATIFIED	1000	_	70 /0	2000	_	70 /0	70 /2 1000	_	DECTIFIED	22
23	RECTIFIER	_	1000	30/2	_	2000	30/2	_	1000	RECTIFIER	24
25	DECTIFIED	1000	_	70 /0	2000	_	70 /0	1000	_	DEOTIFIED	26
27	RECTIFIER	_	1000	30/2	_	2000	30/2	_	1000	RECTIFIER	28
29	SDARE (OFF)	0	_	50 /2	-	_	_	_	_	BLANK	30
31	SPARE (OFF)	_	0	50/2	_	_	_	_	-	BLANK	32
33	BLANK	_	_	_	_	_	_	_	_	BLANK	34
35	BLANK	_	_	_	_	_	_	_	_	BLANK	36
37	BLANK	_	_	_	_	_	_	_	_	BLANK	38
39	BLANK	_	_	_	_	_	_	_	_	BLANK	40
41	BLANK	_	_	_	_	_	_	_	_	BLANK	42
	PHA	SE TO	TALS (/A):	9180	9075					
	CURRENT	PER P	PHASE	(A):	76.5	75.6					
	PANEL TOTAL (VA): 18255										

DC -48V FEEDER CABLING CHART

CALCULATIONS ARE BASE ON WORST CASE FULL LOAD AMPS AT 104A -48VDC, NOT EXCEEDING 3% VOLTAGE DROP. IF FIELD CONDITIONS ARE DIFFERENT THAN INDICATED, CONTACT ENGINEER FOR REVISED CALCULATIONS.

DISTANCE FROM FUEL CELL TO EQUIP. CABINET.	-48V, DC SINGLE CABLE	–48V, DC PARALLEL CABLE	CONDUIT SIZE
1'–70'	1-#1/0 CU. AWG		1-1/4"
71'–90'	1-#2/0 CU. AWG		1-1/2"
91'–110'	1-#3/0 CU. AWG		1-1/2"
111'-140'	1-#4/0 CU. AWG		2"
141'–175'		2-#2/0 CU. AWG	2"



| NOTE: | #6 COPPER WIRE AND GREATER SHALL BE | (COPPER) THWN WIRE OR (COPPER) XHHW.

NOTE:
PRIOR TO RUNNING CONDUIT ROUTE — CONTRACTOR
SHALL CONTACT THE T-MOBILE PROJECT MANAGER
AND VERIFY THE EQUIPMENT CABINET LAYOUT
CONFIGURATION AND ROUTE CONDUITS ACCORDINGLY.

NOTE:
PRE-CONSTRUCTION MEETING AND
ELECTRICAL EASEMENT REQUIRED.

NOTE:
CONTRACTOR SHALL TAG EACH
CIRCUIT CONDUCTOR AT EACH
J-BOX, OUTLET, SWITCH, ETC.
WITH THE CIRCUITS IDENTIFICATION.

NOTE:
CONTRACTOR SHALL TAG EACH
CIRCUIT CONDUCTOR AT EACH
J-BOX, OUTLET, SWITCH, ETC.
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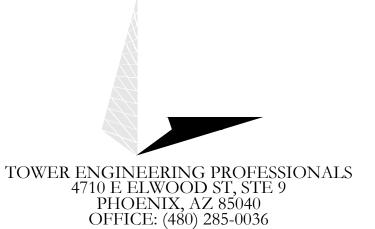
NOTE:
PROPOSED CONDUCTORS FROM
PPC TO SSC CABINET EXCLUDE
NEUTRAL CONDUCTOR AT THE
DIRECTION OF T-MOBILE.

NOTE:
ALL EQUIPMENT SHOWN IN THE ONE-LINE DIAGRAM
AND PANEL SCHEDULE IN THESE DRAWINGS IS
EXISTING UNLESS NOTED OTHERWISE. ONLY NEW
CONDUIT AND CONDUCTORS ARE SHOWN ON
ONE-LINE DIAGRAM FOR CLARITY.

NOTE:
CONTRACTOR TO VERIFY THAT EXISTING
EQUIPMENT HAS A MINIMUM OR GREATER
AIC RATING OF THE LISTED FAULT
CURRENT AND REPLACE IF INSUFFICIENT.







VERIZON SITE NUMBER: 300189

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2	08/31/22	ORG	CONSTRUCTION	JFJ				
3	11/17/22	KRS	CONSTRUCTION	JFJ				



11/17/22

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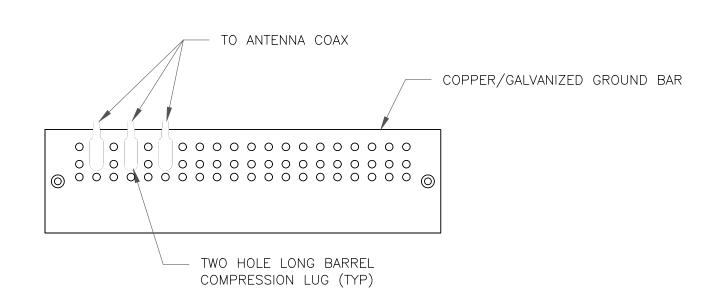
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SHEET NUMBER:

E-2

REVISION:

ELECTRICAL DETAILS
SCALE: NOT TO SCALE

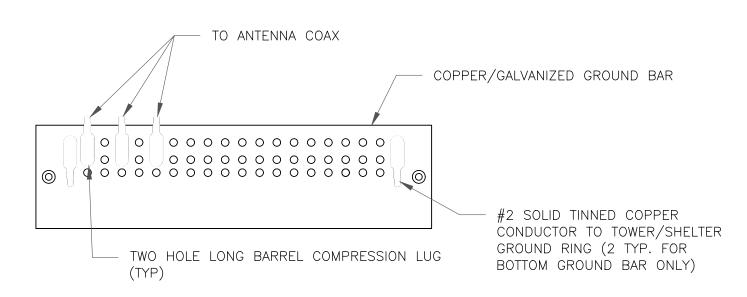


NOTES:

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

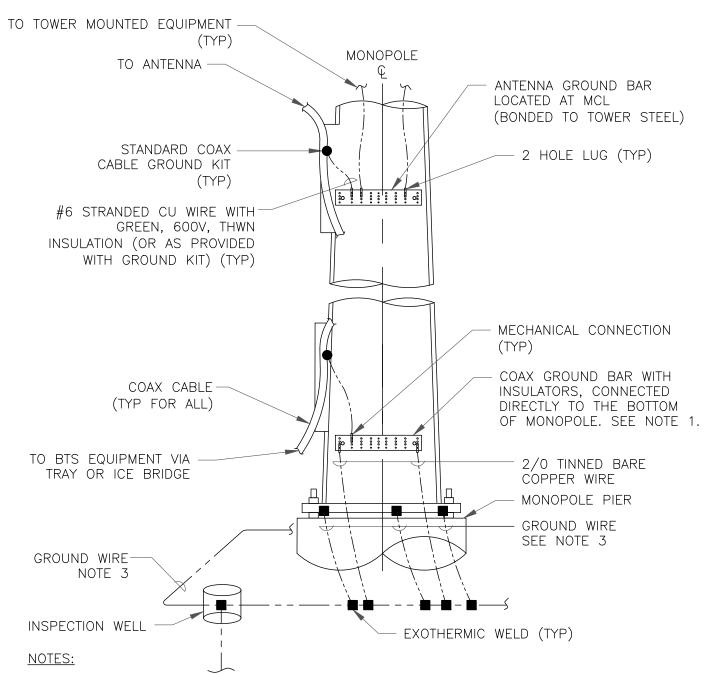


SCALE: NOT TO SCALE



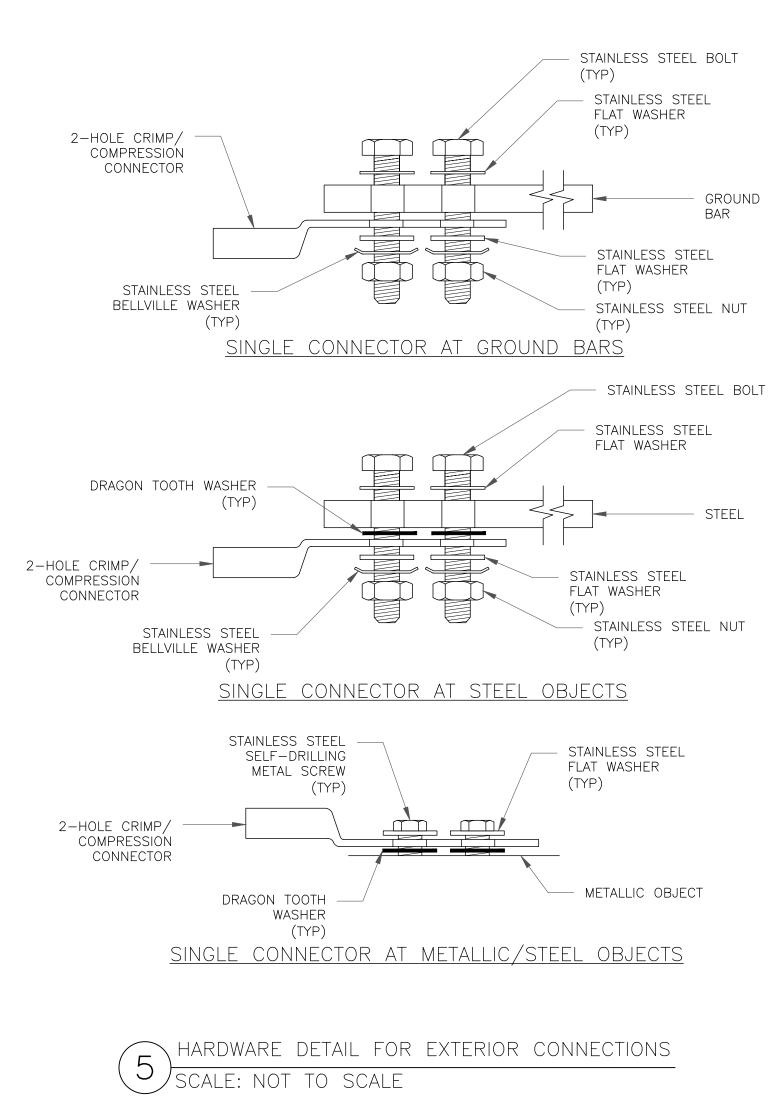
- 1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
- 2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
- 3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.



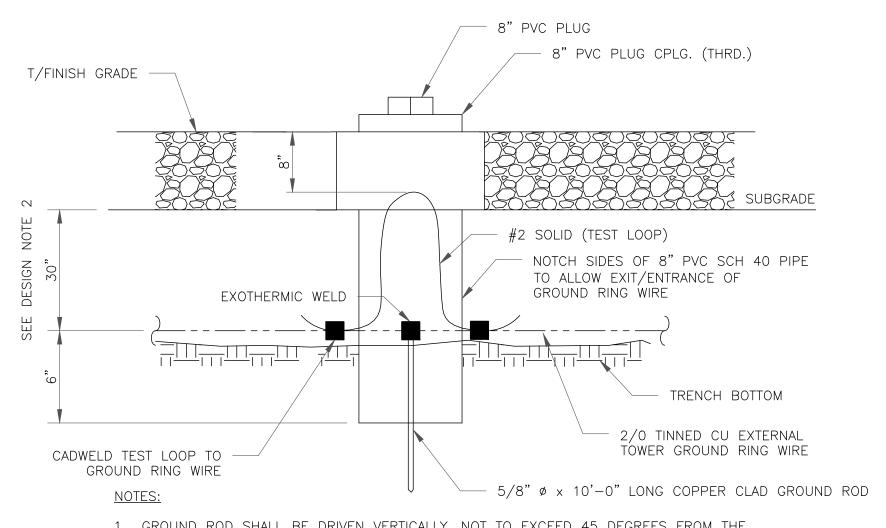


- 1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
- 2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA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

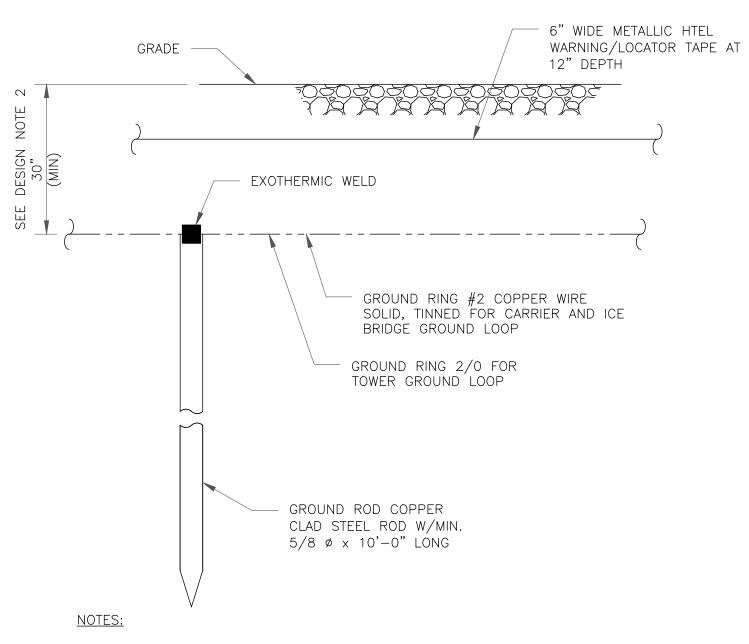








- 1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE
- 2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)
- INSPECTION WELL DETAIL SCALE: NOT TO SCALE



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









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0	03/09/22	DRS	CONSTRUCTION	JFJ					

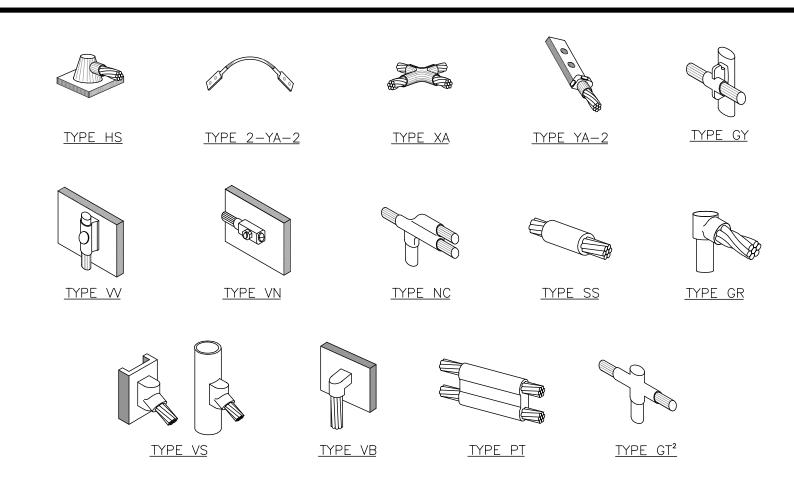


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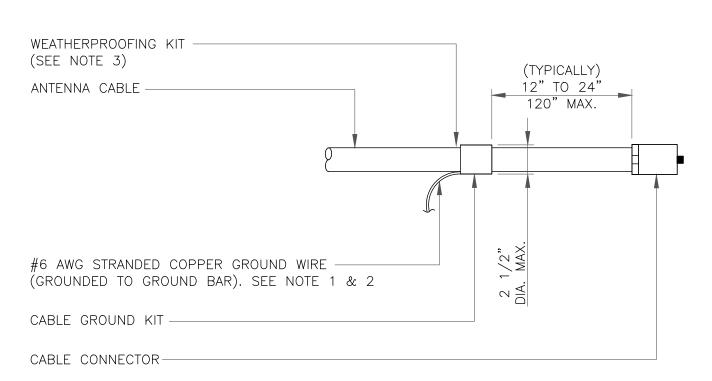


NOTE:

- 1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC
- MOLDS TO BE USED FOR THIS PROJECT.

 2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

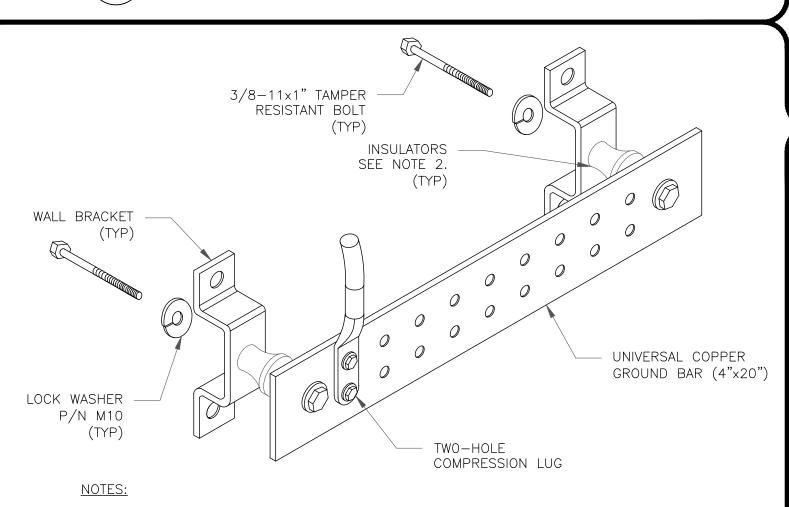
CADWELD GROUNDING CONNECTIONS SCALE: NOT TO SCALE



NOTES:

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

3 CABLE GROUND KIT CONNECTION SCALE: NOT TO SCALE

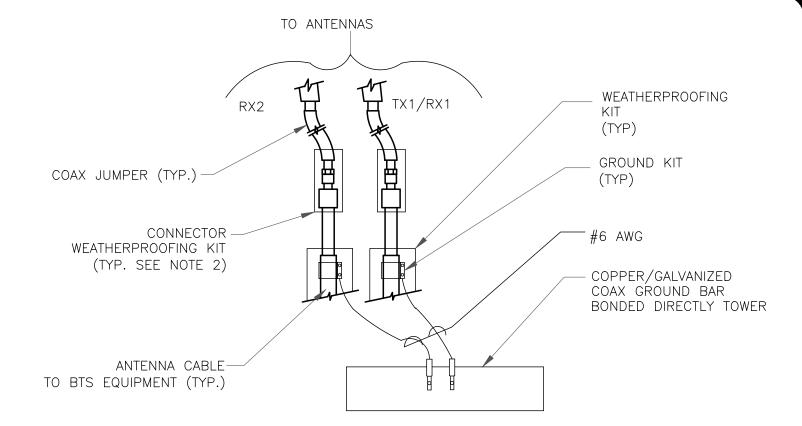


1. DOWN LEAD (HOME RUN) CONDUCTORS ARE <u>NOT</u> TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS—STD—10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD—WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.

2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

GROUND BAR DETAIL

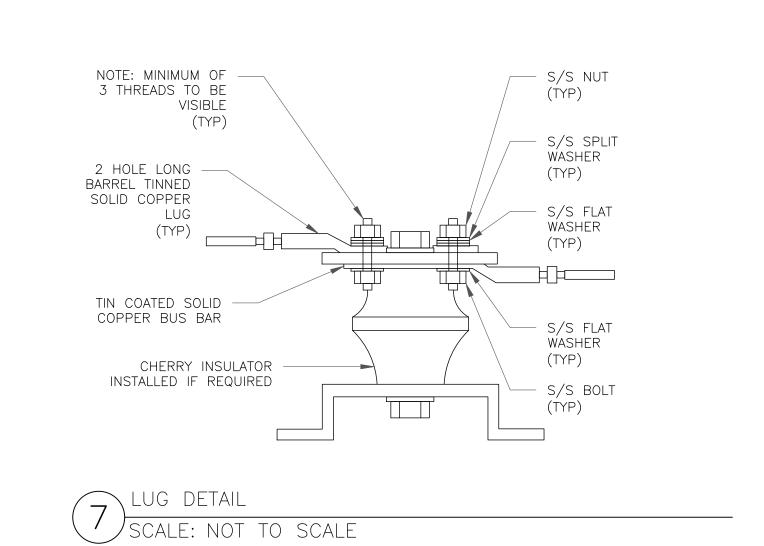
SCALE: NOT TO SCALE



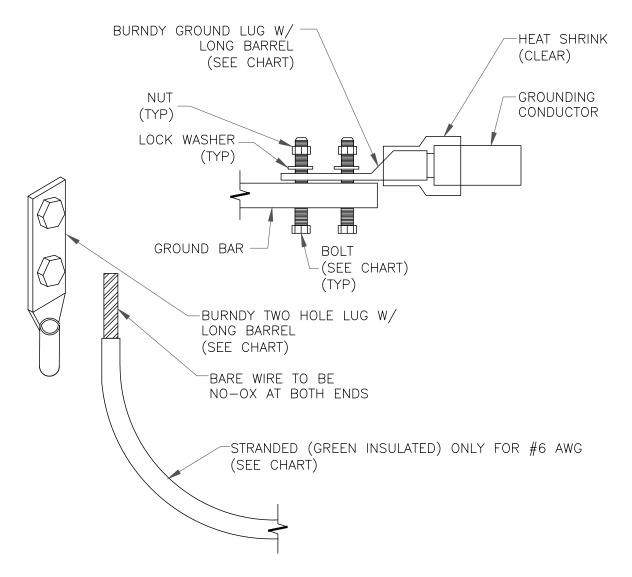
- NOTES:
- 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
- 2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

GROUND CABLE CONNECTION

SCALE: NOT TO SCALE



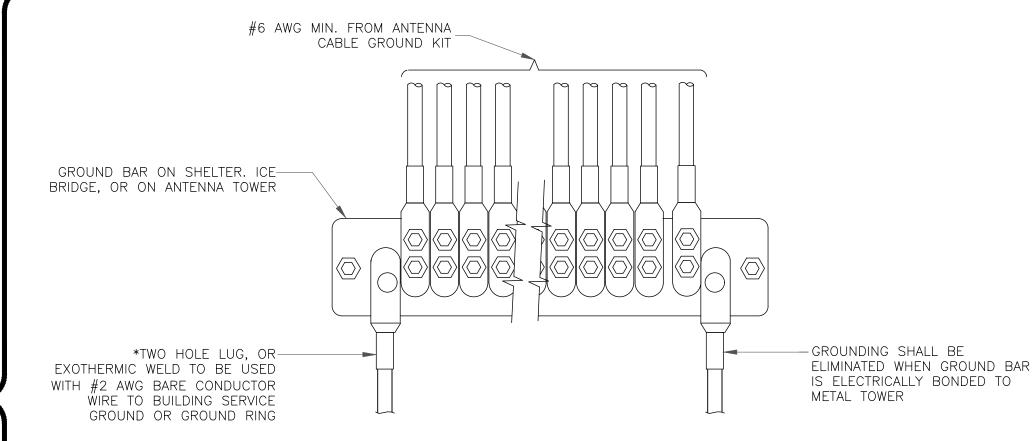




NOTES:

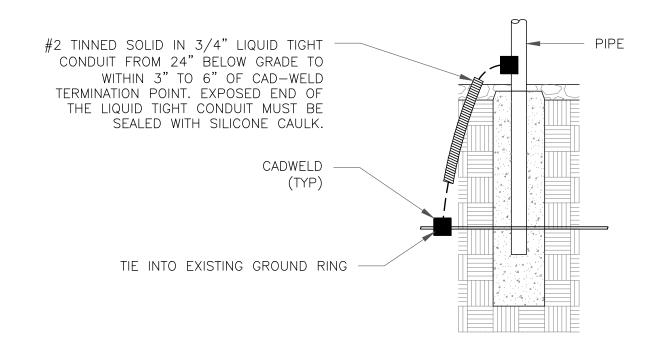
1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL
HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG,
FLAT WASHER AND NUT.

2 MECHANICAL LUG CONNECTION SCALE: NOT TO SCALE



GROUNDWIRE INSTALLATION

SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL SCALE: NOT TO SCALE







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