



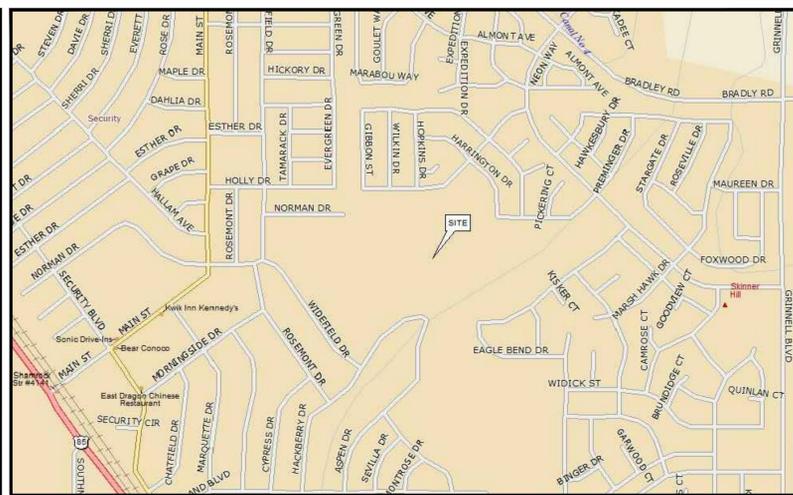
161 INVERNESS DR W, 2ND FLOOR
ENGLEWOOD, CO 80112

AT&T SITE NAME: WIDFIELD HIGH SCHOOL CO
AT&T SITE ID: COL02205
AT&T PACE NUMBER: MRUTH042458
AT&T FA CODE: 15312479
USID: 295097
NSB - MONOPOLE
LTE 1C/2C/3C/4C/5G NR 1SR



AMERICAN TOWER®

ATC SITE NAME: WIDFIELD HIGH SCHOOL II
ATC SITE NUMBER: 370609
SITE ADDRESS: 523 WIDFIELD ROAD
COLORADO SPRINGS, CO 80911
(EL PASO COUNTY)



LOCATION MAP



161 INVERNESS DR W, 2ND FLOOR
ENGLEWOOD, CO 80112



AMERICAN TOWER®
19100 VON KARMAN AVE
SUITE 200
IRVINE, CA 92612



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

*LATITUDE N 38° 45' 17.39" (38.75483°)
*LONGITUDE W 104° 43' 50.02" (-104.73056°)
*GROUND ELEV. (AMSL) = 5,795'±
*INFORMATION PROVIDED BY ATC

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 THE LATEST EDITIONS OF THE FOLLOWING:

| | |
|---|--|
| 1. INTERNATIONAL BUILDING CODE (2018 EDITION) | 4. NATIONAL ELECTRIC CODE (2020 EDITION) |
| 2. INTERNATIONAL CODE COUNCIL | 5. LOCAL BUILDING CODE |
| 3. ANSII/TIA/EIA-222-H | 6. CITY/COUNTY ORDINANCES |

POWER COMPANY: COLORADO SPRINGS UTILITIES
CONTACT: CUSTOMER SERVICE
PHONE: (719) 448-4800
METER # NEAR SITE: UNKNOWN
TELEPHONE COMPANY: CENTURY LINK
CONTACT: CUSTOMER SERVICE
PHONE: (866) 915-7181
PHONE # NEAR SITE: (719) 494-7942
PEDESTAL # NEAR SITE: UNKNOWN

FROM COLORADO SPRINGS DOWNTOWN HEAD SOUTH ON I-25, TAKE EXIT 135 AND TURN LEFT ONTO S ACADEMY BLVD FOR .8 MILES, TAKE US 85 RAMP TO FOUNTAIN AND TAKE US 85 SOUTH FOR 1.4 MILES, TURN LEFT ONTO MAIN ST FOR .4 MILES, TURN RIGHT ONTO NORMAN DR. FOR .1 MILES, CONTINUE ONTO WIDFIELD DR. FOR .3 MILES, TURN LEFT ONTO HACKBERRY DR. FOLLOW THE ROAD TOWARDS THE BACK ENTRANCE OF THE FOOTFIELD FIELD SITE WILL BE ON THE RIGHT.

TOWER COORDINATES

CODE COMPLIANCE

| | | | |
|------------------|-------------------------|----------------------|----------------|
| AT&T SITE NAME: | WIDFIELD HIGH SCHOOL CO | PROJECT DESCRIPTION: | COLLOCATION |
| AT&T SITE ID: | COL02205 | TOWER TYPE: | 119' MONOPOLE |
| FA: | 15312479 | JURISDICTION: | EL PASO COUNTY |
| PACE NUMBER: | MRUTH042458 | LEASE AREA: | 300 SQ FT |
| ATC SITE NAME: | WIDFIELD HIGH SCHOOL II | CURRENT ZONING: | A-5 |
| ATC SITE NUMBER: | 370609 | | |

UTILITY INFORMATION

DESIGN PACKAGE BASED ON RF DATA SHEET
RFDS NAME: COL02205
REVISION: 1.00
ISSUED: 09/21/2020 5:43:37 P.M.
DATE UPDATED: 10/14/2020 11:33:08 A.M.

DRIVING DIRECTIONS

PROJECT INFORMATION

SITE CONSTRUCTION MANAGER:
NAME: AT&T
ADDRESS: 161 INVERNESS DR W, 2ND FLOOR
CITY, STATE, ZIP: ENGLEWOOD, CO 80112
CONTACT: REID POST
PHONE: (720) 838-4228

SITE APPLICANT:
NAME: AT&T
ADDRESS: 4393 S RIVERBOAT RD, 4TH FLOOR
CITY, STATE, ZIP: SALT LAKE CITY, UT 84123
CONTACT: JAN ROBINETTE
PHONE: (801) 201-4173

CIVIL ENGINEER:
NAME: TOWER ENGINEERING PROFESSIONALS
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27803
CONTACT: GRAHAM M. ANDRES, P.E.
PHONE: (919) 661-6351

ELECTRICAL ENGINEER:
NAME: TOWER ENGINEERING PROFESSIONALS
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27803
CONTACT: GRAHAM M. ANDRES, P.E.
PHONE: (919) 661-6351

PROPERTY OWNER:
NAME: WIDFIELD SCHOOL DISTRICT NO 3
ADDRESS: 1820 MAIN ST
CITY, STATE, ZIP: COLORADO SPRINGS, CO 80911

| SHEET: | DESCRIPTION: | REV |
|--------|------------------------------------|-----|
| T-1 | TITLE SHEET | C |
| T-2 | GENERAL NOTES | C |
| C-1.1 | SITE SURVEY | C |
| C-1.2 | COMPOUND DETAIL | C |
| C-2 | EQUIPMENT & ANTENNA LAYOUTS | C |
| C-3 | EXISTING AND FINAL ELEVATIONS | C |
| C-4 | EQUIPMENT DETAILS | C |
| C-5 | EQUIPMENT DETAILS | C |
| C-6 | W/C SHELTER DETAILS | C |
| C-7 | GENERATOR DETAILS | C |
| C-8 | FOUNDATION DETAILS | C |
| E-1 | ELECTRICAL PANEL & GROUNDING PLANS | C |
| E-2 | ONE-LINE DIAGRAM | C |
| E-3 | DC SYSTEM DETAILS | C |
| G-1 | GROUNDING DETAILS | C |
| G-2 | GROUNDING DETAILS | C |

NUMBER OF SECTORS: 3
NUMBER OF ANTENNAS: 6
NUMBER OF TMAs: 0
NUMBER OF RRHs: 9
NUMBER OF FIBER/DC SQUIDS: 0
NUMBER OF DC SQUIDS: 3
NUMBER OF FIBER TRUNK CABLES: 3
NUMBER OF DC TRUNK CABLES: 6
NUMBER OF RF CABLES: 0

RFDS DATA

THE PURPOSE OF THIS PROJECT IS AS FOLLOWS:

TOWER SCOPE OF WORK:

- INSTALL (3) SECTOR FRAMES
- INSTALL (6) ANTENNAS
- INSTALL (9) RRHs
- INSTALL (3) SQUIDS
- INSTALL (3) FIBER TRUNKS
- INSTALL (6) DC TRUNKS

GROUND SCOPE OF WORK:

- INSTALL (1) W.I.C. SHELTER PAD
- INSTALL (1) GENERATOR PAD
- INSTALL (1) W.I.C. SHELTER
- INSTALL (1) GENERATOR
- INSTALL (1) H-FRAME
- INSTALL METER AND DISCONNECT
- INSTALL FIBER BOX

NSB - MONOPOLE
LTE - 1C/2C/3C/4C/5G NR 1SR

SCOPE OF WORK

JURISDICTIONAL APPROVAL

DO NOT SCALE DRAWINGS.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

GENERAL NOTES

AT&T SITE ID: COL02205
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AT&T PACE #: MRUTH042458
ATC #: 370609
WIDFIELD HIGH SCHOOL II

523 WIDFIELD ROAD
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | QA |
|-----|----------|------|------------------|-----|
| A | 11-23-20 | KT | PRELIMINARY | EGG |
| B | 12-14-20 | SDD | 90% CONSTRUCTION | EGG |
| C | 02-18-21 | CAK | 90% CONSTRUCTION | EGG |



SHEET TITLE:
TITLE SHEET

SHEET NUMBER: T-1
REVISION: C

TEP #: 177861.243634

PROJECT TEAM

SHEET INDEX

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, AT&T "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
 - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
 - B. AC/TELCO INTERFACE BOX (PPC)
 - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
 - D. TOWERS, MONOPOLES
 - E. TOWER LIGHTING
 - F. GENERATORS & LIQUID PROPANE TANK
 - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
 - H. ANTENNAS (INSTALLED BY OTHERS)
 - I. TRANSMISSION LINE
 - J. TRANSMISSION LINE JUMPERS
 - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
 - L. TRANSMISSION LINE GROUND KITS
 - M. HANGERS
 - N. HOISTING GRIPS
 - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANS/IEA/ITIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH ##### AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T SPECIFICATIONS AND REQUIREMENTS.

24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY AT&T REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T REP. ANY WORK FOUND BY THE AT&T REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. AT&T FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. AT&T OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T OR THEIR ARCHITECT/ENGINEER.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
 - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
 - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
 - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
 - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
 - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
 - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
 - B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
 - C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
 - D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
 - E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.

- F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
- G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING "1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
- H. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.
- I. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER, AND AT&T PROJECT MANAGER IN WRITING

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
 - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
 - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND AT&T SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
 - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE AND PROVIDE PRINTOUT OF THAT TEST.
 - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.

- F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE NOTED.

- G. ANTENNA AND COAXIAL CABLE GROUNDING:
 2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPICE WEATHERPROOFING KIT #221213 OR EQUAL.
 3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

CONCRETE AND REINFORCING STEEL NOTES:

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF ALL APPLICABLE CODES INCLUDING: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS", AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
2. MIX DESIGN SHALL BE APPROVED BY AT&T REP PRIOR TO PLACING CONCRETE.
3. CONCRETE SHALL BE NORMAL WEIGHT, 6 % AIR ENTRAINED (+/- 1.5%) WITH A SLUMP RANGE OF 3-6" AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
4. THE FOLLOWING MATERIALS SHALL BE USED:

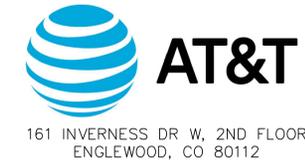
| | |
|--------------------------|---|
| PORTLAND CEMENT: | ASTM C150, TYPE 2 |
| REINFORCEMENT: | ASTM A185, PLAIN STEEL WELDED WIRE FABRIC |
| REINFORCEMENT BARS: | ASTM A615, GRADE 60, DEFORMED |
| NORMAL WEIGHT AGGREGATE: | ASTM C33 |
| WATER: | ASTM C 94/C 94M |
| WELDED WIRE FABRIC: | ASTM A185 |
| ADMIXTURES: | |
| -WATER-REDUCING AGENT: | ASTM C 494/C 494M, TYPE A |
| -AIR-ENTERING AGENT: | ASTM C 260/C 260M |
| -SUPERPLASTICIZER: | ASTM C494, TYPE F OR TYPE G |
| -RETARDING: | ASTM C 494/C 494M, TYPE B |
5. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE NO LESS THAN 3".
6. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE IN ACCORDANCE WITH ACI 301 SECTION 4.2.4, UNLESS NOTED OTHERWISE.
7. 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 APPROVAL FROM AN ATC ENGINEER WHEN DRILLING HOLES IN CONCRETE.
8. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN "METHOD 1" OF ACI 301.
9. DO NOT WELD OR TACK WELD REINFORCING STEEL.
10. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.

11. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
12. DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
13. FOR COLD-WEATHER (ACI 308) AND HOT-WEATHER (ACI 301M) CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS, MINIMUM.
14. ALL CONCRETE SHALL HAVE A "SMOOTH FORM FINISH."
15. SPLICING OF REINFORCEMENT IS PERMITTED ONLY AT LOCATIONS SHOWN IN THE CONTRACT DRAWINGS OR AS ACCEPTED BY THE ENGINEER. UNLESS OTHERWISE SHOWN OR NOTED REINFORCING STEEL SHALL BE SPLICED TO DEVELOP ITS FULL TENSILE CAPACITY (CLASS A) IN ACCORDANCE WITH ACI 318.
16. DETAILING OF REINFORCING STEEL SHALL CONFORM TO "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).
17. ALL SLAB CONSTRUCTION SHALL BE CAST MONOLITHICALLY WITHOUT HORIZONTAL CONSTRUCTION JOINTS, UNLESS SHOWN IN THE CONTRACT DRAWINGS.
18. LOCATION OF ALL CONSTRUCTION JOINTS ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, CONFORMANCE WITH ACI 318, AND ACCEPTANCE OF THE ENGINEER. DRAWINGS SHOWING LOCATION OF DETAILS OF THE PROPOSED CONSTRUCTION JOINTS SHALL BE SUBMITTED WITH REINFORCING STEEL PLACEMENT DRAWINGS.
19. SPLICES OF WWF AT ALL SPLICED EDGES, SHALL BE SUCH THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS 2 INCHES, NOR LESS THAN 6".
20. BAR SUPPORTS SHALL BE ALL-GALVANIZED METAL WITH PLASTIC TIPS.
21. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE TO PREVENT DISPLACEMENT BY CONSTRUCTION TRAFFIC OR CONCRETE. THE WIRE SHALL BE OF SUFFICIENT STRENGTH FOR INTENDED PURPOSE, BUT NOT LESS THAN NO. 18 GAUGE.
22. SLAB ON GROUND: COMPACT STRUCTURAL FILL TO 95% DENSITY AND THEN PLACE 6" GRAVEL BENEATH SLAB.

ELECTRICAL NOTES:

1. ELECTRICAL DESIGN SHALL BE PERFORMED BY ELECTRICAL CONTRACTOR. STRUCTURAL DESIGN SHALL BE PERFORMED BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ALL WORK COMPLIES WITH ALL APPLICABLE LOCAL AND STATE CODES AND NATIONAL ELECTRICAL CODE.
2. ALL SUGGESTED ELECTRICAL ELEMENTS (SUCH AS BREAKER SIZES, WIRE SIZES, CONDUITS SIZES ARE FOR ZONING PURPOSES ONLY. IT IS THE RESPONSIBILITY TO OF THE ELECTRICAL CONTRACTOR TO CONFIRM COMPLIANCE WITH LOCAL ELECTRICAL CODES AND PASS ALL APPLICABLE AND NECESSARY INSPECTIONS. IN SOME EVENTS, IT MAY BE NECESSARY TO PERFORM AN ELECTRICAL LOAD STUDY TO VERIFY THE CAPACITY OF THE EXISTING SERVICE. THIS IS NOT THE RESPONSIBILITY OF CONCORDIA. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
3. CONTRACTOR SHALL FIELD LOCATE ALL BELOW GRADE GROUND LINES AND UTILITY LINES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR RELOCATION OF ALL UTILITIES AND GROUND LINES THAT MAY BECOME DISTURBED OR CONFLICTING IN THE COURSE OF CONSTRUCTION.

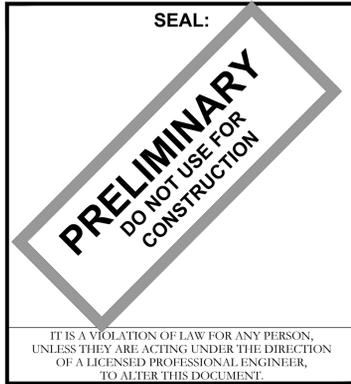
ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042458
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

523 WIDEFIELD ROAD
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

| ISSUED FOR: | | | | |
|-------------|----------|------|------------------|-----|
| REV | DATE | DRWN | DESCRIPTION | QA |
| A | 11-23-20 | KT | PRELIMINARY | EGG |
| B | 12-14-20 | 5DD | 90% CONSTRUCTION | EGG |
| C | 02-18-21 | CAK | 90% CONSTRUCTION | EGG |
| | | | | |



SHEET TITLE:
GENERAL NOTES

SHEET NUMBER: **T-2** **REVISION:** **C**

TEP #: 177861.243634

NOTE:

SITE SURVEY PERFORMED BY MILLMAN, NATIONAL LAND SERVICES DATED APRIL 15, 2013 WAS PROVIDED BY AMERICAN TOWER ENGINEERING.

**FIDELITY NATIONAL TITLE INSURANCE COMPANY
COMMITMENT NO. 16085920 - SCHEDULE A:**

An interest in land, said interest being over a portion of the following described parcel:
A portion of the East half of the Southwest quarter of Section 12 in Township 15 South, Range 66 West of the 6th P. M., El Paso County, Colorado, being more particularly described as follows: Beginning at a point on the East line of a tract described in a deed to El Paso County School District No. 3 and recorded in Book 1884 of Page 382 of the El Paso County records, said point being 5.00 feet Northwest of the Easternmost corner of the aforesaid tract; thence along and identified with the Northwest boundary of said tract, N 31°34'15"W a distance of 45.00 feet; thence along a curve to the right whose radius is 803.18 feet and whose central angle is 31°34'15", an arc distance of 442.58 feet; thence along the tangent produced, N 0°00'00"E a distance of 106.00 feet; thence N 90°00'00"E a distance of 310.00 feet; thence S 0°00'00"E a distance of 461.88 feet; thence S 58°25'45"W a distance of 196.07 feet to the point of beginning, containing an area of 3,329 acres more or less.
AND BEING the same property conveyed to Widefield School District No. 3 from Fred C. Spaul Homes, Inc., a Colorado corporation by Warranty Deed dated September 24, 1960 and recorded October 21, 1965 in Deed Book 2099, Page 682.

A portion of Tax Parcel No. 6512300001
Said interest being over land more particularly described by the following description:
Situated in the City of Colorado Springs, County of El Paso and State of Colorado, known as being a 2,500 square foot Lease Area over and upon a parcel of land now or formerly conveyed to Widefield School District No. 3 as recorded in Book 2099 Page 682 of El Paso County records and situated in the East half of the Southwest Quarter of Section 12, Township 15 South, Range 66 West of the 6th principal Meridian and being more particularly described as follows:

Commencing at a found and used iron pipe situated on the prolongation of the terminus line of Hackberry Drive (a 50' public right of way) (for reference see only: travel along the aforesaid prolonged line South 31°31'02" East a distance of 5.00 feet to a point situated on the northern margin of the aforesaid Hackberry Drive); thence North 02°55'26" East a distance of 125.96 feet to a Point of Beginning; thence along the aforesaid Lease Area for the following four (4) courses and distances: 1) North 03°24'00" East a distance of 50.00 feet to a point; 2) South 86°36'00" East a distance of 50.00 feet to a point; 3) South 03°24'00" West a distance of 50.00 feet to a point; 4) North 86°36'00" West a distance of 50.00 feet to the Point of Beginning; Containing 2,500 square feet or 0.0574 acres, more or less.

**FIDELITY NATIONAL TITLE INSURANCE COMPANY
COMMITMENT NO. 16085920 - SCHEDULE B, SECTION II:**

11. Right-of-Way and Utility Easement in favor of Clear Wireless LLC, a Nevada limited liability company set forth in instrument recorded on 07/20/2011 in instrument No. 211697996. (DOES NOT AFFECT THE SUBJECT PROPERTY OR LEASE AREA.)

LEASE AREA

Situated in the City of Colorado Springs, County of El Paso and State of Colorado, known as being a 2,500 square foot Lease Area over and upon a parcel of land now or formerly conveyed to Widefield School District No. 3 as recorded in Book 2099 Page 682 of El Paso County records and situated in the East half of the Southwest Quarter of Section 12, Township 15 South, Range 66 West of the 6th principal Meridian and being more particularly described as follows:

Commencing at a found and used iron pipe situated on the prolongation of the terminus line of Hackberry Drive (a 50' public right of way) (for reference see only: travel along the aforesaid prolonged line South 31°31'02" East a distance of 5.00 feet to a point situated on the northern margin of the aforesaid Hackberry Drive); thence North 02°55'26" East a distance of 125.96 feet to a Point of Beginning; thence along the aforesaid Lease Area for the following four (4) courses and distances: 1) North 03°24'00" East a distance of 50.00 feet to a point; 2) South 86°36'00" East a distance of 50.00 feet to a point; 3) South 03°24'00" West a distance of 50.00 feet to a point; 4) North 86°36'00" West a distance of 50.00 feet to the Point of Beginning; Containing 2,500 square feet or 0.0574 acres, more or less.

12' ACCESS EASEMENT

Situated in the City of Colorado Springs, County of El Paso and State of Colorado, known as being a 2,714 square foot 12' Access Easement over and upon a parcel of land now or formerly conveyed to Widefield School District No. 3 as recorded in Book 2099 Page 682 of El Paso County records and situated in the East half of the Southwest Quarter of Section 12, Township 15 South, Range 66 West of the 6th principal Meridian and being more particularly described as follows:

Commencing at a found and used iron pipe situated on the prolongation of the terminus line of Hackberry Drive (a 50' public right of way) (for reference see only: travel along the aforesaid prolonged line South 31°31'02" East a distance of 5.00 feet to a point situated on the northern margin of the aforesaid Hackberry Drive); thence along the aforesaid northern margin South 58°18'16" West a distance of 12.00 feet to a point; 2) North 31°41'44" West a distance of 68.48 feet to a point; 3) North 03°22'11" East a distance of 118.62 feet to a point; 4) South 86°36'00" East a distance of 54.86 feet to a point; 5) South 03°24'00" West a distance of 12.00 feet to a point; 6) North 86°36'00" West a distance of 42.86 feet to a point; 7) South 03°22'11" West a distance of 102.82 feet to a point; 8) South 31°41'44" East a distance of 64.69 feet to the Point of Beginning; Containing 2,714 square feet or 0.0623 acres, more or less.

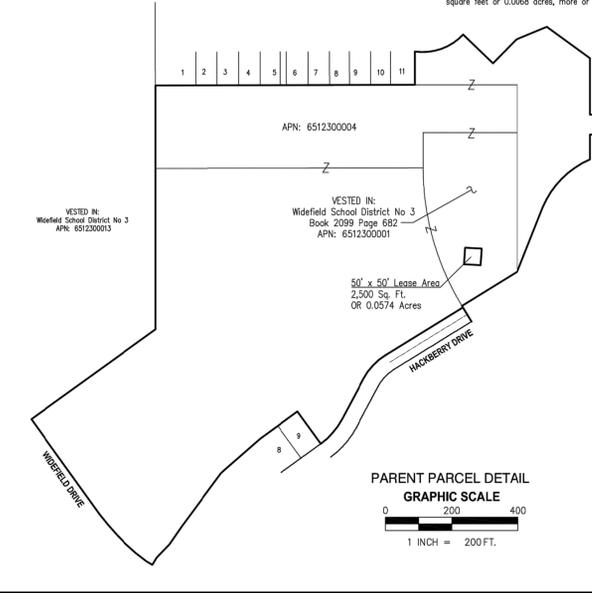
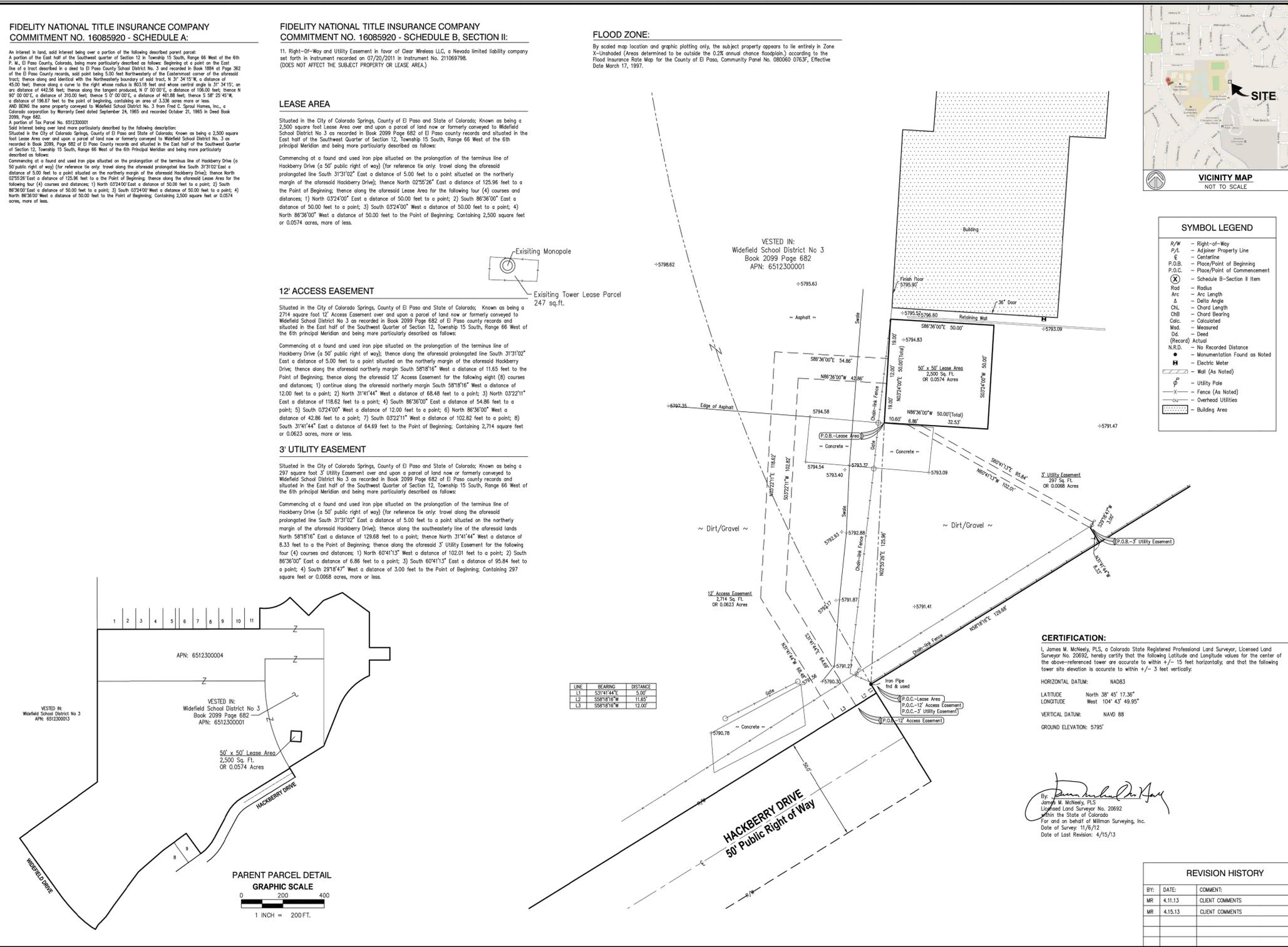
3' UTILITY EASEMENT

Situated in the City of Colorado Springs, County of El Paso and State of Colorado, known as being a 297 square foot 3' Utility Easement over and upon a parcel of land now or formerly conveyed to Widefield School District No. 3 as recorded in Book 2099 Page 682 of El Paso County records and situated in the East half of the Southwest Quarter of Section 12, Township 15 South, Range 66 West of the 6th principal Meridian and being more particularly described as follows:

Commencing at a found and used iron pipe situated on the prolongation of the terminus line of Hackberry Drive (a 50' public right of way) (for reference see only: travel along the aforesaid prolonged line South 31°31'02" East a distance of 5.00 feet to a point situated on the northern margin of the aforesaid Hackberry Drive); thence along the southeasterly line of the aforesaid lands North 58°18'16" East a distance of 129.68 feet to a point; thence North 31°41'44" West a distance of 8.33 feet to a Point of Beginning; thence along the aforesaid 3' Utility Easement for the following four (4) courses and distances: 1) North 60°41'13" West a distance of 102.01 feet to a point; 2) South 86°36'00" East a distance of 8.86 feet to a point; 3) South 60°41'13" East a distance of 95.84 feet to a point; 4) South 29°18'47" West a distance of 3.00 feet to the Point of Beginning; Containing 297 square feet or 0.0068 acres, more or less.

FLOOD ZONE:

By scaled map location and graphic plotting only, the subject property appears to lie entirely in Zone X-Unshaded (Areas determined to be outside the 0.2% annual chance floodplain.) according to the Flood Insurance Rate Map for the County of El Paso, Community Panel No. 080600 0763F, Effective Date March 17, 1997.



SYMBOL LEGEND

| | |
|----------|--------------------------------|
| R/W | - Right-of-Way |
| P/L | - Adjusted Property Line |
| C | - Centerline |
| P.O.B. | - Place/Point of Beginning |
| P.O.C. | - Place/Point of Commencement |
| (X) | - Schedule B-Section II Item |
| R | - Radius |
| Arc | - Arc Length |
| Δ | - Delta Angle |
| ChL | - Chord Length |
| ChB | - Chord Bearing |
| Calc. | - Calculated |
| Meas. | - Measured |
| Od. | - Dead |
| (Record) | - Actual |
| N.R.D. | - No Recorded Distance |
| • | - Monumentation Found as Noted |
| H | - Electric Meter |
| --- | - Wall (As Noted) |
| ⊕ | - Utility Pole |
| -X- | - Fence (As Noted) |
| --- | - Overhead Utilities |
| ▨ | - Building Area |

CERTIFICATION:
I, James M. McNeely, PLS, a Colorado State Registered Professional Land Surveyor, Licensed Land Surveyor No. 20692, hereby certify that the following Latitude and Longitude values for the center of the above-referenced tower are accurate to within +/- 15 feet horizontally, and that the following tower site elevation is accurate to within +/- 3 feet vertically.

HORIZONTAL DATUM: NAD83
LATITUDE: North 38° 45' 17.36"
LONGITUDE: West 104° 43' 49.95"
VERTICAL DATUM: NAVD 88
GROUND ELEVATION: 5795'

REVISION HISTORY

| BY: | DATE: | COMMENT: |
|-----|---------|-----------------|
| MR | 4.11.13 | CLIENT COMMENTS |
| MR | 4.15.13 | CLIENT COMMENTS |

Surveyor's Seal
Sheet No. **1** of **1**
MSI Project No. 28074
PM: MR Drafter: MR

millman
National Land Services
Transforming the Industry

Surveying
Zoning
Environmental
Real Support - Title Review

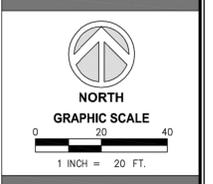
Millman Surveying, Inc.
Corporate Headquarters
1742 Georgetown Road, Suite H
Hudson, OH 44236
Phone: 800-520-1010
Fax: 330-342-0834
www.millmansurveying.com

ALTA/ACSM LAND TITLE
SURVEY PREPARED FOR:

PDC CORPORATION
13225 Danielson Street
Suite 200
Poway, CA, 92064
Phone: 658-668-2828

virtuasurveyor
for more information
visit: <http://vimeco.com/25774136>

CO-5100
Widefield High School
645 Widefield Drive
City of Colorado Springs
County of El Paso
State of Colorado



AT&T
161 INVERNESS DR W, 2ND FLOOR
ENGLEWOOD, CO 80112

AMERICAN TOWER
19100 VON KARMAN AVE
SUITE 200
IRVINE, CA 92612

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

AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042548
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

523 WIDEFIELD ROAD
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | QA |
|-----|----------|------|------------------|-----|
| A | 11-23-20 | KT | PRELIMINARY | EGG |
| B | 12-14-20 | SDD | 90% CONSTRUCTION | EGG |
| C | 02-18-21 | CAK | 90% CONSTRUCTION | EGG |

SEAL:

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

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:
SITE SURVEY

SHEET NUMBER:
C-1.1

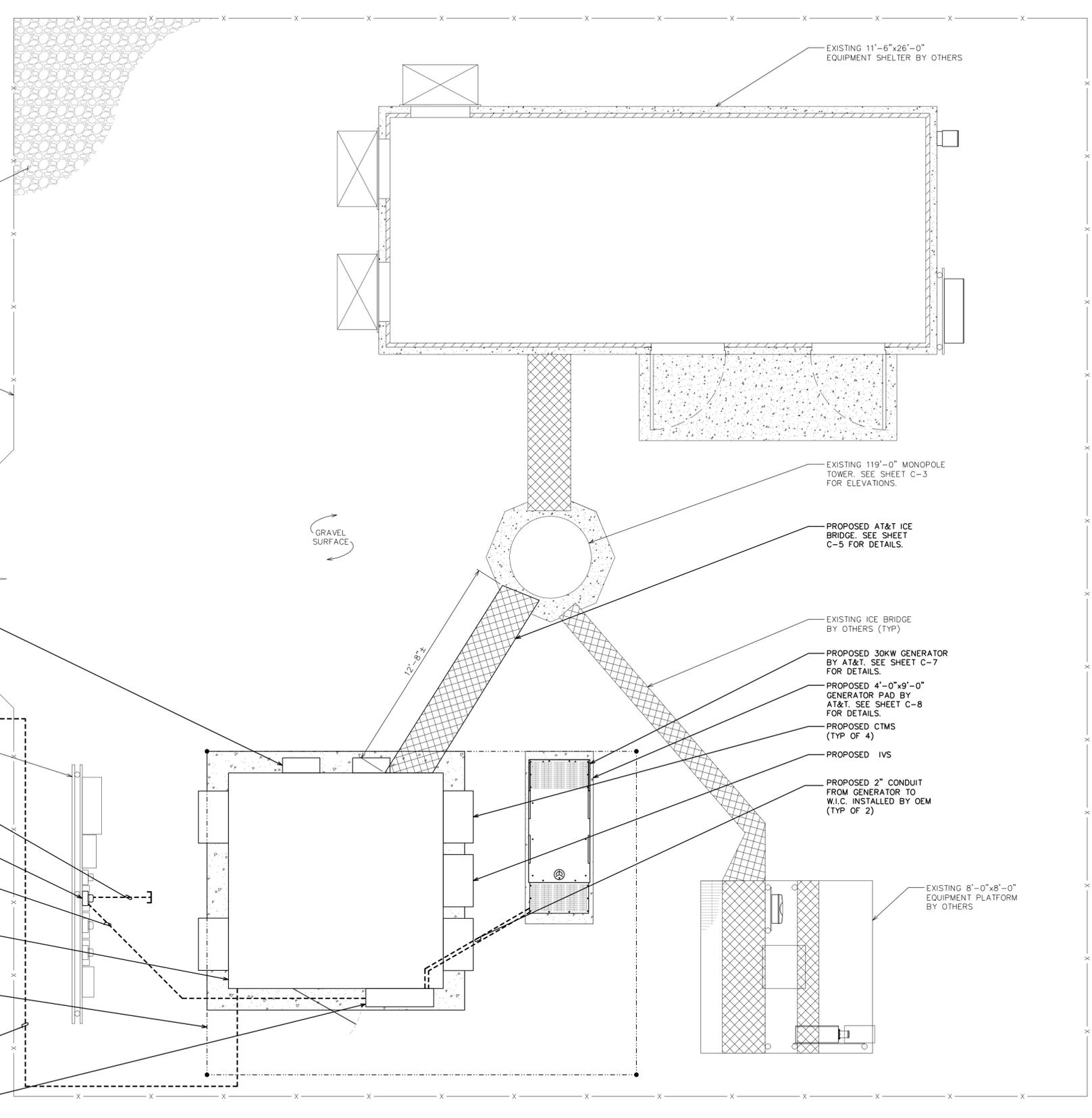
REVISION:
C

TEP #: 177861.243634

NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE AT&T REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
4. UTILITY COORDINATION PENDING.

- EXISTING GRAVEL WITHIN COMPOUND
- EXISTING CHAIN-LINK FENCED COMPOUND
- EXISTING 12'-0" WIDE ACCESS GATE
- PROPOSED DC-12 (TYP OF 2)
- PROPOSED HANDHOLE BY AT&T
- PROPOSED FIBER ROUTE BY AT&T TO EXISTING TELCO SERVICE. SEE SHEET E-4 FOR DETAILS.
- EXISTING UTILITY RACK
- PROPOSED UNDERGROUND ROUTING TO EXISTING TRANSFORMER. SEE NOTES, THIS SHEET.
- PROPOSED METER TO BE INSTALLED IN EMPTY SOCKET ON EXISTING METER BANK
- PROPOSED 2 1/2" CONDUIT WITH (3) 3/0 AND (1) #6 GND FROM METER TO W.I.C.
- PROPOSED 10'-0"x10'-0" W.I.C. ON A PROPOSED 12'-0"x12'-0" EQUIPMENT PAD BY AT&T. SEE SHEETS C-6 & C-9 FOR DETAILS.
- PROPOSED 15'-0"x20'-0" LEASE AREA BY AT&T
- PROPOSED (1) 4" TELCO CONDUIT W/ (3) 1-1/4" FLEX INTERDUCT & PULL STRING FOR FIBER STUBBED UP IN FIBER HANDHOLE. CONTRACTOR TO COORDINATE SERVICE WITH LOCAL TELEPHONE COMPANY
- PROPOSED AC POWER PANEL BY AT&T



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WIDEFIELD HIGH SCHOOL II

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5G NR 1SR

ISSUED FOR:

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SHEET TITLE:
COMPOUND DETAIL

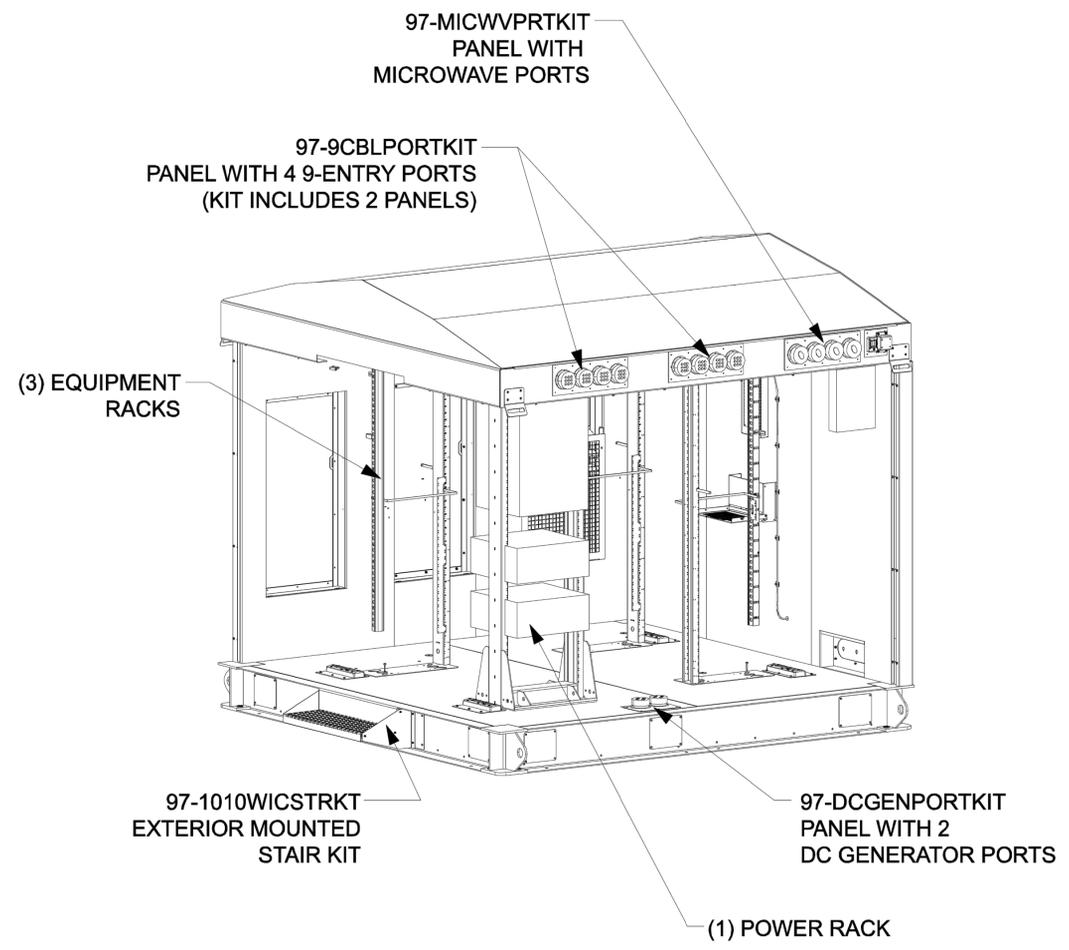
SHEET NUMBER: **C-1.2** **REVISION:** **C**

TEP #: 177861.243634

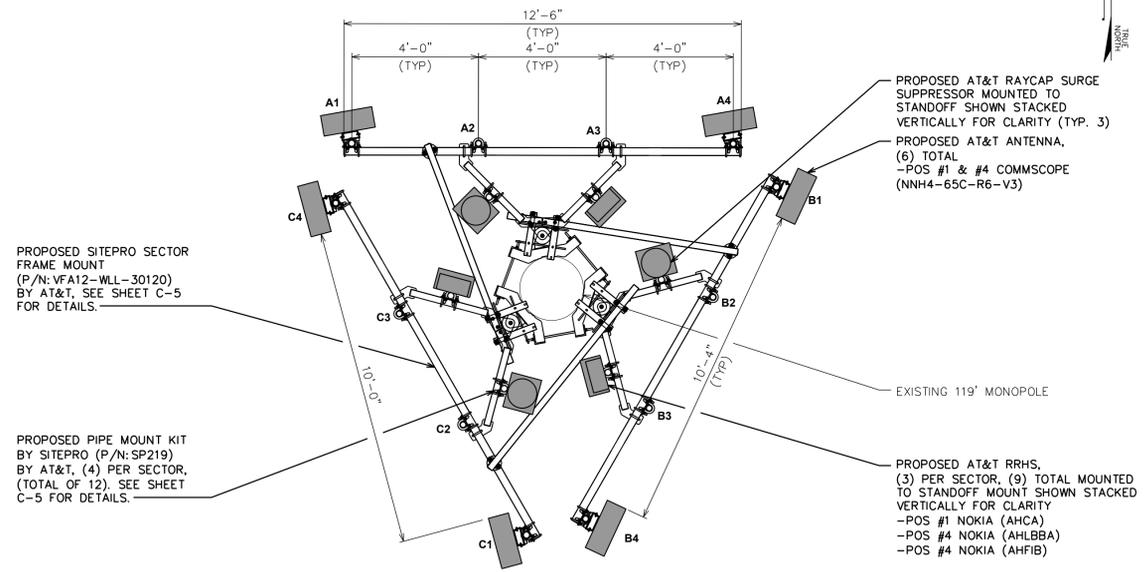
COMPOUND DETAIL

SCALE: 3/16" = 1'-0" (24x36)
SCALE: 3/32" = 1'-0" (11x17)

SCALE IN FEET



FINAL EQUIPMENT LAYOUT
SCALE: N.T.S.



FINAL ANTENNA LAYOUT

SCALE: 3/8" = 1'-0" (24x36)
SCALE: 3/16" = 1'-0" (11x17)
SCALE IN FEET

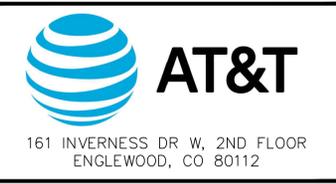
NOTE:
SCHEDULE EQUIPMENT SHOULD BE REFERENCED OFF RFDS LISTED ON SHEET T-1.

PROPOSED EQUIPMENT IN BOLD

| FINAL ANTENNA/FEEDLINE SCHEDULE | | | | | | | |
|---------------------------------|------|-----------------------------|--------------------|-----------------------------|--|--------------|--|
| SECTOR | POS. | MANUFACTURER (MODEL #) | ANTENNA TIP HEIGHT | ANTENNA POSITION SEPARATION | CABLE SIZE | CABLE LENGTH | SQUID/RRH/TMA/DIPLEXER [MODEL #] |
| ALPHA | 1 | *COMMSCOPE (NNH4-65C-R6-V3) | ⊙ 100'-0"± | 4'-0" | (6) 0.92" DC TRUNKS 6 AWG 6 (3) 0.39" FIBER TRUNKS (6) 2" CONDUITS | 150'± | * (1) RAYCAP SQUID [DC9-48-60-24-BC-EV] * (1) NOKIA RRH [AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA] * (1) NOKIA RRH [AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB] * (1) NOKIA RRH [AIRSCALE RRH 4T4R B5 160W AHCA] |
| ALPHA | 2 | - | - | | | | |
| ALPHA | 3 | - | - | | | | |
| ALPHA | 4 | *COMMSCOPE (NNH4-65C-R6-V3) | ⊙ 100'-0"± | | | | |
| BETA | 1 | *COMMSCOPE (NNH4-65C-R6-V3) | ⊙ 100'-0"± | | | | |
| BETA | 2 | - | - | | | | |
| BETA | 3 | - | - | | | | |
| BETA | 4 | *COMMSCOPE (NNH4-65C-R6-V3) | ⊙ 100'-0"± | | | | |
| GAMMA | 1 | *COMMSCOPE (NNH4-65C-R6-V3) | ⊙ 100'-0"± | | | | |
| GAMMA | 2 | - | - | | | | |
| GAMMA | 3 | - | - | | | | |
| GAMMA | 4 | *COMMSCOPE (NNH4-65C-R6-V3) | ⊙ 100'-0"± | | | | |

*OR SIMILAR
**CONTRACTOR TO REFER TO THE LATEST RFDS FOR FINAL CONFIGURATION

FINAL ANTENNA SCHEDULE
SCALE: N.T.S.

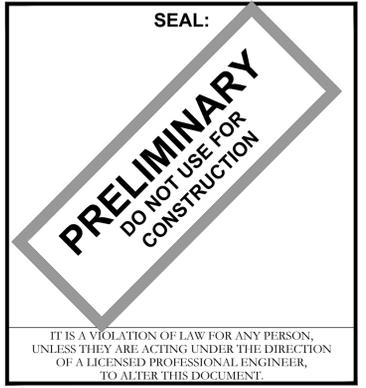


AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042458
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

523 WIDEFIELD ROAD
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | QA |
|-----|----------|------|------------------|-----|
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SHEET TITLE:
FINAL EQUIPMENT & ANTENNA LAYOUTS

SHEET NUMBER: C-2
REVISION: C

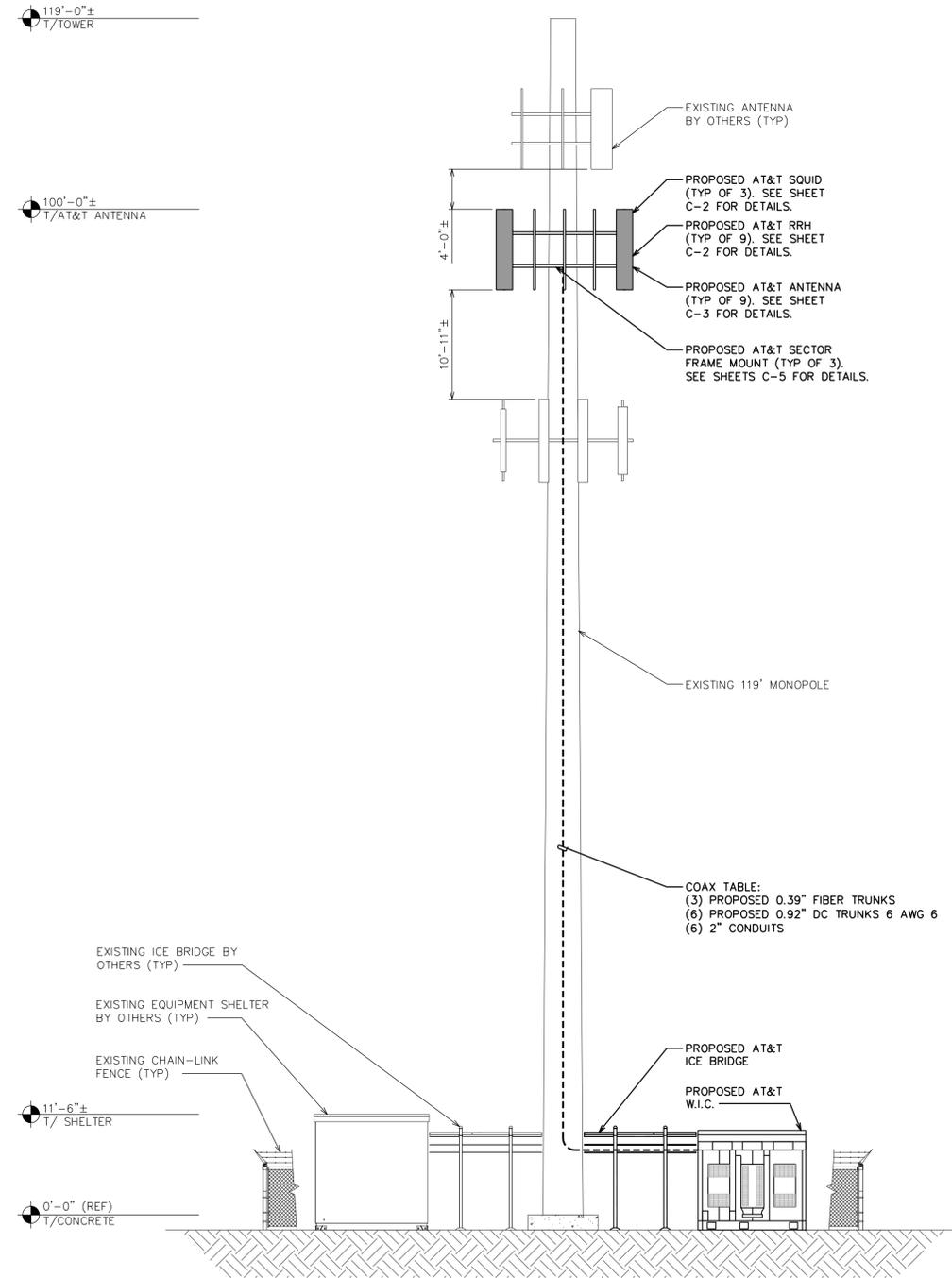
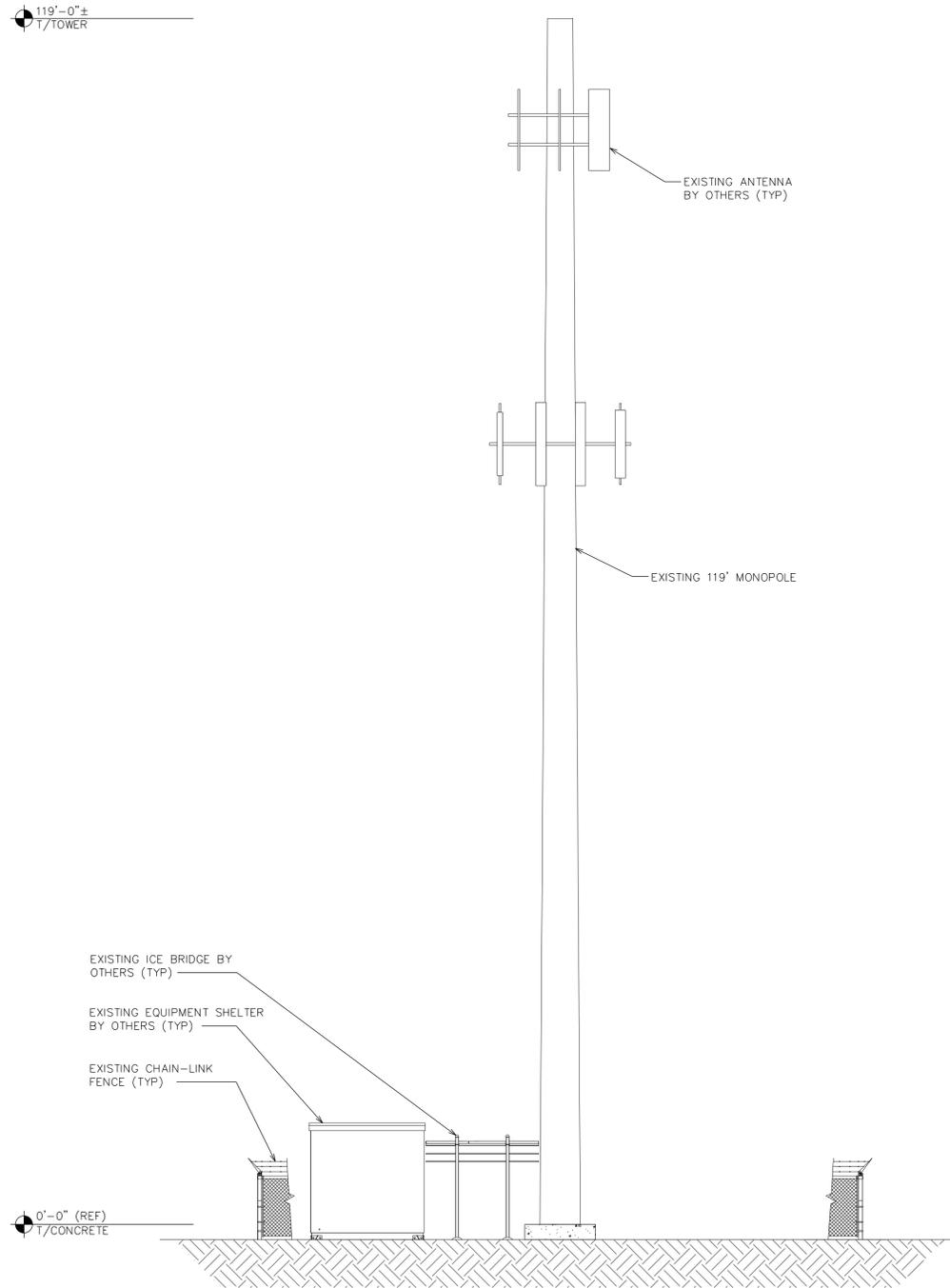
TEP #: 177861.243634

NOTE:

TOWER ELEVATION IS FOR SCHEMATIC PURPOSES ONLY. TEP DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO ANTENNA HEIGHTS, ANTENNA AZIMUTHS, AND MOUNT CONFIGURATIONS.

NOTES:

1. PROPOSED CABLES TO BE ROUTED PER SPECIFICATIONS OF PASSING STRUCTURAL ANALYSIS.
2. TOWER ELEVATION IS FOR SCHEMATIC PURPOSES ONLY. TEP DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO ANTENNA HEIGHTS, ANTENNA AZIMUTHS, AND MOUNT CONFIGURATIONS.
3. CONTRACTOR TO VERIFY PROPOSED LOADING WITH PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONTACT AT&T OR AMERICAN TOWER CORPORATION IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES.



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|-----|----------|------|------------------|-----|
| A | 11-23-20 | KT | PRELIMINARY | EGG |
| B | 12-14-20 | SDD | 90% CONSTRUCTION | EGG |
| C | 02-18-21 | CAK | 90% CONSTRUCTION | EGG |

SEAL:

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

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SHEET TITLE:
EXISTING AND
FINAL ELEVATIONS

SHEET NUMBER: **C-3** **REVISION:** **C**

TEP #: 177861.243634

EXISTING TOWER ELEVATION

SCALE: 1/8" = 1'-0" (24x36)
 SCALE: 1/6" = 1'-0" (11x17)

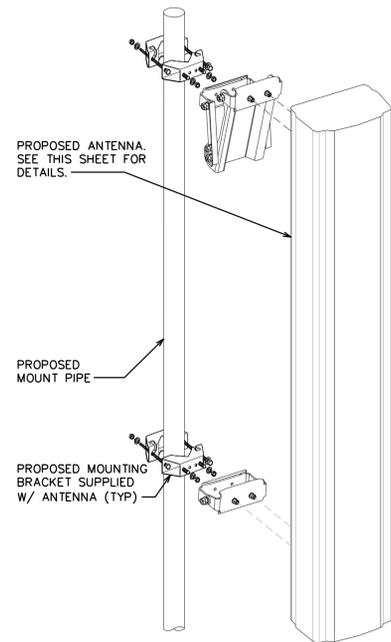


FINAL TOWER ELEVATION

SCALE: 1/8" = 1'-0" (24x36)
 SCALE: 1/6" = 1'-0" (11x17)



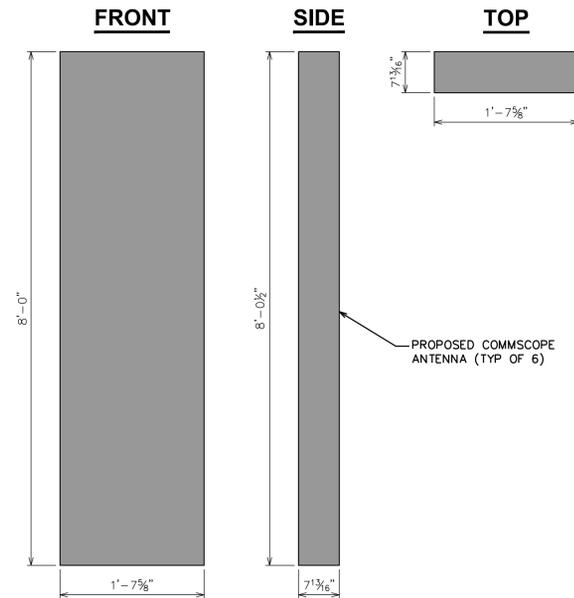
ANTENNA



**CELLMAX
CMA-UBTULBULBHH/6517/17/21/21**

DIMENSIONS, HxWxD: 96" x 19.6" x 7.8"

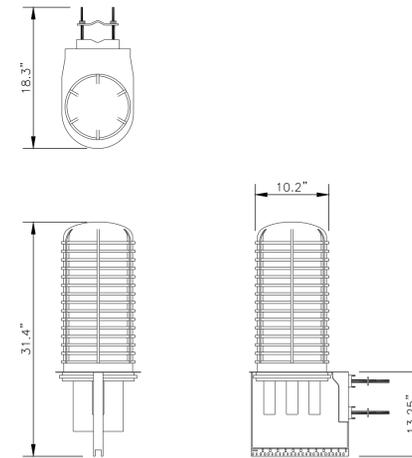
WEIGHT, W/O PRE-MOUNTED BRACKETS: 102.5 lbs



**RAYCAP
DC9-48-60-24-8C-EV**

RAYCAP - DC9-48-60-24-8C-EV
SIZE: 31.4x18.3x10.2 IN.
WEIGHT: 16.0 LBS
NOMINAL OPERATING VOLTAGE: 48 VDC
VOLTAGE PROTECTION RATING: 400 V
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)
WIND LOADING: 195 MPH GUST (213.6 LBS)

CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION



EQUIPMENT MOUNTING DETAIL

SCALE: N.T.S.

PROPOSED COMMSCOPE ANTENNA DETAIL

SCALE: N.T.S.

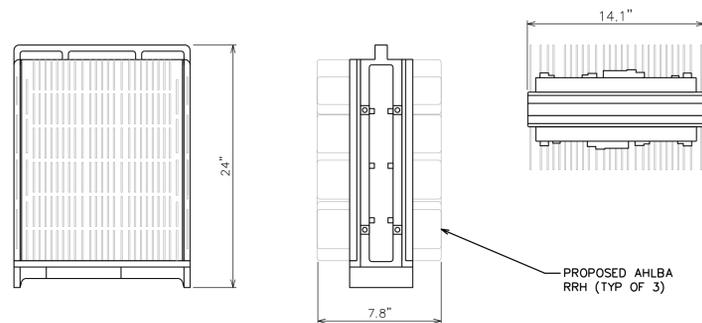
PROPOSED RAYCAP OVP DETAIL

SCALE: N.T.S.

FRONT

SIDE

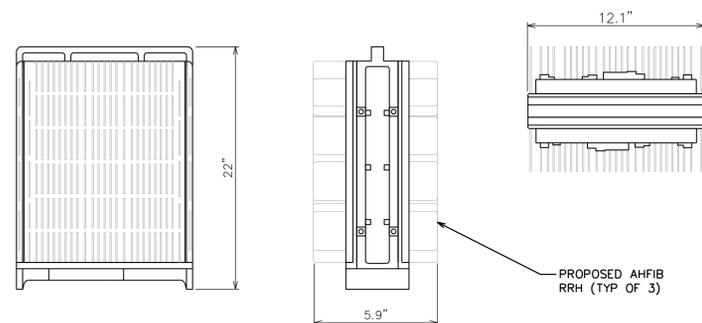
TOP



FRONT

SIDE

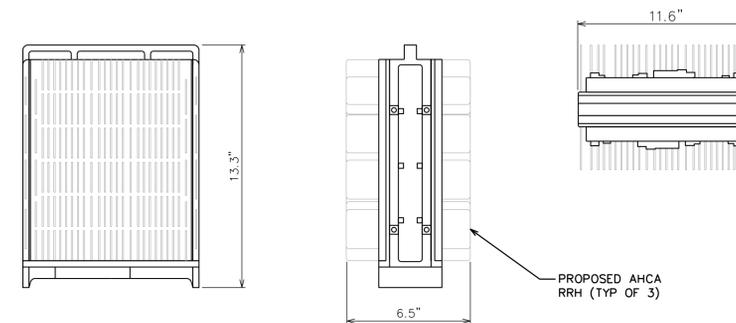
TOP



FRONT

SIDE

TOP



PROPOSED AHLBA RRH DETAIL

SCALE: N.T.S.

PROPOSED AHFIB RRH DETAIL

SCALE: N.T.S.

PROPOSED AHCA RRH DETAIL

SCALE: N.T.S.



161 INVERNESS DR W, 2ND FLOOR
ENGLEWOOD, CO 80112



AMERICAN TOWER
19100 VON KARMAN AVE
SUITE 200
IRVINE, CA 92612



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

AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042458
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

523 WIDEFIELD ROAD
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | QA |
|-----|----------|------|------------------|-----|
| A | 11-23-20 | KT | PRELIMINARY | EGG |
| B | 12-14-20 | SDD | 90% CONSTRUCTION | EGG |
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SEAL:



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SHEET TITLE:
EQUIPMENT DETAILS

SHEET NUMBER: **C-4** **REVISION:** **C**

TEP #: 177861.243634



161 INVERNESS DR W, 2ND FLOOR
ENGLEWOOD, CO 80112



AMERICAN TOWER®
19100 VON KARMAN AVE
SUITE 200
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AT&T SITE ID: COL02205
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EXISTING 119'-0"
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5G NR 1SR

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | QA |
|-----|----------|------|------------------|-----|
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SHEET TITLE:
EQUIPMENT DETAILS

SHEET NUMBER: **C-5** REVISION: **C**

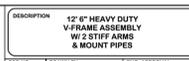
TEP #: 177861.243634

| ITEM | QTY | PART NO. | PART DESCRIPTION | LENGTH | UNIT WT. | NET WT. |
|------|-----|------------|--|-------------|----------|---------|
| 1 | 2 | X-VFAW | SUPPORT ARM | | 71.41 | 142.81 |
| 2 | 1 | X-HDCAMTBW | CLAMP WELDMENT FOR BCAM-HD | | 33.88 | 33.88 |
| 3 | 1 | X-HDCAMTB | MULTI-HOLE TAPER PLATE WELDMENT | | 38.24 | 38.24 |
| 4 | 1 | X-HDCAMBS | ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD | | 16.39 | 16.39 |
| 5 | 2 | X-VFAPIA4 | VFA-HD PIVOT PLATE | 12 in | 15.88 | 31.77 |
| 6 | 2 | X-VFAPIA | BENT BACKING PLATE | 13 in | 19.00 | 38.01 |
| 7 | 4 | X-SP7B | SLIDING PIPE TIE BACK PLATE | 5 1/2 in | 5.87 | 23.48 |
| 8 | 1 | X-HDCAMSP | POSITIONING PLATE WELDMENT FOR BCAM-HD | | 2.58 | 2.58 |
| 9 | 4 | X-TBCA | TIE BACK CLIP ANGLE | | 2.91 | 11.62 |
| 10 | 10 | SC42 | CROSSOVER PLATE | 7 in | 4.80 | 47.96 |
| 11 | 4 | MSP | CLAMP HALF 1/2" THICK, 11-5/8" LONG | 12 1/8 in | 3.59 | 14.37 |
| 12 | 8 | DCP | 1/2" THICK, 5-3/4" CENTER TO CENTER CLAMP HALF | 8 1/8 in | 2.36 | 18.90 |
| 13 | 2 | P2126 | 2-3/8" X 120" (2" BCR, 40) GALVANIZED PIPE | 128 in | 40.75 | 81.50 |
| 14 | 2 | P30150 | 2-7/8" X 150" (2-1/2" BCR, 40) GALVANIZED PIPE | 150 in | 75.94 | 151.87 |
| 15 | 4 | A34212 | 3/4" X 2-1/2" UNC HEX BOLT (A325) | 2 1/2 in | 0.48 | 1.92 |
| 16 | 4 | G34FW | 3/4" HDG USS FLATWASHER | | 0.06 | 0.24 |
| 17 | 4 | G34LW | 3/4" HDG LOCKWASHER | | 0.04 | 0.17 |
| 18 | 4 | G34NUT | 3/4" HDG HEAVY 2H HEX NUT | | 0.21 | 0.85 |
| 19 | 8 | G58R-18 | 5/8" X 18" THREADED ROD (HDG.) | | 1.57 | 12.54 |
| 20 | 4 | G58R-12 | 5/8" X 12" THREADED ROD (HDG.) | | 1.05 | 4.18 |
| 21 | 4 | G58R-8 | 5/8" X 8" THREADED ROD (HDG.) | | 0.70 | 2.79 |
| 22 | 4 | X-UB3300 | 5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.) | | 1.15 | 4.60 |
| 23 | 8 | X-UB2258 | 5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.) | | 1.00 | 8.00 |
| 24 | 2 | G5807 | 5/8" X 7" HDG HEX BOLT GR5 FULL THREAD | 7 in | 0.79 | 1.41 |
| 25 | 1 | G5806 | 5/8" X 6" HDG HEX BOLT GR5 FULL THREAD | 6 in | 0.62 | 0.62 |
| 26 | 8 | G5804 | 5/8" X 4" HDG HEX BOLT GR5 | | 0.44 | 3.55 |
| 27 | 4 | G5802 | 5/8" X 2" HDG HEX BOLT GR5 | | 0.27 | 1.08 |
| 28 | 8 | A582114 | 5/8" X 3-1/4" HDG ANCHOR BOLT | 2 1/4 in | 0.31 | 2.50 |
| 29 | 25 | G58FW | 5/8" HDG USS FLATWASHER | 1/8 in | 0.07 | 1.76 |
| 30 | 86 | G58LW | 5/8" HDG LOCKWASHER | | 0.03 | 1.72 |
| 31 | 71 | G58NUT | 5/8" HDG HEAVY 2H HEX NUT | | 0.13 | 9.22 |
| 32 | 48 | X-UB1350 | 1/2" X 3" X 3" X 2" GALV U-BOLT | | 0.74 | 35.45 |
| 33 | 20 | X-UB1212 | 1/2" X 2-1/2" X 4-1/2" X 2" GALV U-BOLT | | 0.66 | 13.13 |
| 34 | 80 | G12FW | 1/2" HDG USS FLATWASHER | 3/32 in | 0.03 | 2.73 |
| 35 | 80 | G12LW | 1/2" HDG LOCKWASHER | 1/8 in | 0.01 | 1.11 |
| 36 | 80 | G12NUT | 1/2" HDG HEAVY 2H HEX NUT | | 0.07 | 5.73 |
| 37 | 5 | P30150 | 2-7/8" X 150" (2-1/2" BCR, 40) GALVANIZED PIPE | 120 in | 58.07 | 290.33 |
| | | | | TOTAL WT. # | | 1055.41 |

PROPOSED SITEPRO SECTOR FRAME MOUNT
(P/N: VFA12-WLL-30120) BY AT&T

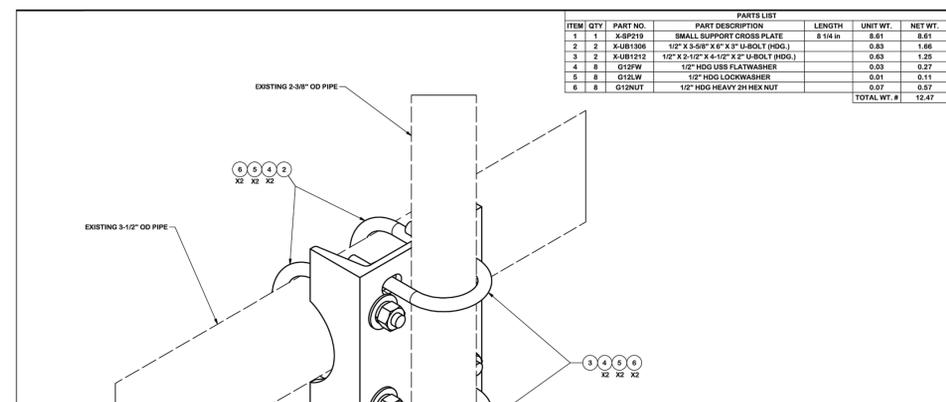
TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
DIMENSIONS AND GAS CUT EDGES (± 0.007")
DRILLED AND GAS CUT HOLES (± 0.007") NO CORNING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") NO CORNING OF HOLES
BENDS ARE ± 1/8 DEGREE
ALL OTHER MACHINING (± 0.007")



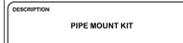
DESCRIPTION: 1/2" 6" HEAVY DUTY V-FRAME ASSEMBLY W/ 2 STIFF ARMS & MOUNT PIPES
DRAWN BY: CSJ 1/25/2017
CHECKED BY: BMC 5/3/2018
PART NO: VFA12-WLL-30120
REV: 02 CUSTOMER

| REV | DATE | DESCRIPTION | BY | DATE |
|-----|-----------|--|-----|-----------|
| A | 1/25/2018 | UPDATED BCAM VERSION 1 TO BCAM VERSION 2 | CSJ | 1/25/2018 |



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
DIMENSIONS AND GAS CUT EDGES (± 0.007")
DRILLED AND GAS CUT HOLES (± 0.007") NO CORNING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") NO CORNING OF HOLES
BENDS ARE ± 1/8 DEGREE
ALL OTHER MACHINING (± 0.007")

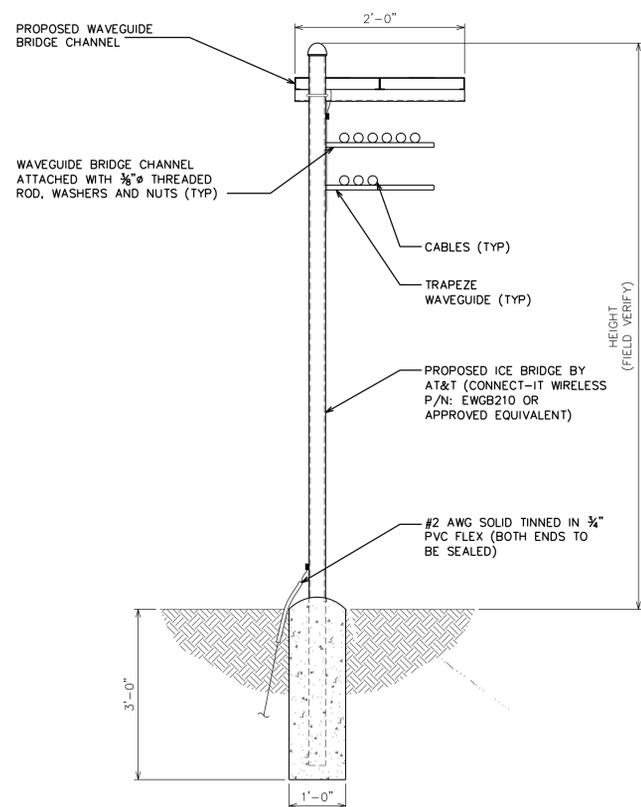


DESCRIPTION: PIPE MOUNT KIT
DRAWN BY: KCB 6/26/2012
CHECKED BY: CEK 1/23/2013
PART NO: SP219
REV: 01 CUSTOMER

| REV | DATE | DESCRIPTION | BY | DATE |
|-----|-----------|----------------|-----|-----------|
| A | 6/26/2012 | PIPE MOUNT KIT | KCB | 6/26/2012 |

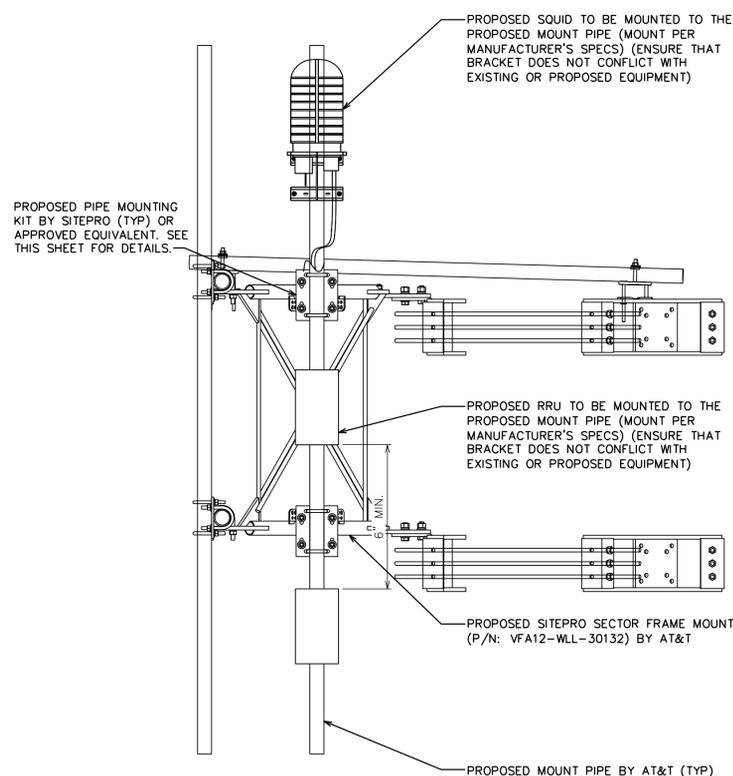
PROPOSED V-FRAME MOUNT DETAIL

SCALE: N.T.S.



PROPOSED ICE BRIDGE DETAIL

SCALE: N.T.S.



PROPOSED H-FRAME DETAIL

SCALE: N.T.S.



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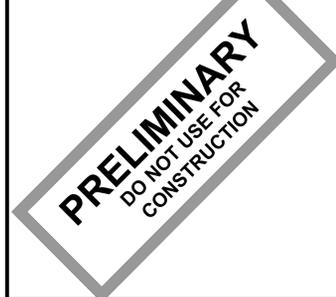
AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042458
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

523 WIDEFIELD ROAD
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CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | QA |
|-----|----------|------|------------------|-----|
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| B | 12-14-20 | SDD | 90% CONSTRUCTION | EGG |
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SEAL:



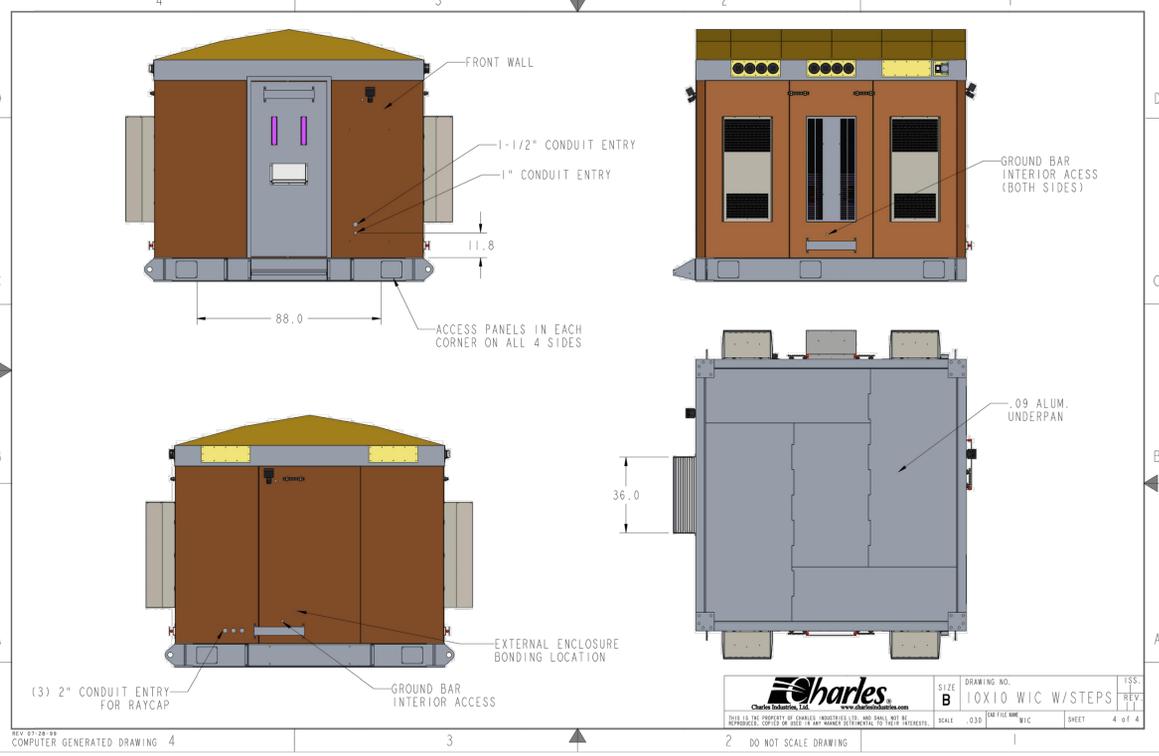
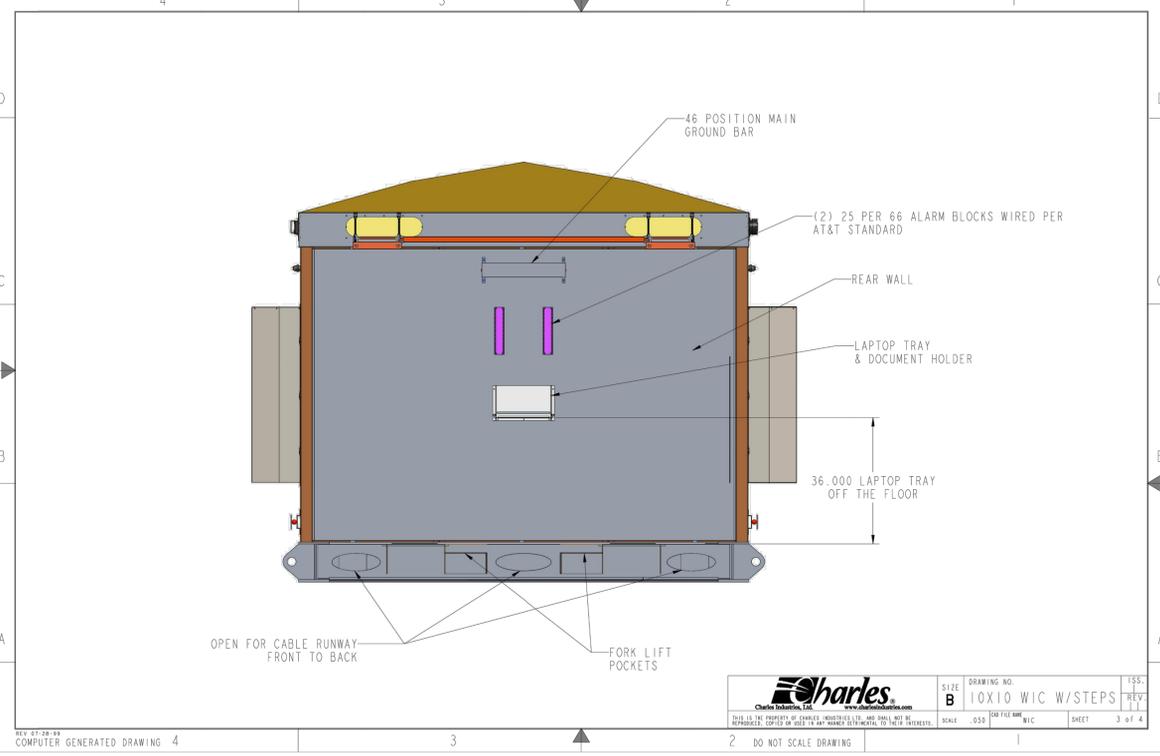
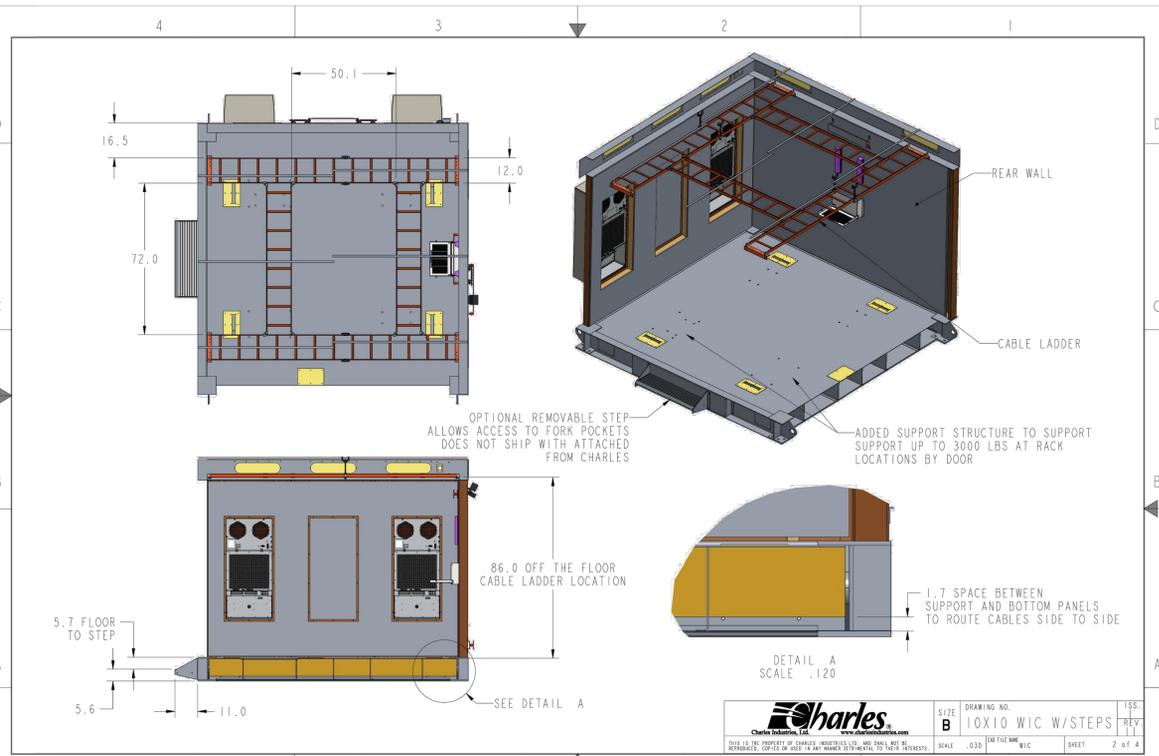
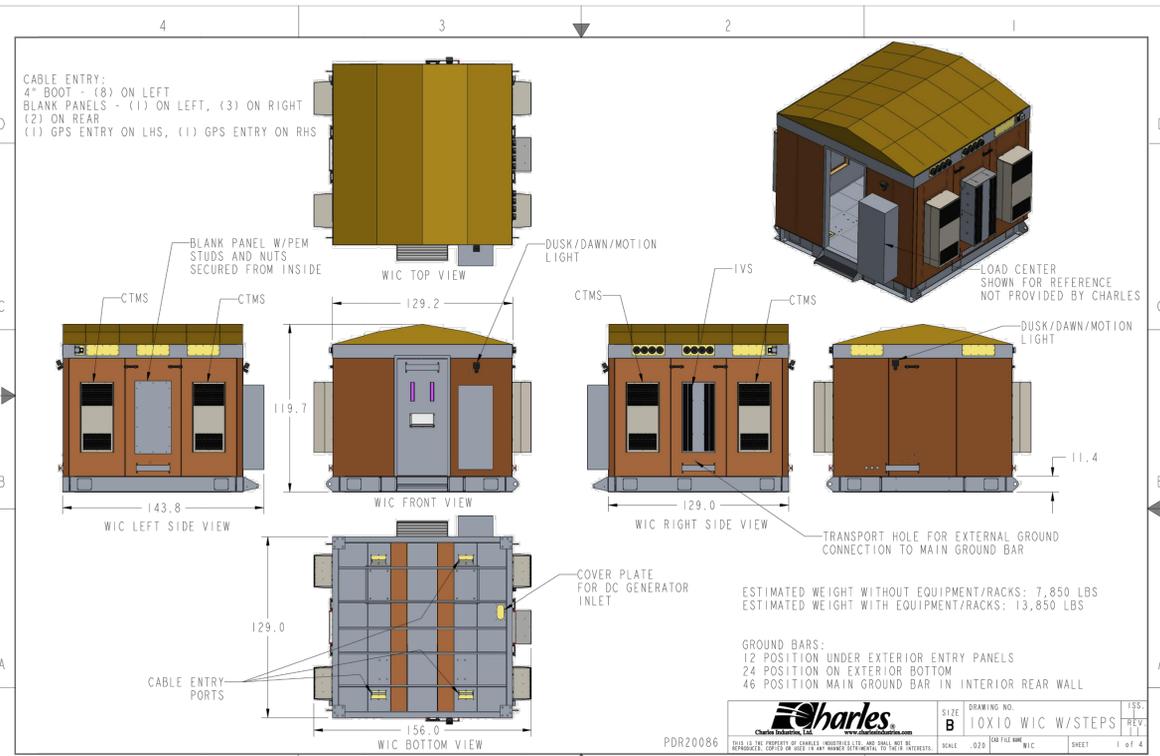
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SHEET TITLE:
WIC SHELTER DETAILS

SHEET NUMBER:
C-6

REVISION:
C

TEP #: 177861.243634



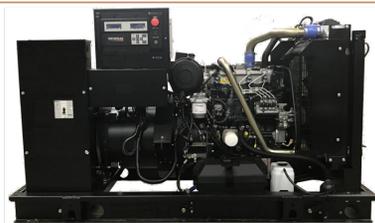
WIC SHELTER DETAIL
SCALE: N.T.S.

SD030 | 2.2L | 30 kW
INDUSTRIAL DIESEL GENERATOR SET
EPA Certified Stationary Emergency



Standby Power Rating
30 kW, 38 kVA, 60 Hz

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



ISO 9001
USA
*EPA Certified Prime ratings are not available in the US or its Territory

Codes and Standards

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

- UL2200, UL508, UL489, UL142
- CSA C22.2
- BS5514 and DIN 6271
- SAE J1349
- NFPA 37, 70, 99, 110
- NEC700, 701, 702, 708
- ISO 3046, 7637, 8528, 9001
- NEMA ICS10, MG1, 250, ICS6, AB1
- ANSI C62.41

Powering Ahead

For over 50 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.

SPEC SHEET

SD030 | 2.2L | 30 kW
INDUSTRIAL DIESEL GENERATOR SET
EPA Certified Stationary Emergency



STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- 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

ALTERNATOR SYSTEM

- UL2200 GENproect™
- Class H Insulation Material
- 2/3 Pitch
- Shrewd Stator
- Brushless Excitation
- Sealed Bearing
- Rotor Dynamically Spin Balanced
- Amortisseur Winding (3-Phase Only)
- Full Load Capacity Alternator
- Protective Thermal Switch

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Unit Only)

ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuation Enclosures)
- Gasketed Doors
- Stamped In-Take Louvers
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ - Textured Polyester Powder Coat Paint

FUEL TANKS (If Selected)

- UL 142ULC S801
- 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

CONTROL SYSTEM



Digital H Control Panel- Dual 4x20 Display

Program Functions

- Programmable Crank Limiter
- 7-Day Programmable Exciter
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- All Phase Sensing Digital Voltage Regulator
- 2-Wire Start Capability
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/Sealed Connectors

Alerts and Warnings

- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus™ Protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 msec High Speed Remote Trending
- Alarm Information Automatically Announced on the Display

Full System Status Display

- Power Factor
- kW Hours, Total, and Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents

Alerts and Warnings

- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Overspeed
- Battery Voltage
- Alarms and Warnings: Time and Date Stamped
- Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

SPEC SHEET

SD030 | 2.2L | 30 kW
INDUSTRIAL DIESEL GENERATOR SET
EPA Certified Stationary Emergency



CONFIGURABLE OPTIONS

ENGINE SYSTEM

- Oil Heater
- Critical Silencer (Open Set Only)
- Radiator Stone Guard
- Level 1 Fan and Belt Guards (Open Set Only)

FUEL SYSTEM

- NPT Flexible Fuel Line

ELECTRICAL SYSTEM

- 10A UL Listed Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upgrading
- Air-Conditioned Heater
- Tropical Coating
- Permanent Magnet Excitation

GENERATOR SET

- Extended Factory Testing
- 8 Position Load Center
- Pad Vibration Isolation

ENGINEERED OPTIONS

ENGINE SYSTEM

- Coolant Heater Isolation Ball Valves
- Fluid Containment Pan

CONTROL SYSTEM

- Spare Inputs (4) / Outputs (4)
- Battery Disconnect Switch

CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- AC/DC Enclosure Lighting Kit
- Door Alarm Switch
- Enclosure Heater
- Damper Alarm Contacts

ALTERNATOR SYSTEM

- AC/DC Enclosure Lighting Kit
- Tropical Coating
- Enclosure Heater
- Damper Alarm Contacts

WARRANTY (Standby Gensets Only)

- 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

CONTROL SYSTEM

- NFPA 110 Compliant 21-Light Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Oil Temperature Indication and Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- 100 dB Alarm Horn
- Ground Fault Annunciation
- 120V GFCI and 240V Outlets
- Remote Communication - Modem
- 10A Engine Run Relay

FUEL TANKS (See On Last Page)

- 8 in. (203.2 mm) Fill Extension
- 13 in. (330.2 mm) Fill Extension
- 19 in. (482.6 mm) Fill Extension
- Overflow Protection Valve
- 5 Gallon Spill Box Return Hose
- 5 Gallon Spill Box
- Tank Risers
- Fuel Level Switch and Alarm
- 12" Vent System
- Fire Rated Stainless Steel Fuel Hose

SPEC SHEET

SD030 | 2.2L | 30 kW
INDUSTRIAL DIESEL GENERATOR SET
EPA Certified Stationary Emergency



APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

| | |
|-------------------------------------|-------------------------|
| Make | Perkins |
| EPA Emissions Compliance | Stationary Emergency |
| EPA Emissions Reference | See Emission Data Sheet |
| Cylinder # | 4 |
| Type | In-Line |
| Displacement - in³ (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 | Electronic Isochronous |
| Governor | Electronic Isochronous |
| Frequency Regulation (Steady State) | ±0.5% |
| Lubrication System | Oil Pump Type: Gear |
| Oil Filter Type | Full-Flow |
| Crankcase Capacity - qt (L) | 11.2 (10.6) |

Cooling System

| | |
|------------------------|-------------------------|
| Cooling System Type | Closed Recovery |
| Water Pump Type | Pre-Lubed, Self Sealing |
| Fan Type | Pusher |
| Fan Speed - RPM | 1,980 |
| Fan Diameter - in (mm) | 18 (457) |

Fuel System

| | |
|----------------------------|---------------------------------|
| Fuel Type | Ultra Low Sulfur Diesel Fuel #2 |
| Fuel Specifications | ASTM |
| Fuel Filtration (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 016197058Y |
| Battery Voltage | 12 VDC |
| Ground Polarity | Negative |

ALTERNATOR SPECIFICATIONS

| | |
|-------------------------------------|---------------|
| Standard Model | K0035124Y21 |
| Poles | 4 |
| Field Type | Revolving |
| Insulation Class - Rotor | H |
| Insulation Class - Stator | H |
| Prototype Short Circuit Test | 100% |
| Total Harmonic Distortion | <5% (3-Phase) |
| Number of Sensed Phases | All |
| Telephone Interference Factor (TIF) | < 50 |

| | |
|------------------------------------|--------------------------|
| Standard Excitation | Brushless |
| Bearings | Single Sealed |
| Cooling | Direct Via Flexible Disc |
| Load Capacity - Standby | 100% |
| Prototype Short Circuit Test | 100% |
| Voltage Regulator Type | Digital |
| Number of Sensed Phases | All |
| Regulation Accuracy (Steady State) | ±0.25% |

SPEC SHEET

SD030 | 2.2L | 30 kW
INDUSTRIAL DIESEL GENERATOR SET
EPA Certified Stationary Emergency



OPERATING DATA

POWER RATINGS

| Standby | | |
|---------------------------------|-------|-----------|
| Single-Phase 120/240 VAC @1.0pf | 30 kW | Amps: 125 |
| Three-Phase 120/208 VAC @0.8pf | 30 kW | Amps: 104 |
| Three-Phase 120/240 VAC @0.8pf | 30 kW | Amps: 90 |
| Three-Phase 277/480 VAC @0.8pf | 30 kW | Amps: 45 |
| Three-Phase 346/600 VAC @0.8pf | 30 kW | Amps: 36 |

MOTOR STARTING CAPABILITIES (kW)

| s/kVA vs. Voltage Dip | |
|-----------------------|---------------------|
| 277/480 VAC | 30% 208/240 VAC 30% |
| K0035124Y21 | 61 K0035124Y21 46 |
| K0040124Y21 | 76 K0040124Y21 58 |
| K0050124Y21 | 98 K0050124Y21 75 |

FUEL CONSUMPTION RATES*

| Fuel Pump Lift- ft (m) | | Diesel - gph (Lph) | |
|--|--------------|--------------------|--|
| 3 (1) | Percent Load | Standby | |
| | 25% | 1.0 (3.7) | |
| | 50% | 1.4 (5.2) | |
| | 75% | 2.0 (7.5) | |
| | 100% | 2.8 (10.5) | |
| Total Fuel Pump Flow (Combustion + Return) - gph (Lph) | | | |
| 16.0 (63) | | | |

COOLING

| Standby | | |
|---|---------------------------|-----------------------------|
| Coolant Flow | gpm (Lpm) | 14.9 (56.2) |
| Coolant System Capacity | gal (L) | 2.5 (9.5) |
| Heat Rejection to Coolant | Btu/hr (kW) | 128,638 (136) |
| Inlet Air | scfm (m³/hr) | 2,800 (4,757) |
| Maximum Operating Ambient Temperature | °F (°C) | 122 (50) |
| Maximum Operating Ambient Temperature (Before Derate) | °F (°C) | See Bulletin No. 0192290530 |
| Maximum Radiator Backpressure | in H ₂ O (kPa) | 0.5 (0.12) |

COMBUSTION AIR REQUIREMENTS

| Standby | |
|-----------------------------------|----------|
| Flow at Rated Power scfm (m³/min) | 80 (2.5) |

ENGINE

| Standby | | EXHAUST | | | |
|-----------------------------|----------------|-------------|---|---------------|-------------|
| Rated Engine Speed | RPM | 1,800 | Exhaust Flow (Rated Output) | scfm (m³/min) | 295.6 (8.4) |
| Minimum Power at Rated kW** | hp | 49 | Max. Allowable Backpressure (Post-Turbocharger) | inHg (kPa) | 1.5 (5.1) |
| Piston Speed | ft/min (m/min) | 1,181 (360) | Exhaust Temp (Rated Output) | °F (°C) | 852 (478) |
| BMEP | psi (kPa) | 159 (10.96) | | | |

** Refer to "Emissions Data Sheet" for maximum 3HP for EPA and SCAQMD permitting purposes.
Derate - Operational characteristics consider maximum ambient conditions. Derate factors may apply under physical site conditions. Please contact a Generac Power Systems Industrial Dealer for additional data. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards. Standby - See Bulletin 0187500588
Prime - See Bulletin 0187510038

SPEC SHEET

SD030 | 2.2L | 30 kW
INDUSTRIAL DIESEL GENERATOR SET
EPA Certified Stationary Emergency



DIMENSIONS AND WEIGHTS*

OPEN SET (Includes Exhaust Flex)

| Run Time - Hours | Usable Capacity - Gal (L) | L x W x H - in (mm) | Weight - lbs (kg) |
|------------------|---------------------------|--|-------------------|
| No Tank | 75.0 (1,800) | 73.4 (950) x 44.8 (1,138) | 1,641 (745) |
| 19 | 54 (204) | 75.0 (1,800) x 37.4 (950) x 44.8 (1,138) | 2,121 (963) |
| 47 | 132 (501) | 75.0 (1,800) x 37.4 (950) x 69.6 (1,773) | 2,351 (1,067) |
| 75 | 211 (799) | 75.0 (1,800) x 37.4 (950) x 81.8 (2,078) | 2,560 (1,162) |
| 107 | 300 (1,136) | 92.9 (2,360) x 37.4 (950) x 81.8 (2,078) | 2,623 (1,190) |

WEATHER PROTECTED ENCLOSURE

| Run Time - Hours | Usable Capacity - Gal (L) | L x W x H - in (mm) | Weight - lbs (kg) |
|------------------|---------------------------|--|-------------------|
| No Tank | 94.8 (2,409) | 94.8 (965) x 49.5 (1,258) | 1,770 (800) |
| 19 | 54 (204) | 94.8 (2,409) x 38.0 (965) x 62.5 (1,582) | 372 (170) |
| 47 | 132 (501) | 94.8 (2,409) x 38.0 (965) x 74.5 (1,893) | 505 (230) |
| 75 | 211 (799) | 94.8 (2,409) x 38.0 (965) x 86.5 (2,198) | 615 (279) |
| 107 | 300 (1,136) | 94.8 (2,409) x 38.0 (965) x 98.5 (2,498) | 715 (324) |

LEVEL 1 ACOUSTIC ENCLOSURE

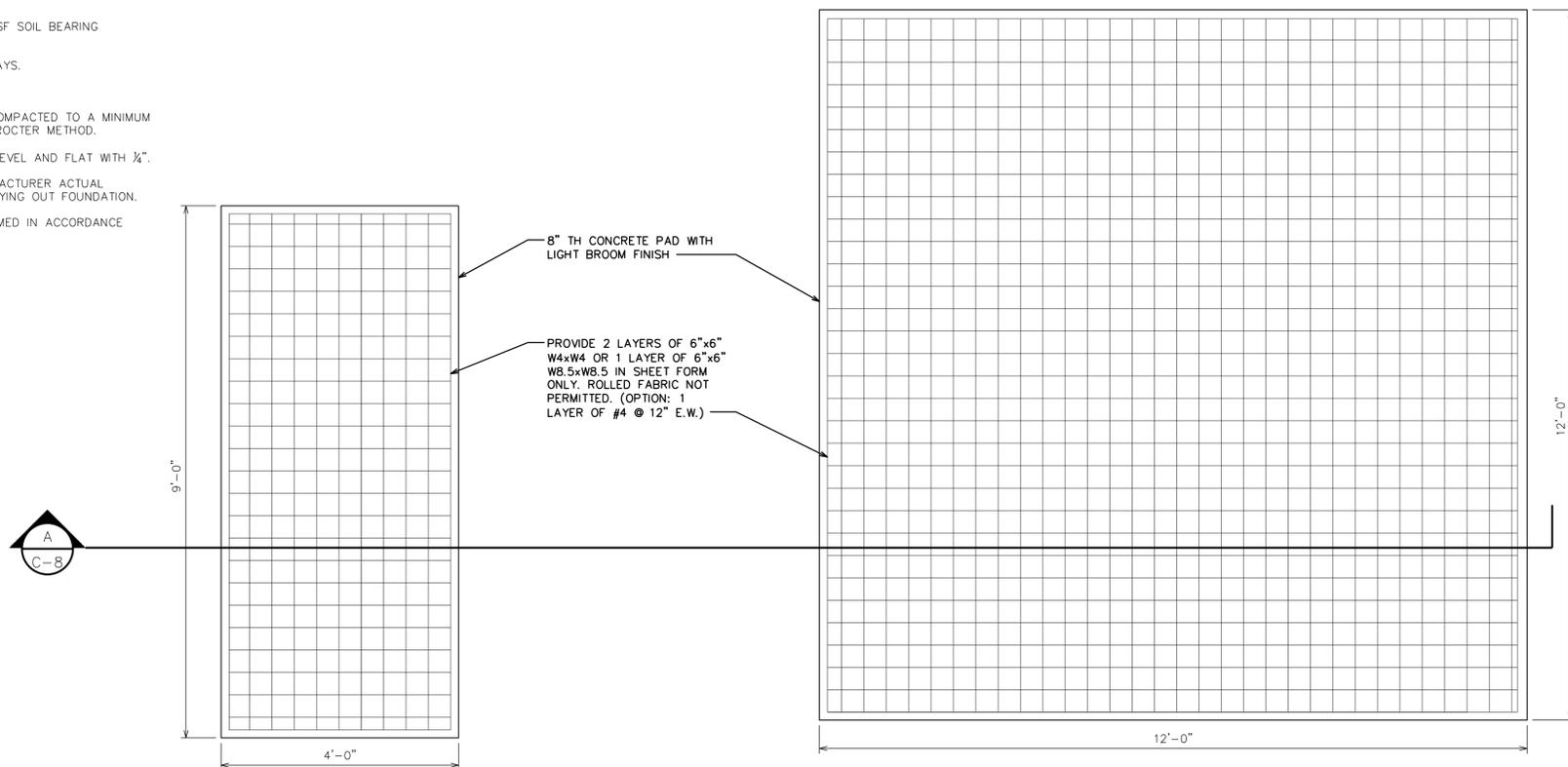
| Run Time - Hours | Usable Capacity - Gal (L) | L x W x H - in (mm) | Weight - lbs (kg) |
|------------------|---------------------------|---|-------------------|
| No Tank | 112.5 (2,857) | 94.8 (965) x 49.5 (1,258) | 1,770 (800) |
| 19 | 54 (204) | 112.5 (2,857) x 38.0 (965) x 62.5 (1,582) | 505 (230) |
| 47 | 132 (501) | 112.5 (2,857) x 38.0 (965) x 74.5 (1,893) | 615 (279) |
| 75 | 211 (799) | 112.5 (2,857) x 38.0 (965) x 86.5 (2,198) | 715 (324) |
| 107 | 300 (1,136) | 112.5 (2,857) x 38.0 (965) x 98.5 (2,498) | 815 (370) |

LEVEL 2 ACOUSTIC ENCLOSURE

| Run Time - Hours | Usable Capacity - Gal (L) | L x W x H - in (mm) | Weight - lbs (kg) |
|------------------|---------------------------|--|-------------------|
| No Tank | 94.8 (2,409) | 94.8 (965) x 61.1 (1,551) | 1,770 (800) |
| 19 | 54 (204) | 94.8 (2,409) x 38.0 (965) x 74.1 (1,881) | 310 (141) |
| 47 | 132 (501) | 94.8 (2,4 | |

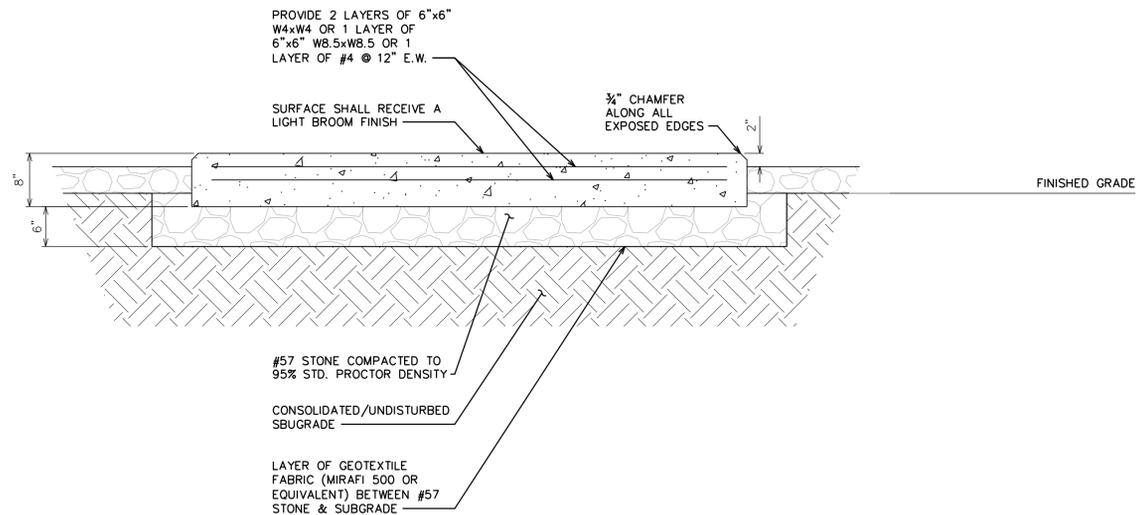
FOUNDATION NOTES:

1. FOUNDATION DESIGN BASED ON 2,000 PSF SOIL BEARING CAPACITY.
2. CONCRETE SHALL BE 4,000 PSI @ 28 DAYS.
3. REINFORCING STEEL Fy = 60,000 PSI.
4. ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTER METHOD.
5. SURFACE OF FINISHED SLAB SHALL BE LEVEL AND FLAT WITH 1/4".
6. CONTRACTOR SHALL VERIFY WITH MANUFACTURER ACTUAL DIMENSIONS OF EQUIPMENT PRIOR TO LAYING OUT FOUNDATION.
7. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318-11.



WIC & GENERATOR FOUNDATION PLAN

SCALE: N.T.S



PAD SECTION
SCALE: N.T.S



161 INVERNESS DR W, 2ND FLOOR
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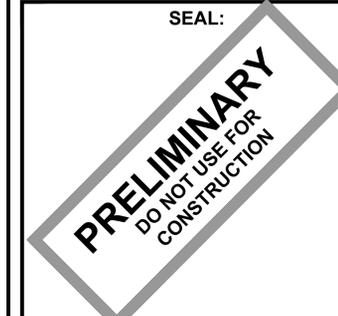
AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042458
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

523 WIDEFIELD ROAD
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | QA |
|-----|----------|------|------------------|-----|
| A | 11-23-20 | KT | PRELIMINARY | EGG |
| B | 12-14-20 | SDD | 90% CONSTRUCTION | EGG |
| C | 02-18-21 | CAK | 90% CONSTRUCTION | EGG |

SEAL:



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SHEET TITLE:
FOUNDATION DETAILS

SHEET NUMBER:
C-8

REVISION:
C

TEP #: 177861.243634



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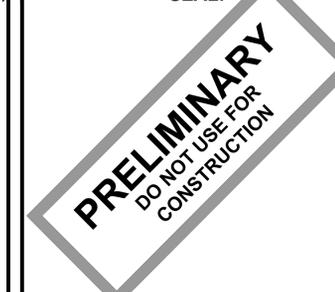
AT&T SITE ID: COL02205
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WIDEFIELD HIGH SCHOOL II

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HEET TITLE:

ELECTRICAL PANEL & GROUNDING PLANS

SHEET NUMBER:

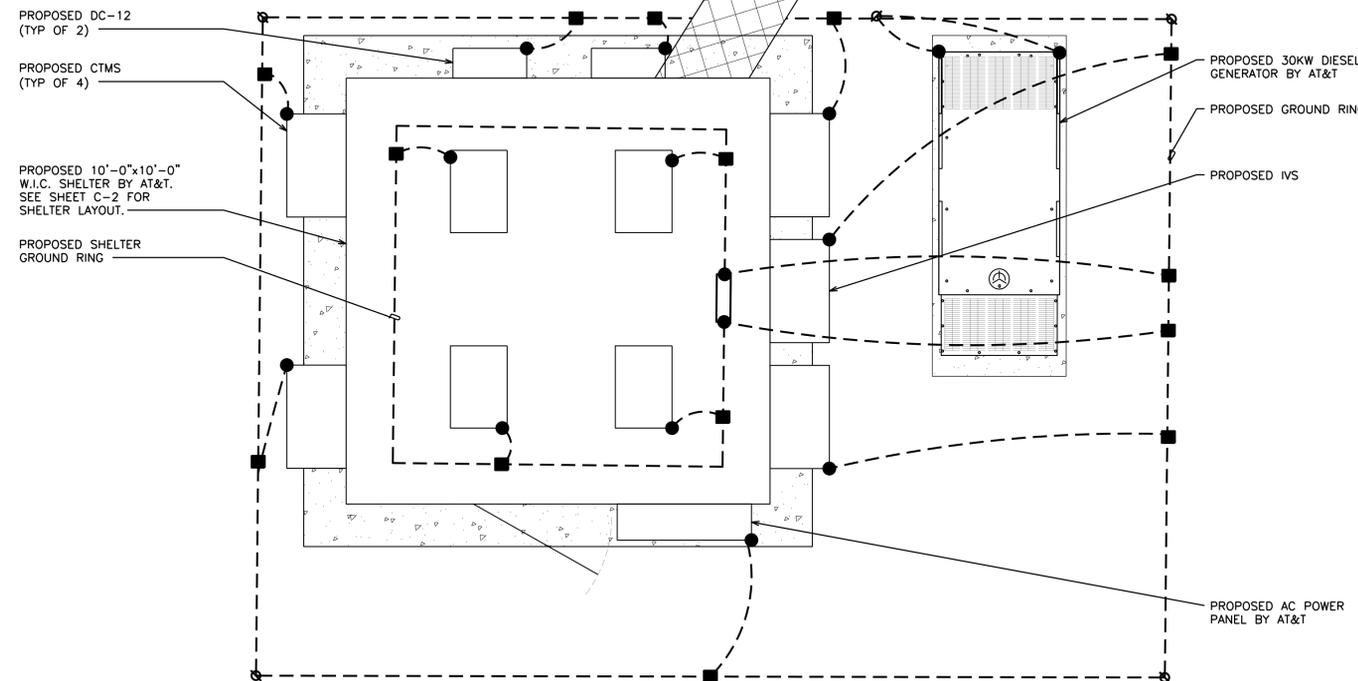
E-1

REVISION:

C

TEP #:

177861.243634



LEGEND

| | |
|---|-----------------------|
| ■ | EXOTHERMIC CONNECTION |
| ● | MECHANICAL CONNECTION |
| □ | ANTENNA GROUND BAR |
| ■ | MASTER GROUND BAR |

EQUIPMENT GROUNDING PLAN

SCALE: 1/2" = 1'-0" (24x36)
SCALE: 3/4" = 1'-0" (11x17)



NOTE:

PROPOSED PANEL SCHEDULE VALUES WERE CALCULATED BASED ON MAXIMUM PULL FROM EACH CONNECTED BREAKER. ACTUAL VALUES WILL VARY BASED ON SITE CONDITIONS.

| PROPOSED PANEL SCHEDULE | | | | | | | | | | | |
|--------------------------|--------------------|----------|----------|---------------------------|-------|------|-----------------|------------------------------|----------|-------------------|-----|
| 120/240 VOLTS 1 PHASE | | | | 3 WIRE SURFACE MOUNTED | | | | 225A, 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 | RECTIFIERS #1 & #2 | 2880 | - | 30/2 | 5760 | - | 30/2 | 2880 | - | RECTIFIERS #3 & 4 | 2 |
| 3 | | - | 2880 | - | - | 5760 | - | - | 2880 | | 4 |
| 5 | RECTIFIERS #5 & 6 | 2880 | - | 30/2 | 2880 | - | 30/2 | 0 | - | SPARE/OFF | 6 |
| 7 | | - | 2880 | - | - | 2880 | - | - | 0 | | 8 |
| 9 | SPARE/OFF | 0 | - | 30/2 | 0 | - | 30/2 | 0 | - | SPARE/OFF | 10 |
| 11 | | - | 0 | - | - | 0 | - | - | 0 | | 12 |
| 13 | SPARE/OFF | 0 | - | 30/2 | 0 | - | 30/2 | 0 | - | SPARE/OFF | 14 |
| 15 | | - | 0 | - | - | 0 | - | - | 0 | | 16 |
| 17 | SPARE/OFF | 0 | - | 30/2 | 0 | - | 30/2 | 0 | - | SPARE/OFF | 18 |
| 19 | | - | 0 | - | - | 0 | - | - | 0 | | 20 |
| 21 | SPARE/OFF | 0 | - | 30/2 | 0 | - | 30/2 | 0 | - | SPARE/OFF | 22 |
| 23 | | - | 0 | - | - | 0 | - | - | 0 | | 24 |
| 25 | AC UNIT #1 | 1920 | - | 20/1 | 1920 | - | - | - | - | BLANK | 26 |
| 27 | BLANK | - | - | - | - | 0 | - | - | - | BLANK | 28 |
| 29 | BLANK | - | - | - | - | 0 | - | - | - | BLANK | 30 |
| 31 | BLANK | - | - | - | - | 0 | - | - | - | BLANK | 32 |
| 33 | BLANK | - | - | - | - | 0 | - | - | - | BLANK | 34 |
| 35 | BLANK | - | - | - | - | 0 | - | - | - | BLANK | 36 |
| 37 | BLANK | - | - | - | - | 0 | - | - | - | BLANK | 38 |
| 39 | BLANK | - | - | - | - | 0 | - | - | - | BLANK | 40 |
| PHASE TOTALS (VA) | | | | | 10560 | 8640 | | | | | |
| CURRENT PER PHASE (A) | | | | | 88 | 72 | | | | | |
| PEAK TOTAL (VA) | | | | | 10560 | 88 | PEAK TOTAL (A) | | | | |
| 125% DEMAND (VA) | | | | | 13200 | 110 | 125% DEMAND (A) | | | | |

PROPOSED A/C PANEL

SCALE: N.T.S.

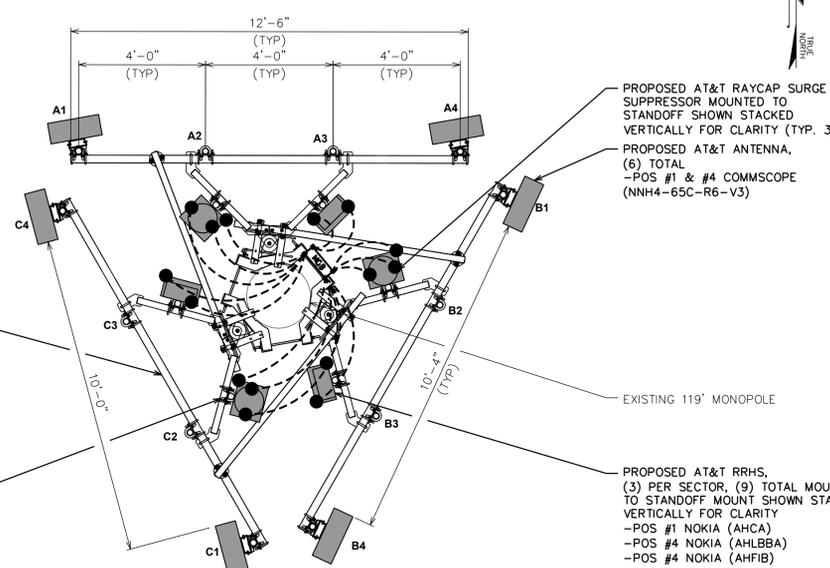
PROPOSED SITEPRO SECTOR FRAME MOUNT (P/N:VFA12-WLL-30120) BY AT&T, SEE SHEET C-5 FOR DETAILS.

PROPOSED PIPE MOUNT KIT BY SITEPRO (P/N:SP219) BY AT&T, (4) PER SECTOR, (TOTAL OF 12). SEE SHEET C-5 FOR DETAILS.

LEGEND

| | |
|---|-----------------------|
| ■ | EXOTHERMIC CONNECTION |
| ● | MECHANICAL CONNECTION |
| □ | ANTENNA GROUND BAR |
| ■ | MASTER GROUND BAR |

ANTENNA GROUNDING PLAN



SCALE: 3/8" = 1'-0" (24x36)
SCALE: 1/2" = 1'-0" (11x17)





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www.tepgroup.net

AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042458
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

523 WIDEFIELD ROAD
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | QA |
|-----|----------|------|------------------|-----|
| A | 11-23-20 | KT | PRELIMINARY | EGG |
| B | 12-14-20 | SDD | 90% CONSTRUCTION | EGG |
| C | 02-18-21 | CAK | 90% CONSTRUCTION | EGG |

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SHEET TITLE:
ONE-LINE DIAGRAM

SHEET NUMBER: REVISION:

E-2

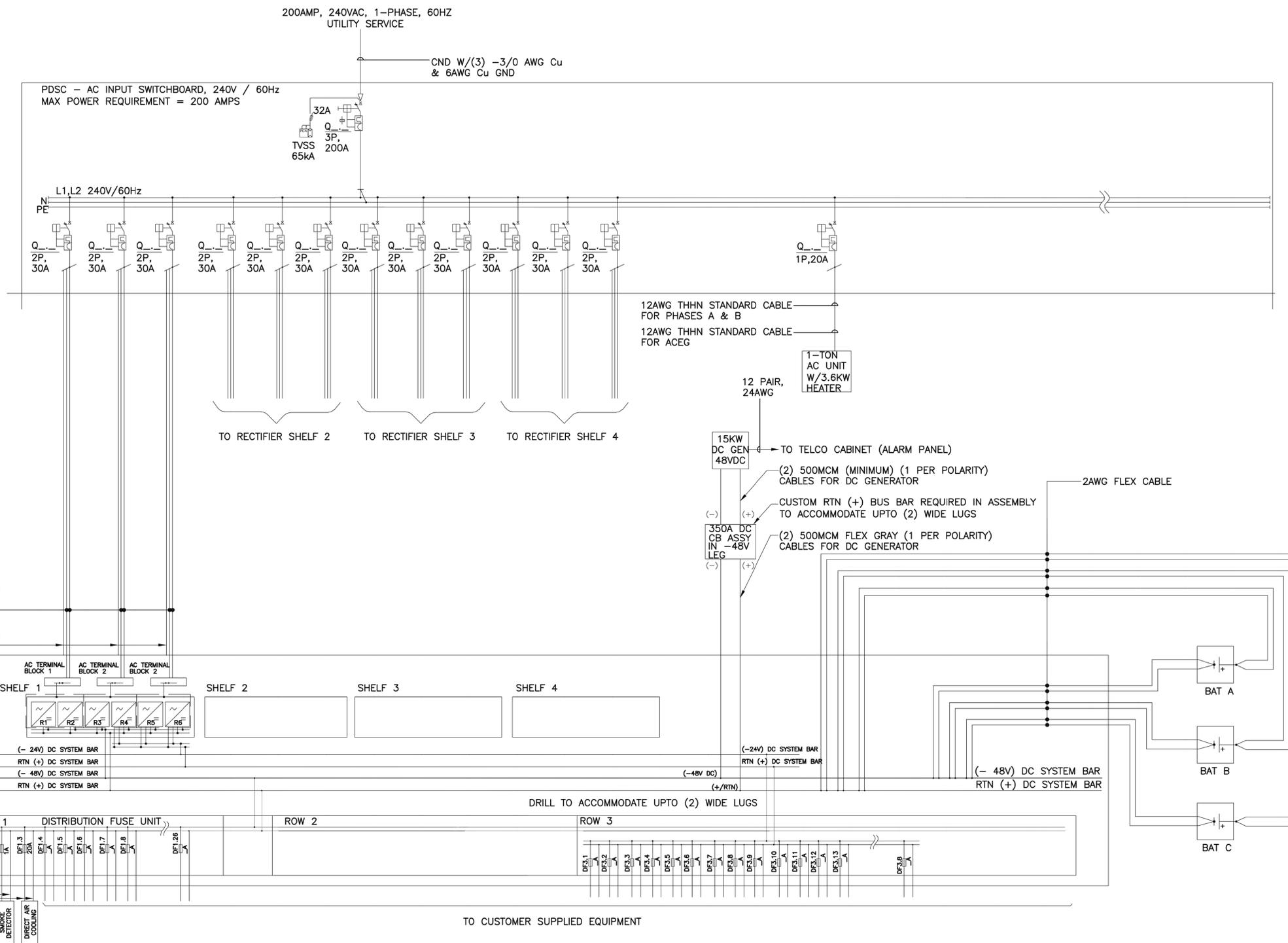
C

TEP #: 177861.243634

SYMBOLS

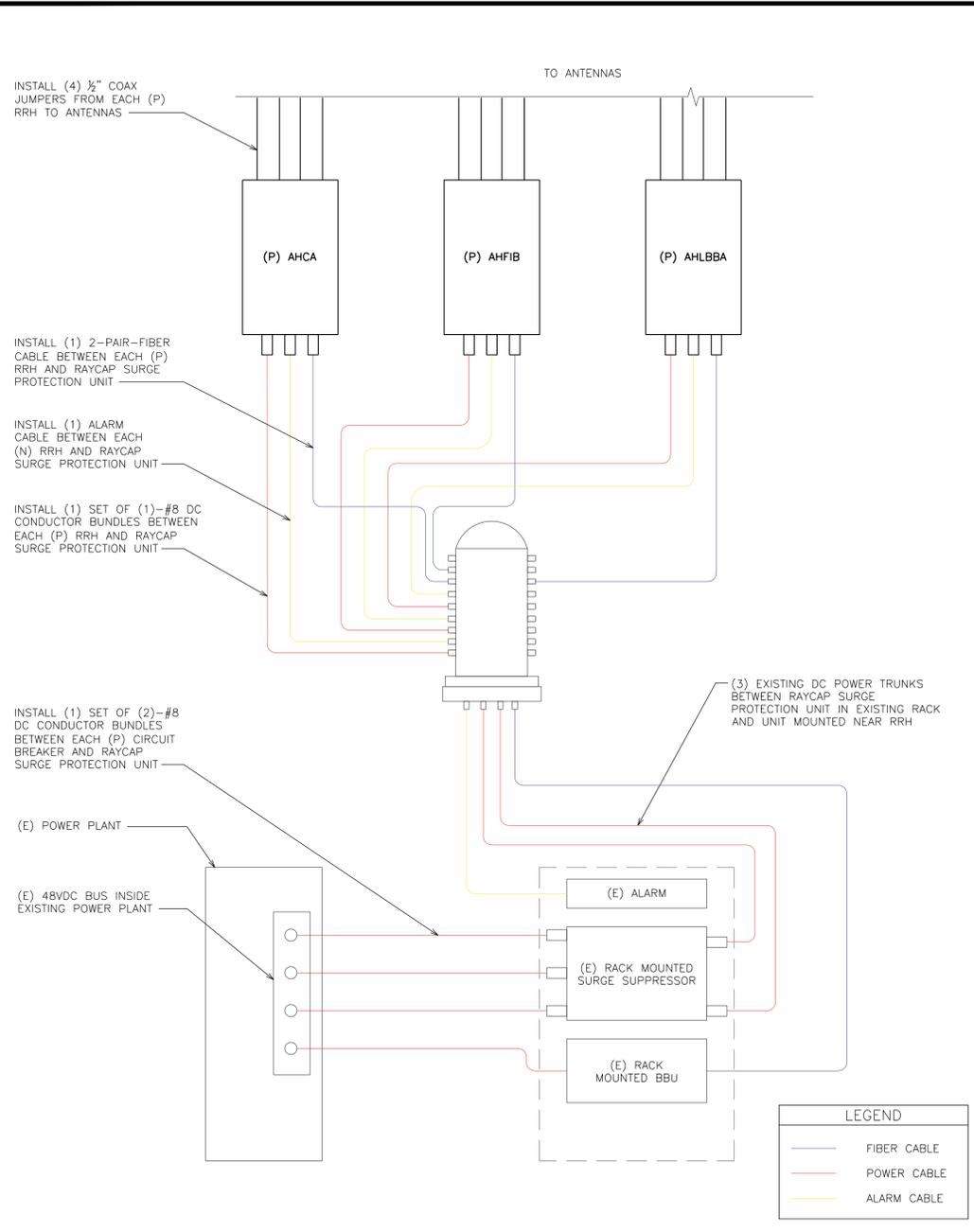
| | |
|--|--|
| | MOTOR CIRCUIT BREAKERS WITH MECHANICAL INTERLOCK |
| | MINIATURE CIRCUIT BREAKER (MCB) |
| | MOLDED CASE CIRCUIT BREAKER (MCCB) |
| | CIRCUIT BREAKER WITH RESIDUAL CURRENT DEVICE COMBINATION (RCD) |
| | CONTACTOR WITH AUXILIARY CONTACTS |
| | SHUNT TRIP RELAY |
| | AUXILIARY CONTACT 1A&1B (N.O.&N.C.) |
| | LIGHT SWITCH-3 WAY (MULTIPLE LAMPS ON/OFF) |

NOTE:
L1,L2,L3 - PHASES 1, 2 & 3 (LIVE)
N - NEUTRAL
PE - PROTECTIVE EARTH (EQUIPMENT GROUNDING CONDUCTOR)



ELECTRICAL AC/DC SINGLE LINE DIAGRAM

SCALE: N.T.S.



DC AND FIBER SYSTEM SCHEMATIC

SCALE: N.T.S.

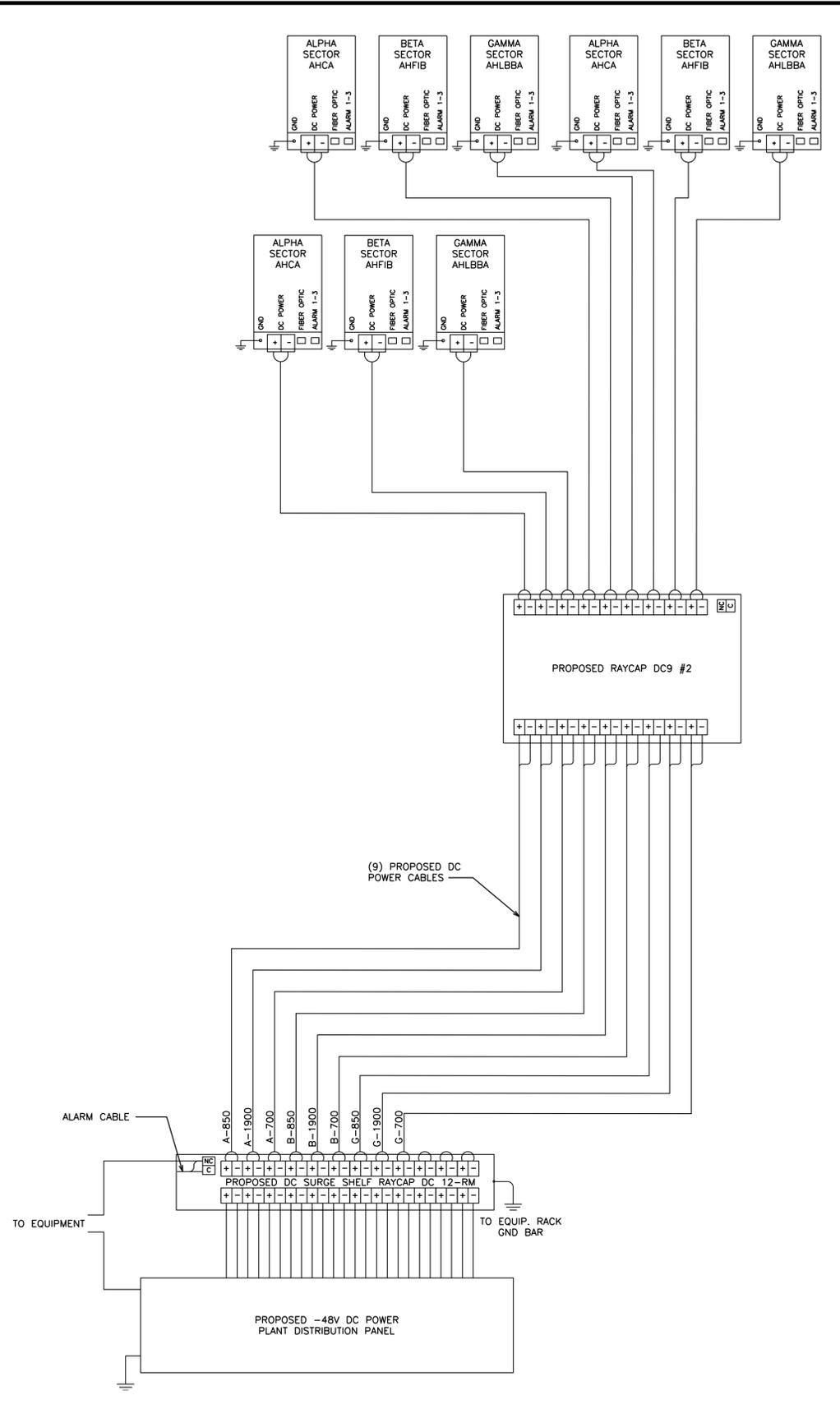
PDF JUMPER DC-6 TRUNK SQUID JUMPER RRH

| CABLE LENGTH TABLE | | | | | | | | | | | | |
|--------------------|-----|-----------------------|--------|-----------------------|------|-----------------------|-------|--------------------|---------------|-----|------|------|
| SECTOR | PDF | DISTANCE & CABLE TYPE | | DISTANCE & CABLE TYPE | | DISTANCE & CABLE TYPE | | TOTAL CABLE LENGTH | FINAL VOLTAGE | | | |
| ALPHA | PDF | 20' | #8 AWG | DC-6 | 145' | (2) #8 AWG | SQUID | 15' | #8 AWG | RRH | 180' | 40.6 |
| BETA | | 20' | #8 AWG | | 145' | (2) #8 AWG | | 15' | #8 AWG | | 180' | 40.6 |
| GAMMA | | 20' | #8 AWG | | 145' | (2) #8 AWG | | 15' | #8 AWG | | 180' | 40.6 |

| CABLE COUNT | |
|-------------|--------------|
| QTY | CABLE TYPE |
| 1 | FIBER TRUNKS |
| 3 | DC TRUNKS |

LTE CONDUCTOR SIZES

SCALE: N.T.S.



DC WIRING DIAGRAM

SCALE: N.T.S.

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ISSUED FOR:

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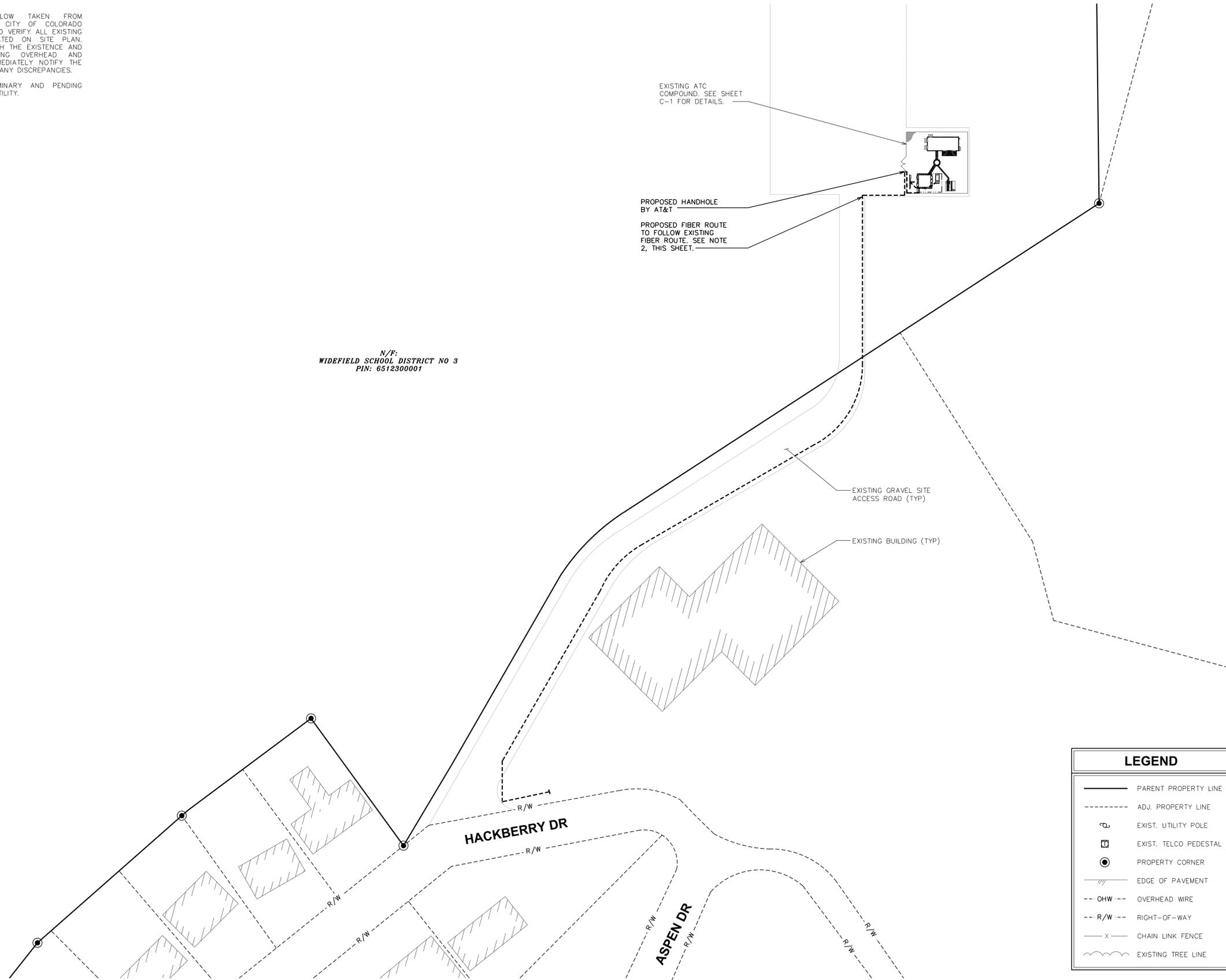
SHEET TITLE:
DC SYSTEM DETAILS

SHEET NUMBER: E-3 **REVISION:** C

TEP #: 177861.243634

NOTES:

1. SITE PLAN SHOWN BELOW TAKEN FROM INFORMATION PROVIDED BY CITY OF COLORADO SPRINGS GIS. 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. UTILITY ROUTING IS PRELIMINARY AND PENDING COORDINATION WITH LOCAL UTILITY.



N/F:
WIDEFIELD SCHOOL DISTRICT NO 3
PIN: 6512300001

161 INVERNESS DR W, 2ND FLOOR
ENGLEWOOD, CO 80112

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SHEET TITLE:
FIBER ROUTING PLAN

SHEET NUMBER:
E-4

REVISION:
C

TEP #: 177861.243634

LEGEND

| | |
|--|----------------------------|
| | PARENT PROPERTY LINE |
| | ADJ. PROPERTY LINE |
| | EXIST. UTILITY POLE |
| | EXIST. TELCO PEDESTAL |
| | PROPERTY CORNER |
| | EDGE OF PAVEMENT |
| | OHW --- OVERHEAD WIRE |
| | --- R/W --- RIGHT-OF-WAY |
| | --- x --- CHAIN LINK FENCE |
| | EXISTING TREE LINE |

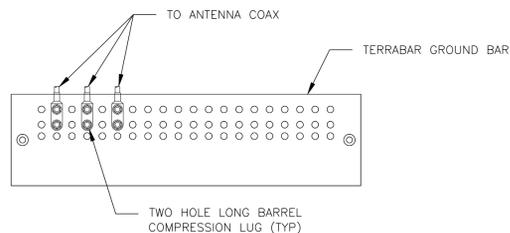
FIBER ROUTING PLAN
SCALE: 1" = 40'

SCALE: 1" = 40' (24x36)
SCALE: 1" = 80' (11x17)

SCALE IN FEET

NOTES:

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

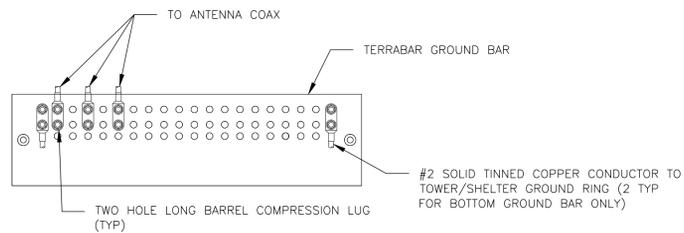


ANTENNA GROUND BAR DETAIL

SCALE: N.T.S.

NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. INSTALL GROUND BARS AT 75 FT. INTERVAL MAXIMUM.
4. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

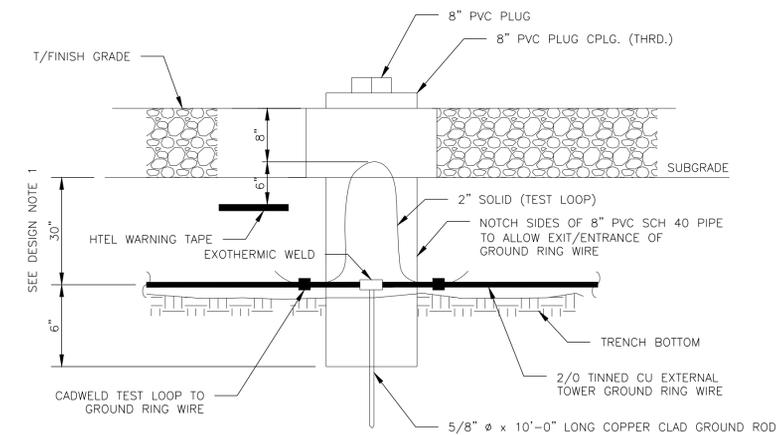


TOWER/SHELTER GROUND BAR DETAIL

SCALE: N.T.S.

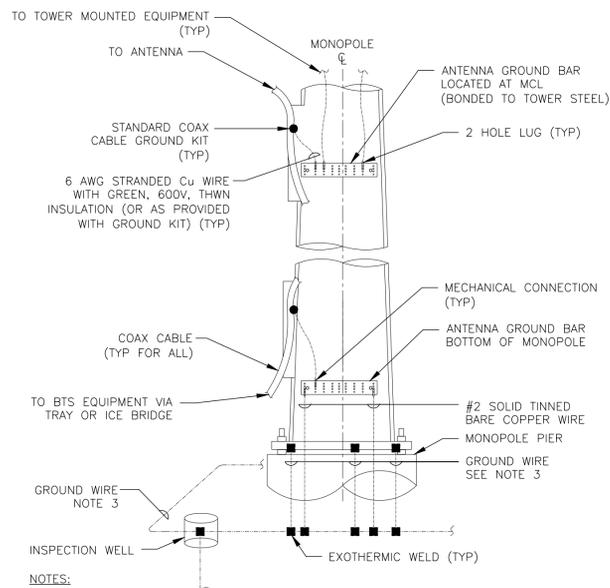
NOTES:

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



TEST WELL DETAIL

SCALE: N.T.S.

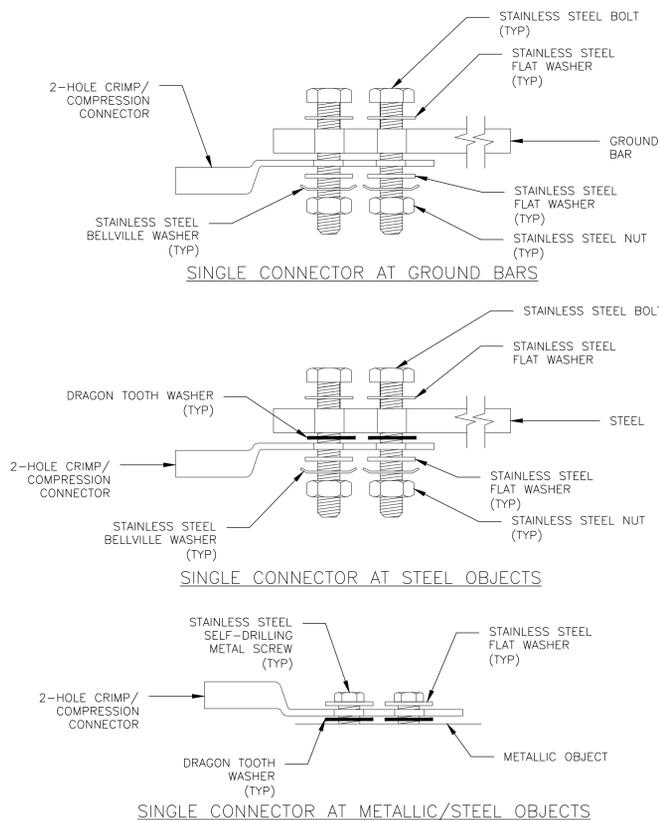


NOTES:

1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF MONOPOLE, ANTENNA LOCATION AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET IN/ON THE POLE SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ANSI/TIA 222 AND NFPA 780. FOR TOWERS BEING BUILT TO REV G OF THE STANDARD, THE WIRE SIZE OF THE BURIED GROUND RING AND CONNECTIONS BETWEEN THE TOWER AND THE BURIED GROUND RING SHALL BE 2/0 AWG. STRANDED IN ADDITION, THE MINIMUM LENGTH OF THE GROUND RODS SHALL BE INCREASED FROM 8 FEET TO 10 FEET.

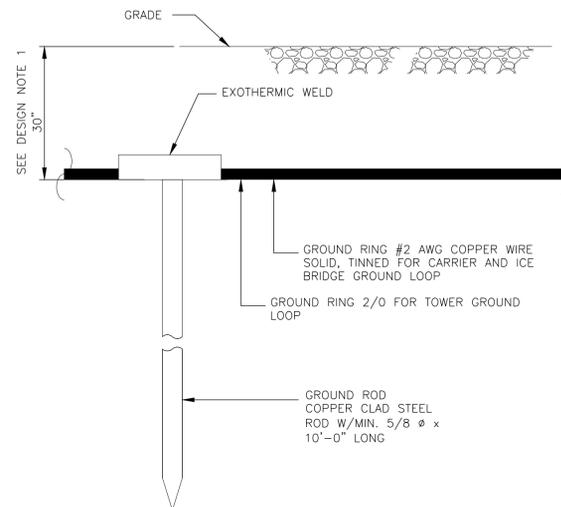
TYPICAL ANTENNA CABLE GROUNDING

SCALE: N.T.S.



HARDWARE DETAIL FOR EXTERIOR CONNECTIONS

SCALE: N.T.S.



NOTES:

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

GROUND ROD

SCALE: N.T.S.



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ENGLEWOOD, CO 80112



19100 VON KARMAN AVE
SUITE 200
IRVINE, CA 92612



AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042458
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

523 WIDEFIELD ROAD
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | QA |
|-----|----------|------|------------------|-----|
| A | 11-23-20 | KT | PRELIMINARY | EGG |
| B | 12-14-20 | SDD | 90% CONSTRUCTION | EGG |
| C | 02-18-21 | CAK | 90% CONSTRUCTION | EGG |

SEAL:



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:
GROUNDING DETAILS

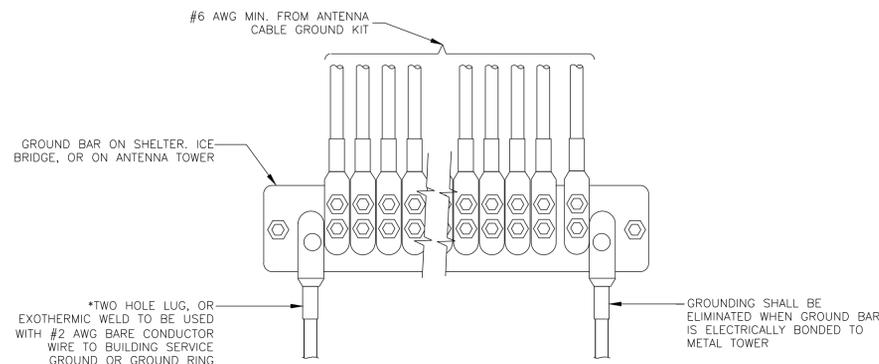
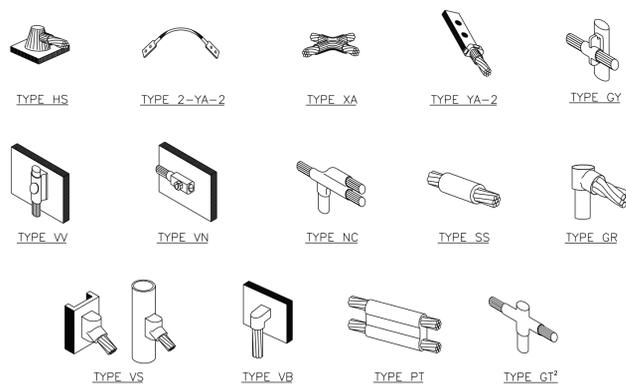
SHEET NUMBER:
G-1

REVISION:
C

TEP #: 177861.243634

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.

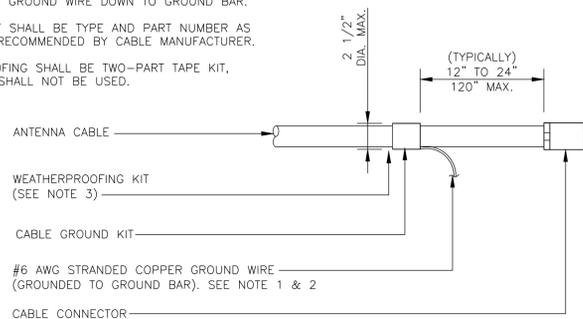


GROUNDWIRE INSTALLATION

SCALE: N.T.S.

NOTES:

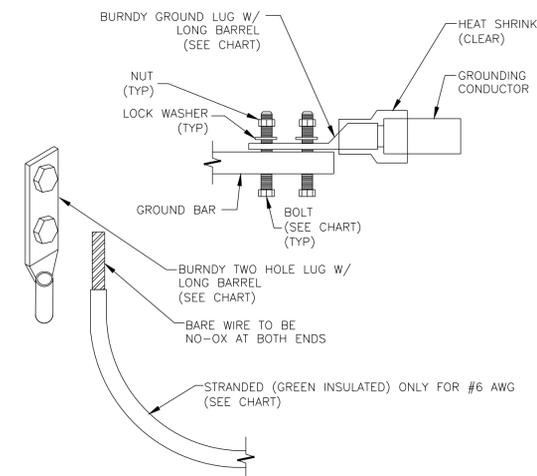
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.



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.

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

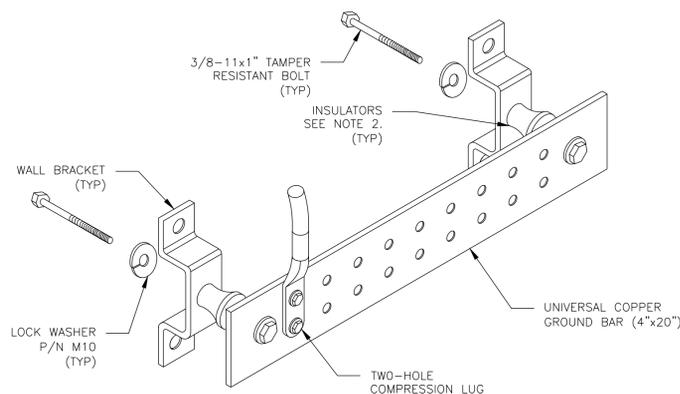


CADWELD GROUNDING CONNECTIONS

SCALE: N.T.S.

NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-ST0-10091. 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

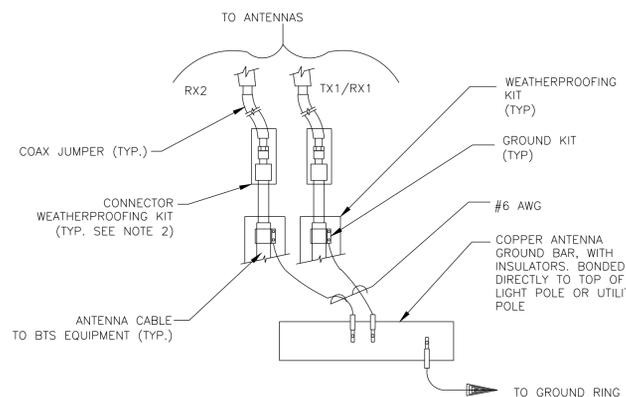
SCALE: N.T.S.

CABLE GROUND KIT CONNECTION

SCALE: N.T.S.

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.

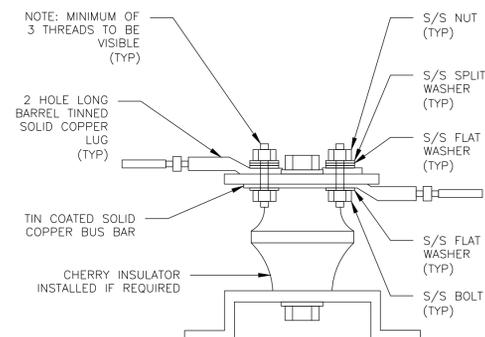


GROUND CABLE CONNECTION

SCALE: N.T.S.

MECHANICAL LUG CONNECTION

SCALE: N.T.S.



LUG DETAIL

SCALE: N.T.S.



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SEAL:

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

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OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET TITLE:

GROUNDING DETAILS

SHEET NUMBER:

G-2

REVISION:

C

TEP #:

177861.243634