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APPLICABLE CODES

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

2020 BUILDING CODE
2020 NFPA 70
2020 MECHANICAL CODE
2020 PLUMBING CODE
2020 FIRE CODE
2020 ENERGY CODE
2020 FLORIDA BUILDING CODE, 7TH EDITION

IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE. 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.

SITE INFORMATION

APPLICANT: AT&T TOWER ASSET GROUP
575 MOROSGO DR.
ATLANTA, GA 30324-3300

TOWER OWNER: SBA COMMUNICATIONS
8051 CONGRESS AVENUE
BOCA RATON, FL 33487

STRUCTURE TYPE: SELF-SUPPORT TOWER

ASSESSORS PARCEL NUMBER: 06-3S-16-02009-001

LATITUDE: 30° 15' 48.34" N 30.26343°

LONGITUDE: 82° 45' 22.26 "W 82.75618°

LAT/LONG TYPE: NAD-83

EXISTING ZONING: U

PROPOSED PROJECT AREA: NO INCREASE IN S.F.

TYPE OF CONSTRUCTION: TYPE V-B

OCCUPANCY GROUP: U

JURISDICTION: COLUMBIA COUNTY

PROJECT TEAM

CLIENT REPRESENTATIVE (NATIONAL):
MASTEC NETWORK SOLUTIONS
3443 AIRPORT RD
SACRAMENTO, CA 95834
CONTACT: CLEON MITCHELL
EMAIL: Cleon.Mitchell@mastec.com

SCOPING ENGINEER (NATIONAL):
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2189 PARKWAY LAKE DR.
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507 AIRPORT BLVD., STE. 111
MORRISVILLE, NC 27560
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1025 GREENWOOD BLVD., STE. 470
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SITE ACQUISITION (NATIONAL):
MASTEC NETWORK SOLUTIONS
2189 PARKWAY LAKE DR.
HOOVER, AL 35244
CONTACT: CLEON MITCHELL
EMAIL: Cleon.Mitchell@mastec.com

AT&T SITE NUMBER: FL15359

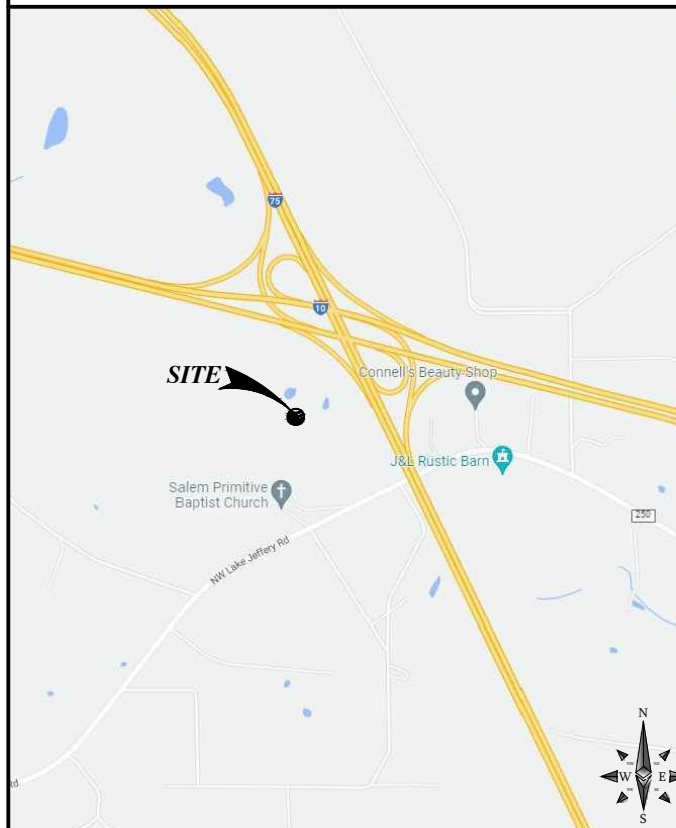
FA#: 10143832

I-10 AND I-75

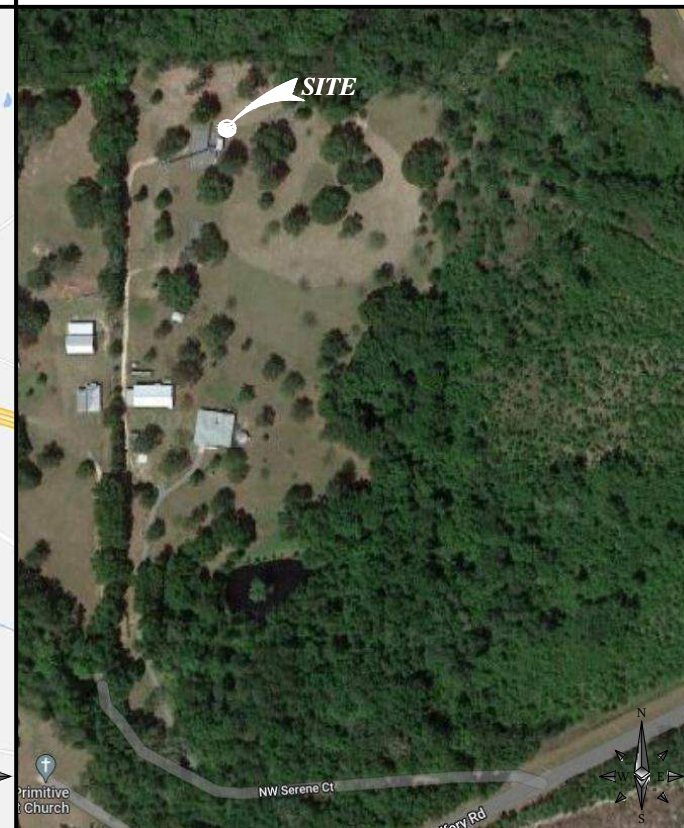
259 NORTHWEST SERENE COURT
LAKE CITY, FL 32055
GENERATOR PROJECT

LOCATION MAP

VICINITY MAP



LOCAL MAP



DRIVING DIRECTIONS

DIRECTIONS FROM: 575 MOROSGO DR., ATLANTA, GA 30324

- GET ON GA-13 S.
- FOLLOW I-75 S TO FL-136 E IN SUWANNEE COUNTY. TAKE EXIT 439 FROM I-75 S
- CONTINUE ON FL-136 E. TAKE N W WHITE SPRINGS AVE AND N W COMBS TERRACE TO NW SERENE CT IN COLUMBIA COUNTY

PROJECT DESCRIPTION

AT&T MOBILITY PROPOSES TO MODIFY AN EXISTING UNMANNED WIRELESS COMMUNICATIONS FACILITY. THIS MODIFICATION WILL CONSIST OF THE FOLLOWING:

TOWER SCOPE OF WORK

- NO TOWER WORK

GROUND SCOPE OF WORK

- REMOVE (E) ATS/CAM LOC
- INSTALL (1) 30KW GENERAC STANDBY DIESEL GENERATOR (GENERAC SD030) WITH BASE FUEL TANK ON (E) A CONCRETE PAD
- INSTALL (1) 200A ATS/CAM LOC (#6311)
- INSTALL ATS ALARM RELAY
- INSTALL (1) ACCESS GATE

DRAWING INDEX

SHEET NO: SHEET TITLE

T-1	TITLE SHEET
GN-1	GENERAL NOTES
A-0.1	EXISTING SITE PLAN
A-0.2	PROPOSED SITE PLAN
A-1	FENCE DETAILS
E-1	ELECTRICAL PLAN
E-2	EQUIPMENT & CONDUIT DETAILS
E-3	ALARM DETAILS & ONE LINE DIAGRAM
G-1	GROUNDING DETAILS

APPROVALS

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

AT&T _____ DATE: _____

SITE ACQUISITION _____ DATE: _____

CONSTRUCTION MANAGER _____ DATE: _____

SCALE

THE DRAWING SCALES SHOWN IN THIS SET REPRESENT THE CORRECT SCALE ONLY WHEN THESE DRAWINGS ARE PRINTED IN A 11"x17" OR 24"x36" FORMAT.



Know what's below.
Call before you dig.



507 AIRPORT BLVD., STE. 111
MORRISVILLE, NC 27560

FA CODE: FA # 10143832

DRAWN BY: JS

JOB #: MRTFL020752

REV	DATE	DESCRIPTION
0	07/04/22	FOR CONSTRUCTION



07/04/22

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.

FL15359

I-10 AND I-75
259 NORTHWEST SERENE COURT
LAKE CITY, FL 32055

FA NUMBER
10143832

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

GENERAL NOTES:

- ALL SUB-CONTRACTORS ARE TO SIGN INTO THE LL AND AT&T NOC'S ALONG WITH BEFORE THE START OF WORK AND END OF WORK EACH DAY. THE AT&T LOGBOOK MUST ALSO BE SIGNED EACH DAY ON SITE.
- ALL ORIGINAL PERMITS MUST BE POSTED ON SITE BEFORE WORK CAN COMMENCE. ALL PERMITS ARE REQUIRED TO BE IN A NOTICEABLE LOCATION FOR REVIEW BY THE PERMITTING JURISDICTION.
- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER: AT&T
TOWER OWNER: SBA COMMUNICATIONS
- 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 MASTEC NETWORK SOLUTIONS.
- 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.
- 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.
- 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.
- 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.
- 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.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL (FOR CAST IN PLACE OPTION):

- 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.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
- 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 40 ksi
#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.....3"
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 BARS AND LARGER.....2"
#5 BARS AND SMALLER.....1-1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
SLAB AND WALLS.....3/4"
BEAMS AND COLUMNS.....1-1/2"
- 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-POTENTIAL 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 TESTING RESULTS.
- 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.
- ALUMINIUM 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.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- 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.
- ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 1/2" 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).
- 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:

- 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.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED. VERIFY 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 CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- 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.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- 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).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECIMATE WIREWAY).
- SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- 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.
- 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.
- 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.
- 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.
- 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.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "AT&T".
- ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.



507 AIRPORT BLVD., STE. 111
MORRISVILLE, NC 27560

FA CODE:	FA # 10143832
DRAWN BY:	JS
JOB #:	MRTFL020752

0	07/04/22	FOR CONSTRUCTION
REV	DATE	DESCRIPTION



07/04/22

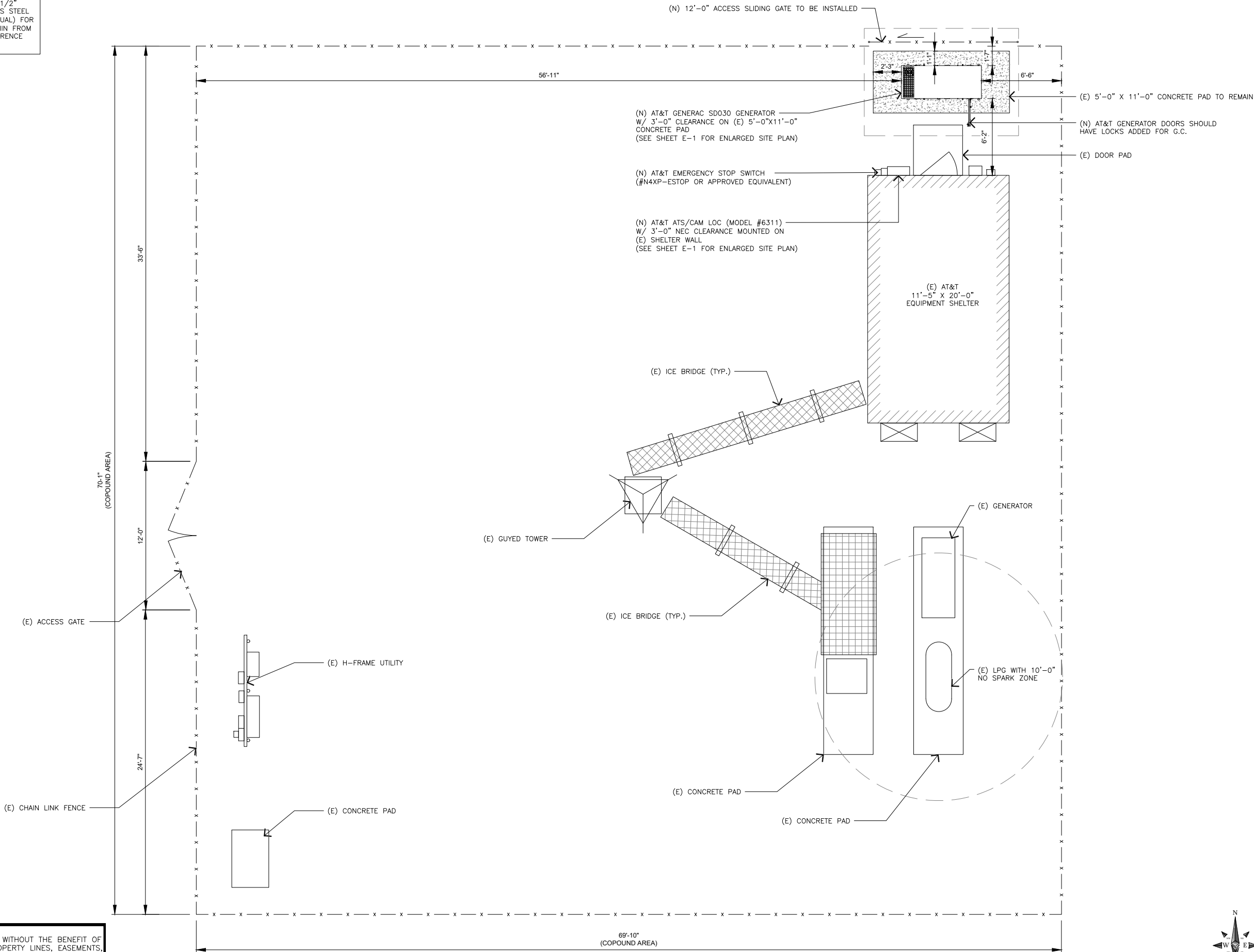
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

FL15359
I-10 AND I-75
259 NORTHWEST SERENE COURT
LAKE CITY, FL 32055
FA NUMBER
10143832

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-1

NOTE
G.C TO INSTALL (10) 5/8" DIA. X 3-1/2"
EMBED HILTI KWIK BOLT TZ STAINLESS STEEL
EXPANSION ANCHOR(OR APPROVED EQUAL) FOR
(N) GENERATOR. BOLT IS TO BE 6" MIN FROM
CL TO EDGE OF CONCRETE PAD REFERENCE
ICC-ES ESR- 1917 REPORT

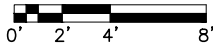


NOTE
THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF
A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS,
SETBACKS, AND EXISTING CONDITIONS ARE APPROXIMATE AND
SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION.



PROPOSED SITE PLAN

11X17 SCALE: 1" = 8'
24X36 SCALE: 1" = 4'



1



507 AIRPORT BLVD., STE. 111
MORRISVILLE, NC 27560

FA CODE:	FA # 10143832
DRAWN BY:	JS
JOB #:	MRTFL020752

REV	DATE	DESCRIPTION
0	07/04/22	FOR CONSTRUCTION



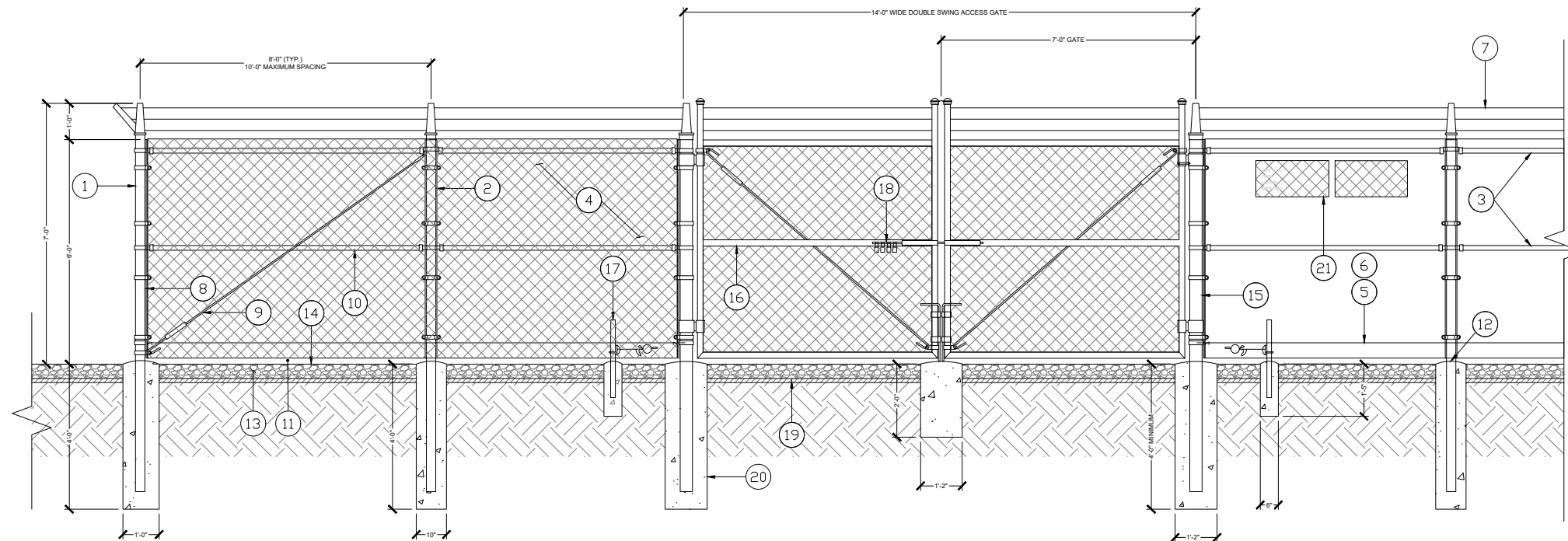
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FL15359
I-10 AND I-75
259 NORTHWEST SERENE COURT
LAKE CITY, FL 32055
FA NUMBER
10143832

SHEET TITLE
PROPOSED SITE PLAN

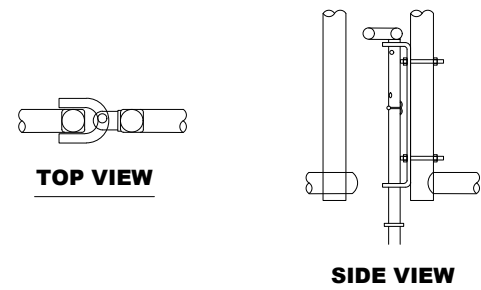
SHEET NUMBER
A-0.2

- (1) 3" Q.D. GALVANIZED STEEL SCHEDULE 40 CORNER POSTS (PER ASTM-F1083).
- (2) 2-1/2" NOMINAL GALVANIZED STEEL, SCHEDULE 40 INTERMEDIARY LINE POSTS (PER ASTM-F1083). LINE POSTS SHALL BE EQUALLY SPACED AT MAXIMUM 10' O.C.
- (3) 1-5/8" O.D. ROUND TOP RAIL & BRACE PIPE RAIL (PER ASTM-F1083).
- (4) 9 GAUGE FABRIC CORE WIRE WITH 2" MESH (TO CONFORM TO ASTM-A392).
- (5) 9 GAUGE ALUMINUM TIE WIRE. PROVIDE HOG RING FABRIC TIES SPACED 12" O.C. FOR POSTS AND GATES AND 24" O.C. FOR RAILS AND WIRE.
- (6) 9 GAUGE ALUMINUM TENSION WIRE.
- (7) 3 STRANDS 14 GAUGE BARBED WIRE WITH 4 POINT BARBS. SPACE BARBS APPROXIMATELY 5" O.C.
- (8) 3/16"x3/4" STRETCHER BAR; TO EXTEND FULL HEIGHT OF FENCE.
- (9) 3/8" DIAGONAL ROD WITH GALVANIZED STEEL TURNBUCKLE OR DIAGONAL THREADED ROD.
- (10) 1-5/8" DIAMETER CORNER POST BRACE.
- (11) MAINTAIN A 1" MAXIMUM CLEARANCE FROM FINISHED GRADE.
- (12) PROVIDE CROWNED/PITCHED FINISH FOR FENCE POST PIER FOUNDATIONS; TO EXTEND 1" ABOVE GRADE.
- (13) 6" CRUSHED STONE (TYP.).
- (14) FINISHED GRADE SHALL BE UNIFORM AND LEVEL.
- (15) 4" O.D. GALVANIZED STEEL SCHEDULE 40 GATE POSTS (PER ASTM-F1083).
- (16) 1-1/2" NOMINAL PIPE FOR GATE FRAME BRACE RAIL (PER ASTM F-1083).
- (17) DUCK BILL OPEN GATE HOLDER. CONTRACTOR TO VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
- (18) NOT USED
- (19) PROPOSED GEOTEXTILE FABRIC.
- (20) CONCRETE PIER FOUNDATION; TO ACHIEVE A MINIMUM STRENGTH OF 3000 PSI AT 28 DAYS. CONCRETE DEPTH TO BE A MINIMUM OF 6" BELOW FROST LINE (48" MINIMUM, TYP.).
- (21) 12"x24" SITE INFORMATION SIGN.

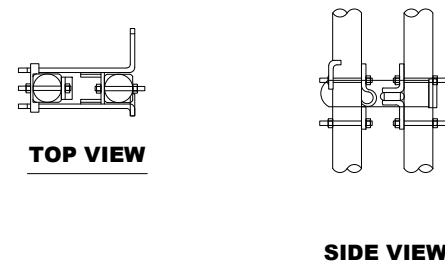


SCALE: N.T.S.

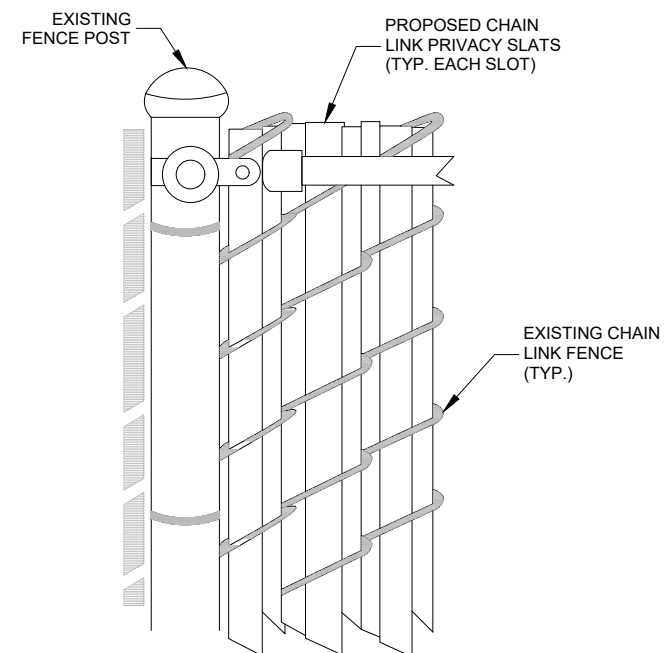
1. ALL FENCING TO BE INSTALLED PER ASTM F-567. ALL SWING GATES TO BE INSTALLED PER ASTM F-900.
2. BARBED WIRE PERMIT REQUIRED SHALL BE COMPLETED IF LOCAL ORDINANCE REQUIRES.
3. POST & GATE PIPE SIZES ARE INDUSTRY STANDARDS. ALL PIPE TO BE GALVANIZED (HOT DIP, ASTM A120 GRADE "A" STEEL). ALL GATE FRAMES SHALL BE WELDED. ALL WELDINGS SHALL BE COATED WITH (3) COATS OF GOLD GALV. (OR EQUAL). ALL OPEN POSTS SHALL HAVE END-CAPS.
4. ALL SIGNS MUST BE MOUNTED ON INSIDE OF FENCE FABRIC USING GALVANIZED HOG-RING WIRE.
5. MUSHROOM ANCHOR AND PLUNGER REQUIRED FOR GATE. GENERAL CONTRACTOR RESPONSIBLE FOR GATE LOCK.



SCALE: N.T.S.

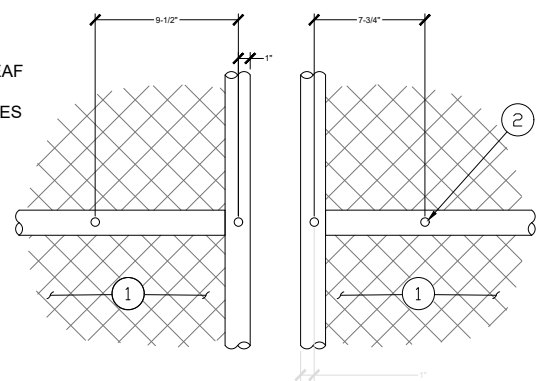


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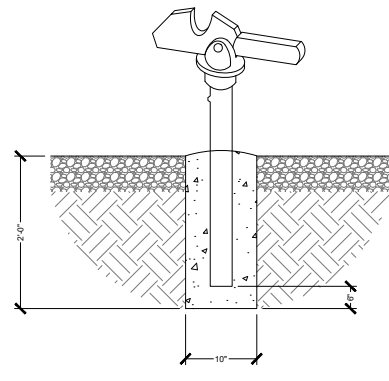


1. CONTRACTOR TO DETERMINE CORRECT SIZE OF PRIVACY SLATS TO BE USED IN FIELD.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE
3. WITH MANUFACTURER'S SPECIFICATIONS.
4. DO NOT SCALE DRAWING.

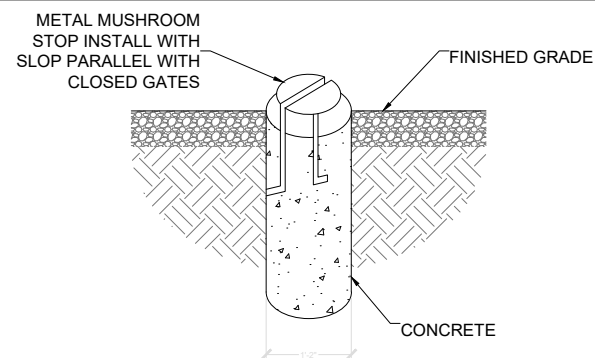
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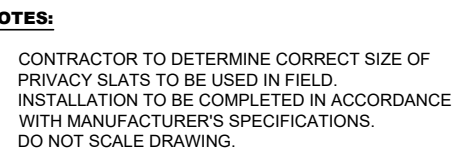
SCALE: N.T.S.



SCALE: N.T.S.



SCALE: N.T.S.



FENCE DETAILS

SCALE:
NONE

1

507 AIRPORT BLVD., STE. 111
MORRISVILLE, NC 27560

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SHEET TITLE

FENCE DETAILS

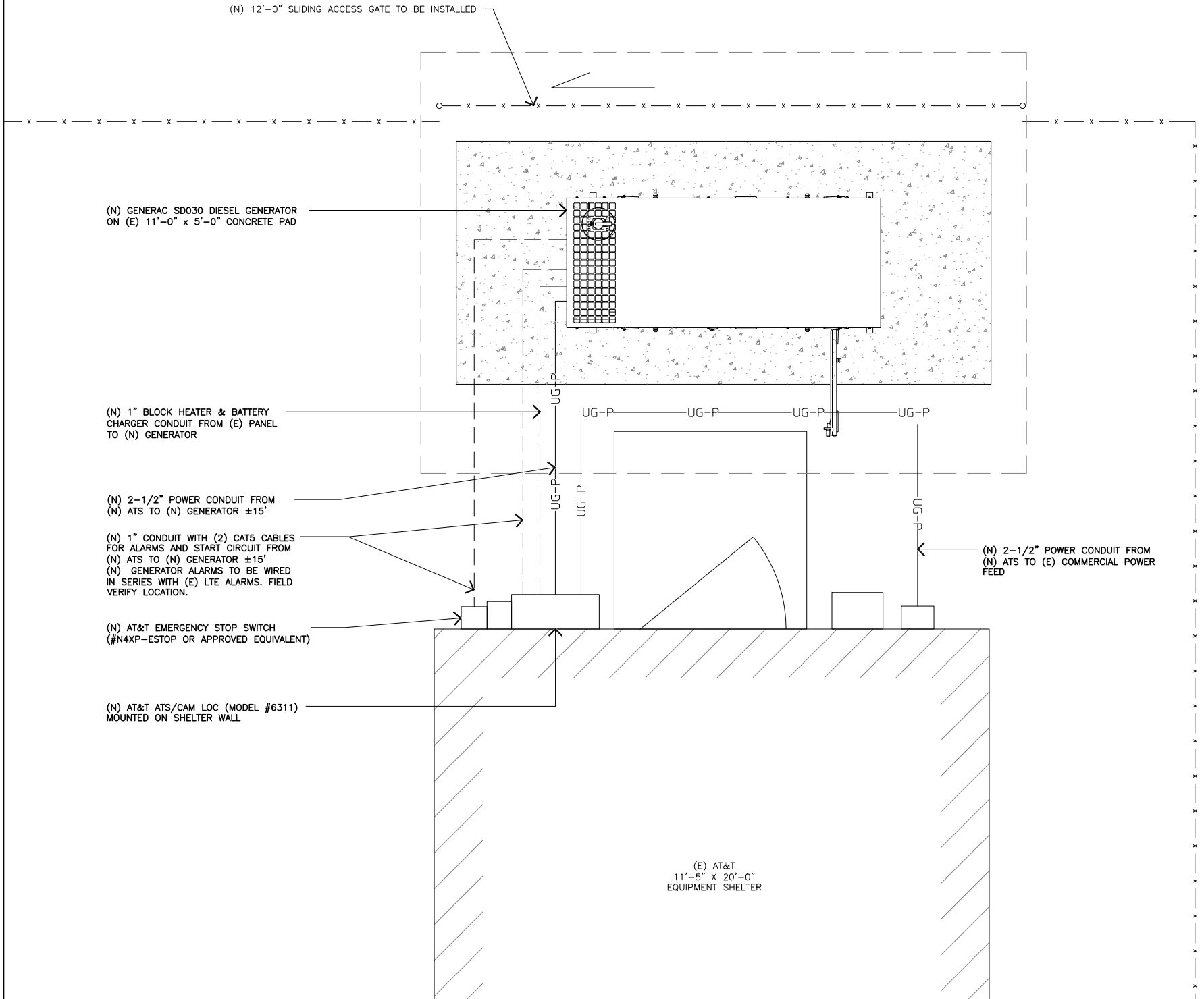
SHEET NUMBER

A-1

NOTES AND SPECIFICATIONS

- ALL ELECTRICAL WORK SHALL COMPLY WITH NEC, STATE, AND LOCAL CODES.
- CONTRACTOR SHALL OBTAIN OWNER/TENANT SPECIFICATIONS AND REVIEW FOR ADDITIONAL DETAILS AND REQUIREMENTS THAT MAY NOT BE SHOWN IN THESE DRAWINGS. CONTRACTOR SHALL COMPLY WITH ANY ADDITIONAL OWNER/TENANT SPECIFICATIONS AND REQUIREMENTS.
- CONTRACTOR SHALL COORDINATE WITH THE ELECTRIC UTILITY FOR THE EXACT TRANSFORMER LOCATION, METERING REQUIREMENTS, AND SERVICE ROUTING. CONTRACTOR SHALL COORDINATE WITH THE TELEPHONE UTILITY FOR THE EXACT TELEPHONE REQUIREMENTS AND SERVICE ROUTING.
- PRIOR TO PURCHASING EQUIPMENT, THE CONTRACTOR SHALL CONTACT THE ELECTRIC COMPANY AND OBTAIN IN WRITING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE UTILITY SERVICE POINT. THE CONTRACTOR SHALL ENSURE ALL ELECTRICAL EQUIPMENT, CIRCUIT BREAKERS, DISCONNECTS, FUSES, AND PANELBOARDS HAVE A FAULT CURRENT INTERRUPTING RATING GREATER THAN THE AVAILABLE FAULT CURRENT. IN NO CASE SHALL THE FAULT CURRENT INTERRUPTING RATING BE LESS THAN 10,000 AMPS.
- CONTRACTOR TO PROVIDE 2-200 LB TEST POLYETHYLENE PULL CORDS SECURELY FASTENED AT EACH END OF POWER AND TELCO CONDUIT. PROVIDE CAPS ON END OF UNUSED CONDUIT.
- CONTRACTOR TO PROVIDE A REBAR MARKER WITH AT LEAST 2 FEET EXPOSED ABOVE GRADE AND PAINTED BRIGHT ORANGE TO INDICATE LOCATION OF CONDUIT CAPPED BELOW GRADE.
- PRIOR TO TRENCHING CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL REPAIR AT CONTRACTOR'S EXPENSE ANY DAMAGE TO EXISTING UTILITIES.
- CONTRACTOR TO VERIFY EXACT ROUTING OF POWER AND TELCO CONDUIT WITH LOCAL UTILITIES AND OWNER/TENANT. ENSURE ALL CONDUIT STUB-UPS ACCOMMODATE EQUIPMENT REQUIREMENTS.
- UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC UNLESS NOTED OTHERWISE. USE SCHEDULE 80 PVC UNDER ROADS.
- CONDUIT RUNS SHALL HAVE A CONTINUOUS SLOPE DOWNWARDS AND AWAY FROM THE EQUIPMENT TO ALLOW WATER TO FLOW AWAY FROM THE EQUIPMENT AND SHELTER. EXCAVATE TRENCHES ALONG STRAIGHT LINES PRIOR TO INSTALLING CONDUIT TO ACCOMMODATE ADJUSTING THE ELEVATION, AS NEEDED.
- CONDUIT ENTERING EQUIPMENT SHALL BE SEALED WITH A SEALANT THAT IS IDENTIFIED FOR USE WITH THE CABLE/CONDUCTOR INSULATION, SHIELDING, ETC.
- THE OWNER SHALL FURNISH AND THE CONTRACTOR SHALL INSTALL ADDITIONAL SIGNAGE TO BE LOCATED AT THE COMPOUND FENCE. CONTRACTOR SHALL COORDINATE WITH OWNER/TENANT CONSTRUCTION MANAGER FOR PLACEMENT OF SIGNAGE.
- UPON COMPLETION OF CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO THE LANDSCAPING AREA.
- CONTRACTOR TO ENSURE A MIN. 3' CLEARANCE IN FRONT OF ELECTRICAL PANELS PER NEC.
- ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL TESTED BY AN APPROVED THIRD PARTY TESTING AGENCY.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
277/480V, 3Ø	NEUTRAL	GREY
	GROUND	GREEN
	POS (+)	RED**
	NEG (-)	BLACK**
* SEE NEC 210.5(C)(1) AND (2) ** POLARITY MARKED AT TERMINATION		



NOTE:

AT&T PORTABLE GEN INTERFACE TO BE REMOVED ONLY IF NECESSARY



MasTec
Network Solutions

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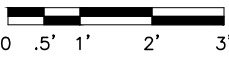
FL15359
I-10 AND I-75
259 NORTHWEST SERENE COURT
LAKE CITY, FL 32055
FA NUMBER
10143832

SHEET TITLE
ELECTRICAL & LTE
SCHEMATIC DIAGRAM

SHEET NUMBER
E-1

ELECTRICAL PLAN

11x17 SCALE: 3/8"=1'-0"
24x36 SCALE: 3/4"=1'-0"



1

NOT USED

SCALE:
NONE

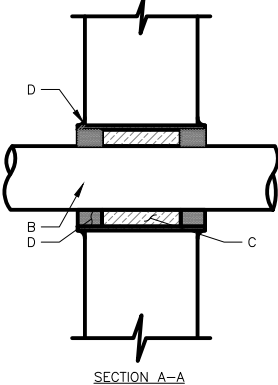
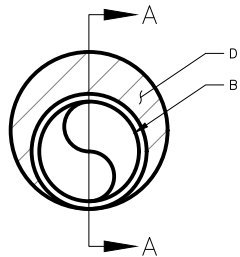
7

U.L. SYSTEM NO. C-AJ-1150
CONDUIT THROUGH BEARING WALL SIMILAR TO U.L. DESIGN NO. U902
F RATING = 3 HR
T RATING = 0 HR

- A. FLOOR OR WALL ASSEMBLY : MINIMUM 4-1/2" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAMETER OF OPENING IS 4". (SEE CONCRETE BLOCKS CATZ) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- B. THROUGH PENETRATIONS : ONE METALLIC PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE ANNULAR SPACE SHALL BE MINIMUM 0". (POINT CONTACT) TO MAXIMUM 1-3/8". THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:
- a. STEEL PIPE-NOMINAL 6" DIAMETER (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE
 - b. IRON PIPE-NOMINAL 6" DIAMETER (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - c. CONDUIT - NOMINAL 4" DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOMINAL 3-1/2" DIAMETER (OR SMALLER) STEEL CONDUIT.
- C. PACKING MATERIAL: MINIMUM 6" THICKNESS OF MIN 4.0 PCF MINERAL WOOL BATTING INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
- D. FILL, VOID, OR CAVITY MATERIAL*: SEALANT: MINIMUM 1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR AND WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN PIPE AND CONCRETE, A MINIMUM 1/2" DIAMETER BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL. W-RATING APPLIES ONLY WHEN CP601S OR CP604 SEALANT IS USED.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. : CP601S, CP604, CP606, OR FS-ONE SEALANT.

* BEARING THE UL CLASSIFICATION MARK



INSTALLER NOTES:

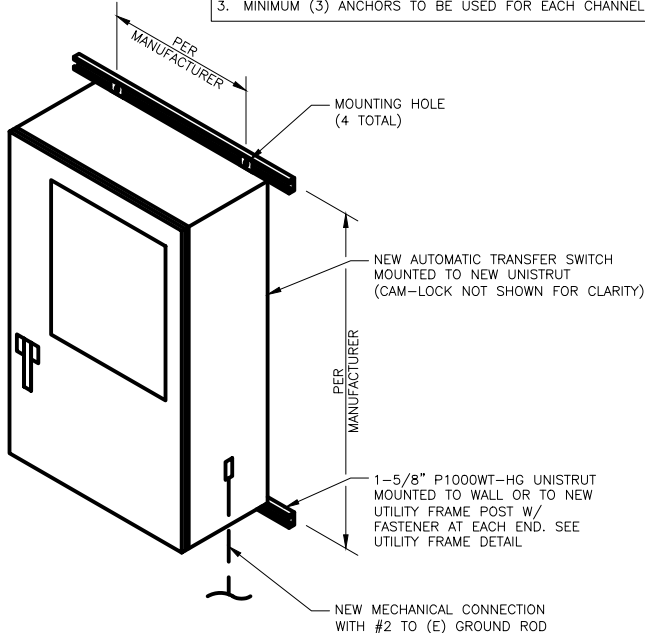
1. IF EXISTING CONSTRUCTION VARIES FROM THIS DETAIL, AN EQUAL 3-HR U.L. PENETRATION APPROPRIATE FOR THE EXISTING WALL TYPE SHALL BE CONSTRUCTED
2. GC SHALL USE NON-SHRINKING CAULK TO WEATHERSEAL ALL PENETRATIONS INTO OR THRU SHELTER WALL.

OUTER WALL PENETRATION DETAIL

SCALE:
NONE

6

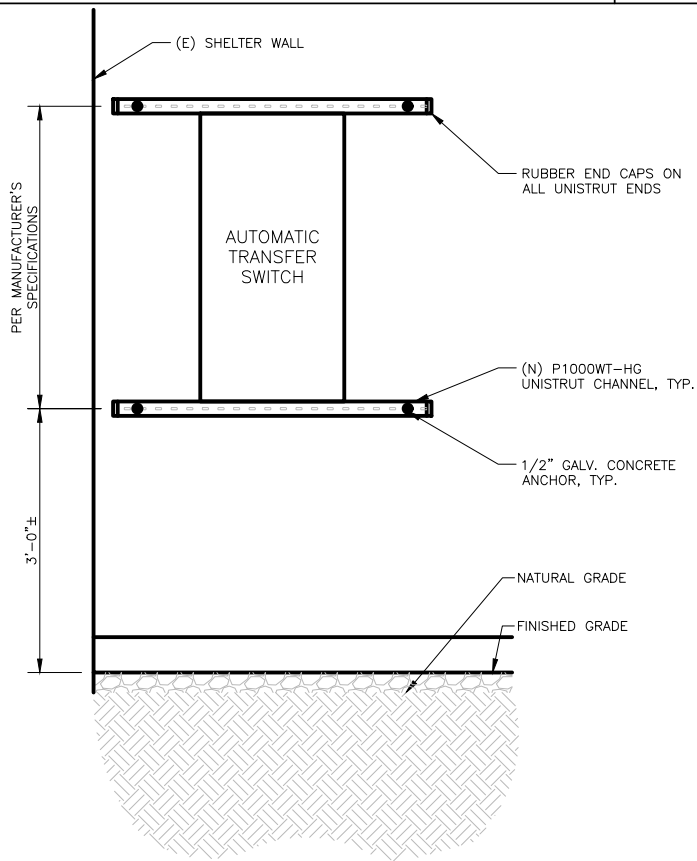
UNISTRUT WALL ATTACHMENT:		
WALL CONSTRUCTION TYPE	FASTENER	ANCHOR SPACING
WOOD STUD	3/8" DIA. LAG SCREW	16"
CONCRETE BLOCK (HOLLOW)	-	8"
CONCRETE BLOCK (SOLID)	3/8"Ø SIMPSON TITEN HD ANCHOR MINIMUM EMBEDMENT 2-3/4"	24"
NOTES: 1. USE GALVANIZED OR STAINLESS STEEL HARDWARE FOR WALL MOUNT AND CONNECTION OF CHANNELS. 2. GC SHALL USE NON-SHRINKING CAULK TO WEATHER SEAL ALL PENETRATIONS INTO OR THROUGH SHELTER WALL. 3. MINIMUM (3) ANCHORS TO BE USED FOR EACH CHANNEL.		



ATS MOUNTING DETAIL

SCALE:
NONE

5



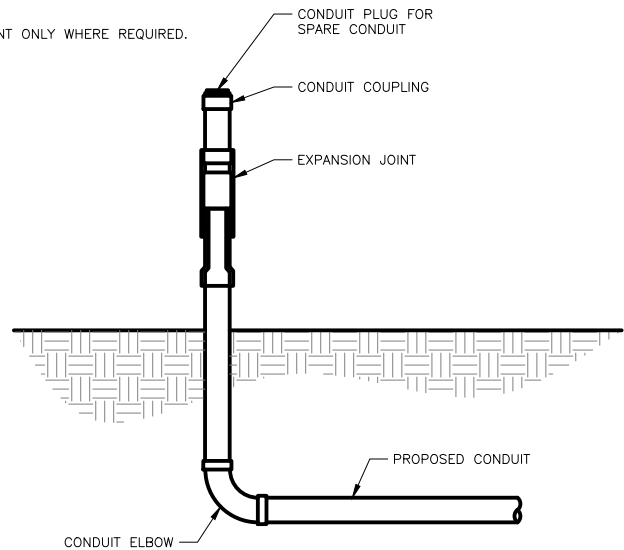
UTILITY FRAME ELEVATION

SCALE:
NONE

4

INSTALLER NOTE:

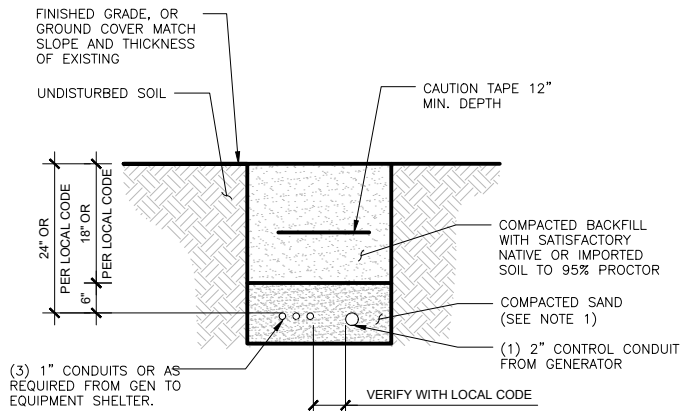
INSTALL SLIP JOINT ONLY WHERE REQUIRED.



SLIP JOINT DETAIL

SCALE:
NONE

3



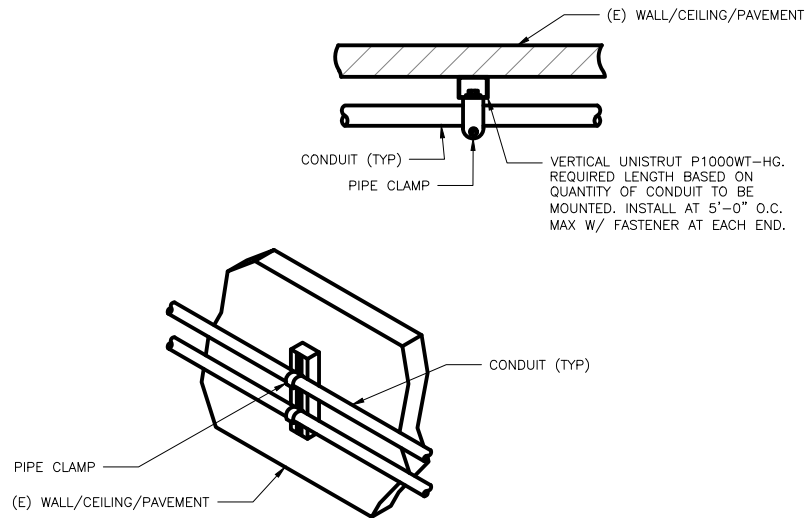
NOTES:

- SEPARATION DIMENSIONS TO BE VERIFIED WITH LOCAL UTILITY CO. REQUIREMENTS.
- PROVIDE PVC CONDUIT BELOW GRADE EXCEPT AS NOTED BELOW.
- PROVIDE RCS CONDUIT AND ELBOWS AT STUB UP LOCATIONS IF REQUIRED.
- INSTALL UTILITY PULLBOXES PER NEC IF REQUIRED.
- FOLLOW MINIMUM COVER REQUIREMENTS PER NEC 300-5

TRENCH DETAIL

SCALE:
NONE

2



CONDUIT WALL MOUNT DETAIL

SCALE:
NONE

1



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Network Solutions

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FA NUMBER
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SHEET TITLE
EQUIPMENT &
CONDUIT DETAILS

SHEET NUMBER
E-2

-48V PRIMARY VOLTAGE DC PLANT SPECIFIED									
+24VDC EQUIPMENT LOAD:	200	WATT S	=	8	AMPS	at +24V			
-48VDC EQUIPMENT LOAD:	9560	WATT S	=	178	AMPS	at -48V			
6 AMP'S (281 Watts) AT PRIMARY 48V REQUIRED TO SUPPORT 24V DC CONVERTER SYSTEM									
TOTAL PRIMARY 48V LOAD:	9841	WATT S	=	183	AMPS	at -48V			
(DC PLANT CONFIGURATION CAN BE REVIEWED ON DC PLANT WORKSHEET)									
DC PLANT: Vertiv STD -48VDC NetSure 7100 Plant 1000A									
-48V RECTIFIERS REQUIRED (N+1):	7								
-48V RECTIFIER SLOTS:	22								
CONV. TYPE: UNIVERSAL SLOTS - RIGHT 3 RECT SLOTS/SHELF CAN BE USED FOR CONV									
+24V CONVERTERS REQUIRED:	2								
+24V CONVERTER SLOTS:	9								
ESTIMATED BATTERY RESERVE TIME									
2 180 AH 48V STRINGS =	2.85	HOURS							(ON-SITE GENERATOR - 2 HOUR MINIMUM)

LOAD CALCULATIONS

SCALE: 1
NONE

GENERATOR ALARM IDENTIFICATION CHART	
NAME	DESCRIPTION
CF	CRITICAL FAILURE
FL	FUEL LEAK OVERFILL
GR	GENERATOR RUNNING
FL	LOW FUEL
MAF	MAJOR FAULT
MF	MINOR FAULT
FL	GEN FUEL LEAK TANK WHT/SLATE

ALARM REQUIREMENTS
AT&T REQUIRES FOUR ALARMS CONFIRMED WORKING: NORMALLY CLOSED VOLT-FREE CONTACT FOR:
1. GENERATOR RUN
2. GENERATOR FAIL
3. LOW FUEL
4. FUEL LEAK
5. RBS GENERATOR MJ
COLOR CODE:
A. CABLE - (2) CAT5
B. COLOR CODE
1. GENERATOR RUN - ALARM PORT #14 (ORANGE & WHITE)
2. GENERATOR FAIL - ALARM PORT #15 (BLUE & WHITE)
3. LOW FUEL - ALARM (PORT P32) ON I/O BOARD (GREEN & WHITE)
4. FUEL LEAK - P32 ON I/O BOARD) (BROWN & WHITE)

AUTOMATIC TRANSFER SWITCH (IF APPLICABLE)
A. CABLE - cat5e
B. COLOR CODE
1. COMMERCIAL POWER FAIL IF REQUIRED (BLUE WHITE)
2. TRANSFER SWITCH POSITION (BROWN WHITE)
CAM LOCK ALARM
A. CABLE - cat5e
B. COLOR CODE
1. PORTABLE GENERATOR RUNNING (ORANGE WHITE) (IF REQUIRED)

ALARM DETAILS

SCALE: 2
NONE



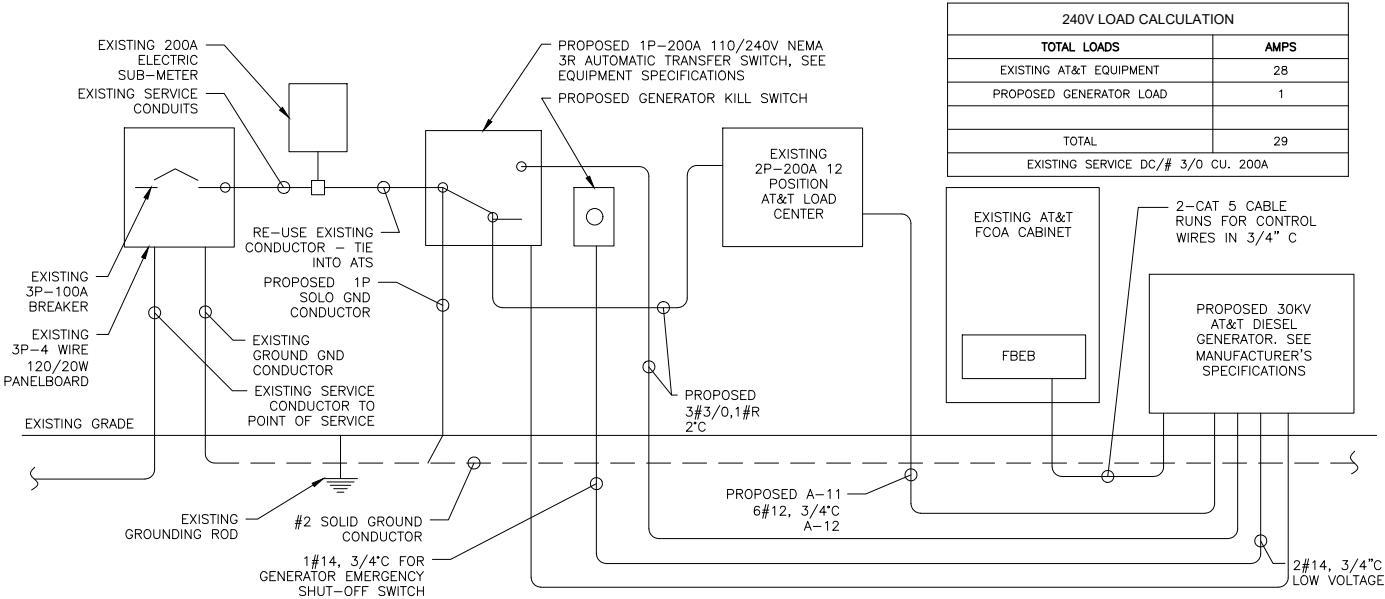
PROPOSED (2) 1P-20A
BREAKERS IN POSITION
2 AND 4

PANELBOARD DIRECTORY - 120/240 V - 200 AMP			
1	RECTIFIER #1	2	SPARE
3	RECTIFIER #1	4	SPARE
5	RECTIFIER #2	6	HVAC
7	RECTIFIER #2	8	HVAC
9	RECTIFIER #3	10	HVAC
11	RECTIFIER #3	12	SPARE
13	RECTIFIER #4	14	INTERIOR RECEPTACLE
15	RECTIFIER #4	16	INTERIOR LIGHTS
17	RECTIFIER #5	18	EXTERIOR LIGHTS
19	RECTIFIER #5	20	RECTIFIER #11(OPTIONAL)
21	RECTIFIER #6	22	RECTIFIER #11(OPTIONAL)
23	RECTIFIER #6	24	RECTIFIER #12(OPTIONAL)
25	RECTIFIER #7	26	RECTIFIER #12(OPTIONAL)
27	RECTIFIER #7	28	RECTIFIER #13(OPTIONAL)

29	RECTIFIER #8	30	RECTIFIER #13(OPTIONAL)
31	RECTIFIER #8	32	RECTIFIER #14(OPTIONAL)
33	RECTIFIER #9	34	RECTIFIER #14(OPTIONAL)
35	RECTIFIER #9	36	RECTIFIER #15(OPTIONAL)
37	RECTIFIER #10(OPTIONAL)	38	RECTIFIER #15(OPTIONAL)
39	RECTIFIER #10(OPTIONAL)	40	RECTIFIER #16(OPTIONAL)
41	EXTERIOR RECEPTACLE	42	RECTIFIER #16(OPTIONAL)

EXISTING PANELBOARD

SCALE: 3
NONE



ALARM IDENTIFICATION

SCALE: 4
NONE

NOTES:

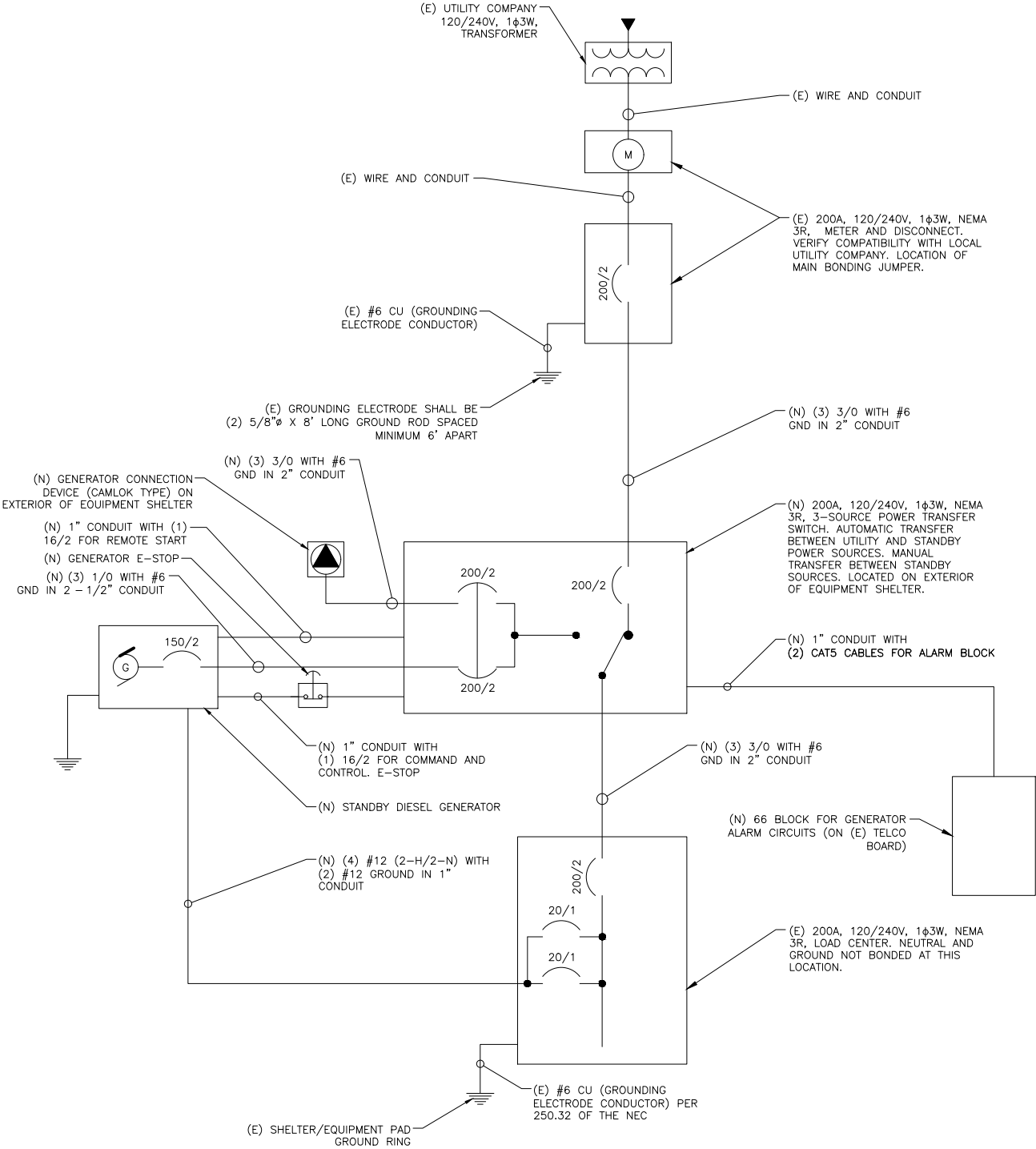
- ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THHW, THWN, THWN-2, XHHW, OR XHHW-2 UNLESS NOTED OTHERWISE.
- CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- ALL GROUNDING AND BONDING PER THE NEC.
- INSTALL ATS ALARM RELAY

INSTALLER NOTE:

CONTRACTOR TO VERIFY EXISTING LOAD PANEL AND INSTALL NEW 20A BREAKER FOR BLOCK HEATER AND NEW 20A BREAKER FOR BATTERY CHARGER (IF REQUIRED).

INSTALLER NOTES:

- THE GENERATOR SIZE HAS BEEN DETERMINED BY AT&T BASED ON AN INTERNAL LOAD ANALYSIS OF THEIR EQUIPMENT. THE GENERATOR SIZE WAS PROVIDED AS PART OF THE SCOPING ANALYSIS. AT&T SHALL BE RESPONSIBLE FOR ENSURING THAT THEIR SYSTEM CONFIGURATION DOES NOT EXCEED THE MANUFACTURER POWER RATING OF THE SPECIFIED GENERATOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING A SPOT READING OF THE PANEL AT PEAK OPERATING HOURS TO VERIFY THE AT&T PANEL SCHEDULE CALCULATIONS ARE NOT EXCEEDED. IN THE EVENT THE READING EXCEEDS THE CALCULATED PANEL SCHEDULE LOADS, RECORD THE READING AND CONSULT AT&T ENGINEERING MANAGER PRIOR TO PROCEEDING WITH GENERATOR INSTALLATION.



ONE LINE DIAGRAM

SCALE: 2
NONE



MasTec
Network Solutions

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0	07/04/22	FOR CONSTRUCTION

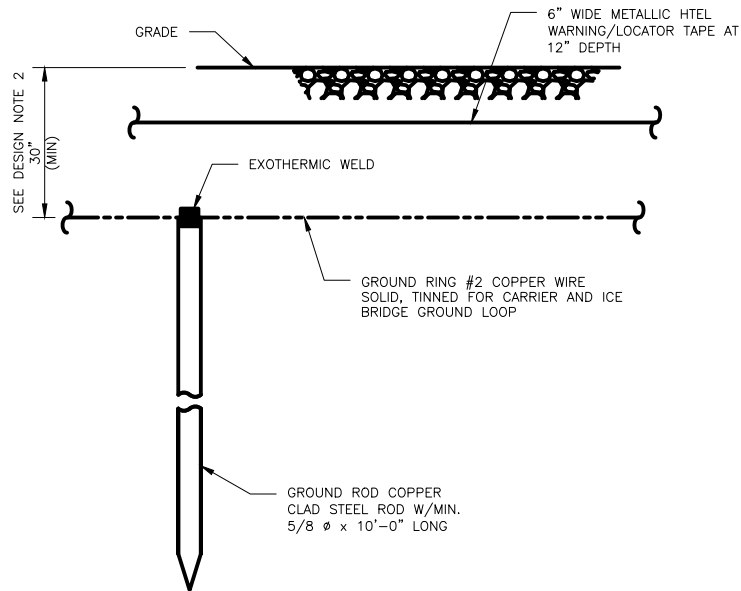


IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

FL15359
I-10 AND I-75
259 NORTHWEST SERENE COURT
LAKE CITY, FL 32055
FA NUMBER
10143832

SHEET TITLE
ALARM DETAILS &
ONE LINE DIAGRAM

SHEET NUMBER
E-3

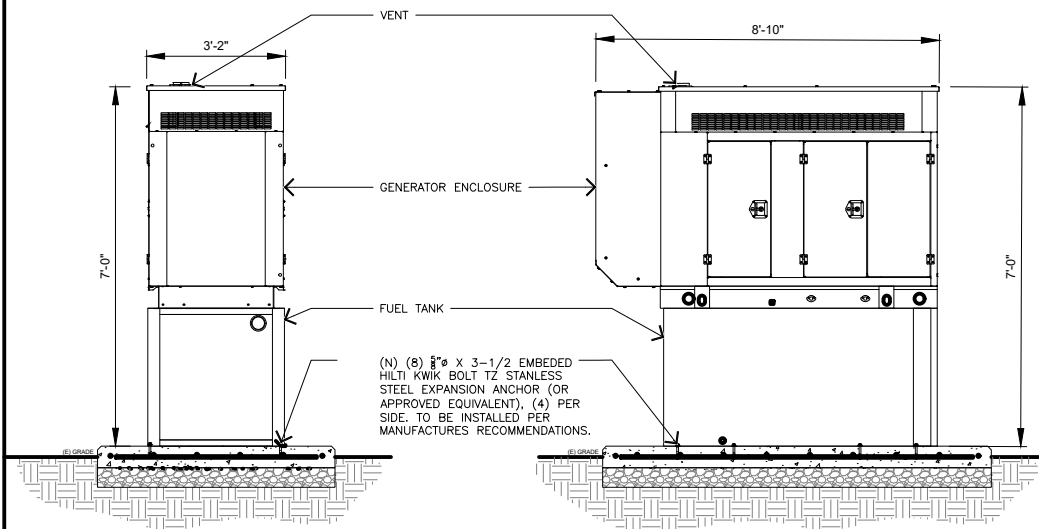


- NOTES:
- GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
 - GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

GROUND ROD DETAIL

SCALE:
NONE

3

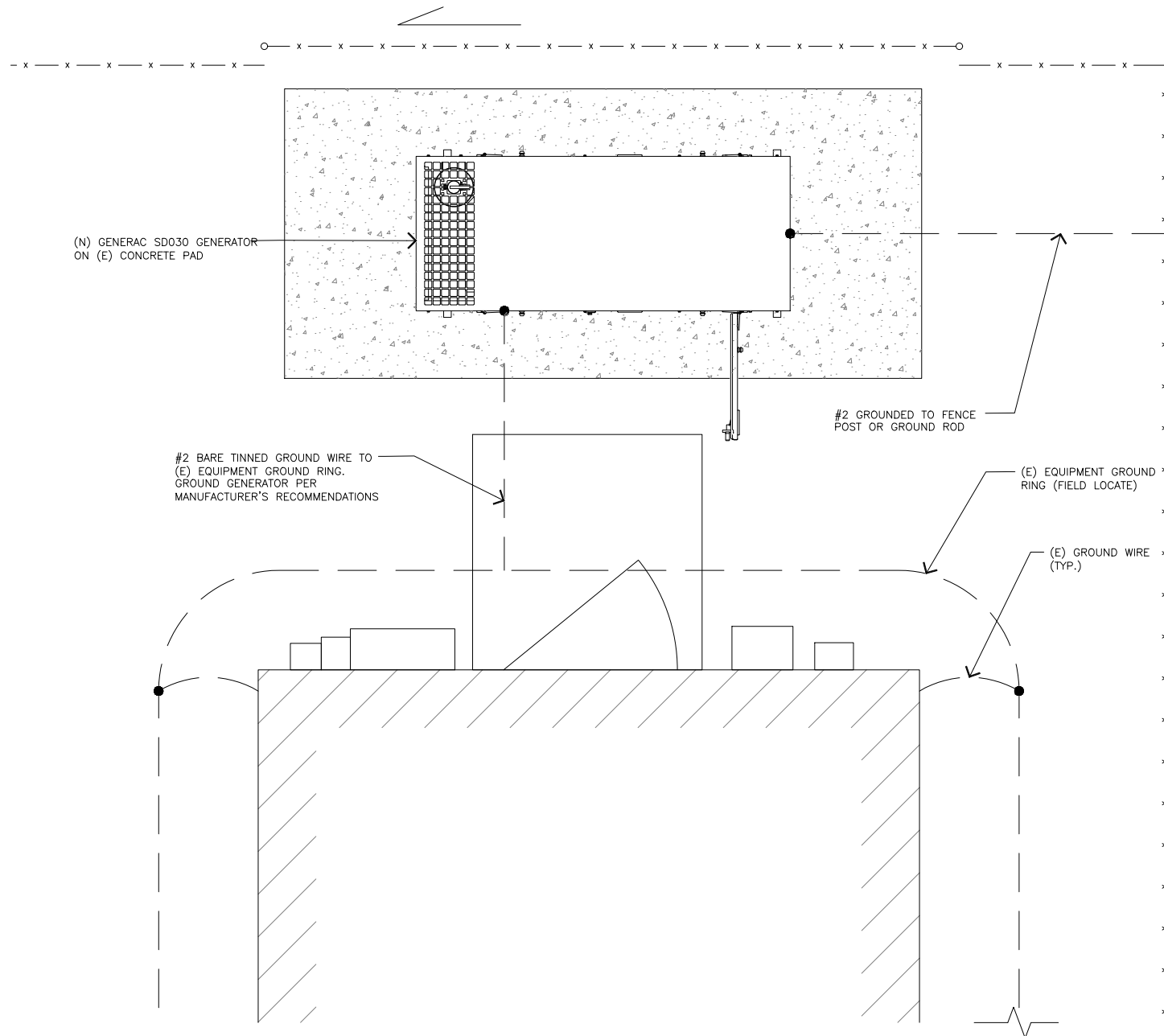


(N) GENERAC 30kW STAND-BY GENERATOR AND DIESEL FUEL TANK	
FUEL CAPACITY:	190 GALLON
ESTIMATED RUN TIME WITH FULL LOAD:	77 HOURS
DIMENSIONS, LxWxH:	95"x38"x87"
GROUND ENCLOSURE, GROUND PRESSURE AT 23 FT:	LEVEL 2

GENERATOR DETAIL

SCALE:
NONE

2



TYPICAL GROUNDING SCHEMATIC

SCALE:
NONE

1



MasTec
Network Solutions

507 AIRPORT BLVD., STE. 111
MORRISVILLE, NC 27560

FA CODE: FA # 10143832

DRAWN BY: JS

JOB #: MRTFL020752

REV	DATE	DESCRIPTION
0	07/04/22	FOR CONSTRUCTION



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FL15359
I-10 AND I-75
259 NORTHWEST SERENE COURT
LAKE CITY, FL 32055
FA NUMBER
10143832

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-1

ISO 9001
KOHLER
NATIONALLY REGISTERED

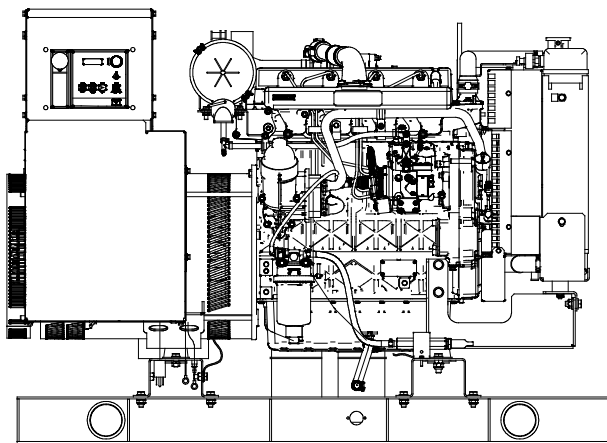
A 2x10 grid of boxes. The top row contains boxes with 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 vertical lines. The bottom row contains boxes with 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 vertical lines.

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11

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