

PROJECT DESCRIPTION

CANNABIS GROWTH FACILITY

PROJECT LOCATION:
IDDELL PL
COLORADO CITY, CO 81019

SHEET INDEX

- E1 ELECTRICAL COVER SHEET, GENERAL NOTES & SYMBOL LEGEND
E2 SITE PLAN & GREENHOUSE PLAN
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E6 GROUNDING SYSTEM INSTALLATION DETAILS
E7 ONE LINE DIAGRAM

SCOPE OF WORK

- 1. PROVIDE POWER SUPPLY TO (3) NEW CONEX CONTAINERS.

ELECTRICAL NOTES

- 1. THIS DESIGN MAY BE USED FOR SECURING PERMITS, BID, PLANNING, THE COMPANY'S REVIEW OR SOME OTHER GOAL. THIS DESIGN DOES NOT GUARANTEE THESE APPROVALS, NOR ARE THESE APPROVALS A REQUIREMENT FOR SERVICES OR THE COMPLETION OF THIS WORK.
2. THE ELECTRICAL CONTRACTOR SHALL PAY ALL PERMIT FEES, PLAN REVIEW FEES, LICENSE FEE, INSPECTION AND TAXES APPLICABLE TO THE ELECTRICAL WORK. PROVIDE ALL INSTRUMENTS AND EQUIPMENT AS REQUIRED FOR THE COMPLETION OF THIS WORK.
3. THIS DESIGN IS NOT A COMPLETE SET OF CONSTRUCTION DRAWING OR SHOP DRAWINGS. THIS DESIGN REPRESENTS DIAGRAMMATIC REPRESENTATION OF INTENTED SCOPE OF WORK.
4. THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE, NOT ALL THE SYMBOLS AND ABBREVIATIONS ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
5. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE NATIONAL ELECTRICAL CODE, IECC, LIFE SAFETY CODE, LOCAL BUILDING CODE, OSHA REGULATIONS, LOCAL, STATE, FEDERAL, AND AUTHORITY HAVING JURISDICTION CODES APPLICABLE AT THE TIME OF THE CONSTRUCTION.
6. GENERAL WORK PRACTICES FOR ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NECA 1 STANDARD FOR GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION (ANSI).
7. ALL MATERIALS PROVIDED BY THE CONTRACTOR SHALL BE NEW AND FREE OF DEFECTS. LETTER LABELLED FOR THE INTENDED PURPOSE BY UNDERWRITERS (UL) OR OTHER ORGANIZATION THAT IS ACCEPTABLE TO THE AHI.
8. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SCHEDULING DELIVERY, RECEIVING, UNLOADING, STORING, SETTING IN PLACE, AND PROTECTING FROM DAMAGE, VANDALISM, THEFT OR WEATHER DURING CONSTRUCTION FOR ALL NEW EQUIPMENT PROVIDED BY THE ELECTRICAL CONTRACTOR OR PROVIDED BY OTHER PARTIES TO THE ELECTRICAL CONTRACTOR FOR INSTALLATION BY THE ELECTRICAL CONTRACTOR.
9. THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS ARE INTENDED TO DESCRIBE AND ILLUSTRATE SYSTEMS WHICH WILL NOT INTERFERE WITH THE STRUCTURE OF THE BUILDING AND WHICH WILL FIT INTO THE AVAILABLE SPACES. THE CONTRACTOR IS RESPONSIBLE FOR CAREFULLY LAYING OUT ALL WORK TO CONFORM TO NATIONAL ELECTRICAL CODE REQUIREMENTS, ARCHITECTURAL SCHEDULES, AND ALL OTHER SITE CONDITIONS, TO AVOID OBSTRUCTIONS AND TO ALLOW THE PROPER INSTALLATION OF EACH ITEM.
10. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE WITH DRAWINGS OF OTHER TRADES TO FIT THE ACTUAL SPACE CONDITIONS, HEADROOM AND SPACE CONDITION TO BE MAINTAINED.
11. THE DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY AND DO NOT NECESSARILY SHOW THE EXACT LOCATION AND DETAILS OF THE WORK TO BE INSTALLED.
12. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF RECEPTACLES, AND LIGHTING FIXTURES, ETC.
13. UPON THE COMPLETION OF THE WORK, THE ENTIRE ELECTRICAL SYSTEM SHALL BE TESTED AND SHALL BE SHOWN TO BE IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL SYSTEMS READY FOR OPERATION AND INSPECTION BY AHI.
14. PREPARE AND FURNISH TO OWNER "AS-BUILT" PLANS FOR ALL WORK INSTALLED.
15. ELECTRICAL CONTRACTOR SHALL FURNISH RECORD SET OF DRAWINGS WITH ANY DEVIATIONS MARKED IN RED INK.
16. TEST AND INSPECT ALL WIRING AND EQUIPMENT INSTALLED UNDER THIS SECTION OF SPECIFICATIONS. ALL WIRING MUST BE FREE OF SHORTS AND BROKEN WIRE. LEAVE ALL MATERIALS AND APPARATUS IN PLACE. THE CONTRACTOR IS RESPONSIBLE FOR ALL THREE-PHASE FEEDERS AND BRANCH CIRCUITS. VERIFY PROPER ROTATION OF ALL MOTORS.
17. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE CORRECT PHASE SEQUENCE OF ALL THREE-PHASE FEEDERS AND BRANCH CIRCUITS. VERIFY PROPER ROTATION OF ALL MOTORS.
18. ELECTRICAL CONTRACTOR SHALL VERIFY PHASE LOAD BALANCING ON POWER PANELS UPON COMPLETION OF THE ELECTRICAL INSTALLATION.
19. PROVIDE IDENTIFICATION ON ALL PANELBOARDS, SWITCHES, STARTERS, DIMMERS, SWITCHES IN DISTRIBUTION PANELBOARDS AND SWITCHBOARDS.
20. CONDUIT RUNS WHEN SHOWN ARE DIAGRAMMATIC. FINAL LOCATION AND ROUTING SHALL BE ESTABLISHED BY THE CONTRACTOR BASED ON THE INSTALLATION CONDITIONS AND SHALL BE VERIFIED IN THE FIELD. ALL CONDUIT TYPES AND INSTALLATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
21. CONDUIT RUNS SHALL BE PARALLEL WITH OR AT RIGHT ANGLES TO WALLS AND CEILINGS. CONDUIT SHALL BE SUPPORTED BY APPROVED MEANS. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A DRAG WIRE.
22. ALL SUSPENDED CONDUITS SHALL BE RIGIDLY SUPPORTED FROM THE BUILDING STRUCTURE BY MEANS OF APPROVED CONDUIT FASTENERS, HANGERS, STRAPS, SUPPORTS, CLAMPS, ETC. FIRMLY ANCHORED IN PLACE AND SPACED AT INTERVALS NOT TO EXCEED 10'-0".
23. PULL BOXES, JUNCTION BOXES, CONDUIT BODIES, AND EXPANSION JOINTS SHALL BE INSTALLED AS PER NETA-2.
24. PROVIDE CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FOR ALL CONDUITS PASSING THROUGH EXPANSION JOINTS.
25. PROVIDE SLEEVES FOR PENETRATIONS THROUGH BLOCK OR CONCRETE WALLS AND FLOORS.
26. THE USE OF FLEXIBLE CONDUIT FROM LIGHTING FIXTURES TO JUNCTION BOX IS PERMITTED ONLY WHEN A SEPARATE GROUND WIRE IS INSTALLED WITH THE CONDUCTORS INSIDE FLEXIBLE CONDUIT. THE GROUND WIRE MUST BOND THE FIXTURE HOUSING TO THE JUNCTION BOX. MAXIMUM LENGTH SHALL BE 8'-0".
27. FLEXIBLE CONDUIT INSTALLED OUT OF DOORS, IN ANY MECHANICAL EQUIPMENT ROOMS, OR IN NORMALLY WET AREAS SHALL BE LIQUID TIGHT FLEX WITH SUITABLE FITTINGS.
28. PROVIDE CONDUIT, WIRING, CIRCUITING AND REQUIRED CONNECTIONS TO ALL DEVICES, FIXTURES AND EQUIPMENT. CONNECT TO CIRCUITS AS INDICATED IN CIRCUIT DRAWINGS FOR INFORMATION PURPOSES ONLY. ACTUAL CIRCUIT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED IN THE PANEL SCHEDULE DIRECTORY AND ON THE AS-BUILT DRAWINGS.
29. CONTRACTOR SHALL VERIFY AND COORDINATE ALL MOUNTING HEIGHTS OF ALL DEVICES MOUNTED IN CASEWORK OR IN ABOVE COUNTERS WITH EXISTING EQUIPMENT.
30. UNLESS SPECIFICALLY DIRECTED OTHERWISE, FURNISH AND INSTALL EACH AND EVERY ITEM CONTAINED IN AND ASSOCIATED WITH THE WORK SHOWN ON THE DRAWINGS AND/OR DESCRIBED IN THE ACCOMPANYING SPECIFICATIONS, TOGETHER WITH ALL APPURTENANCES, COMPONENTS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. CONTRACTOR SHALL PROVIDE CONDUIT, WIRING AND CABLING TO ALL DEVICES, FIXTURES AND ETC. FOR A COMPLETE WORKING SYSTEM BASED ON THE CIRCUITS NOTED.
31. PROVIDE INDEPENDENT SUPPORT FOR DISCONNECT SWITCHES, CONTROL STATIONS, BOXES, PANELS, ETC. WHERE NO WALLS OR OTHER STRUCTURE IS AVAILABLE.
32. EQUIPMENT SIZES AND LOCATIONS ARE APPROXIMATE. ACTUAL DIMENSIONS TO BE DETERMINED BY EQUIPMENT FURNISHED.
33. PROVIDE BRANCH CIRCUIT WIRING TO ALL ITEMS REQUIRING ELECTRICAL CONNECTIONS, WHERE BRANCH CIRCUIT WIRING IS NOT SHOWN. CONNECT ITEMS TO CIRCUITS INDICATED. THE CONTRACTOR SHALL DETERMINE EXACT ROUTING OF CONDUIT AND WIRING, UNLESS INDICATED OTHERWISE. ALL BRANCH CIRCUITS SHALL BE MINIMUM #12 THIN AWG COPPER.
34. PROVIDE JUNCTION BOX FOR ANY DEVICE WITH PIG TAIL, SUCH AS SOLENOID VALVES, LIMIT SWITCHES, SMOKE DETECTORS AND ETC. FOR PROPER ELECTRICAL CONNECTION. PROVIDE ALL HARDWARE FOR MOUNTING OF JUNCTION BOX.
35. ALL FIRE ALARM SYSTEMS RACEWAY, SWITCHES, AND JUNCTION BOXES SHALL BE PAINTED RED.
36. TIGHTEN SCREWS AND BOLTS FOR CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES.
37. EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL AND PLUMBING DRAWINGS. COORDINATE WITH MECHANICAL AND PLUMBING CONTRACTORS.
38. WHEREVER THE INSTALLATION OF ELECTRICAL EQUIPMENT AS SHOWN ON THE DRAWINGS IS IMPRACTICAL DUE TO LOCAL INTERFERENCE OR UNFORESEEN FIELD CONDITIONS, THE CONTRACTOR SHALL INSTALL THE EQUIPMENT AT NEW LOCATIONS AS DIRECTED BY THE ENGINEER.
39. DESIGN IS BASED ON ALL CONDUCTORS TO BE #12 THIN COPPER AND NO MORE THAN 4 CURRENT CARRYING CONDUCTORS IN THE SAME CONDUIT OR CABLE UNLESS OTHERWISE NOTED.
40. WHEN EQUIPMENT IS BEING REMOVED FROM THE FIELD, ALL WIRING ASSOCIATED WITH THE LOAD MUST BE REMOVED FROM THE JUNCTION BOX OR THE CIRCUIT BREAKER. DO NOT LEAVE UNUSED CONDUCTORS IN THE FIELD WITH ENDS TAPED WITH TAPE OR WIRE NUTS.
41. SPARE WIRES INSTALLED SHALL BE NEATLY COILED, BOUND AND PLACED IN SPACE AVAILABLE, LEAVE AT A MINIMUM 1" OF SLACK AT EACH ENDPOINT.
42. WHERE EXISTING CIRCUIT TO REMAIN ARE INTERRUPTED DUE TO NEW CONSTRUCTION, CONDUIT AND WIRE SHALL BE EXTENDED RE-ENERGIZED.
43. PROVIDE DISCONNECT SWITCHES FOR ELECTRICAL HEATER, HVAC EQUIPMENT AND EXHAUST FANS WITHIN EYE SIGHT OF THE EQUIPMENT.
44. PROVIDE SERVICE RECEPTACLE WITHIN 25 FEET OF EACH HVAC EQUIPMENT.
45. ELECTRICAL CONTRACTOR TO VERIFY ACTUAL INSTALLED EQUIPMENT ELECTRICAL NAME PLATE DATA BEFORE ENERGIZING THE CIRCUIT. CONFIRM ELECTRICAL DESIGN VALUES AND ACTUAL EQUIPMENT BEING INSTALLED ARE IN COMPLIANCE WITH ELECTRICAL CODE AND MANUFACTURER INSTALLATION REQUIREMENTS.
46. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY, QUICK-MAKE, QUICK-BREAK TYPE, NEMA 1 ENCLOSURE FOR INDOR LOCATIONS, NEMA 3R FOR OUTDOOR LOCATIONS. SWITCHES SHALL BE AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, OR SIEMENS (I.T.E.) PROVIDE FUSES AS MANUFACTURED BY Bussman, COULSON-SHAWMUT, OR LITTELFUSE. ALL CONDUCTOR TERMINALS TO BE UL LISTED FOR A MAXIMUM OF 75°C. SWITCHES USED AS SERVICE ENTRANCE EQUIPMENT TO BE UL LISTED AS "SER" RATED EQUIPMENT.
47. PANEL BOARDS SHALL BE MANUFACTURED BY SQUARE-D, EATON, GENERAL ELECTRIC, OR SIMILAR, MEETING UL STANDARDS 81 AND 47, WITH UL LABEL. PANELS USED AS SERVICE ENTRANCE EQUIPMENT TO BE UL LISTED AS "SER" RATED EQUIPMENT.
48. ALL SWITCHBOARDS AND PANELBOARDS SHALL BE MARKED WITH IDENTIFYING NAMEPLATES TO INDICATE THE DESIGNATIONS USED IN THESE DRAWINGS. PROVIDE NEW PANELBOARD SCHEDULES, CORRECTLY FILLED OUT FOR EVERY PANELBOARD.
49. ALL PANELS, SWITCHES, ETC. SHALL HAVE SUFFICIENT GUTTER SPACE AND LUGS TO ACCOMMODATE CONDUCTORS SHOWN.
50. BREAKERS: THERMAL, MAGNETIC TYPE, QUICK-MAKE, QUICK-BREAK, PLUS-IN TYPE FOR LOAD CENTERS AND BO-LIN TYPE FOR PANEL BOARDS AND SINGLE UNIT CONSTRUCTION. TWO POLE BREAKERS SHALL BE SINGLE UNIT COMMON TRIP TYPE. BREAKERS USED AS SWITCHES FOR 120V LIGHTING CIRCUITS SHALL BE APPROVED FOR THAT USE AND MARKED "SMO". ALL BREAKERS FOR HVAC AND REFRIGERATION EQUIPMENT SHALL BE "HACR" RATED BREAKERS.
51. GROUNDING SYSTEM: PERMANENTLY AND EFFECTIVELY GROUND ALL METALLIC CONDUIT, SUPPORTS, CABINETS, PANEL BOARDS AND SYSTEM NEUTRAL CONDUCTORS. MAINTAIN CONTINUITY OF EQUIPMENT GROUND THROUGHOUT THE SYSTEM. GROUND CLAMPS SHALL BE APPROVED TYPE, SPECIFICALLY DESIGNED FOR GROUNDING, WHERE GROUNDING CONDUIT IS ENCLOSED IN CONDUIT. GROUND CLAMP SHALL BE OF A TYPE WHICH GUARANTEES BOTH CONDUCTOR AND CONDUIT. ALL CIRCUITS IN FLEXIBLE METAL OR PLASTIC CONDUIT SHALL INCLUDE A GROUND WIRE SIZED AND INSTALLED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.
52. PROVIDE AND INSULATE GREEN GROUNDING WIRE IN THE SAME CONDUIT AS THE BRANCH CIRCUIT OR FEEDER WIRING AND FOR ALL (3) PHASES AND/OR SINGLE PHASE, BRANCH CIRCUITS AND FOR ALL FEEDERS, SHOWN OR NOT SHOWN.
53. ALL WORK SHALL BE PERMANENTLY AND EFFECTUALLY GROUNDED WHETHER OR NOT SUCH CONNECTIONS ARE SPECIFICALLY SHOWN OR SPECIFIED. GROUND RESISTANCE AT ANY POINT SHALL NOT EXCEED 25 OHMS.
54. ALL CONDUITS SHALL BE EMT UNLESS OTHERWISE NOTED.
55. CONDUIT SHALL BE SIZED TO COMPLY WITH NEC FOR NUMBER AND SIZE OF CONDUCTORS INSTALLED PER NEC. PROVIDE SCHEDULE 40 PVC PLASTIC OR RIGID STEEL CONDUIT BELOW GRADE. MINIMUM 3/4" PROVIDE ELECTRICAL METAL TUBING (EMT) MEETING FS W/C563. FLEXIBLE METAL CONDUIT (IN LENGTHS OF 6 FEET OR LESS) OR INTERIOR LOCATIONS. EMT CONNECTORS AND COUPLING SHALL BE SET-SCREW TYPE. "MC" 4" AC TYPE CABLES MUST BE INSTALLED IN ACCORDANCE WITH N.E.C. AND CAN NOT BE SUPPORTED FROM CEILING SUPPORT WIRES.
56. ELECTRICAL CONTRACTOR SHALL INSTALL SIZE OF CONDUIT SHOWN ON PLANS.
57. ALL CONDUIT AND RACEWAY SYSTEMS TO BE INSTALLED WITH SEPARATE GROUND CONDUCTOR. CONDUIT SYSTEM IS NOT TO BE USED AS THE SOLE GROUNDING MEANS.
58. CONDUCTORS: INSULATED SOFT ANNEALED 98% PURE COPPER WITH COLOR CODING, 8 AND 5 GAGE. #10 AND SMALLER TO BE SOLID, #6 AND LARGER TO BE STRANDED. MINIMUM #12 UNLESS OTHERWISE INDICATED. CONDUCTORS SHALL BE INSTALLED IN ACCORDANCE WITH NEC AND CANNOT BE SUPPORTED FROM CEILING SUPPORT WIRES. THIN MAY NOT BE USED UNDERGROUND, AT SERVICE ENTRANCE, OUTSIDE, OR IN WET LOCATIONS. ALL INSULATION TO BE RATED FOR 600 V AND TYPES AS FOLLOWS:
#10 AND #12: THIN OR THHN
#8 TO #16: THHN OR THWN
SERV TO AIR ENTRANCE: SER-RHW OR USE-RHW
OVER #40 ORDINARY SERVICE: THHN OR XHHW
OVER #40 WET OR HOT SERVICE: WIRE THRU FLUORESCENT FIXTURES OR WITHIN OF EQUIP.: THHN
59. ALL CONDUIT AND RACEWAY SYSTEMS TO BE INSTALLED WITH SEPARATE GROUND CONDUCTOR. CONDUIT SYSTEM IS NOT TO BE USED AS THE SOLE GROUNDING MEANS.
60. ALL WIRING TO BE COLOR-CODED AS FOLLOWS:
120/208 VOLT SYSTEM
NEUTRAL: WHITE
PHASE A OR L1: BLACK
PHASE B OR L2: RED
PHASE C OR L3: BLUE
GROUND: GREEN
277/480 SYSTEM
PHASE A: BROWN
PHASE B: BLACK
PHASE C: BLUE
NEUTRAL: WHITE
GROUND: GREEN
61. WIRE CONNECTORS SHALL BE EQUAL TO "SIZES" OF THE WIRE AND SMALLER AND EQUAL TO T & B "LOCK TIGHT" FOR #6 AWG AND LARGER.
62. LIGHT FIXTURES & LAMPS ARE FURNISHED BY CONTRACTOR EXCEPT AS NOTED ON THE LIGHT FIXTURE SCHEDULES. FIXTURES SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR ACCORDING TO LOCAL CODE AUTHORITY.
63. EMERGENCY LIGHTING SHALL HAVE BATTERY BACKUP, OR AS REQUIRED BY LOCAL CODE AUTHORITY. PROVIDE DISCONNECT SWITCHES FOR CIRCUITS SERVING EXIT SIGN FIXTURES AND LIGHT FIXTURES.
64. ALL EMERGENCY LIGHTS SHALL BE CONNECTED AHEAD OF ANY LOCAL SWITCH.
65. ALL EXIT SIGNS SHOWN ON ARCHITECTURAL LAYOUT AND SHALL BE APPROVED BY FIRE DEPARTMENT AND ALL LOCAL AGENCIES.
66. LAYOUT BRANCH CIRCUIT WIRING AND ARRANGEMENT OF HOME RUNS FOR MAXIMUM ECONOMY. MINIMUM EFFICIENCY INCREASE WIRE SIZE IF 100 FEET OF LENGTH IS EXCEEDED.
67. CONCEALED WIRING SYSTEM ABOVE SUSPENDED CEILINGS OR IN WALL OR FLOOR CONDUIT, WHERE POSSIBLE, INSTALL CONDUITS PARALLEL TO BUILDING LINES, AND TO CORNERS, OPENING, DEPRESSIONS, PIPES, DUCTS, STRUCTURE, ETC.
68. CONDUIT CONTINUOUS BETWEEN BOXES AND CABINETS WITH NO MORE THAN FOUR 90 DEGREE BENDS. SECURELY FASTEN IN PLACE WITH STRAPS, HANGERS AND STEEL SUSPENSION WIRES. REAM CONDUIT ENDS BEFORE INSTALLATION AND THOROUGHLY CLEAN BEFORE INSTALLATION. OPENINGS SHALL BE PLUGGED OR COVERED TO KEEP CONDUIT CLEAN. TERMINALS ON SWITCHES AND OUTLET SHALL NOT BE USED TO "FEED THRU" TO THE NEXT SWITCH OR OUTLET.
69. PROVIDE SINGLE GANG PLASTER RING AND A 1" DIAMETER NYLON PULL ROPE TO ACCESSIBLE CEILING SPACE FROM ALL NEW TELEPHONE AND/OR DATA OUTLETS.
70. FOR ALL WIRING DEVICES, VERIFY FINISH COLOR WITH ARCHITECT.

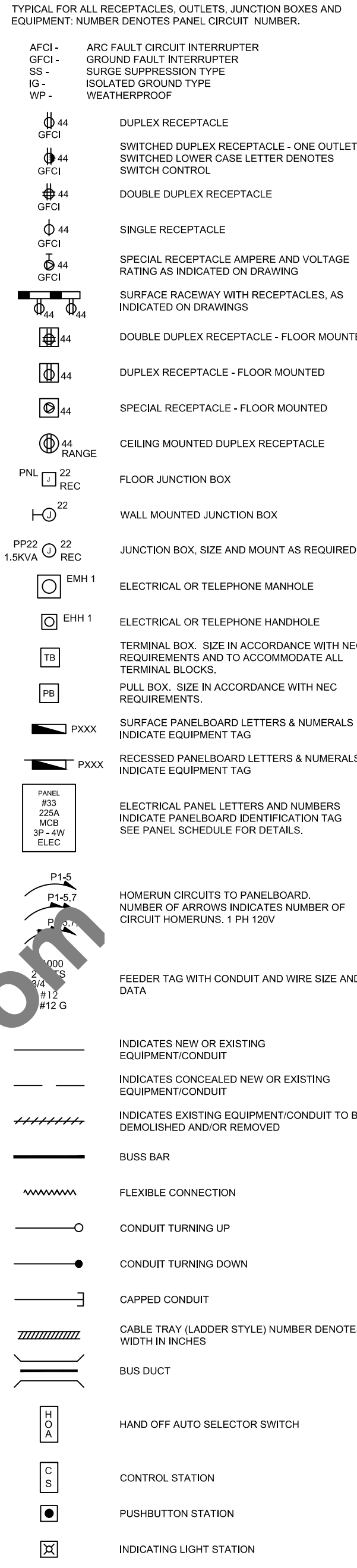
ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes A (AMPERE), AFF (ABOVE FINISHED FLOOR), AFU (ABOVE FINISHED GRADE), AFI (ARC FLASH INTERRUPTER), AFCI (ARC FLASH CIRCUIT INTERRUPTER), ATS (ASYMMETRICAL), ATSS (AUTOMATIC TRANSFER SWITCH), AWG (AMERICAN WIRE GAUGE), BKR (BREAKER), C (CONDUIT), CB (CIRCUIT BREAKER), CTV (CLOSED CIRCUIT TELEVISION), CNT (CIRCUIT), CL (CENTER LINE), CLG (CEILING), CNTL (CONTROL), CPT (CONTROL POWER TRANSFORMER), CT (CURRENT TRANSFORMER), CU (COPPER), D (DEMOLISH), DIA (DIAMETER), DISC (DISCONNECT), DN (DOWN), DP (DISTRIBUTION PANEL BOARD), DWG (DRAWING), E (ELECTRICAL CONTRACTOR), EL (ELEVATION), ELEC (ELECTRICAL), EMT (ELECTRICAL METAL TUBING), EX (EXISTING), FA (FIRE ALARM), FDR (FEEDER), FIKT (FIXTURE), FL (FLOOR), G (GROUND), G.C. (GENERAL CONTRACTOR), GEN (GENERATOR), GFCI (GROUND FAULT CIRCUIT INTERRUPTER), GFI (GROUND FAULT INTERRUPTER), HD (HIGH INTENSITY DISCHARGE), HO (HAND-OFF-AUTOMATIC), HP (HORSE POWER), IC (INTERRUPTING CAPACITY), IO (INPUT / OUTPUT), JB (JUNCTION BOX), KB (KILOVOLT)

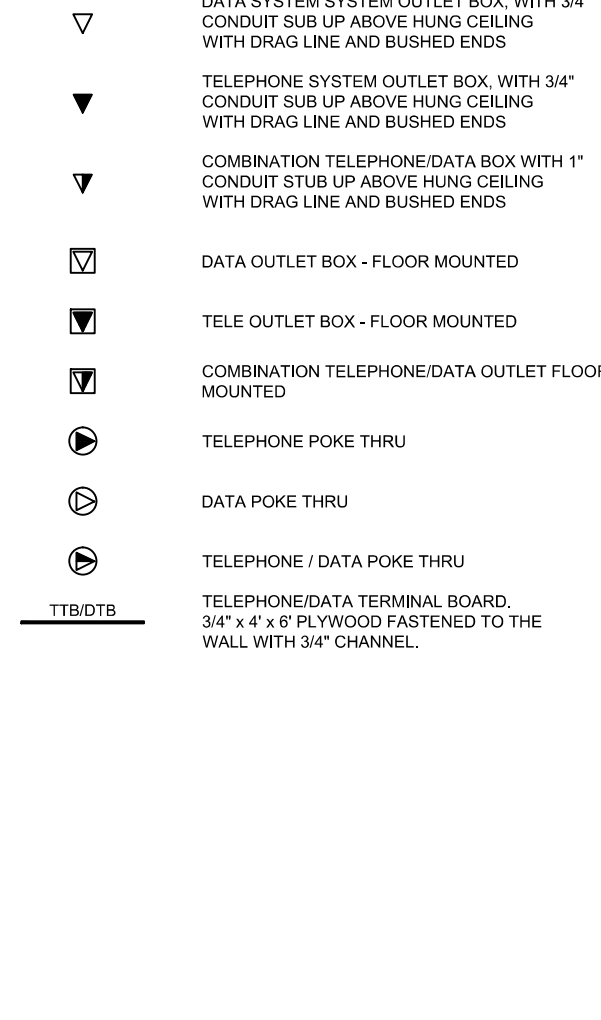
Table with 2 columns: Abbreviation and Description. Includes KVA (KILOWATT AMPERE), KW (KILOWATT), KWH (KILOWATT HOUR), LCP (LOCAL CONTROL PANEL), LIS (LOAD INTERRUPTER SWITCH), LP (LIGHTING PANEL), LTG (LIGHTING), MAX (MAXIMUM), MCC (MOTOR CONTROL CENTER), MCS (MOULDED CASE SWITCH), MDP (MAIN DISTRIBUTION PANEL), MN (MINIMUM), MSB (MAIN SWITCHBOARD), MSG (MAIN SWITCHGEAR), MTS (MANUAL TRANSFER SWITCH), NA (NON-AUTOMATIC), NC (NORMALLY CLOSED), NEC (NATIONAL ELECTRICAL CODE), NO (NORMALLY OPEN), NTS (NOT TO SCALE), PH (PHASE), PNL (PANEL), PT (POTENTIAL TRANSFORMER), PP (POWER PANEL), PWR (POWER), RECP (RECEPTACLE), REV (REVISION), SHD (SHIELDED CABLE), SP (SPARE), SS (SURGE SUPPRESSION), SWBD (SWITCHBOARD), SWGR (SWITCHGEAR), SYM (SYMMETRICAL), TEL (TELEPHONE), TYP (TYPICAL), UG (UNDERGROUND), U.O.N. (UNLESS OTHERWISE NOTED), V (VOLT OR VOLTAGE), VOLT (VOLT AMPERE), VFD (VARIABLE FREQUENCY DRIVE), W (WATTS), WHM (WATT-HOUR METER), WP (WEATHERPROOF), WW (WIREWAY), XFMR (TRANSFORMER)

SYMBOL LEGEND

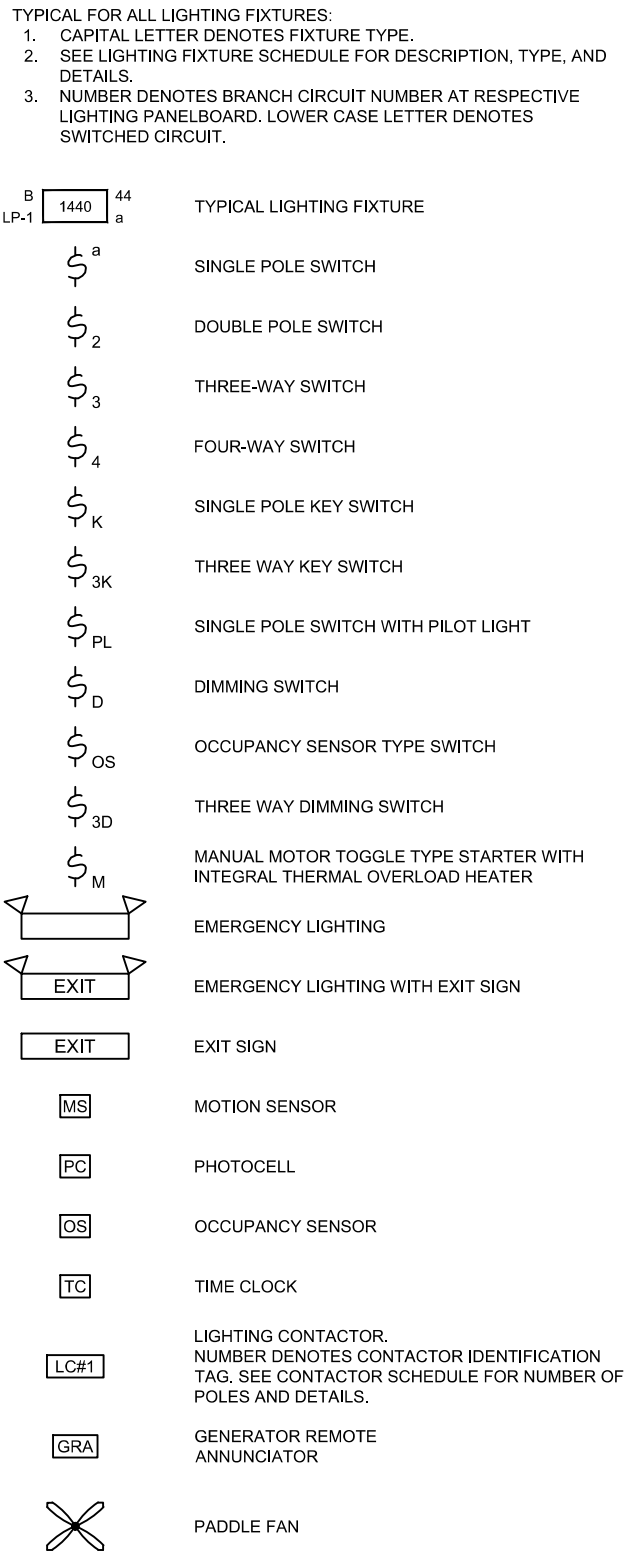
ELECTRICAL EQUIPMENT



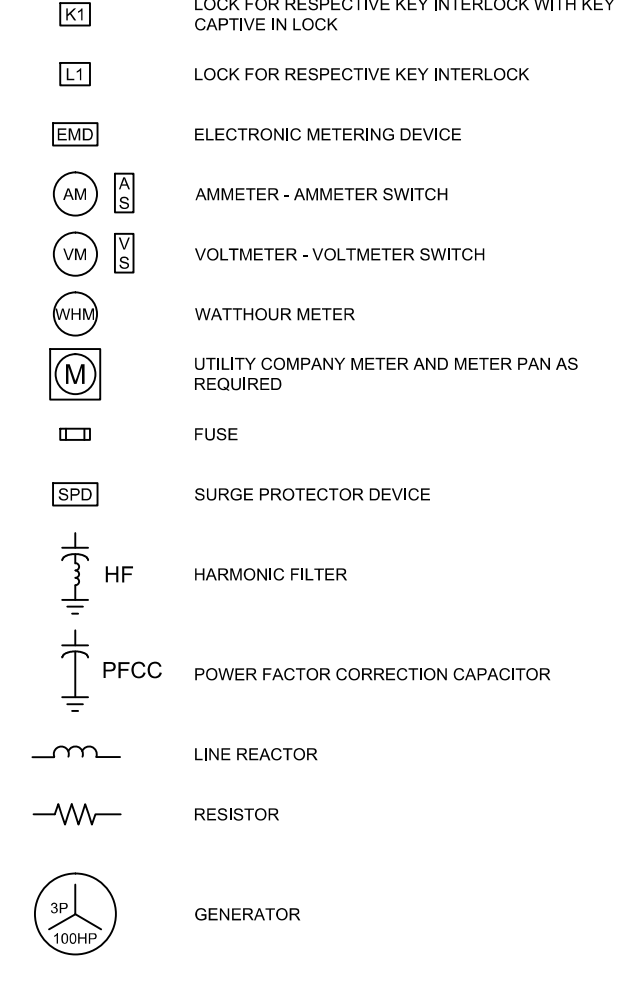
DATA & TELEPHONE



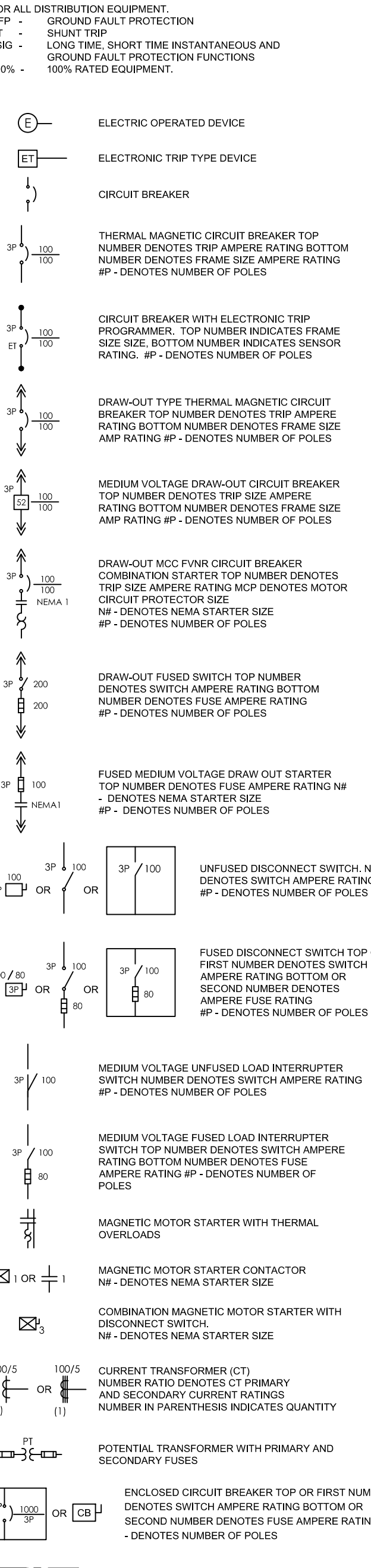
LIGHTING



GENERATION & GROUNDING



DISTRIBUTION EQUIPMENT



PROFESSIONAL ENGINEERING



SEAL & SIGNATURE:



NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

Table with 3 columns: REV, DATE, DESCRIPTION. Row 1: 0, 09/12/2021, ISSUED FOR APPROVAL.

CLIENT: [Redacted] INC.

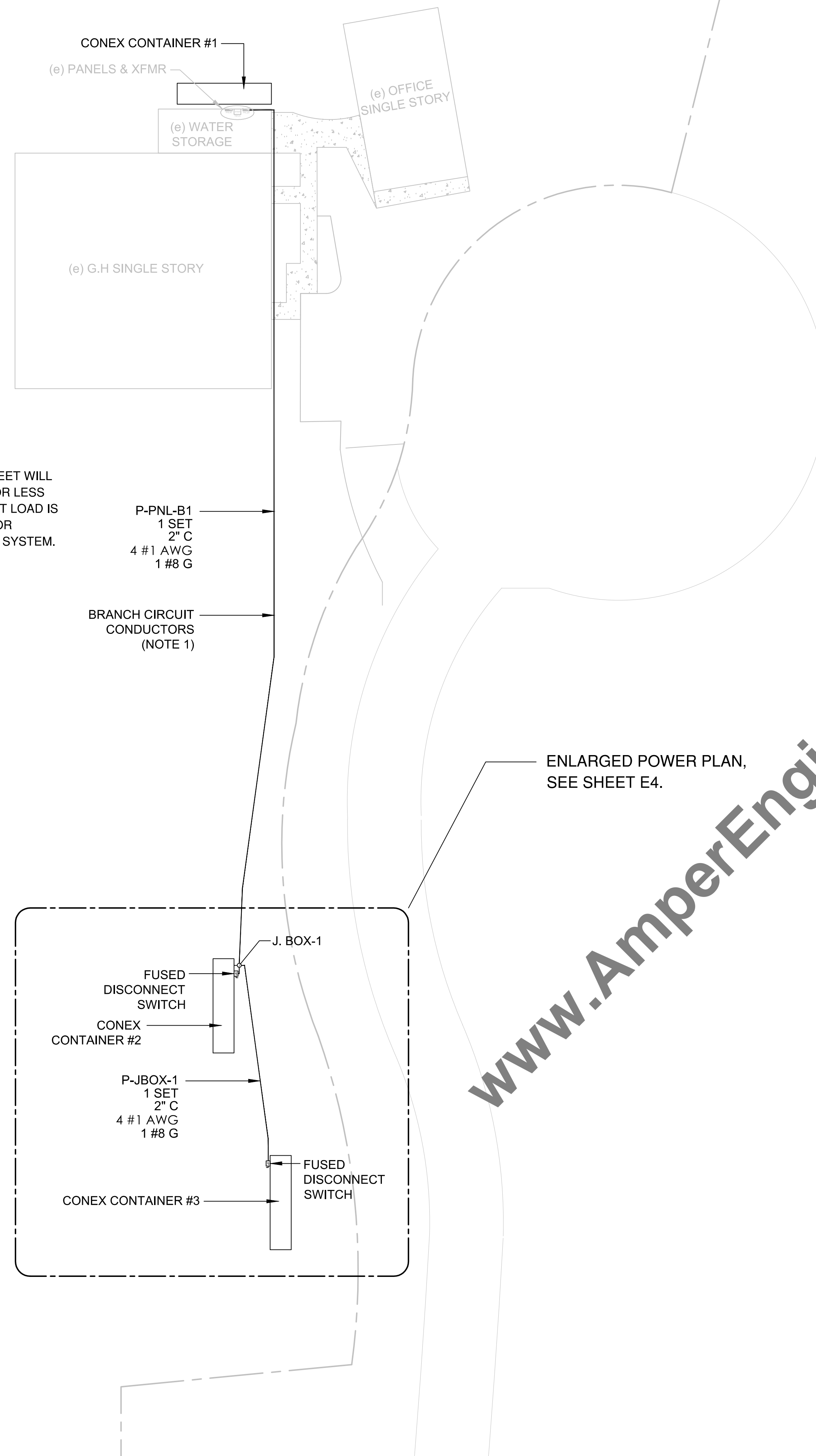
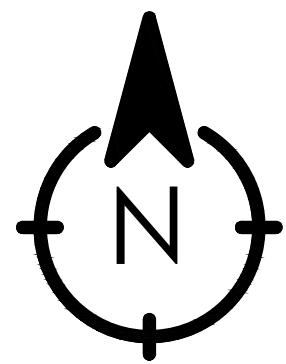
PROJECT: CANNABIS GROWTH FACILITY

ADDRESS: IDDELL PL, COLORADO, CO 81019

Table with 2 columns: Project Number, Sheet Size, Drawn By, Designed By, Checked By. Values: AE# 1459, 24X36, IB, AC, DEE.

DRAWING TITLE: ELECTRICAL COVER SHEET, GENERAL NOTES & SYMBOL LEGEND

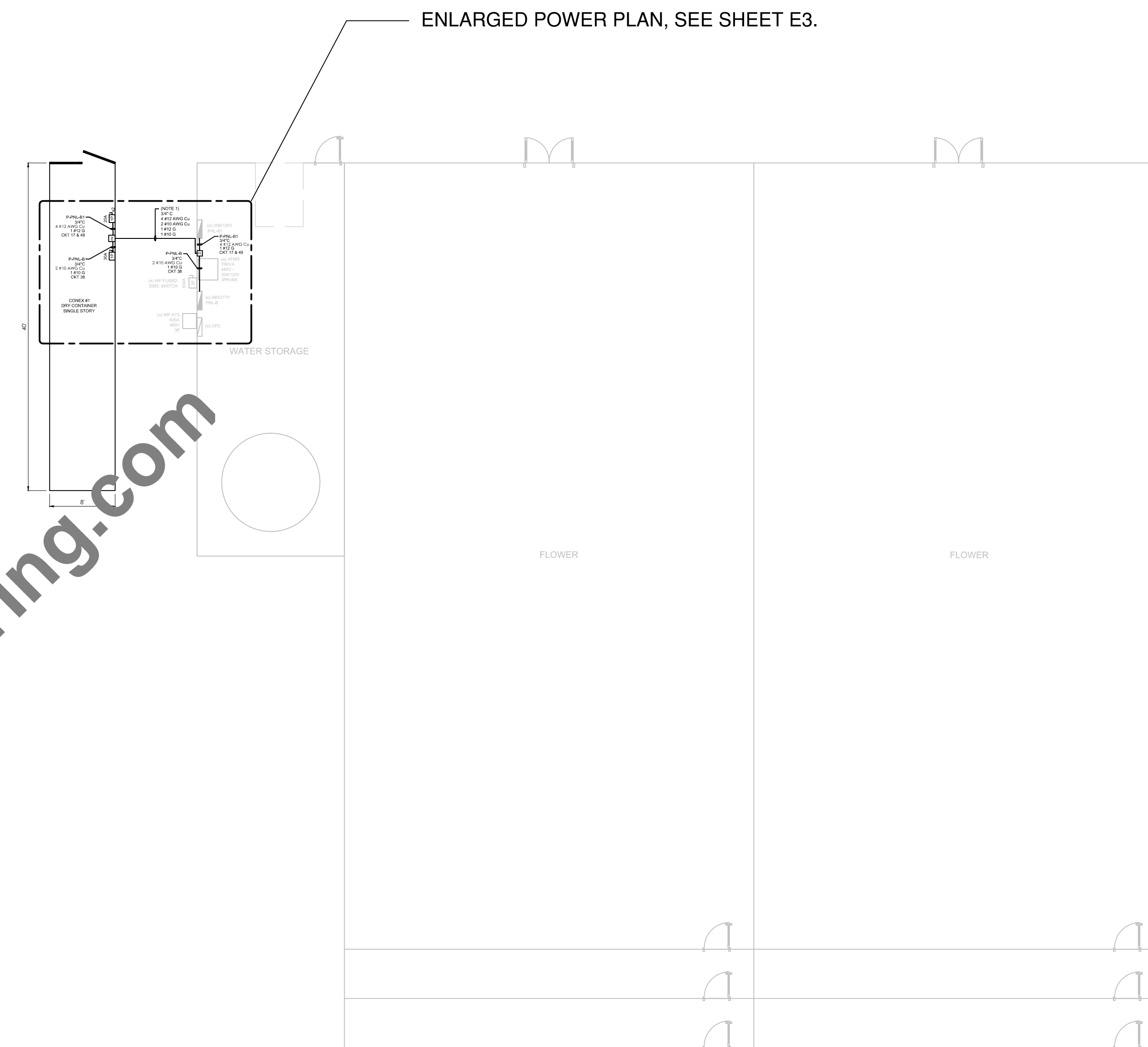
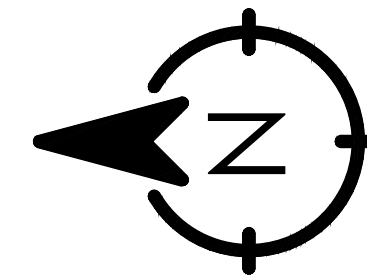
SHEET NO: E1



NOTE:

1. A MAXIMUM DISTANCE OF 275.71 FEET WILL LIMIT THE VOLTAGE DROP TO 3% OR LESS BASED ON THE ASSUMPTIONS THAT LOAD IS 80% OF THE SELECTED CONDUCTOR AMPACITY ON A 208 VOLT 3 PHASE SYSTEM.

SITE PLAN



ENLARGED POWER PLAN, SEE SHEET E4.

GREENHOUSE PLAN

SEAL & SIGNATURE:

 Durak Evrim Ercan

NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

REV	DATE	DESCRIPTION
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CLIENT: _____ INC.

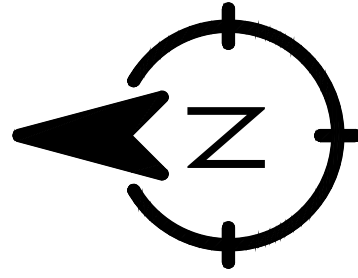
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PROJECT NUMBER:
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 SHEET SIZE: 24X36
 DESIGNED BY: AC
 DRAWN BY: IB
 CHECKED BY: DEE

DRAWING TITLE:
SITE PLAN

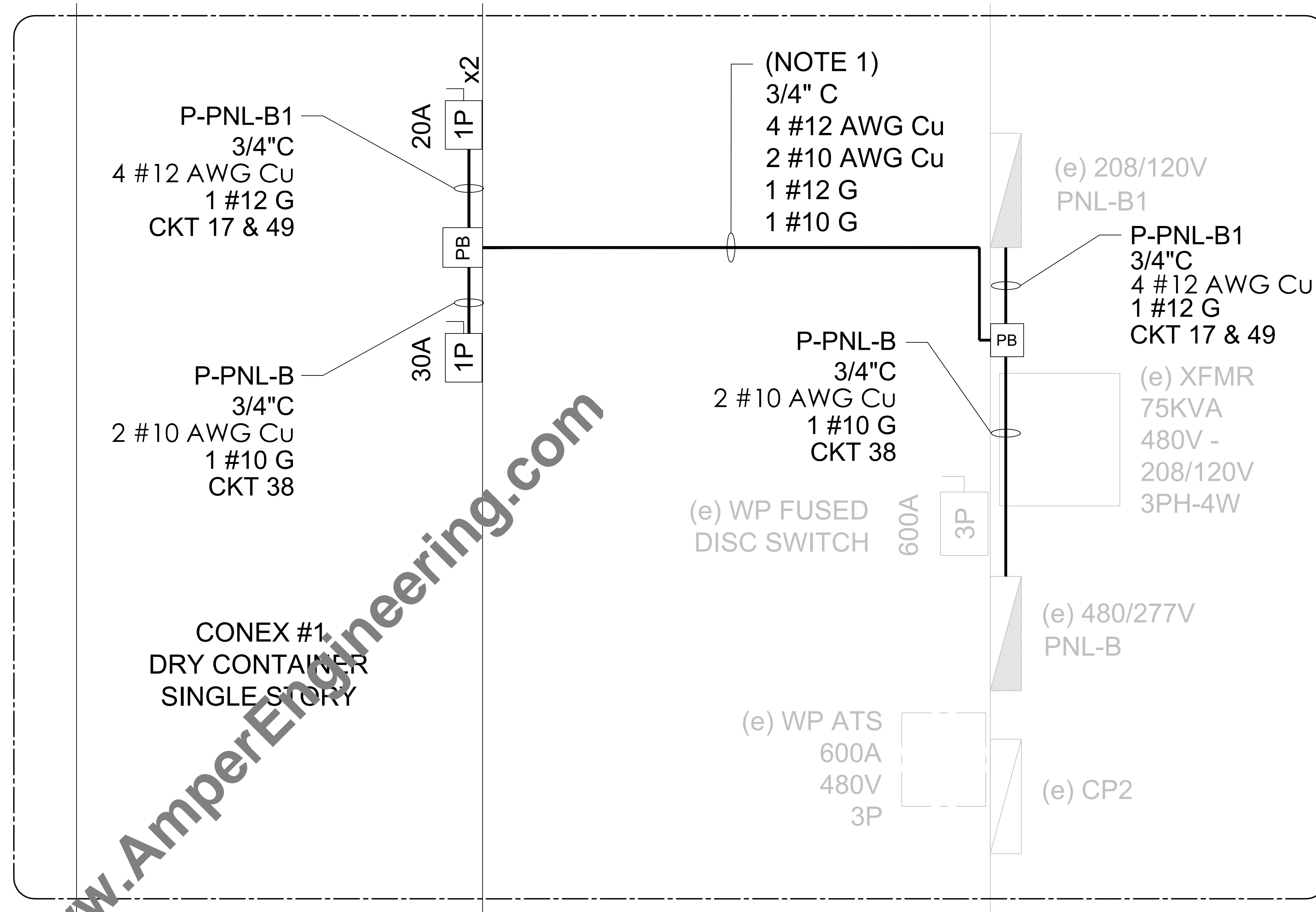
SHEET NO:
E2

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NOTES:

1. ROUTE (1) NEW 3/4" CONDUIT FROM STORAGE ROOM TO CONEX CONTAINER #1 BELOW GRADE AND TERMINATE THE CONDUITS. COORDINATE EXACT LOCATION AND ROUTING WITH FIELD CONDITIONS.
2. PROVIDE LOCAL DISCONNECT SWITCH IN NEMA 3R LOCKABLE ENCLOSURE.
3. GROUNDING AND BONDING REQUIREMENTS AND INSTALLATION AS PER NEC ARTICLE 250. REFER SHEET NO. E6 FOR INSTALLATION DETAILS.
4. OUTSIDE BRANCH CIRCUITS AND FEEDERS REQUIREMENT AND INSTALLATION AS PER NEC ARTICLE 225.



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CONEX CONTAINER 1 POWER PLAN

SEAL & SIGNATURE:



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PROJECT:
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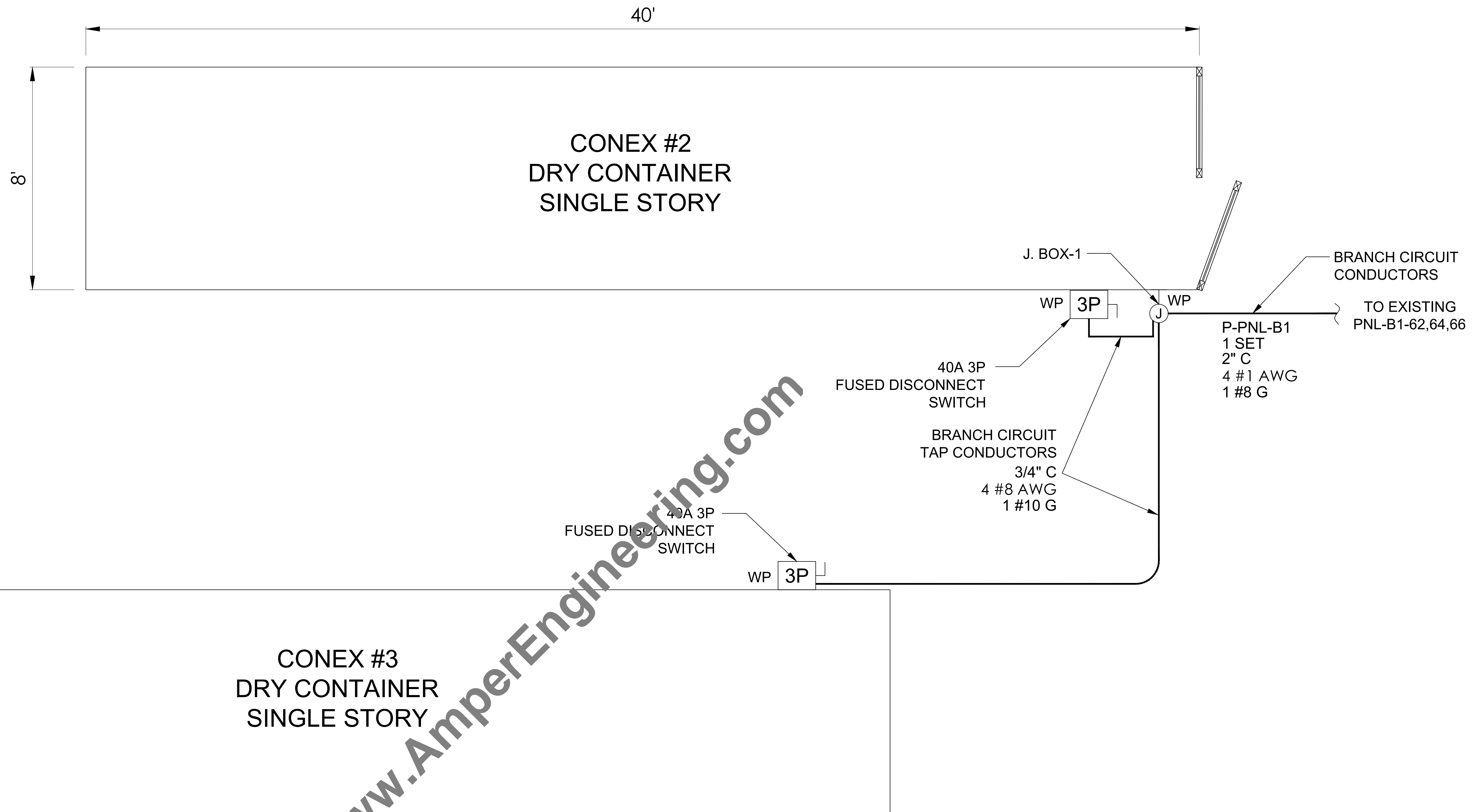
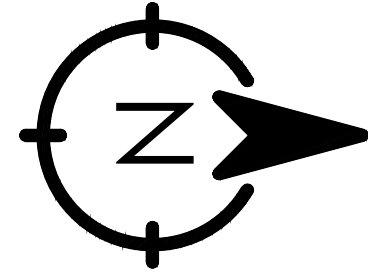
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DESIGNED BY: AC	CHECKED BY: DEE

DRAWING TITLE:
CONEX CONTAINER 1 POWER PLAN

SHEET NO:
E3



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NOTES:

1. ROUTE (1) NEW 2" CONDUIT FROM STORAGE ROOM (PNL-B1) TO CONEX CONTAINER #2 (LOCATED OUTSIDE THE BUILDING) BELOW GRADE AND TERMINATE THE CONDUITS. COORDINATE EXACT LOCATION AND ROUTING WITH FIELD CONDITIONS.
2. PROVIDE LOCAL DISCONNECT SWITCH IN NEMA 3R LOCKABLE ENCLOSURE.
3. GROUNDING AND BONDING REQUIREMENTS AND INSTALLATION AS PER NEC ARTICLE 250. REFER SHEET NO. E6 FOR INSTALLATION DETAILS.
4. OUTSIDE BRANCH CIRCUITS AND FEEDERS REQUIREMENT AND INSTALLATION AS PER NEC ARTICLE 225.

CONEX CONTAINER 2 & 3 POWER PLAN

PROFESSIONAL ENGINEERING

DURAK EVRIM ERCAN P.E.
ENGINEERING | CONSULTING | ESTIMATING
201-920-2899 | info@AmperEngineering.com

SEAL & SIGNATURE:



NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

0	09/12/2021	ISSUED FOR APPROVAL
REV	DATE	DESCRIPTION

CLIENT: _____ INC.

PROJECT: **CANNABIS GROWTH FACILITY**
ADDRESS: _____ DELL PL
COLORADO, CO 81019

PROJECT NUMBER: AE# 1459	
SHEET SIZE: 24X36	DRAWN BY: IB
DESIGNED BY: AC	CHECKED BY: DEE

DRAWING TITLE:
CONEX CONTAINER 2 & 3 POWER PLAN

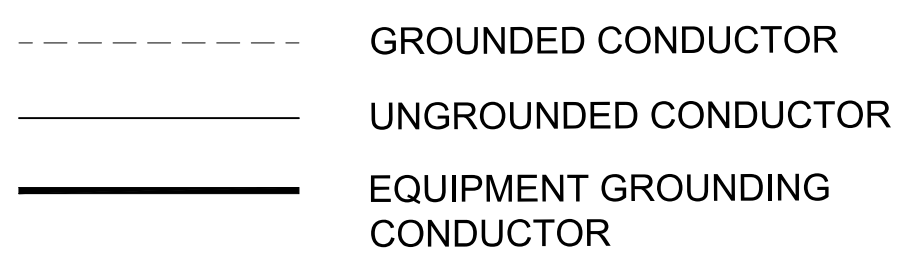
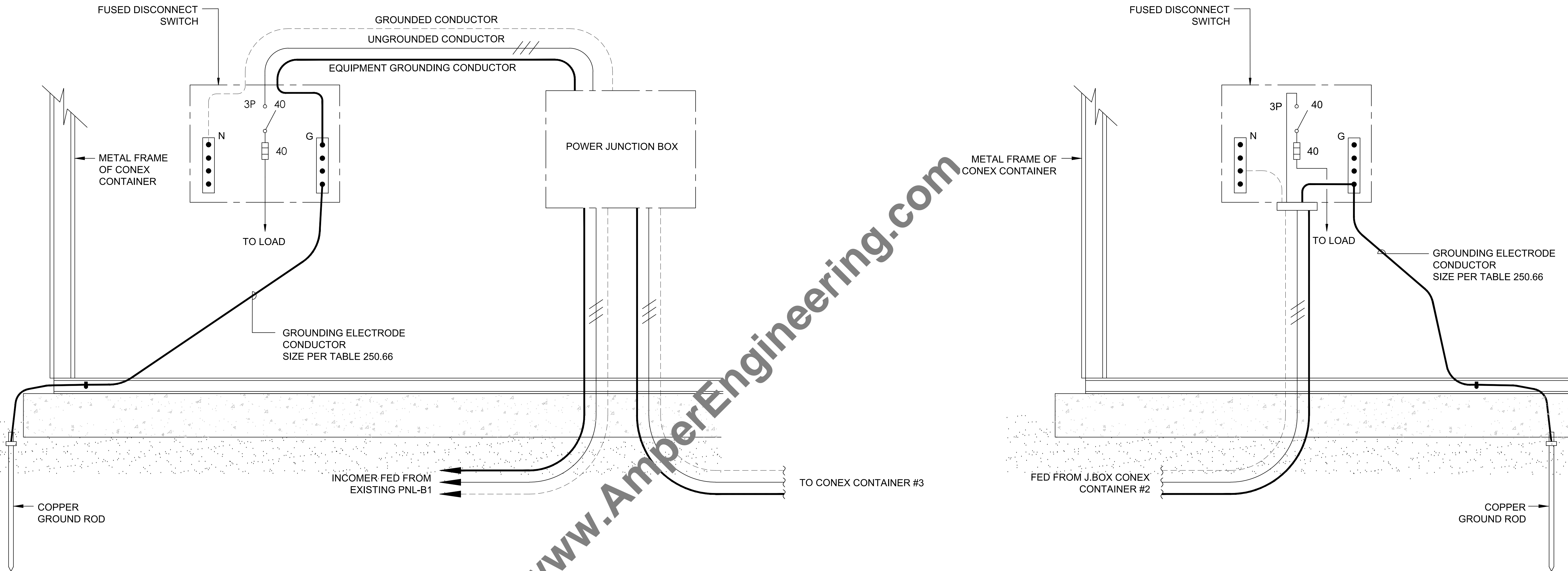
SHEET NO:
E4

NOTE:

1. EXISTING & NEW GROUNDING ELECTRODE SYSTEM SHALL BE AS PER NEC ARTICLE 250.

CONEX CONTAINER #2

CONEX CONTAINER #3



GROUNDING SYSTEM INSTALLATION DETAIL

SEAL & SIGNATURE:



NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

REV	DATE	DESCRIPTION
0	09/12/2021	ISSUED FOR APPROVAL

CLIENT: _____ INC.

PROJECT:
CANNABIS GROWTH FACILITY

ADDRESS: _____ DELL PL
 COLORADO, CO
 81019

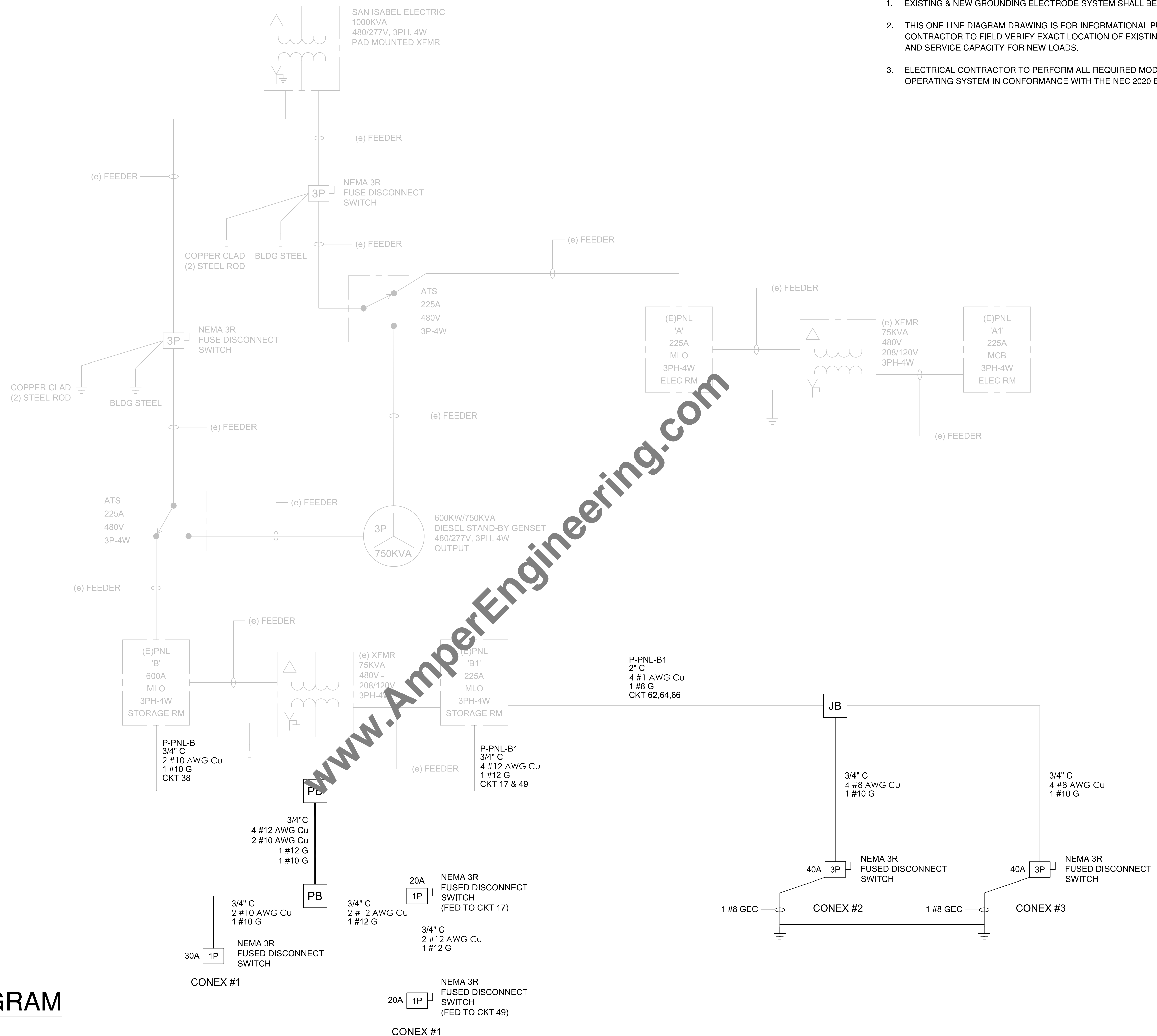
PROJECT NUMBER:
 AE# 1459

SHEET SIZE: 24X36	DRAWN BY: IB
DESIGNED BY: AC	CHECKED BY: DEE

DRAWING TITLE:
GROUNDING SYSTEM INSTALLATION DETAILS

SHEET NO:
E6

ONE LINE DIAGRAM



NOTES:

1. EXISTING & NEW GROUNDING ELECTRODE SYSTEM SHALL BE AS PER NEC ARTICLE 250.
2. THIS ONE LINE DIAGRAM DRAWING IS FOR INFORMATIONAL PURPOSE ONLY. ELECTRICAL CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF EXISTING LOADS, AVAILABLE BREAKERS AND SERVICE CAPACITY FOR NEW LOADS.
3. ELECTRICAL CONTRACTOR TO PERFORM ALL REQUIRED MODIFICATIONS FOR A COMPLETE OPERATING SYSTEM IN CONFORMANCE WITH THE NEC 2020 EDITION.

SEAL & SIGNATURE:



NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

REV	DATE	DESCRIPTION
0	09/12/2021	ISSUED FOR APPROVAL

CLIENT: _____ INC.

PROJECT:
CANNABIS GROWTH FACILITY

ADDRESS: _____ DELL PL
COLORADO, CO
81019

PROJECT NUMBER:
AE# 1459

SHEET SIZE: 24X36	DRAWN BY: IB
DESIGNED BY: AC	CHECKED BY: DEE

DRAWING TITLE:
ONE LINE DIAGRAM

SHEET NO:
E7