



**LEON COUNTY HEALTH DEPARTMENT
PROVISIONS FOR PORTABLE GENERATOR
RICHARDSON - LEWIS HEALTH CENTER
872 W ORANGE AVENUE, TALLAHASSEE, FLORIDA**

**LEON COUNTY
DIVISION OF FACILITIES MANAGEMENT
TALLAHASSEE, FLORIDA**

MAY 6, 2011

CONSTRUCTION DOCUMENTS

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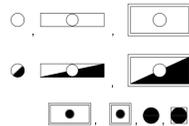
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ABBREVIATIONS

AC	ABOVE CEILING, ABOVE CASEWORK, ALTERNATING CURRENT
AFF	MOUNTING HEIGHT ABOVE FINISHED FLOOR OR GRADE TO CENTERLINE
B	ADJACENT TO LIGHT FIXTURE INDICATES FIXTURE TO BE EQUIPPED WITH EMERGENCY BATTERY PACK.
BFC	BELOW FINISHED CEILING
CKT	CIRCUIT
CW	DEVICE MOUNTS IN CASEWORK BUT NOT FURNISHED WITH CASEWORK.
EC	EMPTY CONDUIT (3/4" MINIMUM) WITH NYLON PULLWIRE
EM	EMERGENCY
EW	ELECTRIC WATER COOLER LOCATION
EX	EXISTING - RECONNECT AS REQUIRED AT EXISTING LOCATION. REMOVE AND REINSTALL IF REQUIRED
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
ETR	EXISTING TO REMAIN
FA	FIRE ALARM
GFI	GROUND FAULT INTERRUPTER
IC	INTERCOM
J	JUNCTION
NL	NIGHT LIGHT
R	RELAY
REF	REFRIGERATOR
T	TRANSFORMER, THERMOSTAT
TS	AUTOMATIC TRANSFER SWITCH
WP	WEATHERPROOF (NEMA 3R)



LIGHTING OUTLETS

LIGHTING FIXTURE - MOUNTING AND TYPE AS SHOWN IN FIXTURE SCHEDULE. SEE SCHEDULE FOR SPECIFIC REQUIREMENTS.

LIGHTING FIXTURE CONNECTED TO EMERGENCY POWER - MOUNTING AND TYPE AS SHOWN IN FIXTURE SCHEDULE. SEE SCHEDULE FOR SPECIFIC REQUIREMENTS.

LIGHTING FIXTURE - MOUNTING AND TYPE AS SHOWN ON FIXTURE SCHEDULE, CONNECTED TO UNSWITCHED OR NIGHTLIGHT CIRCUIT.

EXIT LIGHT - NUMBER AND DIRECTION OF FACES AS SHOWN BY COLORED IN SECTION. SHOWN SINGLE FACE. PROVIDE ARROWS AS INDICATED ON ELECTRICAL PLANS OR FIRE PROTECTION PLANS. SEE FIXTURE SCHEDULE.

EMERGENCY LIGHT - BATTERY OPERATED

WALL MOUNTED LIGHTING FIXTURE

EXIT LIGHT - NUMBER AND DIRECTION OF FACES AS SHOWN BY COLORED IN SECTION. SHOWN DOUBLE FACE. PROVIDE ARROWS AS INDICATED ON ELECTRICAL PLANS OR LIFE SAFETY PLANS. SEE FIXTURE SCHEDULE.

WALL OUTLETS

DUPLX RECEPTACLE, 20A, 125V, 2 POLE, 3 WIRE, MOUNT 1'-6" AFF, NEMA 5-20R.

DUPLX RECEPTACLE, 20A, 125V, 2 POLE, 3 WIRE, WITH WEATHERPROOF-IN-USE COVER

DUPLX RECEPTACLE, 20A, 125V, 2 POLE, 3 WIRE, WITH GROUND FAULT INTERRUPTER, MOUNT 1'-6" AFF

SPECIAL RECEPTACLE - NEMA CONFIGURATION AS SHOWN ON FLOOR PLANS SHOWN NEMA L14-30R, EQUIVALENT TO HUBBELL HBL2710SR.

FLOOR DUPLX RECEPTACLE, 20A, 125V, 2 POLE, 3 WIRE

HOMERUNS TO PANELS

ARROW INDICATES CIRCUIT HOMERUNS IN CONDUIT

LPA-2,4 INDICATES HOMERUN TO CIRCUIT NUMBERS 2 & 4 IN PANEL "LPA"

NOTE:
NUMBER OF HOMERUNS SHOWN ON THE PLANS ARE THE NUMBER OF HOMERUNS REQUIRED. DO NOT RUN MORE THAN THREE HOMERUNS IN ONE CONDUIT. DO NOT RUN 2 CIRCUITS ON THE SAME PHASE IN ONE CONDUIT.

CONDUIT STUBBED OUT ABOVE CEILING OR AS NOTED - PROVIDE BUSHING ON CONDUIT END.

INDICATES CONTINUATION OF RUN SHOWN ON ANOTHER PLAN VIEW

NOTE:
NUMBER OF HOMERUNS SHOWN ON THE PLANS ARE THE NUMBER OF HOMERUNS REQUIRED. DO NOT RUN MORE THAN THREE HOMERUNS IN ONE CONDUIT. DO NOT RUN 2 CIRCUITS ON THE SAME PHASE IN ONE CONDUIT.

LIGHTING CONTROLS

FLUSH TYPE, 20A, 120/277V AC ONLY, QUIET TYPE, SINGLE POLE SWITCH

FLUSH TYPE, 20A, 120/277V AC ONLY, QUIET TYPE, 3 WAY SWITCH

CONTROLS OUTLET 'a' ETC.

CONTROLS & MECHANICAL EQUIPMENT

COMBINATION MOTOR CONTROLLER - MAGNETIC - MOUNTS IN SEPARATE ENCLOSURE FURNISHED AND INSTALLED BY DIVISION 16 - COORDINATE LOCATION WITH MECHANICAL STARTER AND FUSE SIZE AS INDICATED OR AS REQUIRED FOR MOTOR SERVED

MOTOR CONTROLLER - MAGNETIC - MOUNTS IN SEPARATE ENCLOSURE FURNISHED AND INSTALLED BY DIVISION 16 - COORDINATE LOCATION WITH MECHANICAL STARTER SIZE AS INDICATED OR AS REQUIRED FOR MOTOR SERVED

DISCONNECT SWITCH, NON-FUSIBLE, SIZE AND NEMA TYPE AS NOTED.

DISCONNECT SWITCH, FUSIBLE, SIZE AND NEMA TYPE AS NOTED, FUSE AS NOTED OR PER MANUFACTURER'S RECOMMENDATION FOR EQUIPMENT SERVED. NON-FUSED SWITCH MAY BE USED IF UNIT IS UL TESTED WITH BREAKER PROTECTION

POWER, PANELS & POWER EQUIPMENT

PANELBOARD 208 VOLT - SURFACE MOUNTED - SEE PANELBOARD SCHEDULE

POWER DISTRIBUTION PANEL OR 480 VOLT - SEE PANELBOARD SCHEDULE

PANELBOARD 208 VOLT - SURFACE MOUNTED - STANDBY POWER SYSTEM

MOLDED CASE CIRCUIT BREAKER

MOLDED CASE CIRCUIT BREAKER WITH SOLID STATE TRIP

SWITCHGEAR/PANELBOARD/MCC ASSEMBLIES

TRANSIENT VOLTAGE SUPPRESSION ASSEMBLY

JUNCTION BOXES, FLOOR AND CEILING OUTLETS

JUNCTION BOX IN OR ABOVE CEILING

JUNCTION BOX IN WALL - MOUNT 1'-6" UNLESS NOTED OTHERWISE.

JUNCTION BOX ASSOCIATED WITH EMERGENCY SYSTEM RACEWAY

JUNCTION BOX EXISTING TO REMAIN

CIRCUITING AND BRANCH CIRCUITS

CIRCUITS SHOWN L2A-3 INDICATES 1 #12 PHASE CONDUCTOR, 1 #12 NEUTRAL & 1 #12 GND - 3/4" C. TO 20 AMP, 1 POLE BREAKER ON CIRCUIT No. 3, IN PANEL L2A.

L2A-2,4 INDICATES 2 #12 PHASE CONDUCTORS, 1 #12 NEUTRAL & 1 #12 GND - 3/4" C. TO 20 AMP, 1 POLE BREAKER ON CIRCUIT No.'s 2 & 4 IN PANEL "L2A".

L2A-2,4,6 INDICATES 3 #12 PHASE CONDUCTORS, 1 #12 NEUTRAL & 1 #12 GND - 3/4" C. TO 20 AMP 1 POLE BREAKERS ON CIRCUIT No.'s 2,4,6, IN PANEL "L2A" ETC.

10's INDICATES ALL CONDUCTORS ARE TO BE MINIMUM #10 GAUGE, CONDUIT PER NEC OR AS INDICATED.

SHORTER TICKMARKS INDICATE 2 OR MORE PHASE CONDUCTORS, OR SWITCH LEGS

LONGER TICKMARKS INDICATE GROUNDED CONDUCTOR(S), QUANTITY AS SHOWN.

NEUTRALS SHALL NOT BE SMALLER SIZE THAN PHASE CONDUCTORS UNLESS SPECIFICALLY INDICATED OTHERWISE.

INSULATED GROUNDING CONDUCTORS SHALL BE USED IN ALL CIRCUITS, SIZED IN ACCORDANCE WITH NEC ARTICLE 250.

2 #12, 1 #12 GROUND SHALL BE RUN IN 1/2" CONDUIT. 4 OR MORE #12 CONDUCTORS SHALL BE RUN IN 3/4" C. OR AS REQUIRED BY NEC. LARGER THAN #12 CONDUCTORS SHALL BE RUN IN CONDUIT SIZED IN ACCORDANCE WITH NEC.

CONCEALED OVERHEAD OR IN WALLS.

SCOPE OF WORK

- FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE ALL ELECTRICAL WORK AS SHOWN ON THE CONTRACT DRAWINGS.
- THIS SHALL INCLUDE THE INSTALLATION OF A COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEM. THE SYSTEM REQUIRED CONSISTS BASICALLY OF, AND IS NOT LIMITED TO, THE FOLLOWING:
 - EXTEND THE DISTRIBUTION SYSTEM FOR POWER INCLUDING THE NECESSARY FEEDERS, BRANCH CIRCUITS, INSTALLATION OF AND CONNECTION TO DEVICES, PANELBOARDS, SWITCHBOARD, SWITCHES, AND ALL OTHER EQUIPMENT SHOWN, AND THE CONNECTION TO OTHER POWER LOADS THAT ARE EXISTING OR NEW.
 - DISCONNECT/RECONNECT/REWORK THE EXISTING CIRCUITS INDICATED TO NEW STANDBY DISTRIBUTION PANELBOARD. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.
 - FURNISH AND INSTALL THE AUTOMATIC TRANSFER SWITCH SPECIFIED.
- SEAL ALL EXTERIOR PENETRATIONS WATERTIGHT WITH EXTERIOR GRADE ACRYLIC BASED SEALANT. SEAL ALL INTERIOR PENETRATIONS AIR TIGHT WITH ACRYLIC BASED SEALANT. REPAIR AND PAINT TO MATCH ALL DAMAGED SURFACES. PAINT TO MATCH ALL EXPOSED RACEWAYS. REFER TO GENERAL NOTES FOR LOCATIONS WHERE EXPOSED WORK IS ALLOWED.
- THE BIDDER SHALL INSPECT THE PRESENT JOBSITE CONDITIONS BEFORE PREPARING HIS BID. THE SUBMISSION OF A BID WILL BE CONSIDERED EVIDENCE THAT SUCH A VISIT AND INSPECTION WAS PERFORMED BY THE BIDDER AND THAT HE TAKES FULL RESPONSIBILITY FOR ALL FACTORS GOVERNING HIS WORK.
- THE ELECTRICAL WORK SHALL BE COMPLETE, FULLY OPERATIONAL, AND SUITABLE IN EVERY WAY FOR THE SERVICE REQUIRED. DRAWINGS ARE GENERALLY DIAGRAMMATIC IN NATURE AND DO NOT SHOW ALL DETAILS, DEVICES AND INCIDENTAL MATERIALS NECESSARY TO ACCOMPLISH THEIR INTENT. THEREFORE, IT SHALL BE UNDERSTOOD THAT SUCH DEVICES AND INCIDENTAL MATERIALS REQUIRED SHALL BE FURNISHED AT NO COST TO THE OWNER.
- REMOVE AND REINSTALL CEILING TILES AND CEILING GRID COMPONENTS AS NECESSARY TO PERFORM THE WORK. PROTECT COMPONENTS UNTIL REINSTALLATION. REPAIR INTERIOR FINISHES WHERE DAMAGED.
- DEMONSTRATE SYSTEM UPON COMPLETION. THE OWNER WILL PROVIDE THE POWER SOURCE FOR STANDBY OPERATION.
- TEMPORARY POWER CABLING PACKAGE TO BE FURNISHED

Provide the following bill of materials as part of the Contractor's basic price. This package shall be turned over to the Owner for the Owner's use. Build and terminate the cables as described using the specified components.

Cable Protection System:
 (1) Hubbell AccessTrak System - 5 Channel AccessTrak kit, catalog number HBLAT5KITA
 (1 lot) Hubbell FloorTrak 3 Floor Cable Cover - (4) lengths catalog number FT3V25, 25' yellow
 (4) Hubbell Spider II Temporary Power Box - 30A Twist-Lock inlet, 30A Twist-Lock outlet, (7) 20amp straight blade receptacles catalog number SDBS1A
 (4) cordsets, length 50', consisting of 4C/10awg (3 plus ground) type S, SO or SJO cable, with 30A L14-30 type connectors on each end equivalent to Hubbell HBL2711and HBL2713

GENERAL NOTES

- WORK REQUIRING OR CREATING ANY ELECTRICAL OUTAGE SHALL BE PERFORMED AND COMPLETED ON WEEKEND OR AFTER HOURS AND SHALL BE SCHEDULED WITH THE OWNER'S PROJECT MANAGER NOT LESS THAN 72 HOURS IN ADVANCE.
- ALL CONDUCTORS SHALL BE INSTALLED IN METAL CONDUIT OR TUBING. CONDUIT FOR BURIAL IN SOIL OR UNDER CONCRETE SHALL BE PLASTIC, FLEXIBLE CONDUIT INSTALLED OUT-OF-DOORS. IN ANY MECHANICAL EQUIPMENT ROOM, OR IN NORMALLY WET AREAS, SHALL BE LIQUID TIGHT FLEX WITH SUITABLE FITTINGS.
- COORDINATE WITH EXISTING CONDITIONS. THE CONTRACTOR IS EXPECTED TO FAMILIARIZE HIMSELF WITH ALL ROUTES AND EQUIPMENT LOCATIONS FOR CONFLICTS. EQUIPMENT INSTALLED WITHOUT PROPER ACCESS OR CLEARANCE WILL BE RELOCATED TO AN ACCEPTABLE POSITION AT THE CONTRACTOR'S EXPENSE.
- THE LOCATION OF LIGHT FIXTURES, MECHANICAL EQUIPMENT, DEVICES ETC. SHOWN ARE APPROXIMATE. FIELD VERIFY ALL LOCATIONS PAYING PARTICULAR ATTENTION TO EQUIPMENT TO BE DISCONNECTED FROM NORMAL DISTRIBUTION SYSTEM AND RECONNECTED TO STANDBY DISTRIBUTION SYSTEM.
- CONDUIT SHALL BE INSTALLED TIGHT TO DECK WHERE INSTALLED ABOVE CEILING. MAXIMIZE USE OF SPACE.
- PROVIDE CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FOR ALL CONDUITS PASSING THROUGH EXPANSION JOINTS.
- CONDUIT SHALL PASS THROUGH WALLS AT 90 DEGREES AND SHALL BE RUN PARALLEL AND PERPENDICULAR TO WALLS.
- BRANCH CIRCUITS AND HOMERUNS SHALL BE #12 WIRE AND 3/4" CONDUIT MINIMUM. EVERY CONDUIT SHALL HAVE A GREEN GROUND WIRE (#12 MINIMUM).
- NO MORE THAN 3 PHASE CONDUCTORS SHALL BE INSTALLED IN ONE CONDUIT UNLESS NOTED OTHERWISE.
- MOUNTING HEIGHTS OF WALL OUTLETS ABOVE FINISHED FLOOR SHALL BE AS INDICATED IN THE LEGEND AND IN THE FOLLOWING TABLE UNLESS NOTED OTHERWISE ON THE PLANS (MOUNTING HEIGHTS ARE TO CENTERLINE OF DEVICE):

SWITCHES (GENERAL):	3'-10" TO 4'-0"
RECEPTACLES (GENERAL):	1'-6"
TELEPHONE AND DATA OUTLETS	1'-6" (EXCEPT WHERE SHOWN AT COUNTERTOPS)
- MAINTAIN NEC MINIMUM CLEARANCE IN FRONT OF ALL SAFETY SWITCHES AND PANELBOARDS.
- PRIOR TO ANY ROUGH-IN CONTRACTOR SHALL PROVIDE SCALED DRAWINGS (WITH ACTUAL DIMENSIONS OF APPROVED EQUIPMENT), UPON ENGINEER'S REQUEST, SHOWING LOCATIONS AND PROPER CLEARANCES OF ALL ELECTRICAL PANELS, TRANSFORMERS, COMMUNICATION CABINETS, ETC. FOR APPROVAL. DRAWINGS WILL SHOW MECHANICAL, PLUMBING AND ARCHITECTURAL AS WELL AS ELECTRICAL EQUIPMENT.
- ALL UNDERGROUND CONDUIT RUNS ENTERING THE BUILDING SHALL BE SEALED TO PREVENT THE ENTRANCE OF MOISTURE AND GASES.
- CONDUIT FOR RECEPTACLE CIRCUITS SHALL BE RAN OVERHEAD UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL BE CONCEALED EXCEPT IN ELECTRICAL ROOMS WHERE SURFACE MOUNTED RACEWAY IS PERMITTED.
- NEW PANELS SHALL COMPLETE, TYPEWRITTEN SCHEDULES WHICH ARE ACCURATE AND DESCRIPTIVE. EXISTING PANELS TO REMAIN SHALL HAVE THEIR PANEL SCHEDULES UPDATED AND RETYPED AFTER COMPLETION OF NEW WORK.
- ALL WALL PENETRATIONS SHALL BE SEALED USING AN APPROPRIATE UL ASSEMBLY TO MAINTAIN THE RATING OF THE WALL.
- POWER CIRCUITS TO FIRE ALARM SYSTEM CONTROL PANEL, AUXILIARY POWER SUPPLIES, COMMAND CENTER CONSOLE AND ANY OTHER FIRE ALARM SYSTEM COMPONENT REQUIRING LINE VOLTAGE POWER SHALL BE DEDICATED BRANCH CIRCUITS. CIRCUIT DISCONNECTING MEANS SHALL BE IDENTIFIED AS FOLLOWS: BRANCH CIRCUIT BREAKERS SHALL HAVE AN ENGRAVED PLASTIC NAMEPLATE PERMANENTLY ATTACHED ADJACENT TO THE CIRCUIT BREAKER, READING "FIRE ALARM CONTROL PANEL", "FIRE ALARM AUXILIARY POWER SUPPLY", OR OTHER SUITABLE WORDING. SAFETY DISCONNECTS SHALL BE PAINTED RED, WITH ENGRAVED PLASTIC NAMEPLATES IDENTIFYING THE CIRCUIT. PROVIDE CIRCUIT BREAKERS WITH LOCKABLE ON-OFF CLIPS. DISCONNECTS SHALL BE LOCKABLE IN ACCORDANCE WITH SECTION 28100 OF THE SPECIFICATIONS.
- WHERE RECEPTACLES ARE INDICATED TO BE EQUIPPED WITH GROUND FAULT INTERRUPTING CIRCUITRY, IT SHALL BE INTEGRAL TO THE DEVICE AND HAVE A TEST/RESET MECHANISM INTEGRAL WITH THE DEVICE. REMOTE TEST/RESET OR THE INTERWIRING OF ADDITIONAL RECEPTACLES UTILIZING GF SENSING OF A SINGLE RECEPTACLE IS NOT ACCEPTABLE.
- ALL WALL AND CEILING DEVICES SHOWN ON THE NEW WORK PLANS REQUIRE CONCEALED RACEWAYS AND RECESSED METAL BOXES UNLESS NOTED OTHERWISE. WHERE RACEWAYS ARE REQUIRED IN EXISTING HOLLOW CELL CMU WALLS, CUT-IN BOXES AND FISH APPROVED FLEXIBLE METAL CONDUIT WITHIN THE CELL TO THE FIRST JUNCTION ABOVE CEILING.
- ALL SINGLE POLE CIRCUITS SHALL TERMINATE ON A SINGLE POLE CIRCUIT BREAKER ASSEMBLY. DO NOT USE MULTI-POLE CIRCUIT BREAKER OVERCURRENT PROVISIONS FOR 120 VOLT OR 277 VOLT CIRCUITS. PROVIDE INDIVIDUAL GROUNDED CONDUCTORS FOR ALL SINGLE POLE CIRCUITS.

NOTES



McGinniss & Fleming Engineering, Inc.

Mechanical · Electrical · Fire Protection · Plumbing

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Tallahassee, Florida 32308

EB #05990

LEON COUNTY HEALTH DEPARTMENT PROVISIONS FOR PORTABLE GENERATOR RICHARDSON-LEWIS HEALTH CENTER

LEON COUNTY FACILITIES Tallahassee, Florida

DATE:
May 6, 2011

REVISED:

DESIGNED BY:
CKF

DRAWN BY:
TEB

SUBMITTAL:
CONSTRUCTION DOCUMENTS

SHEET TITLE:

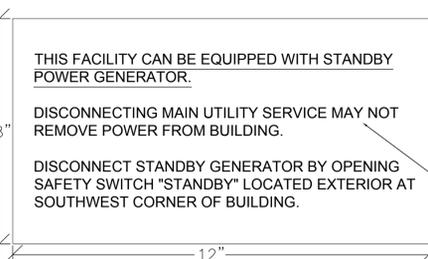
ELECTRICAL SYMBOL LEGEND AND NOTES

SHEET:

E1.0

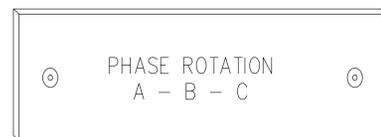
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2011-01



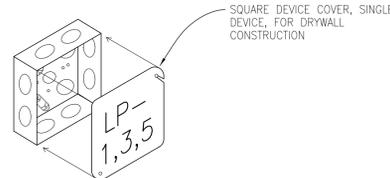
3/8" LETTERS - WHITE ON RED BACKGROUND MOUNT DIRECTLY TO SERVICE DISCONNECT.

SIGNAGE DETAILS - "A" NOT TO SCALE



INSTALL ON DISCONNECT SWITCH FRONT. CHECK UTILITY ROTATION AND MODIFY LABEL PROPERLY. IDENTIFY LUGS IN SWITCH.

SIGNAGE DETAILS - "B" NOT TO SCALE

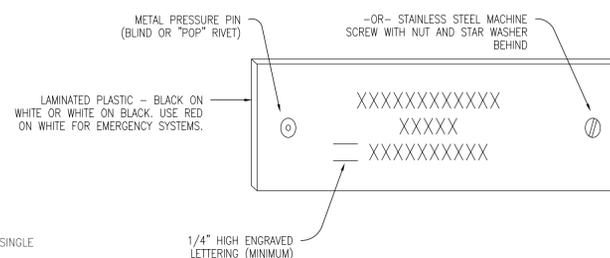


JUNCTION BOX IDENTIFICATION NOT TO SCALE

JUNCTION BOX IDENTIFICATION: EACH JUNCTION BOX COVER SHALL BE LABELED WITH A PERMANENT "MAGIC" MARKER OR OTHER MEANS TO IDENTIFY THE CIRCUITS WITHIN. FOR EXAMPLE, A JUNCTION BOX CONTAINING LIGHTING CIRCUITS 21, 23, 25 FROM PANEL L2A WOULD BE LABELED "L2A-21,23,25". TELEPHONE JUNCTION BOXES SHALL BE LABELED "T". FIRE ALARM SYSTEM JUNCTION BOXES SHALL BE LABELED "FA", PAINTED RED, OR BOTH. PUBLIC ADDRESS, NURSE CALL, AND OTHER SYSTEM JUNCTION BOXES SHALL BE LABELED ACCORDINGLY.

ALL RACEWAYS LEAVING THE SERVICE ENTRANCE PANEL AND DISTRIBUTION PANELS SHALL BE CLEARLY MARKED AS TO THEIR CIRCUIT NUMBER. FOR EXAMPLE, A CONDUIT CONTAINING CONDUCTORS FOR PANEL MDP, CIRCUIT NO. 5 WOULD BE MARKED MDP-5. EMPTY CONDUITS SHALL BE MARKED "EMPTY".

LABELS NOT TO SCALE

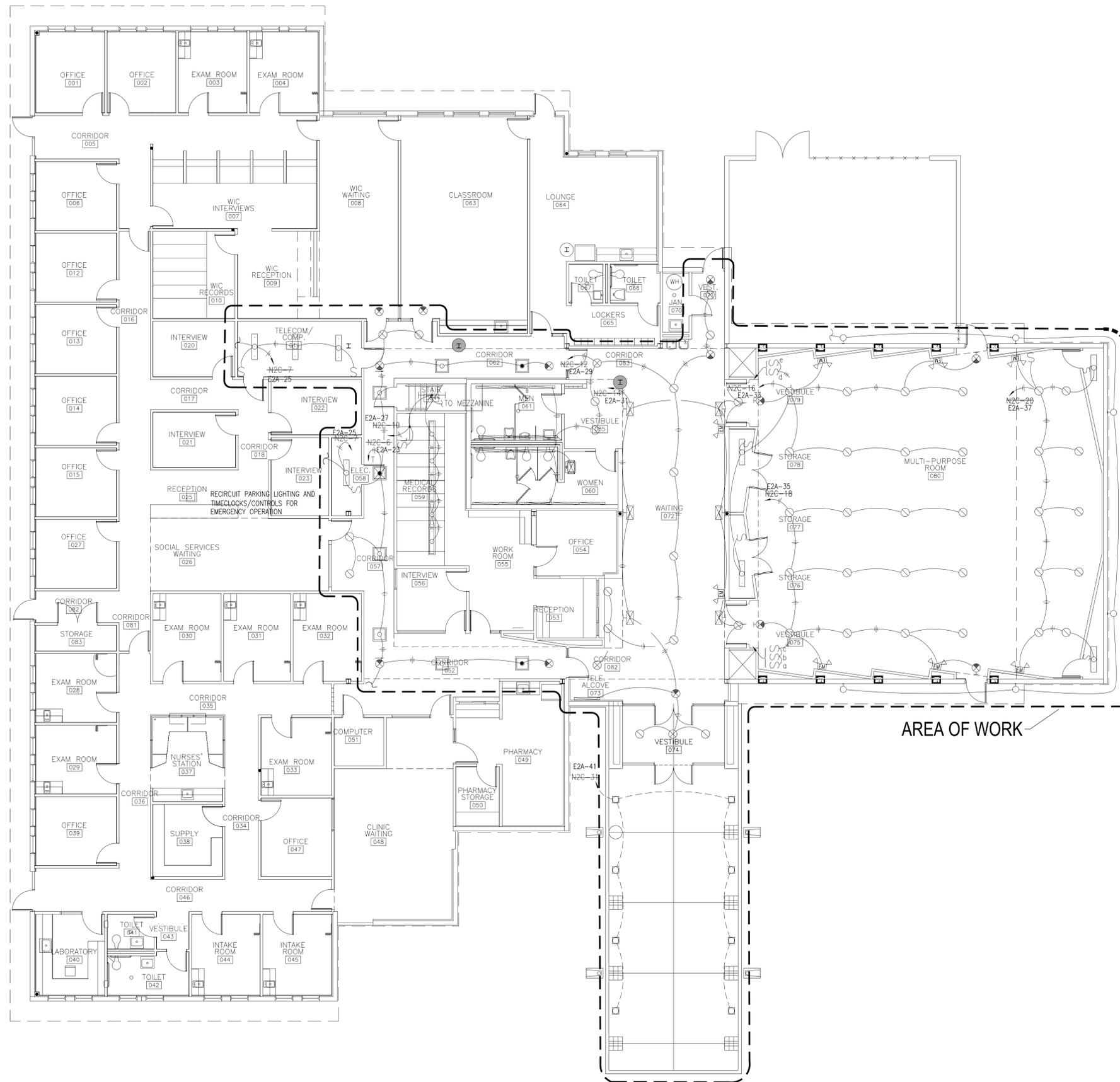


EQUIPMENT IDENTIFICATION SHALL BE MADE USING ENGRAVED LAMINATED PLASTIC PLATES (INDENTED TAPE LABELS WILL NOT BE PERMITTED). CHARACTERS SHALL BE WHITE ON A BLACK BACKGROUND AND 1/4" HIGH MINIMUM. PLATES SHALL BE SECURED TO THE PANELS BY MEANS OF SCREWS OR METAL PRESSURE PINS. CEMENT, BY ITSELF, WILL NOT BE ACCEPTABLE. ALL NAMEPLATES SHALL BE MOUNTED ON THE OUTSIDE SURFACE OF THE PIECE OF EQUIPMENT.

LABEL AT NEW 400A SAFETY DISCONNECT



LABEL AT NEW PANEL E2A



LIGHTING PLAN
SCALE: 1/8"=1'-0"



AREA OF WORK

NOTES

- EXISTING LIGHTING FIXTURES ARE TO REMAIN. RE-CIRCUIT THE HOMERUNS INDICATED TO NEW STANDBY POWER PANEL E2A. SEE PANELBOARD SCHEDULES FOR OLD AND NEW DESIGNATIONS.
- EXTERIOR PARKING LIGHTING IS TO BE RECONNECTED TO NEW STANDBY POWER PANEL FOR STANDBY OPERATION. CONTROL POWER FOR LIGHTING CONTRACTORS' AND TIME CONTROLS SHALL ALSO BE CONNECTED TO NEW STANDBY POWER PANEL. SEE SCHEDULE.



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**ELECTRICAL
LIGHTING
PLAN**

SHEET:

E2.0

OUTDOOR UNIT POWER CONNECTIONS

PROVIDE CIRCUITS FROM NEW PANEL E2A TO EACH OUTDOOR UNIT AS INDICATED BELOW. CONDUIT SIZES ARE FOR THWN CONDUCTORS. PROVIDE CONDUITS SIZED IN ACCORDANCE WITH APPENDIX C OF THE NATIONAL ELECTRICAL CODE IF RHW INSULATED CONDUCTORS ARE USED, OR IF RGS CONDUIT IS SUBSTITUTED FOR INTERMEDIATE METAL CONDUIT. RACK ELECTRICAL CONDUITS WITH REFRIGERANT PIPING ON STEEL CHANNEL. DO NOT ALLOW CONDUITS TO REST ON GROUND. PROVIDE APPROPRIATE FITTINGS, WATERTIGHT, FOR FINAL CONNECTIONS.

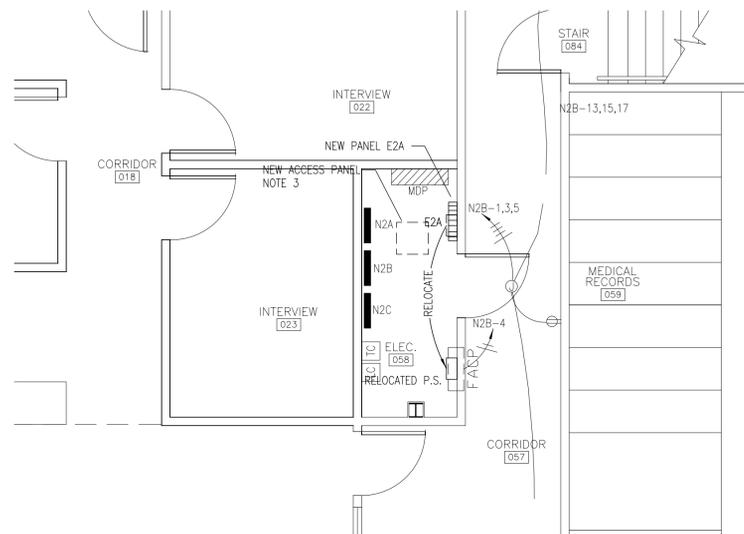
HP MARK	CIRCUIT	OC RATING	DISCONNECT	CONDUCTORS	CONDUIT
GP-1	E2A-26,28,30 (WAS N2F-26,28,30)	70A/3P	EXISTING	3-#4, 1-#8(G)	1" IMC
HP-8	E2A-10,12 (WAS N2F-6,8)	50A/2P	EXISTING	2-#6, 1-#10(G)	3/4" IMC

AHU POWER CONNECTIONS

PROVIDE NEW CIRCUITS TO EACH AIR HANDLER UNIT AS INDICATED. CONDUIT SIZES ARE FOR THWN CONDUCTORS. PROVIDE CONDUITS SIZED IN ACCORDANCE WITH APPENDIX C OF THE NATIONAL ELECTRICAL CODE IF RHW INSULATED CONDUCTORS ARE USED, OR IF IMC OR RGS CONDUIT IS SUBSTITUTED FOR EM TUBING.

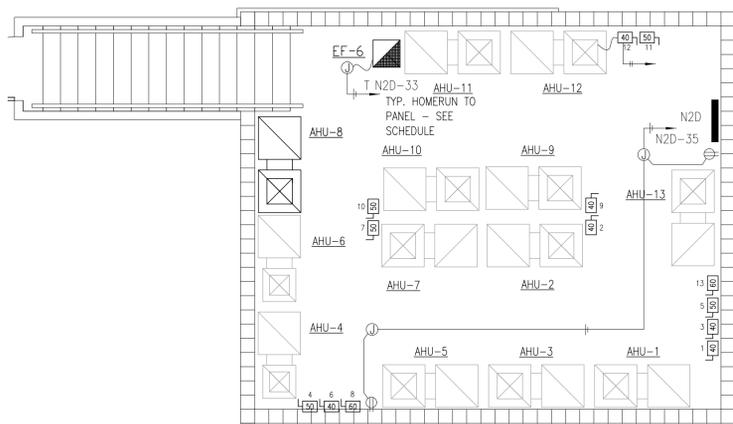
REUSE EXISTING SAFETY DISCONNECT FOR EACH UNIT.

AHU MARK	CIRCUIT	OC RATING	DISCONNECT	CONDUCTORS	CONDUIT
AHU-8	E2A-14,16 (WAS N2D-2,4)	60A/2P	EXISTING	2-#4, 1-#10(G)	1" EMT



ENLARGED ELECTRICAL RM. POWER PLAN

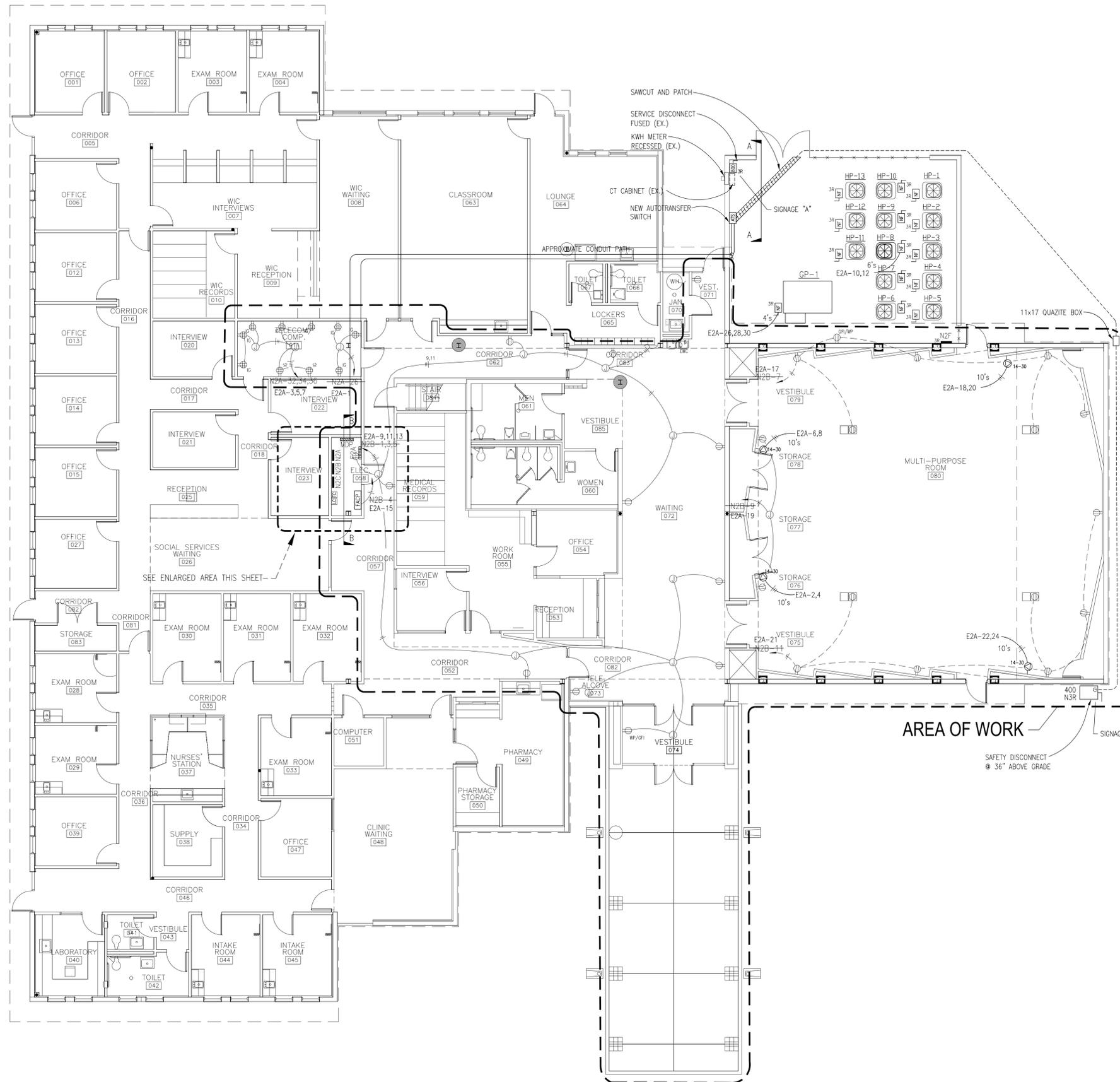
SCALE: 1/4"=1'-0"



RECONNECT BRANCH CIRCUITS SERVING AHU-8 AND EF-6 TO PANEL E2A (FROM PANEL N2D)

ENLARGED MEZZANINE POWER PLAN

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



OVERALL POWER PLAN

SCALE: 1/8"=1'-0"

NOTES

- EXISTING DEVICES AND EQUIPMENT IS TO REMAIN. RE-CIRCUIT THE HOMERUNS INDICATED TO NEW STANDBY POWER PANEL E2A. SEE PANELBOARD SCHEDULES FOR OLD AND NEW DESIGNATIONS.
- EXISTING OUTDOOR HEAT PUMP, GAS PACK AND INDOOR AIR HANDLING EQUIPMENT INDICATED IS TO BE RECONNECTED TO STANDBY POWER. EXTEND EXISTING HOMERUNS TO NEW PANEL.
- PROVIDE NEW 18X18 ACCESS PANEL INSTALLED IN ELECTRICAL ROOM CEILING.
- THE CONTRACTOR SHALL ASSIST THE OWNER IN A SYSTEM OPERATIONAL TEST PRIOR TO PROJECT ACCEPTANCE. THE OWNER WILL PROVIDE A PORTABLE GENERATOR FOR THIS TEST. THE CONTRACTOR SHALL CONNECT AND CHECK. THIS TEST WILL BE PERFORMED AFTER HOURS (WEEK-END) AND WILL BE INCLUDED IN THE PROJECT CONSTRUCTION SCHEDULE.



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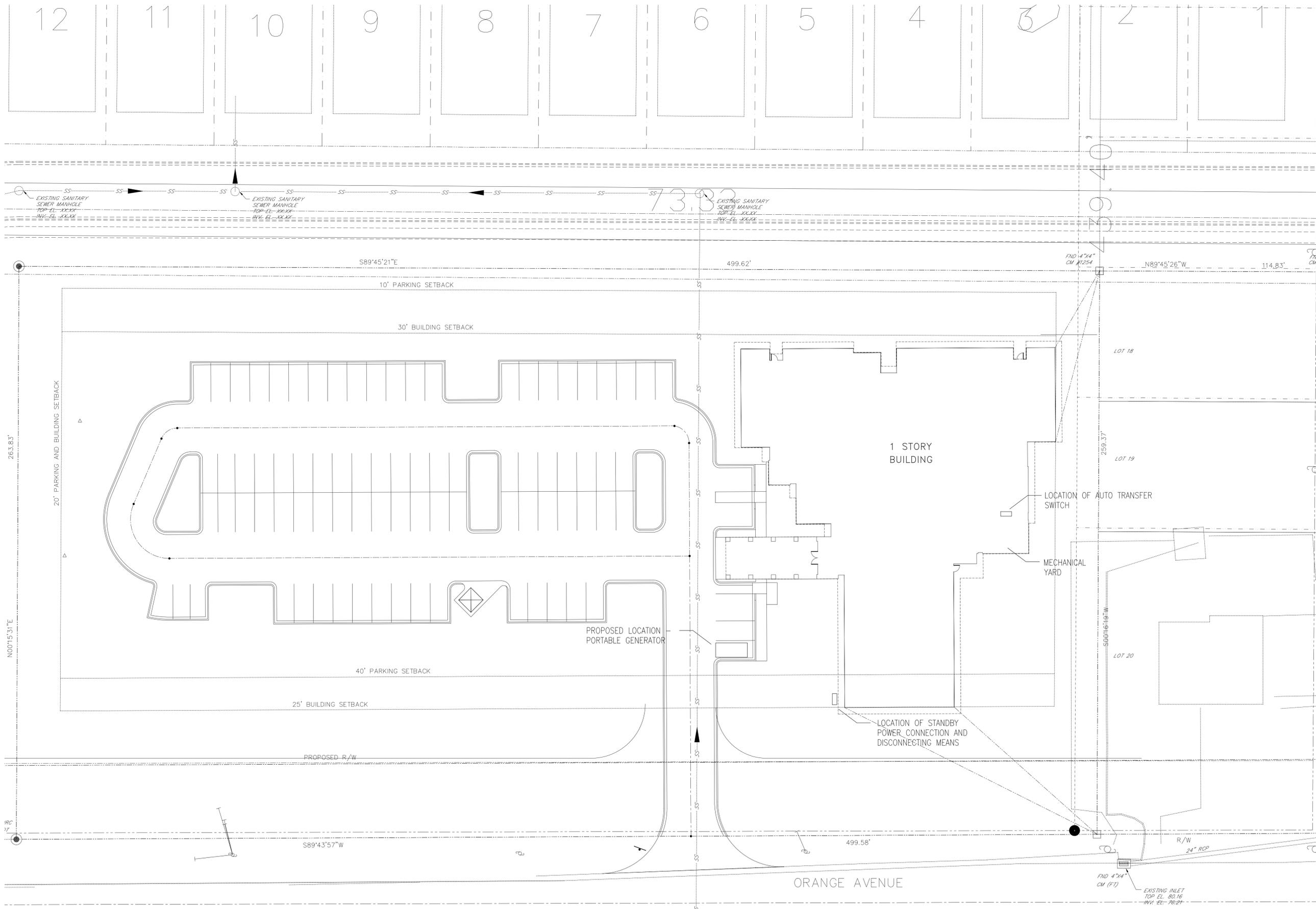
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SITE AND AREA
PLAN**

SHEET:

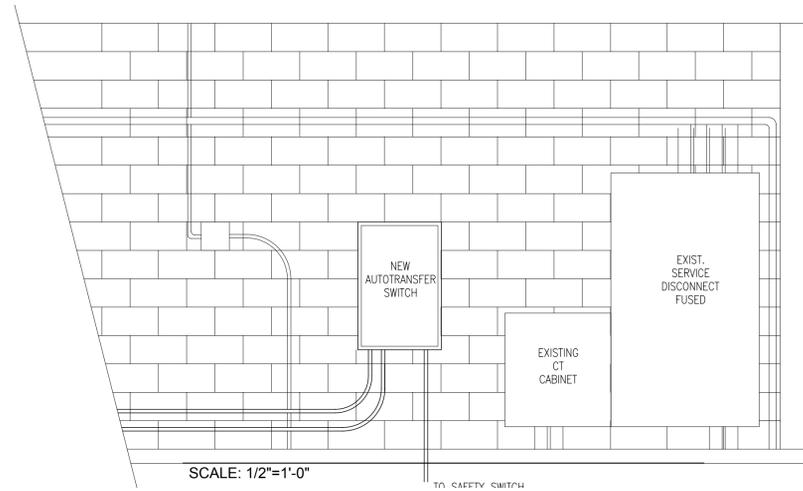
E3.1

ELECTRICAL SITE AND AREA PLAN
SCALE: 1"=20'-0"

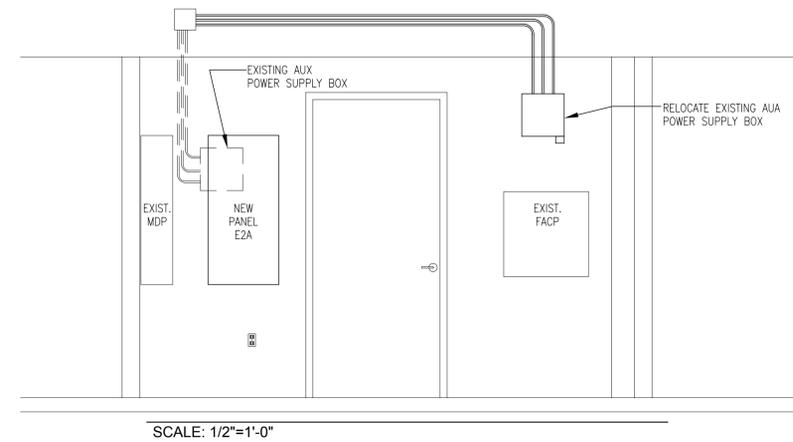


Charles K. Fleming, PE #48107

JOB NUMBER:
2011-01



ELEVATION A - A

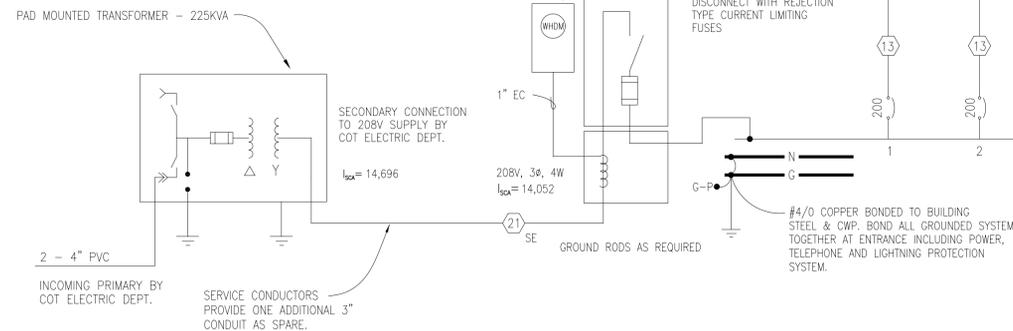
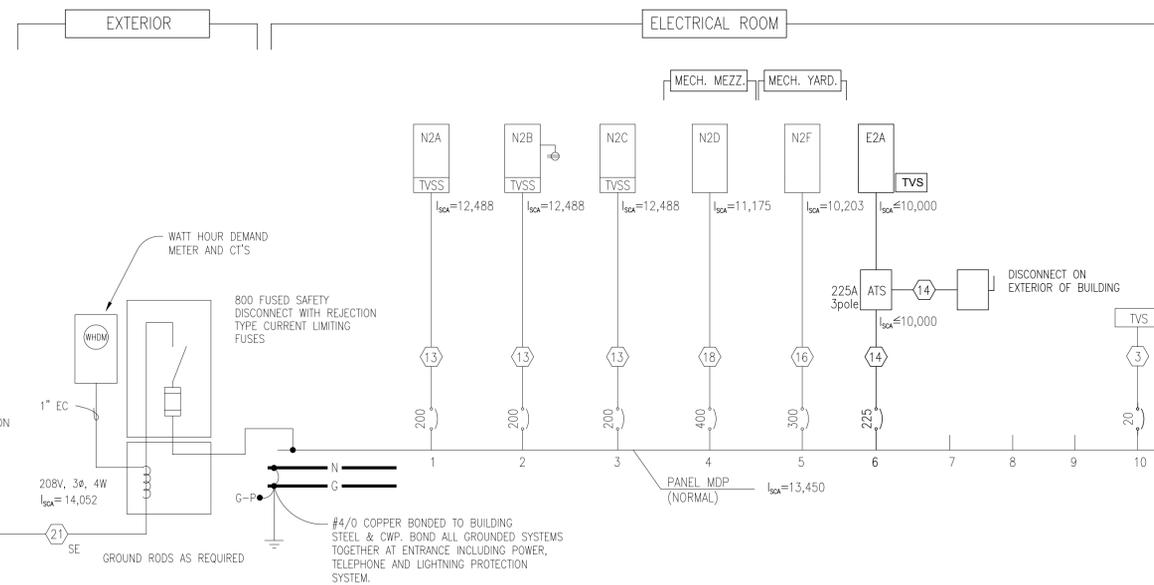
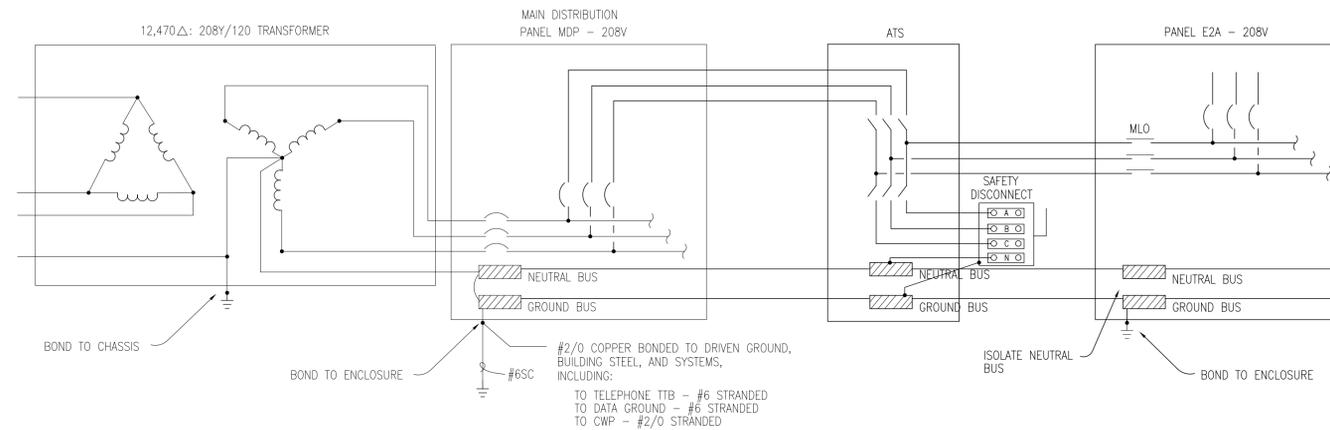


ELEVATION B - B

FEEDER SCHEDULE (ALL CONDUCTORS ARE TO BE COPPER)					
FEEDER SIZE INDICATOR	NOMINAL AMPACITY (FEEDER)	SYMBOL "O"		SYMBOL "ON" (NO NEUTRAL)	
		DRY & WET LOCATIONS		DRY & WET LOCATIONS (NO NEUTRAL)	
		CONDUCTORS	RACEWAY	CONDUCTORS	RACEWAY
1	20	4 #12 & 1 #12 (GND.)	3/4"	3 #12 & 1 #12 (GND.)	3/4"
2	30	4 #10 & 1 #10 (GND.)	3/4"	3 #10 & 1 #10 (GND.)	3/4"
3	40	4 #8 & 1 #10 (GND.)	1"	3 #8 & 1 #10 (GND.)	1"
4	50	4 #6 & 1 #10 (GND.)	1 1/4"	3 #6 & 1 #10 (GND.)	1"
5	60	4 #6 & 1 #10 (GND.)	1 1/4"	3 #6 & 1 #10 (GND.)	1"
6	70	4 #4 & 1 #8 (GND.)	1 1/4"	3 #4 & 1 #8 (GND.)	1 1/4"
7	80	4 #3 & 1 #8 (GND.)	1 1/2"	3 #3 & 1 #8 (GND.)	1 1/4"
8	90	4 #3 & 1 #8 (GND.)	1 1/2"	3 #3 & 1 #8 (GND.)	1 1/4"
9	100	4 #2 & 1 #8 (GND.)	1 1/2"	3 #2 & 1 #8 (GND.)	1 1/4"
10	125	4 #1/0 & 1 #6 (GND.)	2"	3 #1/0 & 1 #6 (GND.)	2"
11	150	4 #1/0 & 1 #6 (GND.)	2"	3 #1/0 & 1 #6 (GND.)	2"
12	175	4 #2/0 & 1 #6 (GND.)	2"	3 #2/0 & 1 #6 (GND.)	2"
13	200	4 #3/0 & 1 #6 (GND.)	2 1/2"	3 #3/0 & 1 #6 (GND.)	2"
14	225	4 #4/0 & 1 #4 (GND.)	2 1/2"	3 #4/0 & 1 #4 (GND.)	2 1/2"
15	250	4-250 KCMIL & 1 #4 (GND.)	3"	3-250 KCMIL & 1 #4 (GND.)	2 1/2"
16	300	4-350 KCMIL & 1 #4 (GND.)	3"	3-350 KCMIL & 1 #4 (GND.)	3"
17	350	4-400 KCMIL & 1 #3 (GND.)	3 1/2"	3-400 KCMIL & 1 #3 (GND.)	3"
18	400	4-500 KCMIL & 1 #3 (GND.)	3 1/2"	3-500 KCMIL & 1 #3 (GND.)	3 1/2"
19	500	2 PARALLEL CIRCUITS EACH 4-250 KCMIL & 1 #2 (GND.)	2-3"	2 PARALLEL CIRCUITS EACH 3-250 KCMIL & 1 #2 (GND.)	2-2 1/2"
20	600	2 PARALLEL CIRCUITS EACH 4-350 KCMIL & 1 #1/0 (GND.)	2-3"	2 PARALLEL CIRCUITS EACH 3-350 KCMIL & 1 #1/0 (GND.)	2-3"
21	800	3 PARALLEL CIRCUITS EACH 4-300 KCMIL & 1 #1/0 (GND.)	3-3"	3 PARALLEL CIRCUITS EACH 3-300 KCMIL & 1 #1/0 (GND.)	3-3"
22	1000	3 PARALLEL CIRCUITS EACH 4-400 KCMIL & 1 #3/0 (GND.)	3-3 1/2"	3 PARALLEL CIRCUITS EACH 3-400 KCMIL & 1 #3/0 (GND.)	3-3 1/2"
23	1200	3 PARALLEL CIRCUITS EACH 4-500 KCMIL & 1 #3/0 (GND.)	3-4"	3 PARALLEL CIRCUITS EACH 3-500 KCMIL & 1 #3/0 (GND.)	3-3 1/2"

FEEDER SCHEDULE NOTES:

- CONDUCTORS AMPACITIES ARE BASED ON 60° C INSULATION FOR CONDUCTORS OF #1 GAUGE AND SMALLER AND ARE BASED ON 75° C INSULATION FOR CONDUCTORS OF #1/0 GAUGE AND LARGER. THIS IS TO CONFORM TO UL'S TESTING OF EQUIPMENT TERMINATIONS AND NEC 110-14c. CONDUCTOR SIZES SHALL NOT BE REDUCED FOR HIGHER RATED TEMPERATURE INSULATION USED.
- CONDUIT SIZES ARE BASED ON "THW" INSULATION AND SHALL NOT BE REDUCED FOR DIFFERENT INSULATION TYPES.
- SYMBOL "ON" INDICATES NEUTRAL HAS BEEN SIZED AT 1.73 TIMES THE AMPACITY OF THE PHASE CONDUCTORS TO COMPENSATE FOR HIGHER CURRENTS ON THE NEUTRAL FROM NON-LINEAR LOADS.
- SYMBOL "SC" INDICATES SERVICE ENTRANCE CABLE GROUP. PROVIDE CONDUCTORS SIZED AS SHOWN UNDER SYMBOL "SC", INCLUDING GROUNDED CONDUCTOR (NEUTRAL), BUT WITHOUT GROUNDED CONDUCTOR REQUIREMENT. CONDUIT SIZES SHALL REMAIN AS SHOWN.
- FEEDERS OF NOMINAL AMPACITY 250 AMPS OR GREATER MAY UTILIZE EQUIVALENT PARALLEL CIRCUITS. IN SUCH CASES EACH INDIVIDUAL GROUNDED CONDUCTOR SHALL BE FULL SIZE AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC.



McGinniss & Fleming Engineering, Inc.

Mechanical · Electrical · Fire Protection · Plumbing

1401 Miccosukee Road Tallahassee, Florida 32308 EB #05990

LEON COUNTY HEALTH DEPARTMENT PROVISIONS FOR PORTABLE GENERATOR RICHARDSON-LEWIS HEALTH CENTER

LEON COUNTY FACILITIES Tallahassee, Florida

DATE: May 6, 2011

REVISED:

DESIGNED BY: CKF DRAWN BY: TEB

SUBMITTAL: CONSTRUCTION DOCUMENTS

SHEET TITLE: ELECTRICAL SINGLE LINE DIAGRAM

SHEET:

E4.0

