

GENERAL ELECTRICAL NOTES AND REQUIREMENTS

- 1. GENERAL INSTALLATION REQUIREMENTS:
A. THE ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE 2020 FLORIDA BUILDING CODE...
B. WORK SHALL INCLUDE ALL LABOR, MATERIALS, PERMITS AND COSTS FOR INSTALLATION OF A COMPLETE ELECTRICAL SYSTEM...
C. IT IS NOT THE PURPOSE OF THESE PLANS TO SHOW ALL DETAILS OF CONSTRUCTION...
D. CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE BIDS BASED UPON THE ENTIRE SET OF CONSTRUCTION DOCUMENTS...
E. ALL EQUIPMENT, FIXTURES, ETC., SHALL BE STARTED, TESTED, ADJUSTED AND PLACED IN SATISFACTORY OPERATING CONDITION...
F. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH OTHER PARTIES FOR INSTALLATION OF ALL DEVICES...
G. THE ELECTRICAL, HVAC, PLUMBING, FIRE PROTECTION & GENERAL CONTRACTORS SHALL STRICTLY ADHERE TO THE FOLLOWING ITEMS WHEN DEALING WITH ELECTRICAL CLEARANCES...
H. DO NOT SCALE THE ELECTRICAL DRAWINGS, REFER TO THE ARCHITECTURAL PLANS FOR EQUIPMENT LOCATIONS, CABINETRY, CEILING GRIDS, DOOR SWINGS, ETC.
I. UNLESS NOTED OTHERWISE, ALL EXIT AND EMERGENCY LIGHTS ARE TO BE CONNECTED TO THE "HOT" (BEFORE ANY SWITCHES) SIDE OF THE CIRCUIT WHICH SUPPLIES NORMAL POWER TO AREA LIGHTING.
K. THE ELECTRICAL CONTRACTOR SHALL GROUND THE TELEPHONE/CATV TERMINAL BOARDS/PANELS IN ACCORDANCE WITH N.E.C. 800.100/820.100.
L. NOTICE TO CONTRACTOR: REVISIONS TO THESE DRAWINGS AND CERTIFICATION THERETO, WHICH MAY BE REQUIRED BY THE APPLICABLE INSPECTION AUTHORITY, BECAUSE OF CONTRACTOR (OR "OTHERS") OPTED REVISIONS SHALL BE COMPENSATED TO THE ENGINEER/S BY THE REQUESTING CONTRACTOR. PAYMENT WILL BE REQUIRED AT TIME OF CERTIFICATION DELIVERY.
M. WITHIN 30 DAYS OF PROJECT COMPLETION, RECORD DRAWINGS (AS BUILT) OF THE PROJECT BE PROVIDED BY THE CONTRACTOR/S AND SUBMITTED TO THE OWNER...
2. SUBMITTALS
A. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL ELECTRICAL EQUIPMENT THAT IS TO BE USED ON THIS PROJECT...
B. SUBMITTALS ARE TO BE TOTAL & COMPLETE. INCOMPLETE OR PIECEMEAL SHOP DRAWINGS WILL NOT BE REVIEWED UNTIL ALL SUBMITTALS ARE PROVIDED...
C. SUBMITTALS SHAL BE PROVIDED IN PDF FORMAT.
D. SHOP DRAWINGS SUBMITTED BY WAY OF AN ELECTRONIC PROJECT MANAGEMENT SYSTEM ARE NOT ACCEPTABLE.
3. WIRING & WIRING METHODS
A. ALL CONDUCTORS SHOWN ARE TO BE COPPER WITH THHN/THWN, 75°C INSULATION, UNLESS NOTED OTHERWISE.
B. ALL WIRING DEVICE, EQUIPMENT TERMINALS, SPLICING SYSTEMS, ETC. SHALL BE RATED FOR 75°C CONDUCTORS.
C. MINIMUM WIRE SIZE TO BE #12 Cu., MINIMUM CONDUIT SIZE IS TO BE 1/2". 20 AMP, 120 VOLT CIRCUITS SHALL HAVE CONDUCTORS SIZED PER LENGTH OF RUN (UNO): 55' OR LESS = #12 Cu; 55' - 95' = #10 Cu; 95' - 145' = #8 Cu THESE SIZES PERTAIN TO THE HOT, NEUTRAL, AND GROUND CONDUCTORS.
D. AS DESIGNED, THE SYSTEM VOLTAGE DROPS ARE LESS THAN 2% FOR FEEDERS AND 3% FOR THE BRANCH CIRCUITS.
E. RUN ONE EMPTY 3/4" EMT CONDUIT TO ACCESSIBLE CEILING SPACE FOR EACH (4) "SPARE" OR "SPACES" INDICATED ON ALL FLUSH MOUNTED PANELS.
F. ALL ELECTRICAL CONDUITS NOT CONTAINING SPECIFIED CONDUCTORS SHALL HAVE A PULL WIRE INSTALLED.
G. WIRING TO BE:
a. EMT CONDUIT AND CONDUCTORS ABOVE GROUND
b. PVC CONDUIT AND CONDUCTORS UNDERGROUND AND IN SLAB
c. MC CABLE FOR 20 AMP, 120 OR 277 VOLT CIRCUITRY. ALL OTHERS CIRCUIT IN CONDUIT AS ABOVE.
d. EMT CONDUITS ARE NOT ALLOWED UNDER ANY CIRCUMSTANCE.
e. UNO - NO ALUMINUM CONDUITS OR CABLES ARE ALLOWED.
H. CONTRACTOR SHALL RUN FULL SIZED NEUTRALS FOR ALL CIRCUITS THAT REQUIRE NEUTRALS. IF MULTI-WIRE BRANCH CIRCUITS ARE USED FOR COST SAVINGS, THIS SHALL BE STATED IN THE BID AND MULTI-POLE CIRCUIT BREAKERS SHALL BE UTILIZED PER NFPA 70.210.4. ANY CIRCUITS WITH DIMMING ON THEM SHALL HAVE FULL SIZED, DEDICATED NEUTRALS INSTALLED, NO EXCEPTIONS.
I. ALL CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATIONS (TRANSFORMERS, MOTORS, AIR HANDLERS, ETC) ARE TO BE MADE USING FLEXIBLE CONDUITS; DRY LOCATIONS: LIQUID TIGHT FLEXIBLE METAL CONDUIT "LMC" (STEEL) WET LOCATIONS: LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT "LMC-B" (PVC) WITH SMOOTH WALLS. ALUMINUM VERSIONS ARE NOT PERMITTED.
J. CABLING SHALL BE IDENTIFIED USING SELF-ADHESIVE LABELING. MATERIAL SHALL BE PERMANENTLY FLEXIBLE AND LAMINATED WITH CLEAR, ALL-WEATHER, CHEMICAL & UV RESISTANT FILM. EDGES SHALL BE TAPED WITH MATCHING TAPE TO PROTECT LABEL EDGES. VERBAGE SHALL BE PRE PRINTED BY MACHINE. LABELS SHALL BE AFFIXED AT EVERY LOCATION ACCESSIBLE.
a. POWER CONDUCTORS SHALL HAVE ADHESIVE TYPE WRAP LABELS APPLIED INDICATING PANEL & CIRCUIT OF ORIGIN.
b. LOW VOLTAGE CABLING SHALL HAVE ADHESIVE TYPE WRAP LABELS APPLIED INDICATING TERMINATING DEVICE NUMBER.
L. INSULATED CONDUCTORS SIZES #6 AND SMALLER SHALL HAVE FACTORY COLOR CODED INSULATION. SIZES #4 AND LARGER MAY BE EITHER FACTORY CODED OR CODED BY TAPE. COLOR TAPE SHALL BE APPLIED TO ALL CONDUCTORS AT 5' INTERVALS, WITH 6" (MINIMUM) "SWATCHES." COLORING SHALL BE AS FOLLOWS:
BY PHASE - BLACK/RED/BLUE
N/B(G) - WHITE/GREEN
M. COLOR CODING AND MARKING TAPE SHALL BE 3 MIL, SELF-ADHESIVE, 1 TO 2 INCHES WIDE.
N. CONTRACTOR SHALL LABEL ALL JUNCTION BOXES CONTAINING POWER CABLING WITH THE PANEL & CIRCUIT OF ORIGIN OF EACH CONDUIT WITHIN THE BOX. LABELING SHALL BE VIA PERMANENT BLACK MARKER & STENCIL WITH 1/4" LETTERING.
4. EQUIPMENT
A. NO "WAFER" OR "PIGGYBACK" BREAKERS PERMITTED.
B. A/C AIR HANDLER AND CONDENSING UNIT CIRCUIT BREAKERS MUST BE UL LISTED AS "HACR" RATED IN ORDER TO USE NON-AUTO DISCONNECTS AT HVAC EQUIPMENT. BRANCH CIRCUIT BREAKERS AT DISTRIBUTION PANEL SHALL BE INSTALLED IN ACCORDANCE WITH THE EQUIPMENT NAME PLATE REQUIREMENTS.
C. ELECTRICAL EQUIPMENT SHALL BE IDENTIFIED USING ENGRAVED, LAMINATED ACRYLIC OR MELAMINE LABELS PREPUNCHED OR PREDRILLED FOR RIVETING TO EQUIPMENT. WHITE LETTERS ON A DARK GRAY BACKGROUND WITH MINIMUM LETTER SIZE TO BE 3/8".
ALL EQUIPMENT LISTED AS NEMA 1 OR LOCATED INSIDE OF BUILDING/STRUCTURE (NOT IN A CLASSIFIED AREA) SHALL HAVE IDENTIFICATION LABEL RIVETED TO ENCLOSURE. LABEL SHALL BE AS ABOVE EXCEPT WITH MINIMUM 1/2" LETTER HEIGHT.
ALL EQUIPMENT LISTED OTHER NEMA 1 SHALL HAVE STENCIL TYPE LABEL PAINTED ONTO ENCLOSURE. LETTERING TO BE 1" (MINIMUM) IN HEIGHT AND BE OF CONTRASTING COLOR OF ENCLOSURE.
D. PANEL SCHEDULES SHALL BE MACHINE PRINTED WITH EACH CIRCUIT CLEARLY IDENTIFIED. THE SCHEDULE SHALL (AT MINIMUM) CONTAIN THE FOLLOWING INFORMATION: CIRCUIT DESIGNATION (INCLUDING "SPARE" OR "SPACE"); PANEL DESIGNATION; SERVICE/FEEDER ORIGIN; SIZE OF SERVICE/FEEDER CONDUCTORS; VOLTAGE; PHASE; AND BUS SIZE.
THE ELECTRICAL CONTRACTOR SHALL UPDATE THE DIRECTORY OF ANY EXISTING PANEL BEING USED FOR THIS RENOVATION. THE NEW DIRECTORY SHALL INCLUDE ALL INFORMATION AS PREVIOUSLY REFERENCED AND SHALL INCLUDE ACCURATE BRANCH CIRCUIT DESCRIPTIONS OF EXISTING BRANCH CIRCUITS. THE ELECTRICAL CONTRACTOR SHALL TRACE EXISTING CIRCUITRY AS NECESSARY TO PROVIDE THE NEW AND ACCURATE DIRECTORY.
E. WHERE PROVIDED, SURGE SUPPRESSORS SHALL BE INSTALLED SUCH THAT THE CONDUCTORS BETWEEN THEIR POINT OF CONNECTION AND THE SURGE SUPPRESSOR SHALL NOT EXCEED 18" IN LENGTH OR PER THE MANUFACTURER'S INSTRUCTIONS, WHICHEVER IS LESS. THE CONTRACTOR SHALL RELOCATE SURGE SUPPRESSORS, THE SUPPLYING BRANCH CIRCUIT BREAKER, OR BOTH SO AS TO SATISFY THIS REQUIREMENT.
F. SEE THE PANEL SCHEDULES FOR THE AIC RATING REQUIRED AT EACH PANEL. IF NOT INDICATED, THE AIC RATING OF BRANCH CIRCUIT BREAKERS SHALL BE 10,000 AMPS (THE MINIMUM RATING AVAILABLE) FOR MAIN LUG PANELS. FOR THE PURPOSES OF THESE PLANS, THE EQUIPMENT IS TO BE FULLY RATED.
G. ALL NEMA 1 PANELS SPECIFIED TO BE "PANEL BOARD" CONSTRUCTION SHALL BE PROVIDED WITH DOOR TYPE COVERS. THE FRONT COVER SHALL BE HINGED WITH CONTINUOUS PIANO HINGES AND LOCKING LATCHES FOR BOTH THE INTERIOR AND EXTERIOR DOOR.
H. UNO, ALL BUSSING (INCLUDING GROUND AND NEUTRAL BARS) IS TO BE COPPER.
5. WIRING DEVICES
A. WALL SWITCHES SHALL BE DECORA TYPE.
B. RECEPTACLES SHALL BE STANDARD TYPE.
C. ELECTRICAL DEVICES AND COVER PLATES ARE TO BE WHITE IN COLOR.
D. COVER PLATES FOR ELECTRICAL DEVICES ARE TO BE:
a. DEVICE COVER PLATES TO BE UNBREAKABLE NYLON SAME MFGR AS DEVICE.
(2) VERIFY ROUGH-IN LOCATIONS, TYPE OF CONNECTION, AND AMPACITY REQUIRED FROM APPLICABLE EQUIPMENT DRAWINGS PRIOR TO INSTALLING ANY CONDUIT, CONDUCTORS, OR BOXES. THIS EQUIPMENT IS FURNISHED AND PHYSICALLY INSTALLED BY "OTHERS", ALL ELECTRICAL CONNECTIONS EXTERNAL TO THE EQUIPMENT SHALL BE MADE BY THE ELECTRICAL CONTRACTOR. WIRE, CONDUIT, LUGS, RECEPTACLES, PIG TAILS, DISCONNECTS, AND ETC., AS MAY BE REQUIRED SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. \*\*NOTE: INCLUDE WORSE CONDITION IN FRING.

SPECIFIC NOTES

- (2) VERIFY ROUGH-IN LOCATIONS, TYPE OF CONNECTION, AND AMPACITY REQUIRED FROM APPLICABLE EQUIPMENT DRAWINGS PRIOR TO INSTALLING ANY CONDUIT, CONDUCTORS, OR BOXES. THIS EQUIPMENT IS FURNISHED AND PHYSICALLY INSTALLED BY "OTHERS", ALL ELECTRICAL CONNECTIONS EXTERNAL TO THE EQUIPMENT SHALL BE MADE BY THE ELECTRICAL CONTRACTOR. WIRE, CONDUIT, LUGS, RECEPTACLES, PIG TAILS, DISCONNECTS, AND ETC., AS MAY BE REQUIRED SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. \*\*NOTE: INCLUDE WORSE CONDITION IN FRING.

LIGHT FIXTURE SCHEDULE

Table with columns: TYPE, DESCRIPTION, LUMENS, POWER (VA), CCT (°K), VOLTAGE (V), MANUFACTURER, MODEL. Includes items A through X5.

NOTES

- 1. STARTUP AND COMMISSIONING OF ALL LIGHTING SYSTEM CONTROLS (DIMMING & OCCUPANCY SENSORS) SHALL BE PERFORMED BY FACTORY TRAINED PERSONNEL WHO ARE FAMILIAR WITH THE OPERATION OF THE RESPECTIVE SYSTEMS...
2. CONTRACTOR TO PROVIDE PRICING BASED UPON THE SPECIFIED LIGHT FIXTURES. ALTERNATE FIXTURES WILL BE CONSIDERED DURING THE NORMAL COURSE OF SHOP DRAWING REVIEW...

ELECTRICAL SYMBOL LEGEND

- RECESSED/SURFACE MOUNTED LIGHT FIXTURE
CEILING MOUNT LIGHT FIXTURE: DOWNLIGHT, CYLINDER, PENDANT, ETC.
EXIT LIGHT FIXTURE, MOUNT SUCH THAT TOP OF THE SIGN IS NO HIGHER THAN 6"8" ABOVE THE DOOR.
EMERGENCY LIGHT FIXTURE
COMBINATION EMERGENCY LIGHT AND EXIT LIGHT FIXTURE

ABBREVIATIONS

Table mapping electrical symbols to abbreviations and descriptions. Includes A/C AIR CONDITIONING, AC ALTERNATING CURRENT, AFF/G ABOVE FINISH FLOOR/GRADE, etc.

LINE VOLTAGE LIGHTING CONTROLS

- WALL BOX MOUNT MOTION DETECTOR CONTROL, 20A, 120/277 VAC (AS REQUIRED). (X) DENOTES TECHNOLOGY. INSTALL AT 48" AFF TO C.L. (U.N.O.). CONFIGURE SUCH THAT SWITCH IS MANUAL ON (PUSHBUTTON) AND AUTO OFF (SENSOR).
R - INFRA-RED SENSORSWITCH #WSX-SA
D - 1/R & MICROPHONIC - SENSORSWITCH #WSX-PDT-SA
F - INFRA-RED WITH (2) POLES OF SWITCHING (FAN/LIGHT); CONFIGURE FAN POLE TO REMAIN ON FOR 15 MINUTES MINIMUM; LIGHT POLE MAY BE TURNED OFF MANUALLY OR BY VACANCY - SENSORSWITCH #WSX-2P-FAN

LOW VOLTAGE LIGHTING CONTROLS

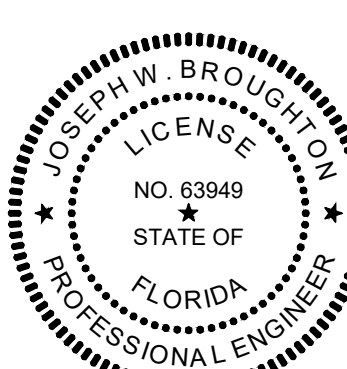
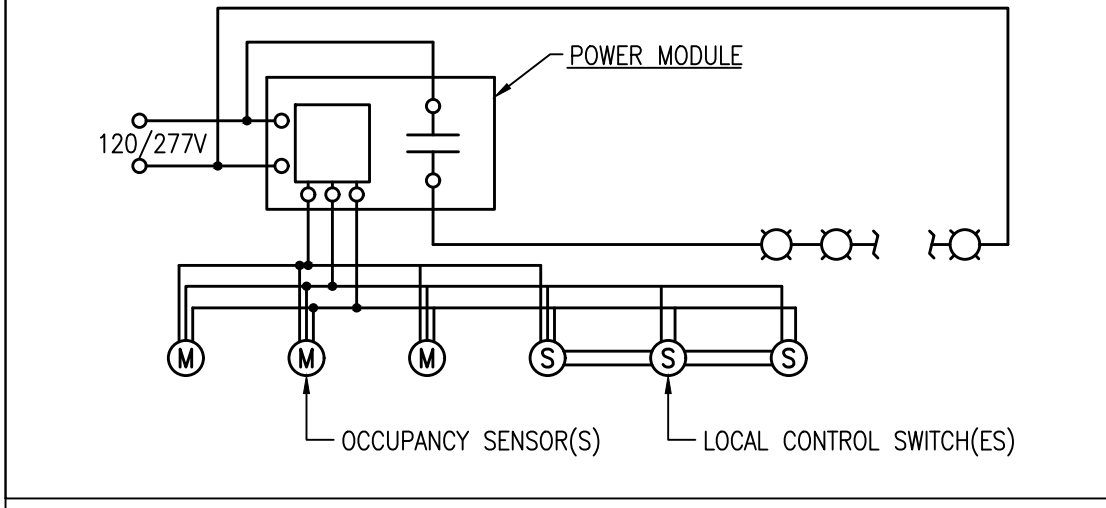
- LOW VOLTAGE CEILING MOUNTED OCCUPANCY SENSOR. REQUIRES USE OF SENSORSWITCH PP20 SERIES POWER PACK. (X) DENOTES TECHNOLOGY:
R - 450 sf INFRA-RED - SENSORSWITCH #CM-9
D10 - 2400 sf INFRA-RED - SENSORSWITCH #CM-10
D - 450 sf 1/R & MICROPHONIC - SENSORSWITCH #CM-PDT-9
R10 - 2400 sf 1/R & MICROPHONIC - SENSORSWITCH #CM-PDT-10
RH - HIGHBAY ISLE INFRA-RED - SENSORSWITCH #MMSO
RH - HIGHBAY INFRA-RED - SENSORSWITCH #CM6
20 AMP POWER MODULE FOR USE WITH LOW VOLTAGE OCCUPANCY SENSORS. "X" DENOTES NUMBER OF RELAYS:
R - SINGLE RELAY - SENSORSWITCH #PP20
R2 - TWO RELAYS - SENSORSWITCH #PP20-2P
E - UL924 EMERGENCY RELAY, 16 AMP, 120/277 VOLT - SENSORSWITCH #PP16SHUNT-EFP
LOW VOLTAGE WALL SWITCH FOR USE WITH OCCUPANCY SENSOR'S MANUAL ON AND AUTO OFF FUNCTION. - SENSORSWITCH SPOD SERIES. PROVIDE CONFIGURATIONS (INCLUDING MULTI-LOCATION CONTROL) AS REQUIRED BY PLANS. (#) DENOTES NUMBER OF ZONES CONTROLLED BY SWITCH: BLANK=1, 2, OR 4. (X) DENOTES CONTROL TYPE: BLANK=ON/OFF ONLY, D=ON/OFF/RAISE/LOWER, S=SCENE CONTROL WITH ON/OFF/RAISE/LOWER FOR EACH SCENE.

NOTES & LINEWORK

- A-1,3,5 - PANEL AND CIRCUIT NUMBER DESIGNATION.
A-1 LIGHT FIXTURE DESIGNATION LEGEND:
A-1 PANEL/CIRCUIT DESIGNATION
o/a/b SWITCHING CONTROL DESIGNATION
C FIXTURE DESIGNATION (SEE SCHEDULE)
EM/EX FIXTURE DESIGNATION (SEE SCHEDULE)
NL INDICATES 24 HOUR OPERATION SWITCHED AT PANEL. PROVIDE BREAKER RATED FOR SWITCHING DUTY.
SPECIFIC NOTE RELATIVE TO SINGLE CALL OUT, SEE SPECIFIC NOTE LEGEND, THESE NOTES ARE PROJECT WIDE.
KEY NOTE, SEE KEY NOTES ON EACH SHEET, THESE NOTES ARE ONLY APPLICABLE TO THOSE SHEETS ON WHICH THEY APPEAR.
CONDUIT RUN (CONCEALED)
CONDUIT RUN (IN SLAB OR GRADE)
LOW VOLTAGE WIRING

ELECTRICAL DEVICES

- RECEPTACLE, WALL DUPLEX, 120V, SPECIFICATION GRADE, 20 AMP. INSTALL AT 18" AFF TO C.L. (U.N.O.).
GFCI TYPE RECEPTACLE, WALL DUPLEX, 120V, SPECIFICATION GRADE, 20 AMP. INSTALL AT 18" AFF TO C.L. (U.N.O.).
RECEPTACLE, WALL DOUBLE DUPLEX, 120V, SPECIFICATION GRADE, 20 AMP. INSTALL AT 18" AFF TO C.L. (U.N.O.).
"WP" SIGNIFIES A WEATHERPROOF WEATHER RESISTANT GFCI RECEPTACLE, WALL DUPLEX, 120 VAC, SPECIFICATION GRADE, 20 AMP. UNO, PROVIDE WITH A METALLIC, "EXTRA DUTY", IN-USE TYPE, WET LOCATION LISTED COVER PLATE.
RECEPTACLE, WALL MOUNTED, SPECIAL PURPOSE, 24V, AMPACITY RATING TO MATCH BRANCH CIRCUIT. (VERIFY HEIGHT)
MOTOR DISCONNECT SWITCH, DEAD FRONT MOLDED CASE SWITCH (IF 60 AMPS OR LESS) NON-PROTECTED, NEMA 1 NEMA 3R AS REQUIRED.
POWER PANEL (FLUSH/SURFACE) SEE SCHEDULES
EXHAUST FAN. IF NOT ON FIXTURE SCHEDULE, FAN PROVIDED AND INSTALLED BY MECHANICAL, CONNECTED BY ELECTRICAL.

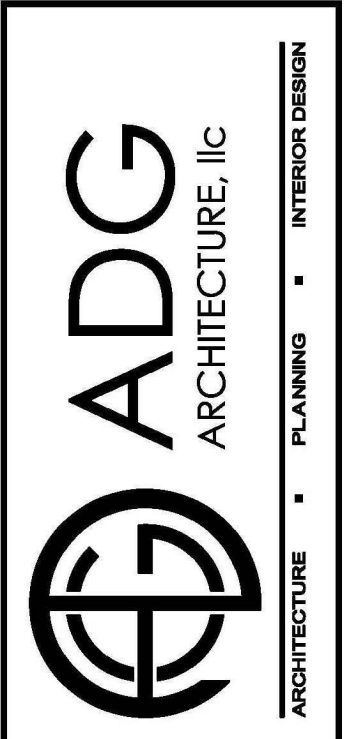


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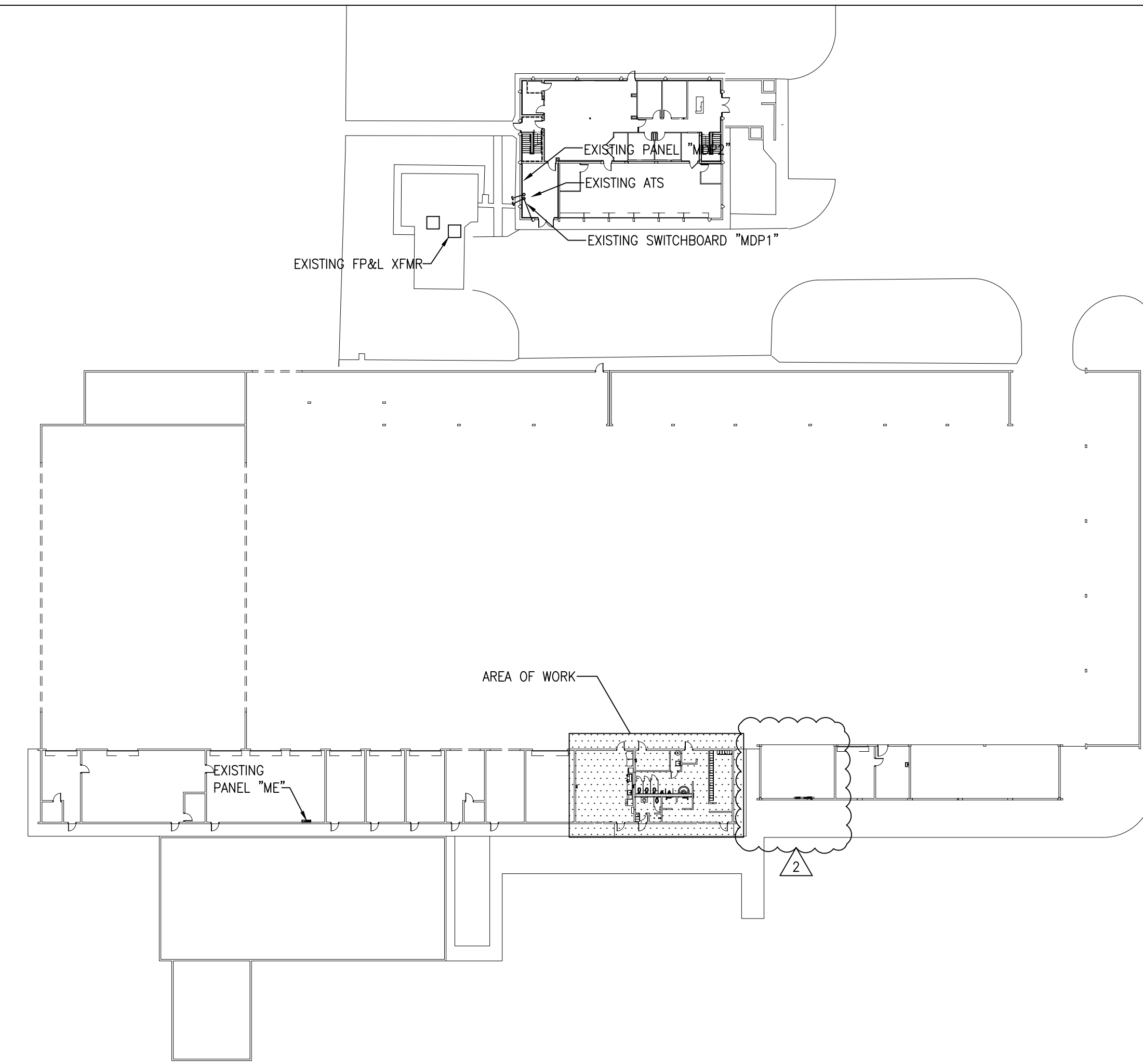
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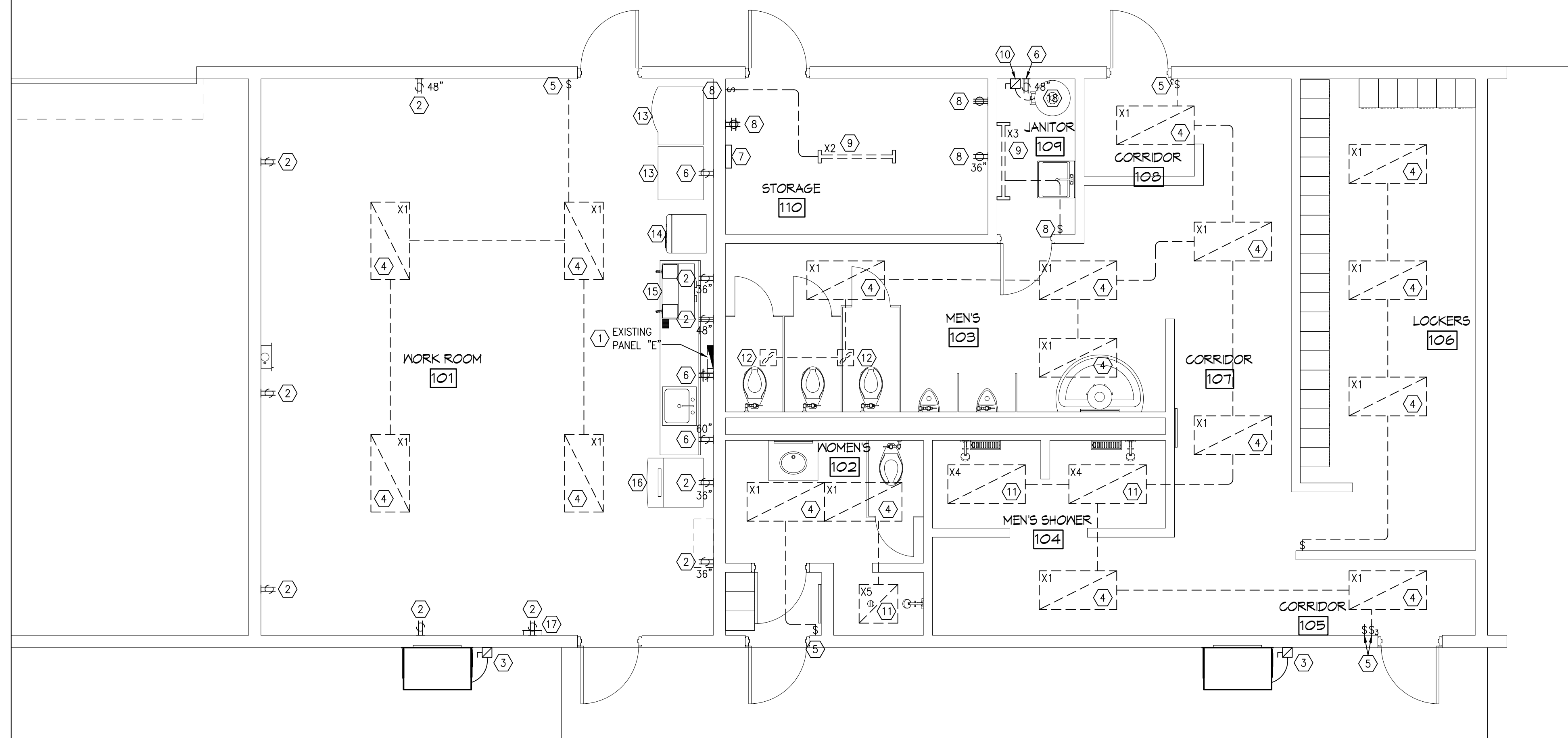
**ELECTRICAL KEYNOTES**

1. EXISTING PANEL TO BE REMOVED.
2. EXISTING DEVICE TO BE REMOVED AND WILL BE REPLACED WITH NEW IN NEW WALL IN SAME RELATIVE LOCATION.
3. EXISTING HVAC UNIT SERVICE DISCONNECT TO REMAIN AND BE REUSED.
4. EXISTING LIGHT FIXTURE IS TO BE REMOVED AND PLACED IN OWNER'S STORAGE. REMOVE ALL ASSOCIATED WIRING TO SOURCE.
5. EXISTING LIGHT SWITCH TO BE REMOVED. REMOVE ALL ASSOCIATED WIRING TO SOURCE.
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9. EXISTING LIGHT FIXTURE IS TO BE REMOVED AND REPLACED WITH NEW.
10. EXISTING WATER HTR SERVICE DISCONNECT TO BE REMOVED AND REINSTALLED IN SAME LOCATION ON FURRED OUT WALL.
11. EXISTING LIGHT FIXTURE IS TO BE REMOVED.
12. EXISTING EF TO BE REMOVED. REMOVE ALL ASSOCIATED WIRING TO SOURCE.
13. EXISTING VENDING MACHINE TO REMAIN AND BE REUSED. CONNECT TO NEW OUTLET PROVIDED.
14. EXISTING REFRIGERATOR TO BE REPLACED WITH NEW. CONNECT TO NEW OUTLET PROVIDED.
15. EXISTING COFFEE MACHINE TO REMAIN AND BE REUSED. CONNECT TO NEW OUTLET PROVIDED.
16. EXISTING ICE MACHINE TO REMAIN AND BE REUSED. CONNECT TO NEW OUTLET PROVIDED.
17. EXISTING TIME CLOCK TO REMAIN AND BE REUSED. CONNECT TO NEW OUTLET PROVIDED.
18. EXISTING WATER HTR TO BE REPLACED WITH NEW.



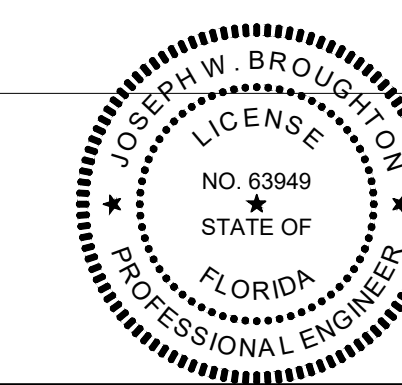
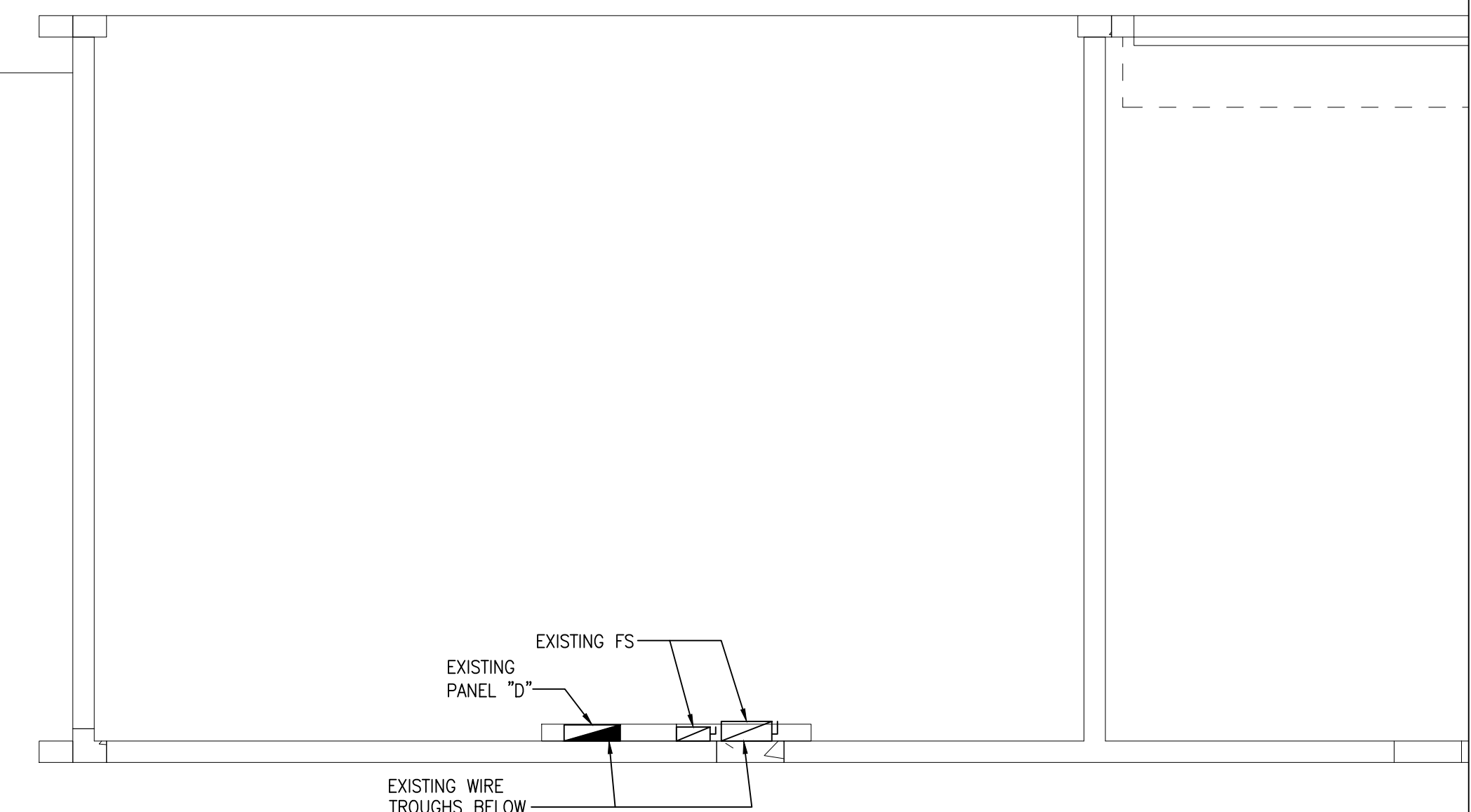
**EXISTING ELECTRICAL SITE PLAN**

SCALE: 1" = 40'-0"



**EXISTING/DEMO ELECTRICAL PLAN**

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



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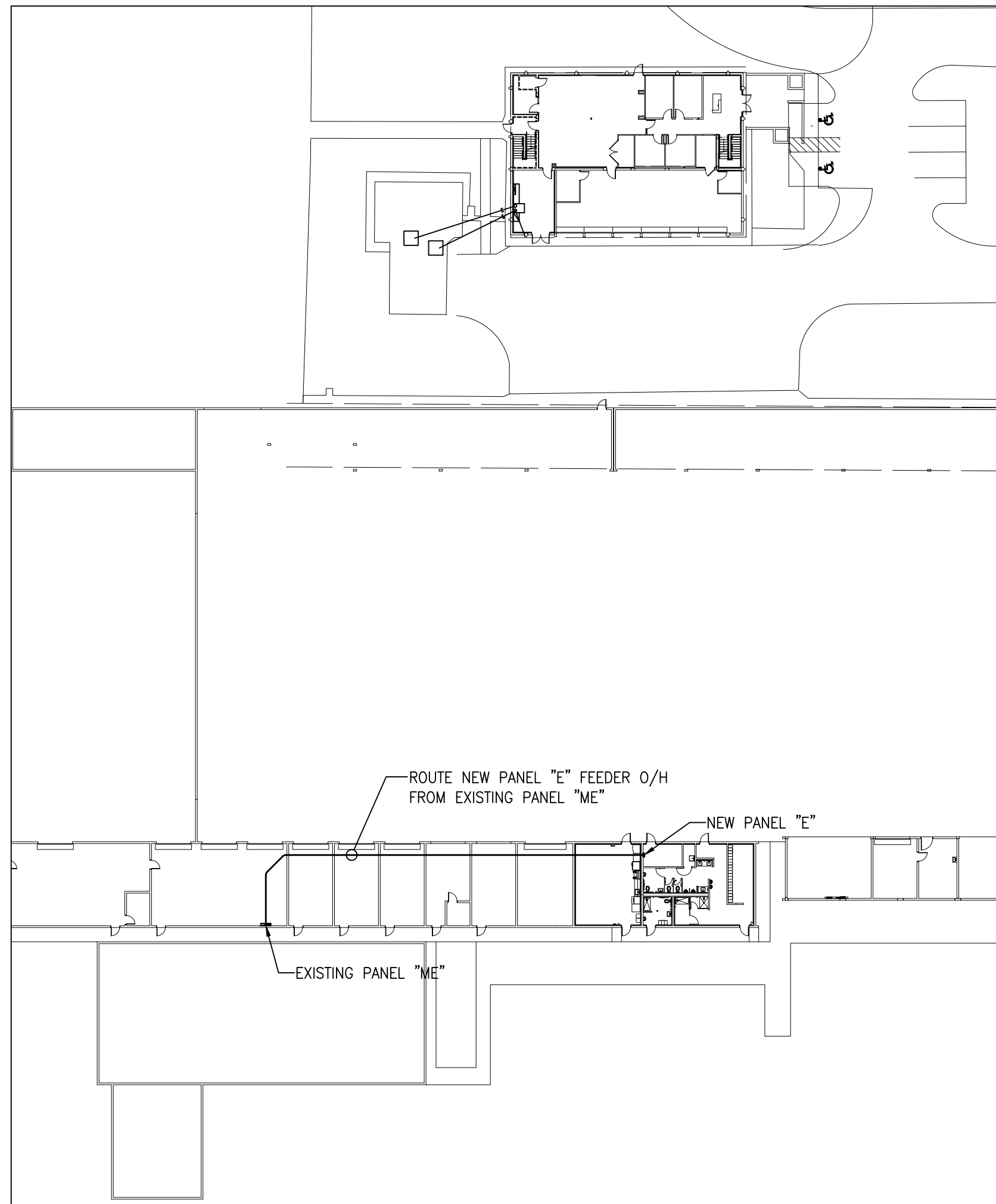
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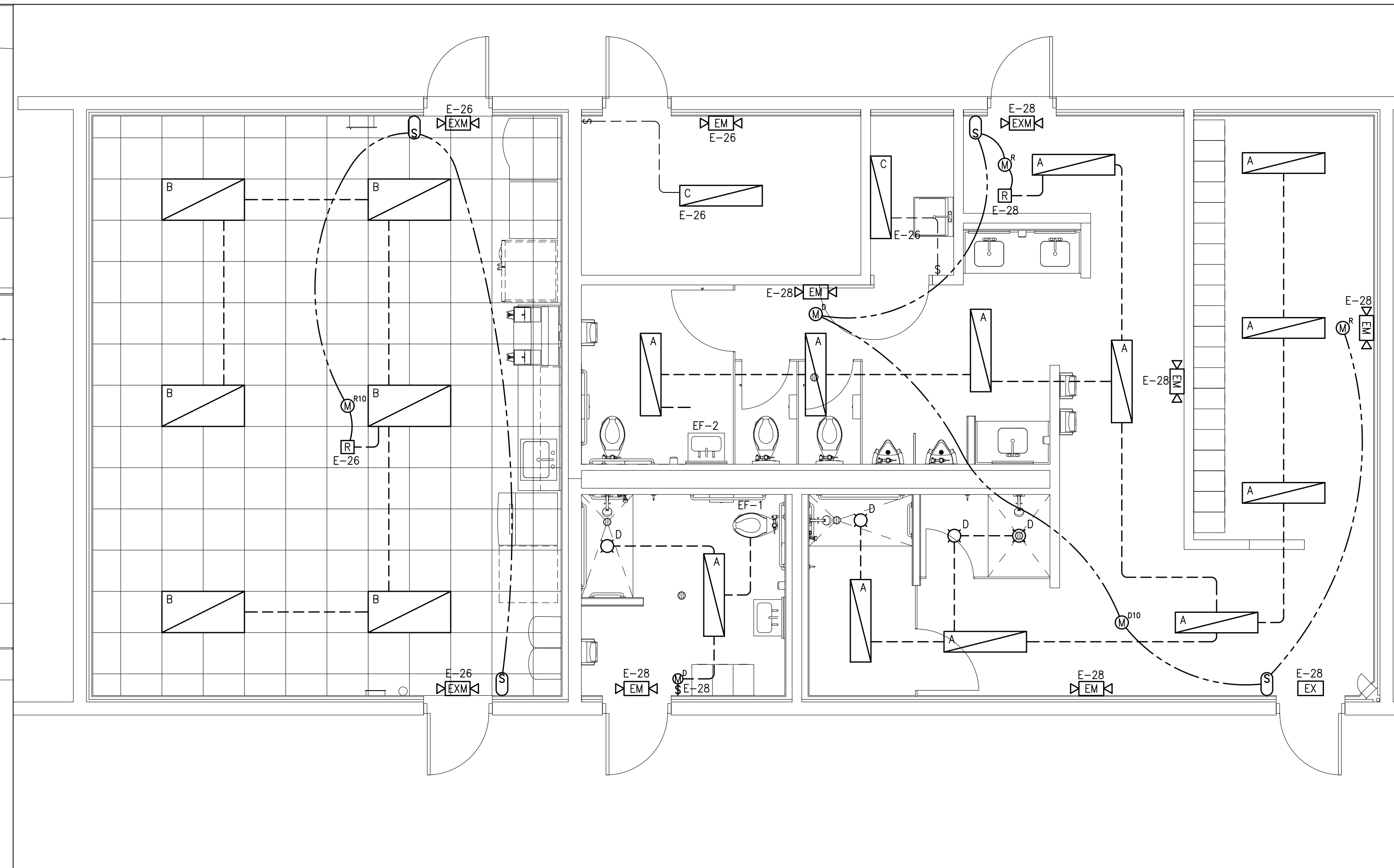
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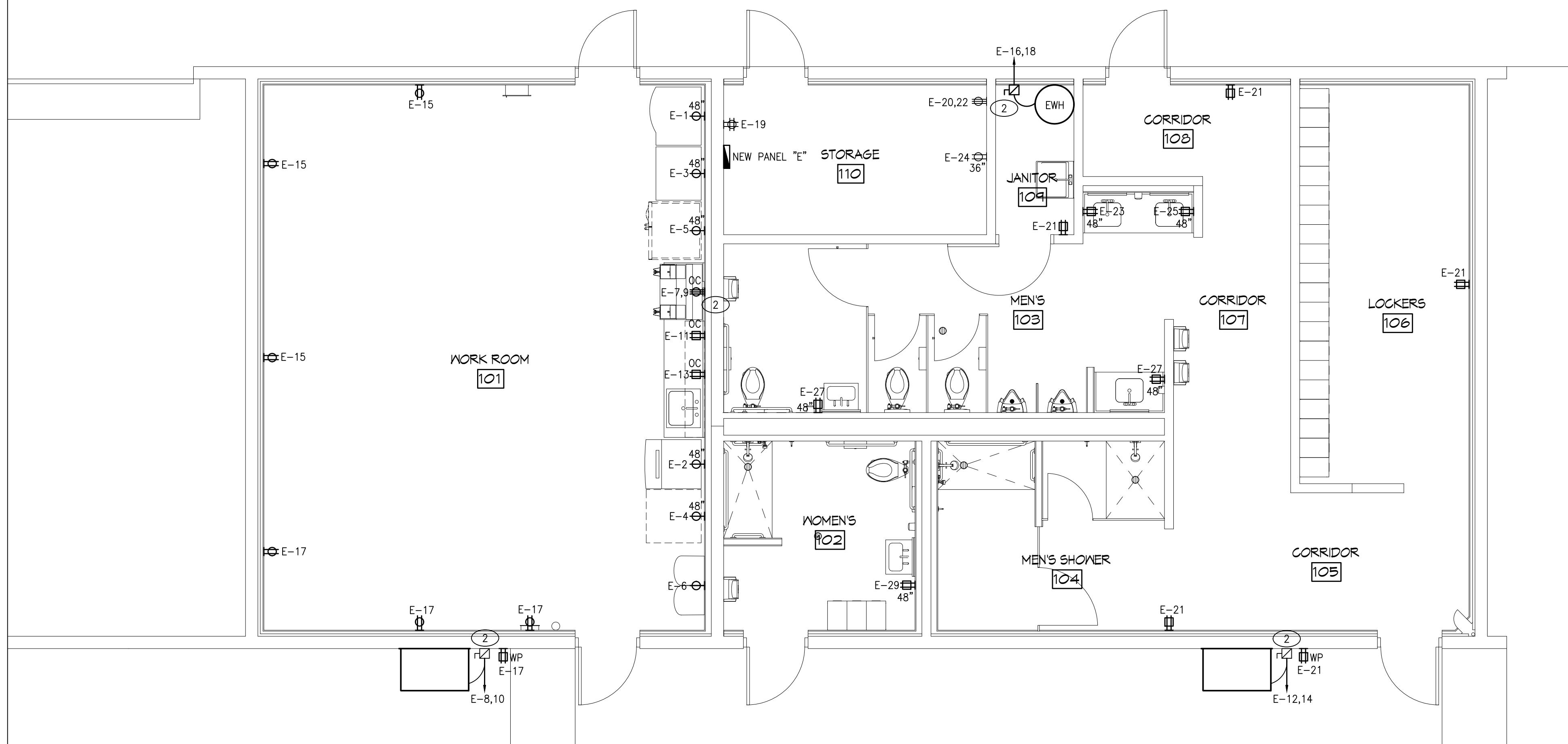
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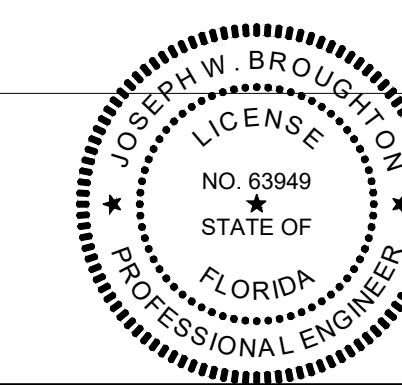
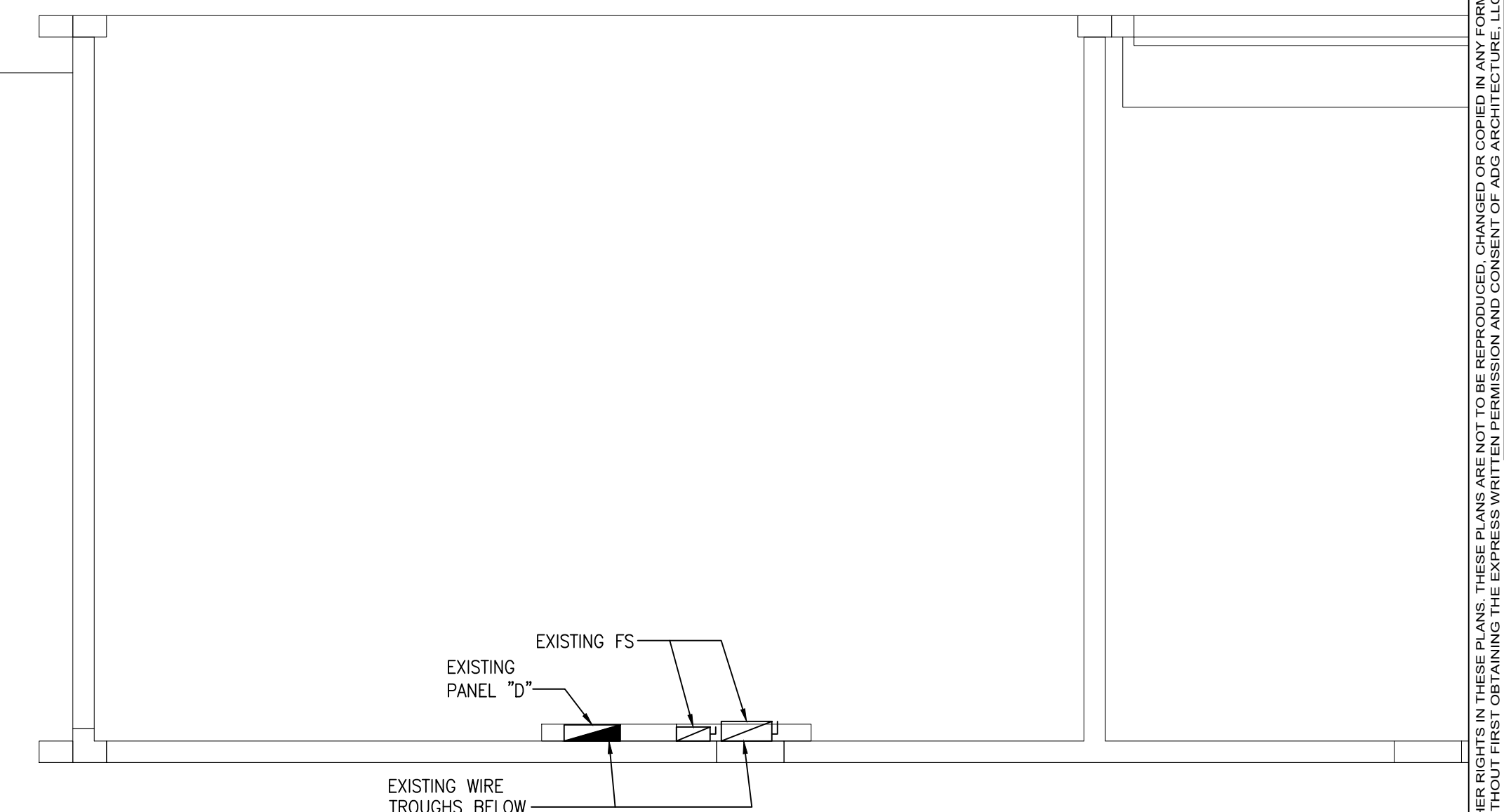
**PARTIAL ELECTRICAL SITE PLAN** SCALE: 1" = 40'-0"



**LIGHTING PLAN** SCALE: 1/4" = 1'-0"



**POWER & SYSTEMS PLAN** SCALE: 1/4" = 1'-0"



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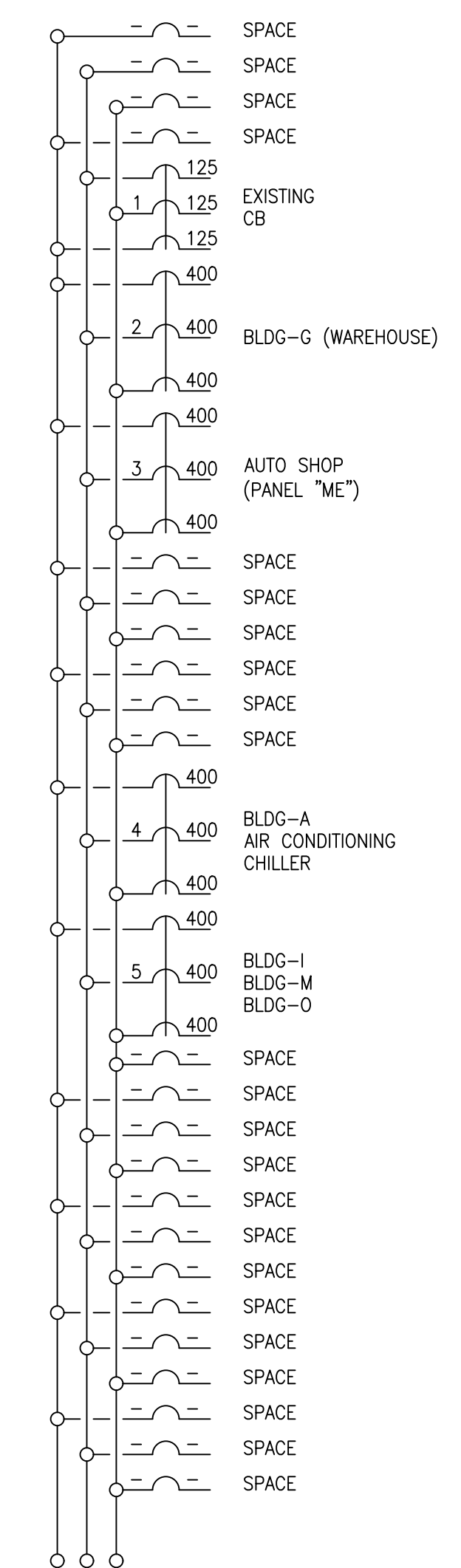
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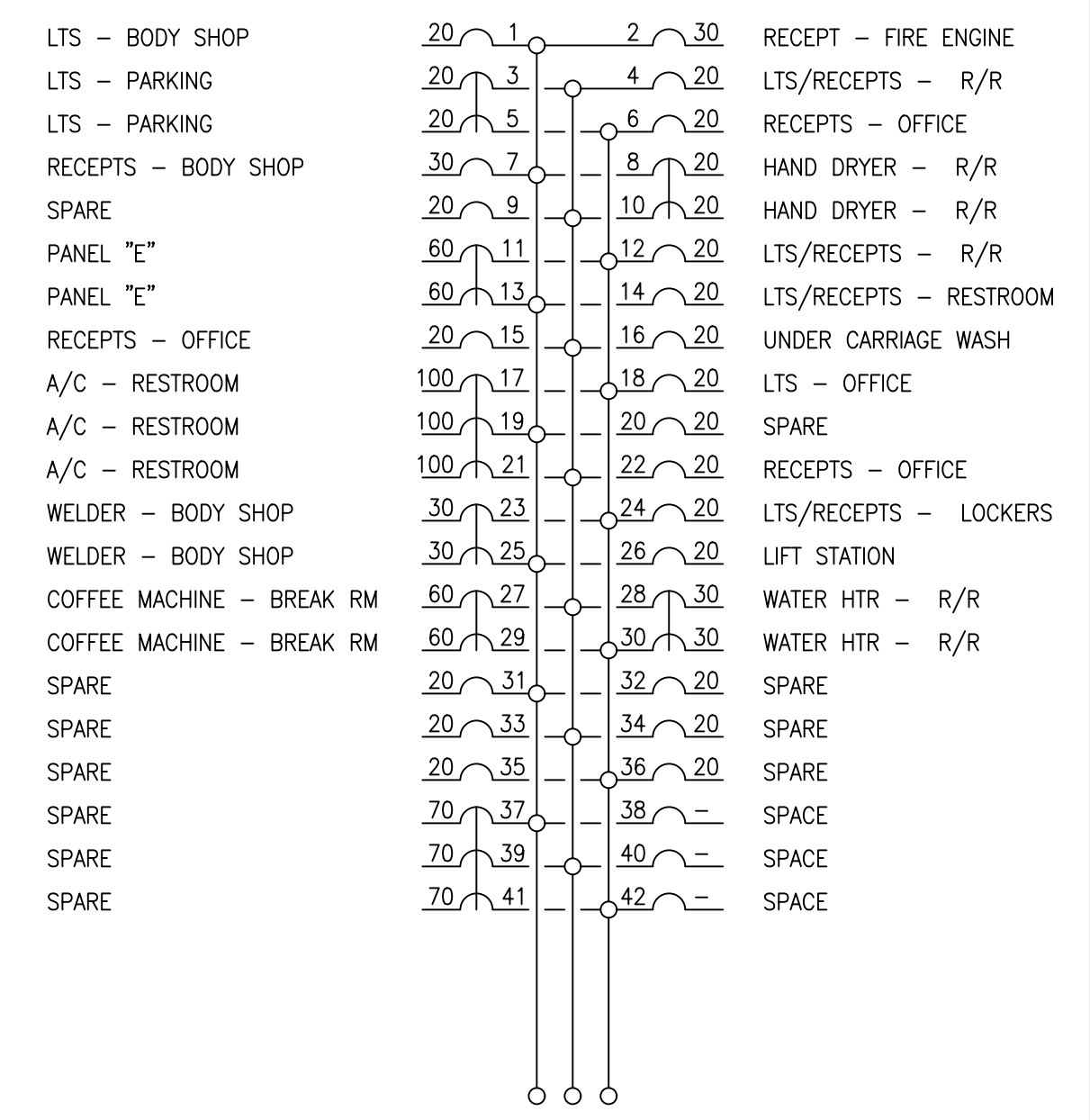
EXISTING PANEL "E"		
CONNECTED LIGHTING LOAD @ 125%	=	3.4 KVA
RECEPTACLES: 2.2 KVA	=	2.2 KVA
(2) VENDING MACHINES	=	2.4 KVA
REFRIGERATOR	=	1.2 KVA
COFFEE MACHINE	=	5.8 KVA
ICE MACHINE	=	0.7 KVA
WATER FILTER	=	1.2 KVA
A/C - WORK ROOM	=	5.9 KVA
A/C - RESTROOMS	=	4.3 KVA
WATER HTR	=	4.5 KVA
CLOTHES DRYER	=	5.0 KVA
CLOTHES WASHER	=	1.2 KVA
	=	37.8 KVA
	(√3 x 208) ÷	360 V
60 AMPS EXISTING	=	104.9 AMPS

NEW PANEL "E"		
CONNECTED LIGHTING LOAD @ 125%	=	1.0 KVA
RECEPTACLES: 3.6 KVA	=	3.6 KVA
(2) VENDING MACHINES	=	2.4 KVA
REFRIGERATOR	=	1.2 KVA
COFFEE MACHINE	=	5.8 KVA
ICE MACHINE	=	0.7 KVA
WATER BOTTLE FILLER	=	1.2 KVA
WATER COOLER	=	0.6 KVA
A/C - WORK ROOM	=	5.9 KVA
A/C - RESTROOMS	=	4.3 KVA
WATER HTR	=	4.5 KVA
CLOTHES DRYER	=	5.0 KVA
CLOTHES WASHER	=	1.2 KVA
	=	37.4 KVA
	(√3 x 208) ÷	360 V
USE 125 AMPS	=	103.8 AMPS

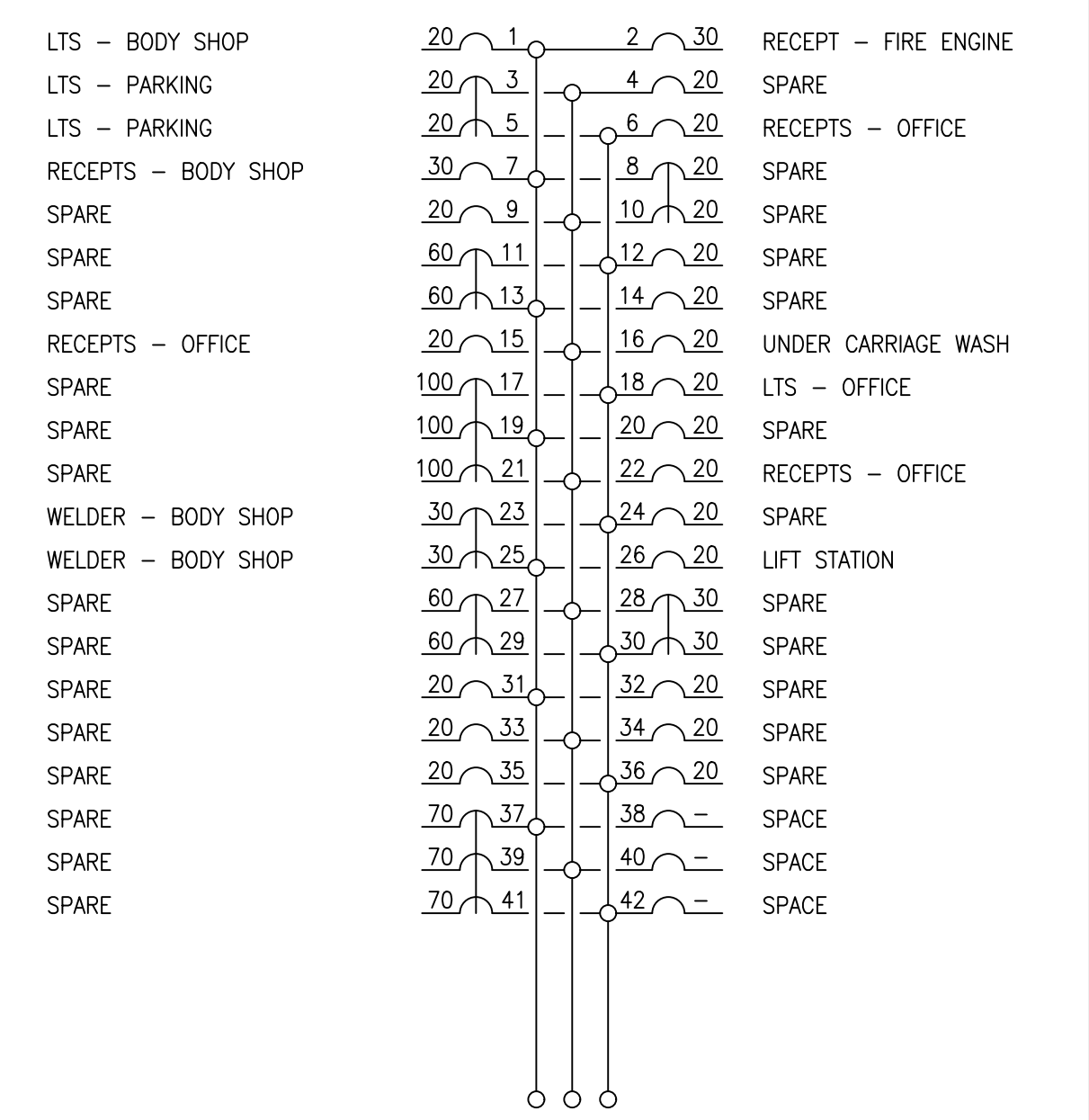
NOTE: THE LOAD ON ALL EXISTING DISTRIBUTION IS BEING REDUCED BY THIS RENOVATION.



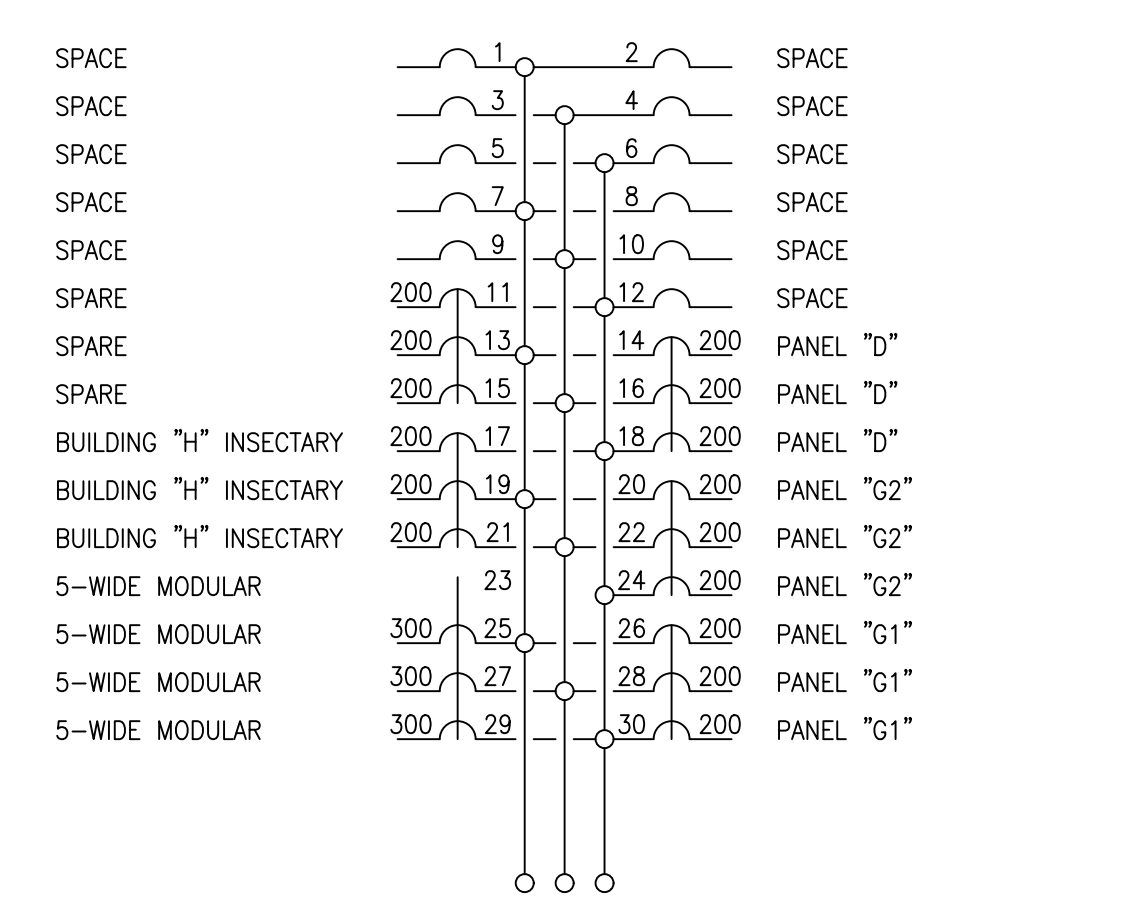
**EXISTING SWBD "MDPI" SCHEDULE**  
 1,600 AMP BUS - MLO - 120/208V - 3 PHASE - S/N  
 SURFACE MOUNTED - NEMA 1 - SWITCH BOARD (SQ-D GED1)  
 WITH COPPER BUS & 63" OF BRANCH BREAKER MOUNTING SPACE



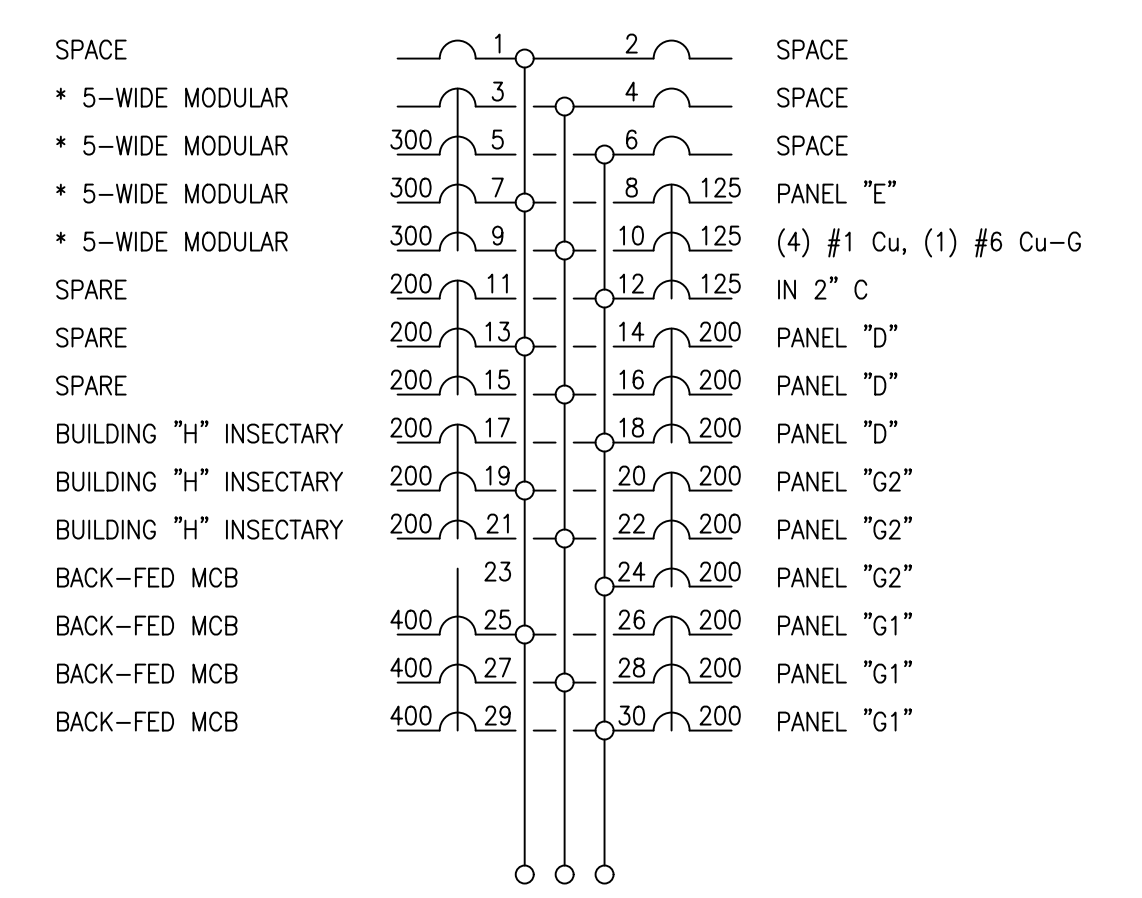
**EXISTING PANEL "D" SCHEDULE**  
 100 AMP BUS - MLO - 120/208V - 3 PHASE - S/N  
 36 CIRCUIT - SURFACE MOUNTED - NEMA 1  
 PANEL BOARD (SQUARE-D NQ00B) WITH COPPER BUS



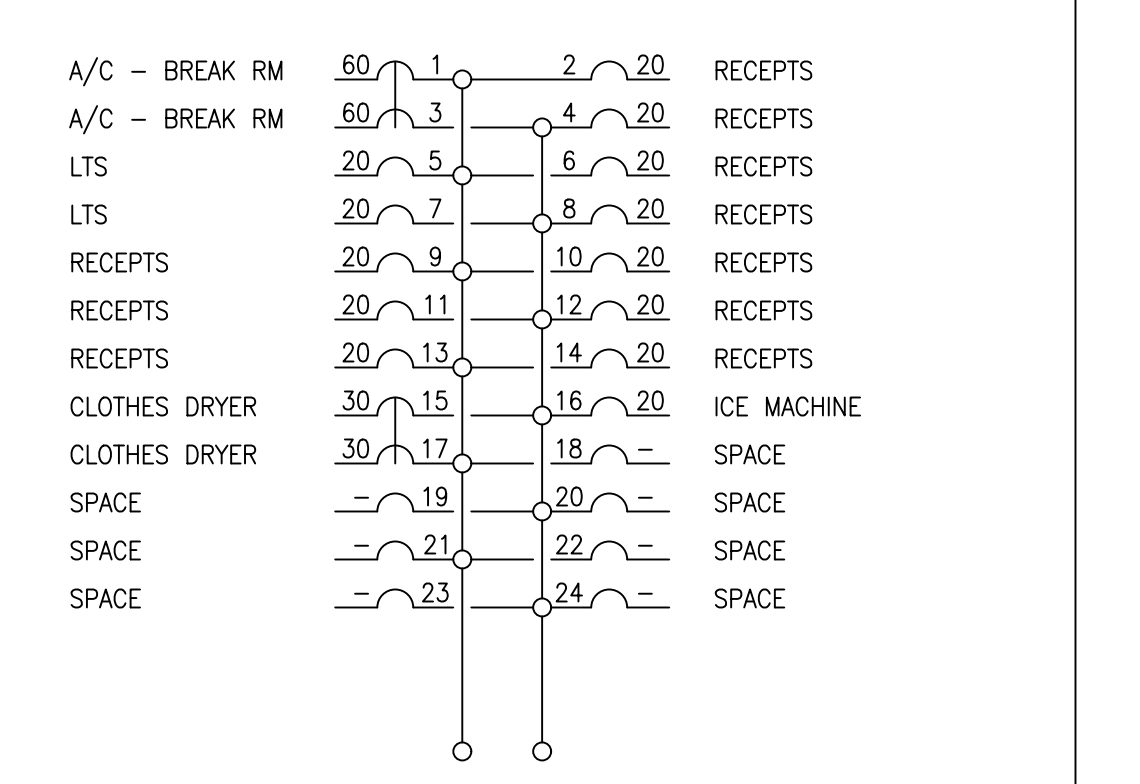
**REWORKED PANEL "D" SCHEDULE**  
 100 AMP BUS - MLO - 120/208V - 3 PHASE - S/N  
 36 CIRCUIT - SURFACE MOUNTED - NEMA 1  
 PANEL BOARD (SQUARE-D NQ00B) WITH COPPER BUS



**EXISTING PANEL "ME" SCHEDULE**  
 400 AMP BUS - MLO - 120/208V - 3 PHASE - S/N  
 SURFACE MOUNTED - NEMA 1  
 PANEL BOARD (SQUARE-D HCP) WITH ALUMINUM BUS & 45" OF BRANCH BREAKER SPACE

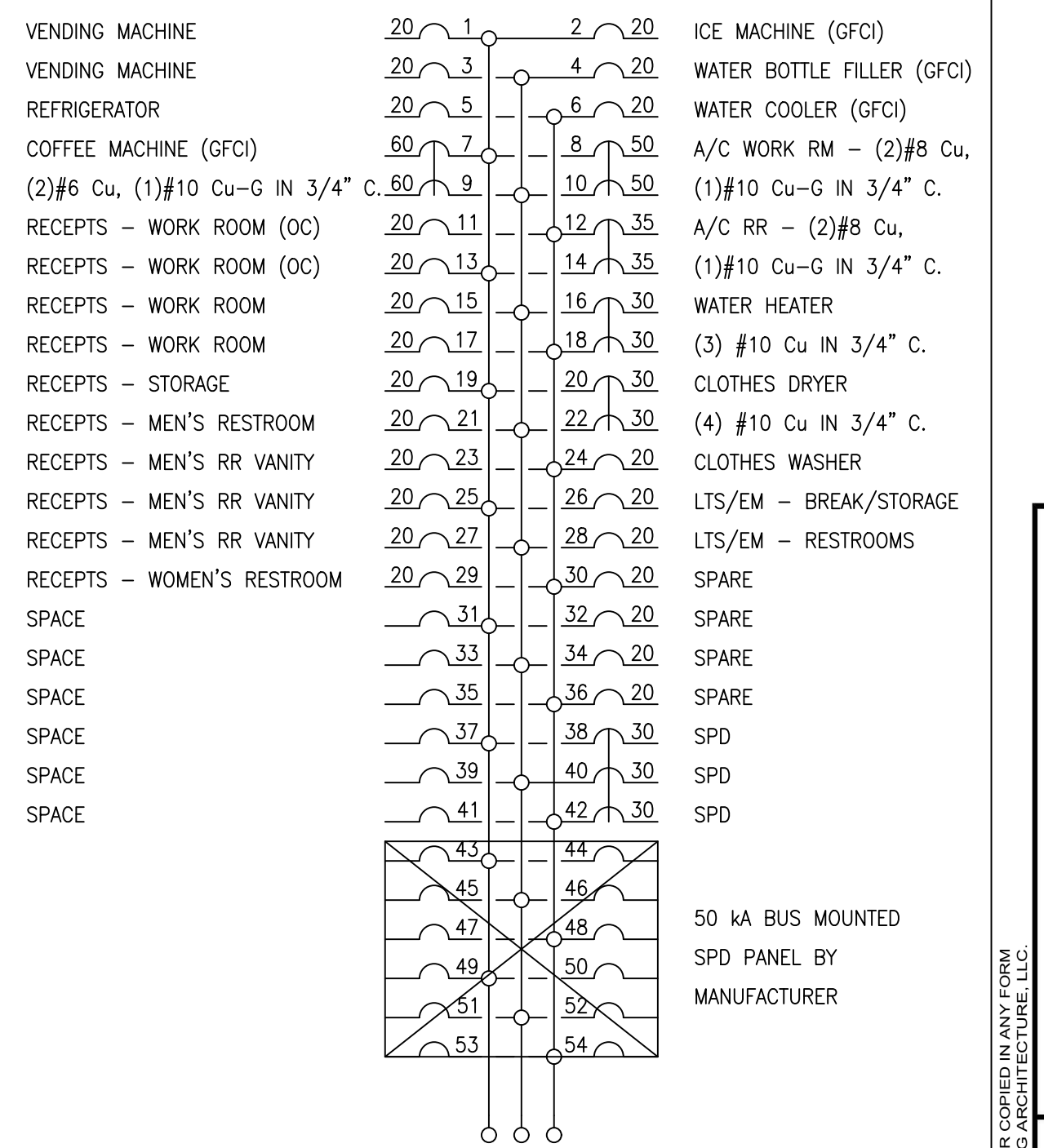


**EXISTING PANEL "ME" SCHEDULE**  
 400 AMP BUS - MLO - 120/208V - 3 PHASE - S/N  
 SURFACE MOUNTED - NEMA 1  
 PANEL BOARD (SQUARE-D HCP) WITH ALUMINUM BUS & 45" OF BRANCH BREAKER SPACE  
 \* RELOCATED CB TO MAKE ROOM FOR NEW MCB



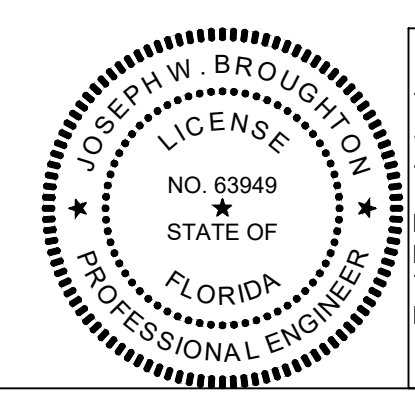
**EXISTING PANEL "E" SCHEDULE**  
 200 AMP BUS - MLO - 120/208V - 1 PHASE - S/N  
 24 CIRCUIT - SURFACE MOUNTED - NEMA 1  
 LOADCENTER (SQUARE-D QO) WITH COPPER BUS

NOTE: THIS PANEL IS BEING REMOVED ENTIRELY, ITS PANEL SCHEDULE IS PROVIDED FOR REFERENCE PURPOSES ONLY.

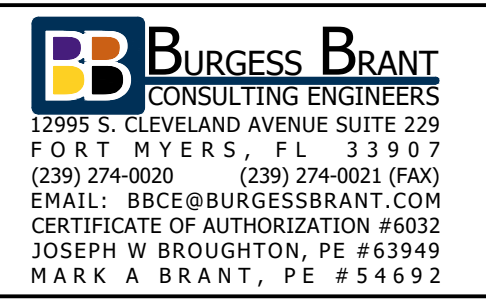


**NEW PANEL "E" SCHEDULE**  
 225 AMP BUS - MLO - 120/208V - 3 PHASE - S/N  
 54 CIRCUIT - SURFACE MOUNTED - NEMA 1  
 PANEL BOARD (SQ-D NQ) WITH COPPER BUS

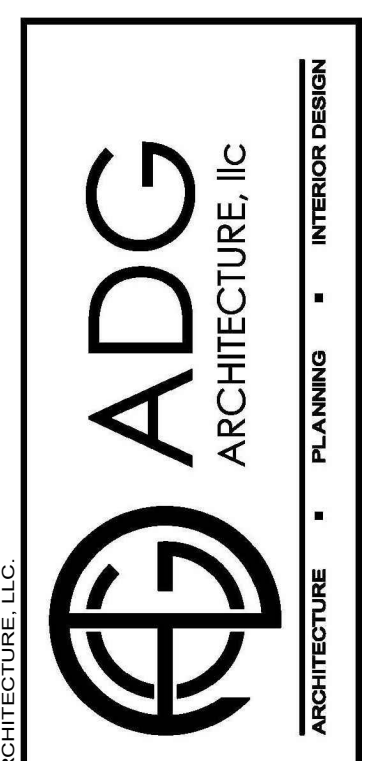
50 KA BUS MOUNTED  
 SPD PANEL BY  
 MANUFACTURER



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LEE COUNTY MOSQUITO CONTROL DISTRICT  
**BUILDING E RENOVATION**  
 15159 HOMESTEAD ROAD  
 LEHIGH ACRES, FL 33971

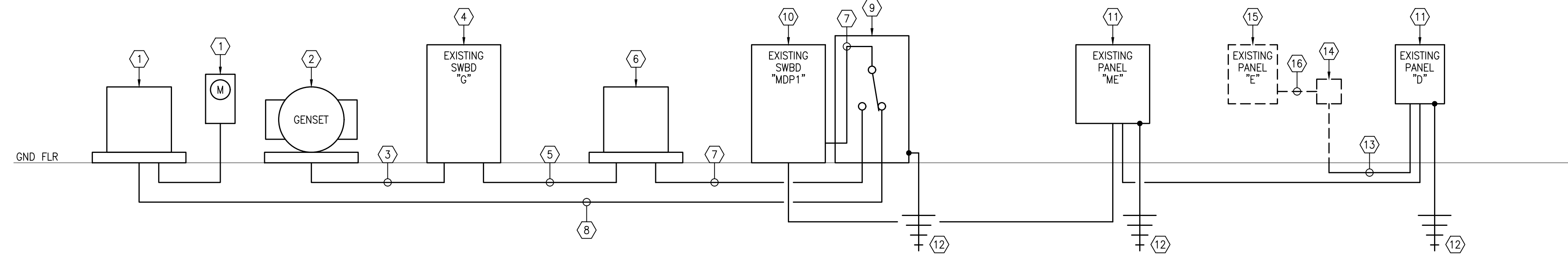


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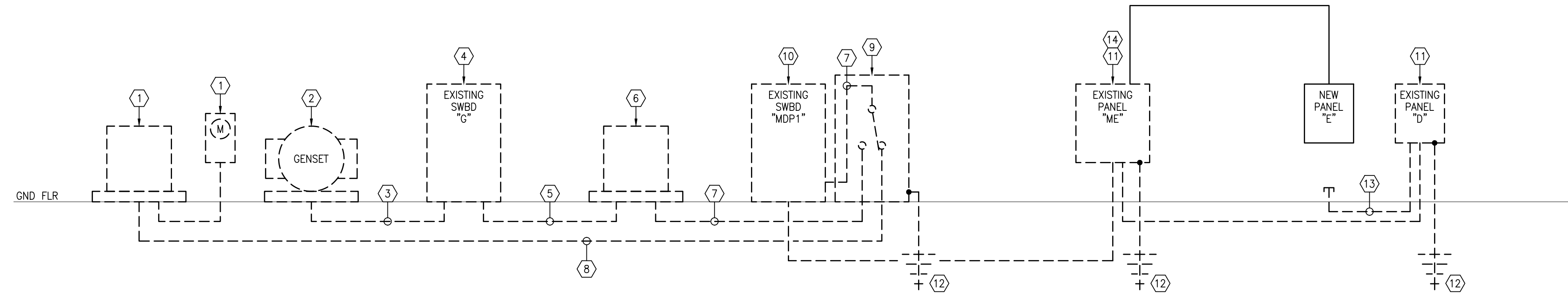


EXISTING POWER RISER DIAGRAM

NOT TO SCALE

EXISTING POWER RISER DIAGRAM KEY NOTES

- EXISTING FP&L PAD TRANSFORMER AND EXISTING C/T METERING IS TO REMAIN.
- EXISTING 277/480 VOLT, 3-PHASE STAND-BY GENERATOR IS TO REMAIN. EXISTING GENERATOR CONTAINS A 1,500 AMP, 3-POLE CB.
- EXISTING PANEL "G" FEEDER IS TO REMAIN. FEEDER IS COMPRISED OF (4) SETS OF #500 kcmil Cu.
- EXISTING PANEL "G" IS TO REMAIN. EXISTING PANEL "G" CONTAINS A 600 AMP, 3-POLE CB FEEDING EXISTING 750 KVA XFMR.
- EXISTING 750 KVA XFMR FEEDER TO REMAIN. FEEDER IS COMPRISED OF (2) SETS OF #350 kcmil Cu.
- EXISTING 750 KVA, 480-120/208 VOLT, 3-PHASE STEP DOWN XFMR IS TO REMAIN.
- EXISTING XFMR SECONDARY FEEDER IS TO REMAIN. FEEDER IS COMPRISED OF (4) SETS OF #600 kcmil Cu.
- EXISTING FP&L SERVICE ENTRANCE IS TO REMAIN. SERVICE IS COMPRISED OF (4) SETS OF #600 kcmil Cu.
- EXISTING 1,600 AMP, 3-POLE AUTOMATIC TRANSFER SWITCH IS TO REMAIN.
- EXISTING SWITCHBOARD IS TO REMAIN.
- EXISTING PANEL IS TO REMAIN.
- EXISTING GROUNDING ELECTRODE SYSTEM IS TO REMAIN.
- EXISTING FEEDER FROM PANEL "D" TO PANEL "E" IS TO BE REMOVED. ADDITIONALLY, ALL EXISTING BRANCH CIRCUITRY ORIGINATING IN PANEL "D" THAT IS BACK-FEEDING TO BUILDING "E" IS TO BE REMOVED. ALL CONDUITS ARE TO BE CUT AND CAPPED AT 6" AFF.
- EXISTING JUNCTION BOX IS TO BE REMOVED AND REPLACED BY NEW PANEL "E". DISCONNECT ALL EXISTING CONDUITS AND CONDUCTORS.
- EXISTING PANEL "E" IS TO BE REMOVED AND REPLACED.
- EXISTING FEEDER IS TO BE REMOVED.



EXISTING POWER RISER DIAGRAM

NOT TO SCALE

REWORKED POWER RISER DIAGRAM KEY NOTES

- EXISTING FP&L PAD TRANSFORMER AND EXISTING C/T METERING.
- EXISTING 277/480 VOLT, 3-PHASE STAND-BY GENERATOR.
- EXISTING PANEL "G" FEEDER.
- EXISTING PANEL "G".
- EXISTING 750 KVA XFMR FEEDER.
- EXISTING 750 KVA, 480-120/208 VOLT, 3-PHASE STEP DOWN XFMR.
- EXISTING XFMR SECONDARY FEEDER.
- EXISTING FP&L SERVICE ENTRANCE.
- EXISTING 1,600 AMP, 3-POLE AUTOMATIC TRANSFER SWITCH.
- EXISTING SWITCHBOARD.
- EXISTING PANEL.
- EXISTING GROUNDING ELECTRODE SYSTEM.
- EMPTY CONDUIT CAPPED AT 6" AFF.
- RELOCATE CB'S WITHIN PANEL PER SCHEDULE TO CHANGE PANEL TO MAIN CIRCUIT BREAKER TYPE AND ALLOW FEEDING ON NEW PANEL "E".

LEE COUNTY MOSQUITO CONTROL DISTRICT  
 BUILDING E RENOVATION  
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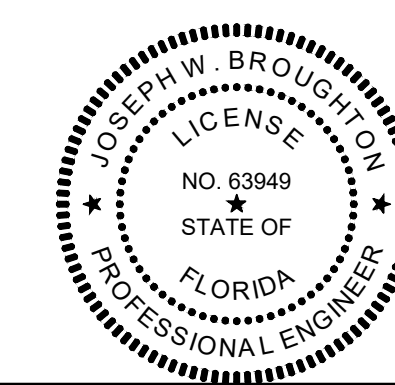
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