

CONSTRUCTION DOCUMENTS

**810 JASONWAY AVE.
BACKUP GENERATOR INSTALLATION**

JUNE 2, 2009

PREPARED FOR:

COLUMBUS ONCOLOGY & HEMATOLOGY ASSOCIATES, INC.
810 JASONWAY AVE., COLUMBUS, OHIO 43214

PREPARED BY:

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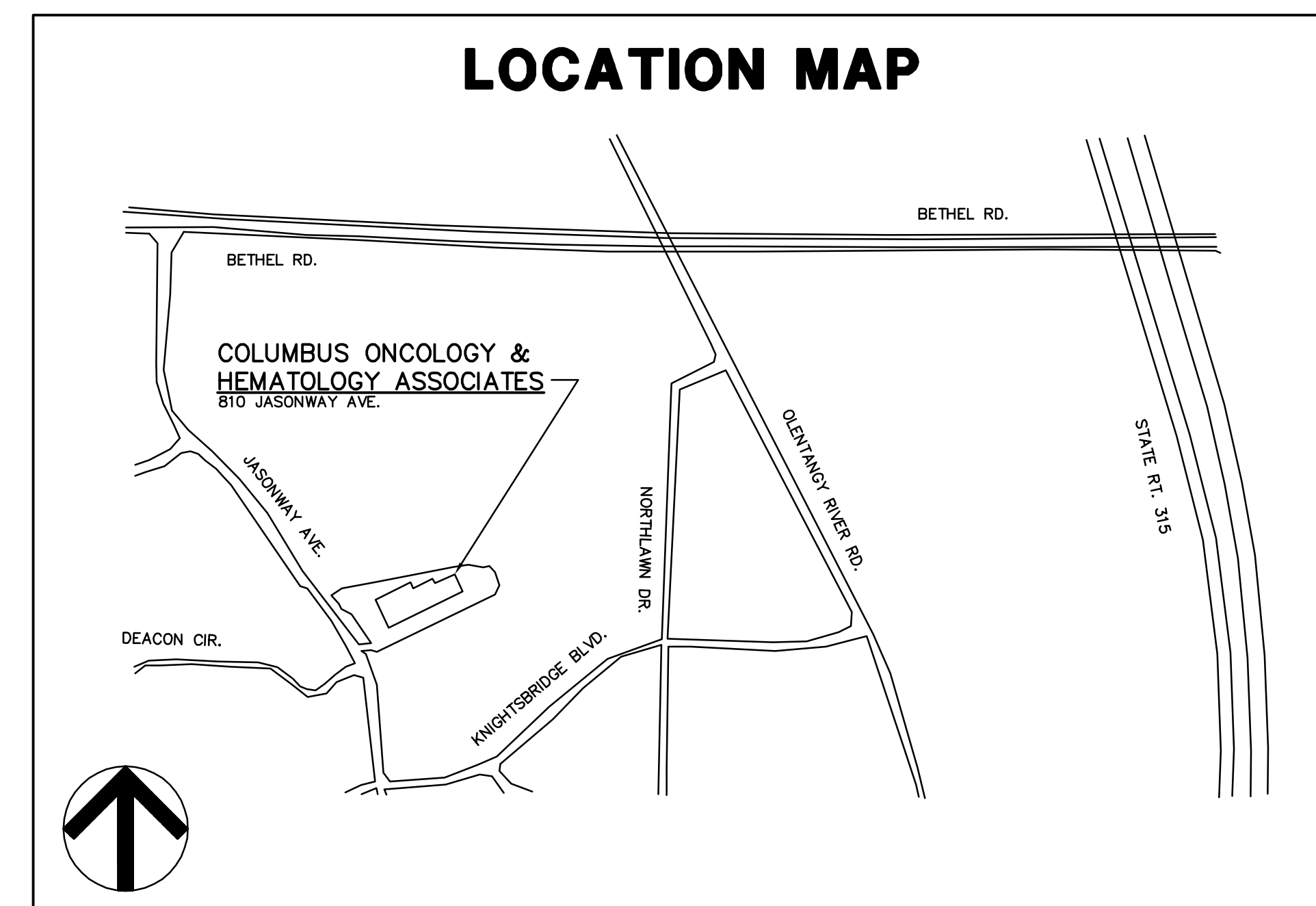
CODE INFORMATION

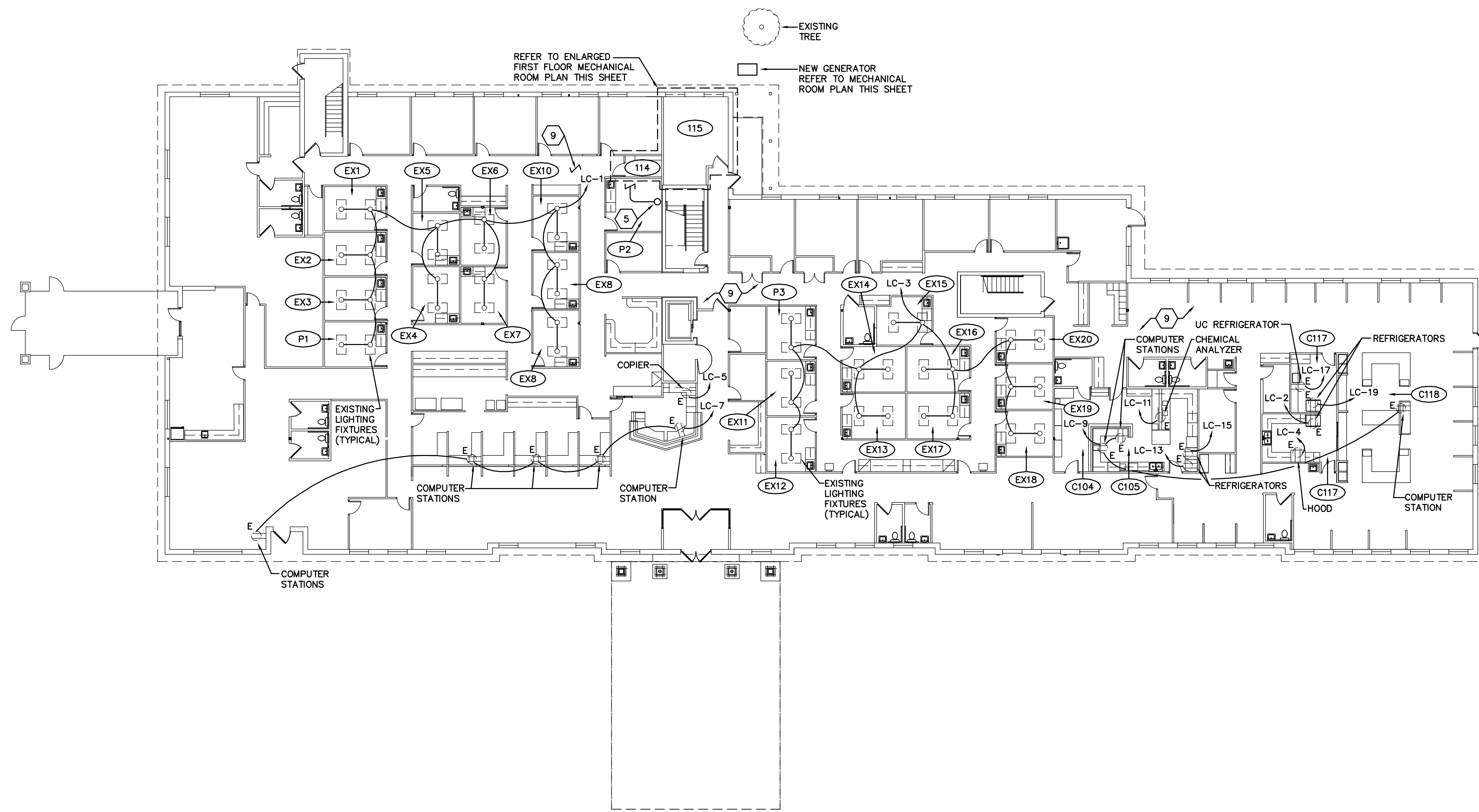
USE GROUP: B
SCOPE OF WORK: INSTALLATION OF BACKUP GENERATOR
AND ASSOCIATED CIRCUITRY

DRAWING INDEX

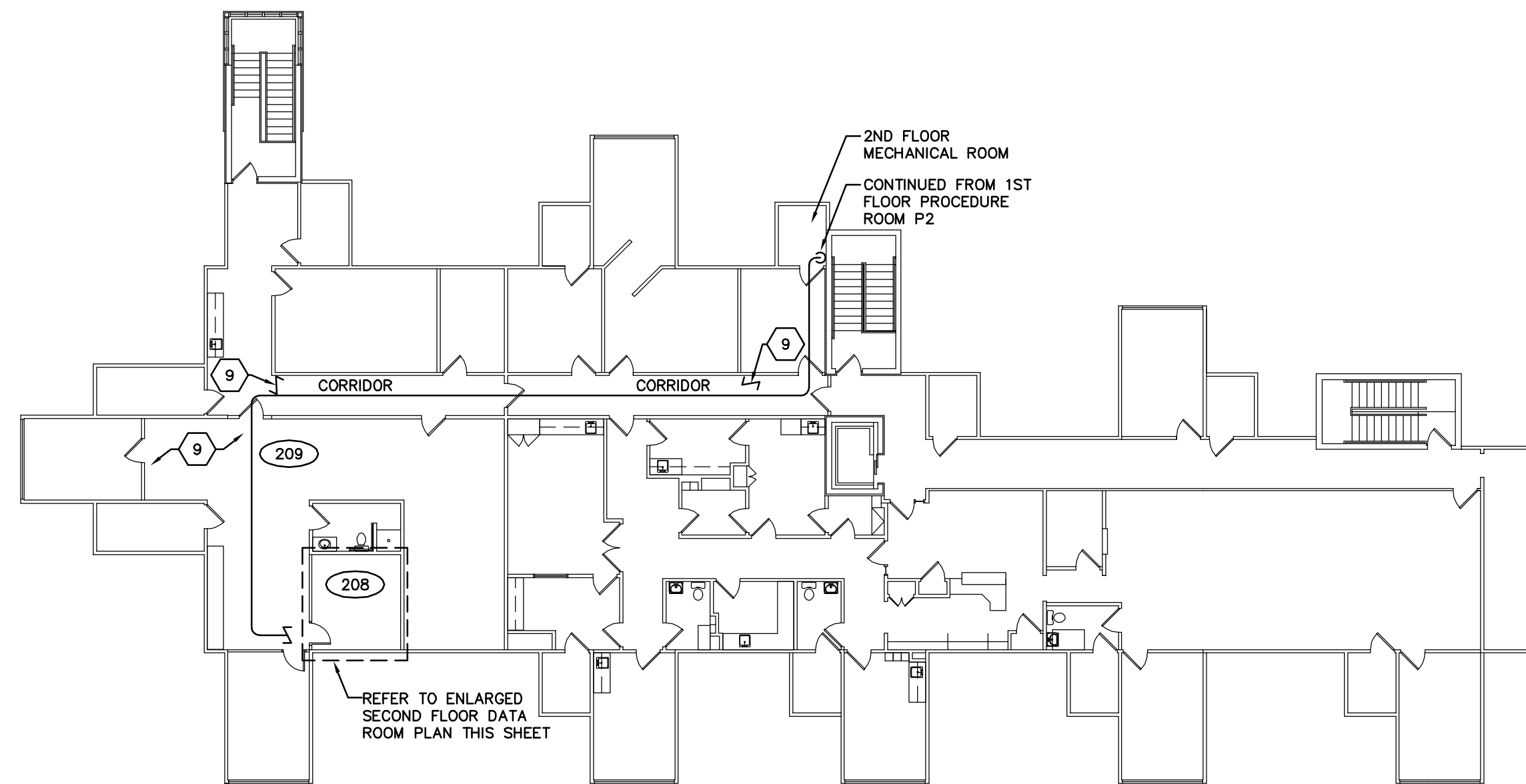
- E-1 BUILDING NEW ELECTRIC WORK PLANS
- E-2 ONE-LINE DIAGRAM AND PANEL SCHEDULE
- P-1 BUILDING NEW PLUMBING WORK PLANS

LOCATION MAP

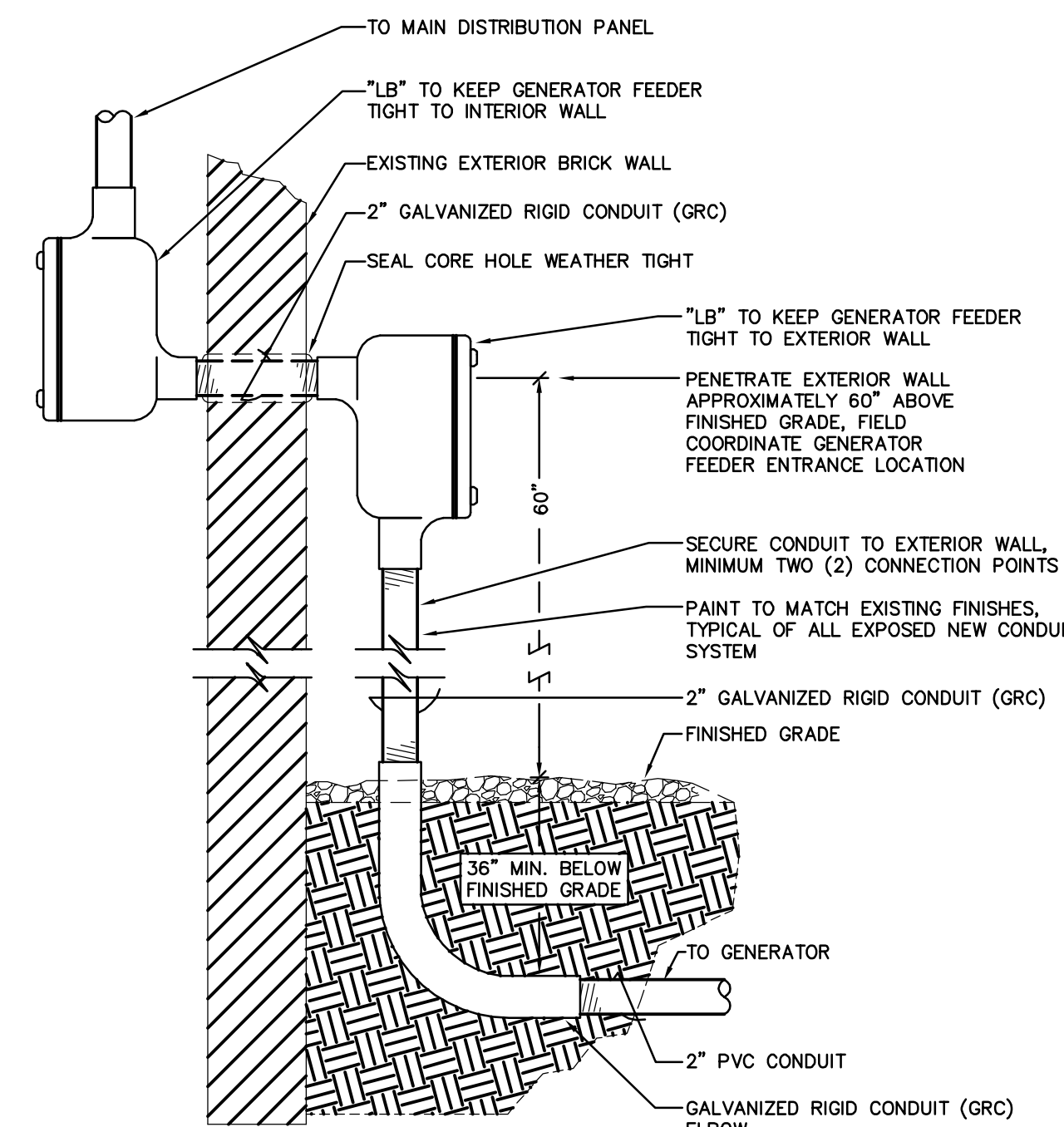




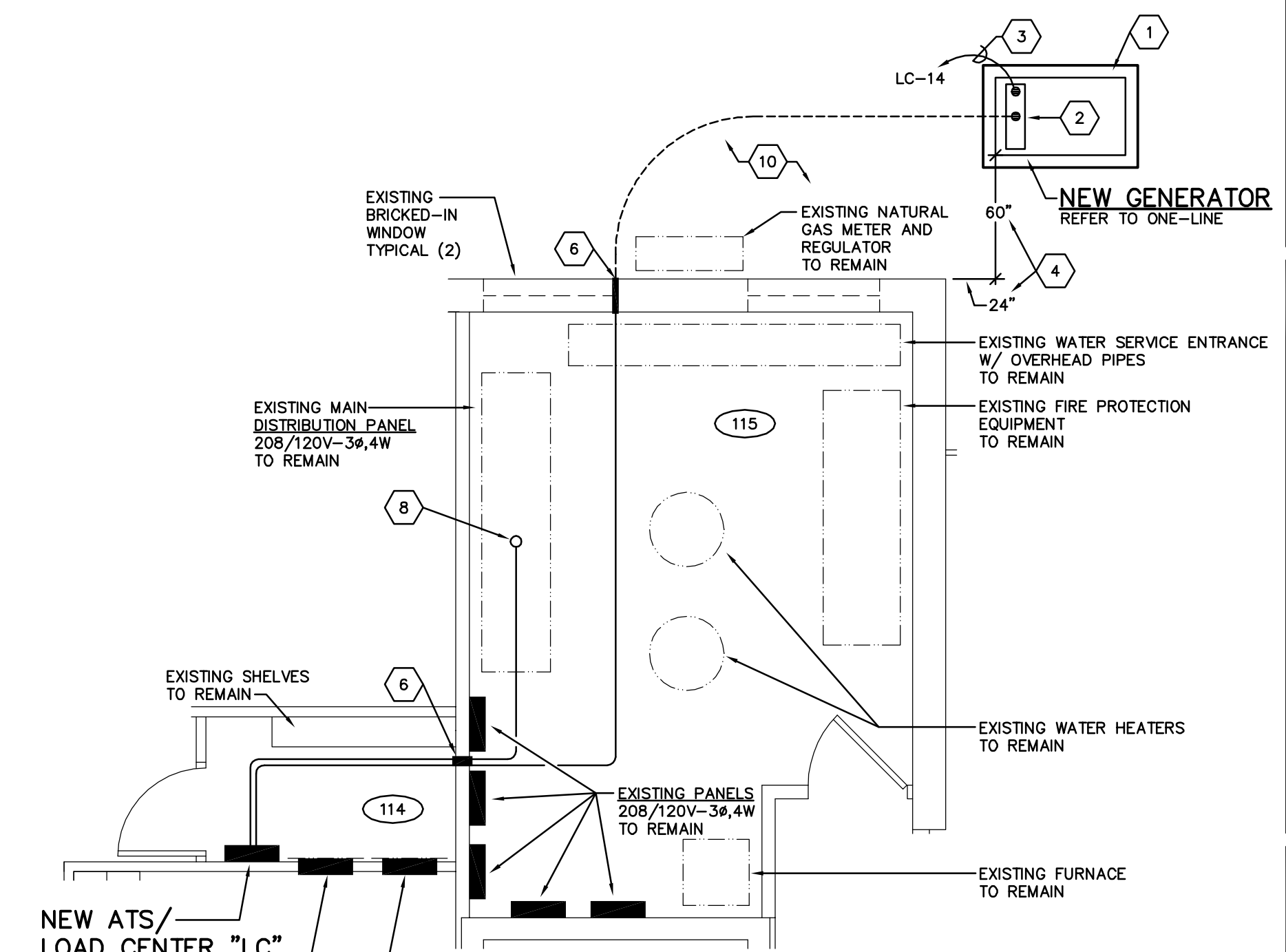
FIRST FLOOR LIGHTING & POWER PLAN
SCALE: 1/16" = 1'-0"



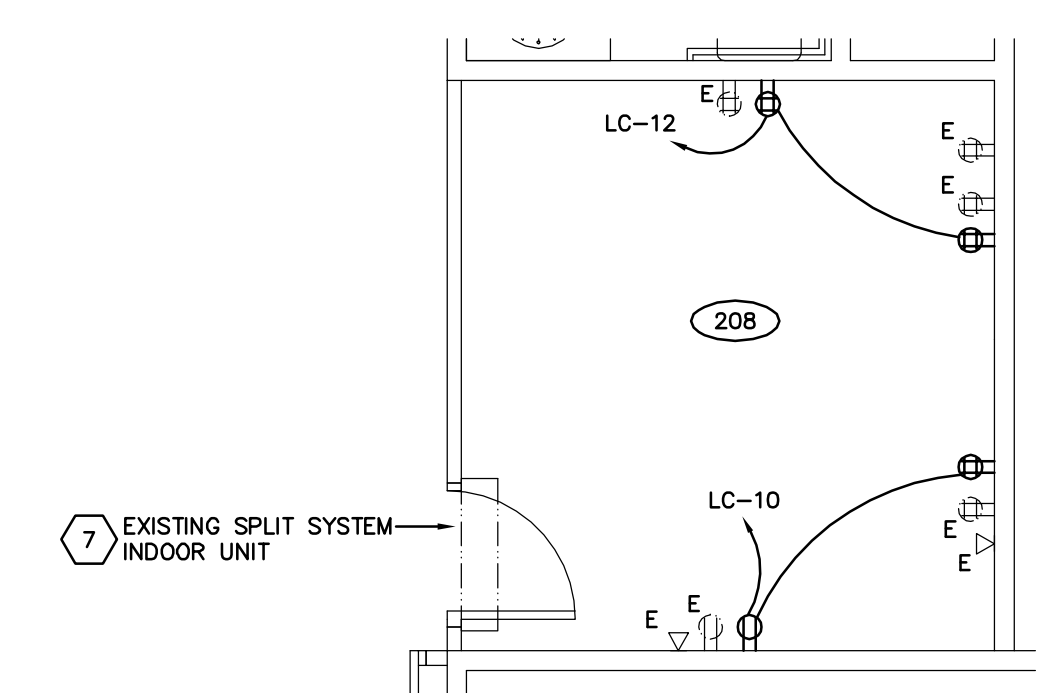
SECOND FLOOR LIGHTING & POWER PLAN
SCALE: 1/16" = 1'-0"



GENERATOR FEEDER ENTRANCE DETAIL
SCALE: NONE



ENLARGED FIRST FLOOR MECHANICAL ROOM
SCALE: 1/4" = 1'-0"



ENLARGED SECOND FLOOR DATA ROOM
SCALE: 1/4" = 1'-0"

GENERAL NOTES

- A. THE SCOPE OF WORK IS RELATED TO THE INSTALLATION OF A BACKUP GENERATOR AND TO INTERCEPT EXISTING CIRCUITRY TO ALL DEVICES INDICATED ON THIS DRAWING. THE INTENT IS THAT THESE DEVICES SHALL RETAIN FUNCTIONALITY GIVEN A POWER OUTAGE. ALL DEVICES SUCH AS RECEPTACLES, JUNCTION BOXES, LIGHTING FIXTURES, ETC. ARE EXISTING TO REMAIN. ALL EXISTING DEVICES ARE SHOWN IN APPROXIMATE LOCATIONS AND MUST BE FIELD VERIFIED FOR THEIR EXACT LOCATIONS PRIOR TO THE START OF CONSTRUCTION.
- B. MAINTAIN THE EXISTING INTEGRITY OF THE EXISTING ELECTRICAL DISTRIBUTION SYSTEM AND ALL ASSOCIATED DEVICES. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CIRCUITRY TO EXISTING DEVICES ONCE BACKUP-POWERED DEVICES ARE REMOVED FROM THE EXISTING BRANCH CIRCUIT.
- C. THIS BUILDING SHALL REMAIN OCCUPIED DURING THIS SCOPE OF WORK. ALL ELECTRICAL SHUT DOWNS OR SWITCH OVERTS SHALL BE COORDINATED WITH THE OWNER. PRIOR TO THE START OF WORK THIS CONTRACTOR SHALL SUBMIT IN WRITING A DETAILED SCHEDULE LISTING CONSTRUCTION SCOPE, TIMES OF OUTAGES, AND DATES IN WHICH CONSTRUCTION WILL OCCUR. AT NO TIME SHALL THE SPACE BE LEFT UNFINISHED. IF WORK CAN NOT BE COMPLETED THEN ALL CEILING TILES AND CEILING SYSTEMS SHALL BE REINSTALLED TO FINISHED CONDITIONS.
- D. THE ELECTRICAL CONTRACTOR SHALL BE THE PRIME CONTRACTOR AND SHALL PROVIDE A COMPLETE SYSTEM INCLUDING BUT NOT LIMITED TO ALL ELECTRICAL AND PLUMBING SHOWN ON THESE DRAWINGS AND SPECIFIED HEREIN. ALL OTHER CONTRACTORS SHALL BE SUB-CONTRACTORS TO THE ELECTRICAL CONTRACTOR.

CODED NOTES

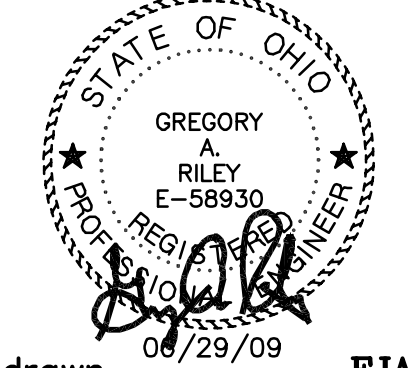
1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A NEW STANDBY GENERATOR AS SHOWN ON THESE DRAWINGS AND DETAILED IN THE ELECTRICAL SPECIFICATIONS. PROVIDE ALL MOUNTING EQUIPMENT, PADS, LEVELING STONES, ETC. AS DIRECTED BY THE MANUFACTURER. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR A COMPLETE INSTALLATION INCLUDING ALL THE ELECTRICAL AND MECHANICAL COMPONENTS AND CONNECTIONS.
2. EXTEND ONE (1) 1/2" CONDUIT FROM THE CONTROL PANEL TO THE AUTOMATIC TRANSFER SWITCH FOR CONTROL WIRING.
3. EXTEND ONE (1) 120V CIRCUIT TO THE GENERATOR ATS/LOAD CENTER FOR BATTERY CHARGER AND BLOCK HEATER.
4. GENERATOR INSTALLATION LOCATION IS APPROXIMATE. FIELD COORDINATE THE EXACT LOCATION OF THE NEW GENERATOR WITH EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
5. CORE DRILL EXISTING FLOOR SLAB FOR NEW GENERATOR/ NORMAL BRANCH CIRCUIT TO THE 2ND FLOOR DATA ROOM. SEAL CONDUIT PENETRATION WITH FIRESTOP. FIELD COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS PRIOR TO ROUGH-IN.
6. CORE DRILL EXISTING INTERIOR/EXTERIOR WALL FOR GENERATOR/ NORMAL/ CONTROL FEEDER CONDUITS. SEAL WEATHER TIGHT. FIELD COORDINATE EXACT ENTRANCE LOCATION WITH EXISTING CONDITIONS PRIOR TO ROUGH-IN. REFER TO GENERATOR FEEDER ENTRANCE DETAIL THIS SHEET.
7. LOCATE CORRESPONDING EXTERIOR UNIT, INTERCEPT FEEDER CIRCUIT AND REROUTE TO CIRCUIT LC-6,B. SEE PANEL SCHEDULE "LC" ON SHEET E-2 FOR FEEDER AND GROUND WIRE SIZES.
8. UTILIZE EXISTING SPARE 200AMP-3# FUSED SWITCH IN THE EXISTING MAIN DISTRIBUTION PANEL PROVIDE NEW 150AMP FUSES. UTILIZE TWO PHASES OF THE 3-# SYSTEM FOR NEW ATS/LOAD CENTER FEEDER. MAINTAIN A BALANCED MAIN ELECTRICAL SYSTEM.
9. COORDINATE EARLY IN THE PROJECT FOR NEW CIRCUITS WITHIN THIS AREA. OFFSETS, PULL BOXES, JUNCTION BOXES, BUILDING STRUCTURE ETC. NOT SHOWN. THE ELECTRICAL CONTRACTOR SHALL REMOVE PORTIONS OF THE CEILING TILE OR TRACK FOR THE NEW WORK ABOVE THE CEILING. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO REPLACE ANY CEILING TILES OR TRACK BROKEN DURING CONSTRUCTION.
10. PRIOR TO START OF WORK, THIS CONTRACTOR SHALL ARRANGE FOR CONFIRMATION OF EXISTING UNDERGROUND AND ABOVE GROUND ELEMENTS (WHETHER INDICATED ON PLANS OR NOT). EXCAVATION AND ALL OTHER WORK ASSOCIATED WITH THIS PROJECT TO BE DONE IN SUCH A MANNER AS TO MINIMIZE POTENTIAL FOR DAMAGE TO EXISTING UNDERGROUND UTILITIES, STRUCTURES, AND OTHER ELEMENTS WITHIN AND ADJACENT TO THE CONSTRUCTION LIMITS, WHETHER INDICATED ON THE DRAWINGS OR NOT. DAMAGE TO ELEMENTS AS A RESULT OF WORK IN THIS CONTRACT SHALL BE REPAIRED TO THE OWNER'S AND/OR UTILITY AUTHORITY'S SATISFACTION, AT THIS CONTRACTOR'S EXPENSE.

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810 Jasonway Generator Installation

LIGHTING & POWER PLAN
CADD#: E-1-09094.DWG

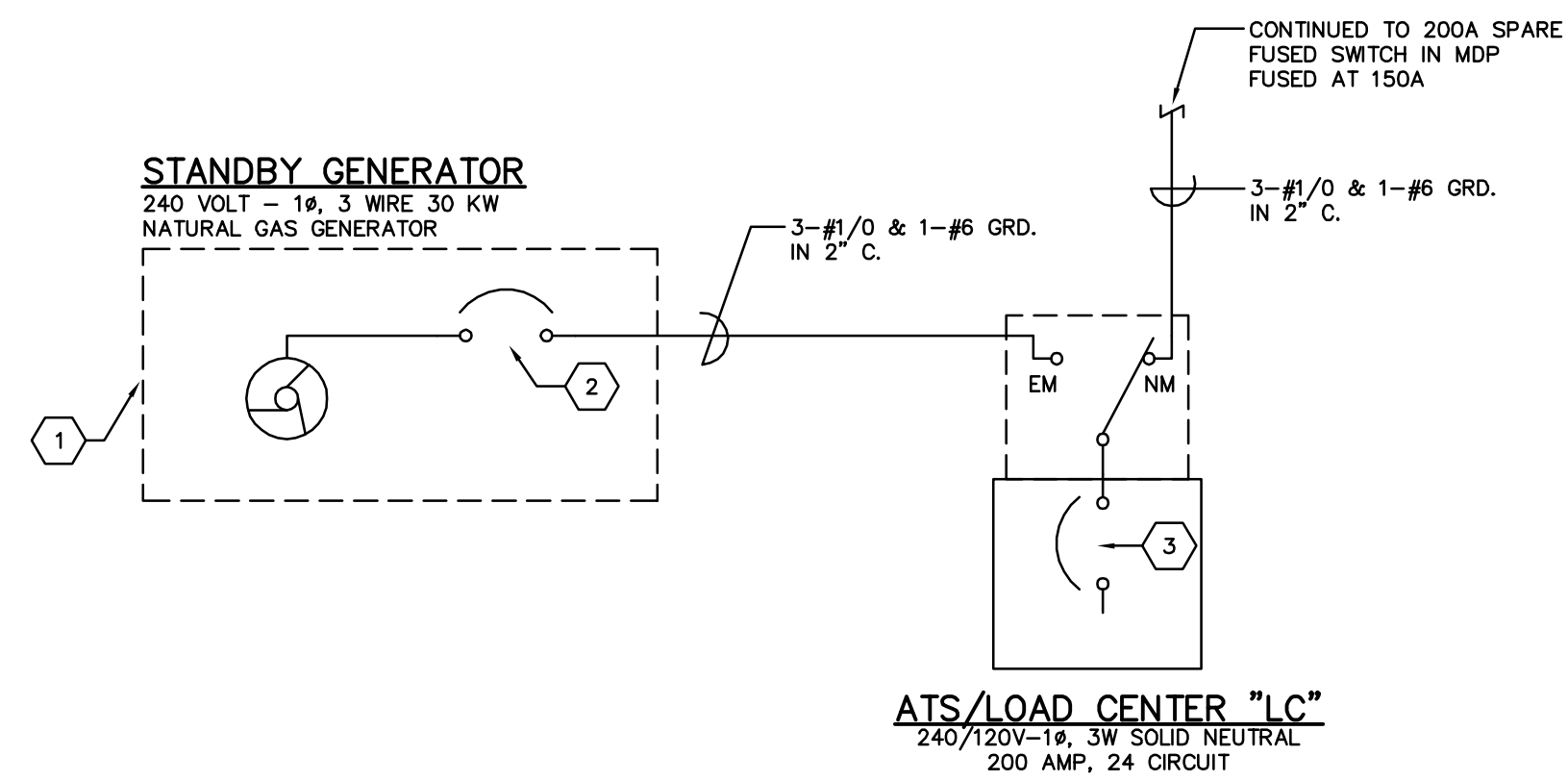
project number **09094**



drawn **EJA**
design **EJA**
checked **MWS**

issued for _____ date _____
OWNER REVIEW 5-20-09
BID 6-2-09

sheet **E-1**



ONE-LINE DIAGRAM
SCALE: N.T.S.

| | | |
|----------------------------|---------------------|----------------------|
| Panel ID: LC | Voltage: 240 / 120 | Panel Type: SEE SPEC |
| Location: LINEN CLOSET 114 | Phase: 1 | Enclosure: NEMA-1 |
| Mounting: SURFACE | Wire: 3 | |
| Main Type: M.C.B. | Main Size: 200 Amps | |

Combination load center and ATS
All phases to be balanced to within 7% using connected loads.
All circuit breakers shall be standard bolt-on type, unless noted otherwise.
** = Refer to one line diagram for wire sizes.

| GND SIZE | WIRE SIZE | BRANCH CIRCUIT DESCRIPTION | CIRC BRKR SIZE | CIRC BRKR OPTION | CONN. LOAD (KVA) | CKT NO. | PHASE | CKT NO. | CONN. LOAD (KVA) | CIRC BRKR OPTION | BRANCH CIRCUIT DESCRIPTION | WIRE SIZE | GND SIZE |
|----------|-----------|----------------------------|----------------|------------------|------------------|---------|-------|---------|------------------|------------------|----------------------------|-----------------|----------|
| 12 | 12 | EXAM LTG | 20/1 | --- | 0.924 | 1 | A | 2 | 1.200 | --- | 20/1 | REFRIGERATOR | 12 12 |
| 12 | 12 | EXAM LTG | 20/1 | --- | 0.924 | 3 | B | 4 | 0.800 | --- | 20/1 | HOOD | 12 12 |
| 12 | 12 | RECEPTION COPIER | 20/1 | --- | 1.200 | 5 | A | 6 | 0.924 | --- | 20/2 | AC SPLIT SYSTEM | 12 12 |
| 12 | 12 | RECEPTION COMP | 20/1 | --- | 1.260 | 7 | A | 8 | 0.924 | --- | --- | --- | 12 |
| 12 | 12 | LAB COMP | 20/1 | --- | 0.720 | 9 | A | 10 | 0.540 | --- | 20/1 | DATA QUADS | 12 12 |
| 12 | 12 | CHEM ANALYZER | 20/1 | --- | 1.200 | 11 | B | 12 | 0.720 | --- | 20/1 | DATA QUADS | 12 12 |
| 12 | 12 | REFRIGERATOR | 20/1 | --- | 1.200 | 13 | A | 14 | 0.500 | --- | 20/1 | GEN HEAT/CHARGE | 12 12 |
| 12 | 12 | REFRIGERATOR | 20/1 | --- | 1.200 | 15 | B | 16 | 0.000 | --- | 20/1 | SPARE | --- |
| 12 | 12 | UC FRIDGE | 20/1 | --- | 0.800 | 17 | A | 18 | 0.000 | --- | 20/1 | SPARE | --- |
| 12 | 12 | REFRIGERATOR | 20/1 | --- | 1.200 | 19 | B | 20 | 0.000 | --- | 20/1 | SPARE | --- |
| --- | --- | SPARE | --- | --- | 0.000 | 21 | A | 22 | 0.000 | --- | 20/1 | SPARE | --- |
| --- | --- | SPARE | --- | --- | 0.000 | 23 | B | 24 | 0.000 | --- | 20/1 | SPARE | --- |

Connected Load Panel Summary
Phase A: 8.0 KVA 66.7 AMPS
Phase B: 8.2 KVA 68.6 AMPS
Total: 16.2 KVA

Breaker Options (If Used):

Note: Minimum breaker AIC to be 22,000 AMPS symmetrical.

CODED NOTES

- SUPPLY AND INSTALL A DRIVEN GROUND SYSTEM CONSISTING OF (1) 5/8" X 10'-0" COPPERWELD GROUND ROD. GROUND ROD TO BE CONNECTED TO GENERATOR BY #2 AWG WIRE. ALL CONNECTIONS TO GROUND ROD SHALL BE BY SPECIFIED WELDING PROCESS. MAXIMUM IMPEDANCE OF THE GROUNDING SYSTEM SHALL BE TESTED TO LESS THAN 25 OHMS. ADDITIONAL GROUND RODS SHALL BE INSTALLED AS NECESSARY TO MEET THE LOW TESTING REQUIREMENT.
- OUTPUT CIRCUIT BREAKER PROVIDED WITH UNIT SHALL BE 125AMP-2 POLE.
- MAIN CIRCUIT BREAKER PROVIDED WITH EQUIPMENT SHALL BE 200AMP-2 POLE.

ELECTRICAL LEGEND

| SYMBOL | DESCRIPTION | MOUNTING HGT. TO CENTER UNLESS OTHERWISE NOTED |
|--------|---|--|
| | EXISTING DUPLEX RECEPTACLE | SEE DRAWINGS |
| | NEW DUPLEX RECEPTACLE; 3 WIRE GROUND TYPE | SEE DRAWINGS |
| | EXISTING DOUBLE DUPLEX RECEPTACLE | SEE DRAWINGS |
| | NEW DOUBLE DUPLEX RECEPTACLE | SEE DRAWINGS |
| | EXISTING JUNCTION BOX; WALL / CEILING MOUNTED | SEE DRAWINGS |
| | EXISTING COMMUNICATIONS / DATA OUTLET | SEE DRAWINGS |
| | ELECTRICAL PANEL - SURFACE MOUNT, FLUSH MOUNT | 6'-0" TO TOP |
| | EXISTING LIGHTING FIXTURE | N/A |

ELECTRICAL ABBREVIATIONS

| | | | |
|-------|---------------------------|--------|-----------------------|
| AWG | AMERICAN WIRE GAUGE | FIX | FIXTURE |
| A | AMPERE | FOD | FIRE-OPERATED DAMPER |
| AFF | ABOVE FINISHED FLOOR | G.C. | GENERAL CONTRACTOR |
| AFG | ABOVE FINISHED GRADE | GRD | GROUND |
| ATS | AUTOMATIC TRANSFER SWITCH | H.C. | MECHANICAL CONTRACTOR |
| BFG | BELOW FINISHED GRADE | JUNC | JUNCTION |
| BRKR | BREAKER | LTG | LIGHTING |
| BLDG | BUILDING | MFR | MANUFACTURER |
| CAB | CABINET | MECH | MECHANICAL |
| CLG | CEILING | P1 | PROCEDURE ROOM 1 |
| CIRC | CIRCUIT | P.C. | PLUMBING CONTRACTOR |
| C | CONDUIT | OPER | OPERATOR/OPERATED |
| CONN | CONNECTION / CONNECTOR | PNL | PANEL |
| CONTR | CONTRACTOR | RECEPT | RECEPTACLE |
| CONT | CONTROL | REQ'D | REQUIRED |
| DTL | DETAIL | STAT | THERMOSTAT |
| DIAG | DIAGRAM | SW | SWITCH |
| DISC | DISCONNECT | TELE | TELEPHONE |
| E1 | EXAM ROOM 1 | TFMR | TRANSFORMER |
| E | EXISTING TO REMAIN | TYP | TYPICAL |
| E.C. | ELECTRICAL CONTRACTOR | UC | UNDER COUNTER |
| FDR | FEEDER | WP | WEATHERPROOF |

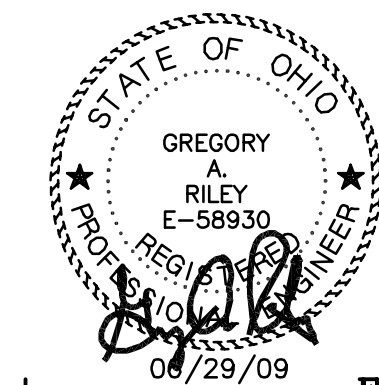
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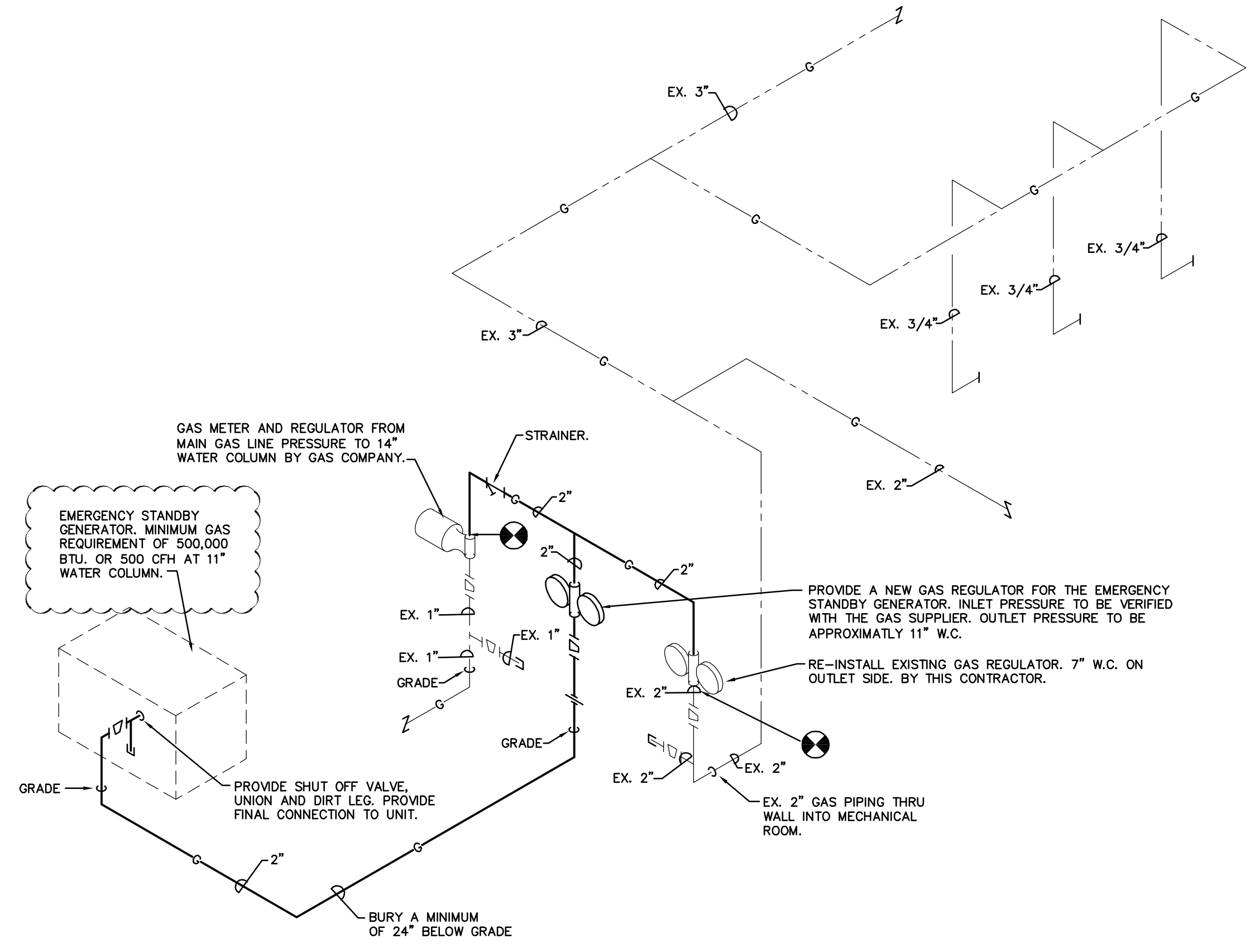
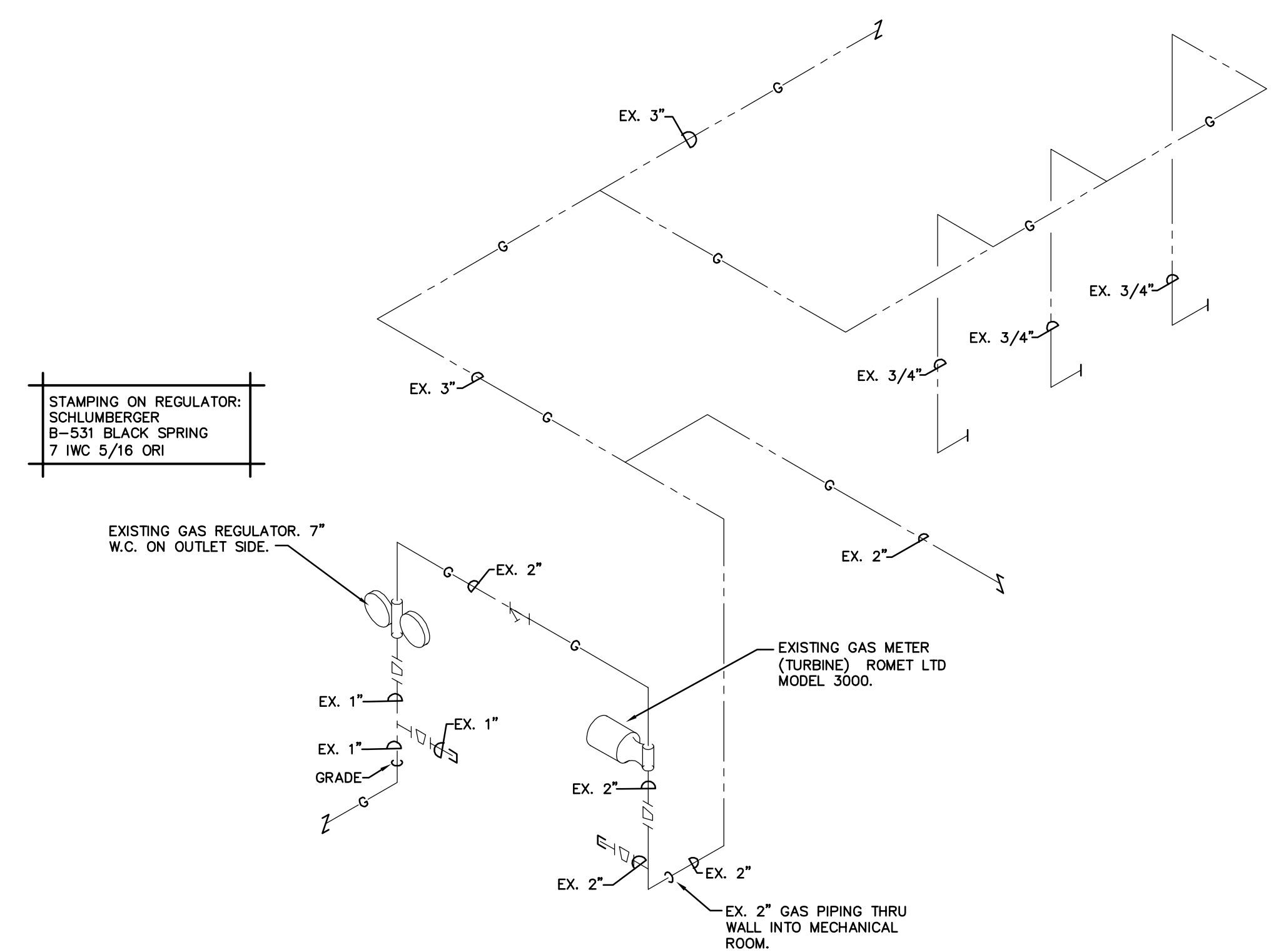
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E-2

CODED NOTES ◻

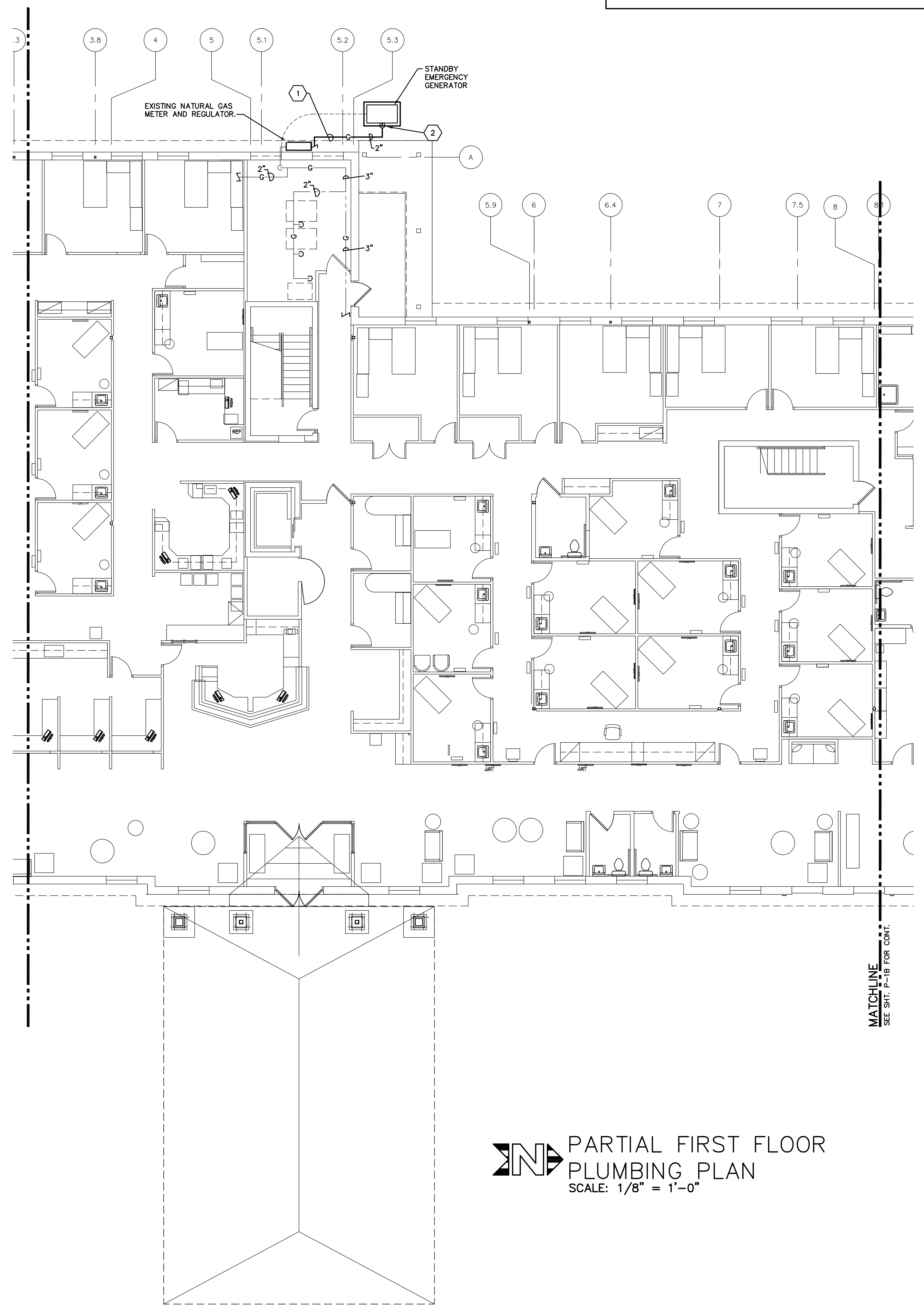
1. BURY GAS PIPING 24" BELOW GRADE. CAUTION ELECTRICAL LINES IN AREA.
2. PLUMBING CONTRACTOR SHALL FIELD LOCATE THE CONNECTION POINT OF THE ACTUAL GENERATOR INSTALLED AND MAKE ADJUSTMENTS TO CONNECT TO THE GENERATOR AT NO ADDITIONAL COST.

STAMPING ON REGULATOR:
SCHLUMBERGER
B-531 BLACK SPRING
7 IWC 5/16 ORI



NOTES:

1. THE PLUMBING CONTRACTOR SHALL WORK WITH THE GAS SUPPLIER TO PROVIDE A GAS METER AND REGULATOR PIPING ARRANGEMENT WHICH WILL SERVE THE OWNER'S EXISTING GAS APPLIANCES AND THE NEW STANDBY GENERATOR.
2. PROVIDE REGULATOR FOR NEW GENERATOR SET. PROVIDE ALL NECESSARY PIPING FOR NEW METER/REGULATOR PIPING ARRANGEMENT. PROVIDE ALL PIPING AND VALVES REQUIRED TO COMPLETE THE INSTALLATION OF THE STANDBY GENERATOR.
3. THIS CONTRACTOR SHALL SURVEY THE EXISTING BUILDING AND CONCLUDE WHAT THE EXISTING CONNECTED GAS LOAD IS FOR THE BUILDING. THIS INFORMATION IS REQUIRED TO COMPLETE THE GAS APPLICATION FOR THE INCREASED LOAD OF THE BUILDING.



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FIRST FLOOR PLUMBING PLAN
CADD#: P-1-09094.DWG

project number
09094

STATE OF OHIO
ERIC M. BOOHER
E-65106
REGISTERED PLUMBER

drawn 06/29/09 **SJM**
design **SJM**
checked **TP**

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BID 6-2-09

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P-1