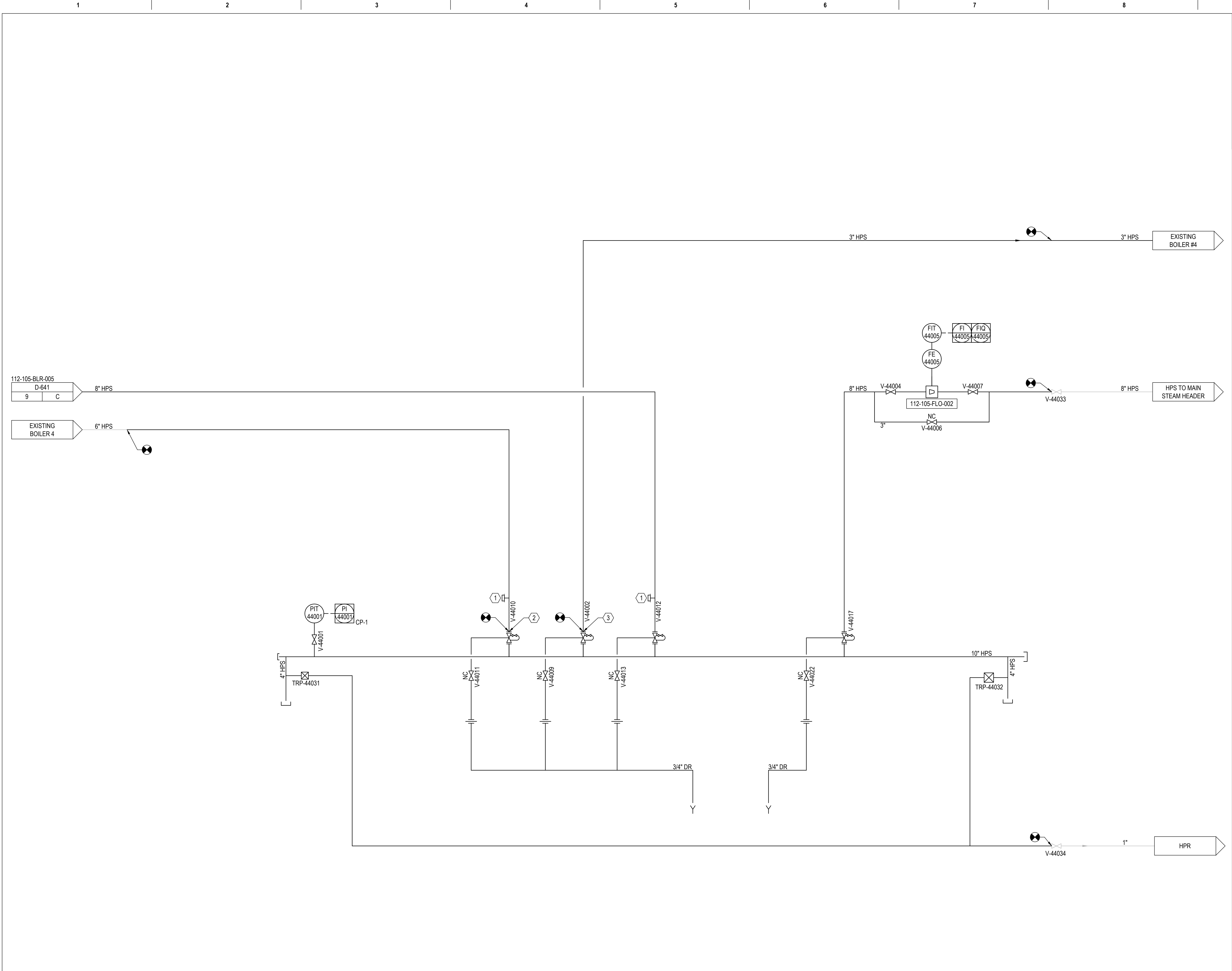


three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



| GENERAL NOTES |                                                                                                                                                                                                                                                              |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.            | SEE D-001 FOR D-SERIES NOTES AND LEGENDS.                                                                                                                                                                                                                    |
| 3.            | ALL VALVE BODIES AND FITTINGS IN THE BOILER PLANT SHALL BE CAST OR FORGED STEEL. CAST IRON, DUCTILE IRON, AND BRONZE ARE PROHIBITED, WITH THE EXCEPTION OF DOMESTIC WATER SERVICES. ALL PRESSURE RELIEF VALVES USED FOR STEAM SERVICE SHALL BE FORGED STEEL. |
| 2.            | ALL INSTRUMENTATION TO CONNECT VIA CP-5A, UNLESS OTHERWISE INDICATED.                                                                                                                                                                                        |

| KEYED NOTES |                                                                                                 |
|-------------|-------------------------------------------------------------------------------------------------|
| 1           | 3/4" THREADED HALF-COUPLING FOR CALORIMETER CONNECTION. LOCATE TO ALLOW SPACE FOR THREADED PLUG |
| 2           | CONNECT EXISTING BOILER 4 TO NEW STEAM HEADER                                                   |
| 3           | CONNECT EXISTING BOILER 4 3" STEAM ATOMIZATION LINE TO NEW STEAM HEADER                         |

| GENERAL LINETYPES |                |
|-------------------|----------------|
| -----             | ANALOG SIGNAL  |
| -----             | PIPING PROCESS |

| CONTINUATION ARROWS         |                            |
|-----------------------------|----------------------------|
| XXXX<br>XXXX                | FLOW DIRECTION             |
| XXX<br>DRAWING<br>POS1 POS2 | FLOW DIRECTION<br>(SINGLE) |
| →                           | FLOW ARROW                 |

| AREA BOUNDARY |                                                   |
|---------------|---------------------------------------------------|
| →             | POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK |

| PROCESS SYMBOLS |                             |
|-----------------|-----------------------------|
| Y               | DRAIN                       |
| ⊥               | LINE WITH PLUG              |
| ⊠               | STEAM TRAP- INVERTED BUCKET |
| ⌊               | PIPE CAP                    |
|                 | UNION                       |

| PROCESS VALVES |                                  |
|----------------|----------------------------------|
| ⌋              | GATE VALVE W/ GLOBE VALVE BYPASS |
| ⌋              | VALVES (GENERAL)                 |

| INSTRUMENT SYMBOLS |                                                                            |
|--------------------|----------------------------------------------------------------------------|
| XXX<br>XXX         | FIELD MOUNTED-DISCRETE INSTRUMENT                                          |
| XXX<br>XXX         | PRIMARY LOCATION ACCESSIBLE TO OPERATOR-SHARED<br>DISPLAY * = PANEL LEGEND |

| ABBREVIATIONS |                     |
|---------------|---------------------|
| HPS           | HIGH PRESSURE STEAM |

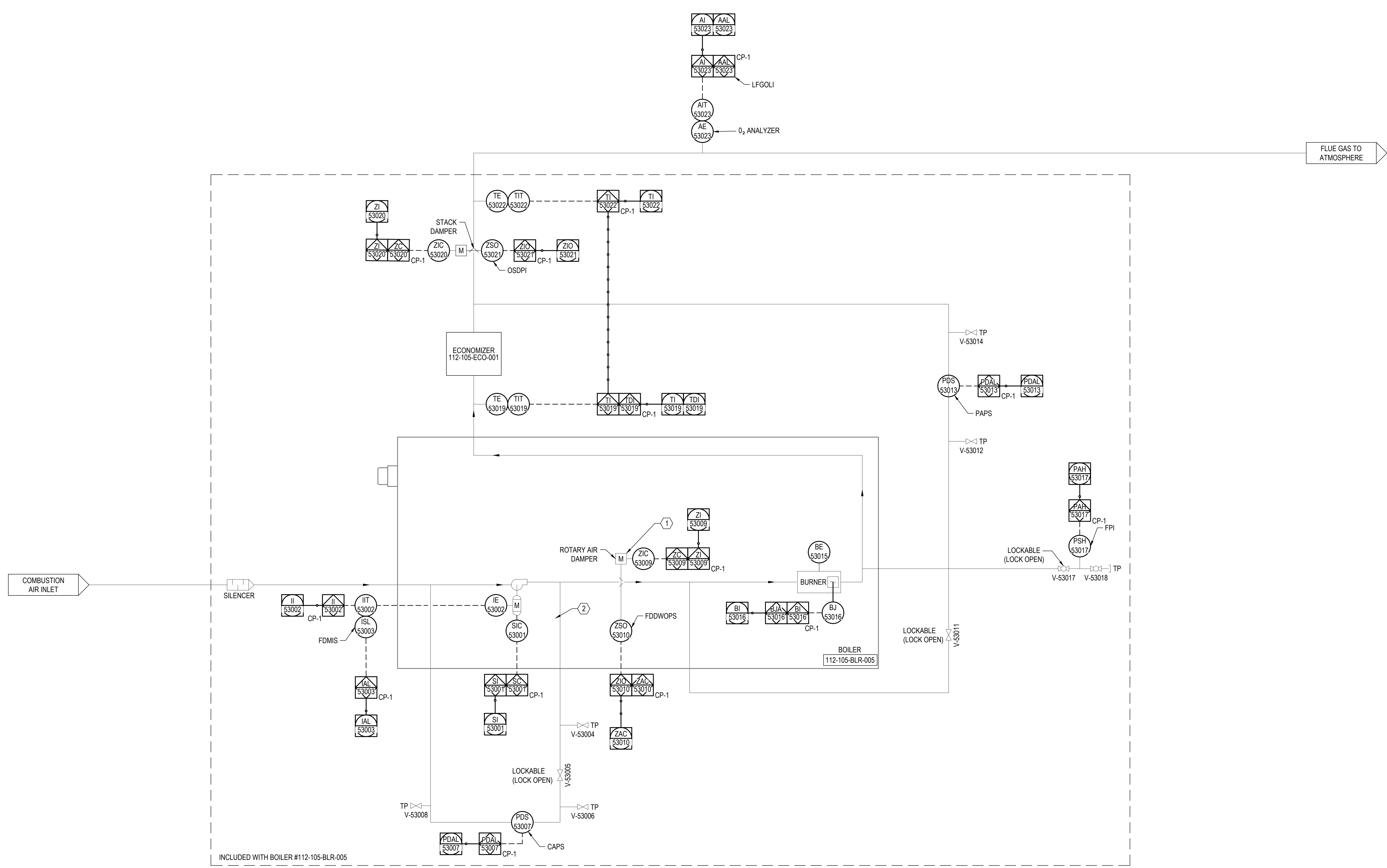
PRELIMINARY  
NOT FOR CONSTRUCTION

|                                                                                                                                                                                                       |                                                                             |            |                                                                                                           |                                                                                         |                                                                                          |                                                         |                                                                                                                                                                  |                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| REV E - 100% CONSTRUCTION DOCUMENTS<br>REV D - 95% CONSTRUCTION DOCUMENTS<br>REV C - 65% DESIGN DEVELOPMENT<br>REV B - 65% DESIGN DEVELOPMENT<br>REV A - 35% SCHEMATIC DESIGN DOCUMENTS<br>Revisions: | 2026-04-06<br>2026-03-09<br>2025-12-30<br>2024-09-17<br>2024-07-24<br>Date: | CONSULTANT | ARCHITECT/ENGINEER OF RECORD<br>ENCORUS GROUP<br>23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com | Office of Construction and Facilities Management<br>U.S. Department of Veterans Affairs | Drawing Title<br>PROCESS - P&ID - STEAM - BOP - BID DEDUCT<br>Approved: Project Director | Phase<br>100% CONSTRUCTION DOCUMENTS<br>NOT SPRINKLERED | Project Title<br>REPLACE BOILERS 4 & 5<br>Location<br>5000 W. NATIONAL AVE.<br>MILWAUKEE, WI 53295<br>Issue Date<br>2026-04-06<br>Checked<br>BEH<br>Drawn<br>DAK | Project Number<br>695-24-107<br>Building Number<br>112<br>Drawing Number<br>D-643 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|

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A  
B  
C  
D  
E  
F

one eighth inch = one foot  
one quarter inch = one foot  
three eighths inch = one foot  
one half inch = one foot  
one inch = one foot  
one and one half inches = one foot  
three inches = one foot



### GENERAL NOTES

1 SEE D-001 FOR D-SERIES NOTES AND LEGENDS.

### KEYED NOTES

1 LOW-FIRE PROVING SWITCH REQUIRED ON CONTROL DAMPER, REFER TO BAPSDTM  
2 FORCED DRAFT MOTOR INTERLOCK CURRENT RELAYS SHALL BE SET UP ON A SEPERATE ELECTRICAL ENCLOSURE

### GENERAL LINETYPES

----- ANALOG SIGNAL  
- - - - - NETWORK CONNECTION  
- - - - - PIPING PROCESS

### CONTINUATION ARROWS

XXXX  
XXXX FLOW DIRECTION  
→ FLOW ARROW

### EQUIPMENT SYMBOLS

FAN  
MOTOR  
MOTORIZED DAMPER

### PROCESS SYMBOLS

UV FLAME SCANNER  
VENTURI FLOW METER

### PROCESS VALVES

BALL VALVE  
VALVES (GENERAL)

### INSTRUMENT SYMBOLS

FIELD MOUNTED-DISCRETE INSTRUMENT  
PRIMARY LOCATION ACCESSIBLE TO OPERATOR-SHARED DISPLAY \* = PANEL LEGEND  
PRIMARY LOCATION ACCESSIBLE TO OPERATOR-SHARED DISPLAY \* = PANEL LEGEND

### ABBREVIATIONS

BAPSDTM BOILER AND ASSOCIATED PLANT SAFETY DEVICE TESTING MANUAL  
CAPS COMBUSTION AIR PRESSURE SWITCH  
FDDWOPS FORCED DRAFT DAMPER WIDE OPEN POSITION SWITCH  
FDMIS FURNACE PRESSURE INTERLOCK  
FPI FURNACE PRESSURE INTERLOCK  
LFGOLI LOW FLUE GAS OXYGEN LEVEL INDICATOR  
OSDPI OUTLET STACK DAMPER POSITION INTERLOCK SWITCH  
PAPS PURGE AIRFLOW PROVING SWITCH  
TP TEST POINT

**PRELIMINARY**  
NOT FOR CONSTRUCTION

|                   |  |                                     |  |                                                         |  |                                                        |  |                                    |  |                                                  |  |                        |  |
|-------------------|--|-------------------------------------|--|---------------------------------------------------------|--|--------------------------------------------------------|--|------------------------------------|--|--------------------------------------------------|--|------------------------|--|
| <b>CONSULTANT</b> |  | <b>ARCHITECT/ENGINEER OF RECORD</b> |  | <b>Office of Construction and Facilities Management</b> |  | <b>Drawing Title</b>                                   |  | <b>Phase</b>                       |  | <b>Project Title</b>                             |  | <b>Project Number</b>  |  |
|                   |  |                                     |  |                                                         |  | <b>PROCESS - P&amp;ID - COMBUSTION AIR - BOILER #5</b> |  | <b>100% CONSTRUCTION DOCUMENTS</b> |  | <b>REPLACE BOILERS 4 &amp; 5</b>                 |  | <b>695-24-107</b>      |  |
|                   |  |                                     |  |                                                         |  | <b>Approved: Project Director</b>                      |  | <b>NOT SPRINKLERED</b>             |  | <b>Location</b>                                  |  | <b>Building Number</b> |  |
|                   |  |                                     |  |                                                         |  |                                                        |  |                                    |  | <b>5000 W. NATIONAL AVE. MILWAUKEE, WI 53295</b> |  | <b>112</b>             |  |
|                   |  |                                     |  |                                                         |  |                                                        |  |                                    |  | <b>Issue Date</b>                                |  | <b>Checked</b>         |  |
|                   |  |                                     |  |                                                         |  |                                                        |  |                                    |  | <b>2026-04-06</b>                                |  | <b>BEH</b>             |  |
|                   |  |                                     |  |                                                         |  |                                                        |  |                                    |  | <b>Drawn</b>                                     |  | <b>DAK</b>             |  |
|                   |  |                                     |  |                                                         |  |                                                        |  |                                    |  |                                                  |  | <b>D-651</b>           |  |

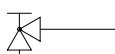
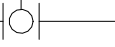
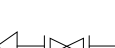
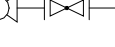
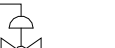
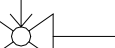
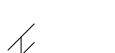
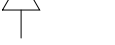
GENERAL SYMBOLS:

|  |                        |
|--|------------------------|
|  | ROOM NAME AND NUMBER   |
|  | DEMOLISH/REMOVE DEVICE |
|  | PHASE CALLOUT          |

GENERAL LINETYPES:

|  |                            |
|--|----------------------------|
|  | DEMOLITION LINE            |
|  | BOTTOM BLOWDOWN            |
|  | CHEMICAL FEEDWATER         |
|  | CITY WATER                 |
|  | CONDENSATE TRANSFER        |
|  | DRAIN LINE                 |
|  | FEED WATER                 |
|  | FUEL OIL RETURN            |
|  | FUEL OIL SUPPLY            |
|  | FUEL OIL FILL              |
|  | HIGH PRESSURE STEAM SUPPLY |
|  | HIGH PRESSURE STEAM RETURN |
|  | LIQUIFIELD PETROLEUM GAS   |
|  | LOW PRESSURE STEAM SUPPLY  |
|  | LOW PRESSURE STEAM RETURN  |
|  | SOFTENED WATER             |
|  | VENT                       |
|  | PROPERTY BOUNDARY          |
|  | NATURAL GAS                |
|  | PUMPED CONDENSATE RETURN   |
|  | COMPRESSED AIR             |

VALVE SYMBOLS:

|                                                                                   |                                     |
|-----------------------------------------------------------------------------------|-------------------------------------|
|  | ANGLE GLOBE VALVE                   |
|  | BALL VALVE                          |
|  | CHECK VALVE                         |
|  | GATE VALVE                          |
|  | GATE VALVE - THREADED/FLANGED       |
|  | GLOBE VALVE - THREADED/FLANGED      |
|  | GATE VALVE WITH 3/4" HOSE ADAPTER   |
|  | GATE VALVE WITH GLOBE-VALVED BYPASS |
|  | MOTORIZED CONTROL VALVE             |
|  | PRESSURE REGULATING VALVE           |
|  | PRESSURE REGULATOR                  |
|  | PRESSURE REDUCING VALVE (PRV)       |
|  | PRESSURE SAFETY VALVE               |
|  | SOLENOID ACTUATED VALVE             |
|  | WATER LEVEL CONTROLLER              |
|  | CIRCUIT SETTER BALANCE VALVE        |

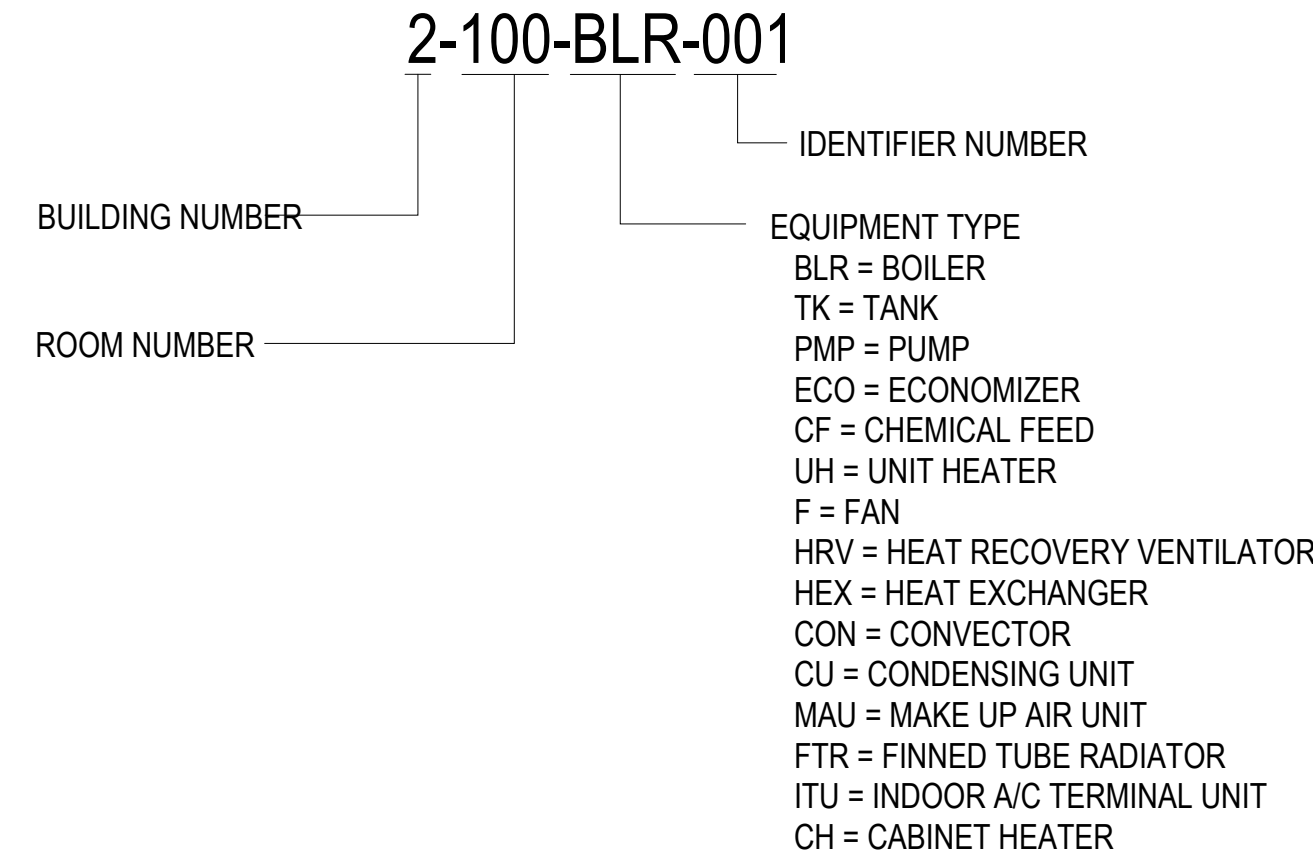
PIPING SYMBOLS:

|  |                                                                                          |
|--|------------------------------------------------------------------------------------------|
|  | TOP CONNECTION, 45° OR 90°                                                               |
|  | BOTTOM CONNECTION, 45° OR 90°                                                            |
|  | SIDE CONNECTION                                                                          |
|  | CAPPED OUTLET                                                                            |
|  | RISE OR DROP IN PIPE                                                                     |
|  | UNION                                                                                    |
|  | PIPE UP                                                                                  |
|  | PIPE DOWN                                                                                |
|  | STEAM TRAP - INVERTED BUCKET                                                             |
|  | STEAM TRAP - FLOAT AND THERMOSTATIC                                                      |
|  | POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK                                        |
|  | LIMIT OF DEMOLITION                                                                      |
|  | REDUCER                                                                                  |
|  | STRAINER                                                                                 |
|  | PUMP                                                                                     |
|  | EXPANSION JOINT                                                                          |
|  | GUIDE SUPPORT                                                                            |
|  | ROLLER-TYPE HANGER                                                                       |
|  | VARIABLE SPRING-TYPE HANGER                                                              |
|  | TRAPEZE HANGER (PROVIDE U-BOLT PIPE ATTACHMENT TO TRAPEZE EXCEPT WHERE RH ARE INDICATED) |
|  | FLOOR-SUPPORTED PIPE STAND                                                               |
|  | FLOW METER                                                                               |

CONNECTIONS:

|  |                         |
|--|-------------------------|
|  | BLIND FLANGE            |
|  | FLANGED PIPE CONNECTION |

NUMBERING DESIGNATIONS FOR EQUIPMENT:



GENERAL NOTES:

- DESIGN CONSTRUCTION AND SAFETY SHALL CONFORM TO ALL LOCAL, STATE AND OWNER SPECIFIC CODES, INCLUDING (BUT NOT LIMITED TO) THE INTERNATIONAL BUILDING CODE, AND THE DEPT OF VA STEAM, HEATING HOT WATER, AND OUTSIDE DISTRIBUTION SYSTEMS DESIGN MANUAL.
- THIS CONTRACT REQUIRES COMPLETE, FINISHED WORKABLE PROJECT OF THE AREAS INDICATED BY THE CONTRACT DOCUMENTS, AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO COMPLETE, REGARDLESS OF WHETHER OR NOT ALL WORK OR EACH ITEM IS SPECIFICALLY INDICATED ON ANY OTHER PORTION OF THE DRAWINGS AND/OR NOTES.
- WHERE MATERIALS REFERENCED ON DRAWINGS, OR NECESSARY TO COMPLETE THE WORK OF THIS CONTRACT ARE NOT SPECIFIED HEREIN, PROVIDE BEST QUALITY MATERIAL. WHERE MATERIALS ARE INTENDED TO MATCH EXISTING, PROVIDE CLOSEST POSSIBLE MATCH, SUBJECT TO OWNERS APPROVAL. ALL ITEMS AND WORK ON DRAWINGS ARE NEW, UNLESS INDICATED EXISTING. ALL WORK WHICH HAS BEEN DAMAGED SHALL BE REPAIRED TO A "NEW CONDITION", OR WHERE THE STRUCTURAL INTEGRITY HAS BEEN AFFECTED, ITEMS SHALL BE REPLACED AT NO COST TO THE OWNER.
- CONTRACTOR IS RESPONSIBLE TO VERIFY ALL SITE, FIELD AND BUILDING CONDITIONS PRIOR TO COMMENCING WORK. IF THERE ARE ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS, NOTIFY THE CONSTRUCTION MANAGER AND ARCHITECT/ENGINEER AND REQUEST CLARIFICATION.
- DRAWINGS MAY NOT INDICATE ALL DEMOLITION/REMOVALS. CONTRACTOR SHALL REFER TO DRAWINGS, SPECIFICATIONS AND VERIFY FIELD CONDITIONS TO DETERMINE FULL SCOPE AND PARTICULARS OF REMOVALS AS REQUIRED FOR AND COORDINATED WITH THE NEW WORK PRIOR TO BIDDING WORK. VERIFY AND CONFIRM WITH OWNER WHICH ITEMS ARE TO BE SAVED FOR OWNER'S USE OR REINSTALLATION BY CONTRACTOR.
- WHERE CONSTRUCTION OR ITEMS HAVE BEEN INFILLED, REMOVED AND/OR DISTURBED FOR INSTALLATION OF NEW WORK, CAUSING THE EXPOSURE OF UNFINISHED AND/OR DAMAGED SURFACES, RESULTING SURFACES AND INFILLED SURFACES SHALL BE RECONSTRUCTED WITH MATERIALS TO MATCH FINISHED. ALL ABANDONED OPENINGS (I.E., DUCT/PIPE REMOVALS,) AT WALLS, ROOF OR FLOOR TO BE INFILLED SOLID.
- WORK IS REQUIRED IN VARIOUS PORTIONS OF THE FACILITY TO EXECUTE WORK OF OTHER TRADES (I.E. ELECTRICAL, MECHANICAL), ALTHOUGH NOT NECESSARILY SHOWN ON DRAWINGS. WORK IS REQUIRED IN THESE AREAS CONSISTING OF PLACEMENT OF CEILINGS, WALL, FINISHES, PAVEMENT AND OTHER CONSTRUCTION AS NECESSARY TO PERFORM WORK AND RESTORE THESE SPACES OR AREAS TO ORIGINAL CONDITIONS.
- CONTRACTOR SHALL COORDINATE THE WORK WITH EACH TRADE SO THAT THE WORK AND SCHEDULE ARE NOT IMPEDED. SCHEDULE WORK PROGRESS THROUGHOUT THE ENTIRE PROJECT TO PREVENT CONFLICTS AND INTERFERENCES. OBTAIN ALL NECESSARY INFORMATION SUCH AS SIZES, LOCATIONS, TEMPLATES, LAYOUT, DIMENSIONS AND ALL OTHER INFORMATION NECESSARY FOR A PROPER AND WELL COORDINATED INSTALLATION. PRIOR TO INSTALLATION OF ITEMS, VERIFY AND CONFIRM WITH EACH TRADE EXACT LOCATION OF ALL ITEMS.
- LABEL ALL PIPING IN ACCORDANCE WITH ASME A13.1, AND AS DESCRIBED IN SPECIFICATION SECTION 09 01 00 - 3.14.
- INCLUDE FLOW-DIRECTION ARROWS INTEGRAL WITH PIPING SYSTEM SERVICE LETTERING TO ACCOMMODATE BOTH DIRECTIONS OR AS SEPARATE UNIT ON EACH PIPE LABEL TO INDICATE FLOW DIRECTION PER SPECIFICATION 230553.
- PIPE LABEL LOCATIONS: LOCATE PIPE LABELS, IN ACCORDANCE WITH SPECIFICATION 230553, WHERE PIPING IS EXPOSED OR ABOVE ACCESSIBLE CEILINGS IN FINISHED SPACES; MACHINE ROOMS; ACCESSIBLE MAINTENANCE SPACES SUCH AS SHAFTS, TUNNELS, AND PLENUMS; AND EXTERIOR EXPOSED LOCATIONS AS FOLLOWS:
  - NEAR EACH VALVE AND CONTROL DEVICE.
  - NEAR EACH BRANCH CONNECTION, EXCLUDING SHORT TAKEOFFS FOR FIXTURES AND TERMINAL UNITS. WHERE FLOW PATTERN IS NOT OBVIOUS, MARK EACH PIPE AT BRANCH.
  - NEAR PENETRATIONS AND ON BOTH SIDES OF THROUGH WALLS, FLOORS, CEILINGS, AND INACCESSIBLE ENCLOSURES.
  - AT ACCESS DOORS, MAN-HOLES, AND SIMILAR ACCESS POINTS THAT PERMIT VIEW OF CONCEALED PIPING.
  - NEAR MAJOR EQUIPMENT ITEMS AND OTHER POINTS OF ORIGINATION AND TERMINATION.
  - SPACED AT MAXIMUM INTERVALS OF 50 FEET ALONG EACH RUN. REDUCE INTERVALS TO 25 FEET IN AREAS OF CONGESTED PIPING AND EQUIPMENT.
- REFER TO PHASING PLANS.
- BUY AMERICA ACT MATERIALS TO BE UTILIZED.

APPLICABLE CODES:

THE APPLICABLE MODEL CODES, STANDARDS AND REFERENCES DOCUMENTS PERTINENT TO THE PROJECT ARE AS FOLLOWS:

- NFPA 101 LIFE SAFETY CODE
- ASHRAE STANDARDS
- INTERNATIONAL MECHANICAL CODE
- NFPA 70 NATIONAL ELECTRIC CODE
- OCCUPATIONAL, SAFETY, AND HEALTH ADMINISTRATIONS VA STANDARD APPLICATION GUIDE, AND OTHER GUIDANCE ON THE TECHNICAL INFORMATION LIBRARY
- ASME B31.1 CODE FOR PRESSURE PIPING

ABBREVIATIONS:

|      |                                   |
|------|-----------------------------------|
| A    | AMPERE                            |
| AHU  | AIR HANDLING UNIT                 |
| BD   | BOARD                             |
| BMS  | BUILDING MANAGEMENT SYSTEM        |
| BTU  | BRITISH THERMAL UNIT              |
| CBD  | CONTINUOUS BLOWDOWN               |
| CFM  | CUBIC FEET PER MINUTE             |
| CA   | COMPRESSED AIR                    |
| CWR  | COLD WATER RETURN                 |
| CWS  | COLD WATER SUPPLY                 |
| DB   | DRY BULB                          |
| DN   | DOWN                              |
| EA   | EXHAUST AIR                       |
| EAT  | ENTERING AIR TEMPERATURE          |
| EXH  | EXHAUST                           |
| F&T  | FLOAT AND THERMOSTATIC            |
| FTR  | FIN TUBE RADIATOR                 |
| FS   | FLOW SENSOR                       |
| FT   | FEET                              |
| GPM  | GALLONS PER MINUTE                |
| HP   | HORSEPOWER                        |
| HWR  | HOT WATER RETURN                  |
| HWS  | HOT WATER SUPPLY                  |
| HZ   | HERTZ                             |
| IB   | INVERTED BUCKET                   |
| LAT  | LEAVING AIR TEMPERATURE           |
| MAX  | MAXIMUM                           |
| MBH  | THOUSAND BTU PER HOUR             |
| MIN  | MINIMUM                           |
| NTS  | NOT TO SCALE                      |
| OA   | OUTSIDE AIR                       |
| PH   | PHASE                             |
| PSIG | POUNDS PER SQUARE INCH GAUGE      |
| PTAC | PACKAGED TERMINAL AIR CONDITIONER |
| RA   | RETURN AIR                        |
| RG   | RETURN GRILL                      |
| SA   | SUPPLY AIR                        |
| SD   | SUPPLY DIFFUSER                   |
| SP   | STATIC PRESSURE                   |
| SR   | SUPPLY REGISTER                   |
| TEMP | TEMPERATURE                       |
| TYP  | TYPICAL                           |
| UH   | UNIT HEATER                       |
| VOLT | VOLT                              |
| VAV  | VARIABLE AIR VOLUME               |
| VFD  | VARIABLE FREQUENCY DRIVE          |
| W    | WATT                              |
| WB   | WET BULB                          |

CONSULTANT

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management



U.S. Department  
of Veterans Affairs

Drawing Title  
**MECHANICAL NOTES AND  
LEGENDS**

Approved: Project Director

Phase  
**100% CONSTRUCTION  
DOCUMENTS**

**NOT SPRINKLERED**

Project Title  
**REPLACE BOILERS 4 & 5**

Location  
5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
DJU

Drawn  
KRL

Project Number  
**695-24-107**

Building Number  
**112**

Drawing Number  
**M-001**

**PRELIMINARY**  
NOT FOR CONSTRUCTION

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| GENERAL NOTES |                                           |
|---------------|-------------------------------------------|
| 1.            | SEE M-001 FOR M-SERIES NOTES AND LEGENDS. |

| BOILER UNIT SCHEDULE |             |         |         |                 |                 |                    |            |    |    |                                  |                                   |
|----------------------|-------------|---------|---------|-----------------|-----------------|--------------------|------------|----|----|----------------------------------|-----------------------------------|
| UNIT                 | LOCATION    | RATINGS |         |                 | FUEL            |                    | ELECTRICAL |    |    | ESTIMATED OPERATING WEIGHT (LBS) | BASIS OF DESIGN                   |
|                      |             | HP      | EFF (%) | NOX LEVEL (PPM) | LIGHT OIL (GPH) | NATURAL GAS (SCFH) | V          | PH | HZ |                                  |                                   |
| 112-105-BLR-005      | BOILER ROOM | 600     | 83.8    | 30              | 164             | 23.974             | 460        | 3  | 60 | 31,571                           | CLEAVER-BROOKS CBLE-200-600-250ST |

| CHEMICAL FEED PUMP SCHEDULE                   |             |             |                    |                |            |                 |
|-----------------------------------------------|-------------|-------------|--------------------|----------------|------------|-----------------|
| UNIT                                          | LOCATION    | OUTLET SIZE | OUTPUT RANGE (GPH) | PRESSURE (PSI) | ELECTRICAL | BASIS OF DESIGN |
|                                               |             |             |                    |                | V/PH/Hz    |                 |
| 112-105-CF-001; AMINE PUMP                    | BOILER ROOM | 1/4 NPT     | .002-25            | 450            | 120/1/60   | LMI PD71        |
| 112-105-CF-002; SCALE INHIBITOR PUMP          | BOILER ROOM | 1/4 NPT     | .002-25            | 450            | 120/1/60   | LMI PD71        |
| 112-105-CF-003; SULFITE OXYGEN SCAVENGER PUMP | BOILER ROOM | 1/4 NPT     | .002-25            | 450            | 120/1/60   | LMI PD71        |

| VORTEX FLOW METER SCHEDULE |              |                           |                           |                       |                 |                  |                                          |       |
|----------------------------|--------------|---------------------------|---------------------------|-----------------------|-----------------|------------------|------------------------------------------|-------|
| UNIT                       | FLUID MEDIUM | SATURATED STEAM           |                           |                       | PIPE SIZE (NPS) | METER SIZE (NPS) | MAXIMUM PRESSURE DROP AT FULL FLOW (PSI) | NOTES |
|                            |              | MAXIMUM FLOW RATE (LB/HR) | MINIMUM FLOW RATE (LB/HR) | INLET PRESSURE (PSIG) |                 |                  |                                          |       |
| 112-105-FLO-001            | STEAM        | 20,000                    | 1000                      | 100                   | 8               | 6                | 1                                        | -     |
| 112-105-FLO-002            | STEAM        | 20,000                    | 1000                      | 100                   | 8               | 6                | 1                                        | -     |
| 112-103-FLO-003            | STEAM        | 5,000                     | 100                       | 100                   | 6               | 6                | 1                                        |       |

| SAFETY RELIEF VALVE SCHEDULE |                 |            |           |              |       |
|------------------------------|-----------------|------------|-----------|--------------|-------|
| UNIT                         | SERVICE         | MATERIAL   | MASS FLOW | SET PRESSURE | NOTES |
|                              |                 |            | (LBS/HR)  | (PSIG)       |       |
| V-42001                      | 112-105-BLR-005 | CAST STEEL | 20,000    | 130          | -     |
| V-42002                      | 112-105-BLR-005 | CAST STEEL | 20,000    | 135          | -     |

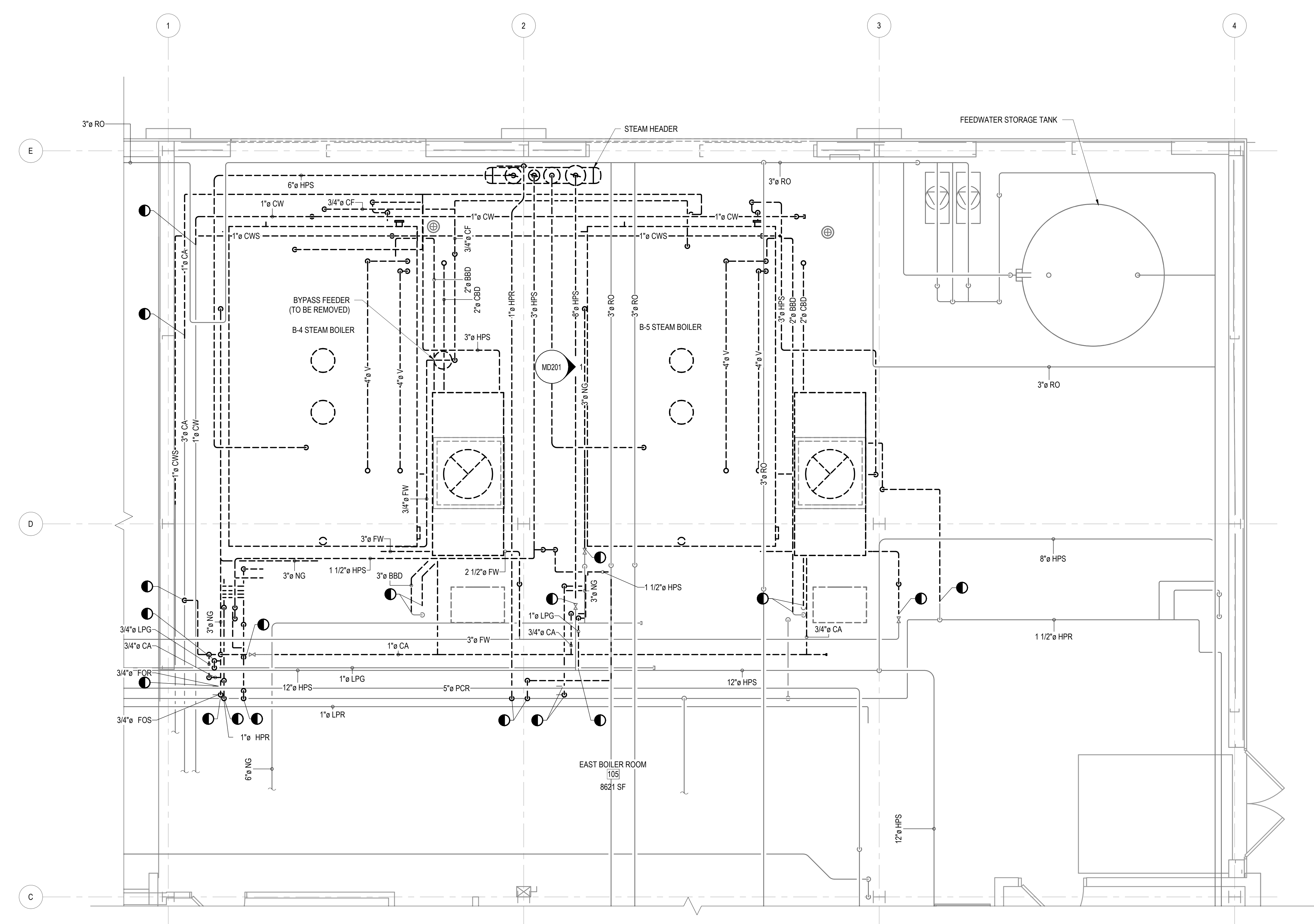
| STEAM TRAP SCHEDULE |              |      |                 |                           |                    |                              |                  |
|---------------------|--------------|------|-----------------|---------------------------|--------------------|------------------------------|------------------|
| UNIT                | LOCATION     | TYPE | CONN. SIZE (IN) | OPERATING PRESSURE (PSIG) | RETURN LINE (PSIG) | DIFFERENTIAL PRESSURE (PSIG) | BASIS OF DESIGN  |
| TRP-44031           | STEAM HEADER | IB   | 1"              | 100                       | 5                  | 95                           | ARMSTRONG IB 983 |
| TRP-44032           | STEAM HEADER | IB   | 1"              | 100                       | 5                  | 95                           | ARMSTRONG IB 983 |
| NOTES:              |              |      |                 |                           |                    |                              |                  |

| ECONOMIZER SCHEDULE |             |          |                      |                      |                               |                                   |                      |                           |                        |       |
|---------------------|-------------|----------|----------------------|----------------------|-------------------------------|-----------------------------------|----------------------|---------------------------|------------------------|-------|
| UNIT                | LOCATION    | SERVICE  | HEAT RECOVERED (MBH) | FEEDWATER FLOW (GPM) | FEEDWATER PRESSURE DROP (PSI) | FEEDWATER TEMPERATURE IN/OUT (°F) | FLUE GAS FLOW (SCFM) | FLUE GAS TEMPERATURE (°F) | BASIS OF DESIGN        | NOTES |
| 112-105-ECO-001     | BOILER ROOM | BOILER 5 | 449                  | 41.4                 | 1                             | 227/250                           | 5194                 | 385                       | CLEAVER-BROOKS CRE-48G | -     |

PRELIMINARY  
NOT FOR CONSTRUCTION

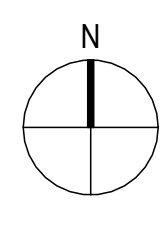
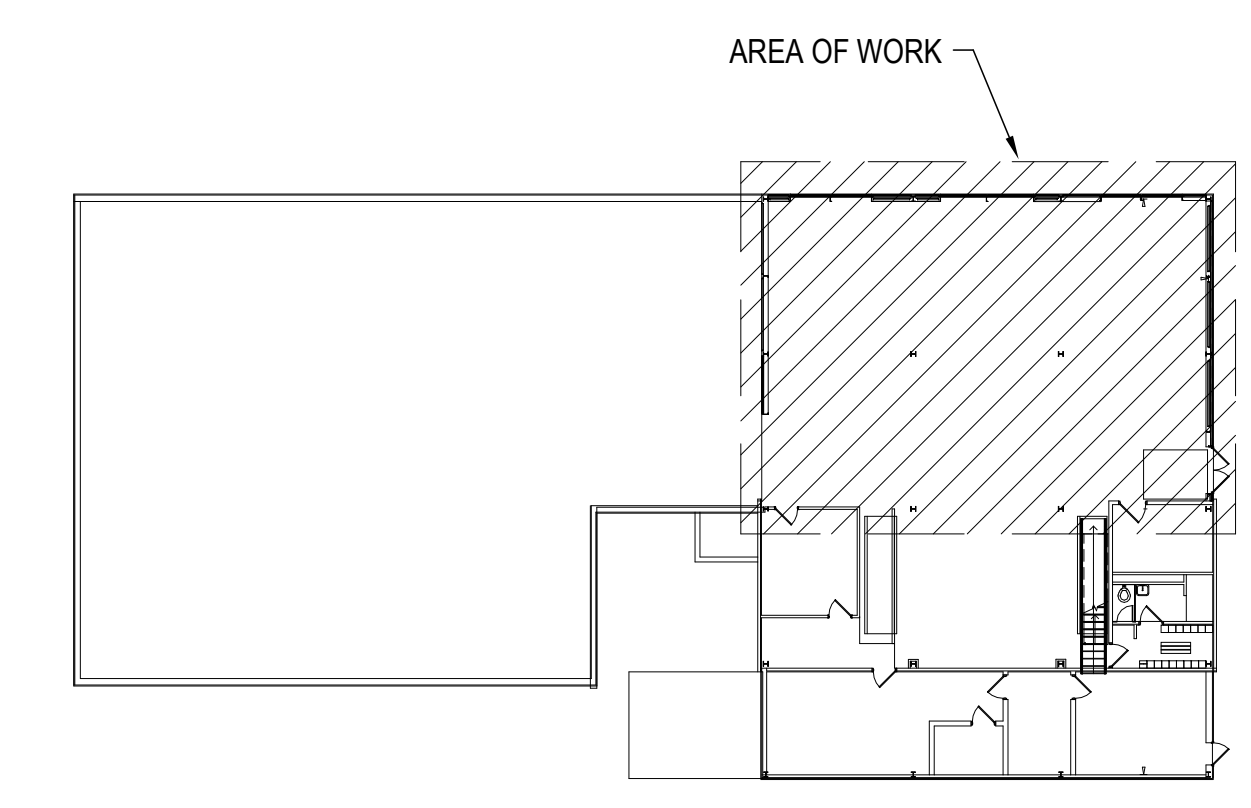
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|----------------------------------------|------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------|-------------------------------------------|-----------------|-----|-------|
|                                        |            | CONSULTANT | ARCHITECT/ENGINEER OF RECORD                                                                                                                                                                              | <div>Office of Construction and Facilities Management</div> <div>VA   U.S. Department of Veterans Affairs</div> | Drawing Title              | Phase                       | Project Title                             | Project Number  |     |       |
|                                        |            |            |                                                                                                                                                                                                           |                                                                                                                 | MECHANICAL SCHEDULES       | 100% CONSTRUCTION DOCUMENTS | REPLACE BOILERS 4 & 5                     | 695-24-107      |     |       |
|                                        |            |            |                                                                                                                                                                                                           |                                                                                                                 | Approved: Project Director |                             | Location                                  | Building Number |     |       |
|                                        |            |            |                                                                                                                                                                                                           |                                                                                                                 |                            | NOT SPRINKLERED             | 5000 W. NATIONAL AVE. MILWAUKEE, WI 53295 | 112             |     |       |
|                                        |            |            |                                                                                                                                                                                                           |                                                                                                                 |                            |                             | Issue Date                                | Drawing Number  |     |       |
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |            | <div><div><b>ENCORUS GROUP</b></div><div>23 MECHANIC STREET, SPRINGVILLE, NY 14141</div><div>encorus.com</div></div> |                                                                                                                 |                            |                             | 2026-04-06                                | BEH             | CJR | M-601 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |            |                                                                                                                                                                                                           |                                                                                                                 |                            |                             |                                           |                 |     |       |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |            |                                                                                                                                                                                                           |                                                                                                                 |                            |                             |                                           |                 |     |       |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |            |                                                                                                                                                                                                           |                                                                                                                 |                            |                             |                                           |                 |     |       |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |            |                                                                                                                                                                                                           |                                                                                                                 |                            |                             |                                           |                 |     |       |
| Revisions:                             | Date:      |            |                                                                                                                                                                                                           |                                                                                                                 |                            |                             |                                           |                 |     |       |

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 MECHANICAL PIPING DEMOLITION PLAN - FIRST FLOOR LEVEL  
SCALE: 3/8" = 1'-0"

KEYPLAN



GENERAL NOTES

- SEE M-001 FOR M-SERIES NOTES AND LEGENDS.
- CONTRACTOR TO COORDINATE WITH VA TO PROVIDE SCRAP VALUE CREDIT TO OWNER FOR REMOVED EQUIPMENT.

GENERAL SYMBOLS:

Room name  
101  
XXX SF  
ROOM NAME, NUMBER, AND AREA

ABBREVIATIONS

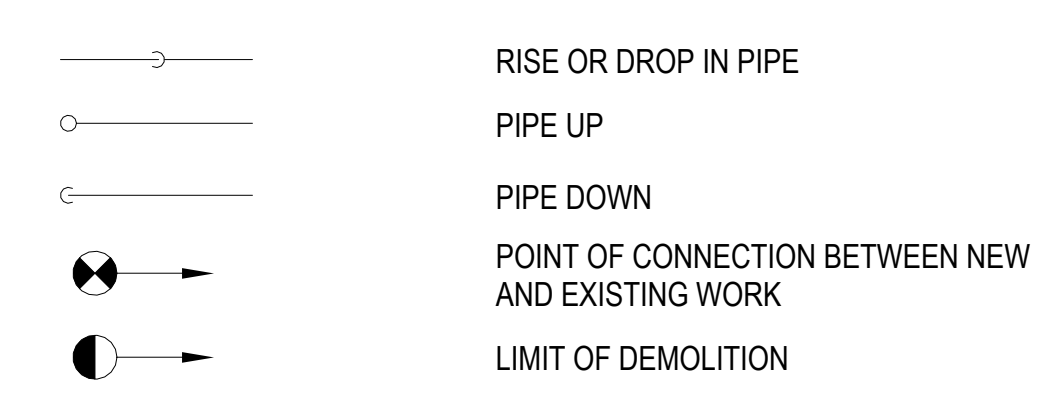
|     |                            |
|-----|----------------------------|
| BBD | BOTTOM BLOWDOWN            |
| CBF | CONTINUOUS BLOWDOWN        |
| CF  | CHEMICAL FEEDWATER         |
| CW  | CITY WATER                 |
| CT  | CONDENSATE TRANSFER        |
| FW  | FEEDWATER                  |
| FOR | FUEL OIL RETURN            |
| FOS | FUEL OIL SUPPLY            |
| HPS | HIGH PRESSURE STEAM SUPPLY |
| HPR | HIGH PRESSURE STEAM RETURN |
| LPG | LIQUIFIED PETROLEUM GAS    |
| LPS | LOW PRESSURE STEAM SUPPLY  |
| LPR | LOW PRESSURE STEAM RETURN  |
| NG  | NATURAL GAS                |
| PCR | PUMPED CONDENSATE RETURN   |
| RO  | REVERSE OSMOSIS            |
| SF  | SQUARE FOOT                |

VALVE SYMBOLS



GATE VALVE

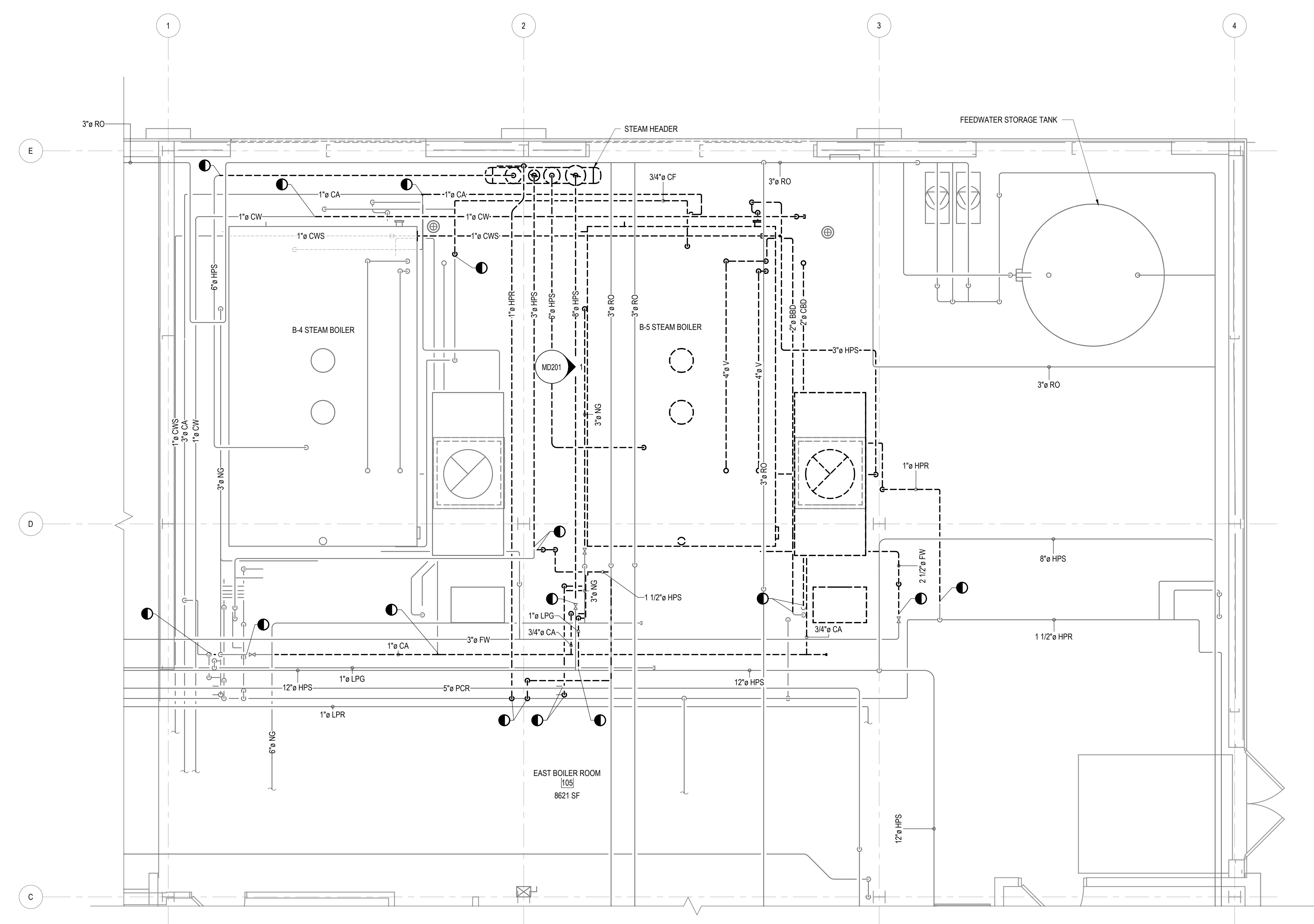
PIPING SYMBOLS



PRELIMINARY  
NOT FOR CONSTRUCTION

|                                                                                                                                                                                                       |  |                                                                           |  |                                                  |  |                                                                  |  |                                      |  |                                                         |  |                              |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|--|--------------------------------------------------|--|------------------------------------------------------------------|--|--------------------------------------|--|---------------------------------------------------------|--|------------------------------|--|
| CONSULTANT                                                                                                                                                                                            |  | ARCHITECT/ENGINEER OF RECORD                                              |  | Office of Construction and Facilities Management |  | Drawing Title<br>MECHANICAL PIPING DEMOLITION PLAN - FIRST FLOOR |  | Phase<br>100% CONSTRUCTION DOCUMENTS |  | Project Title<br>REPLACE BOILERS 4 & 5                  |  | Project Number<br>695-24-107 |  |
| REV E - 100% CONSTRUCTION DOCUMENTS<br>REV D - 95% CONSTRUCTION DOCUMENTS<br>REV C - 65% DESIGN DEVELOPMENT<br>REV B - 65% DESIGN DEVELOPMENT<br>REV A - 35% SCHEMATIC DESIGN DOCUMENTS<br>Revisions: |  | ENCORUS GROUP<br>23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com |  | VA U.S. Department of Veterans Affairs           |  | Approved: Project Director                                       |  | NOT SPRINKLERED                      |  | Location<br>5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 |  | Building Number<br>112       |  |
| 2026-04-06<br>2026-03-09<br>2025-12-30<br>2024-09-17<br>2024-07-24<br>Date:                                                                                                                           |  |                                                                           |  |                                                  |  |                                                                  |  |                                      |  | Issue Date<br>2026-04-06                                |  | Checked<br>DJU               |  |
|                                                                                                                                                                                                       |  |                                                                           |  |                                                  |  |                                                                  |  |                                      |  | Drawn<br>KRL                                            |  | Drawing Number<br>MD101      |  |

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 MECHANICAL PIPING BID DEDUCTION DEMOLITION PLAN - FIRST FLOOR LEVEL  
SCALE: 3/8" = 1'-0"

KEYPLAN

AREA OF WORK

N

GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

2. CONTRACTOR TO COORDINATE WITH VA TO PROVIDE SCRAP VALUE CREDIT TO OWNER FOR REMOVED EQUIPMENT.

GENERAL SYMBOLS:

Room name  
101

XXX SF

ROOM NAME, NUMBER, AND AREA

ABBREVIATIONS

BBD

CBD

CF

CW

CT

FW

FOR

FOS

HPS

HPR

LPG

LPS

LPR

NG

PCR

RO

SF

BOTTOM BLOWDOWN

CONTINUOUS BLOWDOWN

CHEMICAL FEEDWATER

CITY WATER

CONDENSATE TRANSFER

FEEDWATER

FUEL OIL RETURN

FUEL OIL SUPPLY

HIGH PRESSURE STEAM SUPPLY

HIGH PRESSURE STEAM RETURN

LIQUIFIED PETROLEUM GAS

LOW PRESSURE STEAM SUPPLY

LOW PRESSURE STEAM RETURN

NATURAL GAS

PUMPED CONDENSATE RETURN

REVERSE OSMOSIS

SQUARE FOOT

VALVE SYMBOLS

GATE VALVE

PIPING SYMBOLS

RISE OR DROP IN PIPE

PIPE UP

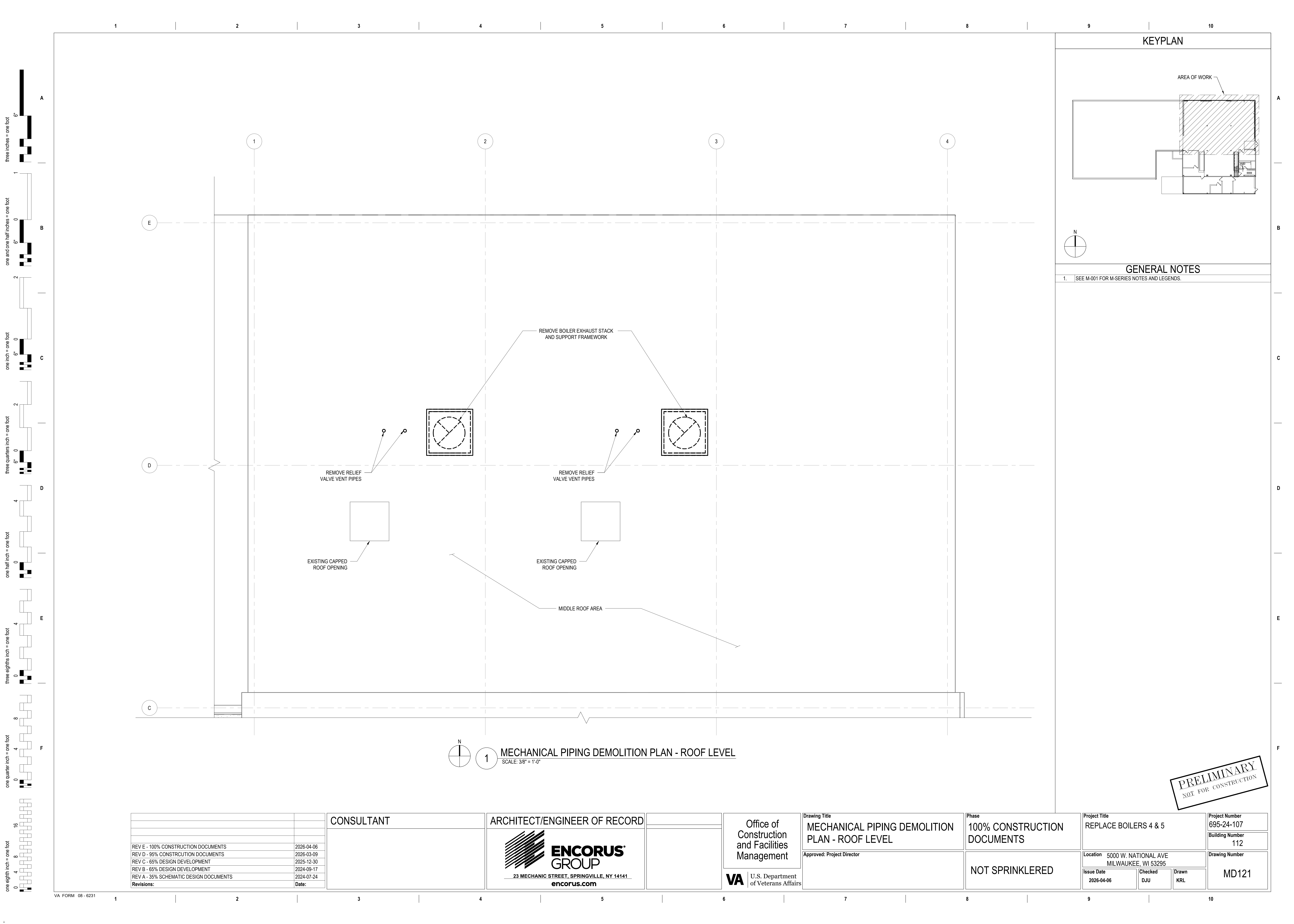
PIPE DOWN

POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK

LIMIT OF DEMOLITION

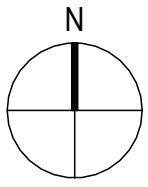
PRELIMINARY  
NOT FOR CONSTRUCTION

|                                                                                                                                                                                                       |                                                                             |                                                                           |                                                                             |                                      |                                                         |                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------|------------------------------|
| CONSULTANT                                                                                                                                                                                            | ARCHITECT/ENGINEER OF RECORD                                                | Office of Construction and Facilities Management                          | Drawing Title<br>MECHANICAL PIPING BID DEDUCT DEMOLITION PLAN - FIRST FLOOR | Phase<br>100% CONSTRUCTION DOCUMENTS | Project Title<br>REPLACE BOILERS 4 & 5                  | Project Number<br>695-24-107 |
| REV E - 100% CONSTRUCTION DOCUMENTS<br>REV D - 95% CONSTRUCTION DOCUMENTS<br>REV C - 65% DESIGN DEVELOPMENT<br>REV B - 65% DESIGN DEVELOPMENT<br>REV A - 35% SCHEMATIC DESIGN DOCUMENTS<br>Revisions: | 2026-04-06<br>2026-03-09<br>2025-12-30<br>2024-09-17<br>2024-07-24<br>Date: | ENCORUS GROUP<br>23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com | Approved: Project Director                                                  | NOT SPRINKLERED                      | Location<br>5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 | Building Number<br>112       |
|                                                                                                                                                                                                       |                                                                             |                                                                           |                                                                             |                                      | Issue Date<br>2026-04-06                                | Drawing Number<br>MD105      |
|                                                                                                                                                                                                       |                                                                             |                                                                           |                                                                             |                                      | Checked<br>DJU                                          |                              |
|                                                                                                                                                                                                       |                                                                             |                                                                           |                                                                             |                                      | Drawn<br>KRL                                            |                              |



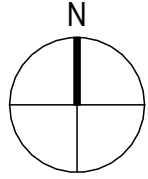
KEYPLAN

AREA OF WORK



GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.



1

MECHANICAL PIPING DEMOLITION PLAN - ROOF LEVEL

SCALE: 3/8" = 1'-0"

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management



U.S. Department  
of Veterans Affairs

Drawing Title  
MECHANICAL PIPING DEMOLITION  
PLAN - ROOF LEVEL

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
DJU

Drawn  
KRL

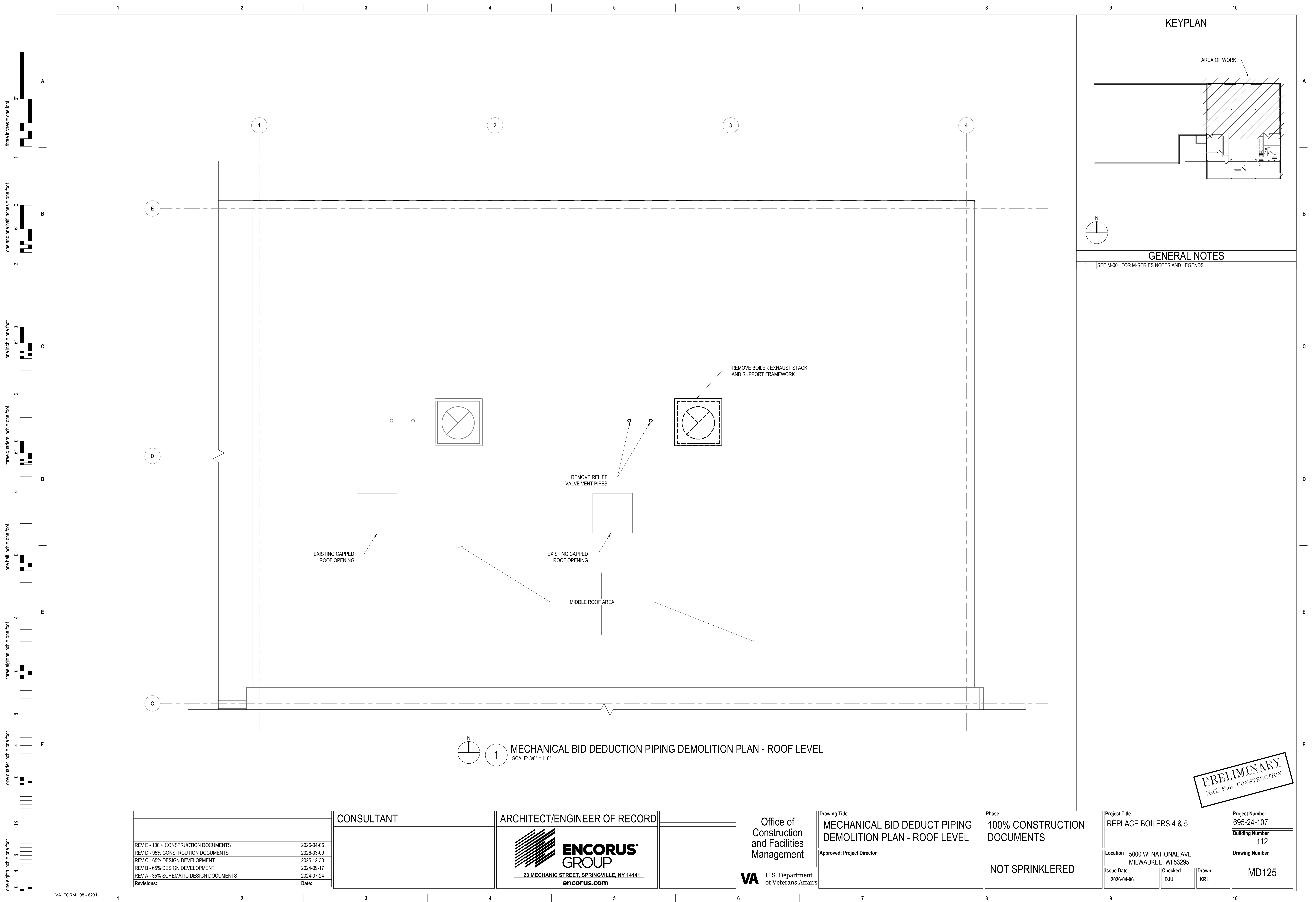
Project Number  
695-24-107

Building Number  
112

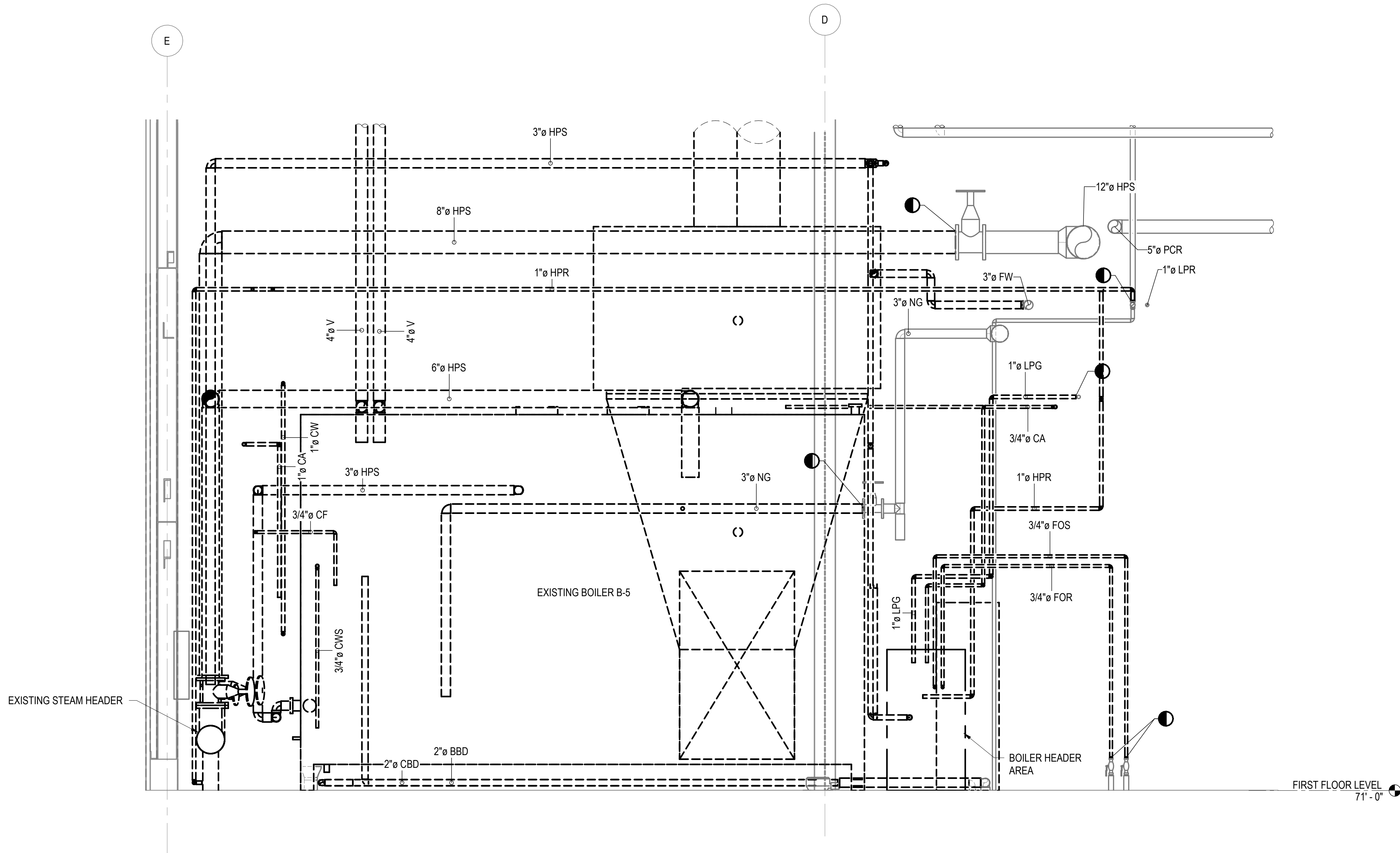
Drawing Number

MD121

PRELIMINARY  
NOT FOR CONSTRUCTION



three inches = one foot  
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one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 MECHANICAL DEMOLITION ELEVATION  
SCALE: 1/2" = 1'-0"  
1 / MD101  
1 / MD105

GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

ABBREVIATIONS

|     |                            |
|-----|----------------------------|
| FW  | FEEDWATER                  |
| FOR | FUEL OIL RETURN            |
| FOS | FUEL OIL SUPPLY            |
| HPS | HIGH PRESSURE STEAM SUPPLY |
| HPR | HIGH PRESSURE STEAM RETURN |
| LPG | LIQUIFIED PETROLEUM GAS    |
| LPS | LOW PRESSURE STEAM SUPPLY  |
| LPR | LOW PRESSURE STEAM RETURN  |
| NG  | NATURAL GAS                |
| PCR | PUMPED CONDENSATE RETURN   |
| RO  | REVERSE OSMOSIS            |
| RH  | ROD HANGER PIPE SUPPORT    |
| SH  | SPRING HANGER PIPE SUPPORT |

PIPING SYMBOLS

● — LIMIT OF DEMOLITION

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD  
**ENCORUS GROUP**  
23 MECHANIC STREET, SPRINGVILLE, NY 14141  
encorus.com

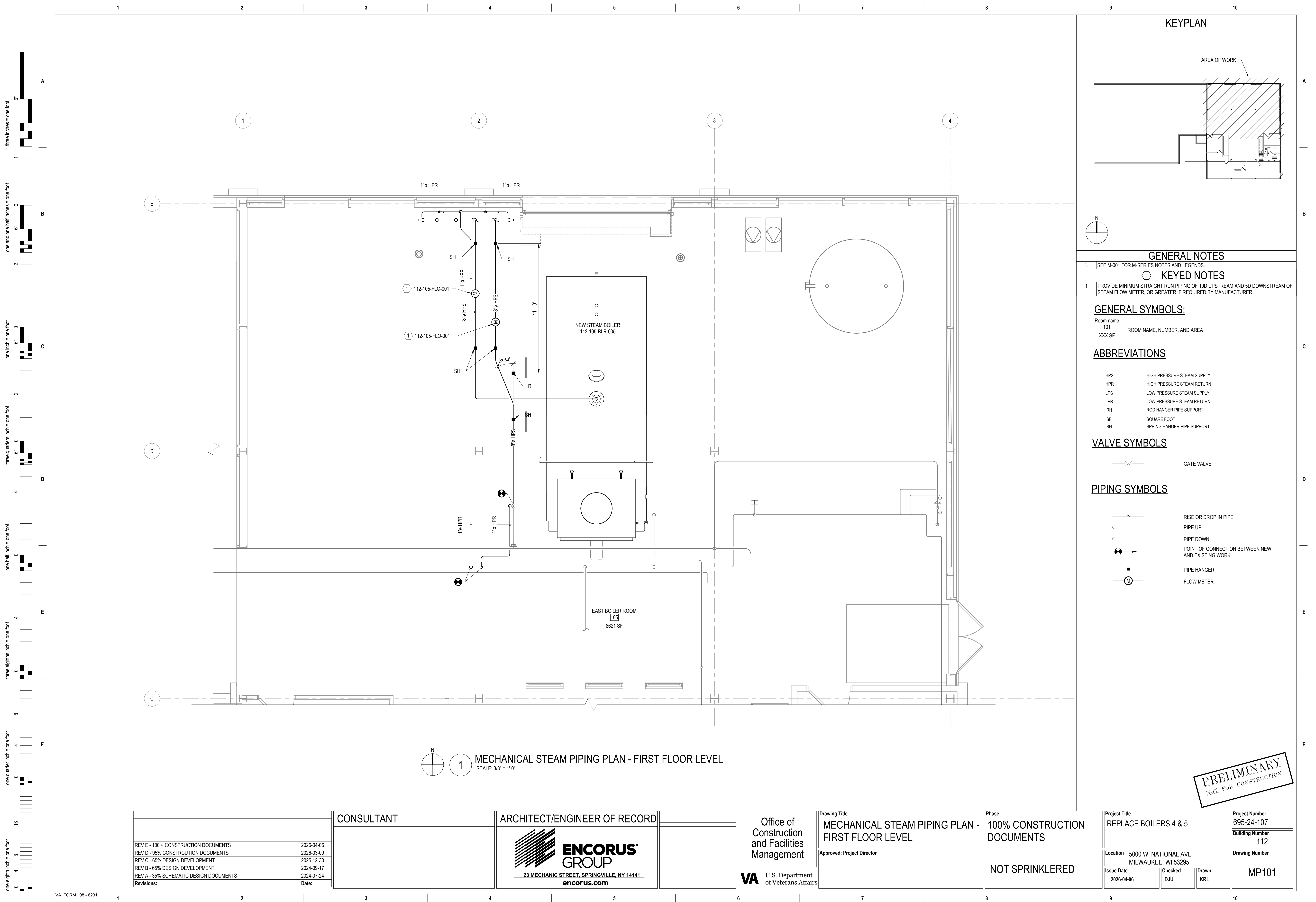
Office of  
Construction  
and Facilities  
Management  
**VA** U.S. Department  
of Veterans Affairs

Drawing Title  
**MECHANICAL DEMOLITION  
ELEVATION**  
Approved: Project Director

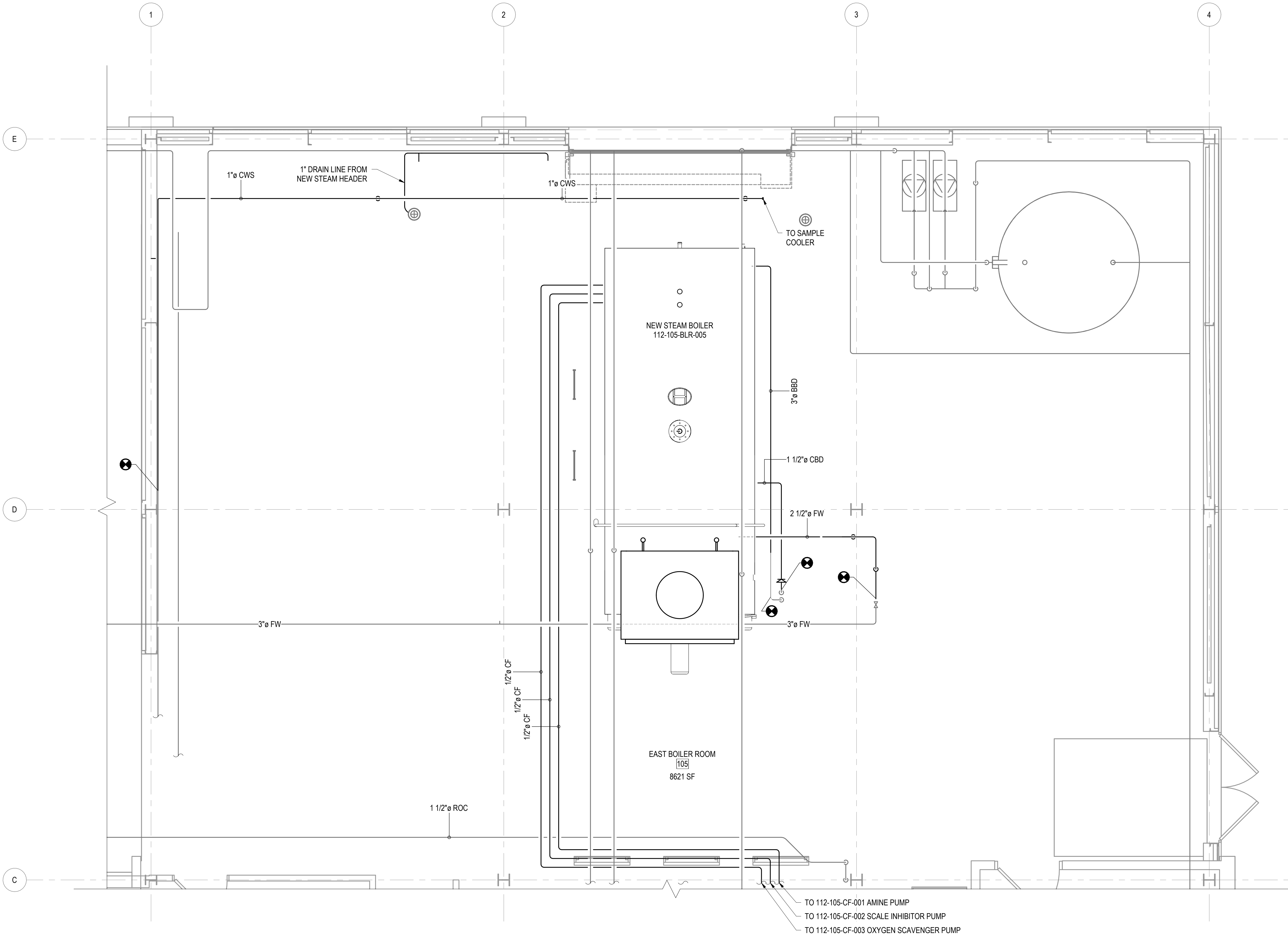
Phase  
**100% CONSTRUCTION  
DOCUMENTS**  
**NOT SPRINKLERED**

Project Title  
**REPLACE BOILERS 4 & 5**  
Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295  
Issue Date 2026-04-06  
Checked DJU  
Drawn KRL

Project Number  
**695-24-107**  
Building Number  
**112**  
Drawing Number  
**MD201**

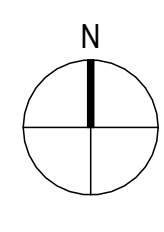
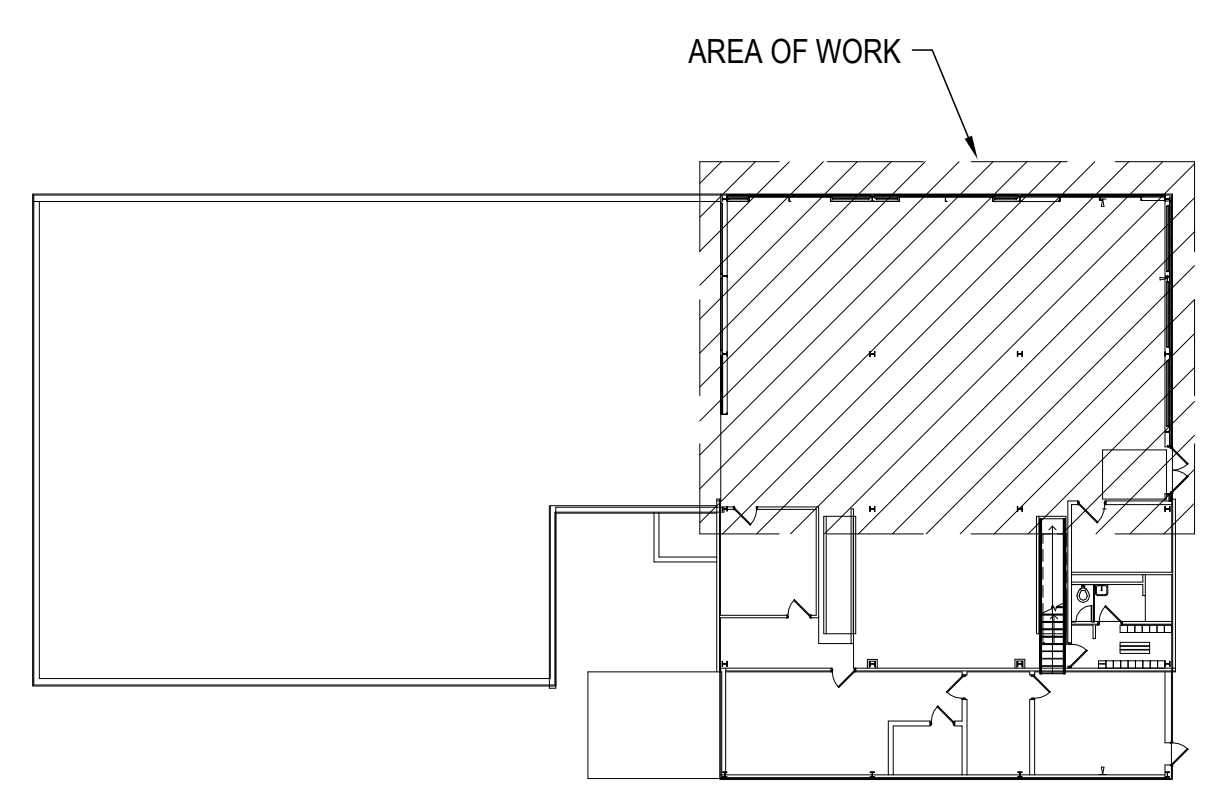


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one quarter inch = one foot  
one eighth inch = one foot



1 MECHANICAL HYDRONIC PIPING PLAN - FIRST FLOOR LEVEL  
SCALE: 3/8" = 1'-0"

KEYPLAN



GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

GENERAL SYMBOLS:

Room name  
101  
XXX SF  
ROOM NAME, NUMBER, AND AREA

ABBREVIATIONS

BBD BOTTOM BLOWDOWN  
CBD CONTINUOUS BLOWDOWN  
CF CHEMICAL FEEDWATER  
CW CITY WATER  
FW FEEDWATER

VALVE SYMBOLS

GATE VALVE

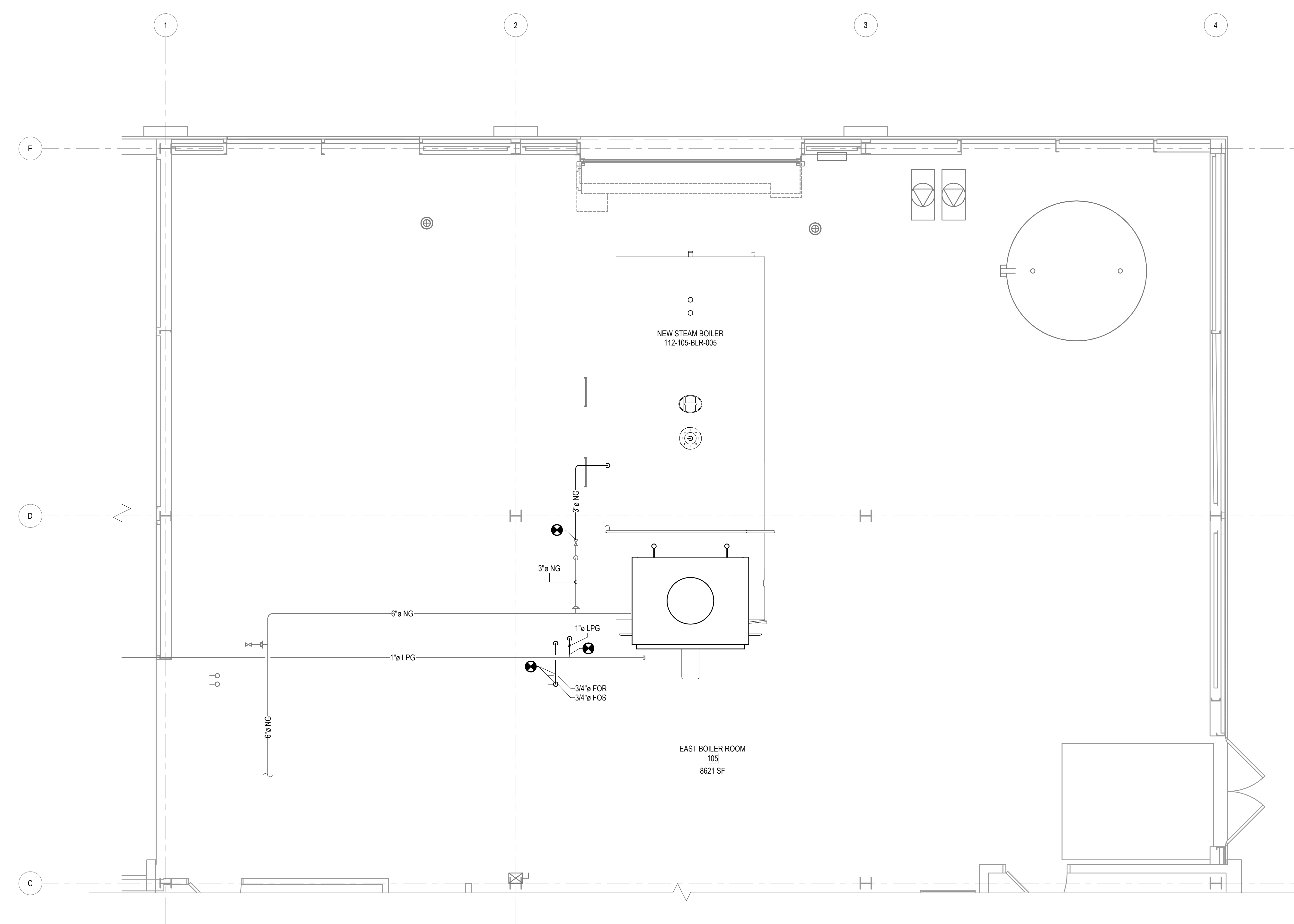
PIPING SYMBOLS

RISE OR DROP IN PIPE  
PIPE UP  
PIPE DOWN  
POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK  
PIPE HANGER  
FLOOR DRAIN

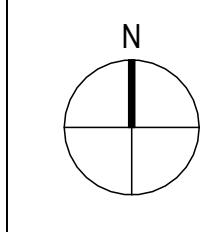
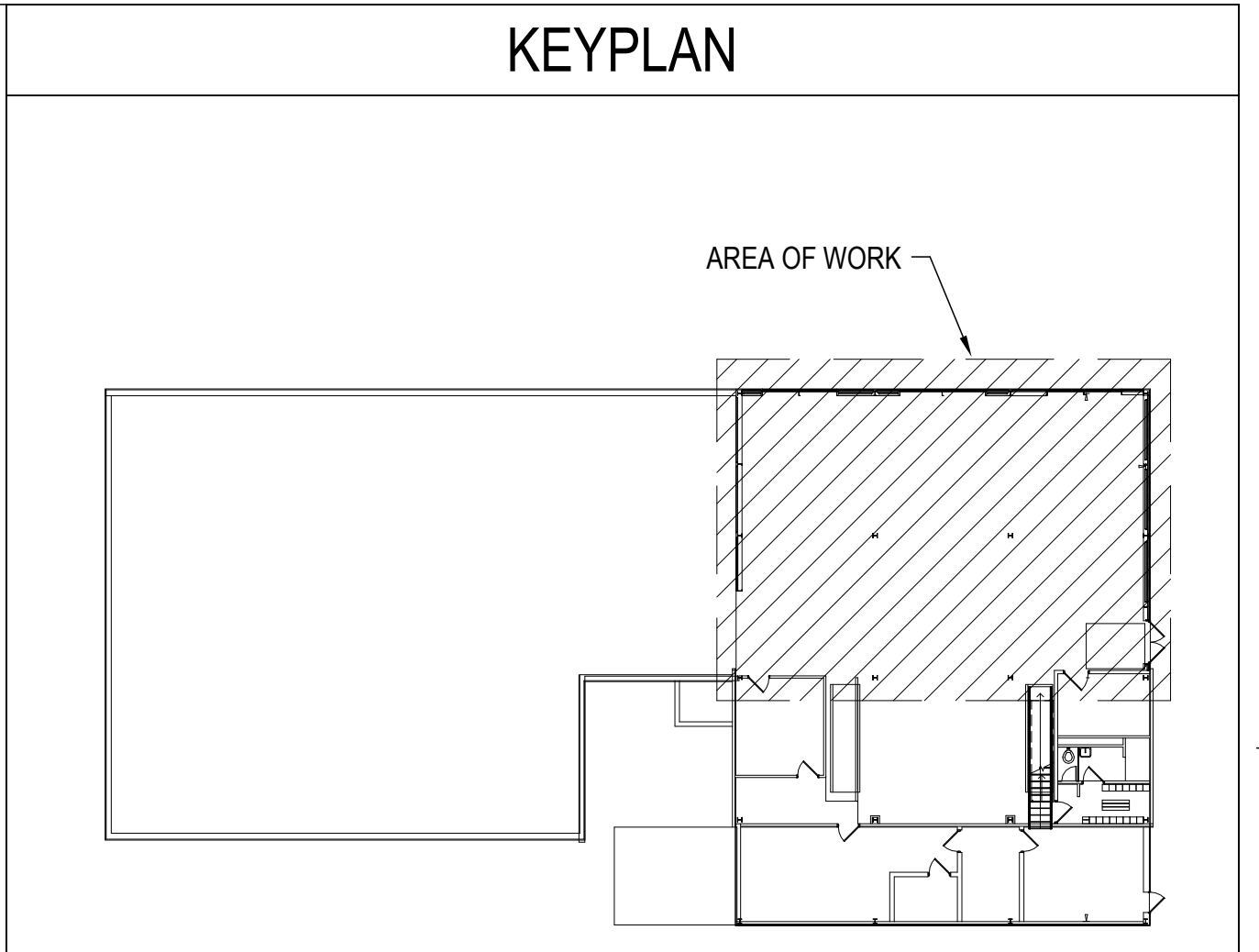
PRELIMINARY  
NOT FOR CONSTRUCTION

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|  |  | CONSULTANT | ARCHITECT/ENGINEER OF RECORD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 MECHANICAL FUEL PIPING PLAN - FIRST FLOOR LEVEL  
SCALE: 3/8" = 1'-0"



### GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

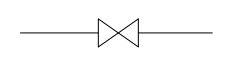
### GENERAL SYMBOLS:

Room name  
[101]  
XXX SF  
ROOM NAME, NUMBER, AND AREA

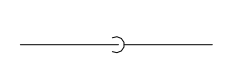
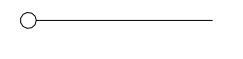
### ABBREVIATIONS

|     |                         |
|-----|-------------------------|
| FOR | FUEL OIL RETURN         |
| FOS | FUEL OIL SUPPLY         |
| LPG | LIQUIFIED PETROLEUM GAS |
| NG  | NATURAL GAS             |
| SF  | SQUARE FOOT             |

### VALVE SYMBOLS

 GATE VALVE

### PIPING SYMBOLS

|                                                                                       |                                                   |
|---------------------------------------------------------------------------------------|---------------------------------------------------|
|  | RISE OR DROP IN PIPE                              |
|  | PIPE UP                                           |
|  | PIPE DOWN                                         |
|  | POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK |
|  | PIPE HANGER                                       |

**PRELIMINARY**  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD  
  
23 MECHANIC STREET, SPRINGVILLE, NY 14141  
encorus.com

Office of  
Construction  
and Facilities  
Management  
 U.S. Department  
of Veterans Affairs

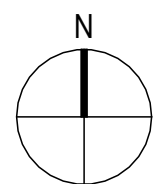
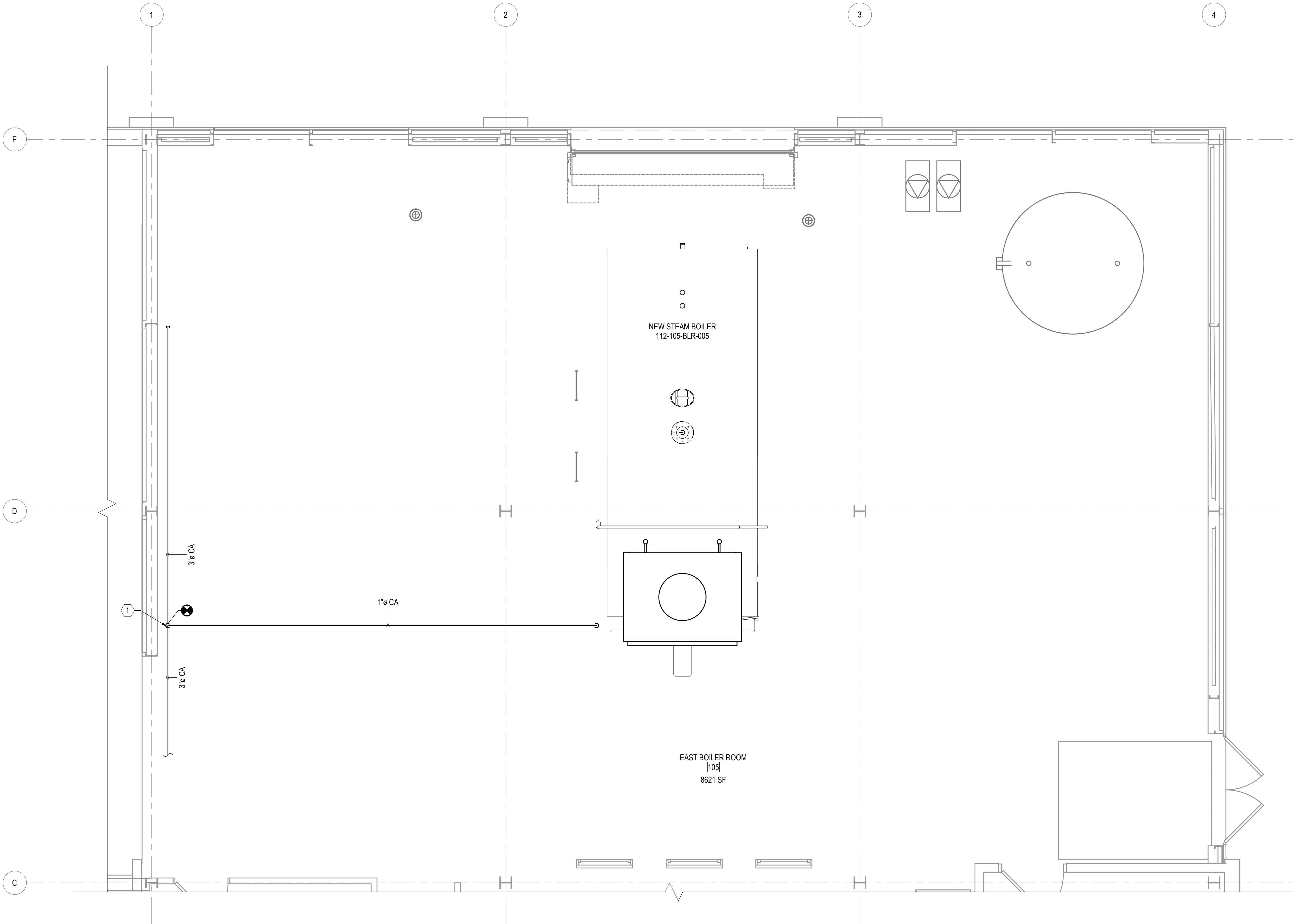
Drawing Title  
MECHANICAL FUEL PIPING PLAN -  
FIRST FLOOR LEVEL  
Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS  
NOT SPRINKLERED

|               |                                             |
|---------------|---------------------------------------------|
| Project Title | REPLACE BOILERS 4 & 5                       |
| Location      | 5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 |
| Issue Date    | 2026-04-06                                  |
| Checked       | DJU                                         |
| Drawn         | KRL                                         |

|                 |            |
|-----------------|------------|
| Project Number  | 695-24-107 |
| Building Number | 112        |
| Drawing Number  | MP103      |

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1

MECHANICAL COMPRESSED AIR PIPING PLAN - FIRST FLOOR LEVEL

SCALE: 3/8" = 1'-0"

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

|            |
|------------|
| CONSULTANT |
|------------|

|                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------|
| ARCHITECT/ENGINEER OF RECORD                                                                                                                      |
| <br>23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com |

|                                                           |
|-----------------------------------------------------------|
| Office of<br>Construction<br>and Facilities<br>Management |
| VA U.S. Department<br>of Veterans Affairs                 |

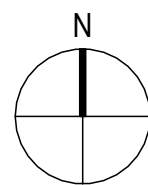
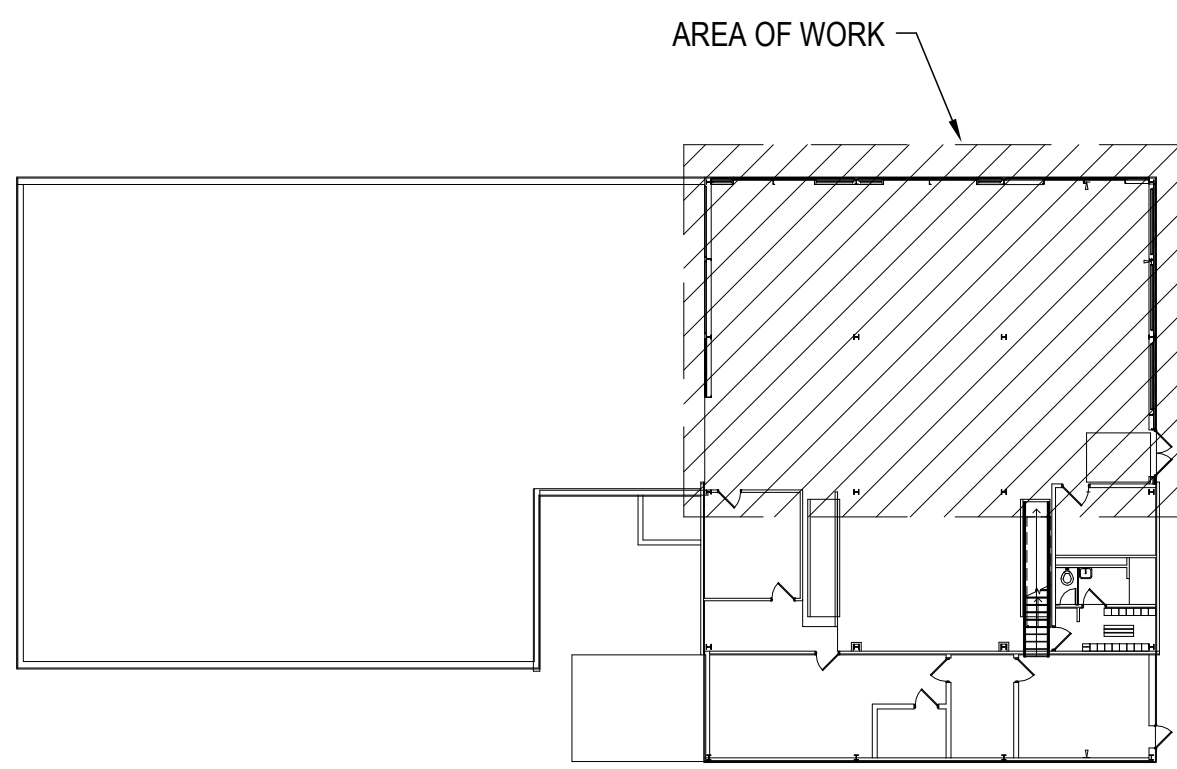
|                                                              |
|--------------------------------------------------------------|
| Drawing Title                                                |
| MECHANICAL COMPRESSED AIR<br>PIPING PLAN - FIRST FLOOR LEVEL |
| Approved: Project Director                                   |

|                                |
|--------------------------------|
| Phase                          |
| 100% CONSTRUCTION<br>DOCUMENTS |
| NOT SPRINKLERED                |

|                                                      |
|------------------------------------------------------|
| Project Title                                        |
| REPLACE BOILERS 4 & 5                                |
| Location 5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 |
| Issue Date 2026-04-06                                |
| Checked DJU                                          |
| Drawn KRL                                            |

|                 |
|-----------------|
| Project Number  |
| 695-24-107      |
| Building Number |
| 112             |
| Drawing Number  |
| MP104           |

KEYPLAN



GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

KEYED NOTES

1. CONNECT EXISTING SHOP GENERAL COMPRESSED AIR TO BURNER FOR FUEL ATOMIZATION DURING COLD START AND TIE EXISTING LOW ATOMIZATION MEDIA PRESSURE SWITCH (LAMPS) FOR SAFETY BOILER SHUTDOWN ON LOW AIR PRESSURE BACK TO EPH-SB-BLD112-1. CONTRACTOR TO REMOVE ALL CONDUIT AND CABLING SUPPLYING BOILER 5 CONTROL PANEL BACK TO EPL-SB-BLD112-2

GENERAL SYMBOLS:

Room name  
[101] ROOM NAME, NUMBER, AND AREA  
XXX SF

ABBREVIATIONS

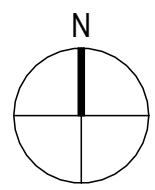
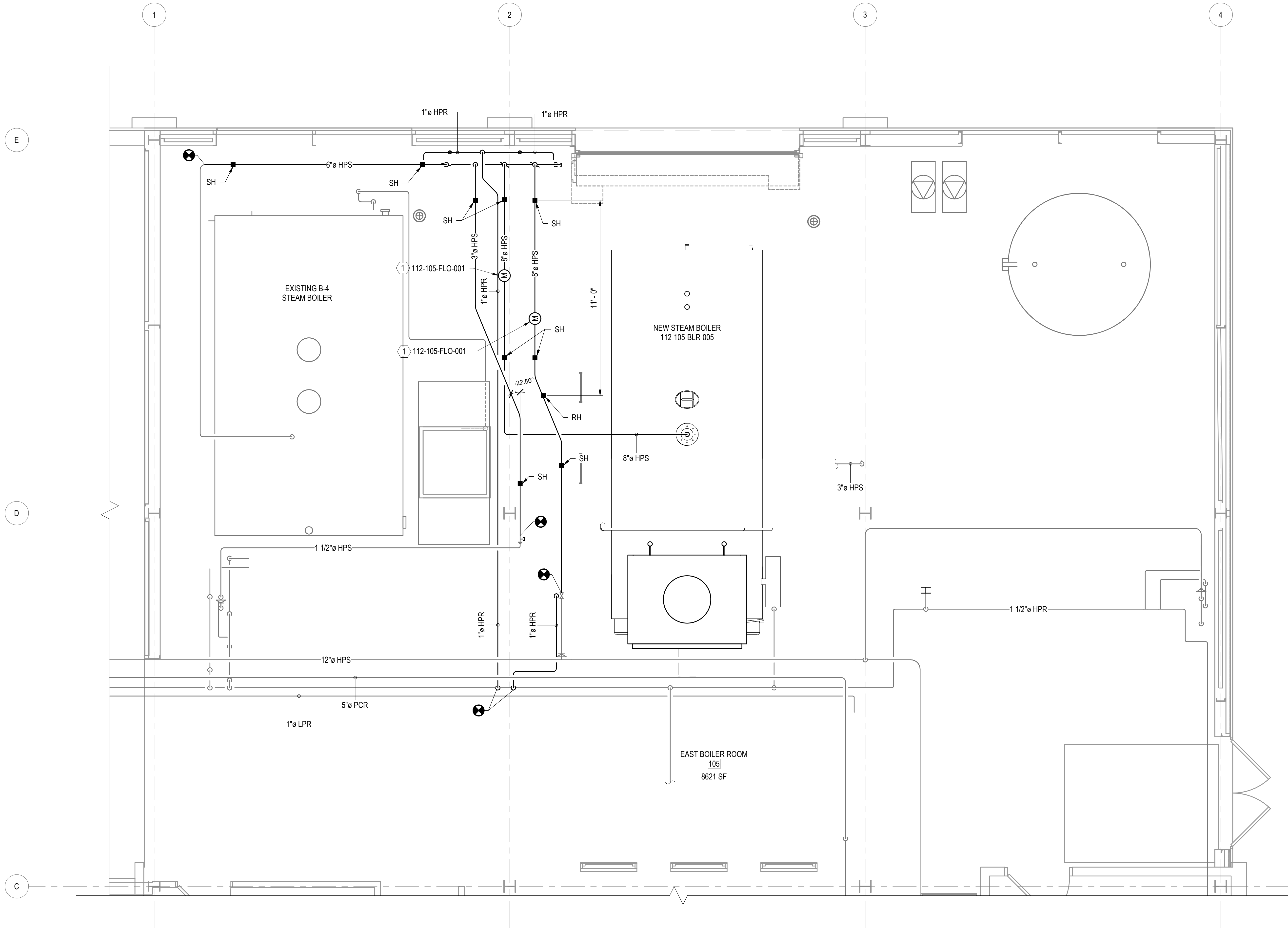
CA COMPRESSED AIR

PIPING SYMBOLS

- RISE OR DROP IN PIPE  
PIPE UP  
PIPE DOWN  
POINT OF CONNECTION BETWEEN NEW  
AND EXISTING WORK  
PIPE HANGER

PRELIMINARY  
NOT FOR CONSTRUCTION

three inches = one foot  
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three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1

MECHANICAL BID DEDUCTION STEAM PIPING PLAN - FIRST FLOOR LEVEL

SCALE: 3/8" = 1'-0"

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management



U.S. Department  
of Veterans Affairs

Drawing Title  
MECHANICAL BID DEDUCT STEAM  
PIPING PLAN - FIRST FLOOR LEVEL

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

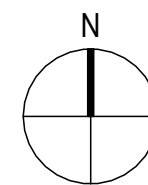
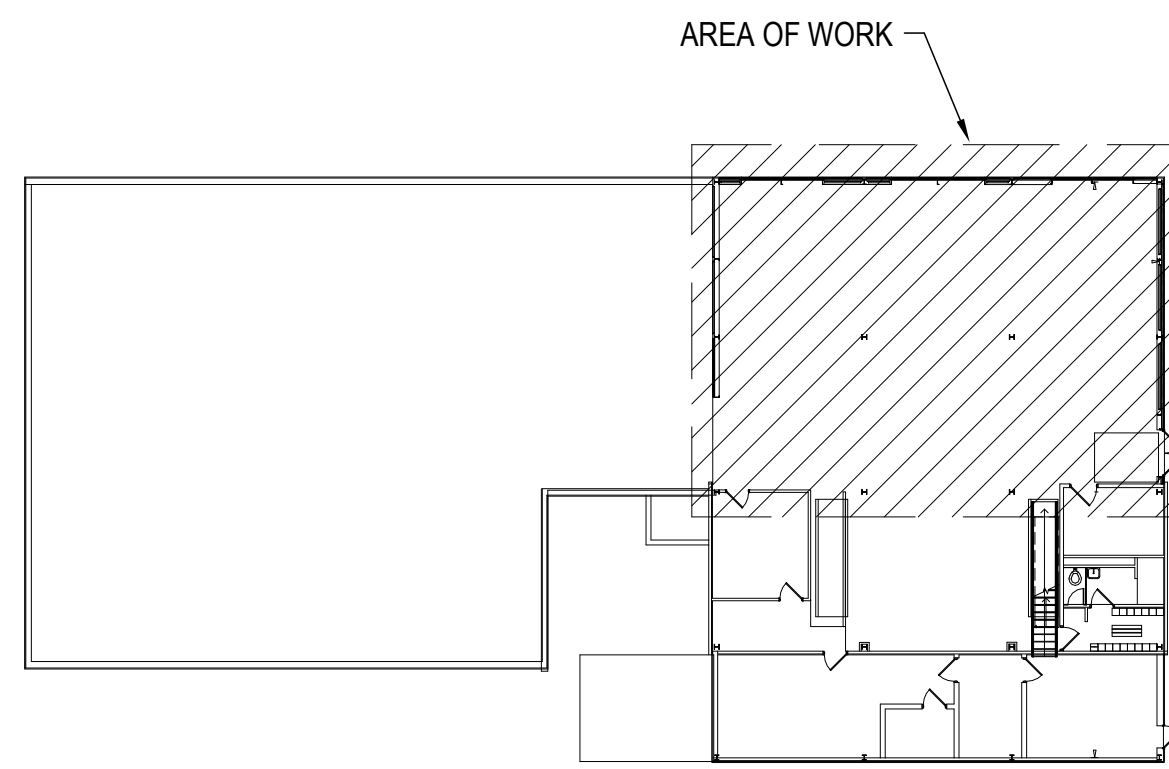
Checked  
DJU

Drawn  
KRL

Project Number  
695-24-107  
Building Number  
112

Drawing Number  
MP105

KEYPLAN



GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

KEYED NOTES

1. PROVIDE MINIMUM STRAIGHT RUN PIPING OF 10D UPSTREAM AND 5D DOWNSTREAM OF STEAM FLOW METER, OR GREATER IF REQUIRED BY MANUFACTURER

GENERAL SYMBOLS:

Room name  
[101]  
XXX SF  
ROOM NAME, NUMBER, AND AREA

ABBREVIATIONS

|     |                            |
|-----|----------------------------|
| HPS | HIGH PRESSURE STEAM SUPPLY |
| HPR | HIGH PRESSURE STEAM RETURN |
| LPS | LOW PRESSURE STEAM SUPPLY  |
| LPR | LOW PRESSURE STEAM RETURN  |
| RH  | ROD HANGER PIPE SUPPORT    |
| SF  | SQUARE FOOT                |
| SH  | SPRING HANGER PIPE SUPPORT |

VALVE SYMBOLS

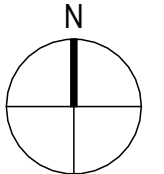
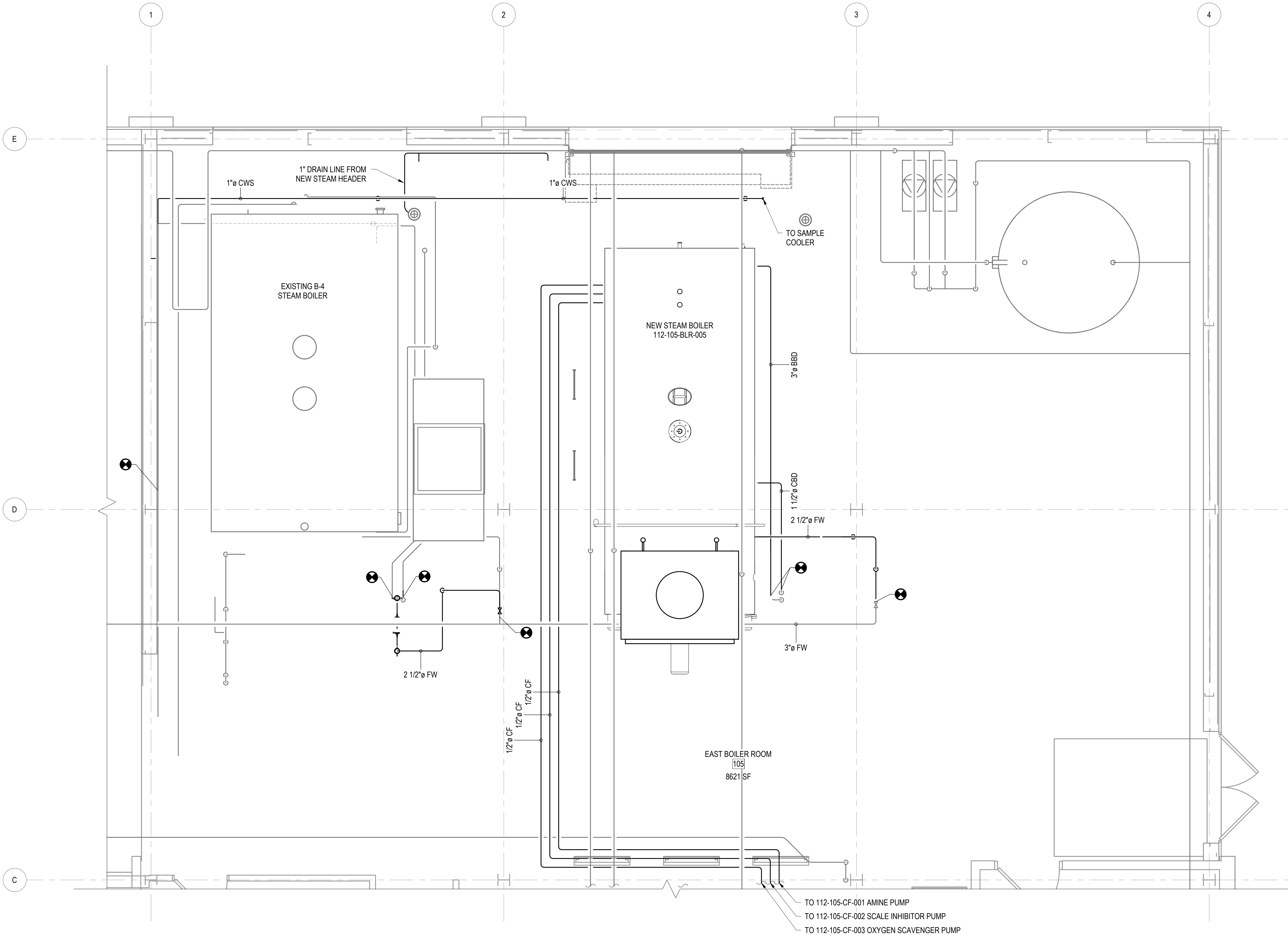
GATE VALVE

PIPING SYMBOLS

|                                                      |
|------------------------------------------------------|
| RISE OR DROP IN PIPE                                 |
| PIPE UP                                              |
| PIPE DOWN                                            |
| POINT OF CONNECTION BETWEEN NEW<br>AND EXISTING WORK |
| PIPE HANGER                                          |
| FLOW METER                                           |

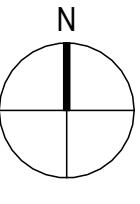
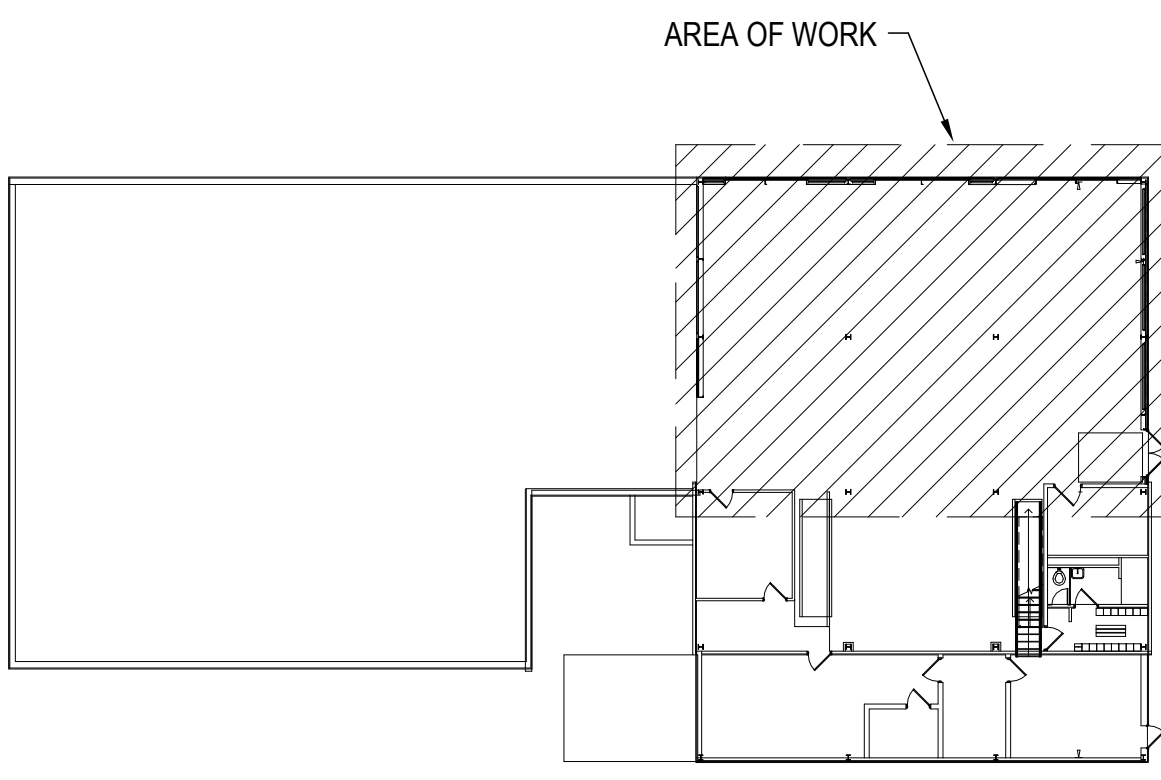
PRELIMINARY  
NOT FOR CONSTRUCTION

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 MECHANICAL BID DEDUCTION HYDRONIC PIPING PLAN - FIRST FLOOR LEVEL  
SCALE: 3/8" = 1'-0"

KEYPLAN



GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

GENERAL SYMBOLS:

Room name  
101  
XXX SF  
ROOM NAME, NUMBER, AND AREA

ABBREVIATIONS

BBD BOTTOM BLOWDOWN  
CBD CONTINUOUS BLOWDOWN  
CF CHEMICAL FEEDWATER  
CW CITY WATER  
FW FEEDWATER

VALVE SYMBOLS

GATE VALVE

PIPING SYMBOLS

RISE OR DROP IN PIPE  
PIPE UP  
PIPE DOWN  
POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK  
PIPE HANGER  
FLOOR DRAIN

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD  
**ENCORUS GROUP**  
23 MECHANIC STREET, SPRINGVILLE, NY 14141  
encorus.com

Office of  
Construction  
and Facilities  
Management  
**VA** U.S. Department  
of Veterans Affairs

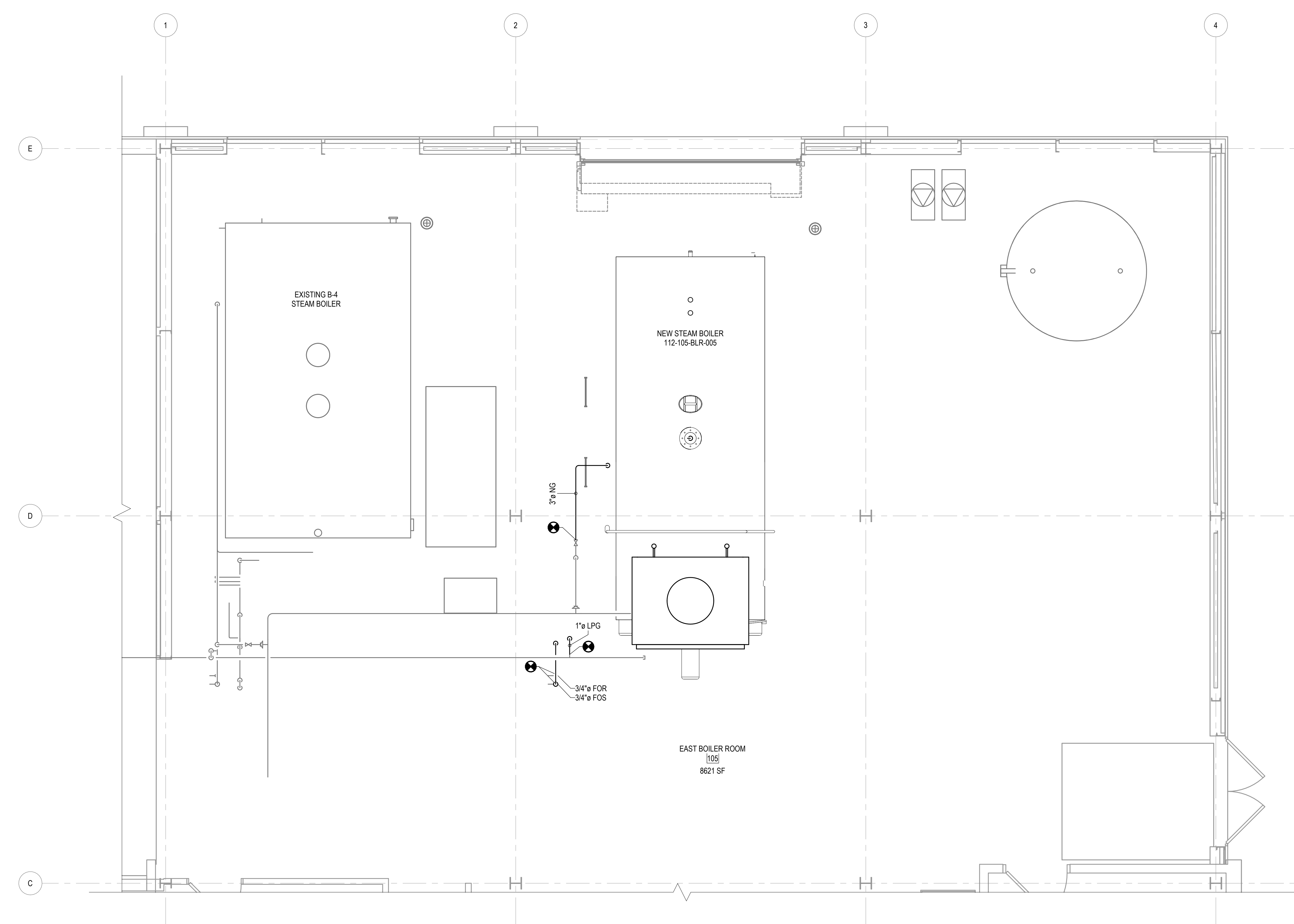
Drawing Title  
**MECHANICAL BID DEDUCT  
HYDRONIC PIPING PLAN - FIRST FL**  
Approved: Project Director

Phase  
**100% CONSTRUCTION  
DOCUMENTS**  
**NOT SPRINKLERED**

Project Title  
**REPLACE BOILERS 4 & 5**  
Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295  
Issue Date 2026-04-06  
Checked DJU  
Drawn KRL

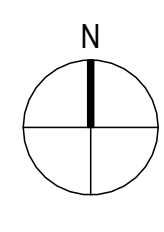
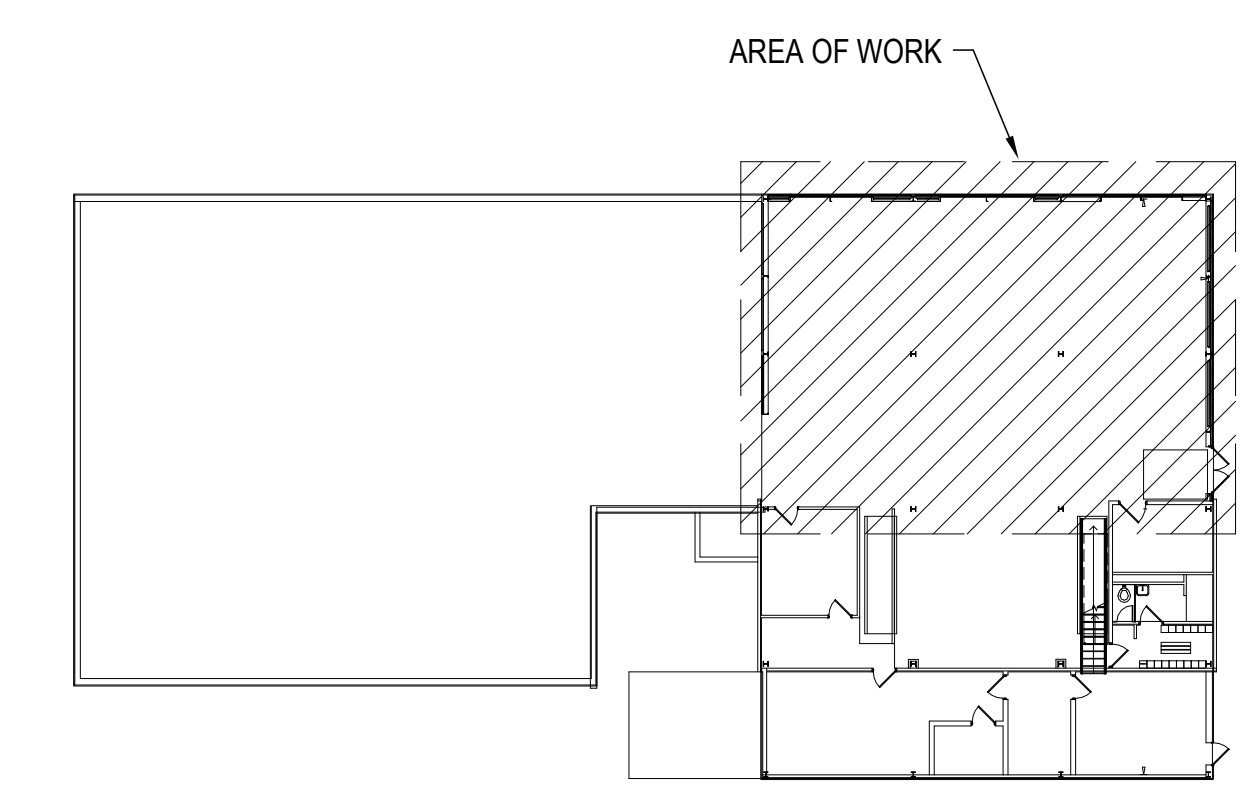
Project Number  
695-24-107  
Building Number  
112  
Drawing Number  
MP106

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 MECHANICAL BID DEDUCTION FUEL PIPING PLAN - FIRST FLOOR LEVEL  
SCALE: 3/8" = 1'-0"

KEYPLAN



GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

GENERAL SYMBOLS:

Room name  
[101]  
XXX SF ROOM NAME, NUMBER, AND AREA

ABBREVIATIONS

FOR FUEL OIL RETURN  
FOS FUEL OIL SUPPLY  
LPG LIQUIFIED PETROLEUM GAS  
NG NATURAL GAS  
SF SQUARE FOOT

VALVE SYMBOLS

GATE VALVE

PIPING SYMBOLS

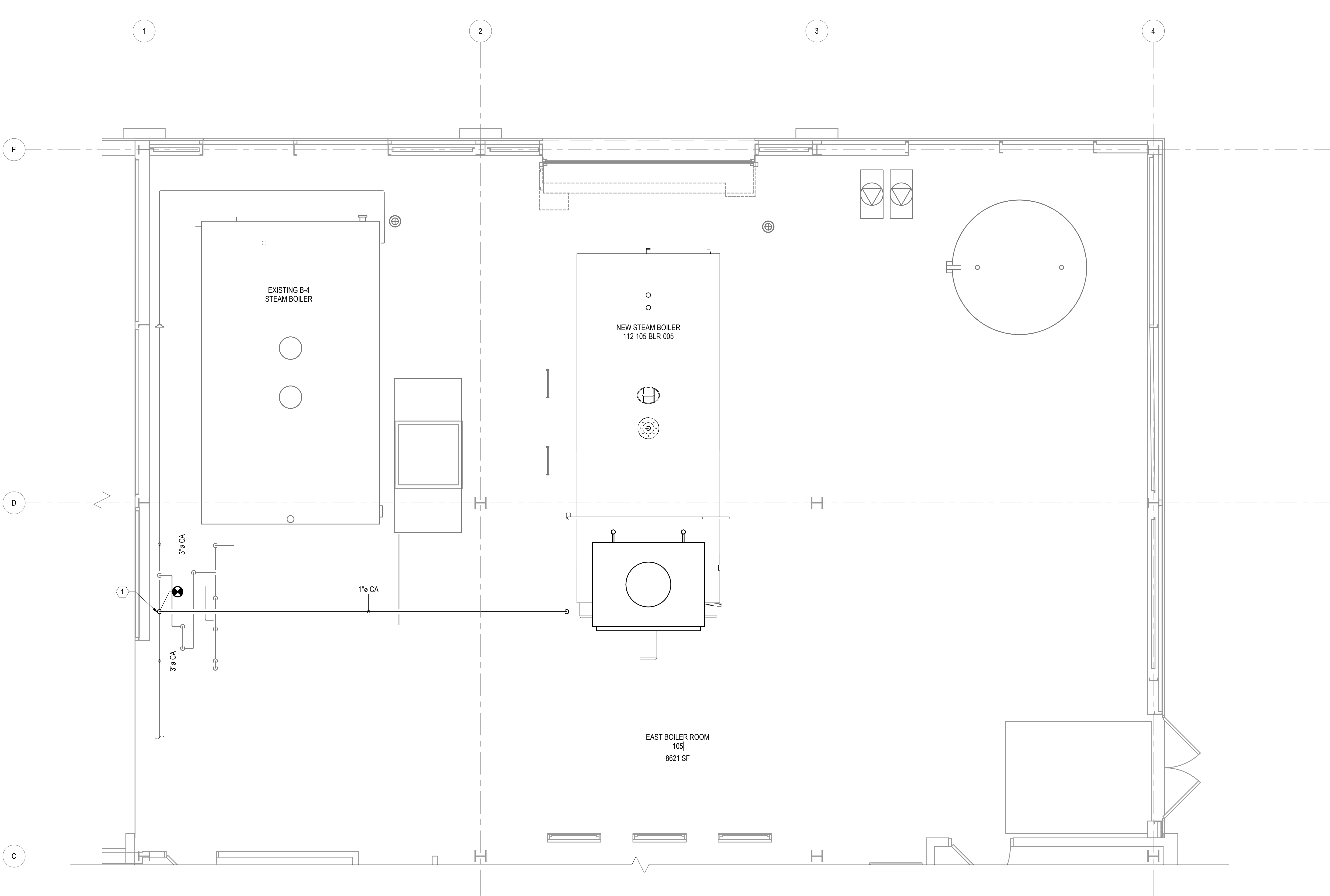
RISE OR DROP IN PIPE  
PIPE UP  
PIPE DOWN  
POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK  
PIPE HANGER

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |            |                              |                                                                                                               |                                                            |                             |                                                   |                     |
|----------------------------------------|------------|------------|------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------|---------------------------------------------------|---------------------|
|                                        |            | CONSULTANT | ARCHITECT/ENGINEER OF RECORD | <div>Office of Construction and Facilities Management</div> <div>VA U.S. Department of Veterans Affairs</div> | Drawing Title                                              | Phase                       | Project Title                                     | Project Number      |
|                                        |            |            |                              |                                                                                                               | MECHANICAL BID DEDUCT FUEL PIPING PLAN - FIRST FLOOR LEVEL | 100% CONSTRUCTION DOCUMENTS | REPLACE BOILERS 4 & 5                             | 695-24-107          |
|                                        |            |            |                              |                                                                                                               | Approved: Project Director                                 |                             |                                                   | Building Number 112 |
|                                        |            |            |                              |                                                                                                               |                                                            | NOT SPRINKLERED             | Location 5000 W. NATIONAL AVE MILWAUKEE, WI 53295 | Drawing Number      |
|                                        |            |            |                              |                                                                                                               |                                                            |                             | Issue Date 2026-04-06                             | Checked DJU         |
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |            |                              |                                                                                                               |                                                            |                             |                                                   | MP107               |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |            |                              |                                                                                                               |                                                            |                             |                                                   |                     |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |            |                              |                                                                                                               |                                                            |                             |                                                   |                     |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |            |                              |                                                                                                               |                                                            |                             |                                                   |                     |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |            |                              |                                                                                                               |                                                            |                             |                                                   |                     |
| Revisions:                             | Date:      |            |                              |                                                                                                               |                                                            |                             |                                                   |                     |

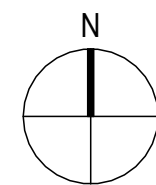
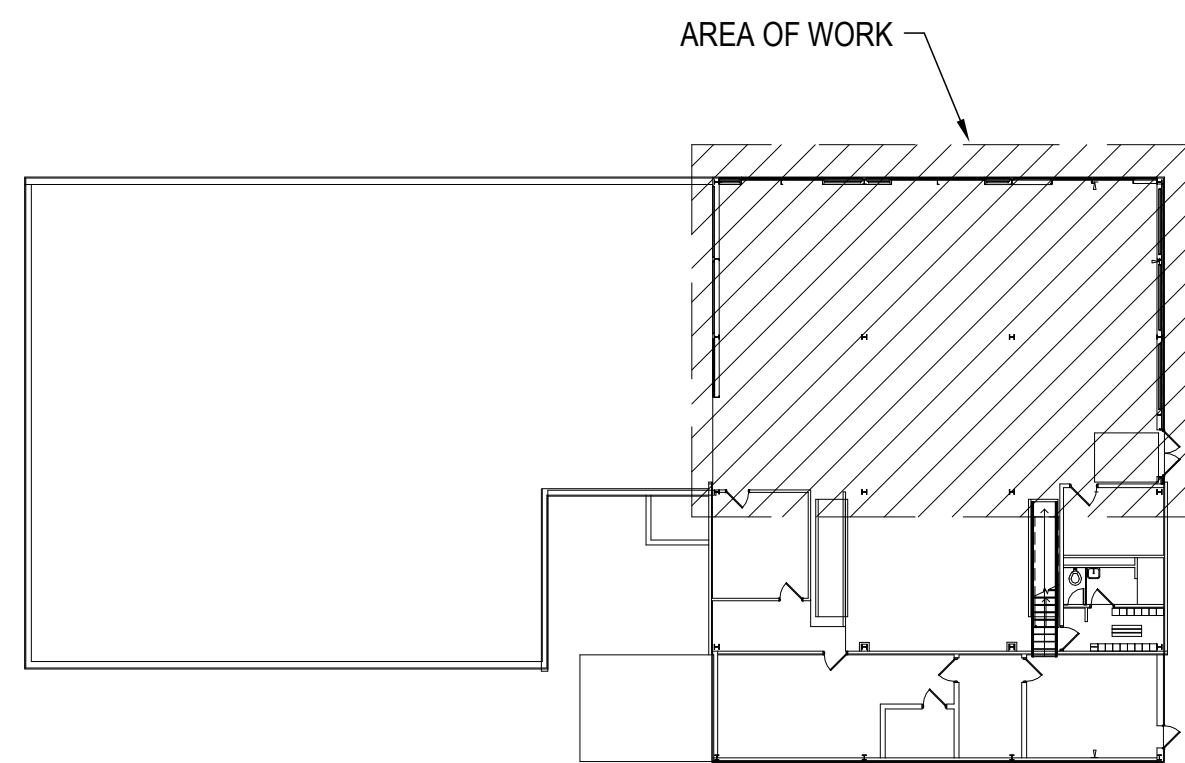
three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot

1 2 3 4 5 6 7 8 9 10



1 MECHANICAL BID DEDUCTION COMPRESSED AIR PIPING PLAN - FIRST FLOOR LEVEL  
SCALE: 3/8" = 1'-0"

## KEYPLAN



## GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

## KEYED NOTES

1. CONNECT EXISTING SHOP GENERAL COMPRESSED AIR TO BURNER FOR FUEL ATOMIZATION DURING COLD START AND TIE EXISTING LOW ATOMIZATION MEDIA PRESSURE SWITCH (LAMPS) FOR SAFETY BOILER SHUTDOWN ON LOW AIR PRESSURE

## GENERAL SYMBOLS:

Room name  
101  
XXX SF  
ROOM NAME, NUMBER, AND AREA

## ABBREVIATIONS

CA COMPRESSED AIR

## PIPING SYMBOLS

- RISE OR DROP IN PIPE  
PIPE UP  
PIPE DOWN  
POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK  
PIPE HANGER

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

## CONSULTANT

## ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management

VA U.S. Department  
of Veterans Affairs

Drawing Title  
MECH BID DEDUCT COMPRESSED  
AIR PIPING PLAN - FIRST FLOOR

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

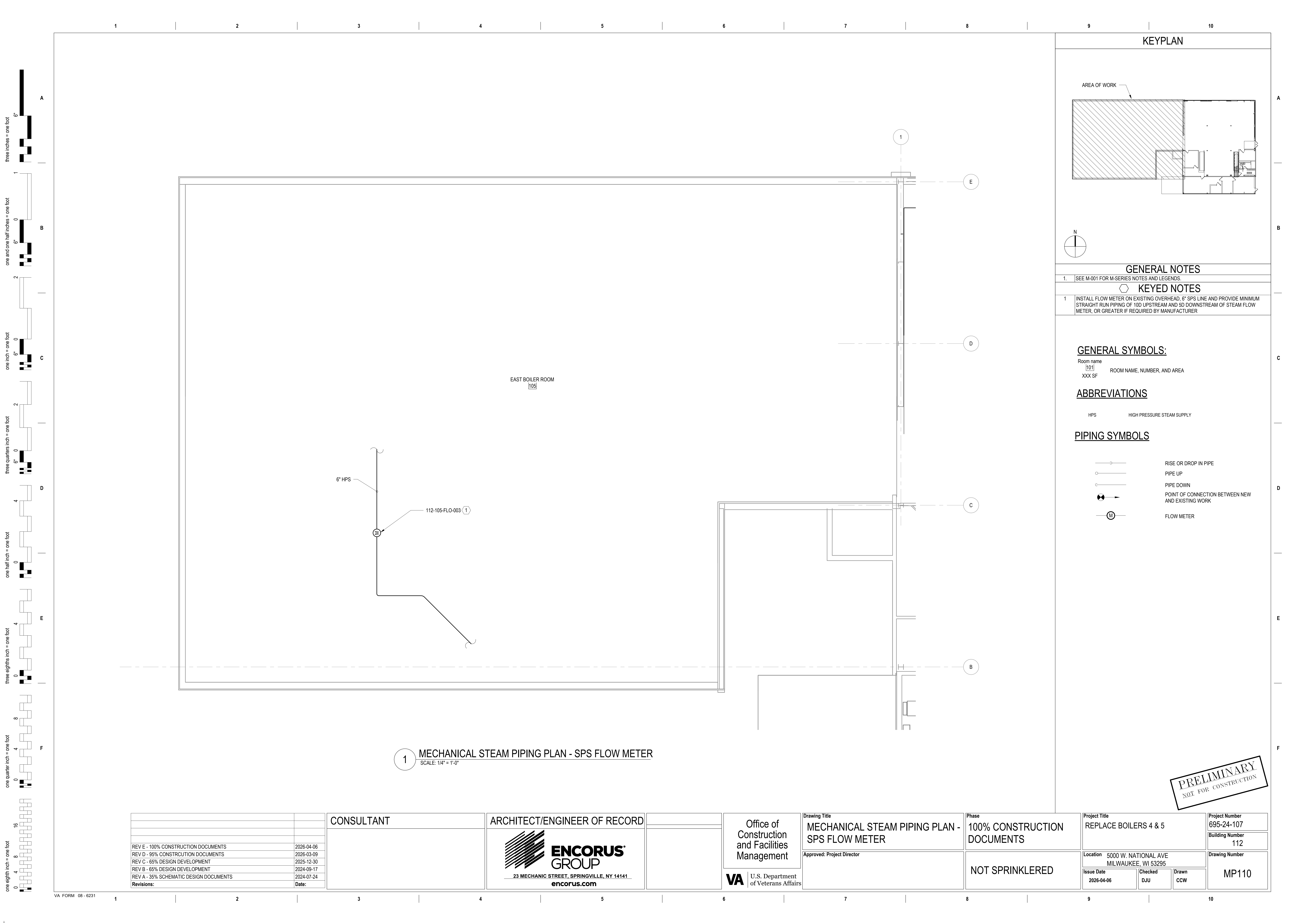
Issue Date  
2026-04-06

Checked  
DJU

Drawn  
KRL

Project Number  
695-24-107  
Building Number  
112

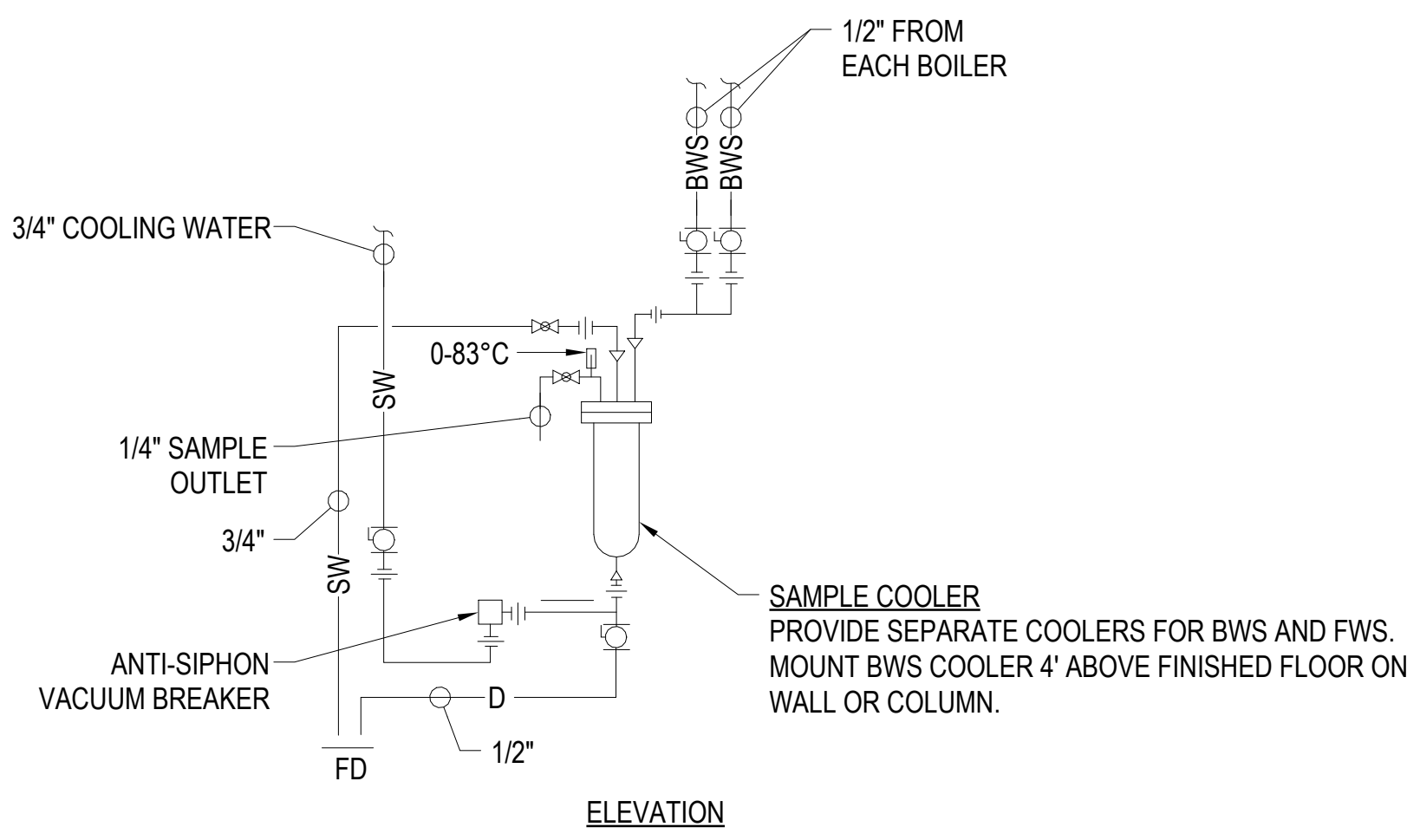
Drawing Number  
MP108



three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot

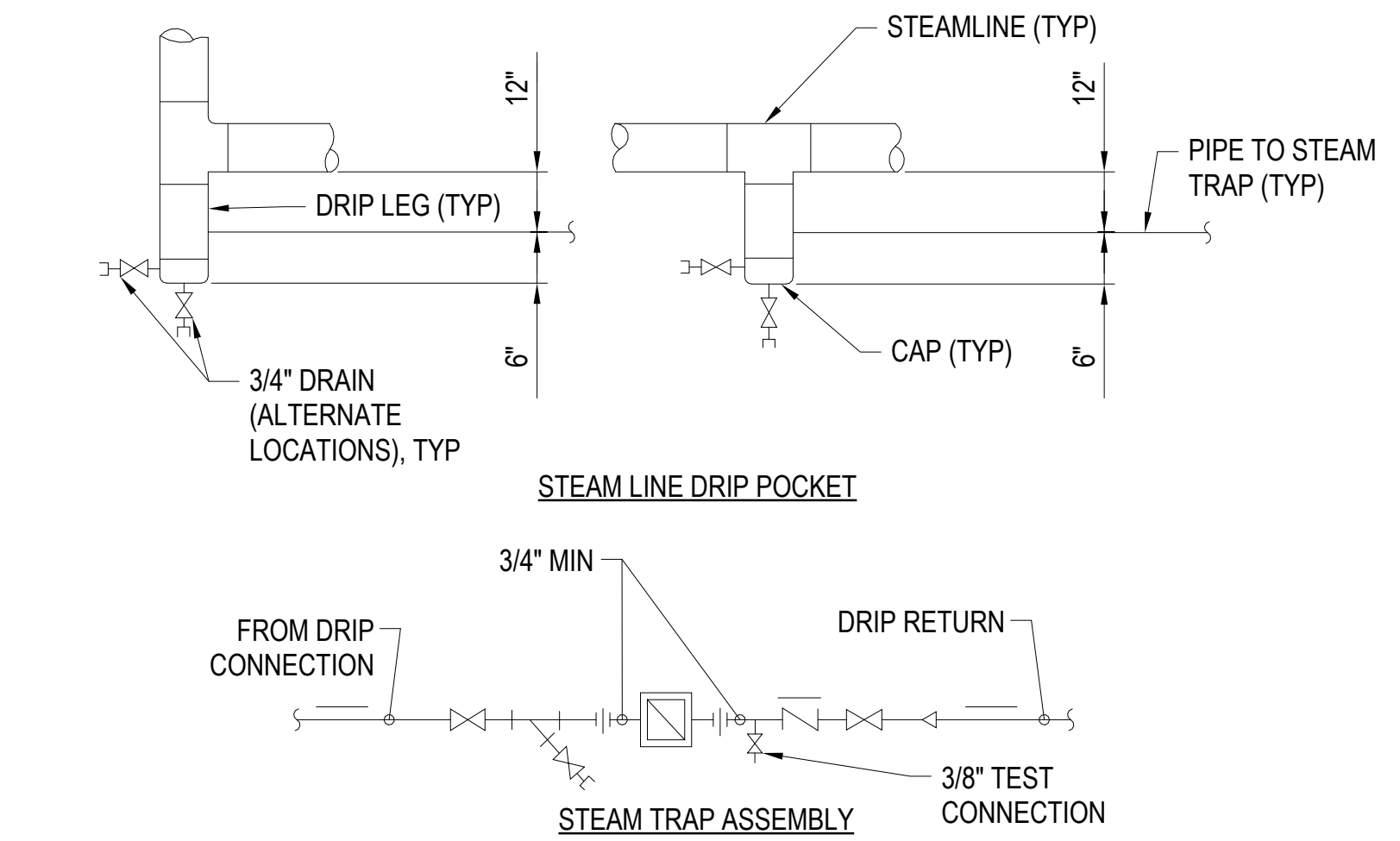
# 1 TYPICAL CONDENSATE HEADER CONNECTIONS

NTS



# 4 WATER SAMPLE COOLERS DETAILS

NTS



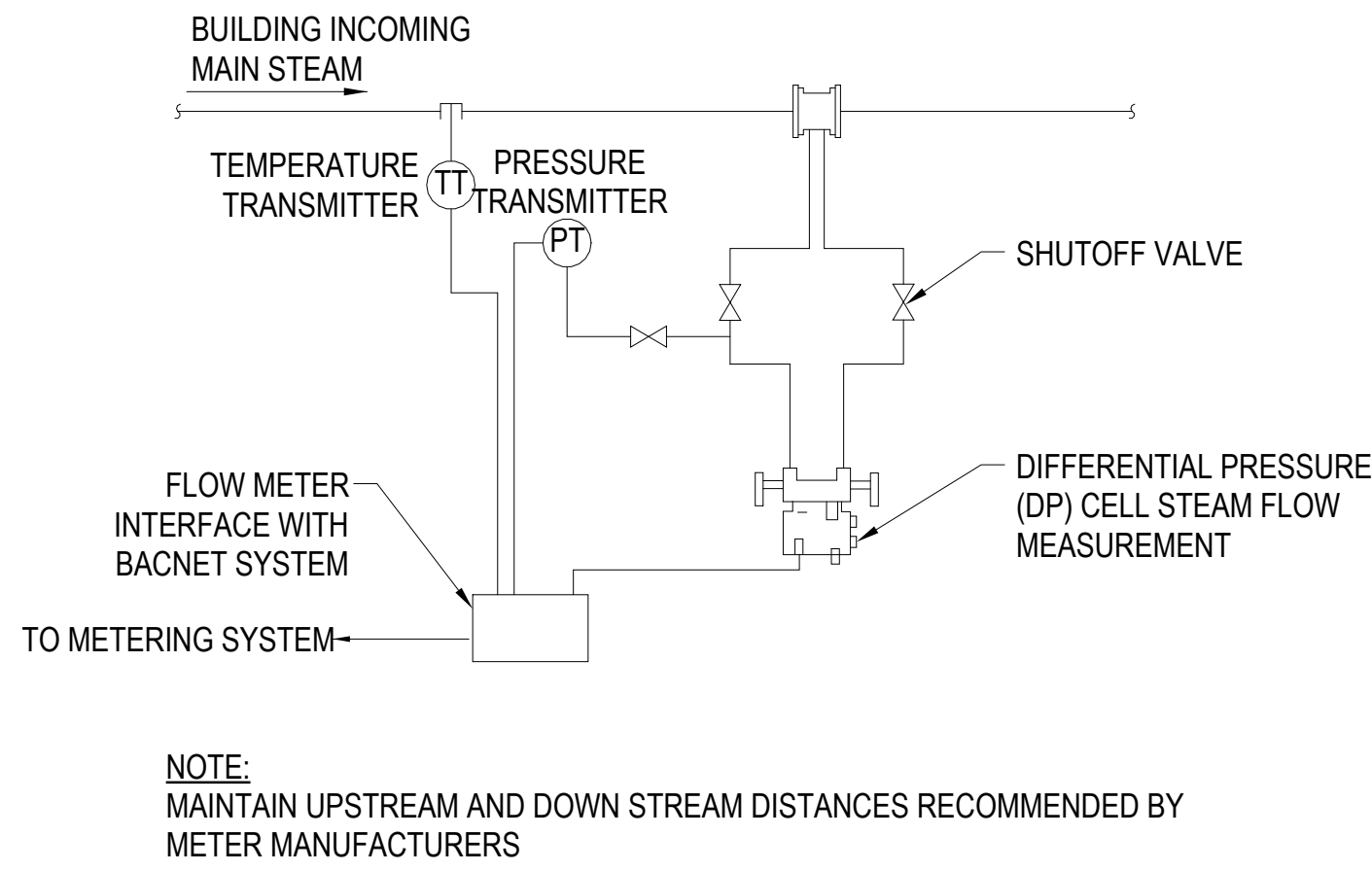
# 7 STEAMLINE DRIP POCKET AND STEAM TRAP ASSEMBLY

NTS

1 / MK202

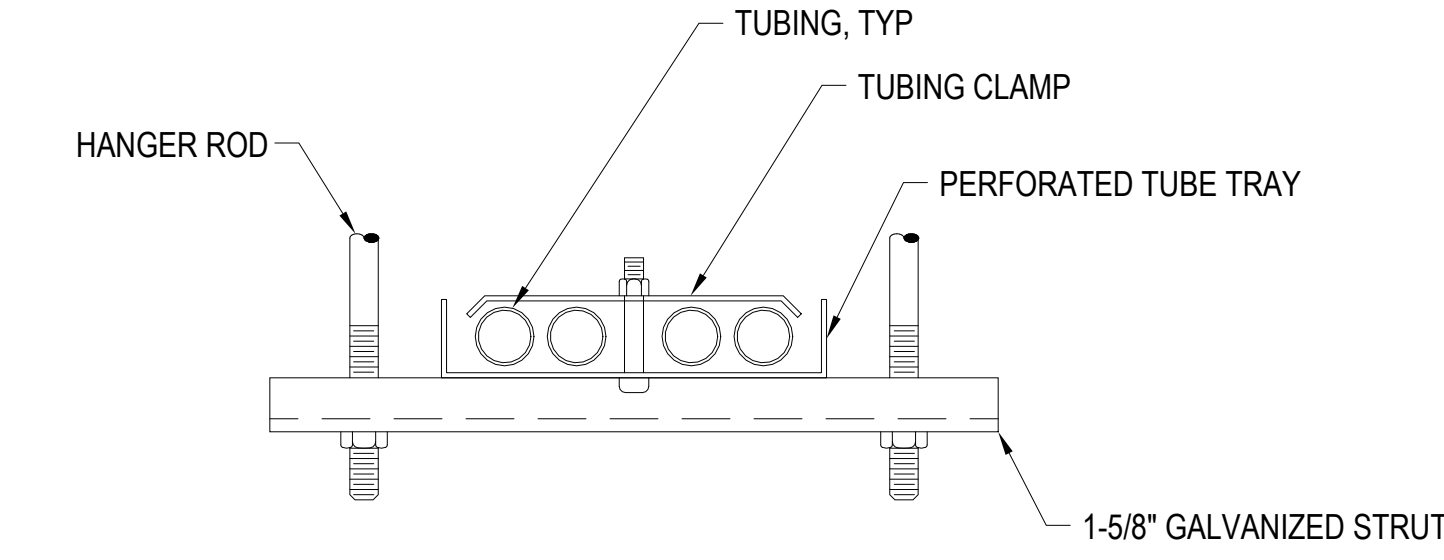
# 2 STEAM METER

NTS



# 5 TUBING SUPPORTS DETAIL

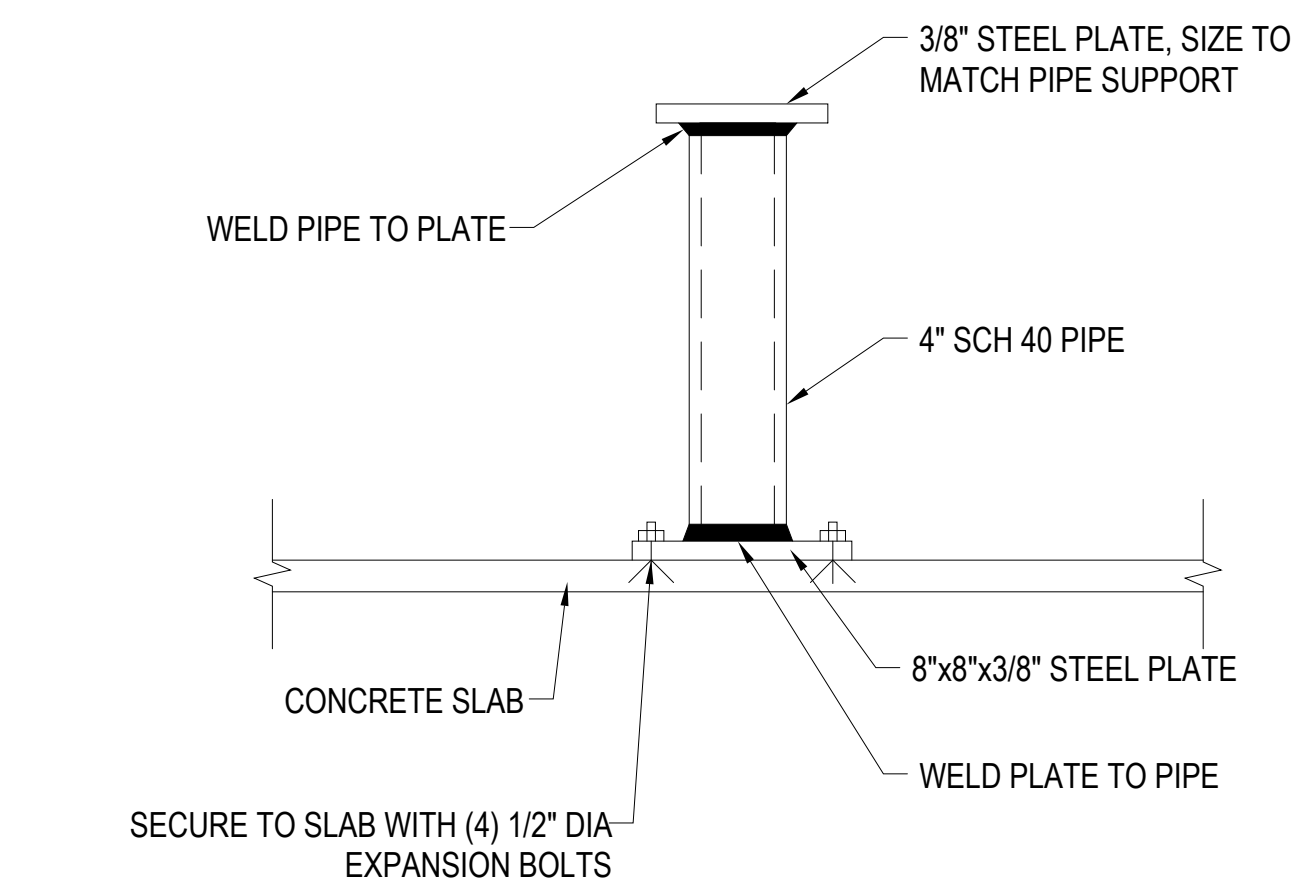
NTS



# 8 PIPE SUPPORT STAND

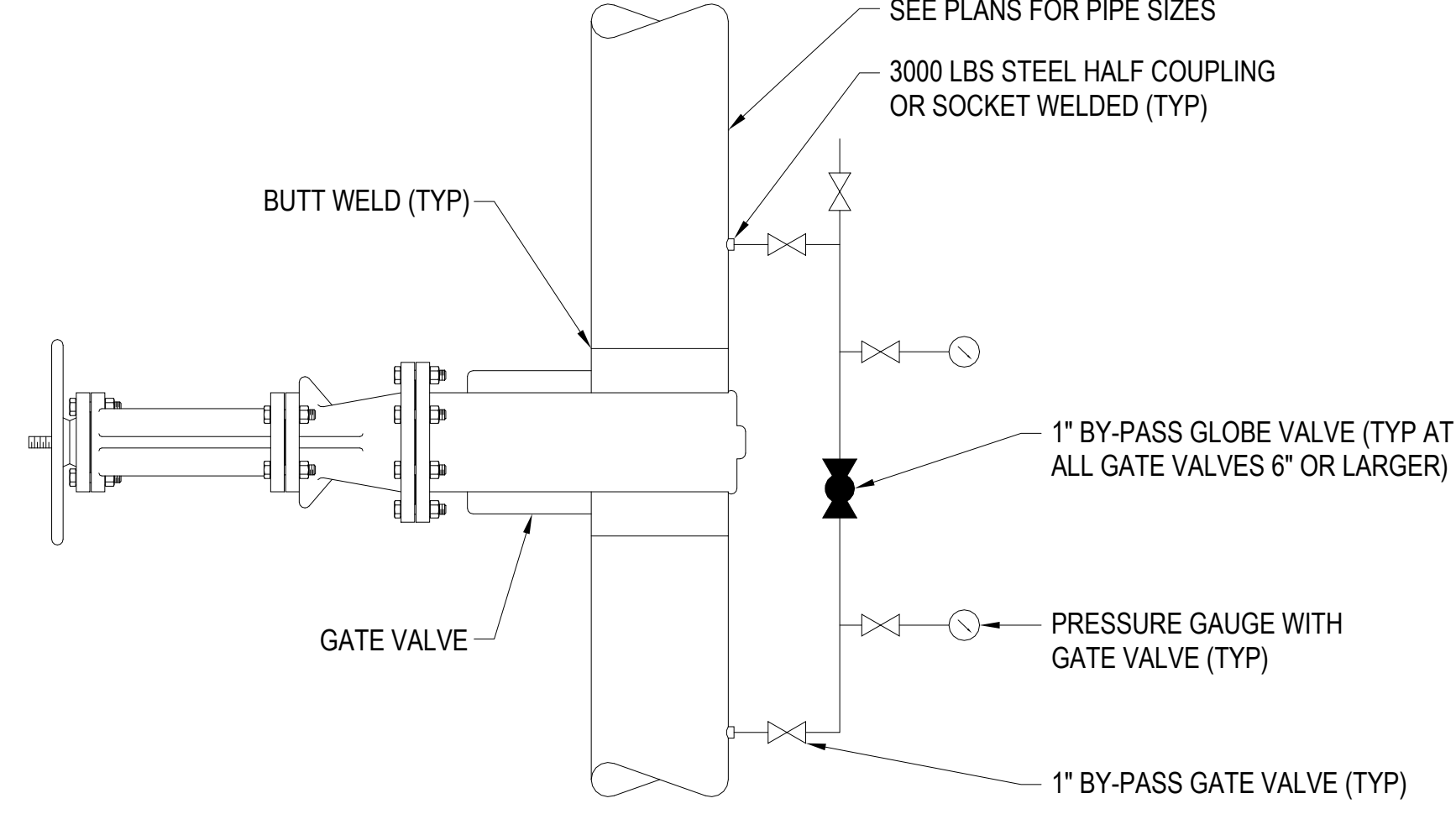
NTS

1 / MK202  
1 / MK206



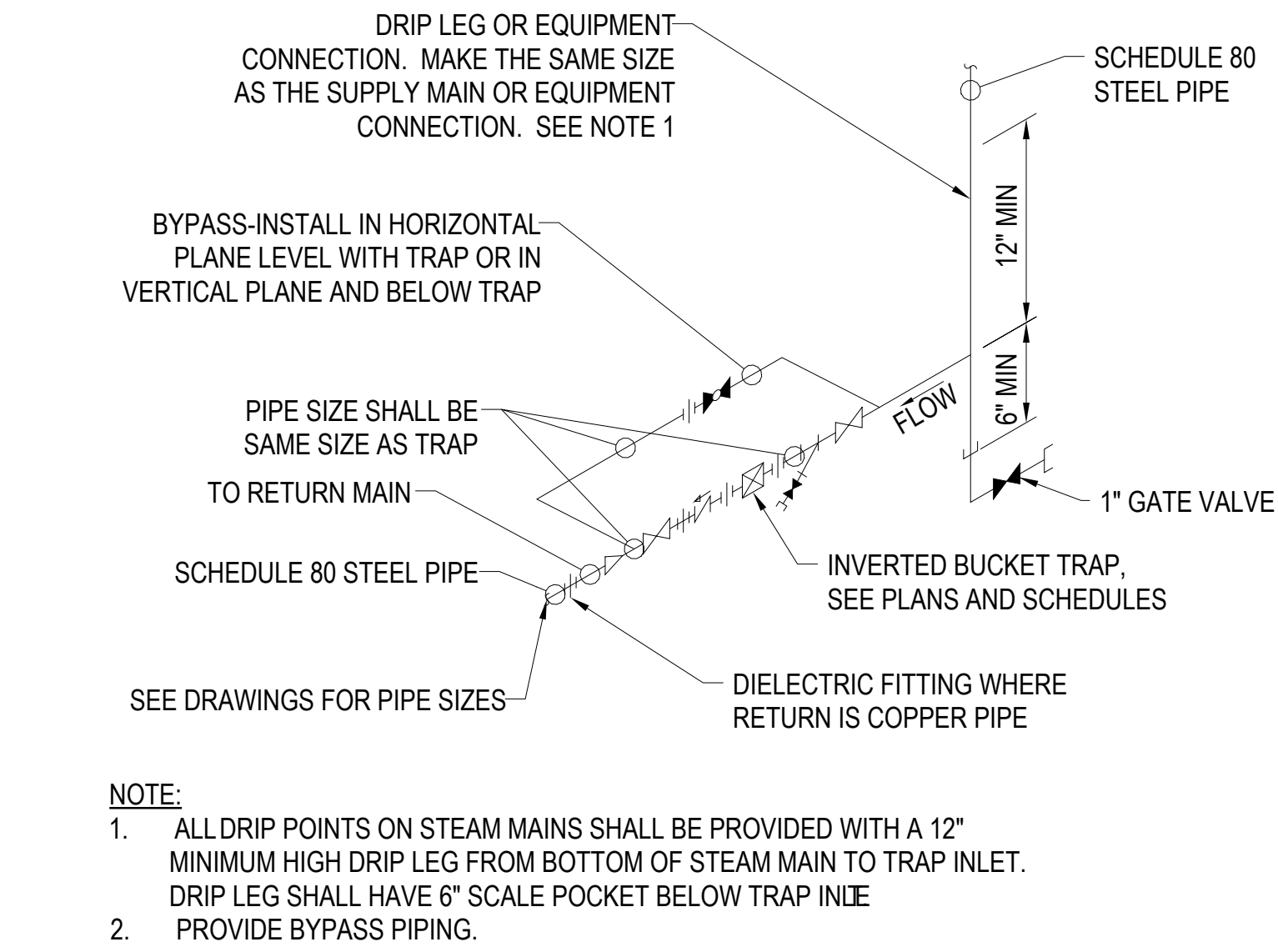
# 3 GATE VALVE BYPASS

NTS



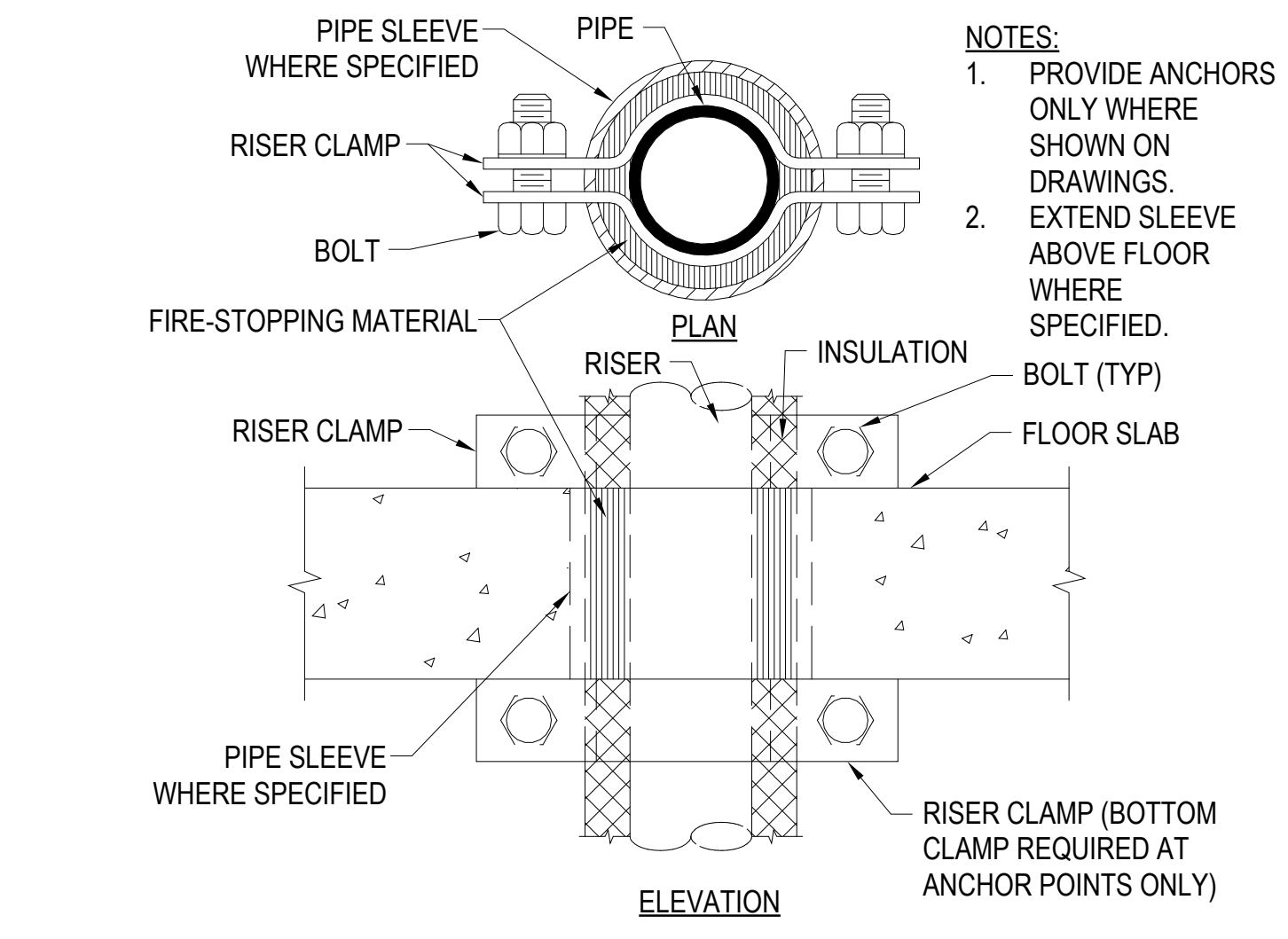
# 6 INVERTED BUCKET STEAM TRAP ASSEMBLY

NTS



# 9 SUPPORT ANCHOR FOR RISERS

NTS



## GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

## ABBREVIATIONS

|     |                            |
|-----|----------------------------|
| DIA | DIAMETER                   |
| HPR | HIGH PRESSURE STEAM RETURN |
| MAX | MAXIMUM                    |
| MIN | MINIMUM                    |
| TYP | TYPICAL                    |

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management

VA U.S. Department  
of Veterans Affairs

Drawing Title  
MECHANICAL PIPING DETAILS

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location  
5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
DJU

Drawn  
ADL

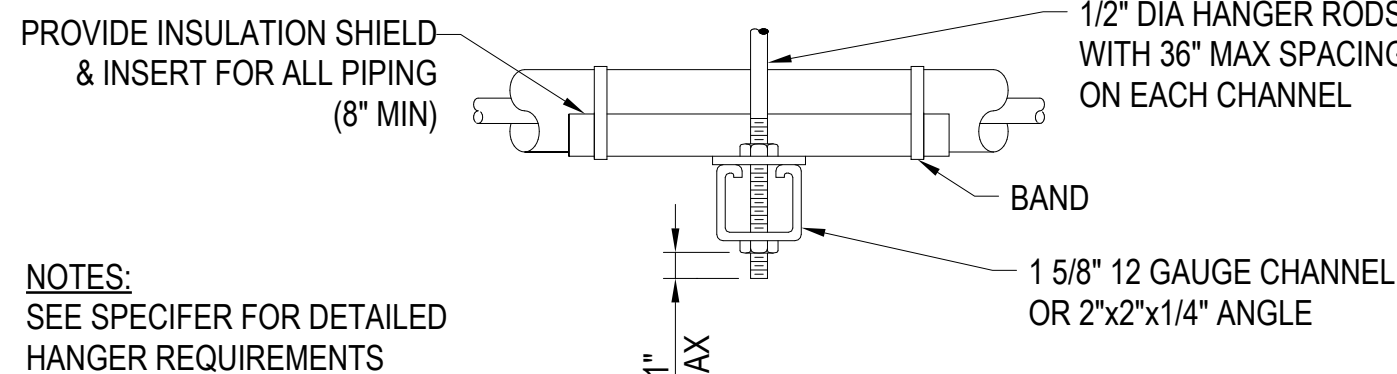
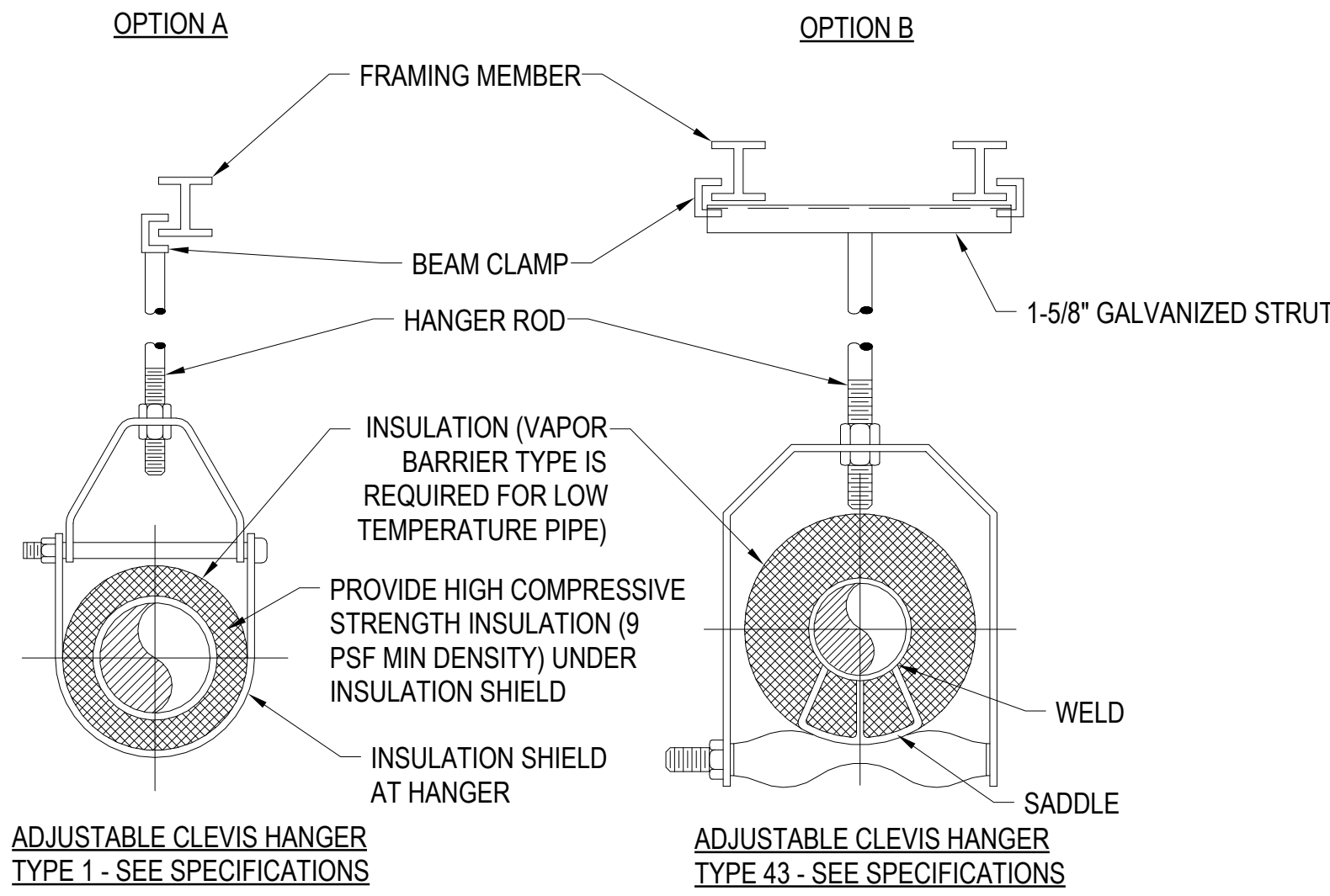
Project Number  
695-24-107

Building Number  
112

Drawing Number  
MP501

PRELIMINARY  
NOT FOR CONSTRUCTION

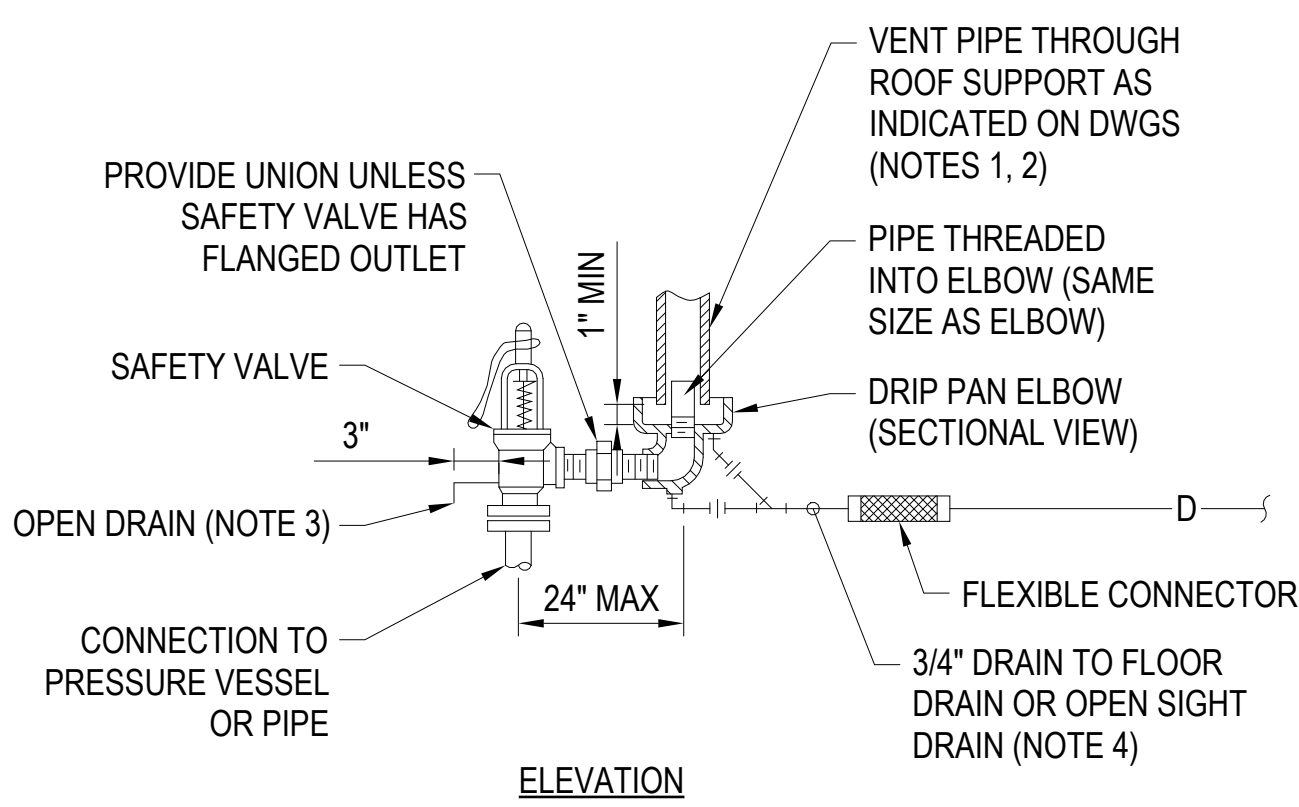
three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



| MAXIMUM PIPE/TUBING SUPPORT SPACING                               |             |   |       |       |    |       |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------------------------------------------------------|-------------|---|-------|-------|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|
| NOM<br>SIZE IN                                                    | THRU<br>3/4 | 1 | 1 1/4 | 1 1/2 | 2  | 2 1/2 | 3  | 4  | 5  | 6  | 8  | 10 | 12 | 14 | 16 | 18 | 20 | 24 |
| PIPE FT                                                           | 7           | 7 | 7     | 9     | 10 | 11    | 12 | 14 | 16 | 17 | 19 | 22 | 23 | 25 | 27 | 28 | 30 | 32 |
| TUBING<br>FT                                                      | 5 FT        | 6 | 7     | 8     | 8  | 9     | 10 | 12 | 13 | 14 | 16 | -  | -  | -  | -  | -  | -  | -  |
| NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE |             |   |       |       |    |       |    |    |    |    |    |    |    |    |    |    |    |    |

## 1 PIPE HANGERS

NTS

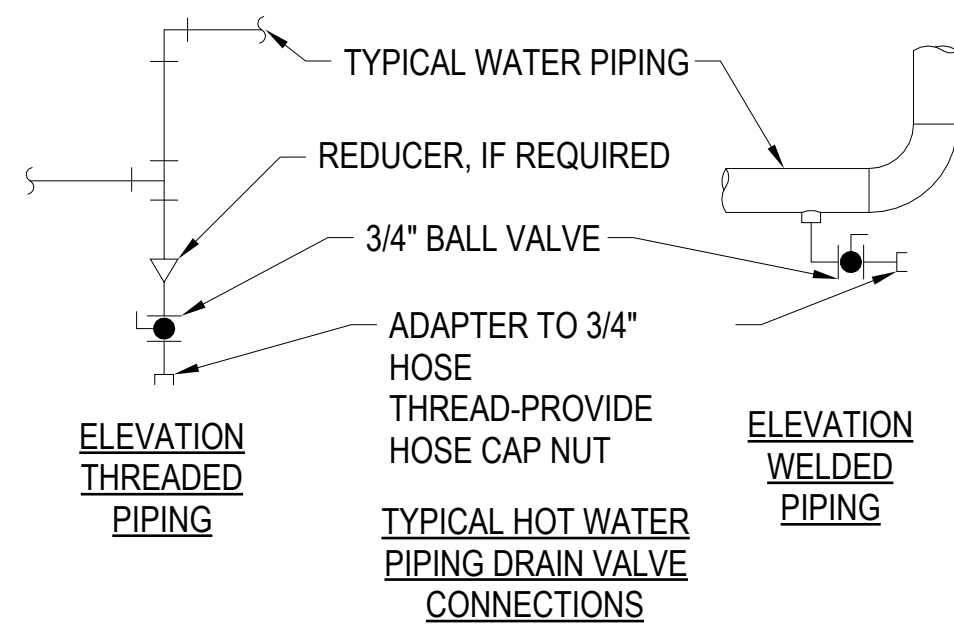


- NOTES:
- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, SIZE THE VENT PIPE SO THAT STEAM IS NOT BLOWN OUT AT THE VENT PIPE ENTRANCE. UTILIZE THE CALCULATION METHOD CONTAINED IN ANSI B31.1. POWER PIPING CODE, APPENDIX II. THE VENT PIPE SHOULD GO VERTICAL THRU THE ROOF WITH NO TURNS OR ANGLES. WHERE REQUIRED THERE SHALL BE NO MORE THAN A TOTAL OR 180 DEGREES IN DIRECTIONAL CHANGES MADE WITH 45 DEG. ELBOWS.
  - VENT PIPE SHALL TERMINATE 6" MIN. ABOVE FINISHED ROOF.
  - DISCHARGE OF DRAIN SHALL BE DIRECTED AWAY FROM PLATFORMS OR OTHER AREAS WHERE PERSONNEL MAY OCCUPY.
  - DO NOT CONNECT ANY OTHER DRAIN TO THE DRIP PAN ELBOW DRAIN PIPE.
  - SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

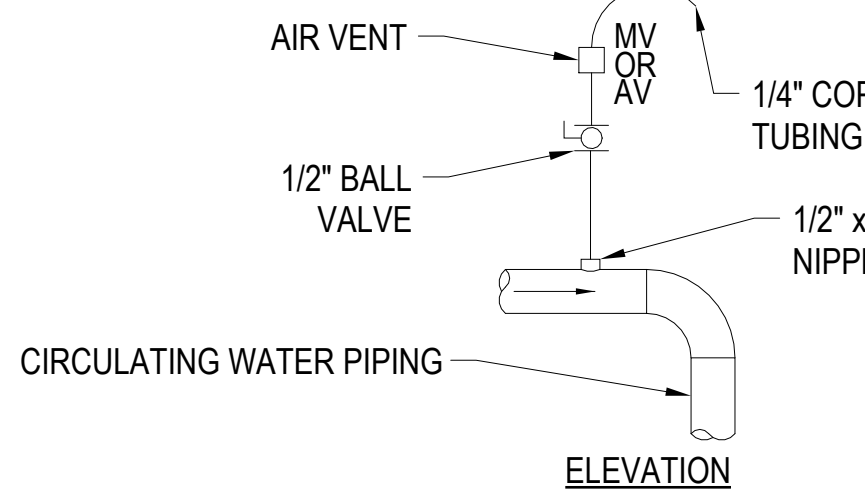
## 4 STEAM SAFETY VALVE

NTS

2 / MK202  
2 / MK206



- NOTES:
- DRAIN ALL LOW POINTS AS INDICATED ABOVE.
  - WHERE SCALE POCKETS ARE SHOWN ON PIPE RISER DIAGRAMS AND/OR PLANS LOCATE DRAIN AT BOTTOM OF SCALE POCKET.

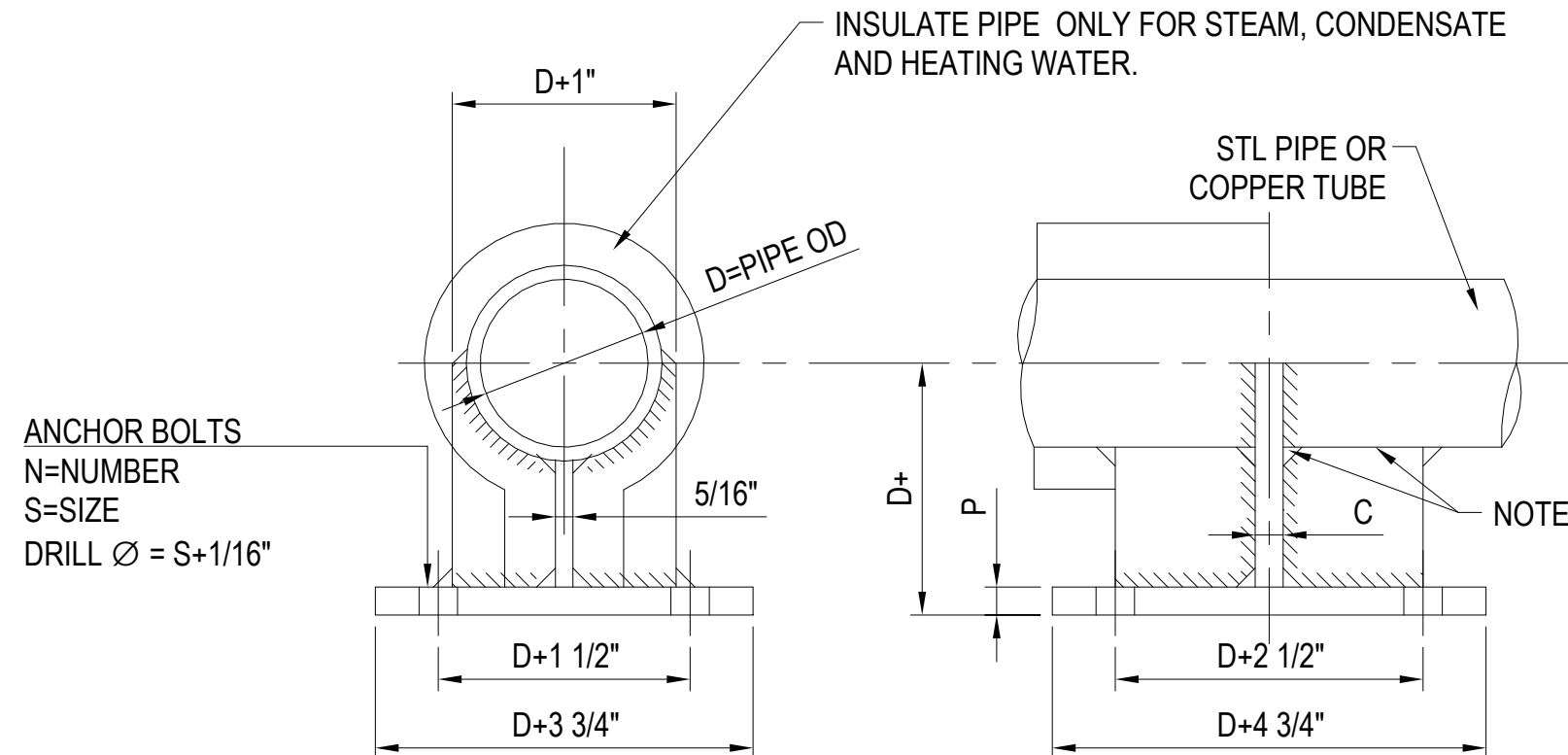


- NOTES:
- VENT ALL HIGH POINTS INDICATED ABOVE.
  - IF AUTOMATIC AIR VENTS ARE USED, PIPE DISCHARGE TO DRAIN.

## 5 DRAIN VALVE AND AIR VENT CONNECTIONS

NTS

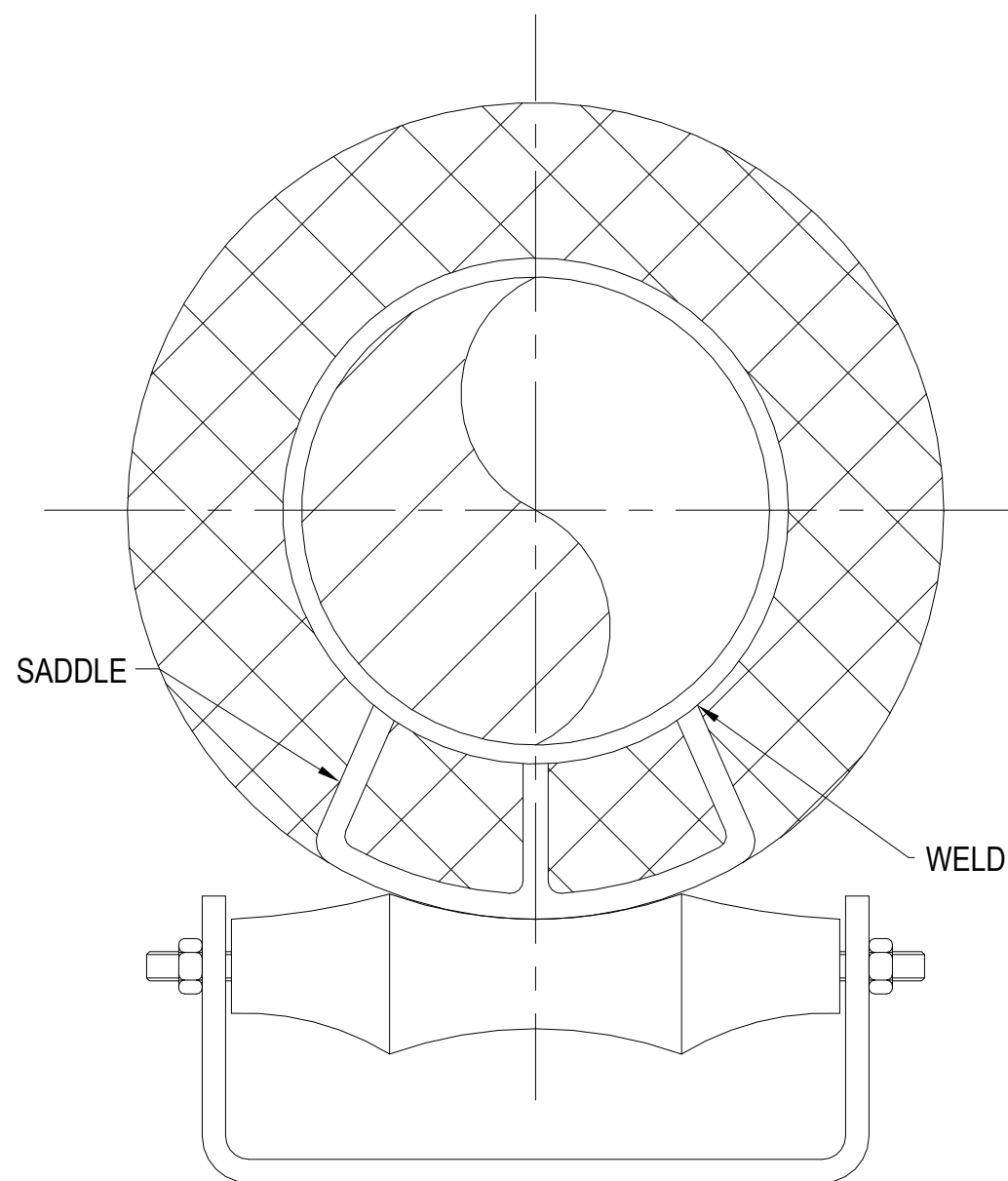
| PIPE ANCHOR SCHEDULE |       |    |     |    |              |     |    |    |     |
|----------------------|-------|----|-----|----|--------------|-----|----|----|-----|
| D                    | P     | C  | N   | S  | BOLT PATTERN |     |    |    |     |
| mm                   | in    | mm | in  | mm | in           | mm  | in | mm | in  |
| 102                  | 4     | 16 | 5/8 | 19 | 3/4          | 102 | 4  | 19 | 3/4 |
| 76                   | 3     | 13 | 1/2 | 13 | 1/2          | 102 | 4  | 16 | 5/8 |
| 64                   | 2 1/2 | 10 | 3/8 | 10 | 3/8          | 102 | 4  | 16 | 5/8 |
| 51                   | 2     | 10 | 3/8 | 10 | 3/8          | 102 | 4  | 16 | 5/8 |
| 38                   | 1 1/2 | 10 | 3/8 | 6  | 1/4          | 102 | 4  | 13 | 1/2 |



- NOTE:
- WHERE USED FOR COPPER TUBE OR PIPE, BRAZE TO FABRICATED STEEL ANCHOR

## 2 SMALL PIPE ANCHORS

NTS

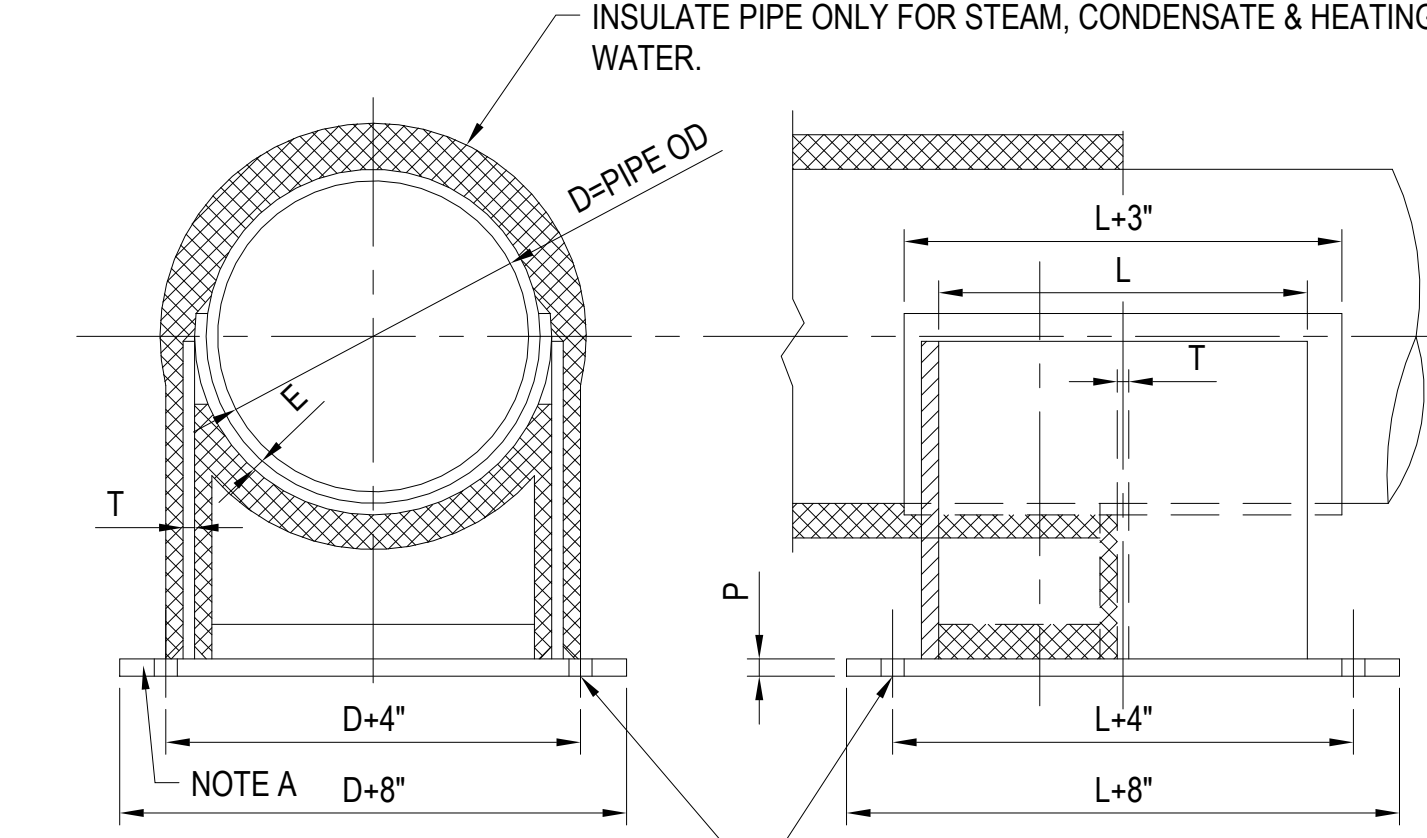


## 6 PIPE ROLLER SUPPORT

NTS

1 / MK202  
1 / MK206

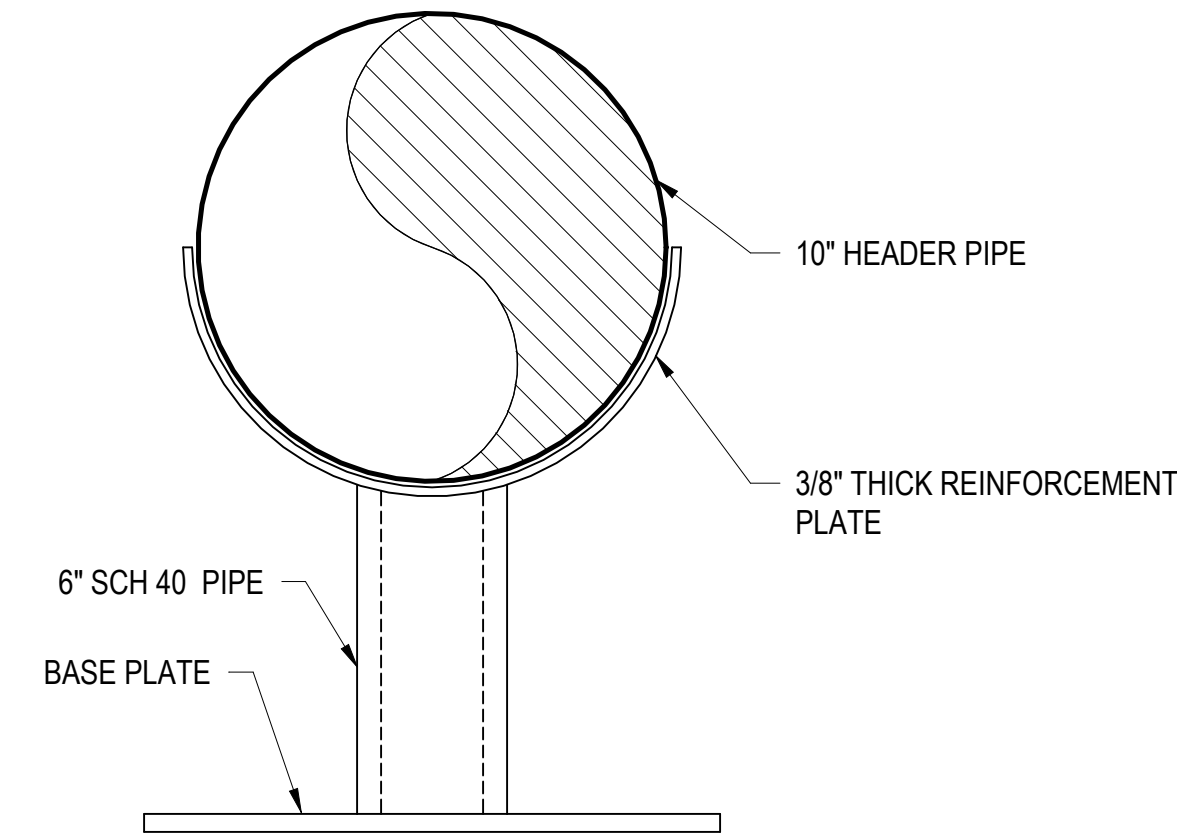
| PIPE ANCHOR SCHEDULE |    |     |       |    |     |    |              |    |     |     |    |    |     |
|----------------------|----|-----|-------|----|-----|----|--------------|----|-----|-----|----|----|-----|
| D                    | L  | P   | T     | E  | N   | S  | BOLT PATTERN |    |     |     |    |    |     |
| mm                   | in | mm  | in    | mm | in  | mm | in           | mm | in  | mm  | in | mm | in  |
| 152                  | 6  | 216 | 8 1/2 | 19 | 3/4 | 10 | 3/8          | 6  | 1/4 | 102 | 4  | 22 | 7/8 |
| 203                  | 8  | 254 | 10    | 19 | 3/4 | 13 | 1/2          | 6  | 1/4 | 102 | 4  | 22 | 7/8 |
| 254                  | 10 | 305 | 12    | 19 | 3/4 | 13 | 1/2          | 6  | 1/4 | 102 | 4  | 22 | 7/8 |
| 305                  | 12 | 356 | 14    | 19 | 3/4 | 13 | 1/2          | 6  | 1/4 | 102 | 4  | 22 | 7/8 |
| 356                  | 14 | 406 | 16    | 19 | 3/4 | 13 | 1/2          | 13 | 1/2 | 102 | 4  | 22 | 7/8 |
| 406                  | 16 | 457 | 18    | 19 | 3/4 | 13 | 1/2          | 13 | 1/2 | 102 | 4  | 22 | 7/8 |
| 457                  | 18 | 508 | 20    | 25 | 1   | 13 | 1/2          | 13 | 1/2 | 152 | 6  | 25 | 1   |



- NOTES:
- A. INSTALL WALL PLATE FIRST THEN WELD ON REMAINING ASSEMBLY. ONE WALL PLATE FOR BOTH CHILLED WATER S&R. IS OPTIONAL.

## 3 LARGE PIPE ANCHORS

NTS



## 7 10" PIPE ANCHOR SIDE VIEW

SCALE: 1 1/2" = 1'-0"

1 / MK202  
1 / MK206

## GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

## ABBREVIATIONS

|     |                |
|-----|----------------|
| DEG | DEGREE         |
| DIA | DIAMETER       |
| MAX | MAXIMUM        |
| MIN | MINIMUM        |
| OD  | OUTER DIAMETER |
| TYP | TYPICAL        |

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management



U.S. Department  
of Veterans Affairs

Drawing Title  
MECHANICAL PIPING DETAILS

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location  
5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
DJU

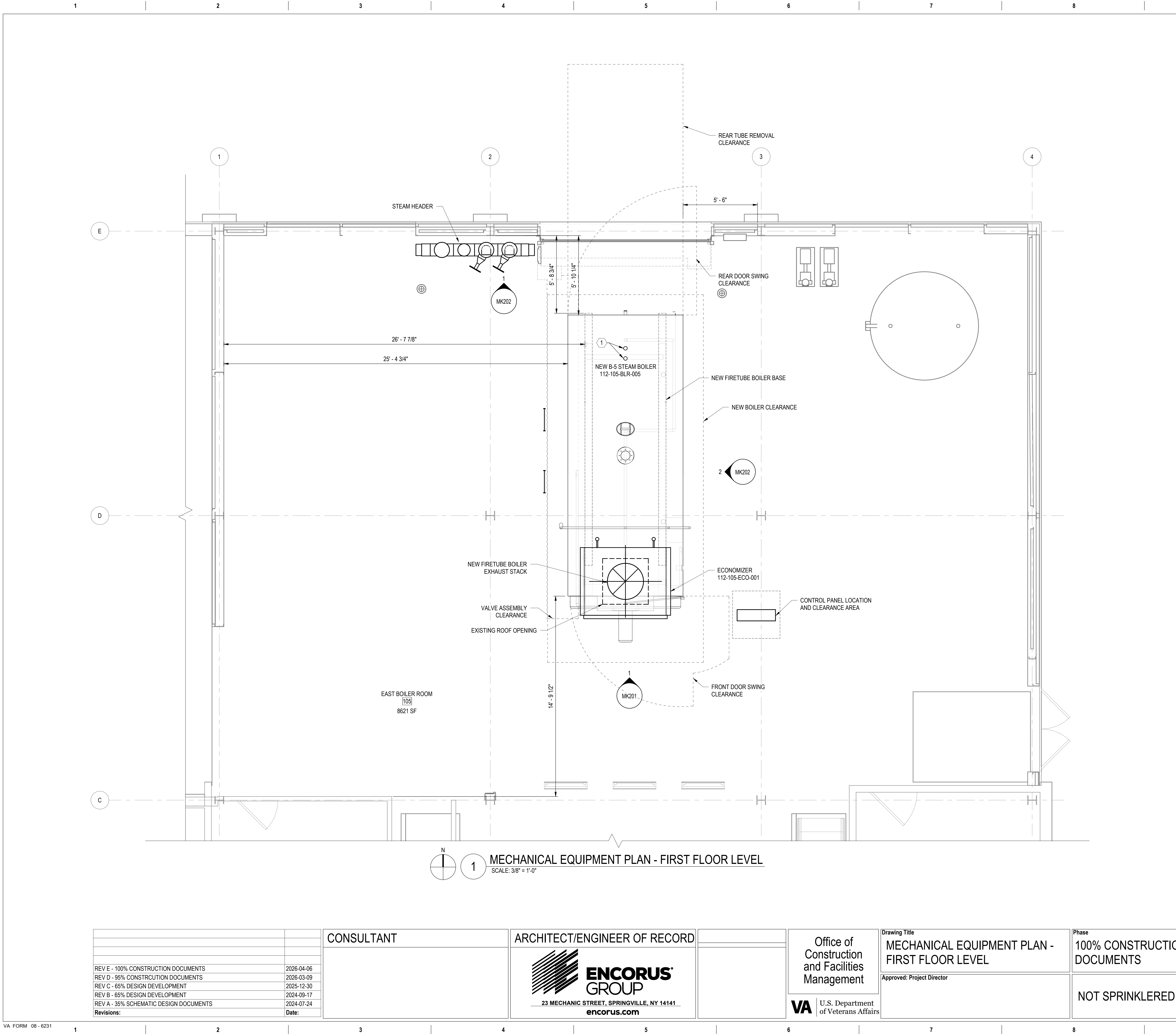
Drawn  
ADL

Project Number  
695-24-107

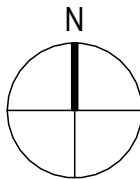
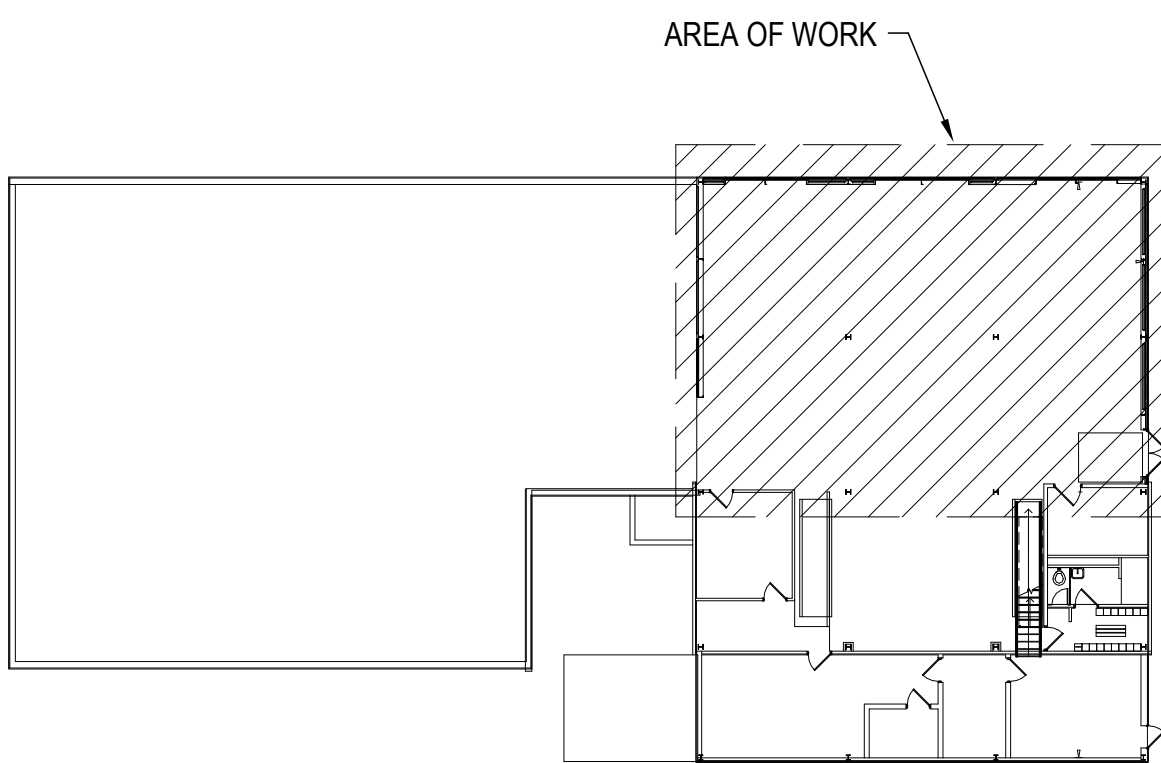
Building Number  
112

Drawing Number  
MP502

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



KEYPLAN



GENERAL NOTES

- SEE M-001 FOR M-SERIES NOTES AND LEGENDS.
- BOILER DIMENSIONS MAY VARY BASED ON MANUFACTURER. CONTRACTOR TO ENSURE SELECTED BOILER FITS IN THE SPACE AND CONFIGURATION SHOWN ON THE DRAWING

KEYED NOTES

- PROVIDE BOILER SAFETY VALVE DRIP PAN ELBOW AT BOILER. ROUTE FULL SIZE DISCHARGE RISER TO ROOF AND TERMINATE WITH GOOSENECK ABOVE ROOF

GENERAL SYMBOLS:

Room name  
101  
XXX SF  
ROOM NAME, NUMBER, AND AREA

ABBREVIATIONS

SF  
SQUARE FOOT

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
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| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

|            |
|------------|
| CONSULTANT |
|------------|

|                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------|
| ARCHITECT/ENGINEER OF RECORD                                                                                                                      |
| <br>23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com |

|                                                           |
|-----------------------------------------------------------|
| Office of<br>Construction<br>and Facilities<br>Management |
| VA U.S. Department<br>of Veterans Affairs                 |

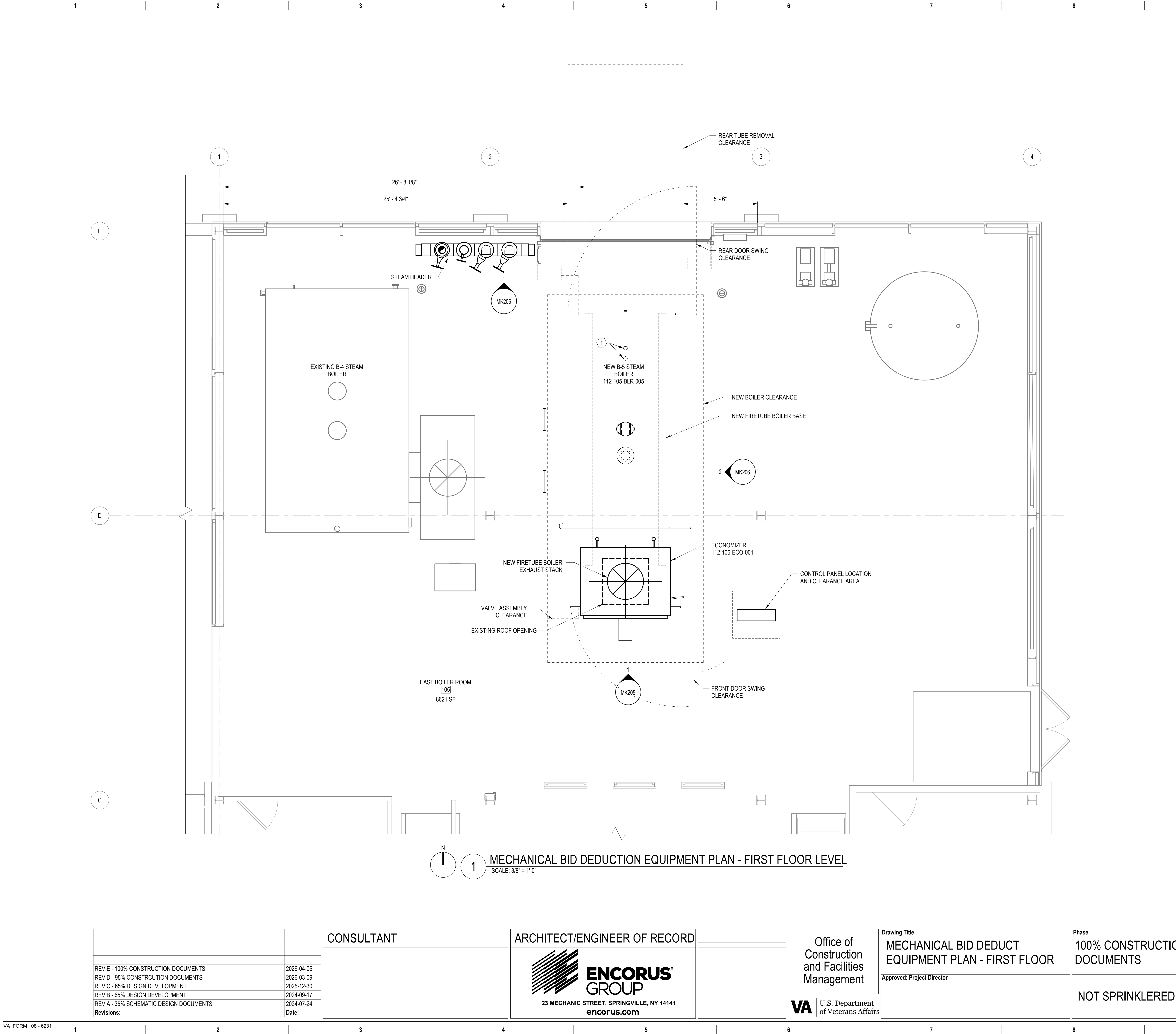
|                                                                   |
|-------------------------------------------------------------------|
| Drawing Title<br>MECHANICAL EQUIPMENT PLAN -<br>FIRST FLOOR LEVEL |
| Approved: Project Director                                        |

|                                         |
|-----------------------------------------|
| Phase<br>100% CONSTRUCTION<br>DOCUMENTS |
| NOT SPRINKLERED                         |

|                                                      |
|------------------------------------------------------|
| Project Title<br>REPLACE BOILERS 4 & 5               |
| Location 5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 |
| Issue Date 2026-04-06                                |
| Checked DJU                                          |
| Drawn CCW                                            |

|                              |
|------------------------------|
| Project Number<br>695-24-107 |
| Building Number<br>112       |
| Drawing Number<br>MK101      |

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
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one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



### KEYPLAN

AREA OF WORK

N

### GENERAL NOTES

- SEE M-001 FOR M-SERIES NOTES AND LEGENDS.
- BOILER DIMENSIONS MAY VARY BASED ON MANUFACTURER. CONTRACTOR TO ENSURE SELECTED BOILER FITS IN THE SPACE AND CONFIGURATION SHOWN ON THE DRAWING.

### KEYED NOTES

- PROVIDE BOILER SAFETY VALVE DRIP PAN ELBOW AT BOILER, ROUTE FULL SIZE DISCHARGE RISER TO ROOF AND TERMINATE WITH GOOSENECK ABOVE ROOF

### GENERAL SYMBOLS:

Room name  
101  
XXX SF

ROOM NAME, NUMBER, AND AREA

### ABBREVIATIONS

SF SQUARE FOOT

**PRELIMINARY**  
NOT FOR CONSTRUCTION

|                                                                                                                                                                                                       |                                                                             |                                                  |                                                                     |                                                         |                                        |                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------|------------------------------|
| CONSULTANT                                                                                                                                                                                            | ARCHITECT/ENGINEER OF RECORD                                                | Office of Construction and Facilities Management | Drawing Title<br>MECHANICAL BID DEDUCT EQUIPMENT PLAN - FIRST FLOOR | Phase<br>100% CONSTRUCTION DOCUMENTS                    | Project Title<br>REPLACE BOILERS 4 & 5 | Project Number<br>695-24-107 |
| ENCORUS GROUP<br>23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com                                                                                                                             | U.S. Department of Veterans Affairs                                         | Approved: Project Director                       | NOT SPRINKLERED                                                     | Location<br>5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 | Building Number<br>112                 | Drawing Number<br>MK105      |
| Revisions:<br>REV E - 100% CONSTRUCTION DOCUMENTS<br>REV D - 95% CONSTRUCTION DOCUMENTS<br>REV C - 65% DESIGN DEVELOPMENT<br>REV B - 65% DESIGN DEVELOPMENT<br>REV A - 35% SCHEMATIC DESIGN DOCUMENTS | Date:<br>2026-04-06<br>2026-03-09<br>2025-12-30<br>2024-09-17<br>2024-07-24 |                                                  |                                                                     | Issue Date<br>2026-04-06                                | Checked<br>DJU                         | Drawn<br>CCW                 |



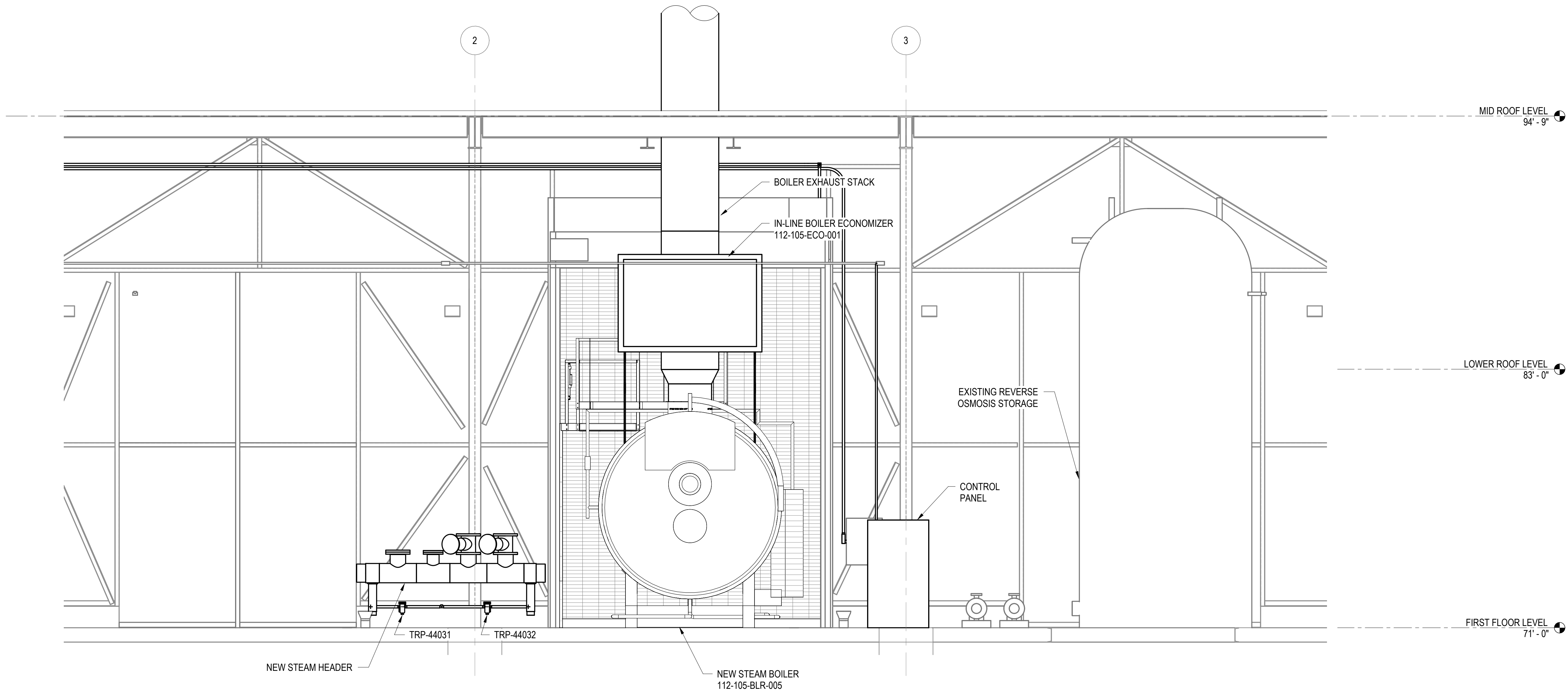
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one quarter inch = one foot  
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GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.



1 MECHANICAL EQUIPMENT ELEVATION LOOKING NORTH  
SCALE: 3/8" = 1'-0"  
1 / MK101

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
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| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management

VA U.S. Department  
of Veterans Affairs

Drawing Title  
MECHANICAL EQUIPMENT  
ELEVATIONS

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
DJU

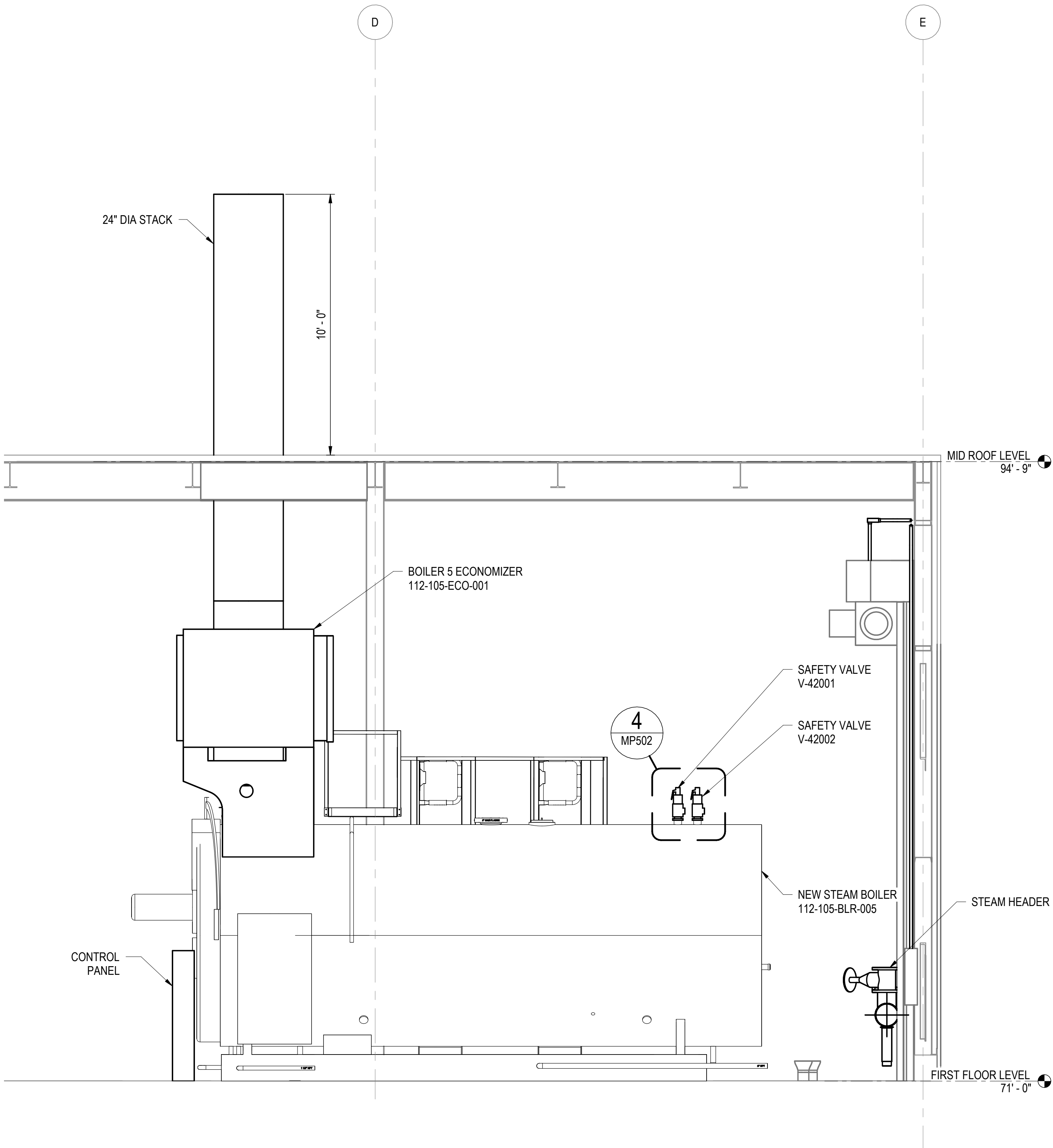
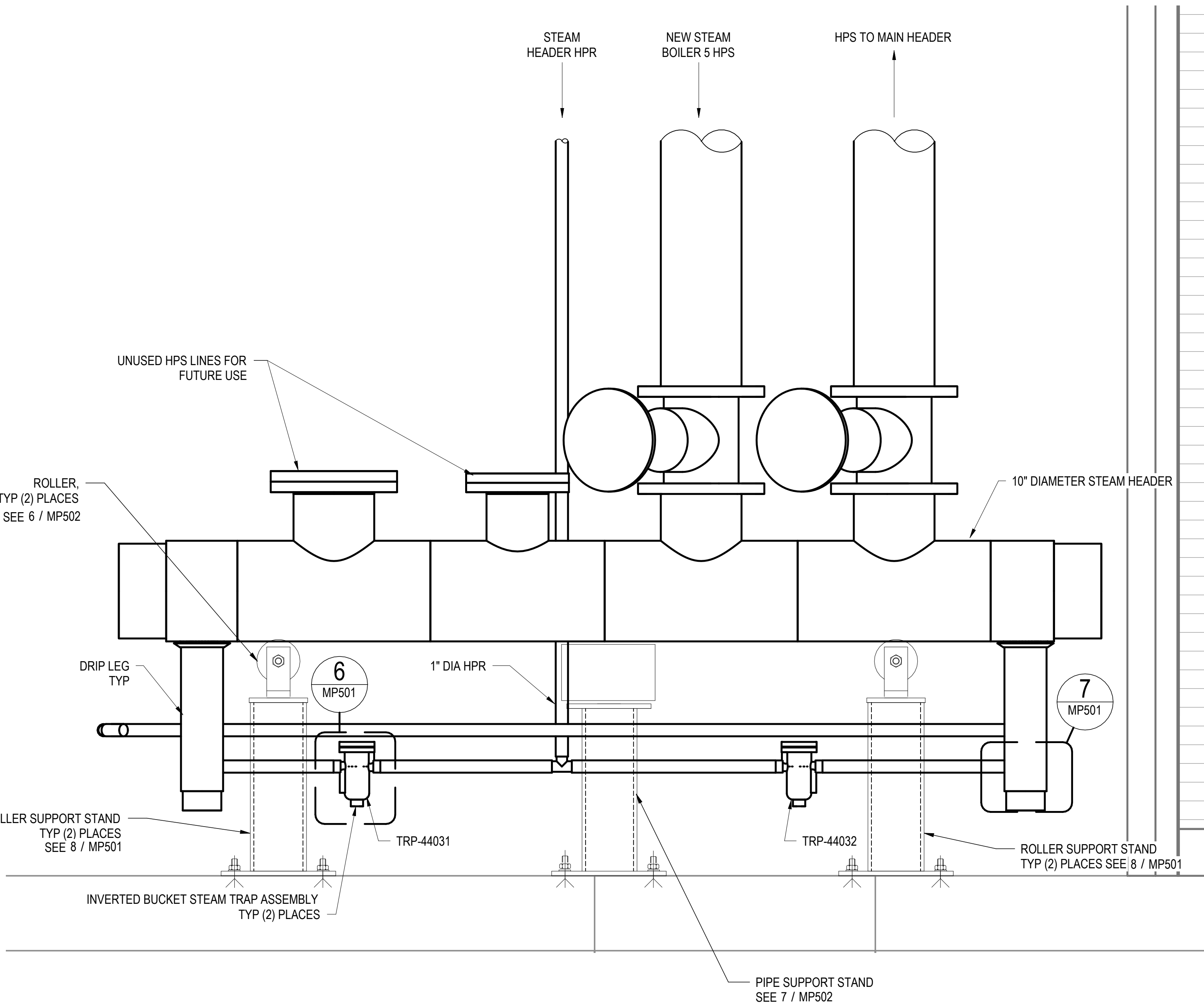
Drawn  
ADL

Project Number  
695-24-107  
Building Number  
112

Drawing Number  
MK201

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
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GENERAL NOTES  
1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.  
ABBREVIATIONS  
TYP TYPICAL  
HPS HIGH PRESSURE STEAM SUPPLY



|                                        |            |            |                                                                                                                                                                                                               |  |                                                  |                                                      |                 |         |       |       |
|----------------------------------------|------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------|------------------------------------------------------|-----------------|---------|-------|-------|
|                                        |            | CONSULTANT | ARCHITECT/ENGINEER OF RECORD                                                                                                                                                                                  |  | Drawing Title                                    | Project Title                                        | Project Number  |         |       |       |
|                                        |            |            |                                                                                                                                                                                                               |  | MECHANICAL EQUIPMENT ELEVATIONS                  | 100% CONSTRUCTION DOCUMENTS                          | 695-24-107      |         |       |       |
|                                        |            |            |                                                                                                                                                                                                               |  | Approved: Project Director                       |                                                      | Building Number |         |       |       |
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |            | <div><div><b>ENCORUS</b><br/>GROUP</div><div>23 MECHANIC STREET, SPRINGVILLE, NY 14141</div><div>encorus.com</div></div> |  |                                                  |                                                      | 112             |         |       |       |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |            |                                                                                                                                                                                                               |  | Office of Construction and Facilities Management |                                                      |                 |         |       |       |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |            |                                                                                                                                                                                                               |  | VA   U.S. Department of Veterans Affairs         |                                                      |                 |         |       |       |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |            |                                                                                                                                                                                                               |  |                                                  |                                                      |                 |         |       |       |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |            |                                                                                                                                                                                                               |  |                                                  |                                                      |                 |         |       |       |
| Revisions:                             | Date:      |            |                                                                                                                                                                                                               |  |                                                  | NOT SPRINKLERED                                      | Drawing Number  |         |       |       |
|                                        |            |            |                                                                                                                                                                                                               |  |                                                  | Location 5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 | Issue Date      | Checked | Drawn | MK202 |
|                                        |            |            |                                                                                                                                                                                                               |  |                                                  |                                                      | 2026-04-06      | DJU     | ADL   |       |

PRELIMINARY  
NOT FOR CONSTRUCTION

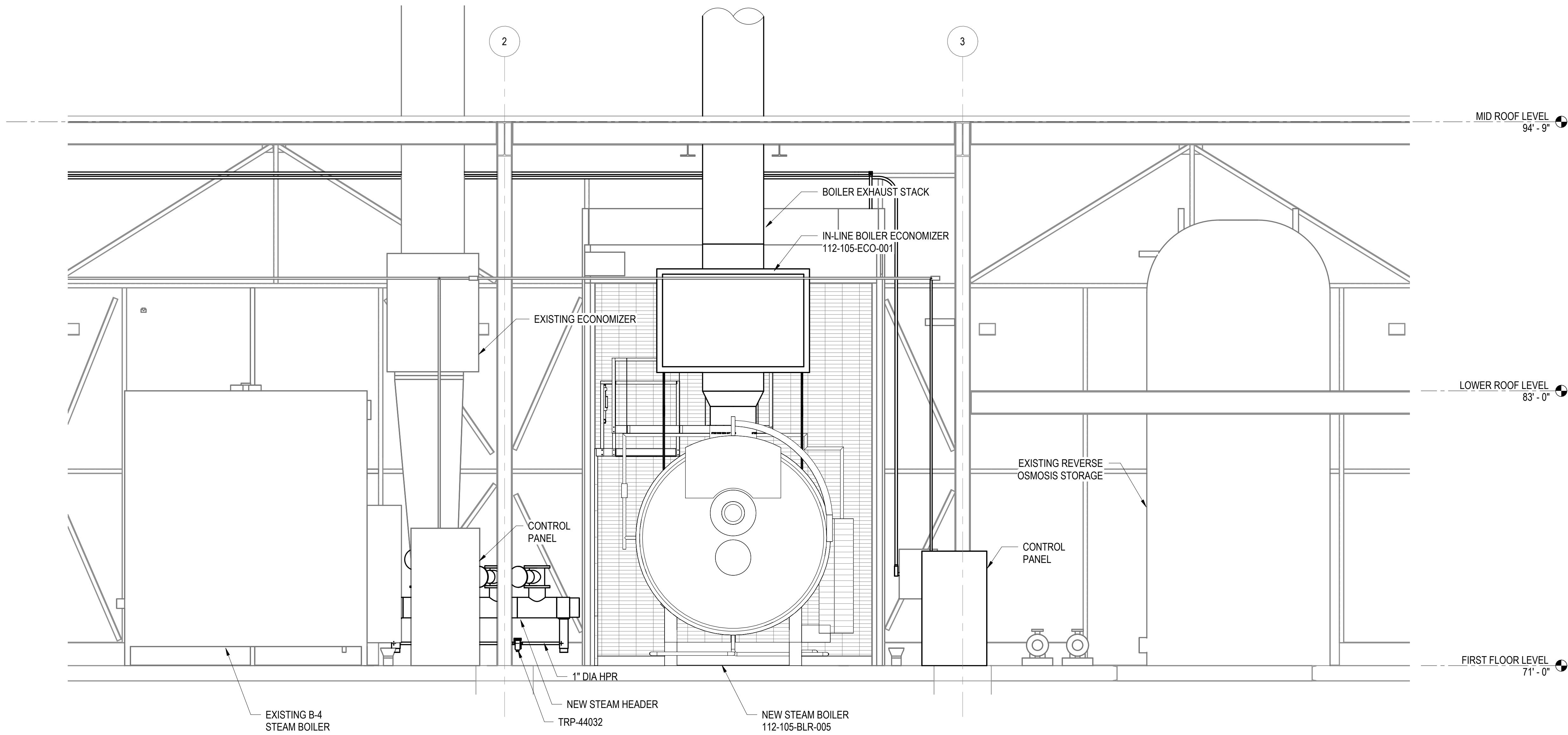
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three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot

GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.



1 MECHANICAL EQUIPMENT BID DEDUCTION ELEVATION LOOKING NORTH  
SCALE: 3/8" = 1'-0"  
1 / MK105

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
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| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management

VA U.S. Department  
of Veterans Affairs

Drawing Title  
MECHANICAL BID DEDUCT  
EQUIPMENT ELEVATIONS

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

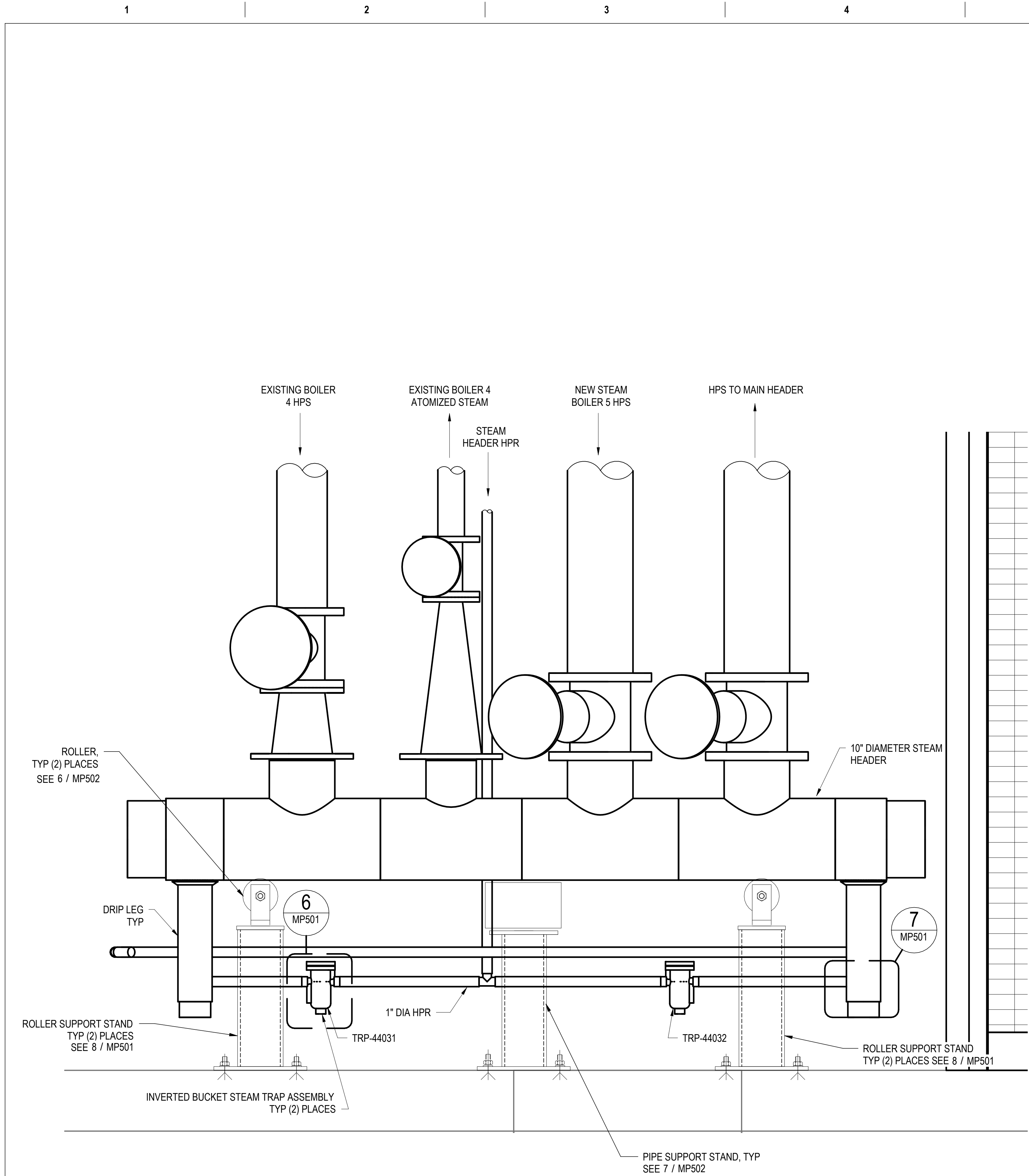
Checked  
DJU

Drawn  
ADL

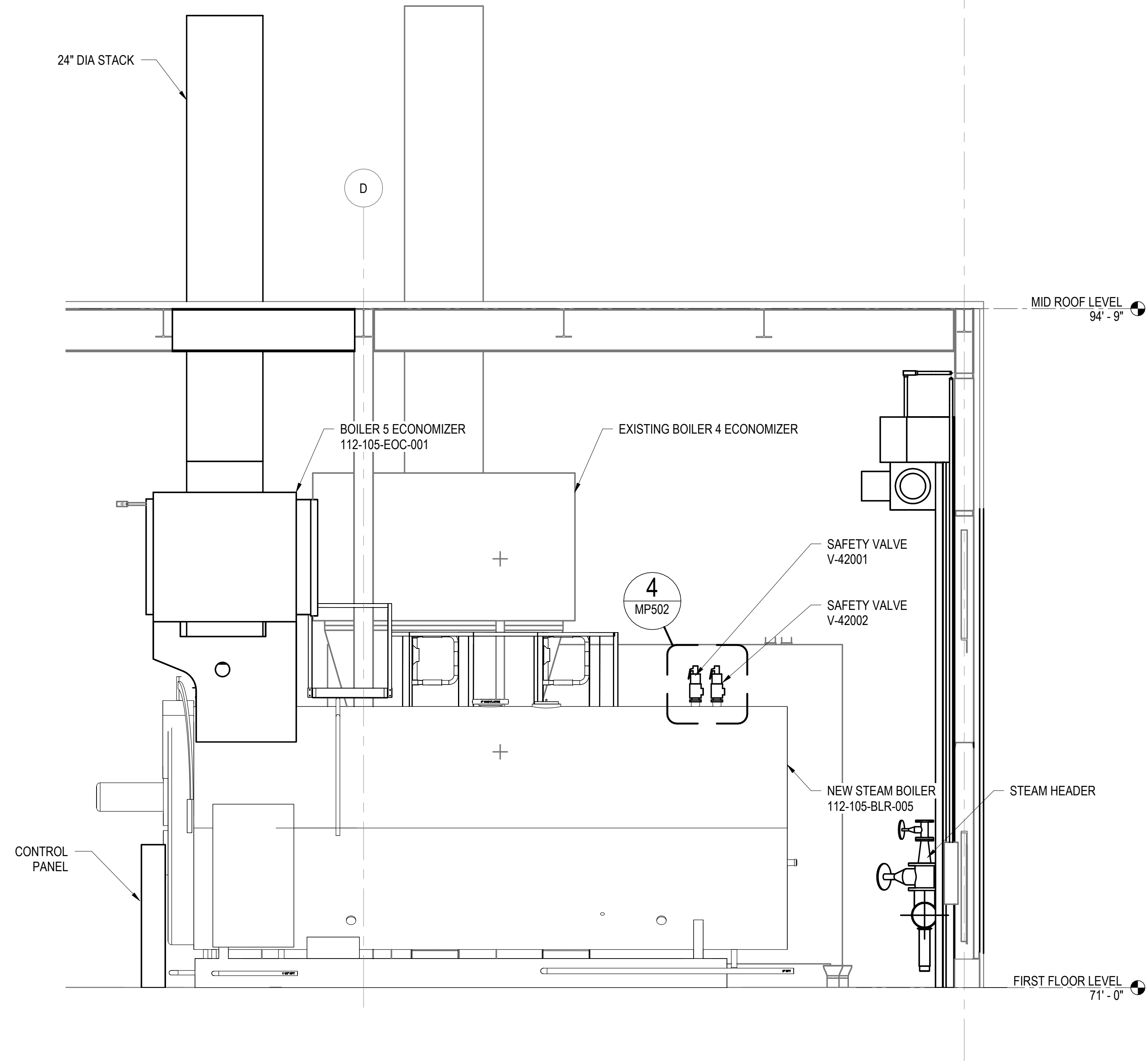
Project Number  
695-24-107  
Building Number  
112

Drawing Number  
MK205

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 NEW STEAM HEADER  
SCALE: 1 1/2" = 1'-0"  
1 / MK105



2 EQUIPMENT ELEVATION LOOKING WEST  
SCALE: 3/8" = 1'-0"  
1 / MK105

GENERAL NOTES

1. SEE M-001 FOR M-SERIES NOTES AND LEGENDS.

ABBREVIATIONS

TYP TYPICAL  
HPS HIGH PRESSURE STEAM SUPPLY

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
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CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
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Management

VA U.S. Department  
of Veterans Affairs

Drawing Title  
MECHANICAL BID DEDUCT  
EQUIPMENT ELEVATIONS

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
DJU

Drawn  
ADL

Project Number  
695-24-107  
Building Number  
112

Drawing Number  
MK206

GENERAL ELECTRICAL NOTES:

- ALL FINAL LOCATIONS AND ARRANGEMENTS OF LIGHTING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL REFLECTED CEILING PLAN.
- EACH BRANCH CIRCUIT HOMERUN SHALL HAVE NO MORE THAN THREE CIRCUITS. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE A SEPARATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR.
- MULTI-GANG BACKBOXES FOR DIFFERENT VOLTAGES AND TYPES OF EMERGENCY AND NORMAL BRANCH WIRING DEVICES SHALL HAVE DIVIDERS BETWEEN DEVICES.
- COORDINATE ALL SHUTDOWNS AND INTERRUPTIONS OF SERVICE WITH THE COR IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS.
- ALL CONDUIT TO BE LABELED AT EACH END TO IDENTIFY TERMINATION LOCATIONS.
- ALL SPARE CONDUIT SHALL CONTAIN A PULL STRING TO FACILITATE FUTURE USE.
- THE CONTRACTOR IS TO PROVIDE EXCAVATION/TRENCHING PLANS TO THE VA COR FOR APPROVAL PRIOR TO STARTING ANY EXCAVATION OR TRENCHING WORK.
- CONTRACTOR TO LABEL ALL EQUIPMENT, CONDUIT, JUNCTION BOXES, AND PULL BOXES IN ACCORDANCE WITH VA COR PROVIDED DIRECTION.
- REFER TO GC101 THROUGH GC103, GC801 FOR PHASING DETAILS.

GENERAL ELECTRICAL NOTES - DEMOLITION:

- FOR EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES, AND CONDUITS, SHOWN ON PLANS TO BE REMOVED, COMPLETELY REMOVE CONDUIT AND WIRING TO THE SOURCE (OVER CURRENT PROTECTIVE DEVICE, AND DISCONNECT).
- DISCONNECT ALL ABANDONED WIRING OF ALL TYPES AT THE OVERCURRENT PROTECTIVE DEVICE. COMPLETELY REMOVE ALL ABANDONED WIRING.
- MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUCTORS PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.

GENERAL LINETYPES:

- EXTENTS OF DETAIL
- DEMOLITION/REMOVAL
- FENCE LINE
- GROUND LINE
- GND

CONDUIT SYMBOLS:

- CONDUIT UP
- CONDUIT DOWN
- VERTICAL RISER

GENERAL SYMBOLS:

- DEMOLISH/REMOVE
- CORRIDOR C2 ROOM NAME AND NUMBER
- PHASE CALLOUT
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- LIMIT OF DEMOLITION

ELECTRICAL SYMBOLS:

- GENERATOR, POWER
- TRANSFORMER, PLAN
- BRANCH CIRCUIT HOMERUN. LINES INDICATE NUMBER OF CIRCUITS, NEUTRAL, AND SWITCH LEG CONDUCTORS. ONE SEPARATE GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN; NOT SHOWN
- PULL BOX/JUNCTION BOX
- JUNCTION BOX
- METER
- PANELBOARD CABINET, SURFACE MOUNTED
- RECEPTACLE, DUPLEX
- RECEPTACLE, DUPLEX ON EMERGENCY POWER
- RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER
- RECEPTACLE, QUADRAPLEX
- RECEPTACLE, SINGLE

ELECTRICAL SYMBOLS CONT:

- RECEPTACLE, SPECIAL PURPOSE  
A = 120V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 5-20R.  
B = 208V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 6-20R.  
C = 120V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 5-30R.  
D = 208V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 6-30R.  
E = 208V, 60A, 1 PHASE, 3-POLE, 4W, NEMA 14-60R.  
F = 208V, 30A, 3 PHASE, 3-POLE 4W, NEMA 15-30R.  
G = 208V, 50A, 3 PHASE, 3 POLE, 4W, NEMA 15-30R.  
H = 208V, 60A, 3 PHASE, 3 POLE, 4W, NEMA 15-60R.
- WEATHERPROOF RECEPTACLE
- DISCONNECT SWITCH, FUSED
- DISCONNECT SWITCH, UNFUSED
- STARTER, COMBINATION WITH DISCONNECT SWITCH
- STARTER OR MOTOR CONTROLLER
- VARIABLE FREQUENCY DRIVE
- CONDUIT TERMINATED W/COUPLING (FLUSH W/FINISHED FLOOR) FOR EXTENSION TO EQUIPMENT AS DIRECTED.
- CONDUIT TERMINATED 6" [152mm] AFF IN STANDARD BOX FOR EXTENSION TO EQUIPMENT AS DIRECTED.

ELECTRICAL SYMBOLS - SINGLE LINE DIAGRAM:

- UTILITY
- DUAL PURPOSE DOCKING STATION - SINGLE CONNECTION
- DUAL PURPOSE DOCKING STATION - DUAL CONNECTION
- SURGE PROTECTIVE DEVICE (SPD)
- AUTOMATIC TRANSFER SWITCH - DUAL BYPASS
- ELECTRICAL LOAD
- CABLE
- ATS
- MOTOR  
X = HORSE POWER RATING
- TRANSFORMER
- WYE CONNECTION
- DELTA CONNECTION
- GROUND
- CURRENT TRANSFORMER
- SWITCH, SINGLE BREAK
- MOLDED CASE CIRCUIT BREAKER

LIGHTING SYMBOLS:

- SWITCH (# SUBSCRIPT AS INDICATED BELOW):  
BLANK = SINGLE POLE  
3 = THREE-WAY  
D = DIMMER  
F = FUSED  
LV = LOW VOLTAGE  
M = MOTOR SNAP  
LIGHT MO= OCCUPANCY SENSOR  
PB= PUSH BUTTON STATION  
T = TIMER OPERATED  
X = EXPLOSION PROOF
- 2 = DOUBLE POLE  
4 = FOUR-WAY  
DS = DOOR SWITCH  
K = KEY OPERATED  
LM = LOW VOLTAGE MASTER  
MP = MOTOR SNAP WITH PILOT  
P = WITH PILOT LIGHT  
RC= REMOTE CONTROL  
WP= WEATHER PROOF
- LIGHT FIXTURE, CEILING MOUNTED  
A = FIXTURE ID  
B = PANEL & CIRCUIT NUMBER
- EXIT SIGN, WALL MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN
- EXIT SIGN, CEILING MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN
- LUMINAIRES, DEMOLISHED
- LUMINAIRES, NEW

LIGHTNING PROTECTION SYMBOLS:

- LIGHTNING PROTECTION CONDUCTOR
- AIR TERMINAL
- DOWN CONDUCTOR

ELECTRICAL ABBREVIATIONS:

- SINGLE POLE
- SINGLE PHASE
- TWO-CONDUCTOR
- THREE-CONDUCTOR
- THREE-PHASE
- FOUR-CONDUCTOR
- FOUR-WIRE
- ARCHITECT/ENGINEER
- ALTERNATING CURRENT OR ARMORED CABLE
- AUTOMATIC TRANSFER SWITCH
- BREAKER
- CIRCUIT
- CIRCUIT BREAKER
- DISCONNECT
- DISTRIBUTION
- DISTRIBUTION PANEL
- EXISTING
- GROUND
- SURGE PROTECTIVE DEVICE
- TRANSFORMER

LIGHTING FIXTURE SCHEDULE

| MARK | DESCRIPTION                                        | LAMPS |                      |       | LENS                 | FINISH | MOUNTING           | BASIS OF DESIGN                                                                 | NOTES         |
|------|----------------------------------------------------|-------|----------------------|-------|----------------------|--------|--------------------|---------------------------------------------------------------------------------|---------------|
|      |                                                    | TYPE  | VOLTS                | WATTS |                      |        |                    |                                                                                 |               |
| A01  | LED LINEAR FIXTURE, 48", 9000LM, 3500K, MIN 80 CRI | LED   | UNIVERSAL (120-277V) | 70.7  | WIDE FROSTED ACRYLIC | WHITE  | SUSPENDED/ PENDENT | LITHONIA LIGHTING - CLX L48 9000LM SEF SBLW WDL WD MVOLT GZ10 LUGR 35K 80CRI WH | 0-10V DIMMING |

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
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| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management



U.S. Department  
of Veterans Affairs

Drawing Title  
ELECTRICAL NOTES AND LEGENDS

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location  
5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
AMC

Drawn  
KRL

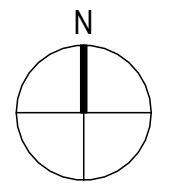
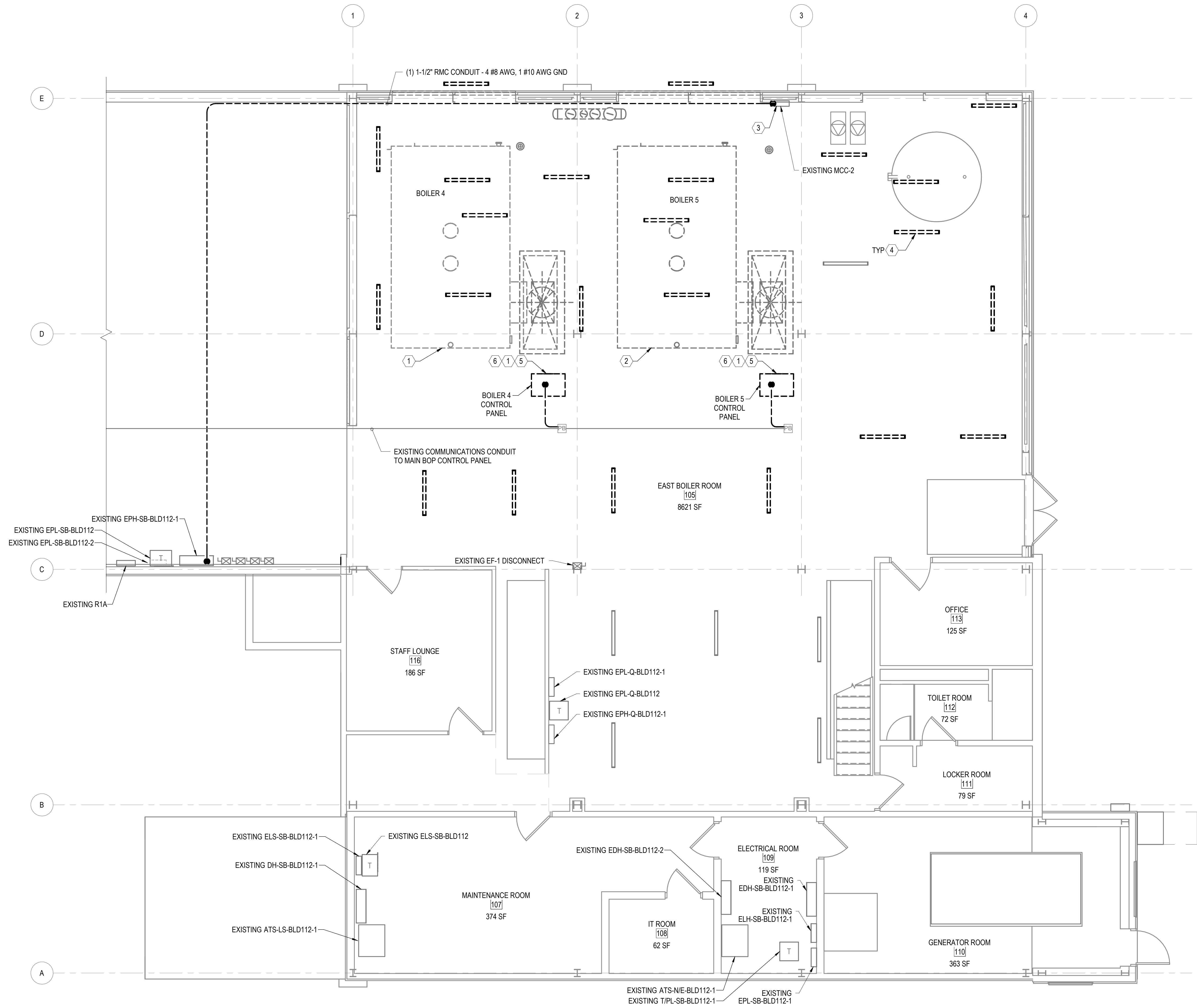
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695-24-107

Building Number  
112

Drawing Number

E-001

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1

## ELECTRICAL DEMOLITION PLAN - FIRST FLOOR LEVEL

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

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

|            |
|------------|
| CONSULTANT |
|------------|

|                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------|
| ARCHITECT/ENGINEER OF RECORD                                                                                                                      |
| <br>23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com |

|                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------|
| Office of<br>Construction<br>and Facilities<br>Management                                                                    |
|  U.S. Department<br>of Veterans Affairs |

|                                                   |
|---------------------------------------------------|
| Drawing Title                                     |
| ELECTRICAL DEMOLITION PLAN -<br>FIRST FLOOR LEVEL |
| Approved: Project Director                        |

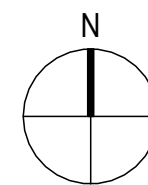
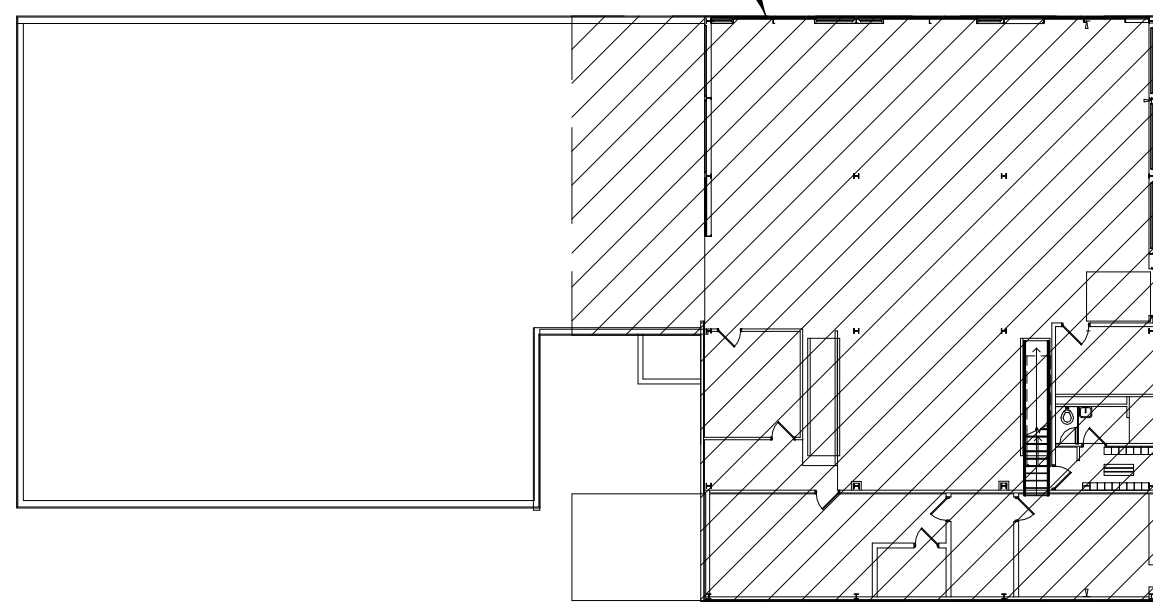
|                                |
|--------------------------------|
| Phase                          |
| 100% CONSTRUCTION<br>DOCUMENTS |
| NOT SPRINKLERED                |

|                                             |
|---------------------------------------------|
| Project Title                               |
| REPLACE BOILERS 4 & 5                       |
| Location                                    |
| 5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 |
| Issue Date                                  |
| 2026-04-06                                  |
| Checked                                     |
| AMC                                         |
| Drawn                                       |
| CGR                                         |

|                 |
|-----------------|
| Project Number  |
| 695-24-107      |
| Building Number |
| 112             |
| Drawing Number  |
| ED101           |

## KEYPLAN

AREA OF WORK



## GENERAL NOTES

- SEE E-001 FOR E-SERIES NOTES AND LEGENDS.
- SEE EP601 SINGLE LINE DRAWING FOR ADDITIONAL INFORMATION.
- FIXTURE LOCATIONS AND COUNTS ARE APPROXIMATIONS. CONTRACTOR TO FIELD VERIFY ACTUAL LOCATIONS AND COUNTS.

## KEYED NOTES

- CONTRACTOR TO REMOVE ALL CONDUIT AND CABLING SUPPLYING BOILER 4 BACK TO EPH-Q-BLD112-1. CONTRACTOR TO REMOVE ALL CONDUIT AND CABLING SUPPLYING BOILER 4 CONTROL PANEL BACK TO EPL-Q-BLD112-2
- CONTRACTOR TO REMOVE ALL CONDUIT AND CABLING SUPPLYING BOILER 5 BACK TO EPH-SB-BLD112-1. CONTRACTOR TO REMOVE ALL CONDUIT AND CABLING SUPPLYING BOILER 5 CONTROL PANEL BACK TO EPL-SB-BLD112-2
- CONTRACTOR TO RE-FEED RO CONTROL PANEL TO SUPPORT CONSTRUCTION ACTIVITIES. REROUTE NEW POWER CONDUIT AND WIRING AS SHOWN ON EP101 & EP201
- CONTRACTOR TO DISCONNECT EXISTING LIGHT FIXTURES. WIRE AND CONDUIT TO REMAIN FOR RECONNECTION TO NEW LED FIXTURES. SEE EL101
- CONTRACTOR TO PULL BACK EXISTING COMMUNICATIONS CABLE FROM MAIN BOP CONTROL PANEL TO PULL BOX ABOVE EXISTING CONTROL PANEL. COIL CABLE IN PULL BOX FOR RECONNECTION TO NEW CONTROL PANEL. CONDUIT BETWEEN EXISTING CONTROL PANEL AND PULL BOX TO BE DEMOLISHED
- GENERAL CONTRACTOR SHALL TURN OVER CONTROL PANEL TO VA FOR SALVAGE. COORDINATE WITH THE COR. CONTRACTOR TO REMOVE ALL CONDUIT AND CABLING SUPPLYING BOILER 4 CONTROL PANEL BACK TO EPL-Q-BLD112-2

## GENERAL SYMBOLS:

Room name  
[101]  
XXX SF ROOM NAME, NUMBER, AND AREA

## ABBREVIATIONS

SF SQUARE FOOT

## ELECTRICAL SYMBOLS:

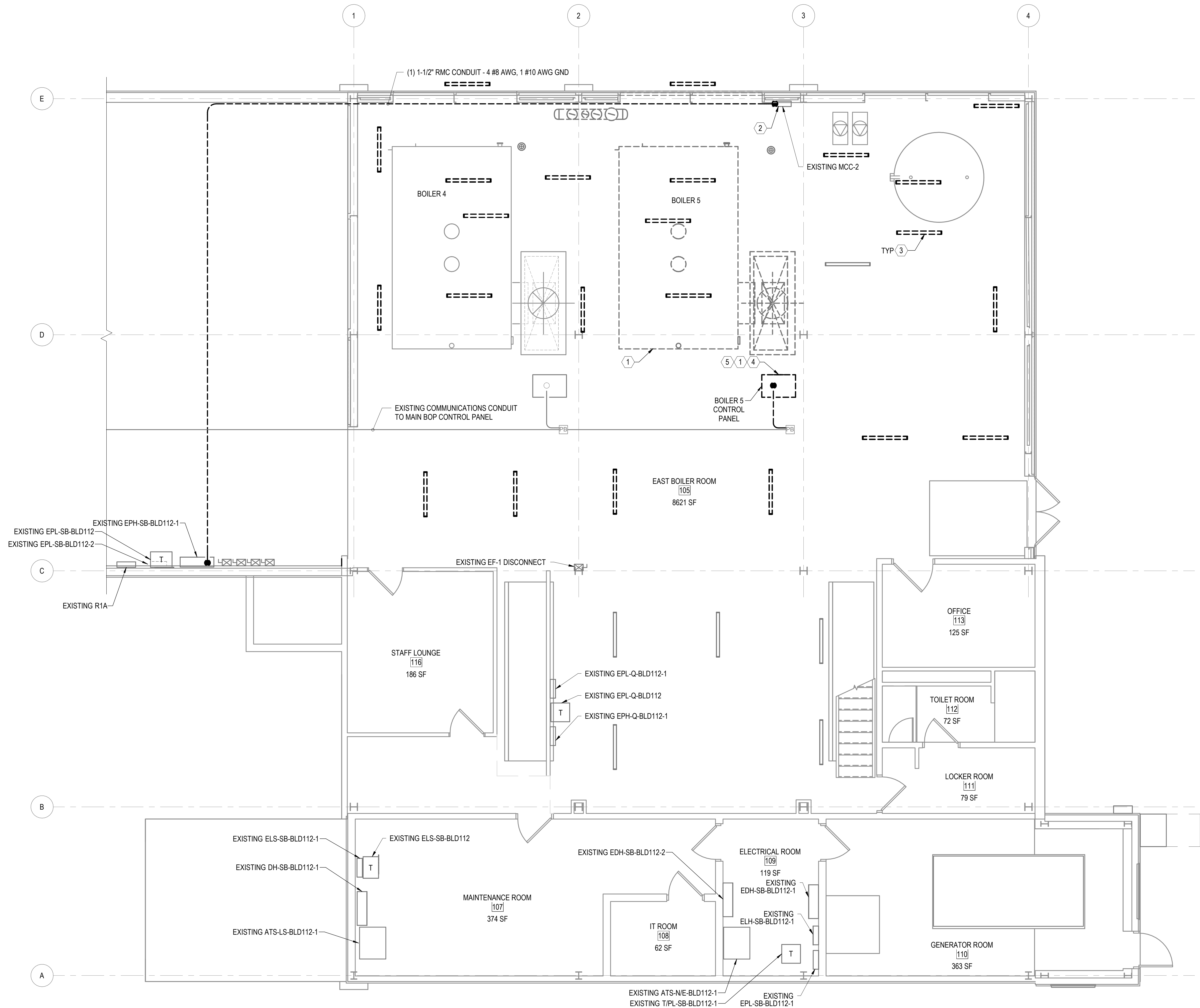
- PANELBOARD CABINET, SURFACE MOUNTED
- RECEPTACLE, DUPLEX
- STARTER, COMBINATION WITH DISCONNECT SWITCH
- PULLBOX/JUNCTION BOX
- TRANSFORMER, PLAN

## LIGHTING SYMBOLS:

LUMINAIRES, DEMOLISHED

**PRELIMINARY**  
NOT FOR CONSTRUCTION

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 ELECTRICAL BID DEDUCTION DEMOLITION PLAN - FIRST FLOOR LEVEL  
SCALE: 1/4" = 1'-0"

### KEYPLAN

AREA OF WORK

N

### GENERAL NOTES

- SEE E-001 FOR E-SERIES NOTES AND LEGENDS.
- SEE EP605 SINGLE LINE DRAWING FOR ADDITIONAL INFORMATION.
- FIXTURE LOCATIONS AND COUNTS ARE APPROXIMATIONS. CONTRACTOR TO FIELD VERIFY ACTUAL LOCATIONS AND COUNTS.

### KEYED NOTES

- CONTRACTOR TO REMOVE ALL CONDUIT AND CABLING SUPPLYING BOILER 5 BACK TO EPH-SB-BLD112-1. CONTRACTOR TO REMOVE ALL CONDUIT AND CABLING SUPPLYING BOILER 5 CONTROL PANEL BACK TO EPL-SB-BLD112-2
- CONTRACTOR TO RE-FEED RO CONTROL PANEL TO SUPPORT CONSTRUCTION ACTIVITIES. REROUTE NEW POWER CONDUIT AND WIRING AS SHOWN ON EP101 & EP201
- CONTRACTOR TO DISCONNECT EXISTING LIGHT FIXTURES. WIRE AND CONDUIT TO REMAIN FOR RECONNECTION TO NEW LED FIXTURES. SEE EL101
- CONTRACTOR TO PULL BACK EXISTING COMMUNICATIONS CABLE FROM MAIN BOP CONTROL PANEL TO PULL BOX ABOVE EXISTING CONTROL PANEL. COIL CABLE IN PULL BOX FOR RECONNECTION TO NEW CONTROL PANEL. CONDUIT BETWEEN EXISTING CONTROL PANEL AND PULL BOX TO BE DEMOLISHED
- GENERAL CONTRACTOR SHALL TURN OVER CONTROL PANEL TO VA FOR SALVAGE. COORDINATE WITH THE COR BACK TO EPH-Q-BLD112-1. CONTRACTOR TO REMOVE ALL CONDUIT AND CABLING SUPPLYING BOILER 4 CONTROL PANEL BACK TO EPL-Q-BLD112-2

### GENERAL SYMBOLS:

Room name  
[101]  
XXX SF

ROOM NAME, NUMBER, AND AREA

### ABBREVIATIONS

SF SQUARE FOOT

### ELECTRICAL SYMBOLS:

- PANELBOARD CABINET, SURFACE MOUNTED
- RECEPTACLE, DUPLEX
- STARTER, COMBINATION WITH DISCONNECT SWITCH
- PULLBOX/JUNCTION BOX
- TRANSFORMER, PLAN

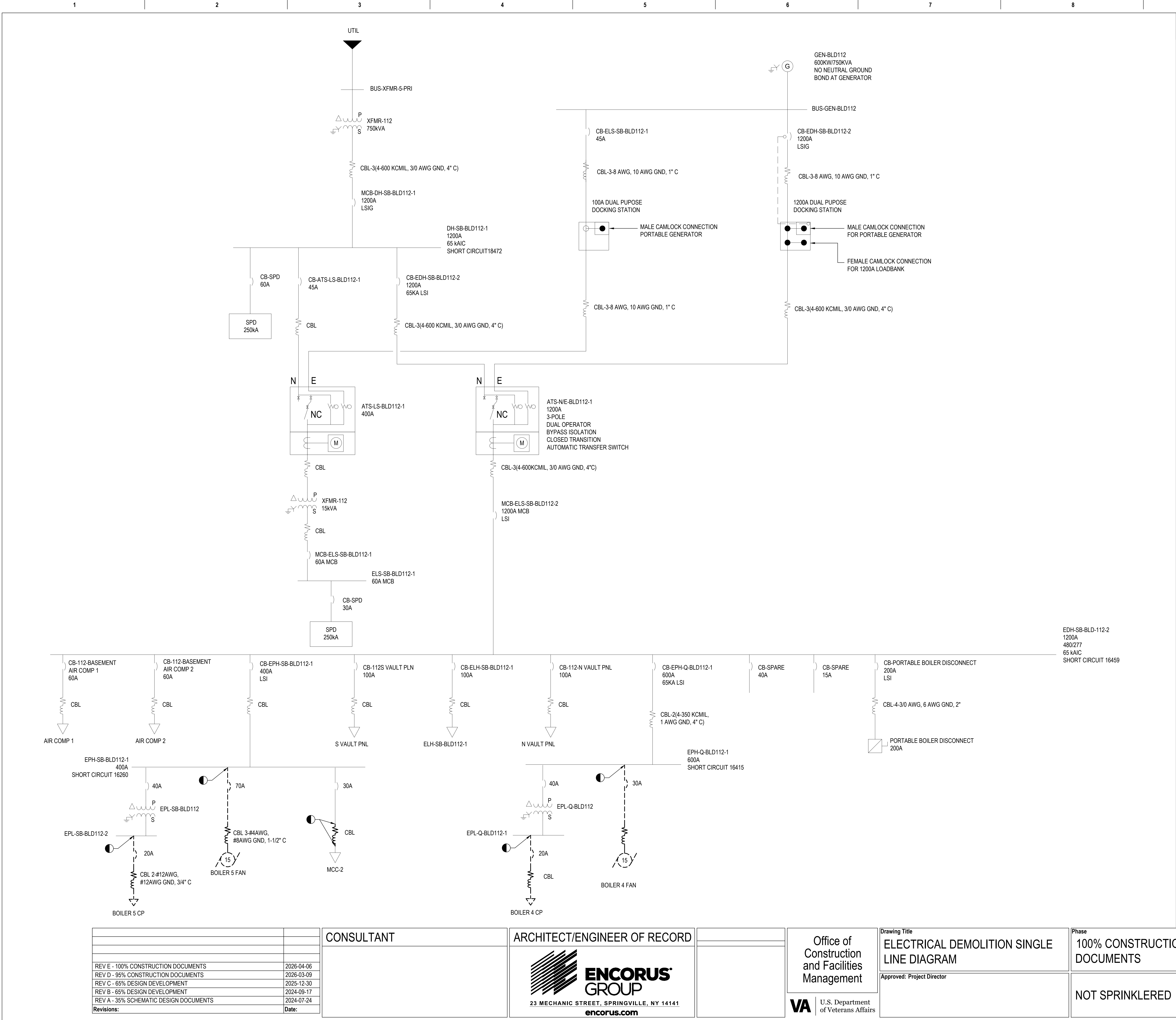
### LIGHTING SYMBOLS:

- LUMINAIRES, DEMOLISHED

**PRELIMINARY**  
NOT FOR CONSTRUCTION

|                                                                                                                                                                                                       |                                                                             |            |                                                                                              |                                                                                            |                                                                                                    |                                                         |                                                                                                                                                     |                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| REV E - 100% CONSTRUCTION DOCUMENTS<br>REV D - 95% CONSTRUCTION DOCUMENTS<br>REV C - 65% DESIGN DEVELOPMENT<br>REV B - 65% DESIGN DEVELOPMENT<br>REV A - 35% SCHEMATIC DESIGN DOCUMENTS<br>Revisions: | 2026-04-06<br>2026-03-09<br>2025-12-30<br>2024-09-17<br>2024-07-24<br>Date: | CONSULTANT | ARCHITECT/ENGINEER OF RECORD<br><br>23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com | Office of Construction and Facilities Management<br>VA U.S. Department of Veterans Affairs | Drawing Title<br>ELECTRICAL BID DEDUCT DEMO PLAN - FIRST FLOOR LEVEL<br>Approved: Project Director | Phase<br>100% CONSTRUCTION DOCUMENTS<br>NOT SPRINKLERED | Project Title<br>REPLACE BOILERS 4 & 5<br>Location 5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295<br>Issue Date 2026-04-06<br>Checked AMC<br>Drawn CGR | Project Number<br>695-24-107<br>Building Number<br>112<br>Drawing Number<br>ED105 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



### GENERAL NOTES

1. SEE E-001 FOR E-SERIES NOTES AND LEGENDS.

### GENERAL LINETYPES

----- EXISTING  
----- DEMOLITION

### ABBREVIATIONS

|           |                                      |
|-----------|--------------------------------------|
| 1PH       | SINGLE-PHASE                         |
| 1P        | SINGLE POLE                          |
| 2/C       | TWO-CONDUCTOR                        |
| 3/C       | THREE-CONDUCTOR                      |
| 3PH       | THREE-PHASE                          |
| 4/C       | FOUR-CONDUCTOR                       |
| 4W        | FOUR-WIRE                            |
| A/E       | ARCHITECT/ENGINEER                   |
| AC        | ALTERNATING CURRENT OR ARMORED CABLE |
| ATS       | AUTOMATIC TRANSFER SWITCH            |
| BRKR      | BREAKER                              |
| CKT       | CIRCUIT                              |
| CKT BRKR  | CIRCUIT BREAKER                      |
| DISC      | DISCONNECT                           |
| DISTR     | DISTRIBUTION                         |
| DISTR PNL | DISTRIBUTION PANEL                   |
| EXIST     | EXISTING                             |
| SPD       | SURGE PROTECTIVE DEVICE              |
| XFMR      | TRANSFORMER                          |

### ELECTRICAL SYMBOLS

|  |                                                  |
|--|--------------------------------------------------|
|  | MOLDED CASE CIRCUIT BREAKER                      |
|  | CABLE                                            |
|  | MOTOR<br>X = HORSE POWER RATING                  |
|  | GROUND                                           |
|  | GENERATOR                                        |
|  | METER                                            |
|  | CURRENT TRANSFORMER                              |
|  | TRANSFORMER                                      |
|  | DISCONNECT SWITCH - FUSED                        |
|  | UTILITY                                          |
|  | ELECTRICAL LOAD                                  |
|  | DUAL PURPOSE DOCKING STATION - SINGLE CONNECTION |
|  | DUAL PURPOSE DOCKING STATION - DUAL CONNECTION   |
|  | SURGE PROTECTIVE DEVICE (SPD)                    |
|  | AUTOMATIC TRANSFER SWITCH - DUAL BYPASS          |
|  | LIMIT OF DEMOLITION                              |

REV E - 100% CONSTRUCTION DOCUMENTS

REV D - 95% CONSTRUCTION DOCUMENTS

REV C - 65% DESIGN DEVELOPMENT

REV B - 65% DESIGN DEVELOPMENT

REV A - 35% SCHEMATIC DESIGN DOCUMENTS

Revisions:

2026-04-06

2026-03-09

2025-12-30

2024-09-17

2024-07-24

Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

**ENCORUS GROUP**  
23 MECHANIC STREET, SPRINGVILLE, NY 14141  
encorus.com

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title

ELECTRICAL DEMOLITION SINGLE LINE DIAGRAM

Approved: Project Director

Phase

100% CONSTRUCTION DOCUMENTS

NOT SPRINKLERED

Project Title

REPLACE BOILERS 4 & 5

Location 5000 W. NATIONAL AVE. MILWAUKEE, WI 53295

Issue Date 2026-04-06

Checked CGR

Drawn CCW

Project Number

695-24-107

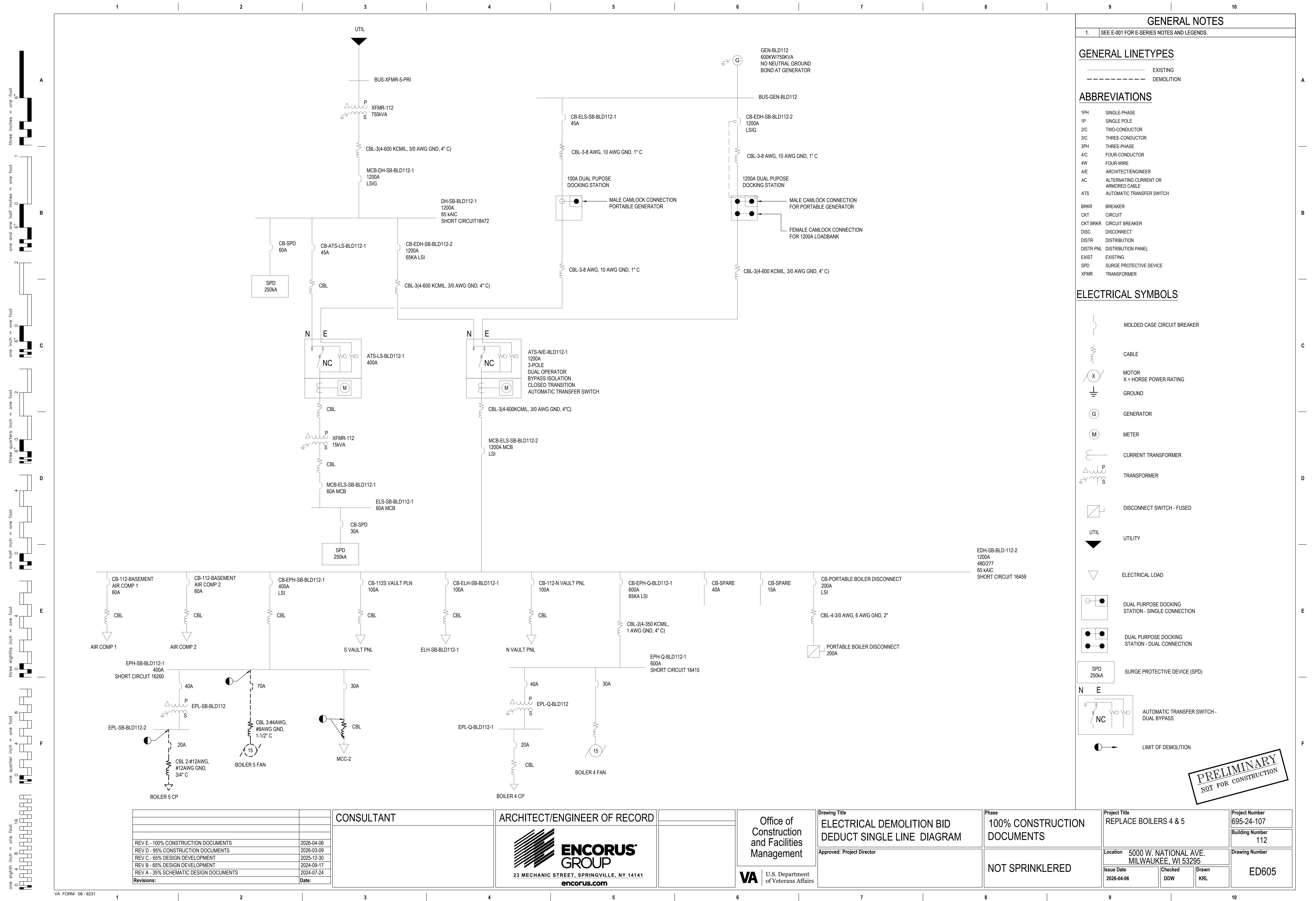
Building Number 112

Drawing Number

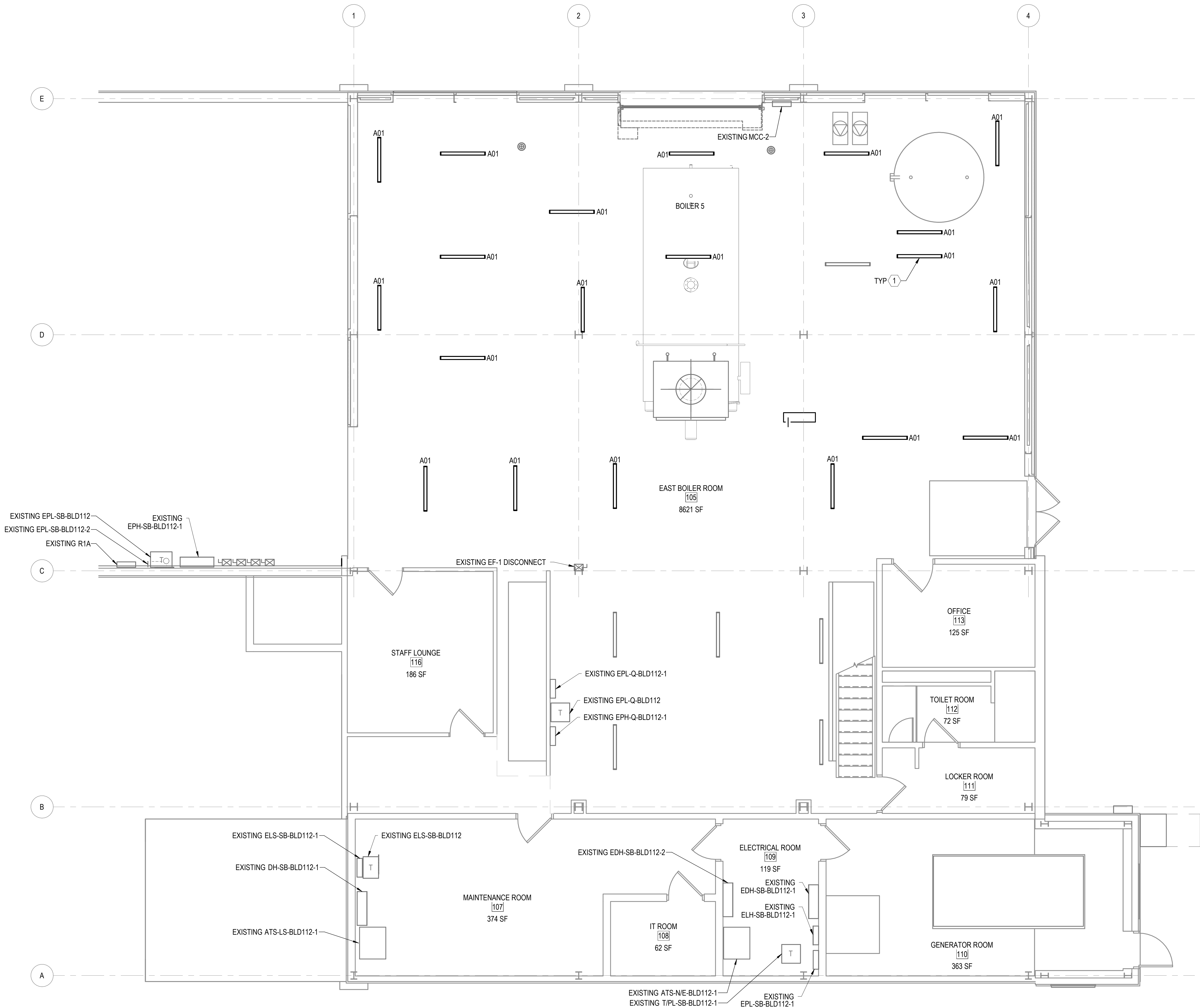
ED601

PRELIMINARY

NOT FOR CONSTRUCTION

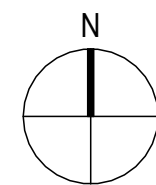
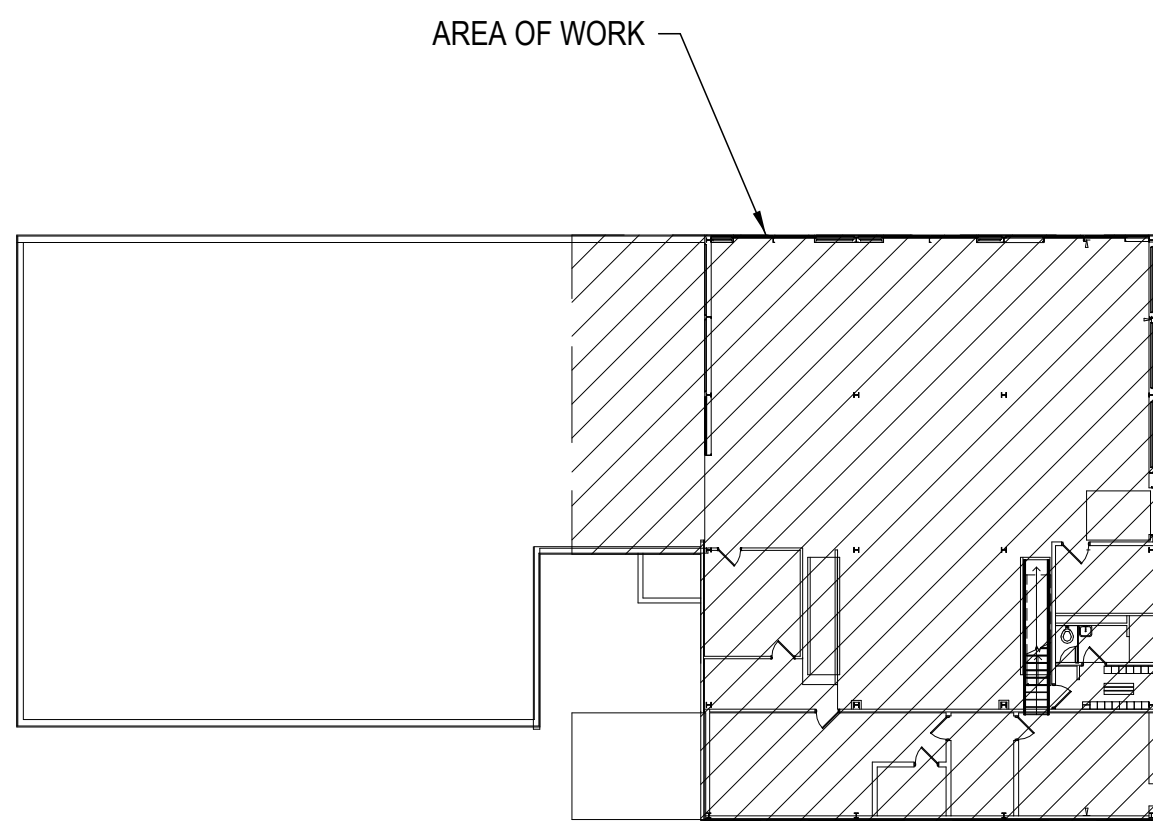


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one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 ELECTRICAL LIGHTING PLAN - FIRST FLOOR LEVEL  
SCALE: 1/4" = 1'-0"

## KEYPLAN



## GENERAL NOTES

- SEE E-001 FOR E-SERIES NOTES AND LEGENDS.
- SEE EP601 SINGLE LINE DRAWING FOR ADDITIONAL INFORMATION.

## KEYED NOTES

- CONTRACTOR TO CONNECT NEW LED FIXTURES TO EXISTING WIRE AND CONDUIT

## GENERAL SYMBOLS:

Room name  
[101]  
XXX SF  
ROOM NAME, NUMBER, AND AREA

## ABBREVIATIONS

SF SQUARE FOOT

## ELECTRICAL SYMBOLS:

- PANELBOARD CABINET, SURFACE MOUNTED
- RECEPTACLE, DUPLEX
- STARTER, COMBINATION WITH DISCONNECT SWITCH
- PULLBOX/JUNCTION BOX
- TRANSFORMER, PLAN

## LIGHTING SYMBOLS:

LUMINAIRES, NEW

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management

VA U.S. Department  
of Veterans Affairs

Drawing Title  
ELECTRICAL LIGHTING PLAN -  
FIRST FLOOR LEVEL

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
AMC

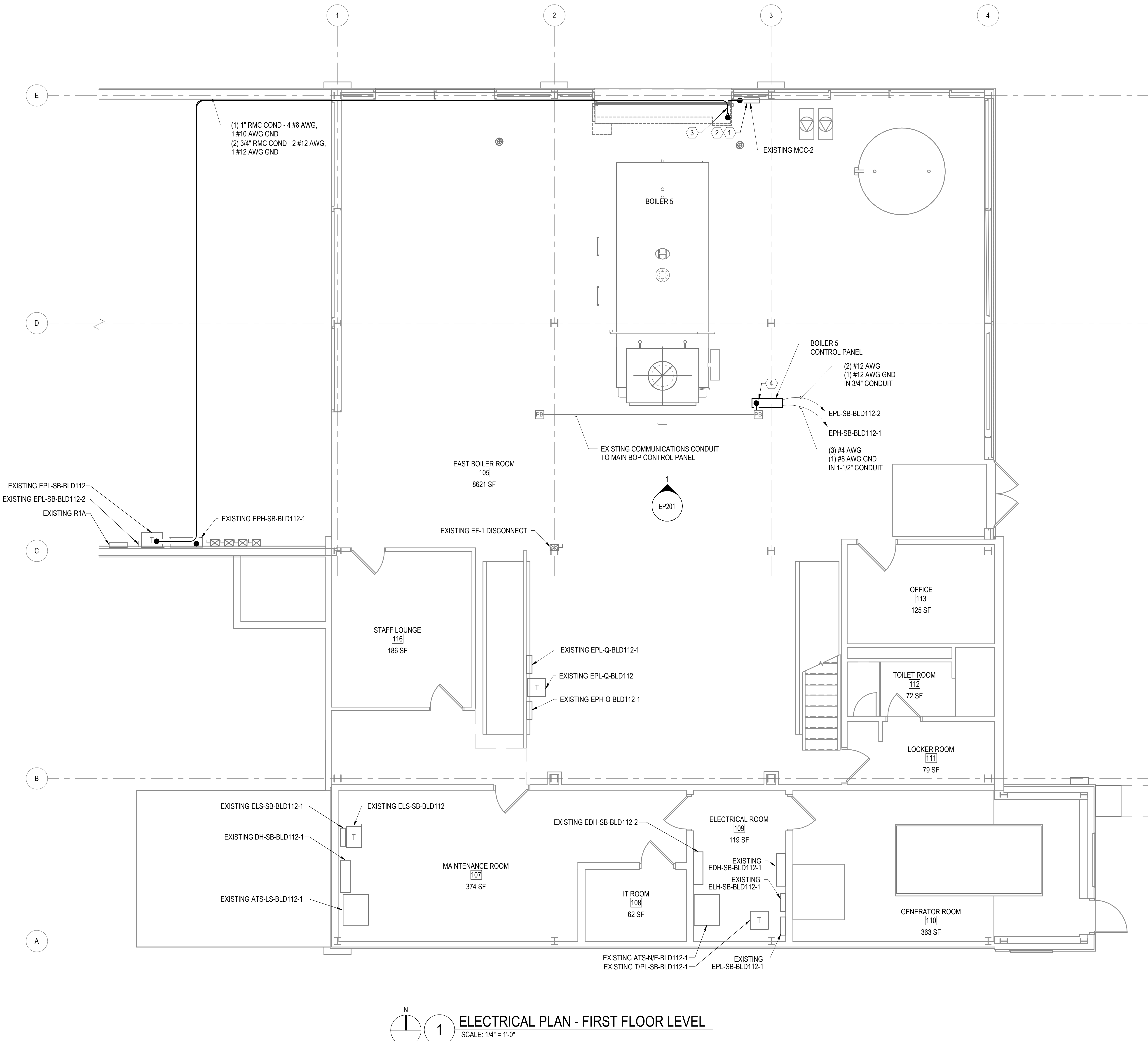
Drawn  
CGR

Project Number  
695-24-107

Building Number  
112

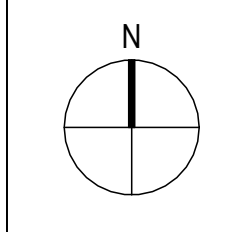
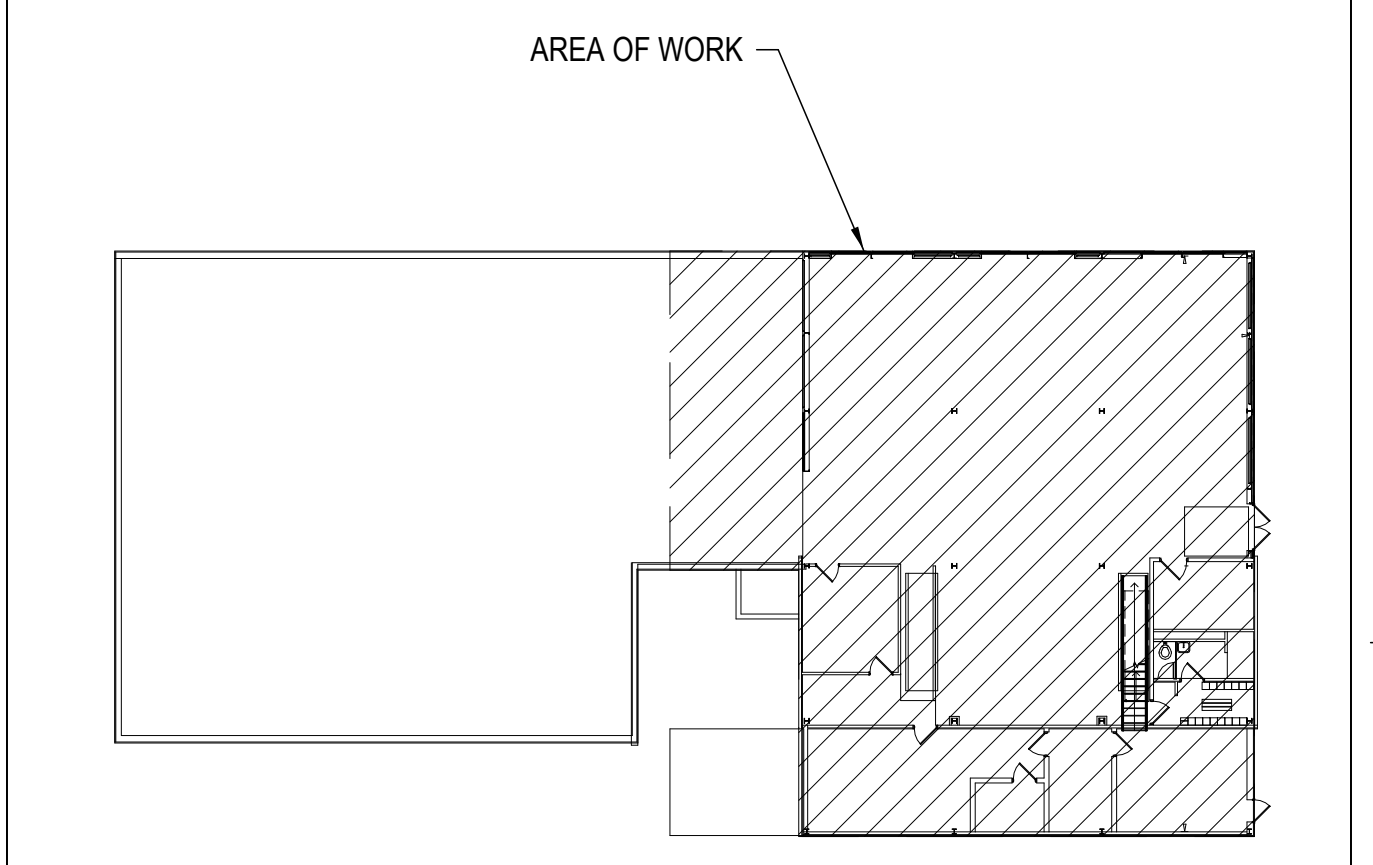
Drawing Number  
EL101

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot  
one sixteenth inch = one foot



1  
ELECTRICAL PLAN - FIRST FLOOR LEVEL  
SCALE: 1/4" = 1'-0"

KEYPLAN



- GENERAL NOTES
- SEE E-001 FOR E-SERIES NOTES AND LEGENDS.
  - SEE EP601 SINGLE LINE DRAWING FOR ADDITIONAL INFORMATION.

- KEYED NOTES
- CONTRACTOR TO INSTALL NEW CONDUIT AND FEEDER CABLE ABOVE WALL PANELS AND STRUCTURAL MEMBERS BEING REMOVED. SEE EP201 AND AD SERIES DRAWINGS FOR ADDITIONAL INFORMATION
  - CONTRACTOR TO ADJUST EXISTING PANEL LOCATION AND ASSOCIATED CONDUIT SO THAT THE PANEL DOES NOT INTERFERE WITH THE INSTALLATION AND OPERATION OF THE NEW ROLL UP DOOR
  - ROUTE CABLE AND CONDUIT TO THE MOTORS FOR THE ROLL-UP DOOR AND SECURITY GRILL TO PANEL EPL-SB-BLD112-2
  - CONTRACTOR TO INSTALL NEW 3/4" CONDUIT FROM BOILER CONTROL PANEL TO EXISTING COMMUNICATIONS PULL BOX ABOVE PANEL. RECONNECT EXISTING DATA CABLE FROM MAIN BOP CONTROL PANEL TO NEW BOILER CONTROL PANEL

GENERAL SYMBOLS:

Room name  
[101]  
XXX SF

ROOM NAME, NUMBER, AND AREA

ABBREVIATIONS

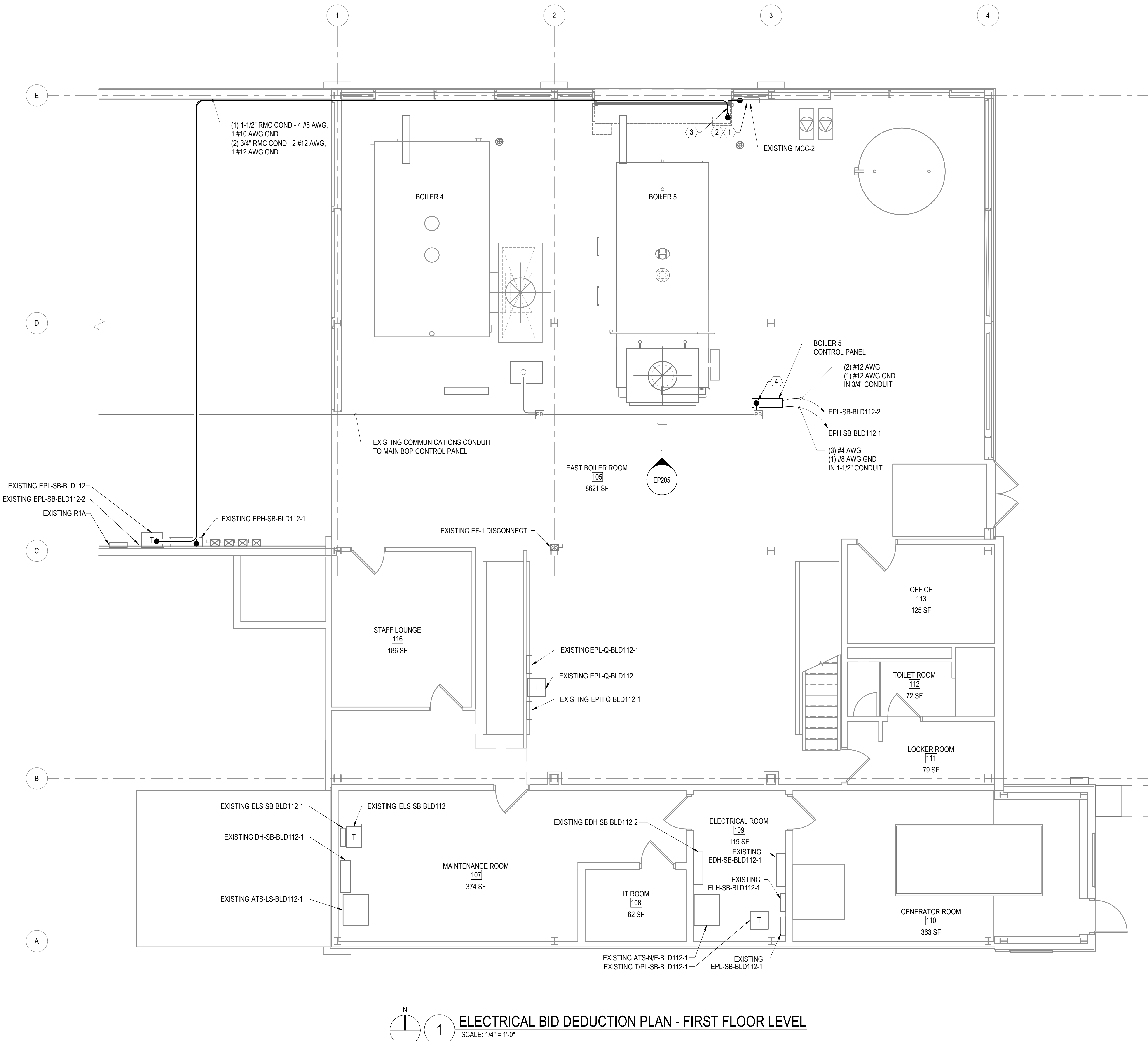
SF SQUARE FOOT

- ELECTRICAL SYMBOLS:
- PANELBOARD CABINET, SURFACE MOUNTED
  - RECEPTACLE, DUPLEX
  - STARTER, COMBINATION WITH DISCONNECT SWITCH
  - PULLBOX/JUNCTION BOX
  - TRANSFORMER, PLAN

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                                                                                                                                                                                       |                                                                             |            |                              |                                                                                            |                                                                                    |                                      |                                                         |                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------|------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------|--------------------------------------------------------|
| Revisions:<br>REV E - 100% CONSTRUCTION DOCUMENTS<br>REV D - 95% CONSTRUCTION DOCUMENTS<br>REV C - 65% DESIGN DEVELOPMENT<br>REV B - 65% DESIGN DEVELOPMENT<br>REV A - 35% SCHEMATIC DESIGN DOCUMENTS | Date:<br>2026-04-06<br>2026-03-09<br>2025-12-30<br>2024-09-17<br>2024-07-24 | CONSULTANT | ARCHITECT/ENGINEER OF RECORD | Office of Construction and Facilities Management<br>VA U.S. Department of Veterans Affairs | Drawing Title<br>ELECTRICAL PLAN - FIRST FLOOR LEVEL<br>Approved: Project Director | Phase<br>100% CONSTRUCTION DOCUMENTS | Project Title<br>REPLACE BOILERS 4 & 5                  | Project Number<br>695-24-107<br>Building Number<br>112 |
|                                                                                                                                                                                                       |                                                                             |            |                              |                                                                                            |                                                                                    | NOT SPRINKLERED                      | Location<br>5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 | Drawing Number<br>EP101                                |
|                                                                                                                                                                                                       |                                                                             |            |                              |                                                                                            |                                                                                    |                                      | Issue Date<br>2026-04-06                                | Checked<br>AMC                                         |
|                                                                                                                                                                                                       |                                                                             |            |                              |                                                                                            |                                                                                    |                                      | Drawn<br>ADL                                            |                                                        |

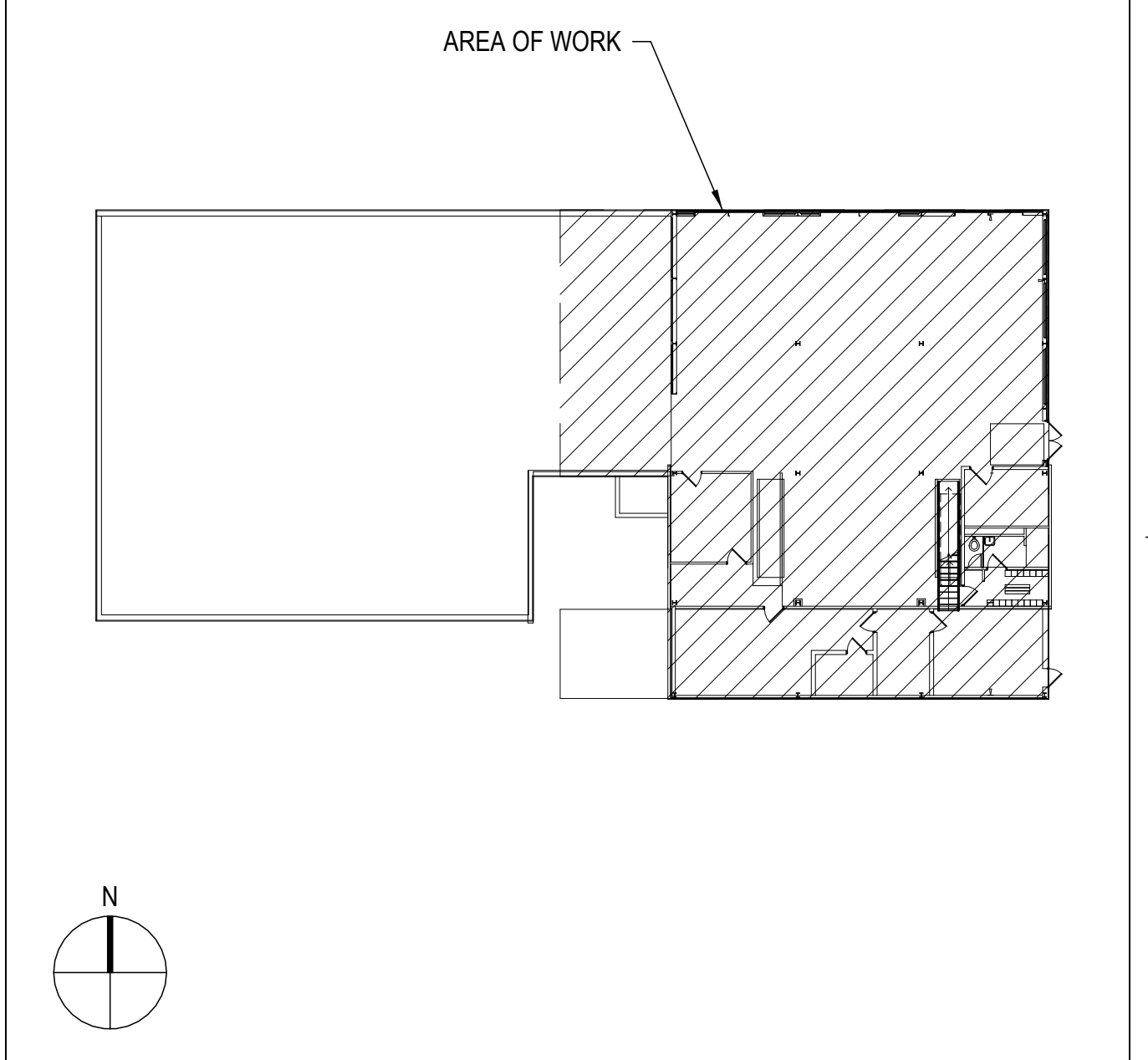
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one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



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

**ELECTRICAL BID DEDUCTION PLAN - FIRST FLOOR LEVEL**

**KEYPLAN**



- GENERAL NOTES**
- SEE E-001 FOR E-SERIES NOTES AND LEGENDS.
  - SEE EP605 SINGLE LINE DRAWING FOR ADDITIONAL INFORMATION.
- KEYED NOTES**
- CONTRACTOR TO INSTALL NEW CONDUIT AND FEEDER CABLE ABOVE WALL PANELS AND STRUCTURAL MEMBERS BEING REMOVED. SEE EP201 AND AD SERIES DRAWINGS FOR ADDITIONAL INFORMATION
  - CONTRACTOR TO ADJUST EXISTING PANEL LOCATION AND ASSOCIATED CONDUIT SO THAT THE PANEL DOES NOT INTERFERE WITH THE INSTALLATION AND OPERATION OF THE NEW ROLL UP DOOR
  - ROUTE CABLE AND CONDUIT TO THE MOTORS FOR THE ROLL-UP DOOR AND SECURITY GRILL TO PANEL EPL-SB-BLD112-2
  - CONTRACTOR TO INSTALL NEW 3/4" CONDUIT FROM BOILER CONTROL PANEL TO EXISTING COMMUNICATIONS PULL BOX ABOVE PANEL. RECONNECT EXISTING DATA CABLE FROM MAIN BOP CONTROL PANEL TO NEW BOILER CONTROL PANEL

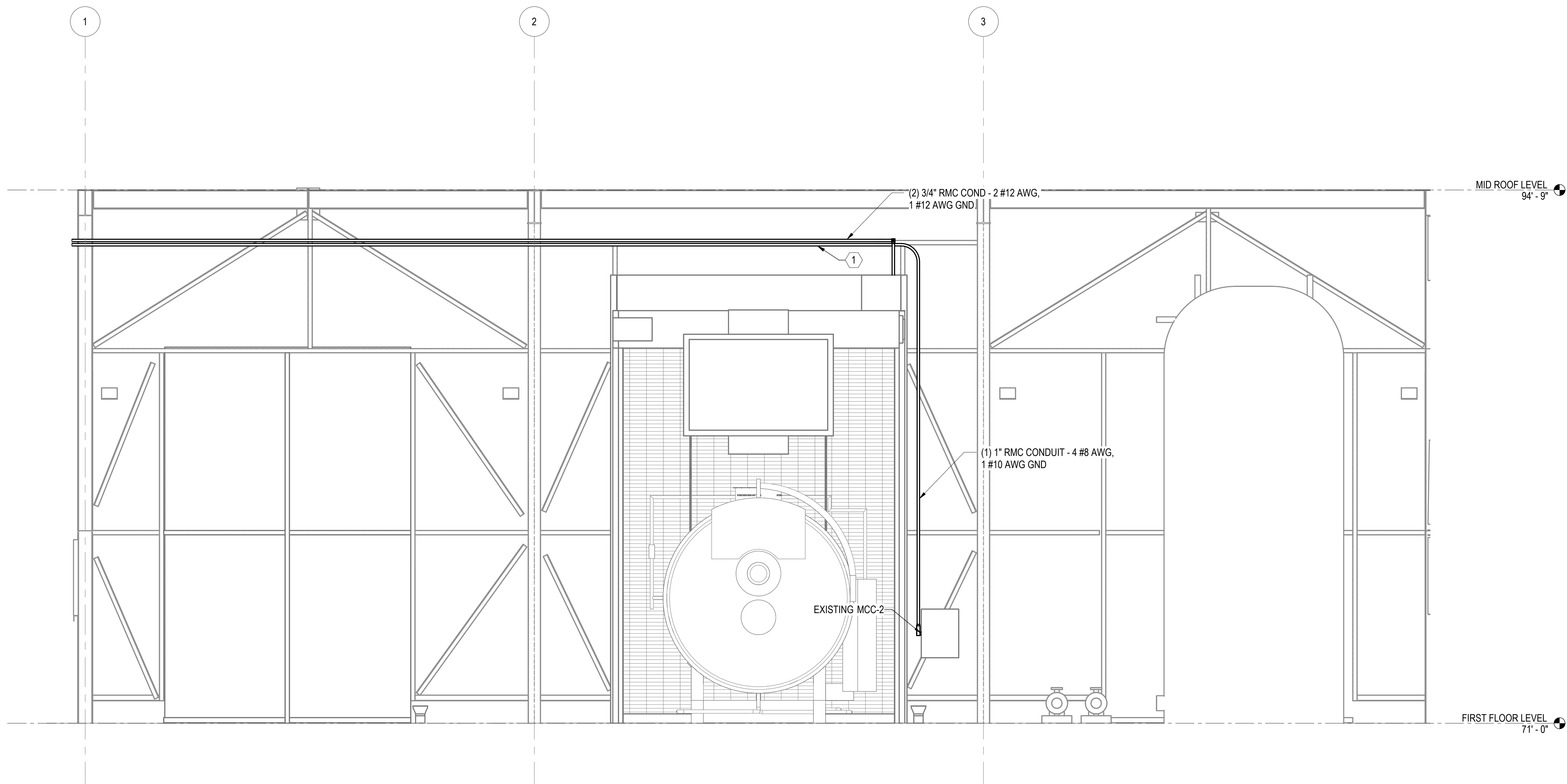
- GENERAL SYMBOLS:**
- Room name  
[101]  
XXX SF
- ROOM NAME, NUMBER, AND AREA
- SF SQUARE FOOT
- ABBREVIATIONS**
- SF SQUARE FOOT
- ELECTRICAL SYMBOLS:**
- PANELBOARD CABINET, SURFACE MOUNTED
  - RECEPTACLE, DUPLEX
  - STARTER, COMBINATION WITH DISCONNECT SWITCH
  - PULLBOX/JUNCTION BOX
  - TRANSFORMER, PLAN

**PRELIMINARY**  
NOT FOR CONSTRUCTION

|                                                                                                                                                                                         |  |                                                                    |  |                                                  |  |                                                                 |  |                                      |  |                                                         |  |                              |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------|--|--------------------------------------------------|--|-----------------------------------------------------------------|--|--------------------------------------|--|---------------------------------------------------------|--|------------------------------|--|
| CONSULTANT                                                                                                                                                                              |  | ARCHITECT/ENGINEER OF RECORD                                       |  | Office of Construction and Facilities Management |  | Drawing Title<br>ELECTRICAL BID DEDUCT PLAN - FIRST FLOOR LEVEL |  | Phase<br>100% CONSTRUCTION DOCUMENTS |  | Project Title<br>REPLACE BOILERS 4 & 5                  |  | Project Number<br>695-24-107 |  |
| Revisions:                                                                                                                                                                              |  | 23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com           |  | VA U.S. Department of Veterans Affairs           |  | Approved: Project Director                                      |  | NOT SPRINKLERED                      |  | Location<br>5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 |  | Building Number<br>112       |  |
| REV E - 100% CONSTRUCTION DOCUMENTS<br>REV D - 95% CONSTRUCTION DOCUMENTS<br>REV C - 65% DESIGN DEVELOPMENT<br>REV B - 65% DESIGN DEVELOPMENT<br>REV A - 35% SCHEMATIC DESIGN DOCUMENTS |  | 2026-04-06<br>2026-03-09<br>2025-12-30<br>2024-09-17<br>2024-07-24 |  |                                                  |  |                                                                 |  |                                      |  | Issue Date<br>2026-04-06                                |  | Checked<br>AMC               |  |
|                                                                                                                                                                                         |  |                                                                    |  |                                                  |  |                                                                 |  |                                      |  | Drawn<br>ADL                                            |  | Drawing Number<br>EP105      |  |

three inches = one foot  
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one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot

GENERAL NOTES  
1. SEE E-001 FOR E-SERIES NOTES AND LEGENDS.  
KEYED NOTES  
1. CONTRACTOR TO INSTALL NEW CONDUIT AND FEEDER CABLE ABOVE WALL PANELS AND STRUCTURAL MEMBERS BEING REMOVED TO SUPPORT CONSTRUCTION ACTIVITIES. SEE EP101 AND AD SERIES DRAWINGS FOR ADDITIONAL INFORMATION.



1 ELECTRICAL POWER ELEVATION - NORTH WALL  
SCALE: 3/8\"/>

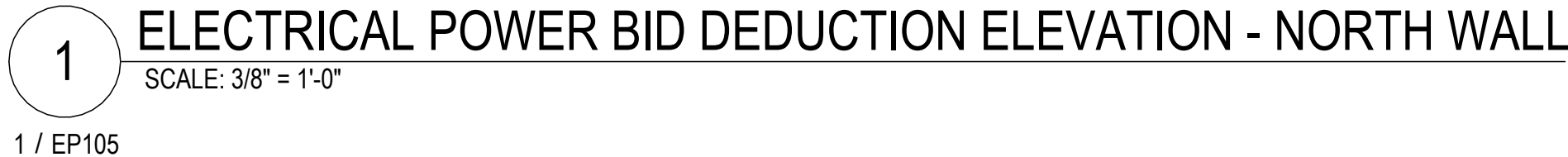
PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |                                                                                                                                                   |                              |                                                                                            |                                                                            |                                                         |                                                                                                                      |                                                                             |
|----------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Revisions:                             |            | CONSULTANT                                                                                                                                        | ARCHITECT/ENGINEER OF RECORD | Office of Construction and Facilities Management<br>VA U.S. Department of Veterans Affairs | Drawing Title<br>ELECTRICAL POWER ELEVATIONS<br>Approved: Project Director | Phase<br>100% CONSTRUCTION DOCUMENTS<br>NOT SPRINKLERED | Project Title<br>REPLACE BOILERS 4 & 5<br>Location 5000 W. NATIONAL AVE MILWAUKEE, WI 53295<br>Issue Date 2026-04-06 | Project Number<br>695-24-107<br>Building Number 112<br>Drawing Number EP201 |
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |                                                                                                                                                   |                              |                                                                                            |                                                                            |                                                         | Checked AMC                                                                                                          |                                                                             |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 | <br>23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com |                              |                                                                                            |                                                                            |                                                         | Drawn KRL                                                                                                            |                                                                             |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |                                                                                                                                                   |                              |                                                                                            |                                                                            |                                                         |                                                                                                                      |                                                                             |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |                                                                                                                                                   |                              |                                                                                            |                                                                            |                                                         |                                                                                                                      |                                                                             |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |                                                                                                                                                   |                              |                                                                                            |                                                                            |                                                         |                                                                                                                      |                                                                             |

|    |                                           |
|----|-------------------------------------------|
| 1. | SEE E-001 FOR E-SERIES NOTES AND LEGENDS. |
|----|-------------------------------------------|



|   |                                                                                                                                                                                                            |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | CONTRACTOR TO INSTALL NEW CONDUIT AND FEEDER CABLE ABOVE WALL PANELS AND STRUCTURAL MEMBERS BEING REMOVED TO SUPPORT CONSTRUCTION ACTIVITIES. SEE EP101 AND AD SERIES DRAWINGS FOR ADDITIONAL INFORMATION. |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



| CONSULTANT |
|------------|
|            |

ARCHITECT/ENGINEER OF RECORD



|               |                                        |
|---------------|----------------------------------------|
| Drawing Title | ELECTRICAL POWER BID DEDUCT ELEVATIONS |
|---------------|----------------------------------------|

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

|               |                       |
|---------------|-----------------------|
| Project Title | REPLACE BOILERS 4 & 5 |
|---------------|-----------------------|

|          |                                             |
|----------|---------------------------------------------|
| Location | 5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 |
|----------|---------------------------------------------|

Issue Date  
2026-04-06

|         |
|---------|
| Checked |
| AMC     |

|       |     |
|-------|-----|
| Drawn | KRI |
|-------|-----|

Project Number  
695-24-107

|                 |     |
|-----------------|-----|
| Building Number | 112 |
|-----------------|-----|

Drawing Number

EP205

**PRELIMINARY**  
NOT FOR CONSTRUCTION

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot

A  
B  
C  
D  
E  
F

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

|            |
|------------|
| CONSULTANT |
|            |

ARCHITECT/ENGINEER OF RECORD



23 MECHANIC STREET, SPRINGVILLE, NY 14141  
encorus.com

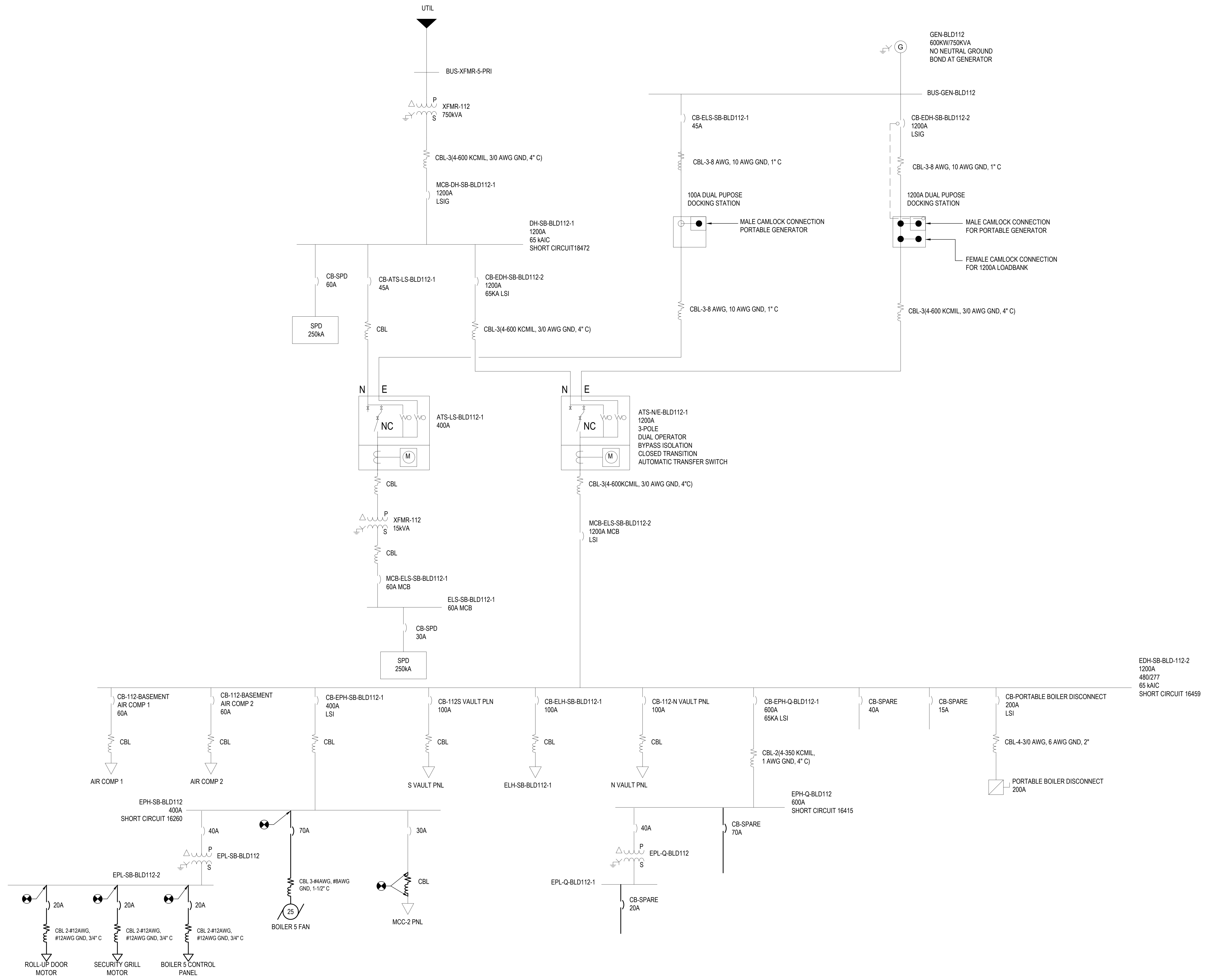
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

|                            |                                |
|----------------------------|--------------------------------|
| Drawing Title              | ELECTRICAL SINGLE LINE DIAGRAM |
| Approved: Project Director |                                |

|                 |                             |
|-----------------|-----------------------------|
| Phase           | 100% CONSTRUCTION DOCUMENTS |
| NOT SPRINKLERED |                             |

|               |                                           |                 |            |
|---------------|-------------------------------------------|-----------------|------------|
| Project Title | REPLACE BOILERS 4 & 5                     | Project Number  | 695-24-107 |
| Location      | 5000 W. NATIONAL AVE. MILWAUKEE, WI 53295 | Building Number | 112        |
| Issue Date    | 2026-04-06                                | Checked         | JFF        |
| Drawn         | ADL                                       | Drawing Number  | EP601      |



## GENERAL NOTES

1. SEE E-001 FOR E-SERIES NOTES AND LEGENDS.

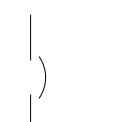
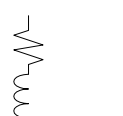
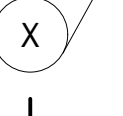
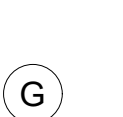
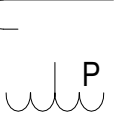
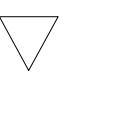
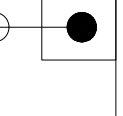
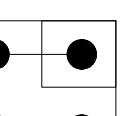
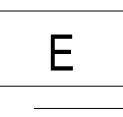
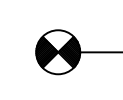
## GENERAL LINETYPES

EXISTING  
NEW WORK

## ABBREVIATIONS

|           |                                      |
|-----------|--------------------------------------|
| 1PH       | SINGLE-PHASE                         |
| 1P        | SINGLE POLE                          |
| 2/C       | TWO-CONDUCTOR                        |
| 3/C       | THREE-CONDUCTOR                      |
| 3PH       | THREE-PHASE                          |
| 4/C       | FOUR-CONDUCTOR                       |
| 4W        | FOUR-WIRE                            |
| A/E       | ARCHITECT/ENGINEER                   |
| AC        | ALTERNATING CURRENT OR ARMORED CABLE |
| ATS       | AUTOMATIC TRANSFER SWITCH            |
| BRKR      | BREAKER                              |
| CKT       | CIRCUIT                              |
| CKT BRKR  | CIRCUIT BREAKER                      |
| DISC      | DISCONNECT                           |
| DISTR     | DISTRIBUTION                         |
| DISTR PNL | DISTRIBUTION PANEL                   |
| EXIST     | EXISTING                             |
| SPD       | SURGE PROTECTIVE DEVICE              |
| XFMR      | TRANSFORMER                          |

## ELECTRICAL SYMBOLS

|                                                                                       |                                                   |
|---------------------------------------------------------------------------------------|---------------------------------------------------|
|    | MOLDED CASE CIRCUIT BREAKER                       |
|    | CABLE                                             |
|    | MOTOR<br>X = HORSE POWER RATING                   |
|    | GROUND                                            |
|   | GENERATOR                                         |
|  | METER                                             |
|  | CURRENT TRANSFORMER                               |
|  | TRANSFORMER                                       |
|  | DISCONNECT SWITCH - FUSED                         |
|  | UTILITY                                           |
|  | ELECTRICAL LOAD                                   |
|  | DUAL PURPOSE DOCKING STATION - SINGLE CONNECTION  |
|  | DUAL PURPOSE DOCKING STATION - DUAL CONNECTION    |
|  | SURGE PROTECTIVE DEVICE (SPD)                     |
|  | AUTOMATIC TRANSFER SWITCH - DUAL BYPASS           |
|  | POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK |

PRELIMINARY  
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GENERAL NOTES

1. SEE E-001 FOR E-SERIES NOTES AND LEGENDS.

|                               |                                  |      |       |                    |   |         |   |                     |   |       |      |                                          |       |    |  |  |  |    |
|-------------------------------|----------------------------------|------|-------|--------------------|---|---------|---|---------------------|---|-------|------|------------------------------------------|-------|----|--|--|--|----|
| BRANCH PANEL: EPH-SB-BLG112-1 |                                  |      |       |                    |   |         |   |                     |   |       |      |                                          |       |    |  |  |  |    |
| LOCATION:                     |                                  |      |       | VOLTS: 270/480 WYE |   |         |   | A.I.CRATING: 65KAIC |   |       |      |                                          |       |    |  |  |  |    |
| SUPPLY FROM: EDH-SB-BLD112-2  |                                  |      |       | PHASE: 3           |   |         |   | MAINS TYPE: MLO     |   |       |      |                                          |       |    |  |  |  |    |
| MOUNTING: SURFACE             |                                  |      |       | WIRES: 4           |   |         |   | MAINS RATING : 400  |   |       |      |                                          |       |    |  |  |  |    |
| ENCLOSURE: TYPE 1             |                                  |      |       |                    |   |         |   | MCB RATING: N/A     |   |       |      |                                          |       |    |  |  |  |    |
| NOTES:                        |                                  |      |       |                    |   |         |   |                     |   |       |      |                                          |       |    |  |  |  |    |
| CKT                           | CIRCUIT DESCRIPTION              | TRIP | POLES | A                  |   | B       |   | C                   |   | POLES | TRIP | CIRCUIT DESCRIPTION                      | CKT   |    |  |  |  |    |
| 1                             | TEMP WELDER                      | 100A | 3     | 0                  | 0 |         |   |                     |   | 3     | 60A  | CONDENSATE<br>TRANSFER PUMPS #4<br>#5 #6 | 2     |    |  |  |  |    |
| 3                             |                                  |      |       |                    |   | 0       | 0 |                     |   |       |      |                                          |       | 4  |  |  |  |    |
| 5                             |                                  |      |       |                    |   |         |   | 0                   | 0 |       |      |                                          |       | 6  |  |  |  |    |
| 7                             |                                  |      |       |                    | 0 | 0       |   |                     |   |       |      |                                          |       | 8  |  |  |  |    |
| 9                             | BOILER #1 FORCE<br>DRAFT FAN     | 200A | 3     |                    |   | 0       | 0 |                     |   | 3     | 70A  | RO MARLO                                 | 10    |    |  |  |  |    |
| 11                            |                                  |      |       |                    |   |         |   | 0                   | 0 |       |      |                                          |       | 12 |  |  |  |    |
| 13                            |                                  |      |       |                    | 0 | 0       |   |                     |   |       |      |                                          |       | 14 |  |  |  |    |
| 15                            |                                  |      |       |                    |   | 0       | 0 |                     |   |       |      |                                          |       | 16 |  |  |  |    |
| 17                            | EPL-SB-112-2                     | 50A  | 3     |                    |   |         |   | 0                   | 0 | 3     | 40A  | RO SYSTEM #A                             | 18    |    |  |  |  |    |
| 19                            |                                  |      |       |                    | 0 | 0       |   |                     |   |       |      |                                          |       | 20 |  |  |  |    |
| 21                            |                                  |      |       |                    |   | 0       | 0 |                     |   |       |      |                                          |       | 22 |  |  |  |    |
| 23                            |                                  |      |       |                    |   |         |   | 0                   | 0 |       |      |                                          |       | 24 |  |  |  |    |
| 25                            | CONDENSATE PUMP<br>WEST BASEMENT | 30A  | 3     |                    |   |         |   |                     |   | 3     | 30A  | SUMP PUMP WEST<br>BASEMENT               | 26    |    |  |  |  |    |
| 27                            |                                  |      |       |                    | 0 | 0       |   |                     | 0 |       |      |                                          | 0     | 28 |  |  |  |    |
| 29                            |                                  |      |       |                    |   |         |   |                     |   |       |      |                                          |       | 30 |  |  |  |    |
| 31                            |                                  |      |       |                    | 0 | 0       |   |                     |   |       |      |                                          |       | 32 |  |  |  |    |
| 33                            | AIR COMPRESSOR<br>NORTH WALL     | 30A  | 3     |                    |   |         | 0 | 0                   |   | 3     | 20A  | RO STORAGE TANK<br>PUMPS                 | 34    |    |  |  |  |    |
| 35                            |                                  |      |       |                    |   |         |   | 0                   | 0 |       |      |                                          |       | 36 |  |  |  |    |
| 37                            |                                  |      |       |                    | 0 | 0       |   |                     |   |       |      |                                          |       | 38 |  |  |  |    |
| 39                            |                                  |      |       |                    |   |         | 0 | 0                   |   |       |      |                                          |       | 40 |  |  |  |    |
| 41                            | PTRV #1                          | 20A  | 3     |                    |   |         |   |                     | 0 | 0     | 3    | 20A                                      | SPARE | 42 |  |  |  |    |
| 43                            |                                  |      |       |                    |   |         |   |                     |   |       |      |                                          |       | 44 |  |  |  |    |
| 45                            |                                  |      |       |                    | 0 | 0       |   |                     | 0 | 0     |      |                                          |       | 46 |  |  |  |    |
| 47                            |                                  |      |       |                    |   |         |   |                     | 0 | 0     |      |                                          |       | 48 |  |  |  |    |
| 49                            | OIL PUMP TRANSFER #1             | 15A  | 3     |                    | 0 | 0       |   |                     |   | 3     | 15A  | PTRV #3                                  | 50    |    |  |  |  |    |
| 51                            |                                  |      |       |                    |   |         | 0 | 0                   |   |       |      |                                          |       | 52 |  |  |  |    |
| 53                            |                                  |      |       |                    |   |         |   |                     | 0 |       |      |                                          | 0     | 54 |  |  |  |    |
| 55                            |                                  |      |       |                    | 0 | 0       |   |                     |   |       |      |                                          |       | 56 |  |  |  |    |
| 57                            | OIL PUMP TRANSFER #2             | 15A  | 3     |                    |   |         | 0 | 0                   |   | 3     | 70A  | BOILER #5 FAN                            | 58    |    |  |  |  |    |
| 59                            |                                  |      |       |                    |   |         |   |                     | 0 |       |      |                                          | 0     | 59 |  |  |  |    |
|                               |                                  |      |       |                    |   |         |   |                     |   |       |      |                                          |       |    |  |  |  | 60 |
|                               |                                  |      |       |                    |   |         |   |                     |   |       |      |                                          |       |    |  |  |  |    |
| TOTAL AMP:                    |                                  |      |       | VA<br>A            |   | VA<br>A |   | VA<br>A             |   |       |      |                                          |       |    |  |  |  |    |

|                              |                                     |      |       |                    |    |    |       |      |                              |                                      |       |       |       |
|------------------------------|-------------------------------------|------|-------|--------------------|----|----|-------|------|------------------------------|--------------------------------------|-------|-------|-------|
| BRANCH PANEL: EPH-Q-BLG112-1 |                                     |      |       |                    |    |    |       |      |                              |                                      |       |       |       |
| LOCATION:                    |                                     |      |       | VOLTS: 270/480 WYE |    |    |       |      |                              | A.I.CRATING: 10KAIC                  |       |       |       |
| SUPPLY FROM: EDH-SB-BLD112-2 |                                     |      |       | PHASE: 3           |    |    |       |      |                              | MAINS TYPE: MLO                      |       |       |       |
| MOUNTING: SURFACE            |                                     |      |       | WIRES: 4           |    |    |       |      |                              | MAINS RATING : 600 A                 |       |       |       |
| ENCLOSURE: TYPE 1            |                                     |      |       |                    |    |    |       |      |                              | MCB RATING: N/A                      |       |       |       |
| NOTES:                       |                                     |      |       |                    |    |    |       |      |                              |                                      |       |       |       |
| CKT                          | CIRCUIT DESCRIPTION                 | TRIP | POLES | A                  | B  | C  | POLES | TRIP | CIRCUIT DESCRIPTION          | CKT                                  |       |       |       |
| 1                            | BOILER #2                           | 200A | 3     | 0                  | 0  |    |       |      | BOILER FEED PUMP #4<br>#5 #6 | 2                                    |       |       |       |
| 3                            |                                     |      |       |                    | 0  | 0  |       | 3    |                              | 175A                                 | 4     |       |       |
| 5                            |                                     |      |       |                    |    | 0  | 0     |      |                              |                                      | 6     |       |       |
| 7                            |                                     |      |       | 0                  | 0  |    |       |      |                              |                                      | 8     |       |       |
| 9                            | BOILER #3                           | 200A | 3     |                    | 0  | 0  |       | 3    | 70A                          | SPARE                                |       |       |       |
| 11                           |                                     |      |       |                    |    | 0  | 0     |      |                              |                                      |       | 12    |       |
| 13                           |                                     |      |       | 0                  | 0  |    |       |      |                              |                                      |       | 14    |       |
| 15                           |                                     |      |       |                    | 0  | 0  |       |      |                              |                                      |       | SPACE | 16    |
| 17                           | MAU-1 EAST                          | 40A  | 3     |                    |    | 0  | 0     |      |                              | 18                                   |       |       |       |
| 19                           |                                     |      |       | 0                  | 0  |    |       |      |                              | 20                                   |       |       |       |
| 21                           |                                     |      |       |                    | 0  | 0  |       | 3    | 100A                         | 22                                   |       |       |       |
| 23                           |                                     |      |       |                    |    | 0  | 0     |      |                              | 24                                   |       |       |       |
| 25                           | AIR COMPRESSOR #4                   | 60A  | 3     | 0                  | 0  |    |       | 3    | 40A                          | TRANSFORMER<br>EPL-Q-BLD 112 (30kVA) |       |       |       |
| 27                           |                                     |      |       |                    | 0  | 0  |       |      |                              |                                      |       | 28    |       |
| 29                           |                                     |      |       |                    |    | 0  | 0     |      |                              |                                      |       |       | 30    |
| 31                           |                                     |      |       | 0                  | 0  |    |       |      |                              |                                      |       |       | 32    |
| 33                           | SUMP PUMP 106A,106B                 | 15A  | 3     |                    |    | 0  | 0     | 3    | 15A                          | EF-1                                 |       |       |       |
| 35                           |                                     |      |       |                    |    | 0  | 0     |      |                              |                                      |       |       | 34    |
| 37                           |                                     |      |       | 0                  | 0  |    |       |      |                              |                                      |       |       | 36    |
| 39                           |                                     |      |       |                    | 0  | 0  |       |      |                              |                                      | 3     | 15A   | 38    |
| 41                           | CONDENSATE PUMP '1'<br>HHW PUMP P-4 | 15A  | 3     |                    |    | 0  | 0     | 3    | 15A                          | SPARE                                |       |       |       |
| 43                           |                                     |      |       |                    |    | 0  | 0     |      |                              |                                      |       |       | 40    |
| 45                           |                                     |      |       | 0                  | 0  |    |       |      |                              |                                      |       |       | 42    |
| 47                           |                                     |      |       |                    | 0  | 0  |       |      |                              |                                      | 3     | 15A   | 44    |
| 49                           | CONDENSATE PUMP '2'<br>HHW PUMP P-5 | 15A  | 3     |                    |    | 0  | 0     | 3    | 15A                          | SPARE                                |       |       |       |
| 51                           |                                     |      |       |                    |    | 0  | 0     |      |                              |                                      |       |       | 46    |
| 53                           |                                     |      |       | 0                  | 0  |    |       |      |                              |                                      |       |       | 48    |
| 55                           |                                     |      |       |                    | 0  | 0  |       |      |                              |                                      |       |       | SPACE |
|                              | AIR COMPRESSOR #3                   | 60A  | 3     |                    |    | 0  | 0     |      |                              | SPACE                                |       |       |       |
|                              |                                     |      |       |                    |    | 0  | 0     |      |                              | SPACE                                |       |       |       |
|                              |                                     |      |       |                    |    | 0  | 0     |      |                              | SPACE                                |       |       |       |
|                              |                                     |      |       |                    |    |    |       | 0    | 0                            |                                      | SPACE |       |       |
|                              |                                     |      |       | VA                 | VA | VA |       |      |                              |                                      |       |       |       |
| TOTAL AMP:                   |                                     |      |       | A                  | A  | A  |       |      |                              |                                      |       |       |       |

|                               |                                       |      |       |                                 |     |    |   |                    |   |       |                       |                              |                         |
|-------------------------------|---------------------------------------|------|-------|---------------------------------|-----|----|---|--------------------|---|-------|-----------------------|------------------------------|-------------------------|
| BRANCH PANEL: EPL-SB-BLG112-2 |                                       |      |       |                                 |     |    |   |                    |   |       |                       |                              |                         |
| LOCATION: NEAR ROOM 104       |                                       |      |       | VOLTS: 120/208WYE               |     |    |   | A.I.CRATING:       |   |       |                       |                              |                         |
| SUPPLY FROM: EPL-SB-BLD112-1  |                                       |      |       | PHASE: 3                        |     |    |   | MAINS TYPE: MLO    |   |       |                       |                              |                         |
| MOUNTING: SURFACE             |                                       |      |       | WIRES: 4                        |     |    |   | MAINS RATING : 100 |   |       |                       |                              |                         |
| ENCLOSURE: TYPE 1             |                                       |      |       |                                 |     |    |   | MCB RATING: N/A    |   |       |                       |                              |                         |
| NOTES:                        |                                       |      |       |                                 |     |    |   |                    |   |       |                       |                              |                         |
| CKT                           | CIRCUIT DESCRIPTION                   | TRIP | POLES | A                               |     | B  |   | C                  |   | POLES | TRIP                  | CIRCUIT DESCRIPTION          | CKT                     |
| 1                             | PANEL R1A                             | 20A  | 3     | 0                               | 0   |    |   |                    |   | 1     | 20A                   | ROLL-UP DOOR MOTOR           | 2                       |
| 3                             |                                       |      |       |                                 | 0   | 0  |   |                    | 1 | 20A   | SECURITY SCREEN MOTOR | 4                            |                         |
| 5                             |                                       |      |       |                                 |     |    | 0 | 0                  |   |       | SPACE                 | 6                            |                         |
| 7                             |                                       |      |       | RECEPT. BY SW WALL AND BASEMENT | 20A | 1  | 0 | 0                  |   |       | 1                     | 20A                          | BOILER #1 CONTROL PANEL |
| 9                             | TRIPLE SOFT                           | 20A  | 1     |                                 |     | 0  | 0 |                    |   | 1     | 20A                   | BOILER #2 CONTROL PANEL      | 10                      |
| 11                            | SW UNIT                               | 20A  | 1     |                                 |     |    |   | 0                  | 0 | 1     | 20A                   | BOILER #3 CONTROL PANEL      | 12                      |
| 13                            | EXISTING LOAD                         | 20A  | 1     | 0                               | 0   |    |   |                    |   | 1     | 20A                   | RECEPTACLES BEHIND BOILER #4 | 14                      |
| 15                            | RECEPT BY CONTROL CABINET BY OP SHACK | 20A  | 1     |                                 |     | 0  | 0 |                    |   | 1     | 20A                   | ROLLER DOOR MOTOR            | 16                      |
| 17                            | RECEPTACLES ON WIGGINS                | 20A  | 1     |                                 |     |    |   | 0                  | 0 | 1     | 20A                   | POWER TO SHUNT TRIP BREAKER  | 18                      |
| 19                            | QUAD RECEPT OP SHACK NORTH            | 20A  | 1     | 0                               | 0   |    |   |                    |   | 1     | 20A                   | BOILER 5 CONTROL PANEL       | 20                      |
| 21                            | OP SHACK                              | 20A  | 1     |                                 |     | 0  | 0 |                    |   |       |                       | SPACE                        | 22                      |
| 23                            | DOOR BUZZER                           | 20A  | 1     |                                 |     |    |   | 0                  | 0 |       |                       | SPACE                        | 24                      |
| 25                            | NORTHWEST BASEMENT OUTLETS            | 20A  | 1     | 0                               | 0   |    |   |                    |   |       |                       | SPACE                        | 26                      |
| 27                            | OP SHACK LIGHTS                       | 20A  | 1     |                                 |     | 0  | 0 |                    |   |       |                       | SPACE                        | 28                      |
| 29                            | SPACE                                 |      |       |                                 |     |    |   | 0                  | 0 |       |                       | SPACE                        | 30                      |
| 31                            | SPACE                                 |      |       | 0                               | 0   |    |   |                    |   |       |                       | SPACE                        | 32                      |
| 33                            | SPACE                                 |      |       |                                 |     | 0  | 0 |                    |   |       |                       | SPACE                        | 34                      |
| 35                            | SPACE                                 |      |       |                                 |     |    |   | 0                  | 0 |       |                       | SPACE                        | 36                      |
| 37                            | SPACE                                 |      |       | 0                               | 0   |    |   |                    |   |       |                       | SPACE                        | 38                      |
| 39                            | SPACE                                 |      |       |                                 |     | 0  | 0 |                    |   |       |                       | SPACE                        | 40                      |
| 41                            | SPACE                                 |      |       |                                 |     |    |   | 0                  | 0 |       |                       | SPACE                        | 42                      |
|                               |                                       |      |       | VA                              |     | VA |   | VA                 |   |       |                       |                              |                         |
| TOTAL AMP:                    |                                       |      |       | A                               |     | A  |   | A                  |   |       |                       |                              |                         |

Office of Construction and Facilities Management

VAU.S. Department of Veterans Affairs

Drawing Title

ELECTRICAL PANEL SCHEDULES

Approved: Project Director

Phase

100% CONSTRUCTION DOCUMENTS

NOT SPRINKLERED

Project Title

REPLACE BOILERS 4 & 5

Location5000 W. NATIONAL AVE. MILWAUKEE, WI 53295

Issue Date2026-04-06

CheckedJFF

DrawnCJR

Project Number

695-24-107

Building Number

112

Drawing Number

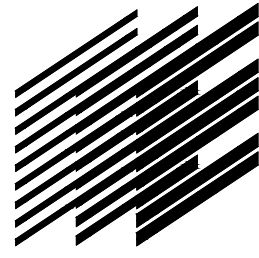
EP602

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

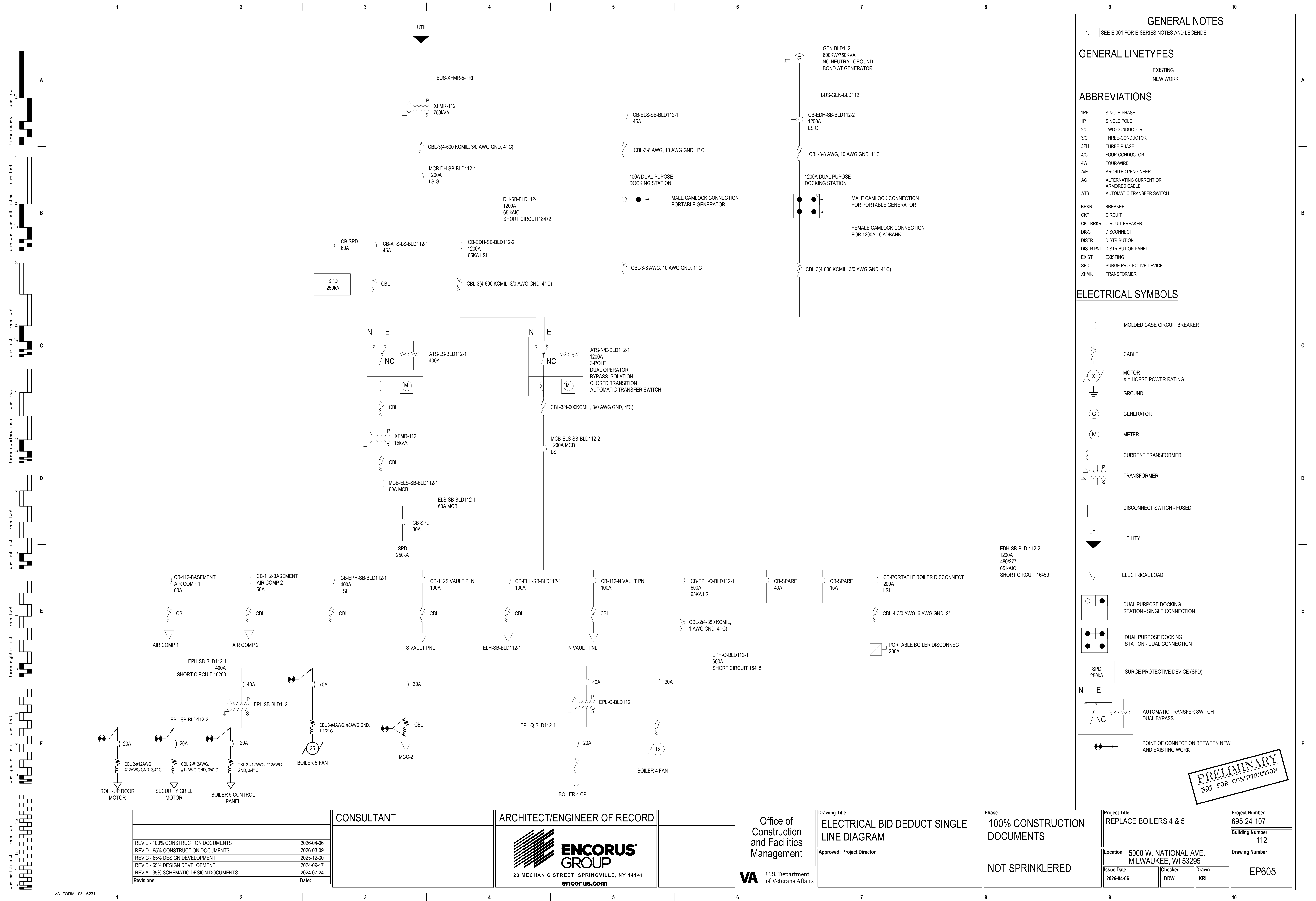
ARCHITECT/ENGINEER OF RECORD



ENCORUS GROUP

23 MECHANIC STREET, SPRINGVILLE, NY 14141

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GENERAL NOTES

1. SEE E-001 FOR E-SERIES NOTES AND LEGENDS.

|                               |                                  |      |       |    |   |    |                    |    |   |       |      |                                          |     |  |    |
|-------------------------------|----------------------------------|------|-------|----|---|----|--------------------|----|---|-------|------|------------------------------------------|-----|--|----|
| BRANCH PANEL: EPH-SB-BLG112-1 |                                  |      |       |    |   |    |                    |    |   |       |      |                                          |     |  |    |
| LOCATION:                     |                                  |      |       |    |   |    | VOLTS: 270/480 WYE |    |   |       |      | A.I. CRATING: 65KAIC                     |     |  |    |
| SUPPLY FROM: EDH-SB-BLD112-2  |                                  |      |       |    |   |    | PHASE: 3           |    |   |       |      | MAINS TYPE: MLO                          |     |  |    |
| MOUNTING: SURFACE             |                                  |      |       |    |   |    | WIRES: 4           |    |   |       |      | MAINS RATING : 400                       |     |  |    |
| ENCLOSURE: TYPE 1             |                                  |      |       |    |   |    |                    |    |   |       |      | MCB RATING: N/A                          |     |  |    |
| NOTES:                        |                                  |      |       |    |   |    |                    |    |   |       |      |                                          |     |  |    |
| CKT                           | CIRCUIT DESCRIPTION              | TRIP | POLES | A  |   | B  |                    | C  |   | POLES | TRIP | CIRCUIT DESCRIPTION                      | CKT |  |    |
| 1                             | TEMP WELDER                      | 100A | 3     | 0  | 0 |    |                    |    |   | 3     | 60A  | CONDENSATE<br>TRANSFER PUMPS #4<br>#5 #6 | 2   |  |    |
| 3                             |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  |    |
| 5                             |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  |    |
| 7                             | BOILER #1 FORCE<br>DRAFT FAN     | 200A | 3     | 0  | 0 |    |                    |    |   | 3     | 70A  | RO MARLO                                 | 8   |  |    |
| 9                             |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  | 10 |
| 11                            |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  | 12 |
| 13                            | EPL-SB-112-2                     | 50A  | 3     | 0  | 0 |    |                    |    |   | 3     | 40A  | RO SYSTEM #A                             | 14  |  |    |
| 15                            |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  | 16 |
| 17                            |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  | 18 |
| 19                            | CONDENSATE PUMP<br>WEST BASEMENT | 30A  | 3     | 0  | 0 |    |                    |    |   | 3     | 30A  | SUMP PUMP WEST<br>BASEMENT               | 20  |  |    |
| 21                            |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  | 22 |
| 23                            |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  | 24 |
| 25                            | AIR COMPRESSOR<br>NORTH WALL     | 30A  | 3     | 0  | 0 |    |                    |    |   | 3     | 20A  | RO STORAGE TANK<br>PUMPS                 | 26  |  |    |
| 27                            |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  | 28 |
| 29                            |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  | 30 |
| 31                            | PTRV #1                          | 20A  | 3     | 0  | 0 |    |                    |    |   | 3     | 20A  | SPARE                                    | 32  |  |    |
| 33                            |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  | 34 |
| 35                            |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  | 36 |
| 37                            | PTRV #2                          | 20A  | 3     | 0  | 0 |    |                    |    |   | 3     | 20A  | PTRV #4                                  | 38  |  |    |
| 39                            |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  | 40 |
| 41                            |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  | 42 |
| 43                            | OIL PUMP TRANSFER #1             | 15A  | 3     | 0  | 0 |    |                    |    |   | 3     | 15A  | PTRV #3                                  | 44  |  |    |
| 45                            |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  | 46 |
| 47                            |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  | 48 |
| 49                            | OIL PUMP TRANSFER #2             | 15A  | 3     | 0  | 0 |    |                    |    |   | 3     | 70A  | BOILER #5                                | 50  |  |    |
| 51                            |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  | 52 |
| 53                            |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  | 54 |
| 55                            | SPACE                            |      |       | 0  | 0 |    |                    |    |   | 3     | 250A | BOILER FEED WATER<br>PUMPS               | 56  |  |    |
| 57                            |                                  |      |       |    |   | 0  | 0                  |    |   |       |      |                                          |     |  | 58 |
| 59                            |                                  |      |       |    |   |    |                    | 0  | 0 |       |      |                                          |     |  | 60 |
| TOTAL AMP:                    |                                  |      |       | VA |   | VA |                    | VA |   |       |      |                                          |     |  |    |
|                               |                                  |      |       | A  |   | A  |                    | A  |   |       |      |                                          |     |  |    |

|                               |                                       |      |       |                   |   |    |   |                    |   |       |      |                              |       |
|-------------------------------|---------------------------------------|------|-------|-------------------|---|----|---|--------------------|---|-------|------|------------------------------|-------|
| BRANCH PANEL: EPL-SB-BLG112-2 |                                       |      |       |                   |   |    |   |                    |   |       |      |                              |       |
| LOCATION: NEAR ROOM 104       |                                       |      |       | VOLTS: 120/208WYE |   |    |   | A.I. CRATING: MLO  |   |       |      |                              |       |
| SUPPLY FROM: EPL-SB-BLD112-1  |                                       |      |       | PHASE: 3          |   |    |   | MAINS TYPE: MLO    |   |       |      |                              |       |
| MOUNTING: SURFACE             |                                       |      |       | WIRES: 4          |   |    |   | MAINS RATING : 100 |   |       |      |                              |       |
| ENCLOSURE: TYPE 1             |                                       |      |       |                   |   |    |   | MCB RATING: N/A    |   |       |      |                              |       |
| NOTES:                        |                                       |      |       |                   |   |    |   |                    |   |       |      |                              |       |
| CKT                           | CIRCUIT DESCRIPTION                   | TRIP | POLES | A                 |   | B  |   | C                  |   | POLES | TRIP | CIRCUIT DESCRIPTION          | CKT   |
| 1                             | PANEL R1A                             | 20A  | 3     | 0                 | 0 |    |   |                    |   | 1     | 20A  | ROLL-UP DOOR MOTOR           | 2     |
| 3                             |                                       |      |       |                   |   | 0  | 0 |                    |   | 1     | 20A  | SECURITY SCREEN MOTOR        | 4     |
| 5                             |                                       |      |       |                   |   |    |   | 0                  | 0 |       |      |                              | SPACE |
| 7                             | RECEPT. BY SW WALL AND BASEMENT       | 20A  | 1     | 0                 | 0 |    |   |                    |   | 1     | 20A  | BOILER #1 CONTROL PANEL      | 8     |
| 9                             | TRIPLE SOFT                           | 20A  | 1     |                   |   | 0  | 0 |                    |   | 1     | 20A  | BOILER #2 CONTROL PANEL      | 10    |
| 11                            | SW UNIT                               | 20A  | 1     |                   |   |    |   | 0                  | 0 | 1     | 20A  | BOILER #3 CONTROL PANEL      | 12    |
| 13                            | EXISTING LOAD                         | 20A  | 1     | 0                 | 0 |    |   |                    |   | 1     | 20A  | RECEPTACLES BEHIND BOILER #4 | 14    |
| 15                            | RECEPT BY CONTROL CABINET BY OP SHACK | 20A  | 1     |                   |   | 0  | 0 |                    |   | 1     | 20A  | ROLLER DOOR MOTOR            | 16    |
| 17                            | RECEPTACLES ON WIGENS                 | 20A  | 1     |                   |   |    |   | 0                  | 0 | 1     | 20A  | POWER TO SHUNT TRIP BREAKER  | 18    |
| 19                            | QUAD RECEPT OP SHACK NORTH            | 20A  | 1     | 0                 | 0 |    |   |                    |   |       |      | SPACE                        | 20    |
| 21                            | OP SHACK                              | 20A  | 1     |                   |   | 0  | 0 |                    |   |       |      | SPACE                        | 22    |
| 23                            | DOOR BUZZER                           | 20A  | 1     |                   |   |    |   | 0                  | 0 |       |      | SPACE                        | 24    |
| 25                            | NORTHWEST BASEMENT OUTLETS            | 20A  | 1     | 0                 | 0 |    |   |                    |   |       |      | SPACE                        | 26    |
| 27                            | OP SHACK LIGHTS                       | 20A  | 1     |                   |   | 0  | 0 |                    |   |       |      | SPACE                        | 28    |
| 29                            | SPACE                                 |      |       |                   |   |    |   | 0                  | 0 |       |      | SPACE                        | 30    |
| 31                            | SPACE                                 |      |       | 0                 | 0 |    |   |                    |   |       |      | SPACE                        | 32    |
| 33                            | SPACE                                 |      |       |                   |   | 0  | 0 |                    |   |       |      | SPACE                        | 34    |
| 35                            | SPACE                                 |      |       |                   |   |    |   | 0                  | 0 |       |      | SPACE                        | 36    |
| 37                            | SPACE                                 |      |       | 0                 | 0 |    |   |                    |   |       |      | SPACE                        | 38    |
| 39                            | SPACE                                 |      |       |                   |   | 0  | 0 |                    |   |       |      | SPACE                        | 40    |
| 41                            | SPACE                                 |      |       |                   |   |    |   | 0                  | 0 |       |      | SPACE                        | 42    |
|                               |                                       |      |       | VA                |   | VA |   | VA                 |   |       |      |                              |       |
| TOTAL AMP:                    |                                       |      |       | A                 |   | A  |   | A                  |   |       |      |                              |       |

|                              |                                     |      |       |                    |   |    |   |                      |   |       |      |                                      |       |    |
|------------------------------|-------------------------------------|------|-------|--------------------|---|----|---|----------------------|---|-------|------|--------------------------------------|-------|----|
| BRANCH PANEL: EPH-Q-BLG112-1 |                                     |      |       |                    |   |    |   |                      |   |       |      |                                      |       |    |
| LOCATION:                    |                                     |      |       | VOLTS: 270/480 WYE |   |    |   | A.I. CRATING: 10KAIC |   |       |      |                                      |       |    |
| SUPPLY FROM: EDH-SB-BLD112-2 |                                     |      |       | PHASE: 3           |   |    |   | MAINS TYPE: MLO      |   |       |      |                                      |       |    |
| MOUNTING: SURFACE            |                                     |      |       | WIRES: 4           |   |    |   | MAINS RATING : 600 A |   |       |      |                                      |       |    |
| ENCLOSURE: TYPE 1            |                                     |      |       |                    |   |    |   | MCB RATING: N/A      |   |       |      |                                      |       |    |
| NOTES:                       |                                     |      |       |                    |   |    |   |                      |   |       |      |                                      |       |    |
| CKT                          | CIRCUIT DESCRIPTION                 | TRIP | POLES | A                  |   | B  |   | C                    |   | POLES | TRIP | CIRCUIT DESCRIPTION                  | CKT   |    |
| 1                            | BOILER #2                           | 200A | 3     | 0                  | 0 |    |   |                      |   | 3     | 175A | BOILER FEED PUMP #4<br>#5 #6         | 2     |    |
| 3                            |                                     |      |       |                    |   | 0  | 0 |                      |   |       |      |                                      |       | 4  |
| 5                            |                                     |      |       |                    |   |    |   | 0                    | 0 |       |      |                                      |       | 6  |
| 7                            | BOILER #3                           | 200A | 3     | 0                  | 0 |    |   |                      |   | 3     | 30A  | BOILER #4                            | 8     |    |
| 9                            |                                     |      |       |                    |   |    | 0 | 0                    |   |       |      |                                      |       | 10 |
| 11                           |                                     |      |       |                    |   |    |   |                      | 0 |       |      |                                      | 0     | 12 |
| 13                           | MAU-1 EAST                          | 40A  | 3     | 0                  | 0 |    |   |                      |   |       |      | SPACE                                | 14    |    |
| 15                           |                                     |      |       |                    |   |    | 0 | 0                    |   |       |      |                                      |       | 16 |
| 17                           |                                     |      |       |                    |   |    |   |                      | 0 |       |      |                                      | 0     | 18 |
| 19                           | MAU-2 WEST                          | 40A  | 3     | 0                  | 0 |    |   |                      |   | 3     | 100A | SURGE TANK CP-P6, P7,<br>P8          | 20    |    |
| 21                           |                                     |      |       |                    |   |    | 0 | 0                    |   |       |      |                                      |       | 22 |
| 23                           |                                     |      |       |                    |   |    |   |                      | 0 |       |      |                                      | 0     | 24 |
| 25                           | AIR COMPRESSOR #4                   | 60A  | 3     | 0                  | 0 |    |   |                      |   | 3     | 40A  | TRANSFORMER<br>EPL-Q-BLD 112 (30kVA) | 26    |    |
| 27                           |                                     |      |       |                    |   |    | 0 | 0                    |   |       |      |                                      |       | 28 |
| 29                           |                                     |      |       |                    |   |    |   |                      | 0 |       |      |                                      | 0     | 30 |
| 31                           | SUMP PUMP 106A,106B                 | 15A  | 3     | 0                  | 0 |    |   |                      |   | 3     | 15A  | EF-1                                 | 32    |    |
| 33                           |                                     |      |       |                    |   |    | 0 | 0                    |   |       |      |                                      |       | 34 |
| 35                           |                                     |      |       |                    |   |    |   |                      | 0 |       |      |                                      | 0     | 36 |
| 37                           | CONDENSATE PUMP '1'<br>HHW PUMP P-4 | 15A  | 3     | 0                  | 0 |    |   |                      |   | 3     | 15A  | SPARE                                | 38    |    |
| 39                           |                                     |      |       |                    |   |    | 0 | 0                    |   |       |      |                                      |       | 40 |
| 41                           |                                     |      |       |                    |   |    |   |                      | 0 |       |      |                                      | 0     | 42 |
| 43                           | CONDENSATE PUMP '2'<br>HHW PUMP P-5 | 15A  | 3     | 0                  | 0 |    |   |                      |   | 3     | 15A  | SPARE                                | 44    |    |
| 45                           |                                     |      |       |                    |   |    | 0 | 0                    |   |       |      |                                      |       | 46 |
| 47                           |                                     |      |       |                    |   |    |   |                      | 0 |       |      |                                      | 0     | 48 |
| 49                           | AIR COMPRESSOR #3                   | 60A  | 3     | 0                  | 0 |    |   | 0                    | 0 |       |      | SPACE                                | 50    |    |
| 51                           |                                     |      |       |                    |   |    | 0 | 0                    | 0 | 0     |      |                                      | SPACE | 52 |
| 53                           |                                     |      |       |                    |   |    |   |                      | 0 | 0     |      |                                      | SPACE | 54 |
| TOTAL AMP:                   |                                     |      |       | VA                 |   | VA |   | VA                   |   |       |      |                                      |       |    |
|                              |                                     |      |       | A                  |   | A  |   | A                    |   |       |      |                                      |       |    |

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management



U.S. Department  
of Veterans Affairs

Drawing Title  
ELECTRICAL BID DEDUCT PANEL  
SCHEDULES

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location  
5000 W. NATIONAL AVE.  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
DDW

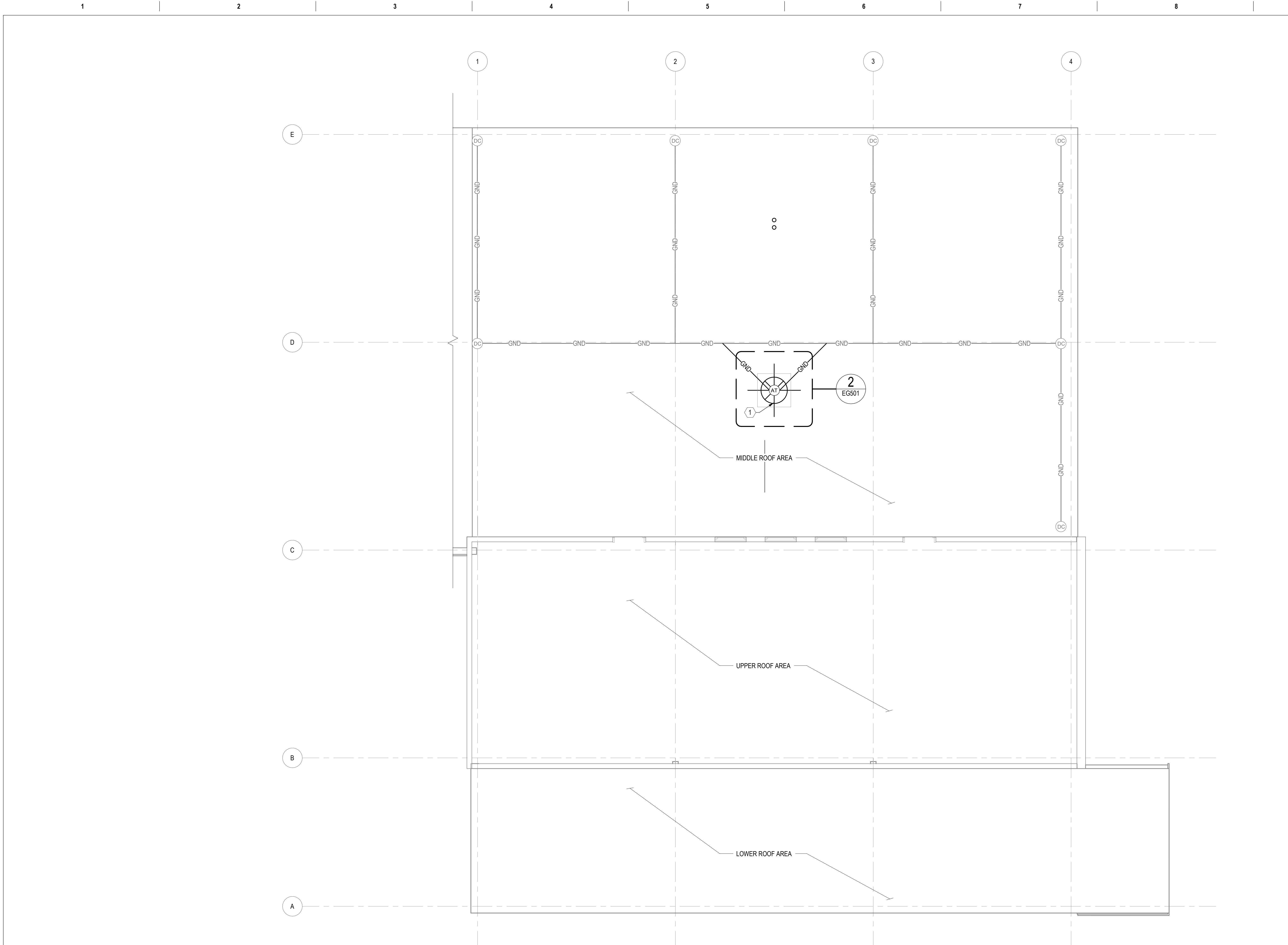
Drawn  
KRL

Project Number  
695-24-107

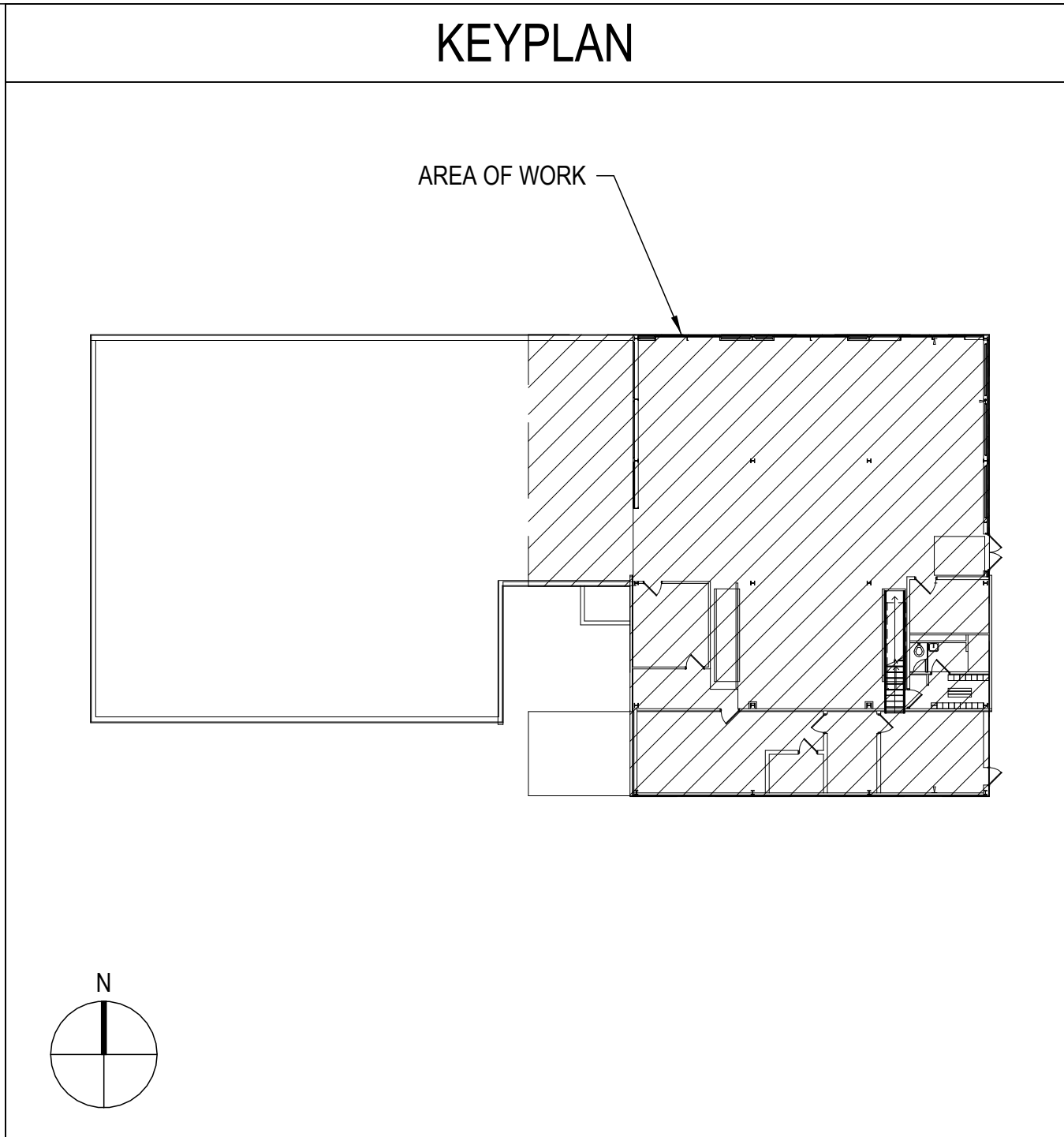
Building Number  
112

Drawing Number  
EP606

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot

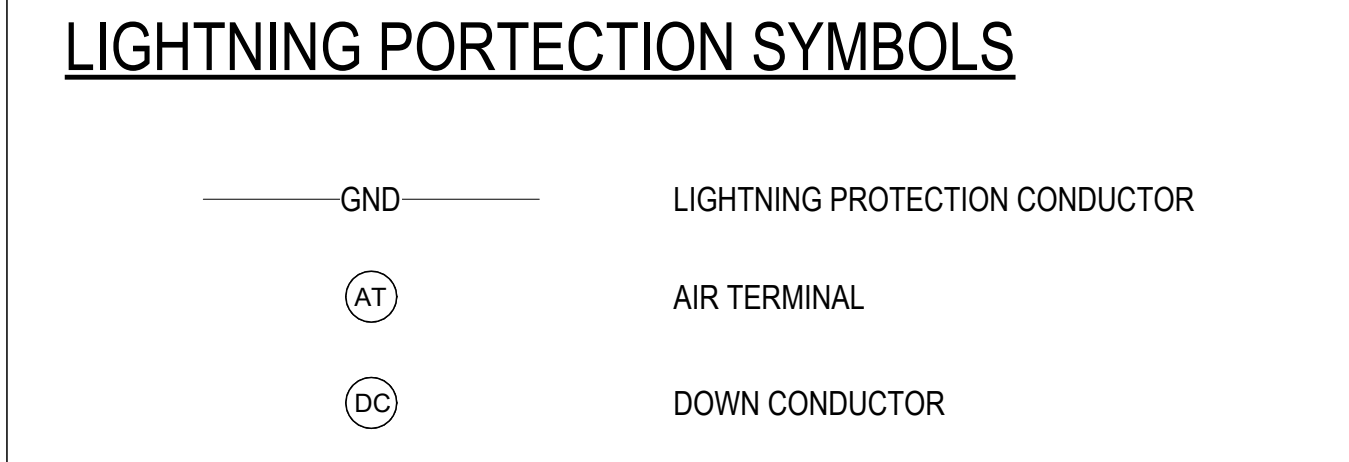


1 ELECTRICAL LIGHTNING PROTECTION PLAN - ROOF LEVEL  
SCALE: 1/4" = 1'-0"



- GENERAL NOTES**
- SEE E-001 FOR E-SERIES NOTES AND LEGENDS.
  - NOT ALL EXISTING EQUIPMENT IS SHOWN. ALL EXISTING EQUIPMENT IS TO REMAIN UNLESS OTHERWISE INDICATED.
  - LOCATIONS AND PATHS OF LIGHTNING PROTECTION CONDUCTORS ARE APPROXIMATIONS. CONTRACTOR TO VERIFY ACTUAL LOCATIONS AND ROUTING.

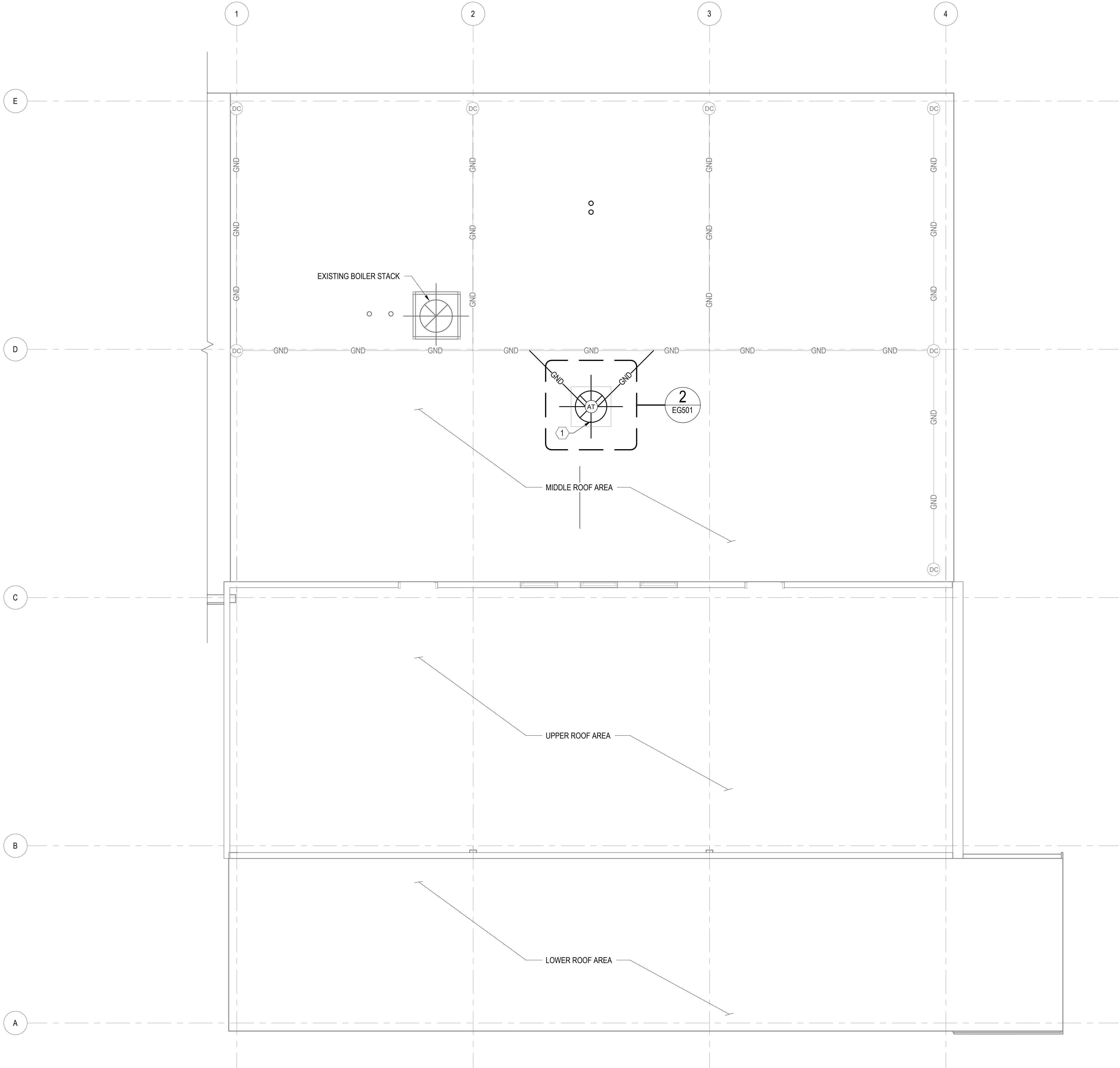
- KEYED NOTES**
- PROVIDE TWO AIR TERMINALS AT TOP OF STACK. RUN CONDUCTORS ALONG OUTSIDE OF STACK FROM NEW AIR TERMINALS TO EXISTING LIGHTNING PROTECTION SYSTEM CONDUCTORS



**PRELIMINARY**  
NOT FOR CONSTRUCTION

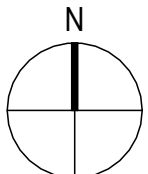
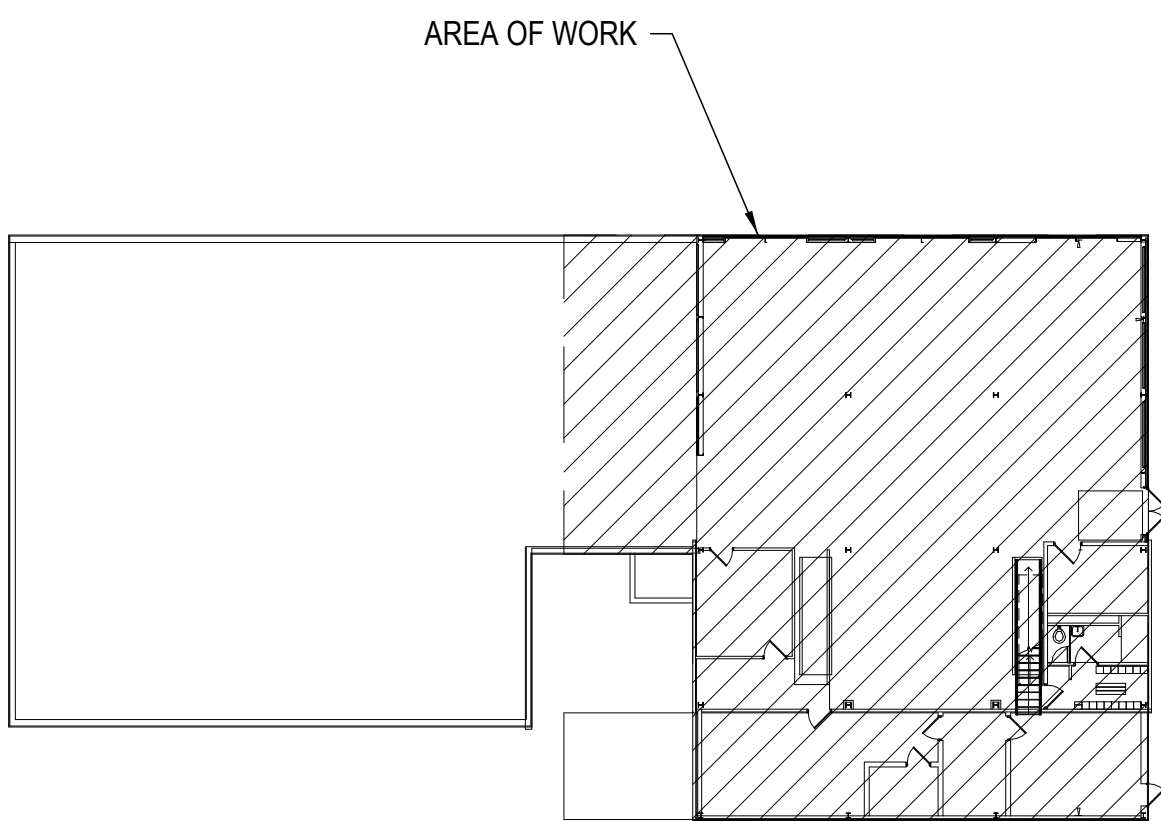
|                                        |            |            |                                                                                                                                                                                                    |                                                                                                              |               |                                                   |                             |                                                     |                 |
|----------------------------------------|------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------|-----------------------------|-----------------------------------------------------|-----------------|
|                                        |            | CONSULTANT | ARCHITECT/ENGINEER OF RECORD                                                                                                                                                                       | <div>Office of Construction and Facilities Management</div> <div>VAU.S. Department of Veterans Affairs</div> | Drawing Title | Project Title                                     | Phase                       | Project Title                                       | Project Number  |
|                                        |            |            |                                                                                                                                                                                                    |                                                                                                              |               | ELECTRICAL LIGHTNING PROTECTION PLAN - ROOF LEVEL | 100% CONSTRUCTION DOCUMENTS | REPLACE BOILERS 4 & 5                               | 695-24-107      |
|                                        |            |            |                                                                                                                                                                                                    |                                                                                                              |               | Approved: Project Director                        |                             |                                                     | Building Number |
|                                        |            |            |                                                                                                                                                                                                    |                                                                                                              |               |                                                   |                             |                                                     | 112             |
|                                        |            |            |                                                                                                                                                                                                    |                                                                                                              |               |                                                   |                             |                                                     | Drawing Number  |
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |            | <div><div>ENCORUS GROUP</div><div>23 MECHANIC STREET, SPRINGVILLE, NY 14141</div><div>encorus.com</div></div> |                                                                                                              |               |                                                   | NOT SPRINKLERED             | Location5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 | EG121           |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |            |                                                                                                                                                                                                    |                                                                                                              |               |                                                   |                             | Issue Date                                          |                 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |            |                                                                                                                                                                                                    |                                                                                                              |               |                                                   |                             | Checked                                             |                 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |            |                                                                                                                                                                                                    |                                                                                                              |               |                                                   |                             | AMC                                                 |                 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |            |                                                                                                                                                                                                    |                                                                                                              |               |                                                   |                             | Drawn                                               |                 |
| Revisions:                             | Date:      |            |                                                                                                                                                                                                    |                                                                                                              |               |                                                   |                             | KRL                                                 |                 |

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



1 ELECTRICAL BID DEDUCTION LIGHTNING PROTECTION PLAN - ROOF LEVEL  
SCALE: 1/4" = 1'-0"

KEYPLAN



GENERAL NOTES

- SEE E-001 FOR E-SERIES NOTES AND LEGENDS.
- NOT ALL EXISTING EQUIPMENT IS SHOWN. ALL EXISTING EQUIPMENT IS TO REMAIN UNLESS OTHERWISE INDICATED.
- LOCATIONS AND PATHS OF LIGHTNING PROTECTION CONDUCTORS ARE APPROXIMATIONS. CONTRACTOR TO VERIFY ACTUAL LOCATIONS AND ROUTING.

KEYED NOTES

- PROVIDE TWO AIR TERMINALS AT TOP OF STACK. RUN CONDUCTORS ALONG OUTSIDE OF STACK FROM NEW AIR TERMINALS TO EXISTING LIGHTNING PROTECTION SYSTEM CONDUCTORS

LIGHTNING PORTECTION SYMBOLS

- GND — LIGHTNING PROTECTION CONDUCTOR
- ⊙ AT AIR TERMINAL
- ⊙ DC DOWN CONDUCTOR

PRELIMINARY  
NOT FOR CONSTRUCTION

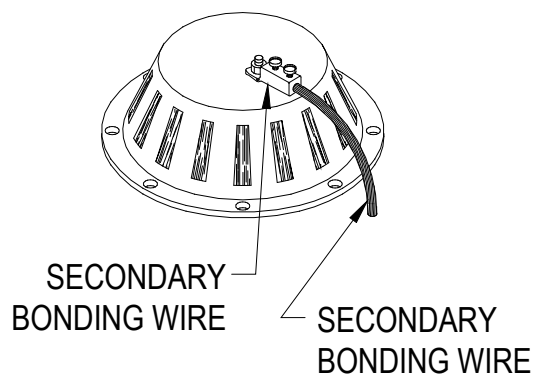
|                                                                                                                                                                                         |  |                                                                    |  |                                                  |  |                                                                       |  |                                      |  |                                                         |  |                              |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------|--|--------------------------------------------------|--|-----------------------------------------------------------------------|--|--------------------------------------|--|---------------------------------------------------------|--|------------------------------|--|
| CONSULTANT                                                                                                                                                                              |  | ARCHITECT/ENGINEER OF RECORD                                       |  | Office of Construction and Facilities Management |  | Drawing Title<br>ELECTRICAL BID DEDUCT LIGHTNING PROTECT. PLAN - ROOF |  | Phase<br>100% CONSTRUCTION DOCUMENTS |  | Project Title<br>REPLACE BOILERS 4 & 5                  |  | Project Number<br>695-24-107 |  |
| 23 MECHANIC STREET, SPRINGVILLE, NY 14141<br>encorus.com                                                                                                                                |  | ENCORUS GROUP                                                      |  | U.S. Department of Veterans Affairs              |  | Approved: Project Director                                            |  | NOT SPRINKLERED                      |  | Location<br>5000 W. NATIONAL AVE<br>MILWAUKEE, WI 53295 |  | Building Number<br>112       |  |
| REV E - 100% CONSTRUCTION DOCUMENTS<br>REV D - 95% CONSTRUCTION DOCUMENTS<br>REV C - 65% DESIGN DEVELOPMENT<br>REV B - 65% DESIGN DEVELOPMENT<br>REV A - 35% SCHEMATIC DESIGN DOCUMENTS |  | 2026-04-06<br>2026-03-09<br>2025-12-30<br>2024-09-17<br>2024-07-24 |  |                                                  |  |                                                                       |  |                                      |  | Issue Date<br>2026-04-06                                |  | Checked<br>AMC               |  |
| Revisions:                                                                                                                                                                              |  | Date:                                                              |  |                                                  |  |                                                                       |  |                                      |  | Drawn<br>KRL                                            |  | Drawing Number<br>EG125      |  |

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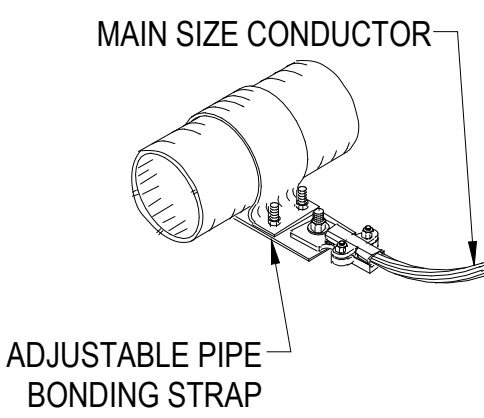
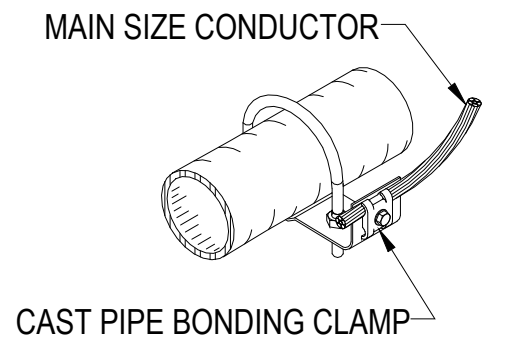
GENERAL NOTES

1. SEE E-001 FOR E-SERIES NOTES AND LEGENDS.

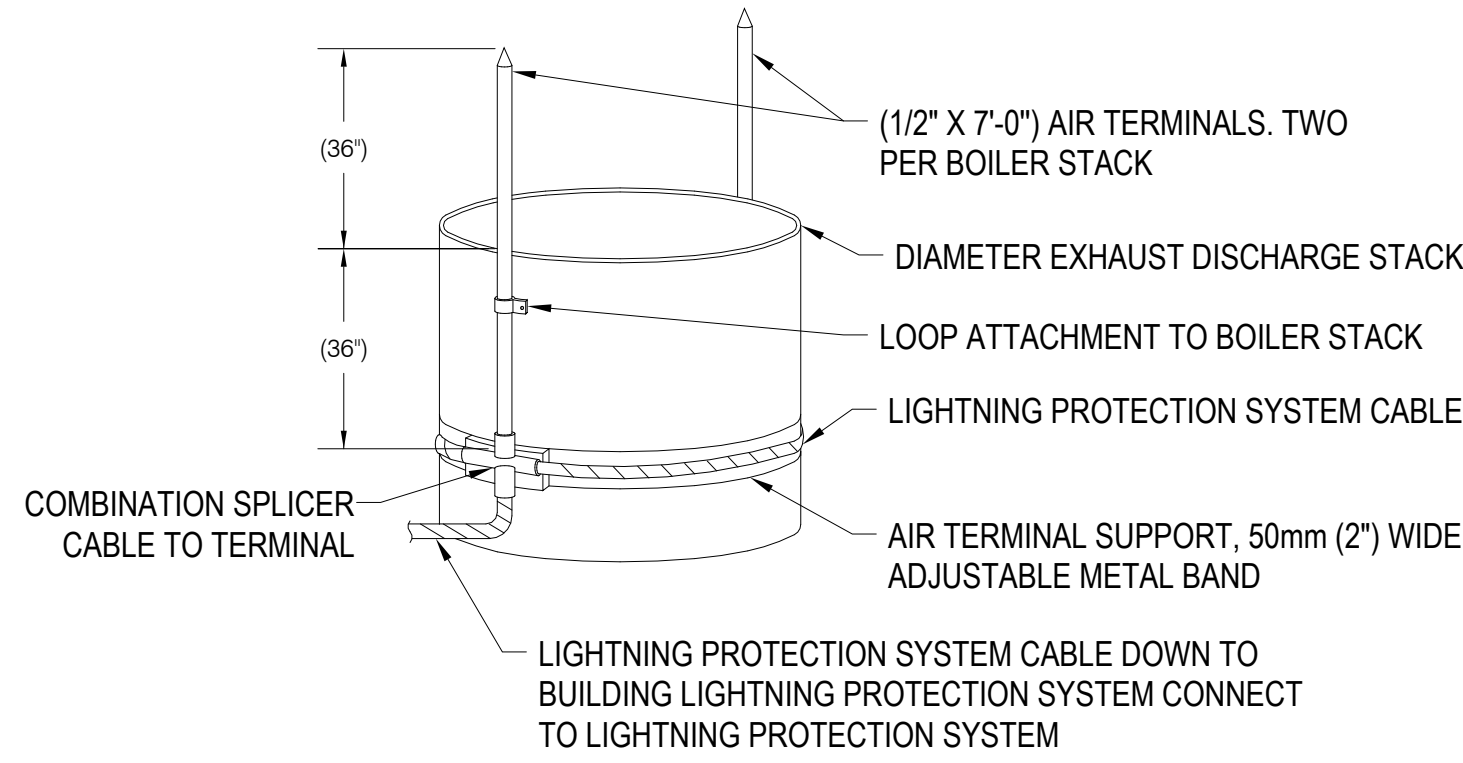
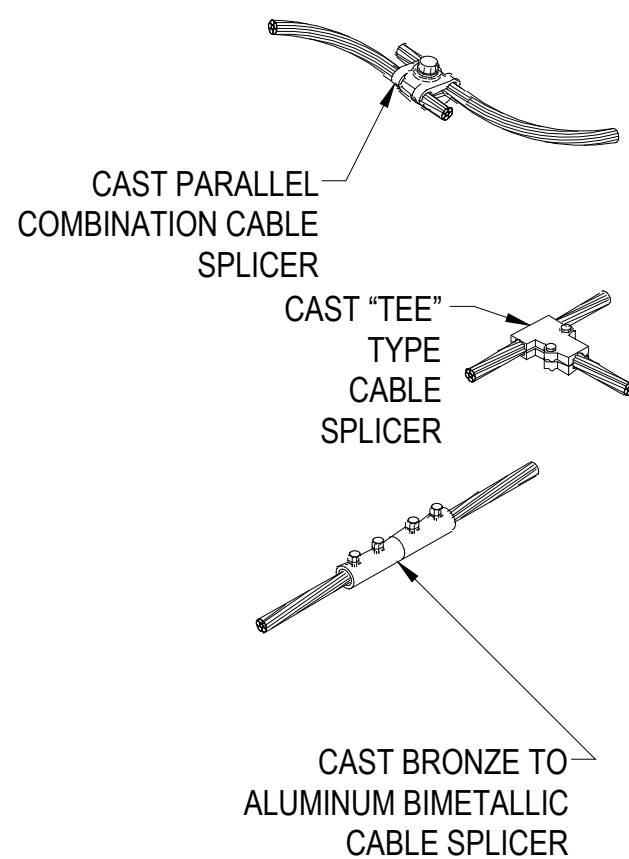
TYPICAL ROOF DRAIN BOND



TYPICAL METALLIC WATER PIPE BONDING CLAMP



TYPICAL CABLE SPLICERS



1 LIGHTNING PROTECTION SYSTEM DETAILS  
NTS

2 EXHAUST DISCHARGE STACK LIGHTNING PROTECTION SYSTEM DETAIL  
NTS

1 / EG121  
1 / EG125

PRELIMINARY  
NOT FOR CONSTRUCTION

|                                        |            |
|----------------------------------------|------------|
| REV E - 100% CONSTRUCTION DOCUMENTS    | 2026-04-06 |
| REV D - 95% CONSTRUCTION DOCUMENTS     | 2026-03-09 |
| REV C - 65% DESIGN DEVELOPMENT         | 2025-12-30 |
| REV B - 65% DESIGN DEVELOPMENT         | 2024-09-17 |
| REV A - 35% SCHEMATIC DESIGN DOCUMENTS | 2024-07-24 |
| Revisions:                             | Date:      |

CONSULTANT

ARCHITECT/ENGINEER OF RECORD



Office of  
Construction  
and Facilities  
Management

VA U.S. Department  
of Veterans Affairs

Drawing Title  
ELECTRICAL LIGHTNING  
PROTECTION DETAILS

Approved: Project Director

Phase  
100% CONSTRUCTION  
DOCUMENTS

NOT SPRINKLERED

Project Title  
REPLACE BOILERS 4 & 5

Location 5000 W. NATIONAL AVE  
MILWAUKEE, WI 53295

Issue Date  
2026-04-06

Checked  
AMC

Drawn  
KRL

Project Number  
695-24-107  
Building Number  
112

Drawing Number  
EG501