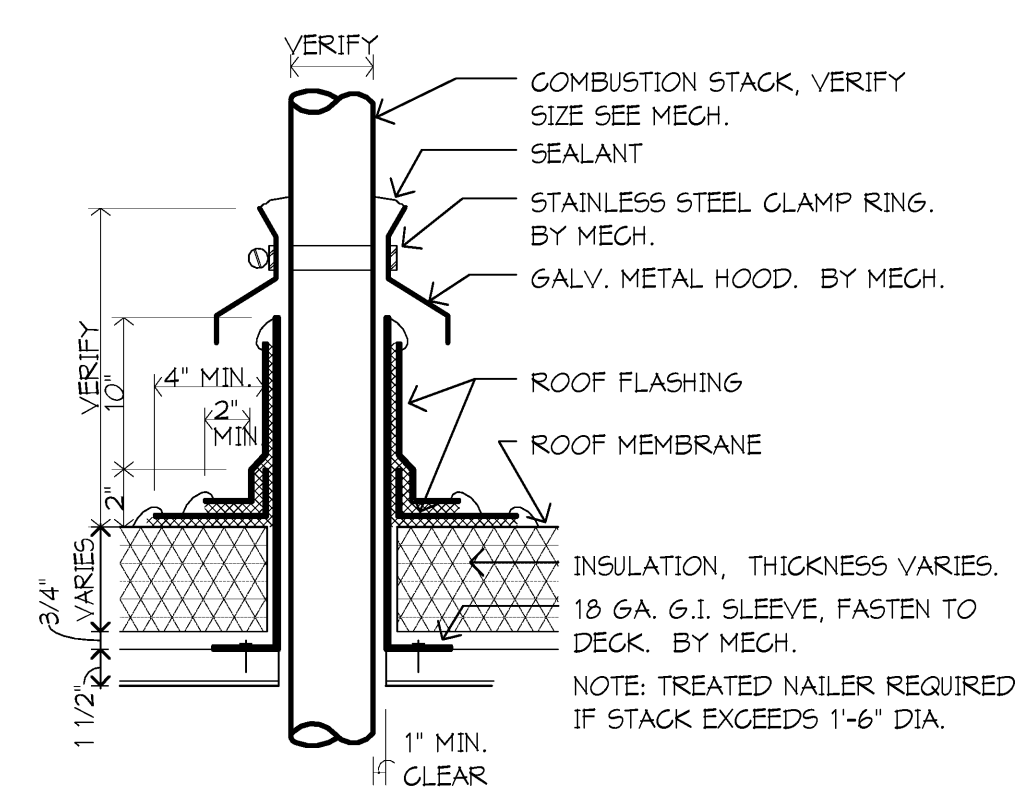


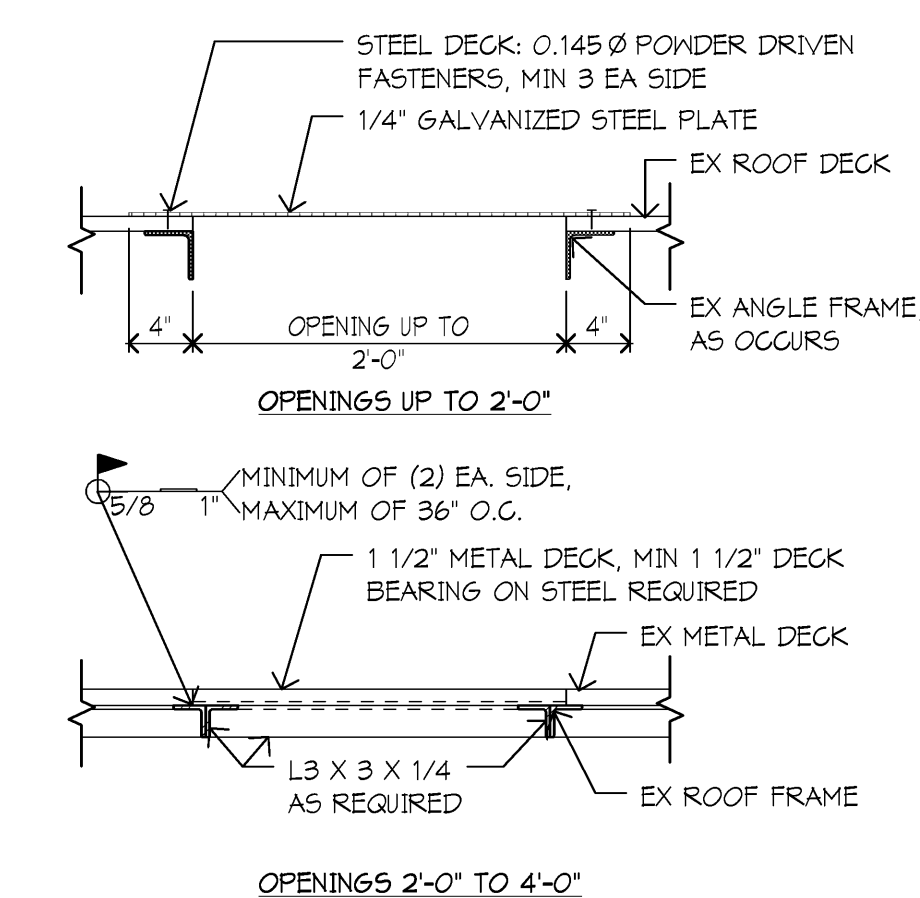
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**H1** ROOF PLAN  
1/16" = 1'-0"



**A9** MEMBRANE ROOF COMBUSTION STACK  
1 1/2" x 1'-0"



- NOTES:**
- FIELD VERIFY THE EXISTENCE OF AN EXISTING ROOF FRAME AT EACH LOCATION. IF NO ROOF FRAME IS FOUND, INSTALL NEW ROOF FRAME PER DETAIL B7/A1.11H.
  - FIELD VERIFY THAT A MINIMUM 1 1/2" OF NEW DECK BEARING CAN BE ACHIEVED ON THE EXISTING ROOF FRAME. IF NOT, FIELD WELD L3 X 3 X 1/4" TO ALL SIDES OF THE ROOF FRAME TO SUPPORT THE NEW DECK.
  - IF PROFILE OF NEW ROOF DECK MATCHES EX METAL ROOF DECK, NEW DECK MAY BE LAPPED OVER EXISTING DECK AND BE FIELD WELDED TO ROOF FRAME.

**D9** ROOF INFILL  
1" x 1'-0"

**MASONRY NOTES**

- Work shall be performed in accordance with ACI 530 specifications.
- Mortar: ASTM C270, Type M below grade, Type M or S above grade, Type N for non-load bearing above grade.
- Grout: ASTM C476, Fc=2000 psi, tested per ASTM C1019.
- Grout beneath beam bearing three courses.
- Provide lintels for openings in masonry walls over 8" wide. See drawings for lintel and location.
  - Grout beneath lintel bearing three courses.
  - Anchor masonry to beam with 4 ga. wire ties each side @ 2'-8" o.c.

**STRUCTURAL STEEL**

- Structural Steel: Fabricated and erected per the AISC Manual of Steel Construction.
  - W-beams: ASTM A-442 gr. 50.
  - Steel Tubes: ASTM A-500 grade B.
  - Steel Pipe: ASTM A53, Type E, grade B.
  - All other shapes: ASTM A-36.
- Anchor Rods: 36 ksi, ASTM F-1554.
- Welds: E70XX electrodes per AWS D1.1, Structural Welding Code.
- Bolted Connections: 3/4" diameter A-325 bolts unless noted. Designed for bearing connections, tightened to snug tight criteria unless noted otherwise.
- Steel Primer: Rust inhibiting alkyl industrial primer, 1.5 mil dry film thickness.
- Beam bearing plates are to be located on center of wall unless noted otherwise. Bear beam full length of bearing plates.

**METAL DECK**

- Roof Deck: 1/2", 20 gauge, wide rib. Designed and fabricated per Steel Deck Institute Specifications (SDI). Weld to supports with 5/8" diameter puddle welds 12" spacing. Fasten side laps with #10 screws at 3'-0" maximum.
- Deck Finish: Prime painted.

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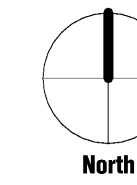
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under the laws of the State of MICHIGAN

Registration Number DANIEL KRITTA  
1301047892 Date 10/31/14

Description	Revisions	Date	Num

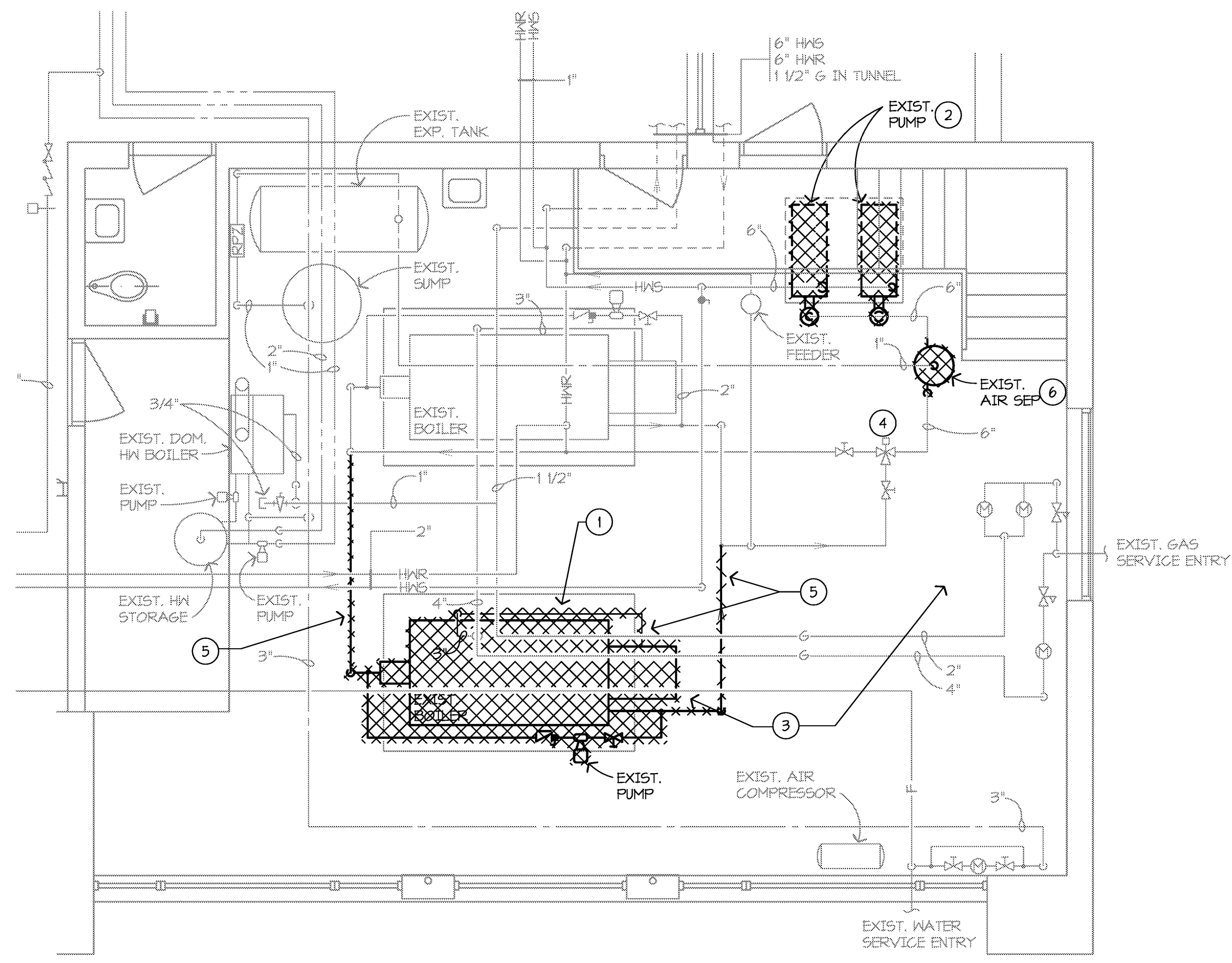
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Date: 04/16/19  
Drawn: LMP  
Check: JAL



**ROOF PLAN**

Scale: As indicated

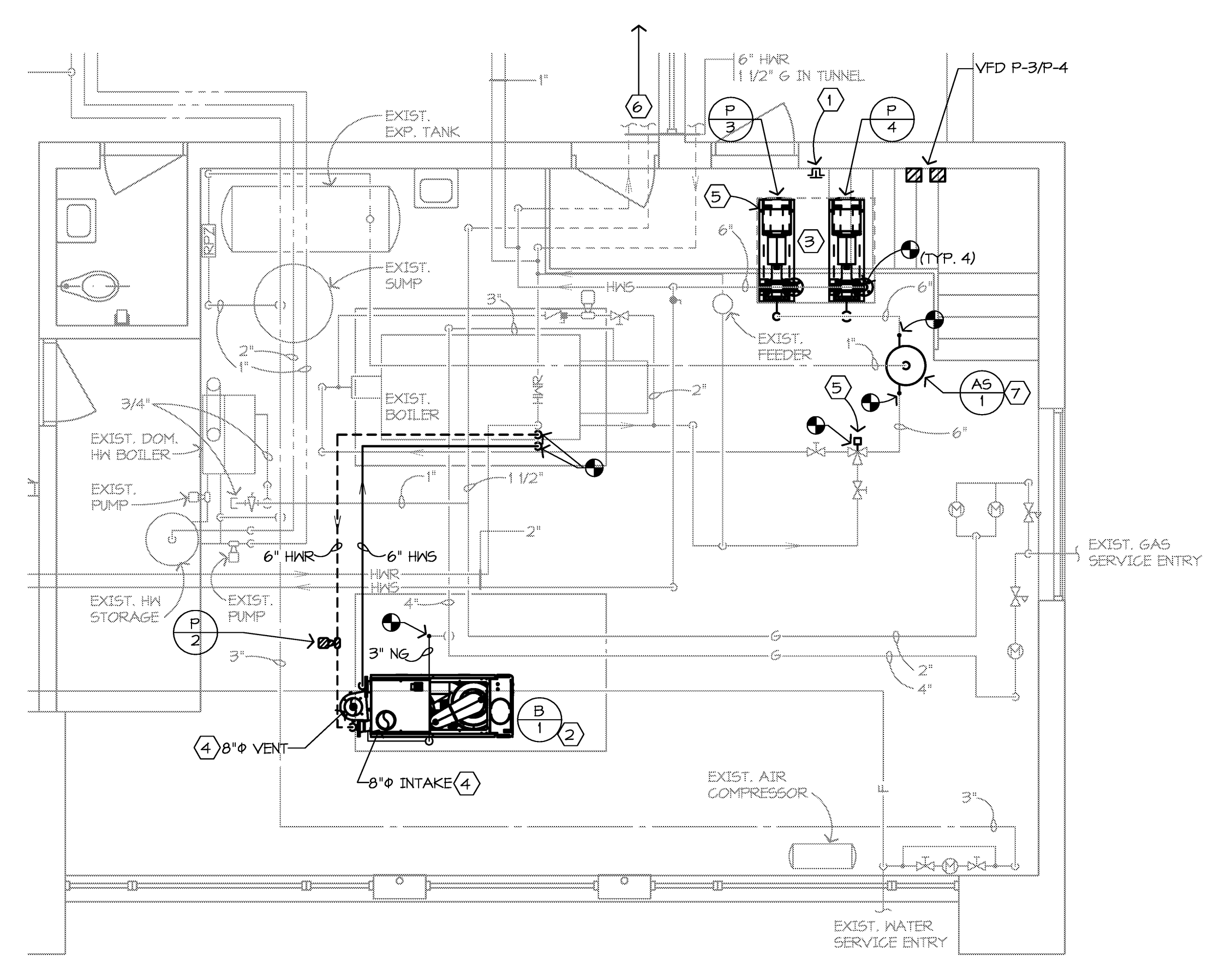
**A1.11M**



**D3 BOILER ROOM DEMOLITION PLAN**  
1/4" = 1'-0"

- GENERAL DEMOLITION NOTES:**
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL CUTTING AND PATCHING OF EXISTING CONSTRUCTION NOT SHOWN ON THE ARCHITECTURAL PLANS. NO CUTTING OF STRUCTURAL MEMBERS OR STRUCTURE WHICH WILL DETERIORATE THE INTEGRITY AND STRENGTH OF THE BUILDING WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
  - ALL EXISTING SERVICES SHALL BE MAINTAINED AT ALL TIMES, UNLESS OTHERWISE INDICATED ON THE PLANS. COORDINATE DISRUPTION OF SERVICES WITH OWNER TO PROVIDE AN ACCEPTABLE TIME FOR DOWN TIME.
  - THE MECHANICAL CONTRACTOR SHALL REMOVE ALL EXISTING CEILING TILES AND GRIDS AS REQUIRED FOR INSTALLATION OF NEW WORK. ANY DAMAGED TILES AND OR GRIDS SHALL BE REPLACED WITH NEW TO MATCH AT THE CONTRACTORS EXPENSE.
  - ALL EQUIPMENT AND PIPING SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.

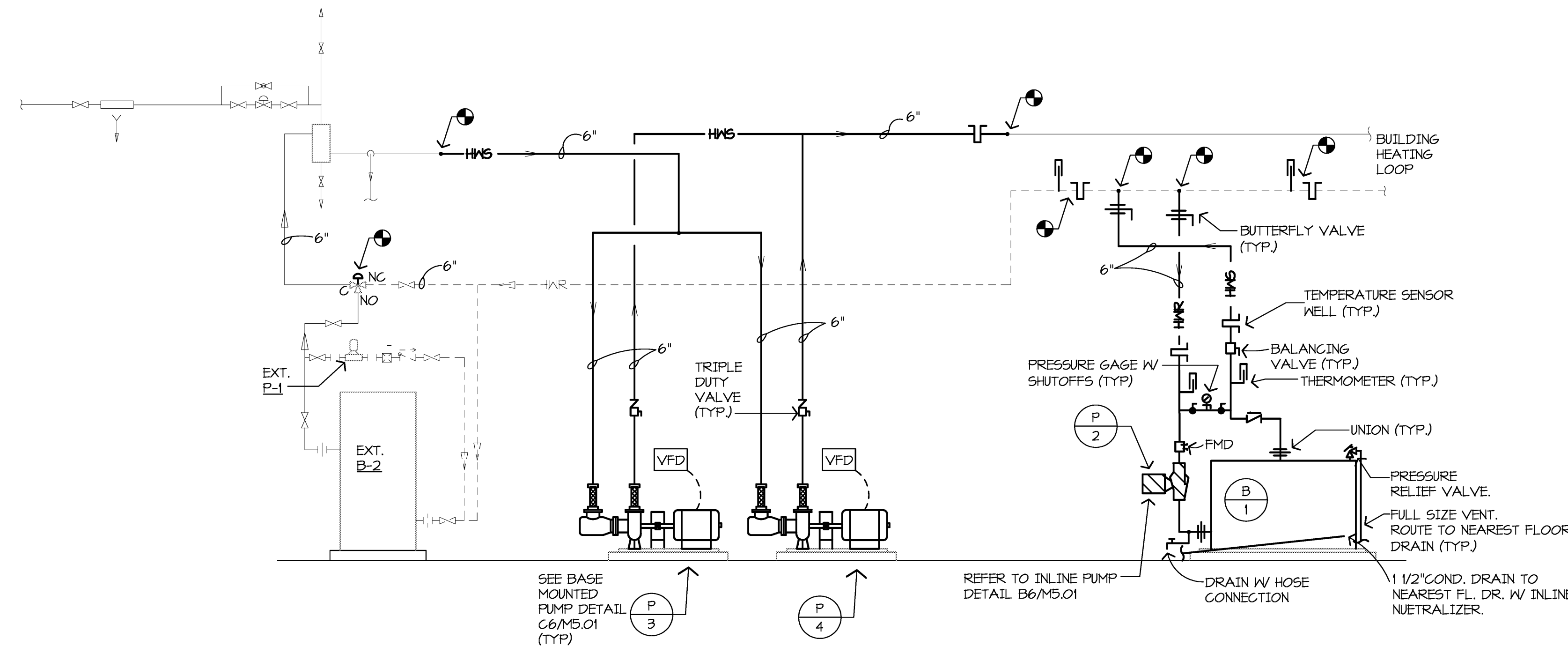
- DEMOLITION KEYED NOTES:**
- REMOVE EXISTING BOILER, GAS TRAIN, BREECHING, AND EXTENT OF HWS & HWR CONNECTIONS SHOWN. REMOVE EXISTING BYPASS LINE, PUMP, AND ALL PIPING COMPONENTS. ELECTRICAL DISCONNECT BY EC.
  - REMOVE EXISTING PUMP AND ALL ASSOCIATED CONTROLS AND PANELS, PIPING AND PIPE COMPONENTS, AND PNEUMATIC TUBING BACK TO MAIN AND CAP. REFER TO ELECTRICAL DRAWING FOR ELECTRICAL DEMOLITION.
  - REMOVE EXISTING CENTRAL PLANT CONTROL PANEL AND ALL ASSOCIATED COMPONENTS AND PNEUMATIC TUBING BACK TO MAIN AND CAP. COORDINATE WITH TEMPERATURE CONTROL CONTRACTOR FOR COMPLETE SCOPE OF ALLOWABLE SENSORS, PANELS, AND COMPONENTS TO BE REMOVED.
  - REMOVE EXISTING 6" THREE-WAY VALVE ACTUATOR AND ALL ASSOCIATED COMPONENTS AND PNEUMATIC TUBING BACK TO MAIN AND CAP. COORDINATE WITH VALVE MANUFACTURER FOR RETROFIT ELECTRONIC THREE-WAY VALVE ACTUATOR. REFER TO NEW WORK PLAN FOR REPLACEMENT OF ACTUATOR.
  - REMOVE ALL PIPING SHOWN HATCHED AND CAP AT MAINS.
  - REMOVE EXISTING AIR SEPARATOR AND CONNECTIONS. SEE NEW WORK FOR REPLACEMENT.



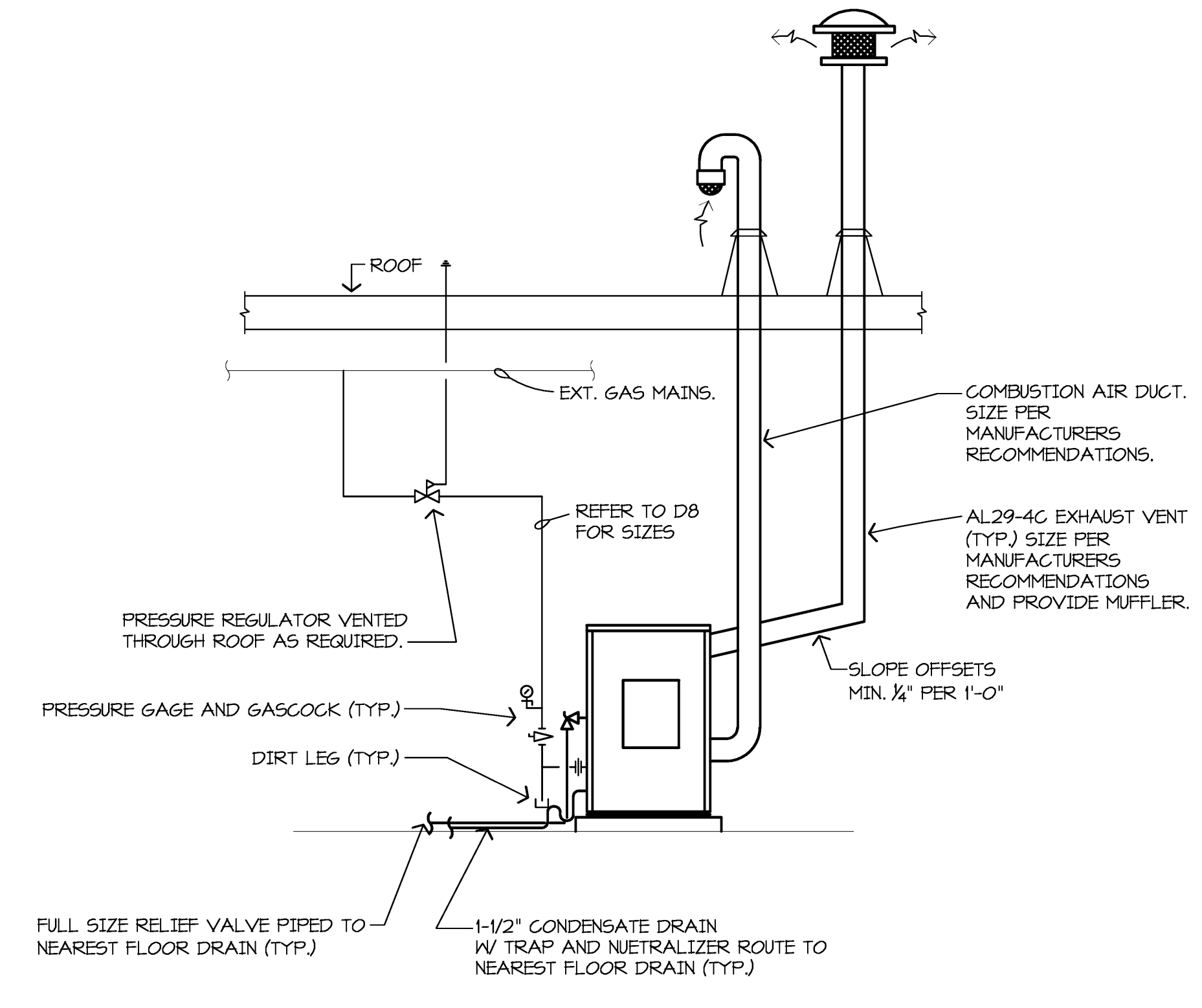
**D8 BOILER ROOM NEW WORK PLAN**  
1/4" = 1'-0"

- GENERAL NEW WORK NOTES:**
- DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW ALL REQUIRED RISES, DROPS, AND OFFSETS. LAYOUT PIPE ROUTINGS AND COORDINATE WORK WITH OTHER TRADES PRIOR TO STARTING CONSTRUCTION.
  - MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL CUTTING AND PATCHING OF EXISTING CONSTRUCTION NOT SHOWN ON THE ARCHITECTURAL PLANS. NO CUTTING OF STRUCTURAL MEMBERS OR STRUCTURE WHICH WILL DETERIORATE THE INTEGRITY AND STRENGTH OF THE BUILDING WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
  - ALL EXISTING SERVICES SHALL BE MAINTAINED AT ALL TIMES, UNLESS OTHERWISE INDICATED ON THE PLANS. COORDINATE DISRUPTION OF SERVICES WITH OWNER TO PROVIDE AN ACCEPTABLE TIME FOR DOWN TIME.
  - THE MECHANICAL CONTRACTOR SHALL REMOVE ALL EXISTING CEILING TILES AND GRIDS AS REQUIRED FOR INSTALLATION OF NEW WORK. ANY DAMAGED TILES AND OR GRIDS SHALL BE REPLACED WITH NEW TO MATCH AT THE CONTRACTORS EXPENSE.
  - PROVIDE BRANCH SIZES TO PLUMBING FIXTURES AS SHOWN ON SHEET M5.04 PLUMBING FIXTURE SCHEDULE UNLESS OTHERWISE NOTED.
  - LOCATE ANY BALANCING DAMPERS OR FLEXIBLE DUCT CONNECTIONS ABOVE ACCESSIBLE CEILING.
  - ROUTE DUCTS BETWEEN JOISTS AND THROUGH JOIST KEEPS WHERE REQUIRED TO COORDINATE WITH THE INSTALLATION OF OTHER TRADES AND TO MAINTAIN CEILING HEIGHTS. COORDINATE LOCATIONS PRIOR TO CROSS BRACING TO ENSURE THERE ARE NO CONFLICTS.
  - TRANSFER DUCTS AND UNIT VENTILATOR DUCT MAINS SHALL HAVE 1" THICK INTERNAL SOUND ATTENUATING LINER.
  - DIFFUSER DUCT RUNOUTS AND FLEXIBLE DUCT CONNECTIONS SHALL BE THE SAME SIZE AS THE DIFFUSER NECK.

- NEW WORK KEYED NOTES:**
- PROVIDE EMERGENCY BOILER SHUT-OFF SWITCH LOCATED AT 7'-0" AFF ADJACENT TO DOOR ON MEZZANINE.
  - PROVIDE AND INSTALL NEW BOILER PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE TEMPERATURE CONTROL WORK AND INSTALLATION LOCATIONS. REFER TO M5.01 FOR BOILER INSTALLATION DETAILS.
  - INSTALL NEW PUMPS ON EXISTING PADS LOCATED UNDERNEATH MEZZANINE. MODIFY EXISTING SUCTION AND DISCHARGE PIPING AS REQUIRED. REFER TO BASE MOUNTED PUMP DETAIL ON M5.01. COORDINATE WITH ELECTRICAL FOR INSTALLATION OF VFD'S.
  - PENETRATE EXISTING ROOF WITH NEW COMBUSTION AIR AND BOILER VENT STACKS. ROOF IS UNDER CURRENT WARRANTY. MECH. CONTRACTOR REQUIRED TO COORDINATE WITH ROOFING MANUFACTURER FOR PENETRATION SIZES, LOCATIONS, AND ACCEPTABLE WORKMANSHIP.
  - PROVIDE AND INSTALL NEW THREE-WAY ELECTRONIC VALVE ACTUATOR. COORDINATE WITH MANUFACTURER FOR COMPATIBILITY AND INSTALLATION REQUIREMENTS. PROVIDE ADAPTER KIT AND MULTIPLE ACTUATORS AS REQUIRED.
  - PROVIDE AND INSTALL DIFFERENTIAL PRESSURE SENSOR ACROSS LARGEST REMOTE COIL OR LOOP. MC AND TCC TO COORDINATE IN THE FIELD WITH ENGINEER FOR OPTIMAL AND ACCESSIBLE LOCATION. MODIFY EXISTING SUPPLY AND RETURN PIPING AS REQUIRED AND REINSULATE ANY DISTURBED PIPING.
  - PROVIDE AND INSTALL NEW COALESCING AIR/DIRT ELIMINATOR. PROVIDE SHUT-OFFS, NEW AUTOMATIC AIR VENT AND BLOW-DOWN BALL VALVE WITH PIPING ROUTED TO NEAREST FLOOR DRAIN.



**G4 BOILER PIPING SCHEMATIC**  
NO SCALE



**G8 BOILER INSTALLATION DETAILS**  
NO SCALE

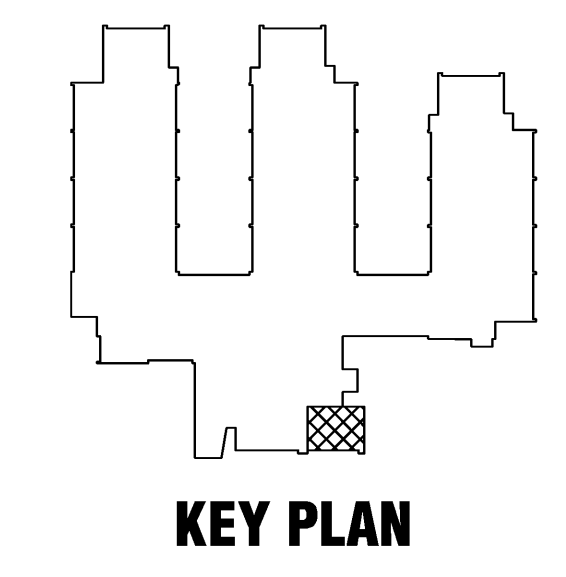
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Jonathan Loose  
Registration Number 622065908 Date 10/31/13

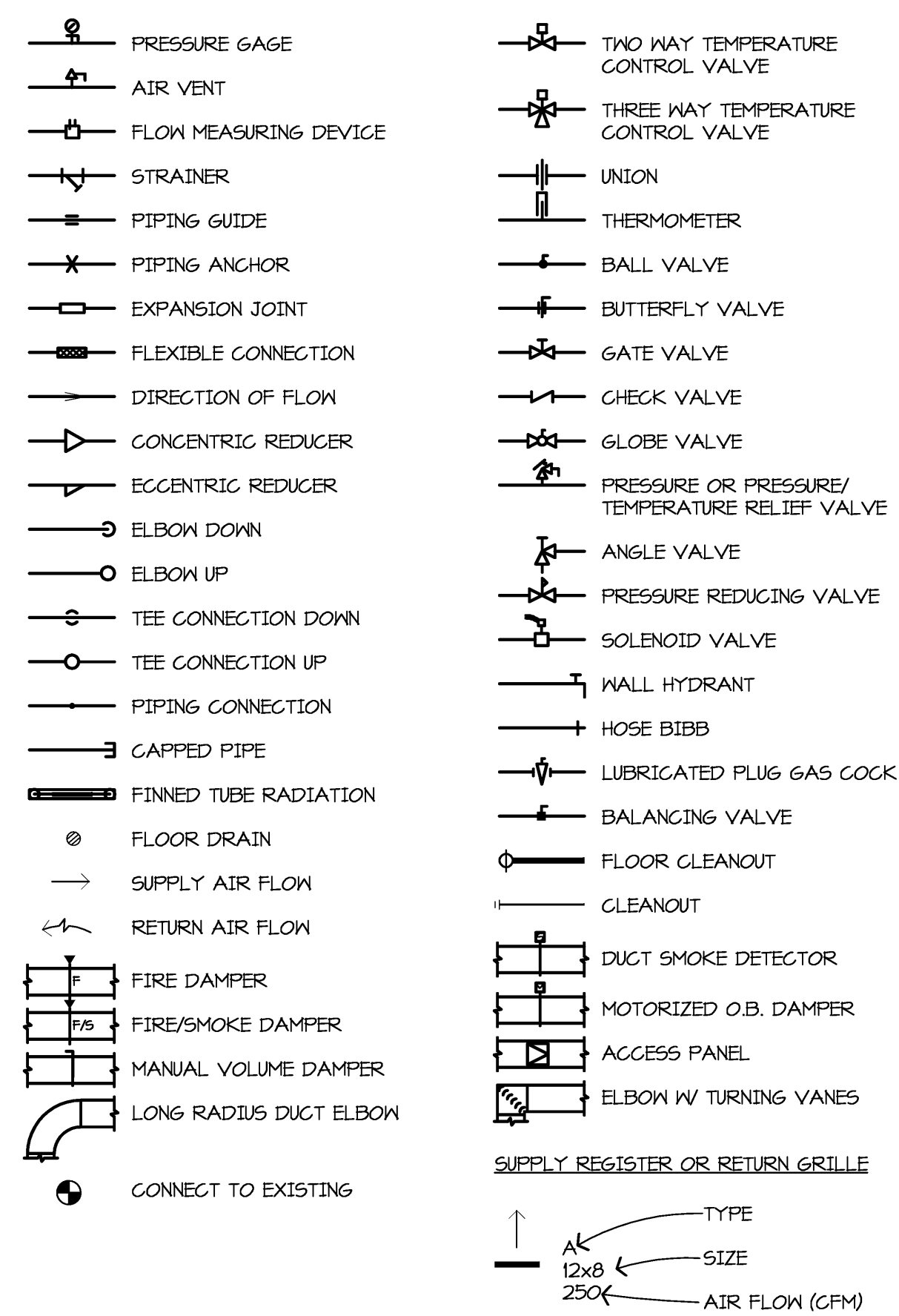
Revisions	Date	Num

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Date: 4/16/2013  
Drawn: JL  
Check: JL

**MECHANICAL BOILER ROOM PLANS, DETAILS, AND SCHEMATICS**

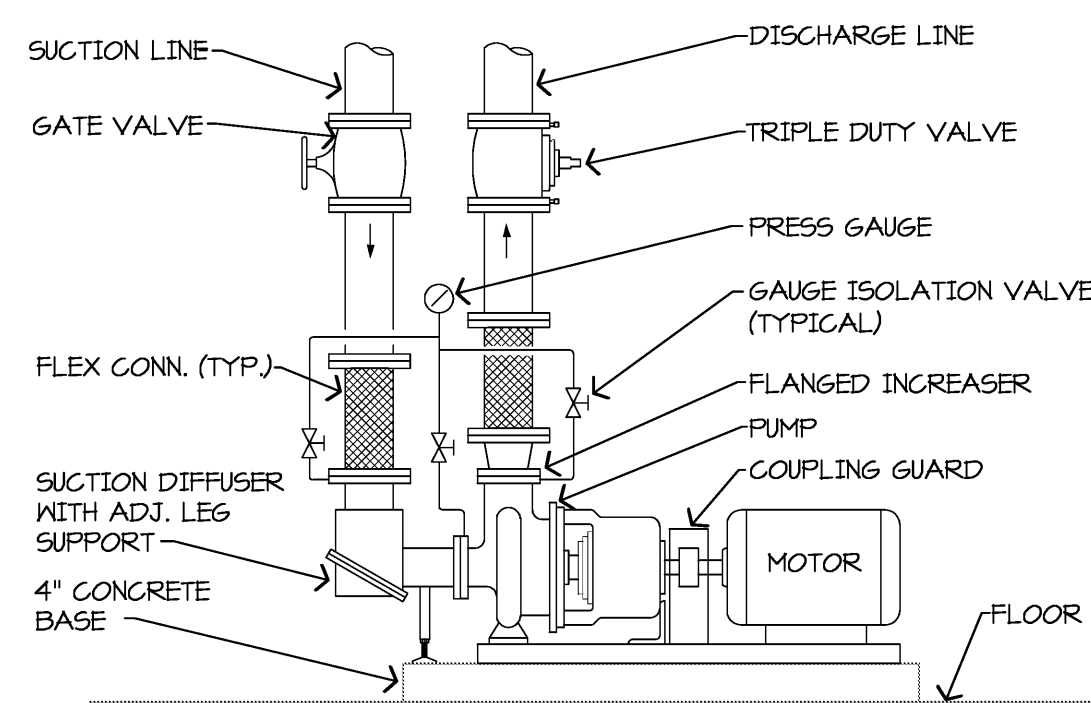
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**M5.01M**

**MECHANICAL SYMBOLS**



**SCHEDULED EQUIPMENT/NUMBER**

AHU	AIR HANDLING UNIT
AS	AIR SEPARATOR
B	BOILER
CJ	CONDENSING UNIT
EF	EXHAUST FAN
ET	EXPANSION TANK
IH	INTAKE HOOD
P	PUMP
RH	RELIEF HOOD
TF	TRANSFER FAN
VFD	VARIABLE FREQUENCY DRIVE
WH	WATER HEATER



**(C4) BASE MOUNTED PUMP PIPING DETAIL**  
NO SCALE

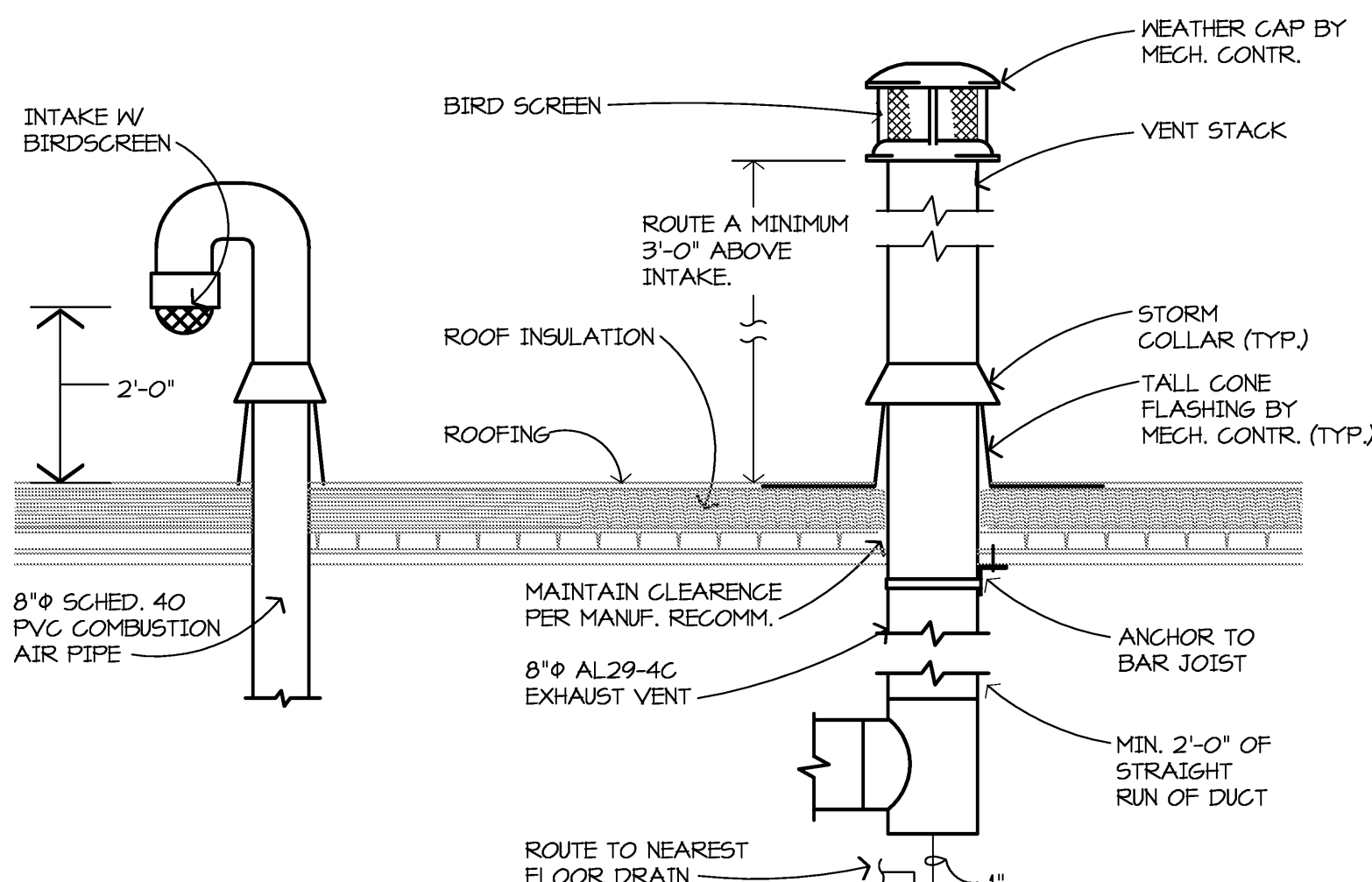
**MECHANICAL ABBREVIATIONS**

AD	AREA DRAIN	GR	GRILLE
AFF	ABOVE FINISHED FLOOR	HB	HOSE BIBB
AHAP	AS HIGH AS POSSIBLE	HCM	HARD COLD WATER
BFF	BELOW FINISHED FLOOR	HP	HORSE POWER
BLDG	BUILDING	HW	HOT WATER
BGMT	BASEMENT	INV	INVERT
BW	BETWEEN	KW	KILOWATT
CB	CATCH BASIN	LAT	LEAVING AIR TEMPERATURE
CFM	CUBIC FEET/MINUTE	LWT	LEAVING WATER TEMPERATURE
CHW	CIRCULATING HOT WATER	MAX	MAXIMUM
CLG	CEILING	MBH	1000 BTU
CLEAN	CLEANOUT	MEGH	MECHANICAL
CONCR	CONCRETE	MH	MANHOLE
CONTR	CONTRACTOR	MIN	MINIMUM
GW	GOLD WATER	NTS	NOT TO SCALE
DB	DRY BULB	OA	OUTSIDE AIR
DEG	DEGREE	OBD	OPPOSED BLADE DAMPER
DIA	DIAMETER	ORD	OVERFLOW ROOF DRAIN
DIFF	DIFFUSER	P-F	PLUMBING FIXTURE NUMBER
EAT	ENTERING AIR TEMPERATURE	P & T	PRESSURE AND THERMOSTATIC
EDR	SQUARE FEET RADIATION	PD	PRESSURE DROP
EFF	EFFICIENCY	PLBG	PLUMBING
EL	ELBOW	QUAN	QUANTITY
ELEC	ELECTRICAL	RA	RETURN AIR
ELV	ELEVATION	RD	ROOF DRAIN
ENT	ENTERING WATER TEMPERATURE	REG	REGISTER
EXH	EXHAUST	REQD	REQUIRED
EXIST	EXISTING	RPM	REVOLUTIONS/MINUTE
F	FAHRENHEIT	SA	SHEET
F & T	FLOAT AND THERMOSTATIC	SCW	SOFT COLD WATER
FD	FLOOR DRAIN	SHT	SHUT
FH	FIRE HYDRANT	SP	STATIC PRESSURE
FLA	FULL LOAD AMPS	TD	TEMPERATURE DIFFERENCE
FLR	FLOOR	VTR	VENT THROUGH ROOF
FTR	FINNED TUBE RADIATION	W	WET
GEN	GENERAL	WB	WET BULB
GPM	GALLONS/MINUTE	WH	WALL HYDRANT

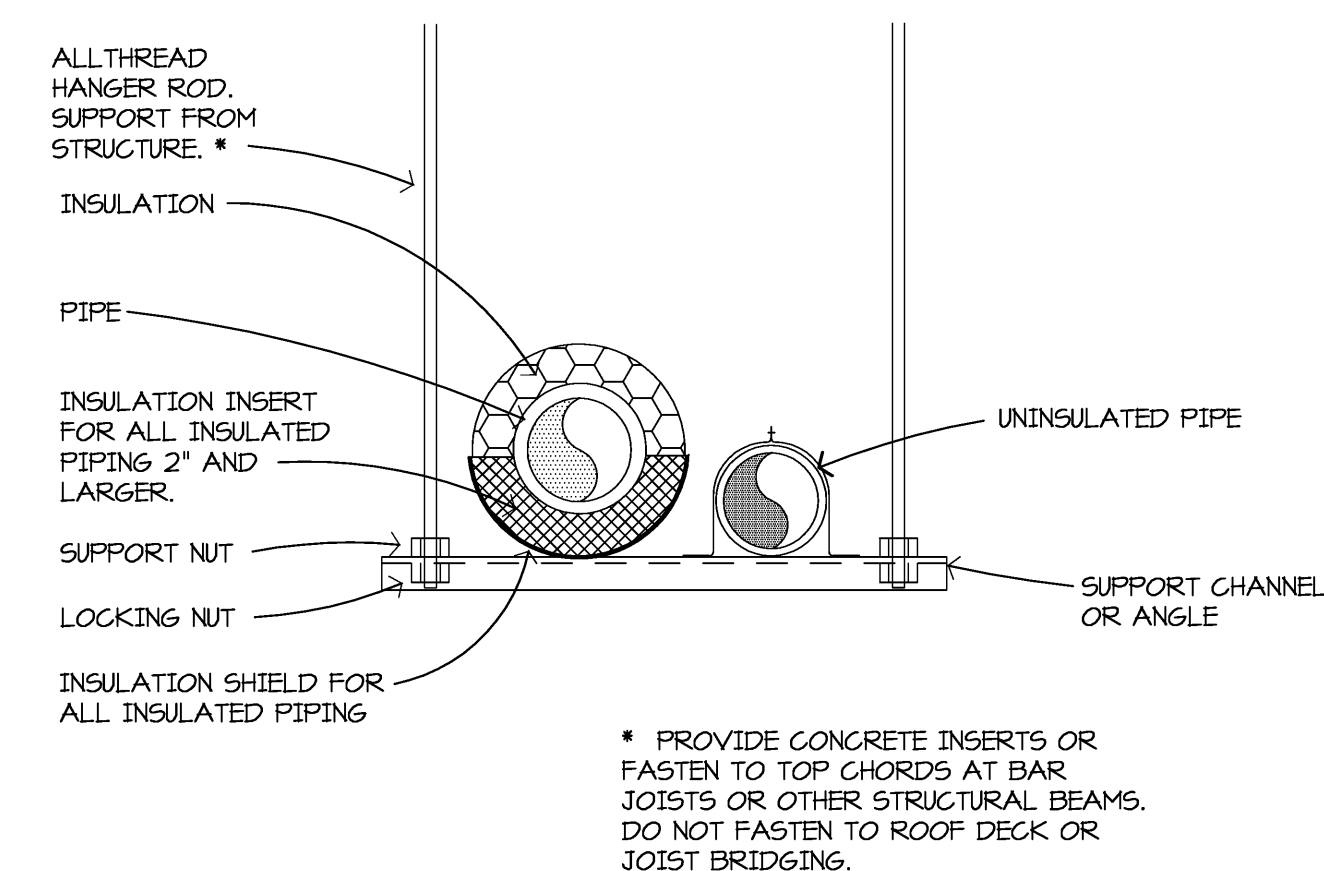
**MECHANICAL LINETYPES**

---	DOMESTIC COLD WATER PIPING
---	DOMESTIC HOT WATER PIPING
---	DOMESTIC CIRCULATING HOT WATER PIPING
---	VENT PIPING
---	SANITARY WASTE ABOVE GROUND PIPING
---	SANITARY WASTE BELOW GROUND PIPING
---	STORM DRAIN ABOVE GROUND PIPING
---	STORM DRAIN BELOW GROUND PIPING
---	CONDENSATE DRAIN PIPING
---	NATURAL GAS PIPING
---	BUILDING HEATING WATER SUPPLY PIPING
---	BUILDING HEATING WATER RETURN PIPING

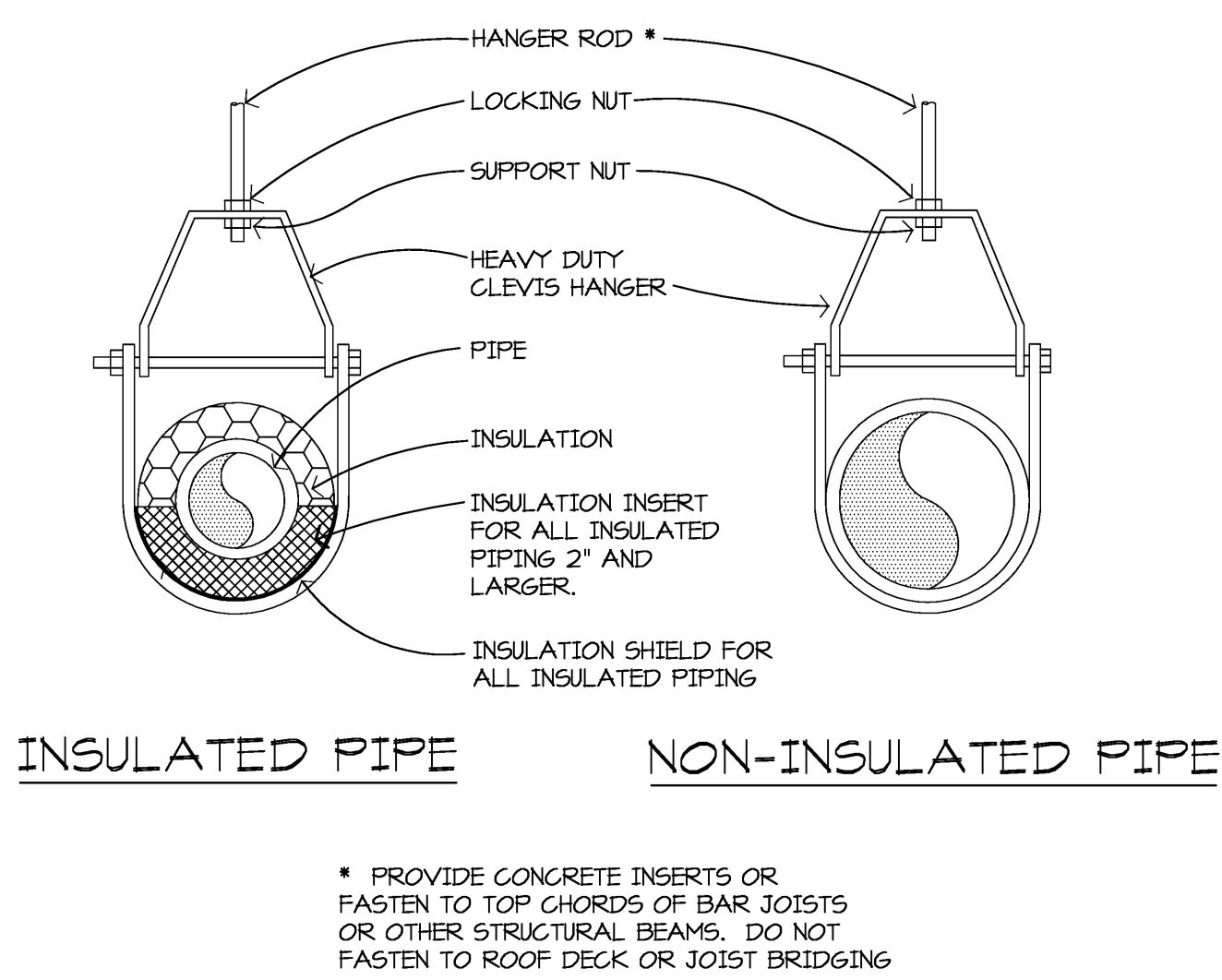
**(E4) BOILER / VENT STACK DETAIL**  
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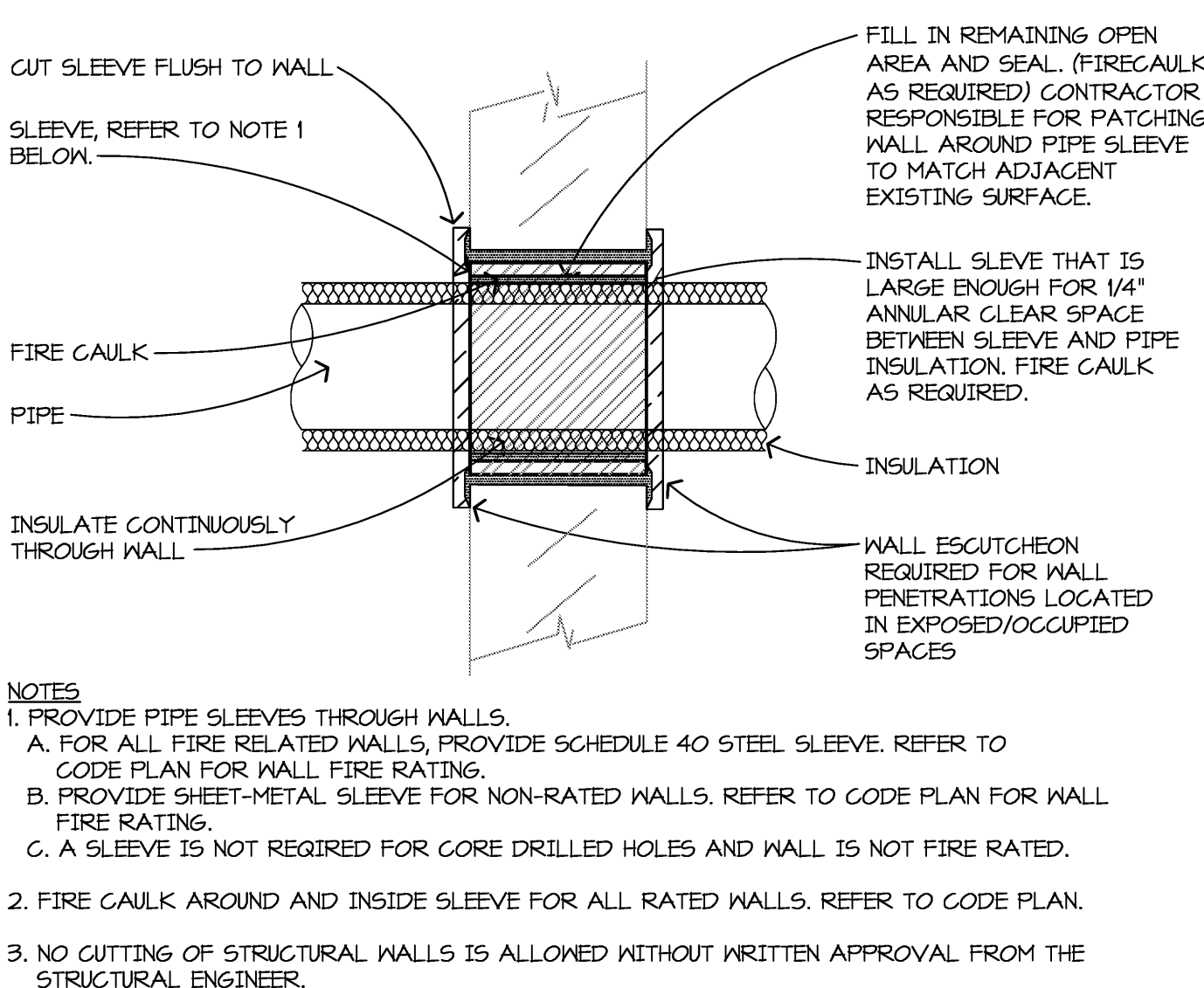
**(E7) TRAPEZE PIPE HANGER DETAIL**  
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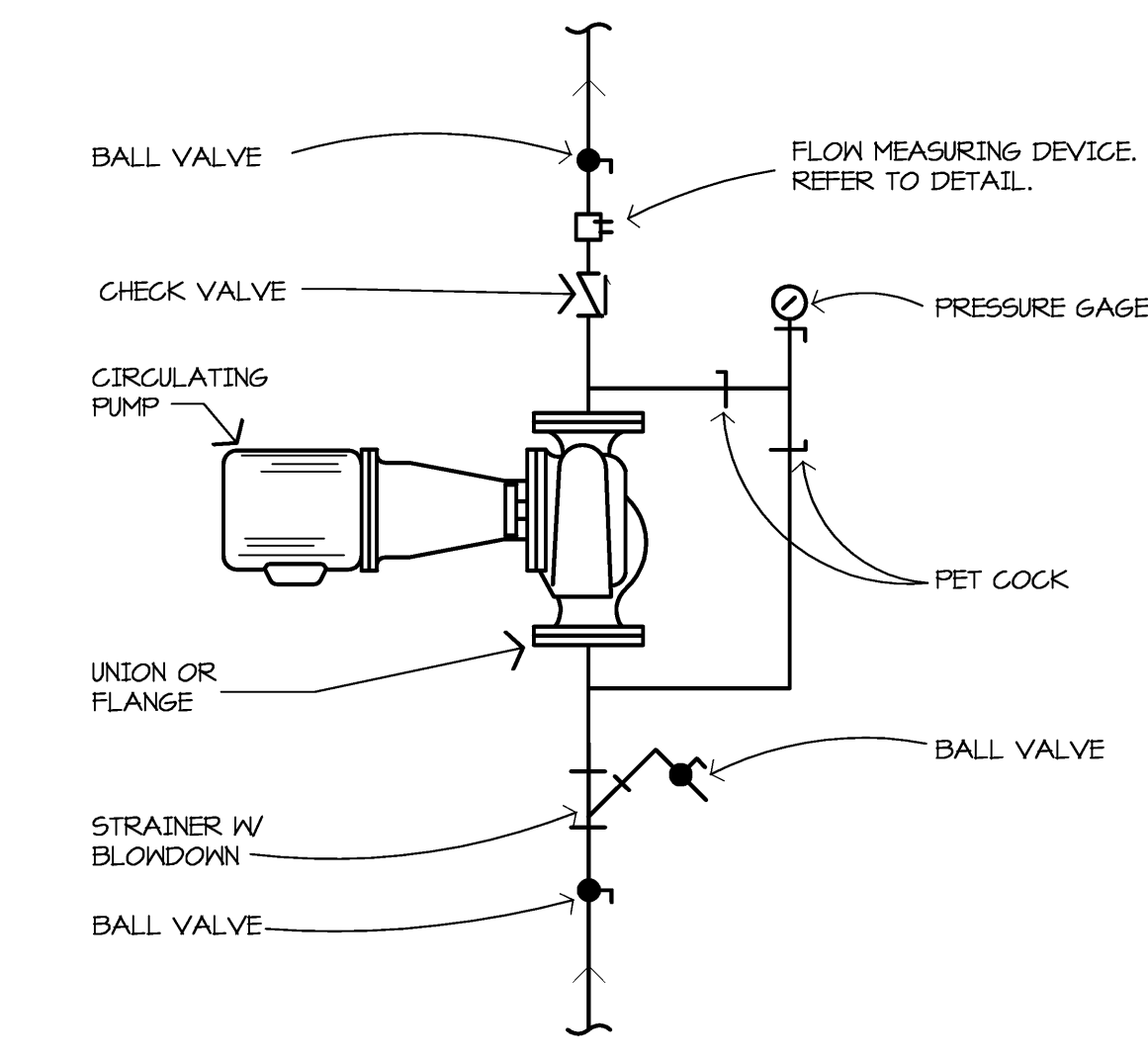
**(E9) CLEVIS PIPE HANGER DETAIL**  
NO SCALE



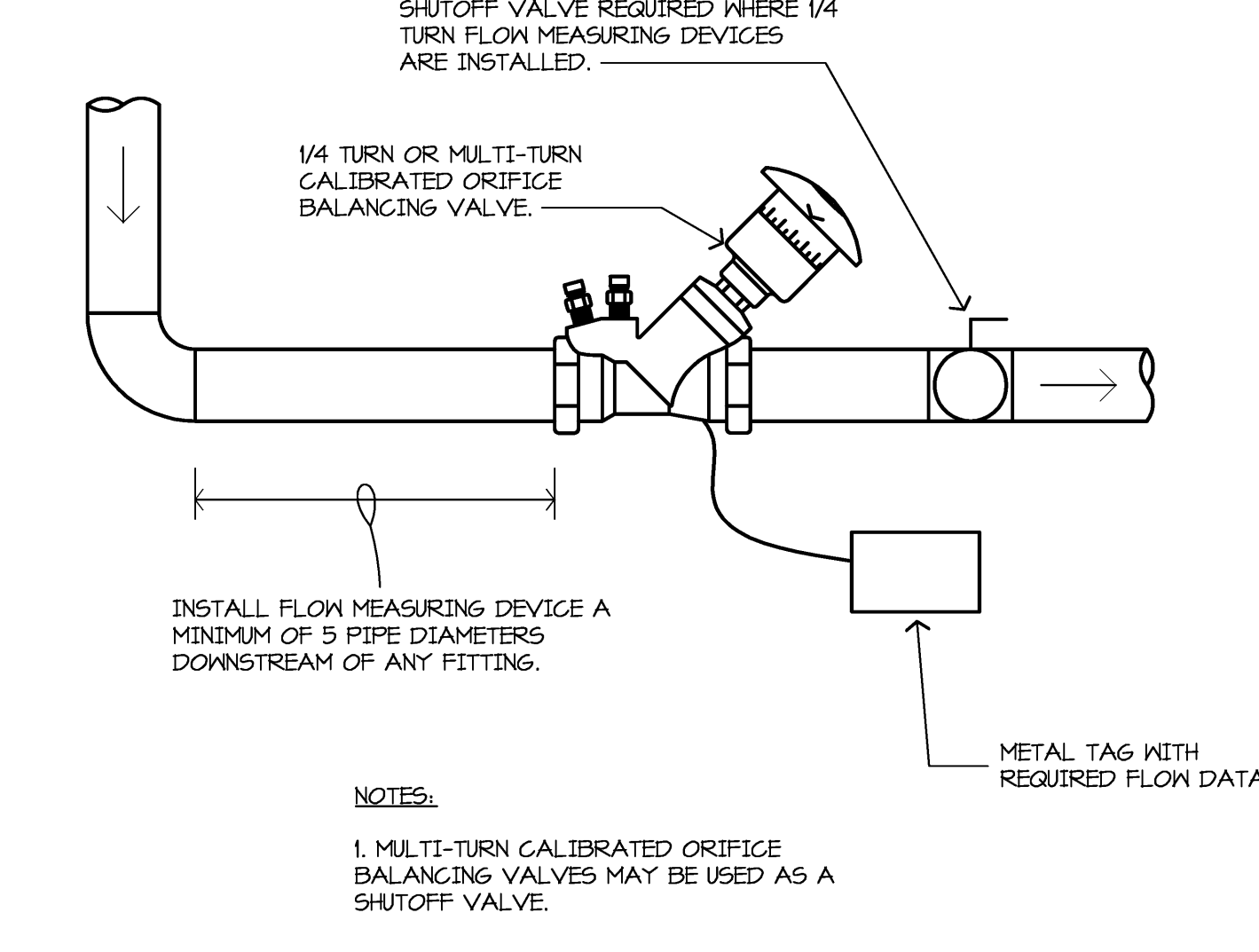
**(H4) PIPE PENETRATION THROUGH INTERIOR WALL**  
NO SCALE



**(H7) INLINE CIRCULATING PUMP DETAIL**  
NO SCALE



**(H9) FLOW MEASURING DEVICE DETAIL**  
NO SCALE



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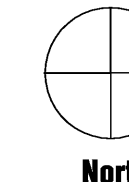
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Jonathan Loose  
Registration Number: 6220629908 Date: 10/31/13

Revisions		
Description	Date	Rev

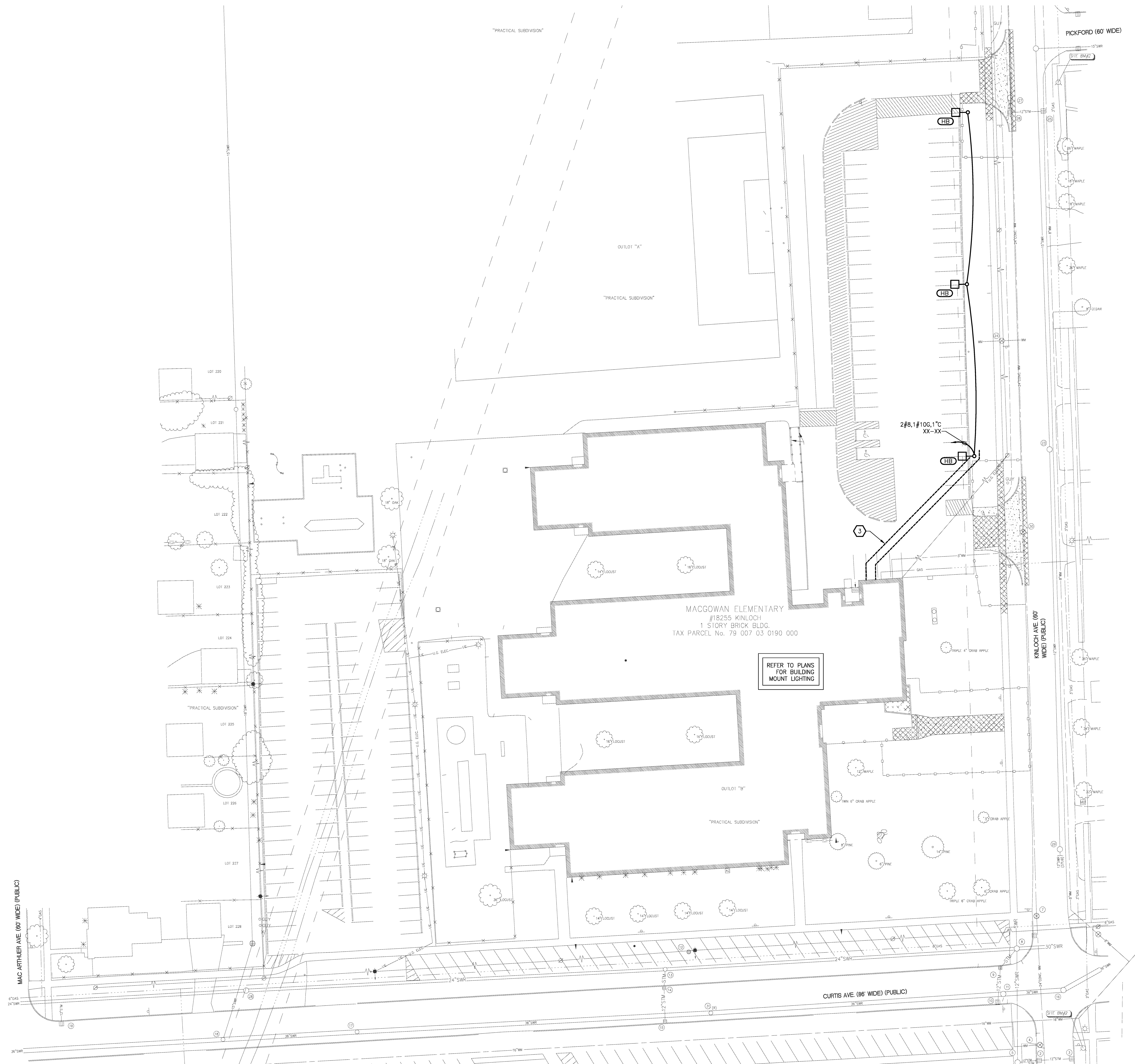
Comm: 124021  
Date: 4/16/2013  
Drawn: JL  
Check: JL



**MECHANICAL SCHEDULES ABBREVIATIONS SYMBOLS AND DETAILS**

Scale: NONE

**M5.02M**



MacGOWAN ELEMENTARY ELECTRICAL SITE PLAN  
SCALE: 1" = 30'

**SITE PLAN GENERAL NOTES**

1. FIELD VERIFY LOCATIONS OF EXISTING UNDERGROUND SERVICES TO COORDINATE ALL POLE BASE LOCATIONS AND UNDERGROUND SERVICES BEING INSTALLED UNDER THIS CONTRACT PRIOR TO INSTALLATION OF POLE BASES AND CONDUIT.
2. ALL THREE PHASE WIRES, NEUTRAL, AND GROUND SHALL BE RUN TO LAST LIGHTING FIXTURE AND CAPPED FOR FUTURE EXPANSION.
3. ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
4. SEE LUMINAIRE SCHEDULE ON ELECTRICAL GENERAL INFORMATION SHEET.
5. ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
6. EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.

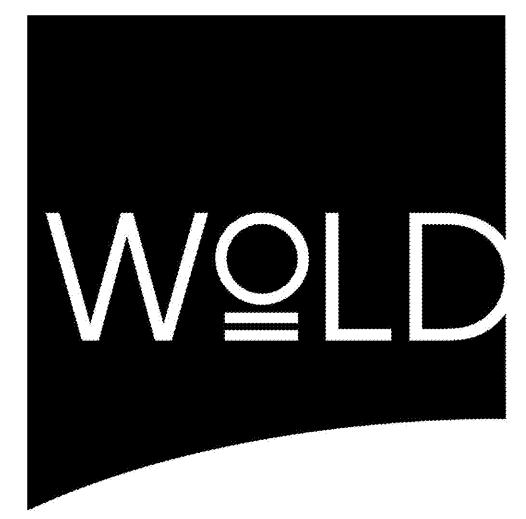
**KEYED NOTES**

1. REPLACE EXISTING BUILDING MOUNT FIXTURE WITH NEW TYPE 'HA' FIXTURE IN SAME LOCATION. RE-USE EXISTING CIRCUITING.
2. NEW FIXTURE LOCATION, CAPTURE AND EXTEND EXISTING CIRCUIT TO NEW LOCATION.
3. BELOW GRADE CONDUITS SHALL BE SCHEDULE 40 PVC. ALL CONDUIT IN LIGHTING FIXTURE OR POLE CONCRETE BASE SHALL BE RIGID STEEL. CONDUIT USED INDOORS SHALL BE E.M.T. IN GENERAL, CONDUIT BELOW GRADE SHALL BE INSTALLED IN AN EXCAVATED TRENCH. UTILIZE DIRECTIONAL BORE WHERE APPROPRIATE TO AVOID SURFACE CUTTING AND REPAIR. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

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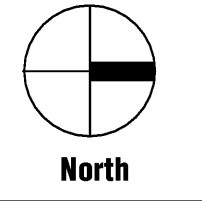


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SES Project # 2012.093.05

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Registration Number	6201049879	Date	10/31/18
Revisions			
Description	Date	Num	

Comm: 12/02/1  
Date: 4/16/2018  
Drawn: DAD  
Check: RSA



**MacGOWAN ELEM  
ELECTRICAL  
SITE PLAN**

Scale: 1" = 30'

**E0.02m**

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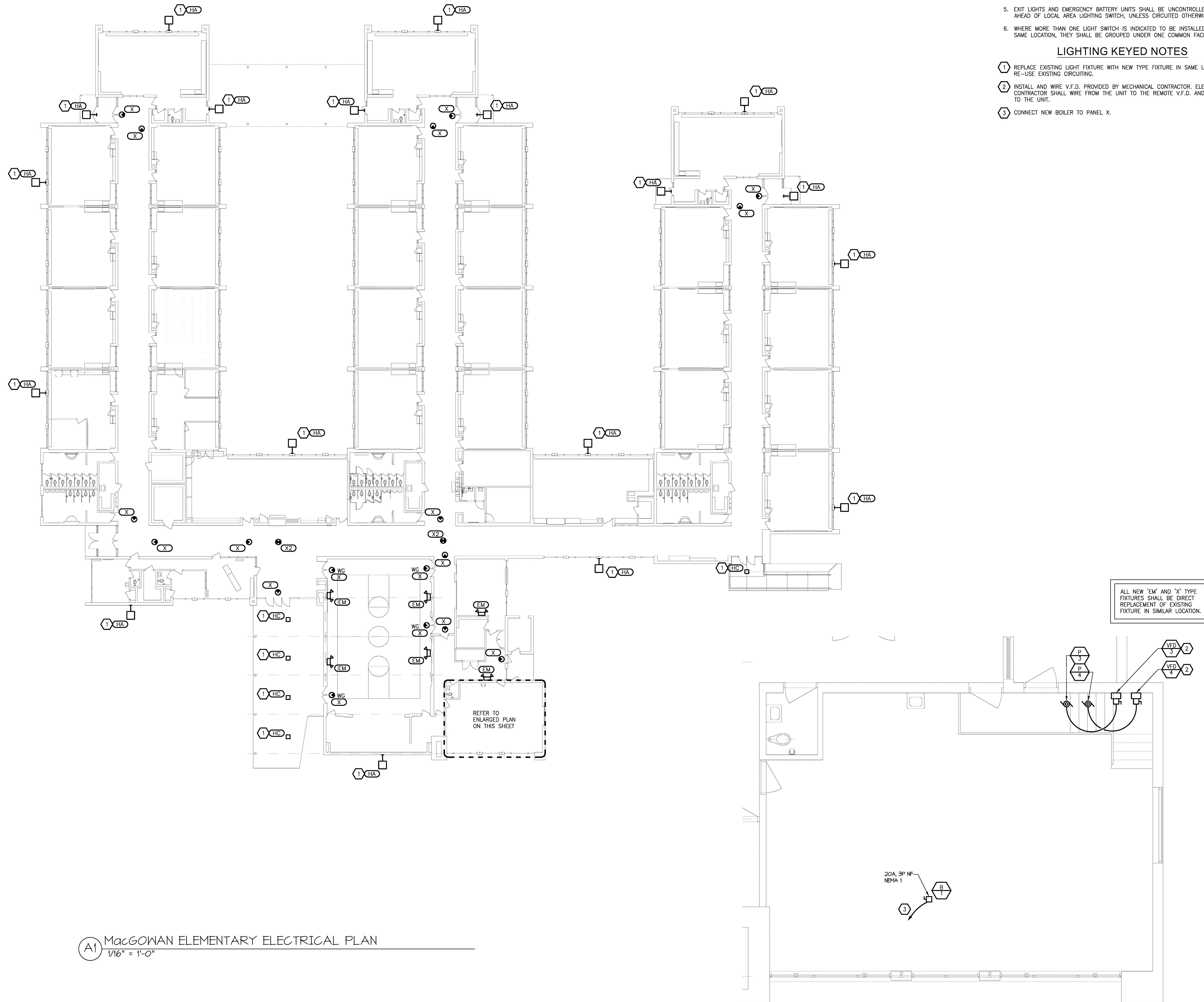
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SES Project # 2012 093 05

**GENERAL LIGHTING NOTES**

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
2. ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
3. SEE LUMINAIRE SCHEDULE ON SHEET ELECTRICAL GENERAL INFORMATION SHEET.
4. ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
5. EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.
6. WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.

**LIGHTING KEYED NOTES**

- 1 REPLACE EXISTING LIGHT FIXTURE WITH NEW TYPE FIXTURE IN SAME LOCATION. RE-USE EXISTING CIRCUITING.
- 2 INSTALL AND WIRE V.F.D. PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE FROM THE UNIT TO THE REMOTE V.F.D. AND THEN BACK TO THE UNIT.
- 3 CONNECT NEW BOILER TO PANEL X.



**A1** MacGOWAN ELEMENTARY ELECTRICAL PLAN  
1/16" = 1'-0"

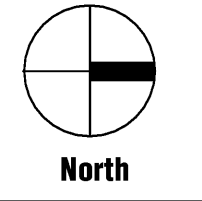
**A1** ENLARGED BOILER ROOM PLAN  
1/4" = 1'-0"

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Foras Abdallah  
Registration Number 6201049879 Date 10/31/13

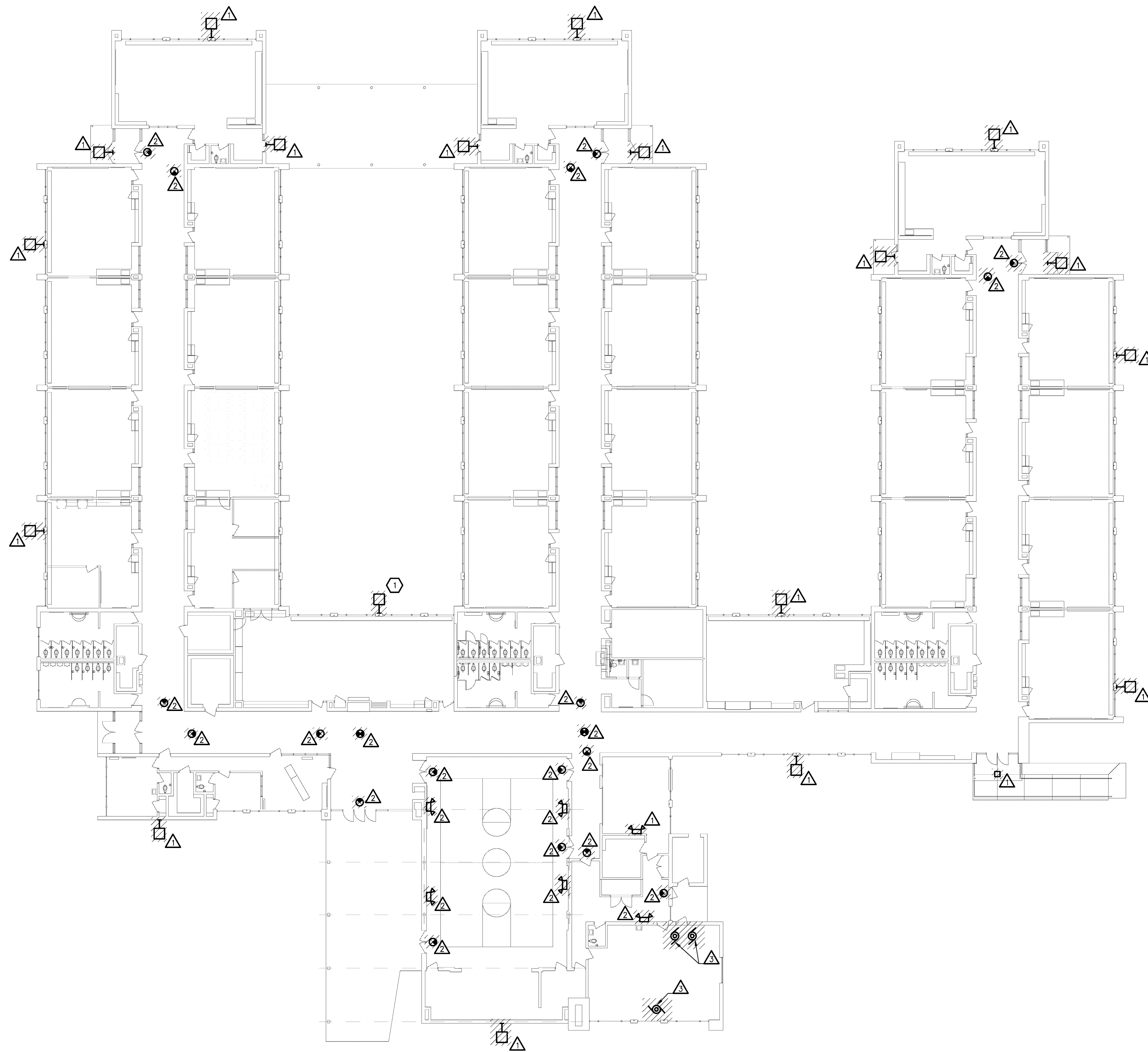
Revisions		
Description	Date	Num

Comm: 12/20/11  
Date: 4/16/2013  
Drawn: DAD  
Check: RSA



**MacGOWAN ELEM.  
ELECTRICAL PLAN**

Scale:  
**E2.11m**



**GENERAL DEMOLITION NOTES**

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
2. EXAMINE THE DRAWINGS OF OTHER TRADES, BE FAMILIAR WITH THE DEMOLITION REQUIRED BY OTHER TRADES. PERFORM ALL INCIDENTAL ELECTRICAL DEMOLITION AND/OR RELOCATION OF DEVICES AND EQUIPMENT REQUIRED TO FACILITATE THE DEMOLITION WORK OF OTHER TRADES.
3. REMOVE LIGHTING FIXTURES AND ELECTRICAL DEVICES AS INDICATED ON PLAN. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO THOSE DEVICES SHOWN.
4. COORDINATE WITH NEW WORK PLANS, ONE LINE AND RISER DIAGRAMS FOR EXTENT OF DEMOLITION WORK.
5. COORDINATE ANY SHUTDOWN OF EXISTING SERVICES AND EQUIPMENT REMAINING IN USE WITH OWNERS' REPRESENTATIVE. WHERE EXISTING BUILDING SERVICE IS REQUIRED TO BE SHUT DOWN, INCLUDE ALL ASSOCIATED OVERTIME COST TO PERFORM THIS WORK DURING EVENINGS AND WEEKENDS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUTDOWNS OCCUR FOR PERIODS LONGER THAN THE ABOVE STATED HOURS.
6. COORDINATE THE SHUT DOWN OF ELECTRICAL EQUIPMENT WITH THE OWNERS' REPRESENTATIVE A MINIMUM OF 72 HOURS PRIOR TO SHUT DOWN.
7. REMOVE ALL CONDUIT AND WIRE BACK TO NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
8. WHERE DEMOLITION WORK AFFECTS ELECTRICAL SERVICE TO DOWNSTREAM DEVICES TO REMAIN, EXTEND CONDUIT AND WIRE AS REQUIRED TO MAINTAIN ELECTRICAL SERVICE.
9. DISPOSE OF ALL MATERIALS OFF SITE AND INCLUDE ALL COSTS FOR DISPOSAL IN BID. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, INCLUDING TCLP TESTING, PRIOR TO DISPOSAL AND/OR RECYCLING OF FLUORESCENT LAMPS.
10. PROVIDE BLANK COVER PLATES WHERE SWITCHES AND DEVICES ARE REMOVED AND WALL REMAINS INTACT. MARK ALL UNUSED CIRCUIT BREAKERS AS "SPARE".
11. CONTRACTOR TO TAG ALL CIRCUITS AT BOTH ENDS AFFECTED BY THIS ALTERATION.
12. CONTRACTOR SHALL PROVIDE UPDATED, TYPED-IN DIRECTORIES FOR ALL PANELS AFFECTED BY THIS ALTERATION.
13. CONTRACTOR SHALL VERIFY ALL UNDERGROUND AND IN-SLAB UTILITIES LOCATIONS PRIOR TO SAW CUTTING OR PENETRATING ANY FLOOR SLABS.
14. REFER TO NEW WORK SHEETS FOR LIGHTING AND POWER CIRCUIT DESIGNATIONS.
15. EXTEND EXISTING CONDUIT AND WIRE AS REQUIRED FOR ALL RELOCATED DEVICES.
16. VERIFY EXISTING FLUORESCENT EMERGENCY BALLASTS ARE OPERATIONAL AND REPLACE ANY DEFECTIVE UNITS.

**DEMOLITION KEYED NOTES**

- △ DISCONNECT AND REMOVE EXISTING BUILDING MOUNTED EXTERIOR LIGHTING. PROTECT EXISTING CIRCUITING FOR INSTALLATION OF NEW FIXTURES AT SAME LOCATION. SEE NEW WORK PLANS FOR ADDITIONAL INFORMATION.
- △ REMOVE EXISTING EXIT SIGN OR EMERGENCY LIGHT, REPLACE WITH NEW PER NEW WORK PLANS.
- △ EXISTING PUMP TO BE REMOVED, COORDINATE WITH MECHANICAL TRADES.

**REDFORD UNION  
MECHANICAL / ELECTRICAL  
IMPROVEMENTS**

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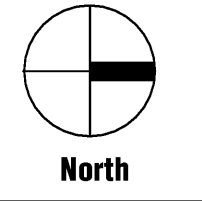
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www.sesnet.com  
SES Project # 2012.093.05

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed ENGINEER under the laws of the State of MICHIGAN

Fares Abdallah  
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ELECTRICAL  
DEMOLITION PLAN**

Scale:

**ED2.11m**

(A1) MacGOWAN ELEMENTARY ELECTRICAL DEMOLITION PLAN  
1/16" = 1'-0"