

DRAPER PRISON Boiler Replacement Department of Corrections



**VAN BOERUM
& FRANK
ASSOCIATES, INC.**
CONSULTING ENGINEERS

WWW.VBFA.COM

**330 South 300 East
Salt Lake City, UT 84111
801.530.3148 T
801.530.3150 F**



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State of Utah—Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building / Salt Lake City, Utah 84114 / 538-3018

DFCM Project No. 09200100 CONSTRUCTION DRAWINGS

CONSULTANTS

PROJECT ENGINEER: VAN BOERUM & FRANK ASSOCIATES, INC.
330 SOUTH 300 EAST
SALT LAKE CITY, UT 84111
(801) 530-3148 (Steve Shepherd)

ELECTRICAL: VAN BOERUM & FRANK ASSOCIATES, INC.
330 SOUTH 300 EAST
SALT LAKE CITY, UT 84111
(801) 530-3148 (Stan Johns)

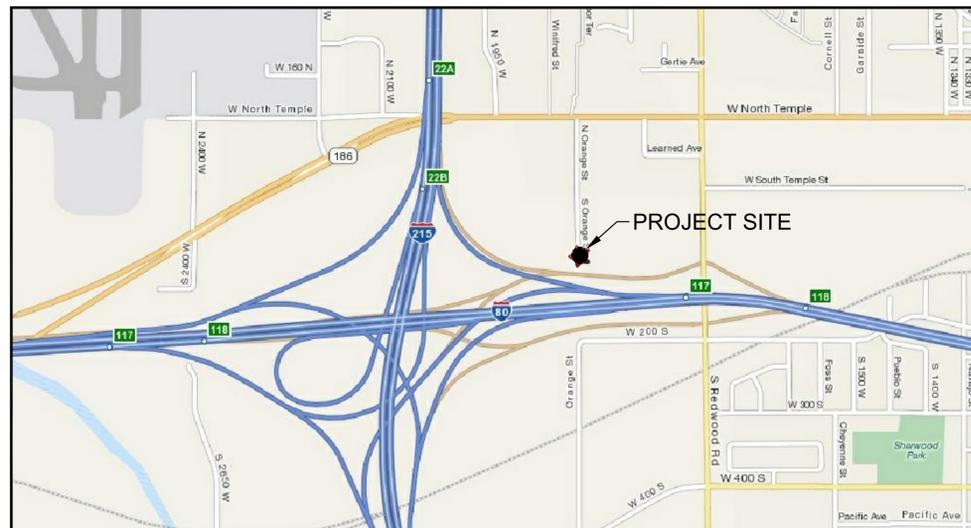
CODE ANALYSIS

APPLICABLE CODES

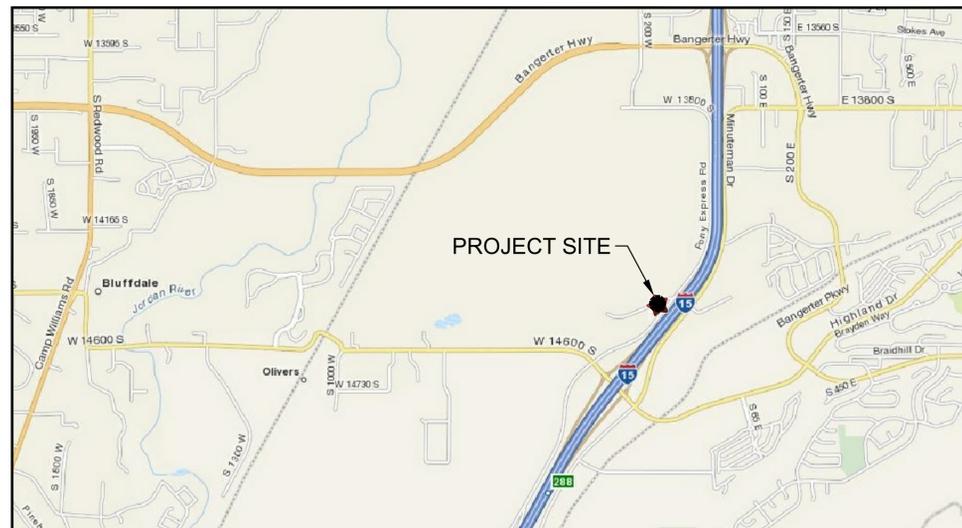
	Year		Year
International Building Code	2006	National Electrical Code	2008
International Mechanical Code	2006		
International Fuel Gas Code	2006		
International Plumbing Code	2006		
International Fire Code	2006		
International Energy Conservation Code	2006		

- A. Deferred Submittals
1. Seismic Restraint

Orange Street Facility, Salt Lake City, Utah



Draper Prison / Olympus Facility, Draper, Utah



Vicinity Maps



REVISIONS

VBFA PROJECT #: 09393
CHECKED BY: Sshepherd/ibeck
DRAWN BY: Ejuarez
CURRENT/BID DATE: 04/22/10

SHEET CONTENTS

COVER SHEET

**DRAPER PRISON
Boiler Replacement**
Department of Corrections
Draper, Utah

C-001

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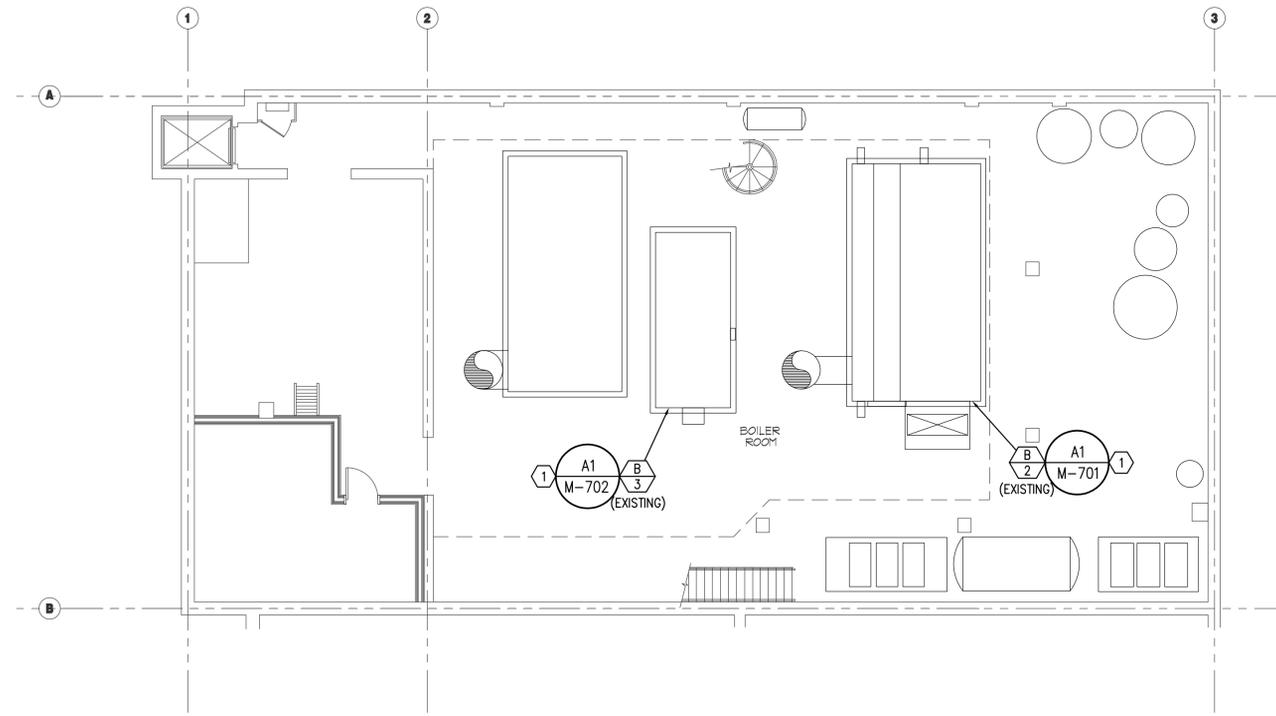
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(DRAPER PRISON BOILER PLANT)
 BOILER ROOM PLAN



A3

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



KEYED NOTES

1. REPLACE EXISTING BOILER CONTROLS WITH NEW. SEE BOILER CONTROL SCHEMATIC AND SPECIFICATIONS.



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 Draper, Utah

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SHEET CONTENTS

**BOILER ROOM
 PLAN**

M-101

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A B C

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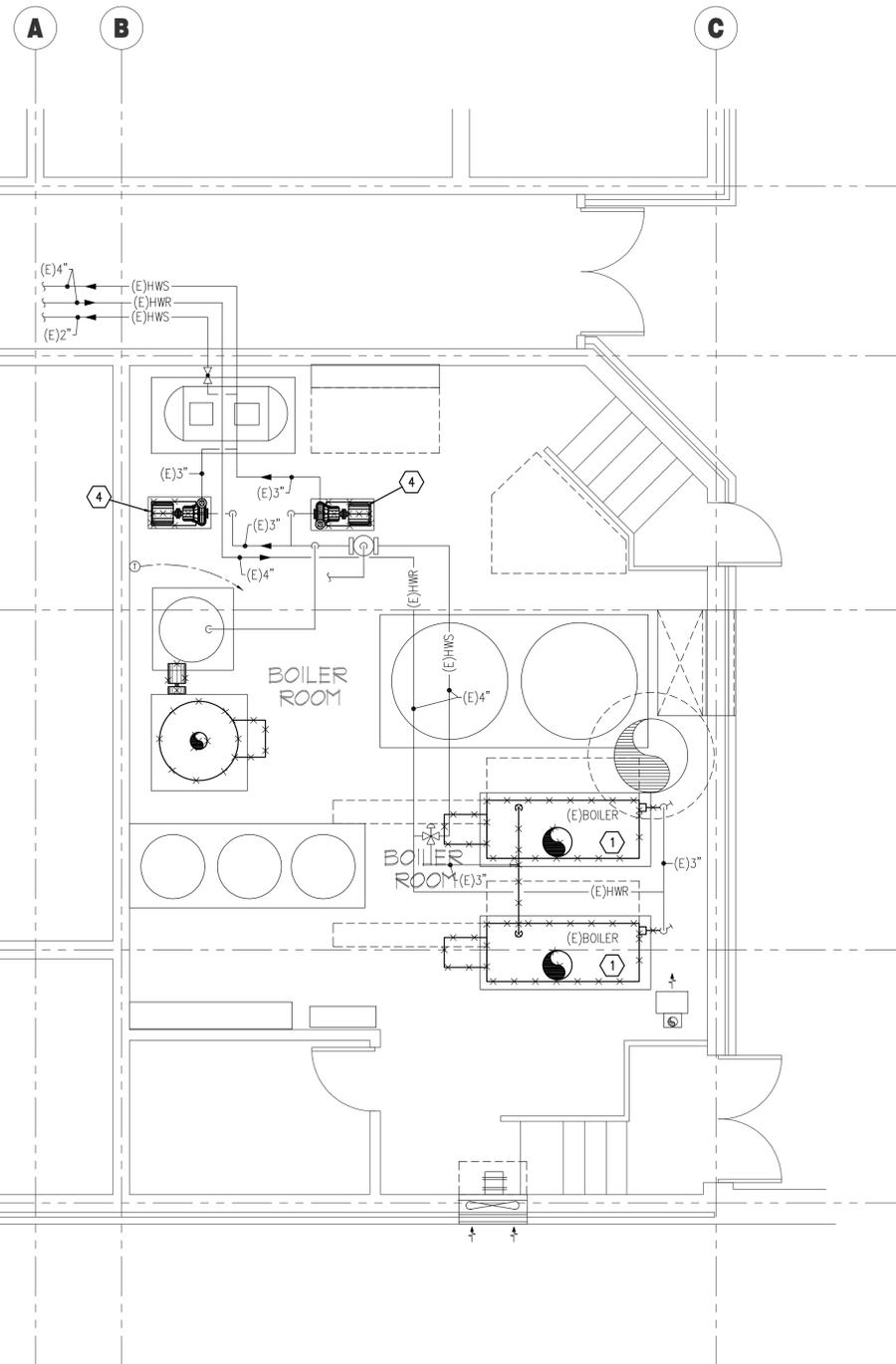
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(OLYMPUS FACILITY)
BOILER ROOM DEMOLITION PLAN

A1

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



A B C

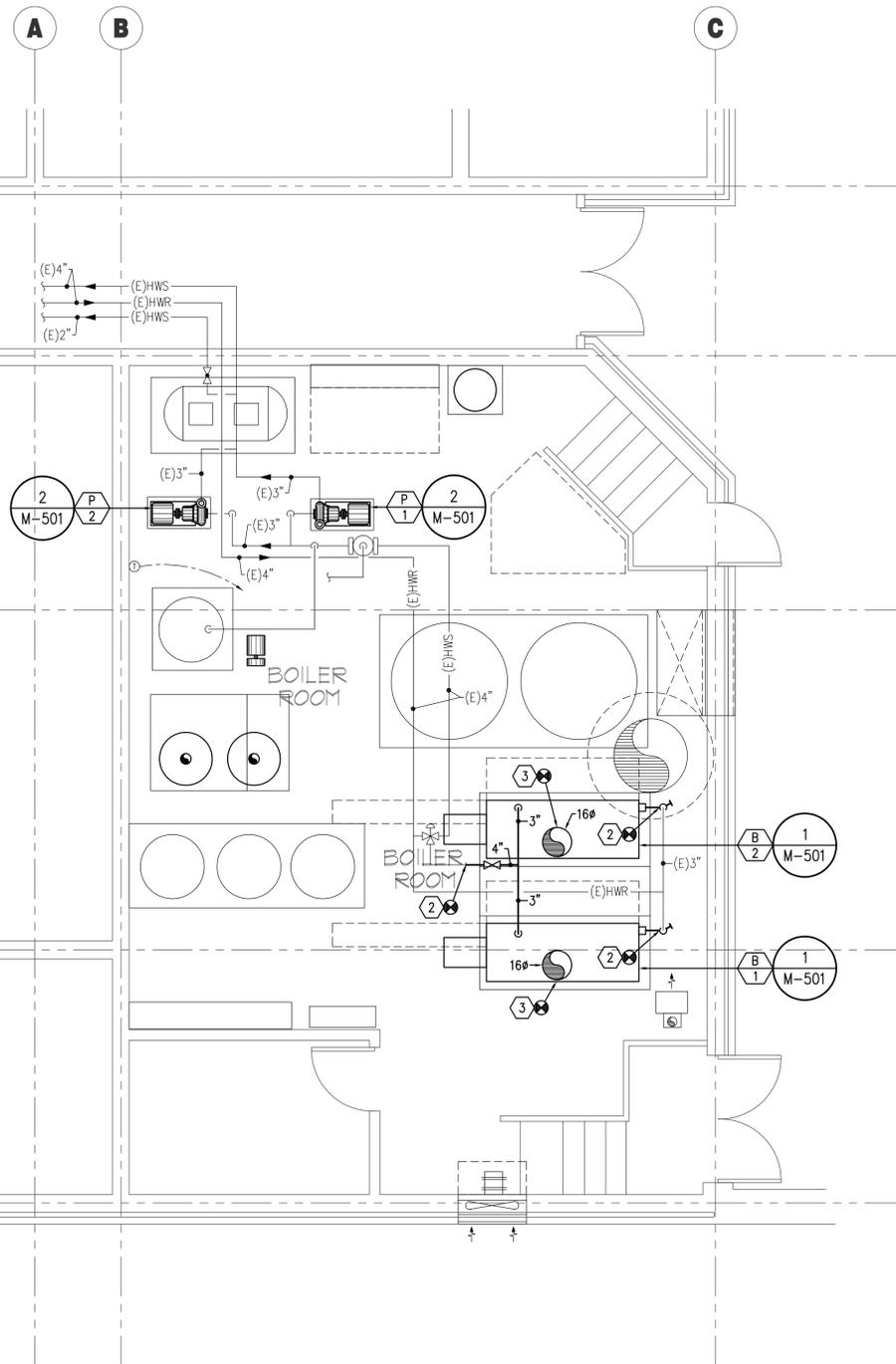
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(OLYMPUS FACILITY)
NEW BOILER ROOM PLAN

A3

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



KEYED NOTES

1. REMOVE EXISTING BOILER, AND PIPING AS SHOWN X'D.
2. EXTEND AND CONNECT HWS/HWR PIPE LINES FROM EXISTING PIPING TO NEW BOILER. SIZE OF PIPE TO MATCH EXISTING. PROVIDE AND INSTALL NEW SHUT OFF VALVES ON HWS/HWR LINES.
3. PROVIDE AND INSTALL NEW BOILER. CONNECT TO EXISTING FLUE.
4. REMOVE EXISTING PUMP AND REPLACE WITH NEW. PROVIDE NEW SUCTION DIFFUSER, FLEXIBLE CONNECTION, ETC. CONNECT AND TRANSITION TO EXISTING PIPING AS NECESSARY. SEE DETAIL 2/M-501.)



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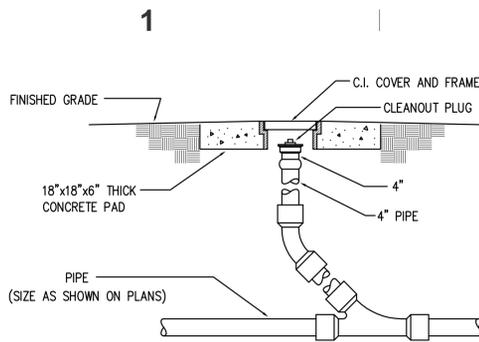
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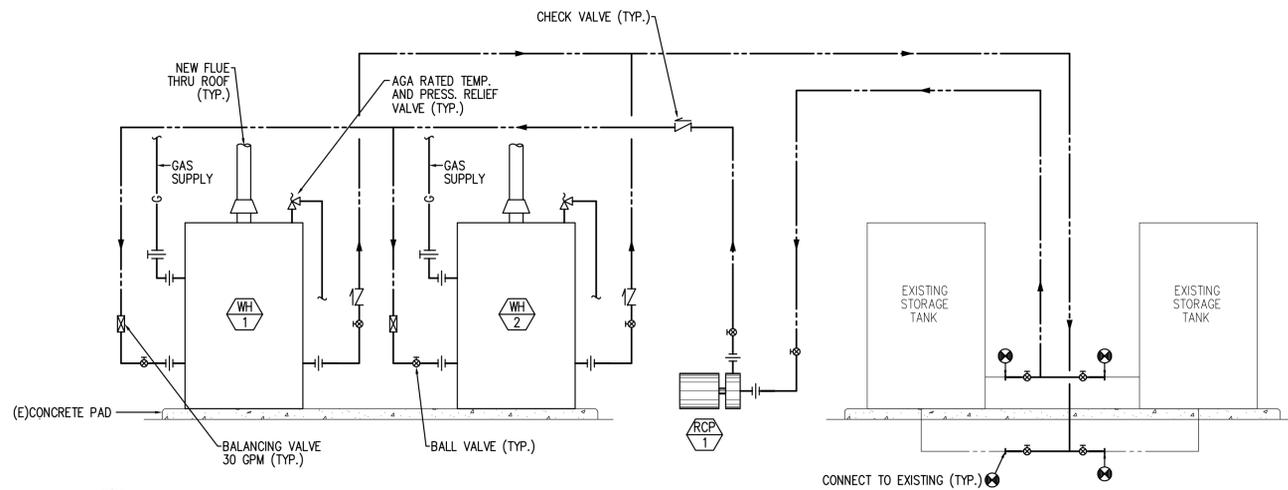
SHEET CONTENTS

**NEW / DEMOLITION
 BOILER ROOM
 PLANS**

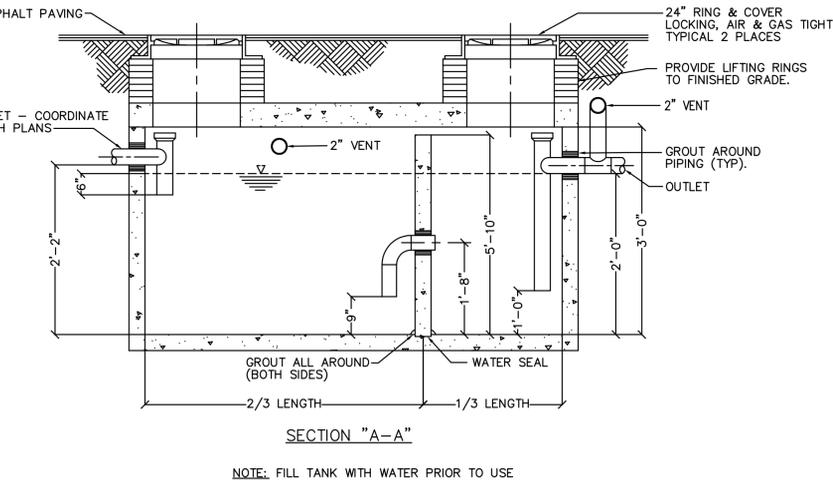
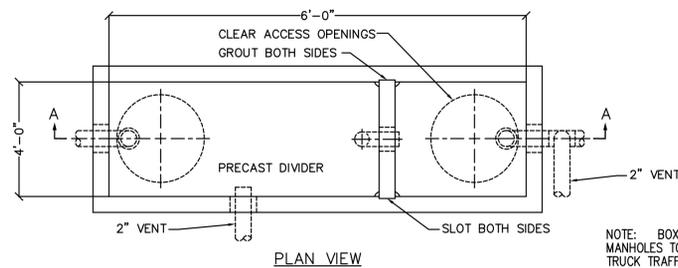
M-102



5 CLEANOUT TO GRADE DETAIL (COTG)
M-501 NO SCALE



4 WATER HEATER DETAIL
M-501 NO SCALE



3 GREASE INTERCEPTOR DETAIL
M-501 NO SCALE

BOILER SCHEDULE																	
ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	DRAFT TYPE	FUEL TYPE	INPUT LOAD (BTU/H)	OUTPUT LOAD (BTU/H)	FLUID			ELECTRICAL			PHYSICAL		NOTES	
								FLOW RATE (GPM)	ENTERING/LEAVING TEMP. (°F)	WORKING FLUID	MOTOR QUAN.	BLOWER MOTOR SIZE (HP)	MOTOR VOLT/PH/Hz	CONTROL CIRCUIT VOLT/PH/Hz	STACK DIAMETER (IN)		LENGTH/WIDTH/HEIGHT (IN)
B-1	BRYAN CLM270-W	BOILER ROOM	FORCED	FORCED	NAT. GAS	2,700,000	2,160,000	83	160/180	WATER	1	1-1/2	208/3/60	120/1/60	16	97/30/76	
B-2	BRYAN CLM270-W	BOILER ROOM	FORCED	FORCED	NAT. GAS	2,700,000	2,160,000	83	160/180	WATER	1	1-1/2	208/3/60	120/1/60	16	97/30/76	

PUMP SCHEDULE												
ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID			PUMP		ELECTRICAL			NOTES
				FLOW RATE (GPM)	WORKING FLUID	HEAD LOSS (FT)	EFFICIENCY (%)	MOTOR SIZE (HP)	MOTOR BHP (HP)	MOTOR SPEED (RPM)	VOLT/PH/Hz	
P-1	B&G 1510 1-1/4BC	BOILER ROOM	NOTE 1	83	WATER	65	56%	3	2.48	1750	208/3/60	1,2,3
P-2	B&G 1510 1-1/4BC	BOILER ROOM	NOTE 1	83	WATER	65	56%	3	2.48	1750	208/3/60	1,2,3

1. REPLACE EXISTING PUMP
2. VFD COMPATIBLE MOTOR
3. BASE-MOUNTED, END SUCTION CENTRIFUGAL PUMP

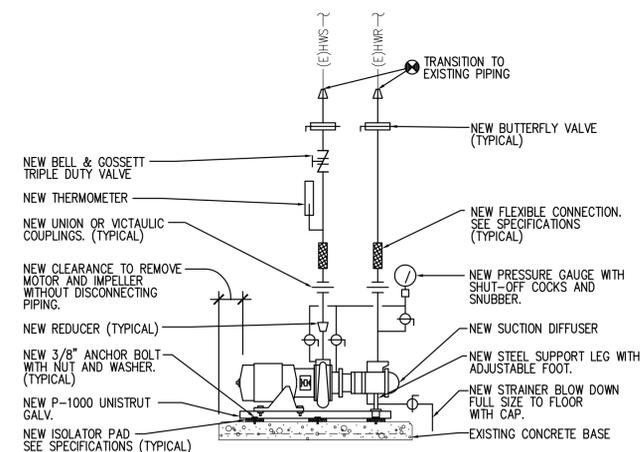
GAS FIRED WATER HEATER SCHEDULE											
ID	MANUFACTURER	MODEL NO.	SERVICE	INPUT LOAD (BTU/H)	EFFICIENCY (%)	TYPE	RECOVERY				NOTES
							RATE @ 100 F DELTA T	TANK SIZE (GAL)	FLUE SIZE (IN)	HEIGHT/DIAMETER (IN)	
WH-1	A. O. SMITH	HW-670	DOM HW	670,000	82	COPPER FIN	653	NA	12	27/56	1,2
WH-2	A. O. SMITH	HW-670	DOM HW	670,000	82	COPPER FIN	653	NA	12	27/56	1,2

1. CAPACITIES AT 0 FEET ELEVATION.
2. 115 VOLT, SINGLE PHASE.

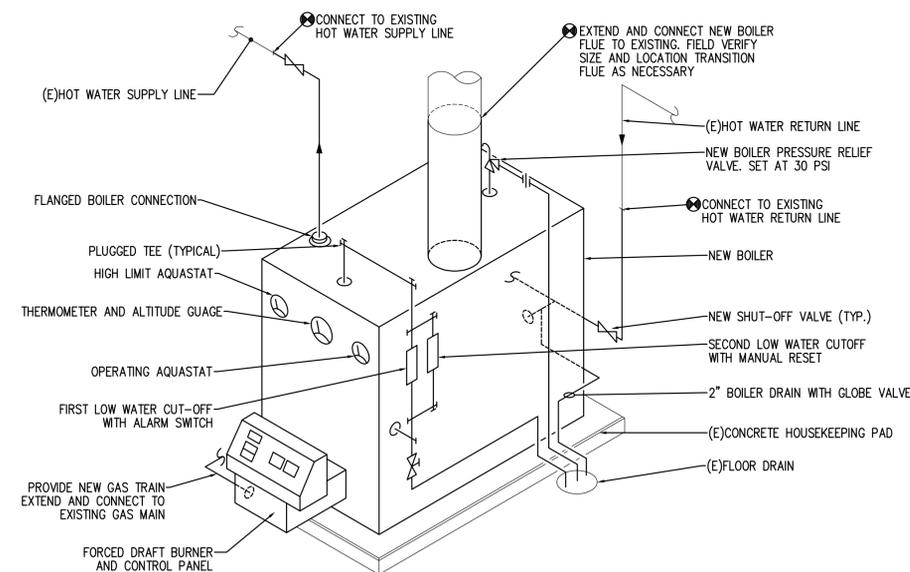
DOMESTIC PUMP SCHEDULE												
ID	MANUFACTURER	MODEL NO.	TYPE	FLUID			PUMP		ELECTRICAL			NOTES
				FLOW RATE (GPM)	WORKING FLUID	HEAD LOSS (FT)	EFFICIENCY (%)	CONSTRUCTION	MOTOR SIZE (HP)	MOTOR BHP (HP)	MOTOR SPEED (RPM)	
RCP-1	BELL & GOSSETT	1-1/2AAB-AB	CENT	60	WATER	15	53	ALL BRONZE	2-Jan	NA	1750	115/1/60

DOMESTIC EXPANSION TANK SCHEDULE											
ID	MANUFACTURER	MODEL NO.	TYPE	FLUID		PHYSICAL					NOTES
				WORKING FLUID	MIN. TANK/ACCEPTANCE (GAL)	TANK SIZE (GAL)	RELIEF VALVE (PSIG)	DIA./HEIGHT (IN)	NPT FITTING (IN)		
DET-1	BELL & GOSSETT	PT-25V	DIAPHRAGM	WATER	10.3	10.3	38	15/19	3/4	1	

1. TANK LINER SUITABLE FOR POTABLE WATER



2 PUMP CONNECTION DETAIL
M-501 NO SCALE



1 HOT WATER BOILER PIPING SCHEMATIC
M-501 NO SCALE



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REVISIONS	

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CHECKED BY: Sshepherd/ubeck
DRAWN BY: Ejuarez
CURRENT/BID DATE: 04/22/10

SHEET CONTENTS
**MECHANICAL
DETAILS &
SCHEDULES**

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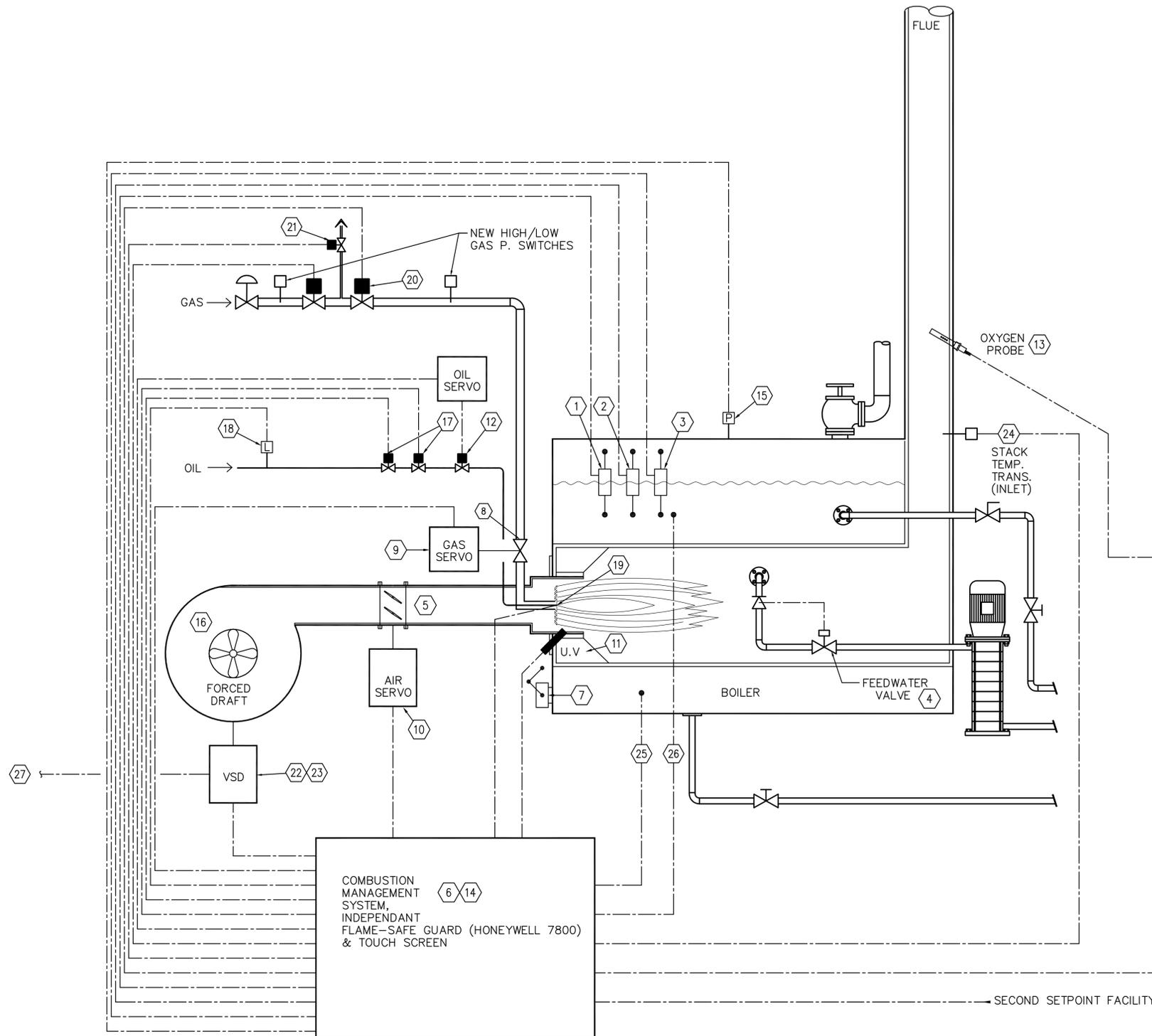
5

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KEYED NOTES

1. EXISTING WATER LEVEL CONTROLLER TO REMAIN.
2. EXISTING LOW WATER CUTOFF TO REMAIN. CONNECT TO NEW CONTROLS.
3. EXISTING AUXILIARY LOW WATER CUTOFF (WITH MANUAL RESET) TO REMAIN.
4. EXISTING AUTO FEED WATER VALVE TO REMAIN.
5. EXISTING BURNER DAMPER(S) TO REMAIN. DISCONNECT LINKAGE FROM EXISTING MODULATING MOTOR. CONNECT TO NEW SERVO.
6. NEW PLC BASED CONTROLLER MOUNTED IN NEW NEMA 12 PANEL. FLOOR MOUNT NEAR BOILER ON HOFFMAN STAND OR MANUFACTURES EQUIVALENT EQUIPMENT STAND. COORDINATE LOCATION WITH OWNER.
7. REMOVE EXISTING MODULATING MOTOR AND LINKAGE TO BURNER DAMPER, GAS VALVE AND OIL VALVE.
8. REPLACE EXISTING OPERATING GAS VALVE WITH NEW GAS VALVE WITH SERVO.
9. REPLACE EXISTING OPERATING GAS VALVE WITH NEW GAS VALVE WITH SERVO.
10. NEW SERVO FOR BURNER DAMPER.
11. NEW SCANNER. (SELF CHECKING - SEE SPEC.)
12. OIL VALVE & SERVO.
13. NEW OXYGEN SAMPLING PROBE.
14. 10" PANEL VIEW PLUS TOUCH SCREEN.
15. NEW PRESSURE TRANSMITTER.
16. EXISTING BURNER FAN TO REMAIN.
17. CONNECT EXISTING OIL SAFETY SHUTOFF VALVES TO NEW CONTROLLER.
18. NEW LOW OIL PRESSURE SAFETY SWITCH.
19. EXISTING IGNITER AND PILOT TO REMAIN. CONNECT TO NEW CONTROLLER.
20. EXISTING GAS SAFETY SHUTOFF VALVES. CONNECT TO NEW CONTROLLER.
21. EXISTING VENT VALVE TO REMAIN. CONNECT TO NEW CONTROLLER.
22. NEW VSD MOUNTED IN NEW NEMA 12 PANEL FLOOR MOUNT NEAR BOILER ON HOFFMAN STAND OR MANUFACTURES EQUIVALENT EQUIPMENT STAND. COORDINATE LOCATION WITH OWNER.
23. AIR CONDITIONED ENTRANCE PANEL.
24. STACK TEMPERATURE TRANSMITTER TO CONTROL SYSTEM (INLET).
25. MUD DRUM TEMPERATURE TRANSMITTER.
26. STEAM DRUM TEMPERATURE TRANSMITTER.
27. SINGLE POINT POWER CONNECTION WITH STEP DOWN TRANSFORMER TO BOILER CONTROL PANEL.



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DRAPER PRISON
Boiler Replacement
Department of Corrections
Draper, Utah

GENERAL NOTES

1. ALL LIMITS AND ALARMS TO BE ANNUNCIATED.
2. STRIP OUT ALL EXISTING WIRING AND CONTROLS PROVIDE ALL NEW WIRING AND BOILER CONTROL WIRING.

REVISIONS

NO.	DESCRIPTION

VBFA PROJECT #: 09393
CHECKED BY: Sshepherd/jbeck
DRAWN BY: Ejuarez
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SHEET CONTENTS

STEAM BOILER CONTROL SCHEMATIC (B-2 WATER TUBE)

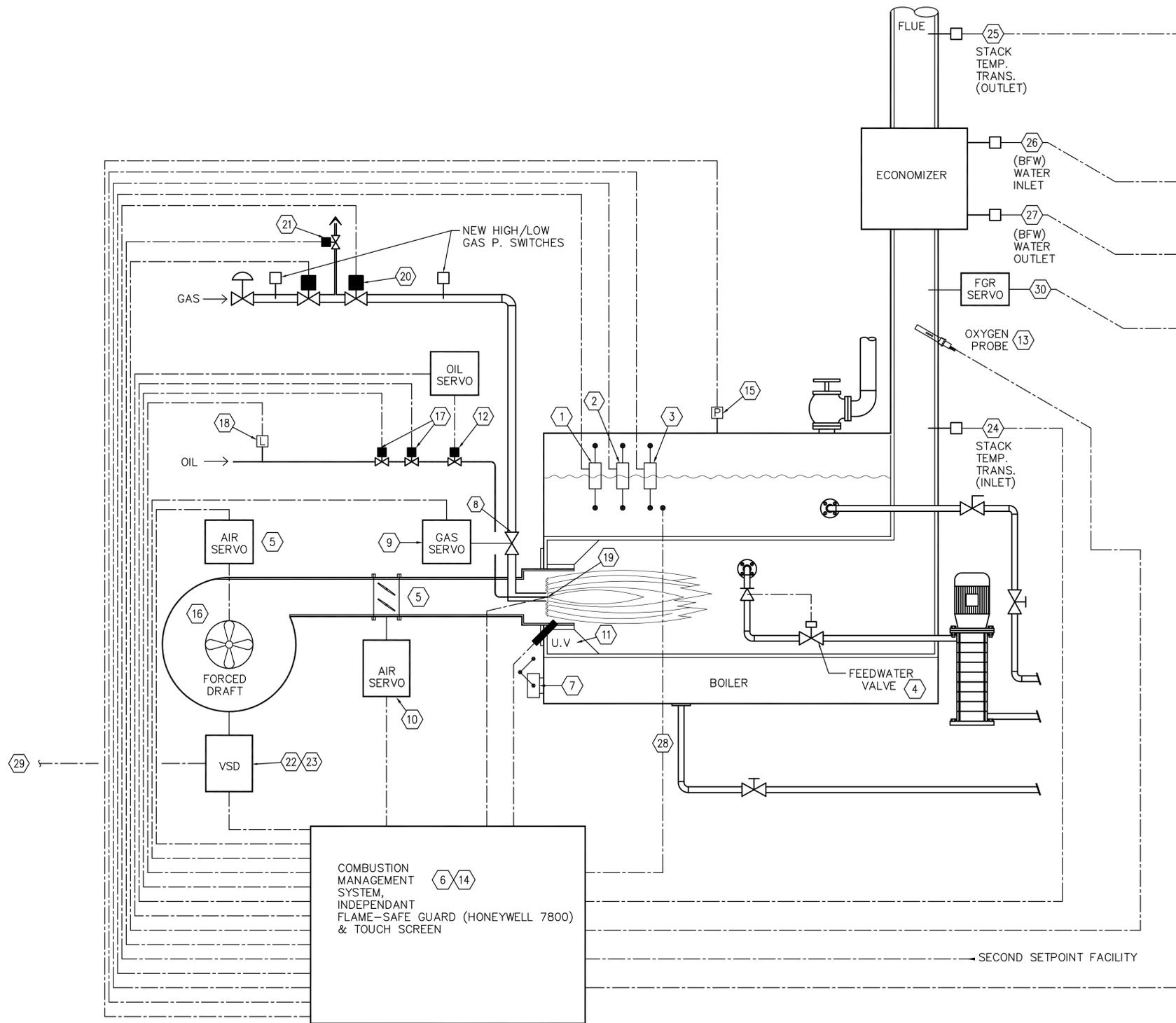
M-701

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KEYED NOTES

1. EXISTING WATER LEVEL CONTROLLER TO REMAIN.
2. EXISTING LOW WATER CUTOFF TO REMAIN. CONNECT TO NEW CONTROLS.
3. EXISTING AUXILIARY LOW WATER CUTOFF (WITH MANUAL RESET) TO REMAIN.
4. EXISTING AUTO FEED WATER VALVE TO REMAIN.
5. EXISTING BURNER DAMPER(S) TO REMAIN. DISCONNECT LINKAGE FROM EXISTING MODULATING MOTOR. CONNECT TO NEW SERVO.
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9. REPLACE EXISTING OPERATING GAS VALVE WITH NEW GAS VALVE WITH SERVO.
10. NEW SERVO FOR BURNER DAMPER.
11. NEW SCANNER. (SELF CHECKING - SEE SPEC.)
12. OIL VALVE & SERVO.
13. NEW OXYGEN SAMPLING PROBE.
14. 10" PANEL VIEW PLUS TOUCH SCREEN.
15. NEW PRESSURE TRANSMITTER.
16. EXISTING BURNER FAN TO REMAIN.
17. CONNECT EXISTING OIL SAFETY SHUTOFF VALVES TO NEW CONTROLLER.
18. NEW LOW OIL PRESSURE SAFETY SWITCH.
19. EXISTING IGNITER AND PILOT TO REMAIN. CONNECT TO NEW CONTROLLER.
20. EXISTING GAS SAFETY SHUTOFF VALVES. CONNECT TO NEW CONTROLLER.
21. EXISTING VENT VALVE TO REMAIN. CONNECT TO NEW CONTROLLER.
22. NEW VSD MOUNTED IN NEW NEMA 12 PANEL. FLOOR MOUNT NEAR BOILER ON HOFFMAN STAND OR MANUFACTURES EQUIVALENT EQUIPMENT STAND. COORDINATE LOCATION WITH OWNER.
23. AIR CONDITIONED ENTRANCE PANEL.
24. STACK TEMPERATURE TRANSMITTER TO CONTROL SYSTEM (INLET).
25. STACK TEMPERATURE TRANSMITTER TO CONTROL SYSTEM (OUTLET).
26. BOILER FEED WATER TEMPERATURE INLET TRANSMITTER TO CONTROLLER.
27. BOILER FEED WATER TEMPERATURE OUTLET TRANSMITTER TO CONTROLLER.
28. STEAM DRUM TEMPERATURE TRANSMITTER.
29. SINGLE POINT POWER CONNECTION WITH STEP DOWN TRANSFORMER TO BOILER CONTROL PANEL.
30. NEW SERVO FOR FGR.



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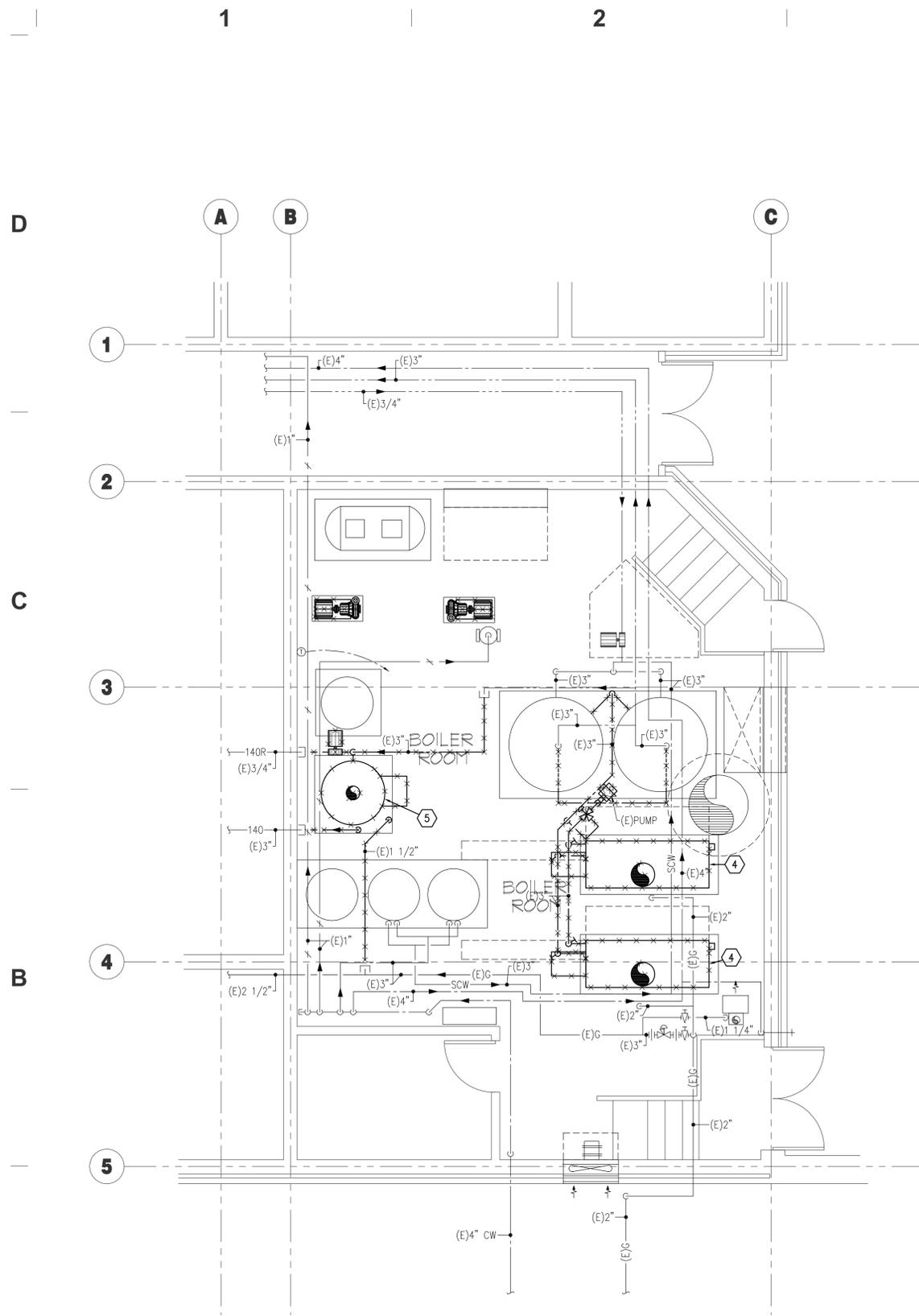
1. ALL LIMITS AND ALARMS TO BE ANNUNCIATED.
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STEAM BOILER CONTROL SCHEMATIC (B-3 FIRE TUBE)

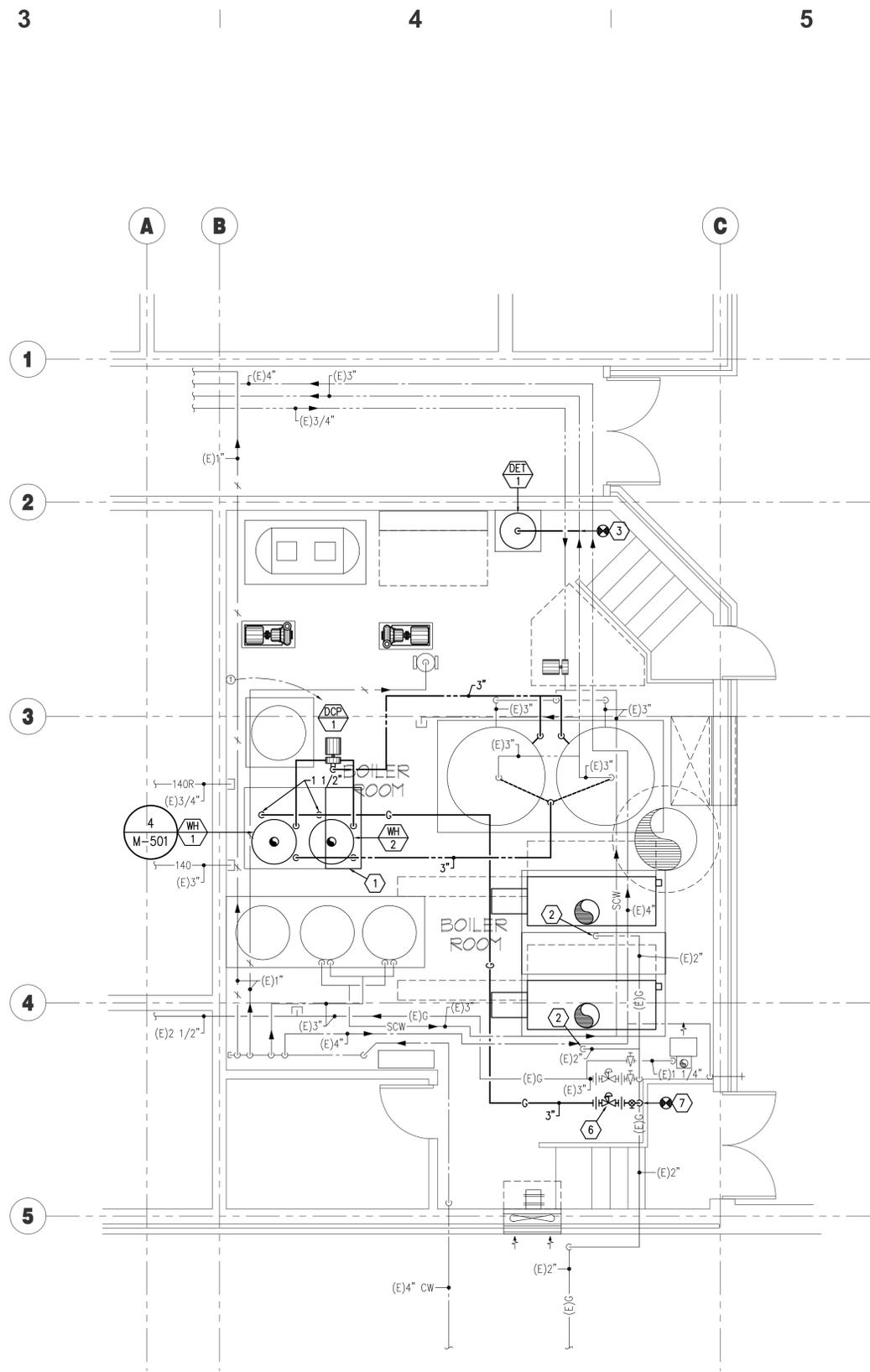
M-702



(OLYMPUS FACILITY)
BOILER ROOM DEMOLITION PLUMBING PLAN

A1

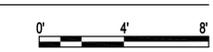
SCALE: 1/4" = 1'-0"



(OLYMPUS FACILITY)
NEW BOILER ROOM PLUMBING PLAN

A3

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



GENERAL NOTES

1. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT ROUTING AND COORDINATE WITH ALL OTHER TRADES.
2. WASTE PIPING SHOWN IS TO BE INSTALLED BELOW THE FLOOR UNLESS NOTED OTHERWISE.
3. INSTALL DRAINAGE PIPING EXITING THE BUILDING 48" MINIMUM BELOW THE FINISHED GRADE.
4. PROVIDE 2" MINIMUM WASTE AND VENT PIPING BELOW GRADE.
5. LOCATE VENTS THROUGH THE ROOF A MINIMUM OF 25' AWAY FROM AIR INTAKES AND OPENINGS INTO THE BUILDING.
6. LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN HAVE BEEN TAKEN FROM EXISTING DRAWINGS AND ARE APPROXIMATE ONLY. FIELD VERIFY EXACT LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO STARTING ANY WORK.
7. FIELD DETERMINE EXACT LOCATION, SIZE AND ELEVATION OF ALL EXISTING PIPING INSIDE OF THE BUILDING AT SPECIFIED CONNECTION POINTS PRIOR TO STARTING ANY WORK.
8. SAW CUT EXISTING FLOOR AS REQUIRED TO INSTALL NEW PIPING BELOW GRADE. PATCH AND REPAIR TO MATCH EXISTING.
9. SAW CUT OR CORE DRILL ALL NEW PENETRATIONS THROUGH EXISTING MASONRY CONSTRUCTION.
10. PATCH AND REPAIR ALL EXISTING SURFACES DAMAGED BY NEW CONSTRUCTION TO MATCH EXISTING, UNLESS NOTED OTHERWISE.

KEYED NOTES

1. EXTEND 4" CRETE HOUSEKEEPING PAD TO ACCOMMODATE NEW EQUIPMENT.
2. EXTEND AND CONNECT NEW GAS LINE FROM EXISTING TO NEW GAS TRAIN.
3. CONNECT 3/4" TO EXISTING HOT WATER LINE.
4. DEMO EXISTING BOILER AND ASSOCIATED DOMESTIC WATER PIPING AS SHOWN.
5. DEMO EXISTING WATER HEATER AND ASSOCIATED PIPING AS SHOWN.
6. NEW GAS PRESSURE REGULATOR VENT TO OUTSIDE.
7. CONNECT TO EXISTING 2" GAS LINE.



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SHEET CONTENTS
BOILER ROOM DEMO / NEW PLUMBING PLAN

P-102

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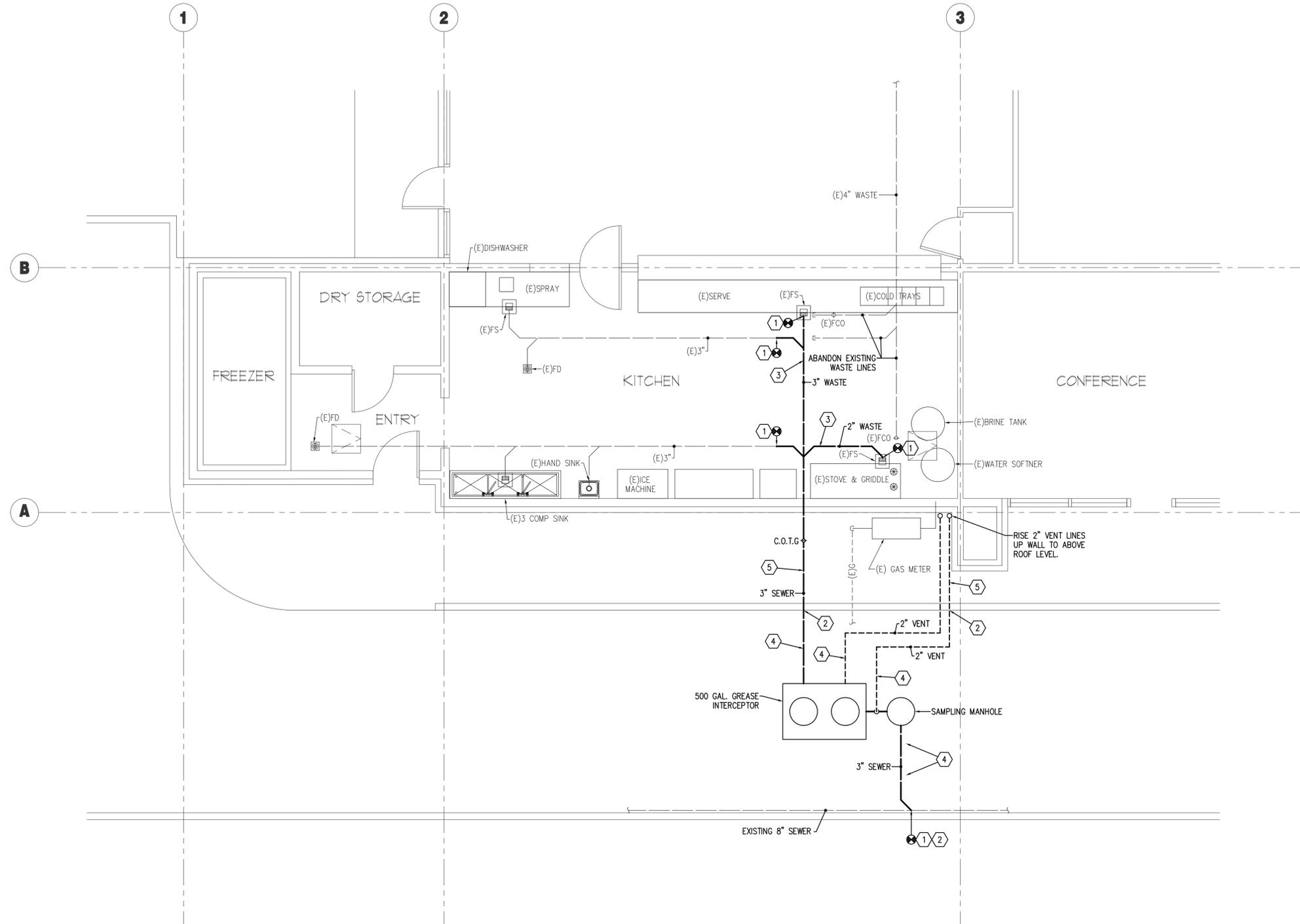
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(ORANGE STREET FACILITY)
 KITCHEN ROOM PLUMBING PLAN



A3

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



KEYED NOTES

- CONNECT TO EXISTING WASTE. FIELD DETERMINE EXACT LOCATION AND ELEVATION.
- REMOVE AND REPLACE EXISTING CURB AND GUTTER TO MATCH EXISTING.
- SAW CUT FLOOR AS REQUIRED FOR NEW PIPING. REPLACE FLOOR TILE. TO MATCH EXISTING.
- SAW CUT EXISTING ASPHALT FOR NEW PIPING PATCH AND REPAIR TO MATCH EXISTING.
- PATCH AND REPAIR PLANTING TO MATCH EXISTING.



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- WASTE PIPING SHOWN IS TO BE INSTALLED BELOW THE FLOOR UNLESS NOTED OTHERWISE.
- INSTALL DRAINAGE PIPING EXITING THE BUILDING 48" MINIMUM BELOW THE FINISHED GRADE.
- PROVIDE 2" MINIMUM WASTE AND VENT PIPING BELOW GRADE.
- LOCATE VENTS THROUGH THE ROOF A MINIMUM OF 25' AWAY FROM AIR INTAKES AND OPENINGS INTO THE BUILDING.
- LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN HAVE BEEN TAKEN FROM EXISTING DRAWINGS AND ARE APPROXIMATE ONLY. FIELD VERIFY EXACT LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO STARTING ANY WORK.
- FIELD DETERMINE EXACT LOCATION, SIZE AND ELEVATION OF ALL EXISTING PIPING INSIDE OF THE BUILDING AT SPECIFIED CONNECTION POINTS PRIOR TO STARTING ANY WORK.
- SAW CUT EXISTING FLOOR AS REQUIRED TO INSTALL NEW PIPING BELOW GRADE. PATCH AND REPAIR TO MATCH EXISTING.
- SAW CUT OR CORE DRILL ALL NEW PENETRATIONS THROUGH EXISTING MASONRY CONSTRUCTION.
- PATCH AND REPAIR ALL EXISTING SURFACES DAMAGED BY NEW CONSTRUCTION TO MATCH EXISTING, UNLESS NOTED OTHERWISE.

DRAPER PRISON
 Boiler Replacement

Department of Corrections
 Draper, Utah

REVISIONS

VBFA PROJECT #: 09393
 CHECKED BY: Sshepherd/jbeck
 DRAWN BY: Ejuarez
 CURRENT/BID DATE: 04/22/10

SHEET CONTENTS
 KITCHEN ROOM
 PLUMBING PLAN

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ELECTRICAL SYMBOL SCHEDULE		
SYMBOL	DEVICE/FIXTURE DESCRIPTION	NOTES
	FUSED DISCONNECT SWITCH	
	MECHANICAL EQUIPMENT	
WIRING IN CND IN CEILING OR WALL		
	CONDUIT TURNED UP	
	CIRCUIT HOME RUN TO PANEL. 3 CONDUCTORS INCLUDING THE EQUIPMENT GROUND CONDUCTOR.	
	CIRCUIT HOME RUN TO PANEL. NUMBER OF ARROW HEADS INDICATE NUMBER OF CIRCUITS. SLASH MARKS INDICATE NUMBER OF CONDUCTORS. EX. TWO CIRCUITS, FOUR CONDUCTORS, COMMON NEUTRAL AND THREE CIRCUITS WITH 7 CONDUCTORS (SEPERATE NEUTRAL PER CIRCUIT). BOTH EX. INCLUDE AN EQUIP. GROUND.	
	WIRING IN CND IN GROUND OR FLOOR	
	CONDUIT TURNED DOWN	
INSTALL CONDUIT AS DRAWN ON THE PLANS. THE ONLY EXCEPTIONS ARE THOSE AUTHORIZED IN WRITING BY THE ENGINEER. ALL CONDUITS SHALL INCLUDE AN EQUIPMENT GROUND CONDUCTOR SIZED PER NEC.		
NOTES/ABBREVIATIONS		
AFF - ABOVE FINISHED FLOOR, AFG - ABOVE FINISHED GRADE, AIC - AMPS INTERRUPTING CAPACITY, BC - BARE COPPER, BFC - BELOW FINISHED CEILING, BFG - BELOW FINISHED GRADE, CND. OR C. - CONDUIT, CLG - INSTALLED IN CEILING, CT - CURRENT TRANSDUCER, DFA - DROP FROM ABOVE, EC - ELECTRICAL CONTRACTOR, EV - ELECTRO VOICE, GC - GENERAL CONTRACTOR, GND - GROUND, MC - MECHANICAL CONTRACTOR, MCA - MINIMUM CIRCUIT AMPS, P.C. - PLUMBING CONTRACTOR, POC - POINT OF CONNECTION, POS - POINT OF SALES, RMC - RIGID METAL CONDUIT, SCA - SHORT CIRCUIT AMPERES, TC - TEMP. CONTROL CONTRACTOR, UNO - UNLESS NOTED OTHERWISE, VA - VOLT/AMPS, WF - VERIFY IN FIELD, WP - WEATHER PROOF/NEMA 3R		

GENERAL NOTES

- THE ELECTRICAL SYSTEMS DEFINED BY THESE PLANS AND SPECIFICATIONS ARE TO BE CONSTRUCTED AS COMPLETE AND OPERABLE SYSTEMS AND SHALL BE BID WITH THIS INTENT. THE CONTRACTOR SHALL VISIT THE SITE, READ ALL THE RELEVANT DOCUMENTS AND BECOME FAMILIAR WITH THE TYPE OF CONSTRUCTION AND WORK TO BE ACCOMPLISHED. SHOULD ANY ERROR, OMISSION OR CONFLICT EXIST IN EITHER THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING BEFORE SUBMITTING HIS BID PRICE SO A CHANGE CAN BE ISSUED IN A PRE-BID ADDENDUM. OTHERWISE, THE CONTRACTOR AND/OR EQUIPMENT SUPPLIER SHALL SUPPLY THE PROPER MATERIALS AND LABOR TO INSTALL COMPLETE AND OPERABLE SYSTEMS AT THEIR OWN EXPENSE. WHEN EACH ELECTRICAL SYSTEM IS COMPLETE, THE CONTRACTOR SHALL TEST AND CONFIRM IT'S PROPER OPERATION. ANY INCOMPLETE SYSTEM SHALL BE MADE COMPLETE AND OPERABLE.
- THE MECHANICAL PLANS ARE CONSIDERED A PART OF THE ELECTRICAL DOCUMENTS SO FAR AS THEY APPLY. THE ELECTRICAL CONTRACTOR SHALL REFER TO AND COORDINATE WITH THEM. NO EXTRA COST SHALL BE ALLOWED FOR FAILURE TO COORDINATE THE CONTRACT DOCUMENTS WITH OTHER TRADES AND/OR IF EQUIPMENT DIMENSIONS ARE GREATER THAN SPECIFIED AND/OR DIMENSIONED ON THE PLANS.
- NO ADDITIONS TO THE CONTRACTOR BID WILL BE ALLOWED FOR CHANGES MADE NECESSARY BY INTERFERENCE WITH OTHER WORK.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE EQUIPMENT, MATERIALS AND LABOR FOR THE CONNECTIONS OF ALL EQUIPMENT SHOWN ON THE PLANS INCLUDING MECHANICAL.
- THIS PROJECT IS TO BE INSTALLED IN STRICT ACCORDANCE WITH LOCAL, DFM AND THE NEC CODES. IF AT ANY TIME DURING CONSTRUCTION, OR AFTER, SOMETHING IS FOUND TO BE INSTALLED IN VIOLATION OF THE CODES LISTED ABOVE, IT SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.
- THE EC SHALL INSTALL A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT RUN. CONDUIT SHALL NOT BE USED AS AN EQUIPMENT GROUNDING CONDUCTOR. THE EC SHALL GROUND THE ELECTRICAL SYSTEM IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.
- ELECTRICAL CONTRACTOR SHALL CONFIRM MINIMUM CODE (NEC) WORKING CLEARANCE BEFORE INSTALLING ANY ELECTRICAL PANELS OR CABINETS AND SHALL MOVE THE PANELS AT HIS EXPENSE IF REJECTED BY AN INSPECTOR. IF CLEARANCE IS NOT POSSIBLE, THE DESIGNER SHALL BE NOTIFIED IMMEDIATELY IN WRITING.
- THE CONTRACTOR SHALL ALLOW THE MOVEMENT, BEFORE ROUGH-IN, OF ANY ELECTRICAL PANEL, DEVICE, LUMINAIRE, ETC. A DISTANCE OF 10 FEET WITHOUT REQUIRING ADDITIONAL COST TO THE PROJECT.
- THE ELECTRICAL CONTRACTOR SHALL SECURE ALL CONDUIT TO THE STRUCTURE AS IT IS SET IN PLACE USING INDUSTRY STANDARD METHODS AND PRACTICES.
- TO ASSURE ALL DEVICES ARE RIGIDLY SET, THE ELECTRICAL CONTRACTOR SHALL SECURE ALL DEVICE BOXES WITH BRACKETS, HANGERS, ETC. DESIGNED FOR THE APPLICATION. ANY DEVICE BOXES NOT SECURED WILL BE MADE SECURE AT THE CONTRACTORS EXPENSE.
- LENGTHS OF FLEXIBLE CONDUIT GREATER THAN 48 INCHES SHALL NOT BE INSTALLED ON THIS PROJECT. FLEXIBLE CONDUIT SHALL NOT BE CONCEALED.
- DURING CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL REMOVE, REROUTE, AND/OR RELOCATE ANY EXISTING ELECTRICAL EQUIPMENT THAT CONFLICTS WITH THE REMODEL OR ADDITION. ALL SYSTEMS SHALL BE OPERABLE AT THE COMPLETION OF THE PROJECT.
- THE ELECTRICAL CONTRACTOR SHALL MAINTAIN ELECTRICAL CONTINUITY TO REMAINING EQUIPMENT WHEN ANY EXISTING ELECTRICAL EQUIPMENT IS REMOVED.
- ALL COSTS FROM THE USE OF THE EXISTING PANEL SHALL BE INCLUDED IN THE CONTRACTOR'S BASE BID, I.E. CHANGE IN BREAKER SIZE, ETC.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE EQUIPMENT SUPPLIER ON THE EXACT LOCATIONS OF ALL EQUIPMENT AND ELECTRICAL CONNECTIONS PRIOR TO ROUGH-IN. THE EC SHALL MAKE THE FINAL CONNECTION TO ALL EQUIPMENT.



VAN BOERUM & FRANK ASSOCIATES INC. CONSULTING ENGINEERS

WWW.VBFA.COM

330 South 300 East Salt Lake City, UT 84111 801.530.3148 T 801.530.3150 F

Original drawings remain the property of the Engineer and as such the Engineer retains total ownership and control. The design represented by these drawings are sold to the client for a one time use, unless otherwise agreed upon in writing by the Engineer. Van Boerum & Frank Assoc., 2010

DRAPER PRISON Boiler Replacement Department of Corrections Draper, Utah

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SHEET CONTENTS

BOILER ROOM PLAN

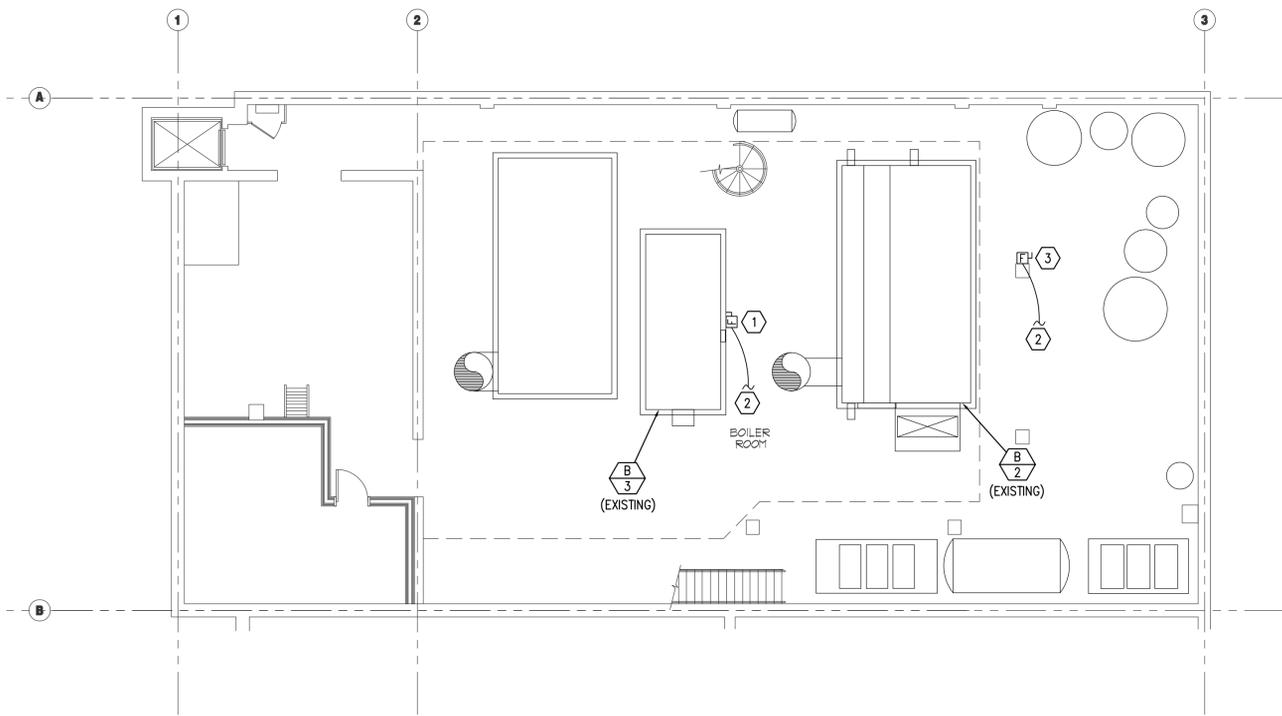
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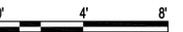


(DRAPER PRISON BOILER PLANT) BOILER ROOM ELECTRICAL PLAN



A3

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



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2

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4

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KEYED NOTES



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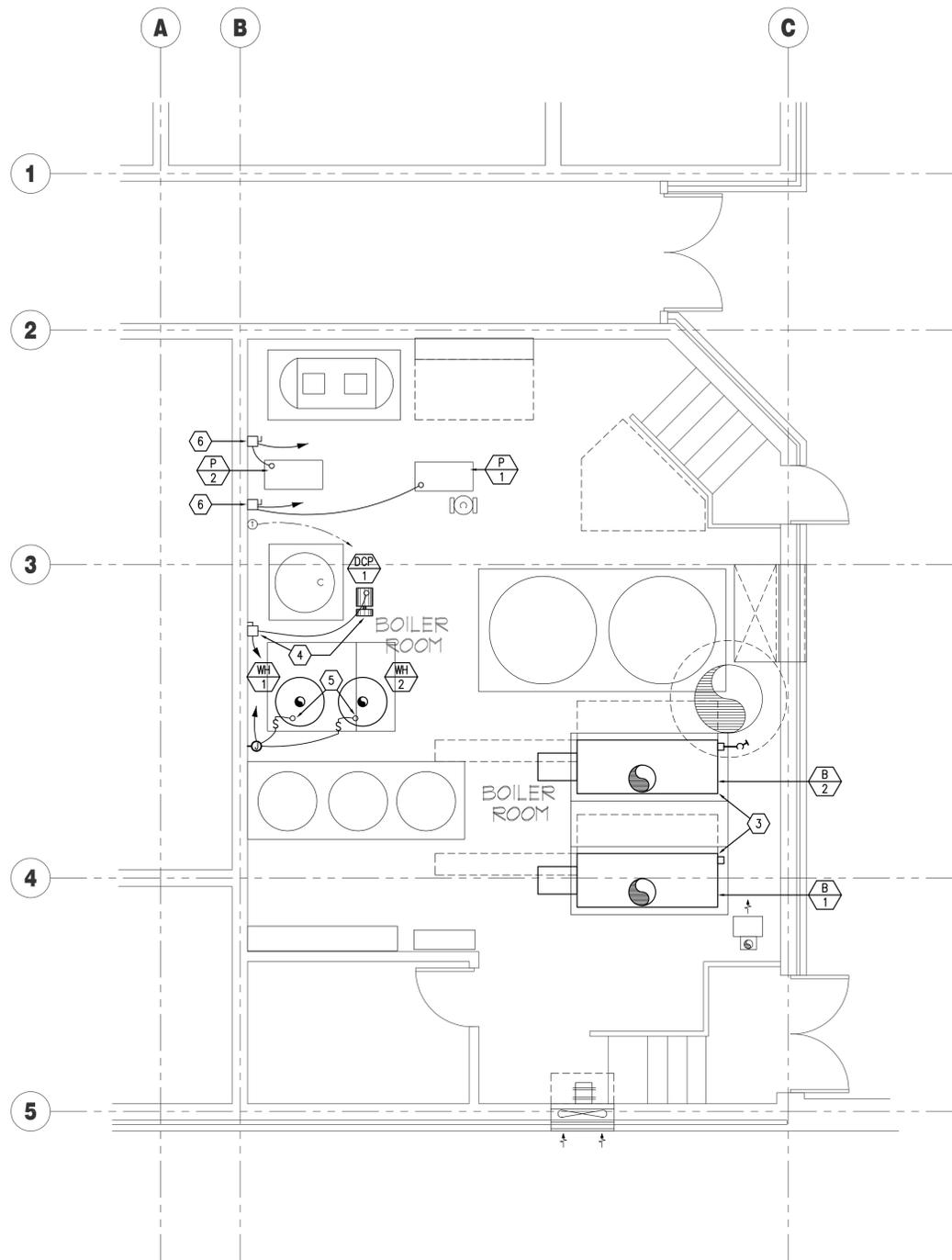
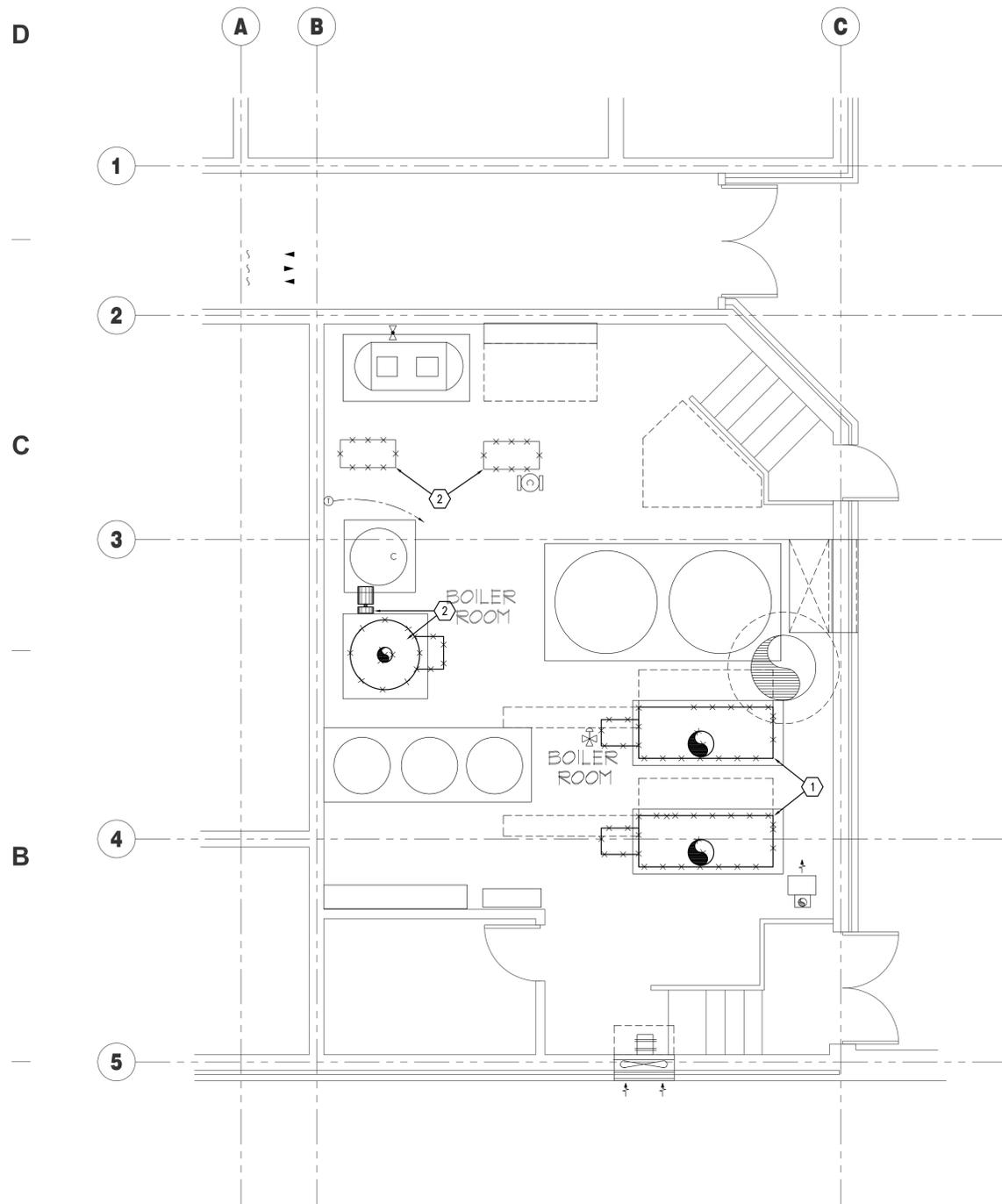
1. DISCONNECT POWER FROM THE EXISTING BOILER SO THAT IT MAY BE REMOVED. RETAIN THE POWER EQUIPMENT FOR RE-CONNECTION TO THE NEW BOILER.
2. DISCONNECT POWER FROM THE EXISTING WATER HEATER, CIRCULATION PUMP, AND PUMPS SO THEY MAY BE REMOVED. EXISTING CIRCUITS ARE TO BE RE-USED. PROTECT FROM DAMAGE DURING DEMOLITION.
3. RECONNECT ALL EXISTING POWER TO THE NEW BOILER.
4. USE EXISTING CIRCUIT AND PROVIDE A NEW DISCONNECT FOR DCP-1. MAKE CONNECTION FROM THE DISCONNECT TO DCP-1. FIELD CONFIRM EXISTING CONDITIONS PRIOR TO BID.
5. USE EXISTING CIRCUIT FOR WH-1 AND WH-2. MAKE CONNECTION TO WH-1 AND WH-2. FIELD CONFIRM EXISTING CONDITIONS PRIOR TO BID. PROVIDE A NEW 1 HP RATED TOGGLE SWITCH AS A DISCONNECT FOR EACH UNIT. COORDINATE WITH MC.
6. USE EXISTING CIRCUITS FOR PUMPS 1 AND 2. PROVIDE A NEW DISCONNECT FOR EACH PUMP AND MAKE THE CONNECTION FROM THE DISCONNECTS TO EACH PUMP.

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Van Boerum & Frank Assoc., 2010

DRAPER PRISON Boiler Replacement

Department of Corrections Draper, Utah



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(OLYMPUS FACILITY) BOILER ROOM ELECTRICAL DEMOLITION PLAN

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



A3

(OLYMPUS FACILITY) NEW BOILER ROOM ELECTRICAL PLAN

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



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