Addendum #1 to IFB #081662017
Burnham Boiler Replacement
McHenry County College

This Addendum is in response to the inquiries from potential bidders. This Addendum constitutes changes to the specifications as sent out in the original IFB and other pertinent information shared with all vendors. All changes and information listed on this Addendum should be considered as the official modifications to the specifications and should be included in your proposal with these in mind.

Please acknowledge your receipt of this addendum by attaching a signed copy of the addendum with your proposal response.

Received and acknowledged by: _____

---

1. Is there a Mandatory pre bid walk thru for the above mentioned job? No

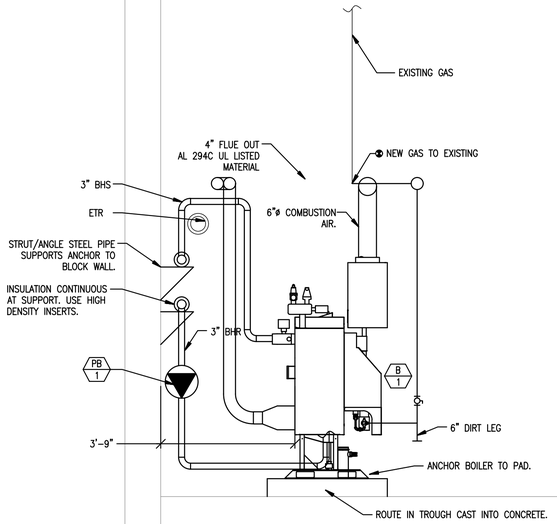
2. Will a bid bond be required? No

3. Page 8, instructions to bidders, makes reference to providing a bid for Snow Plowing and Removal Services. References to "Snow Plowing" should be "Burnham Boiler".

4. I'm wanting to follow up on the project mentioned and was wondering if there were any union requirements. Must pay prevailing wages as listed in the bid documents.

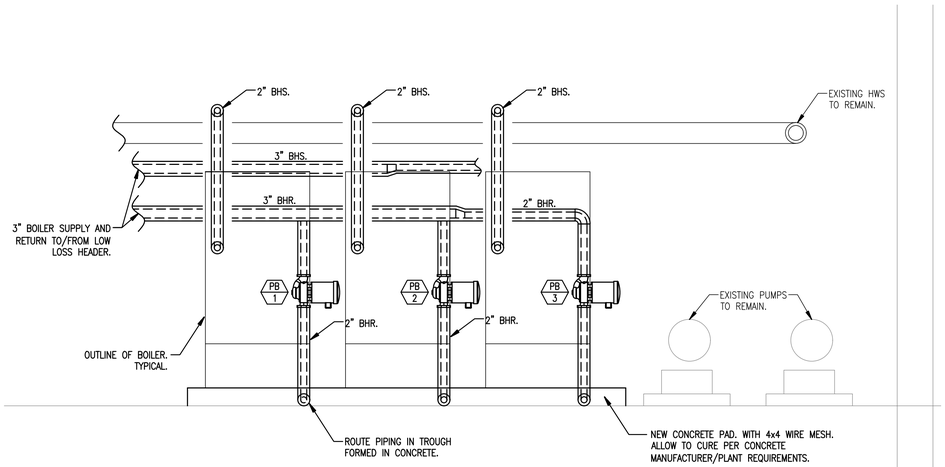
5. Is there an estimated project value available? No

6. I am requesting additional information to 5.0 Bid Specifications for the replacement of the three Burnham boilers in Building B.
   a. What replacement brand of boiler is required, what model, and what size? Print set shows schedules that list brands, sizes, and requirements on page 10. KN600 is base bid as noted on revised plan.
   b. Are the new boilers to utilize combustion air directly into each boiler? Yes.
   c. Who is the Trane contact for the BAS system that is installed? Pat Heneberry at Trane: 630-930-2551
   d. Who is the current chemical water treatment company/contractor? HOH Water Technology out of Palatine, Alex is our tech.
   e. Are the existing combustion air opening(s) to be "blanked-off" to accommodate the new "high efficiency" boilers? No, because we still need combustion air for other boilers in the area. (See item f below.) Now noted on revised plan.
   f. Are there any other gas fired appliances in the same room as the boilers that will utilize the combustion air? If so, what are the BTU input of each appliance? No. The new boilers are to each have a dedicated combustion air intake from the roof for each new boiler. See item #6 on page 7 of the print set. Noted on revised plan. (There are 4 other boilers in the room, but they are a different system entirely and utilize combustion air from existing combustion air dampers.)
   g. Is insulation on the new piping required? Yes, per item #7 on page 7 of the print set.
   h. It is indicated by the 8th bulleted item that flow reports shall be submitted prior to acceptance of the project? Who's responsibility will it be to pay for and submit these reports prior to an acceptance of the project? It should be included in the job since it is listed on the engineer's prints Item #1 on page 6 of the print set shows the flow and water quality testing the contractor shall perform prior to demolition, along with providing a detailed report. It is part of the contractor's scope of work. It should be arranged by the contractor, so it should be included in the contractor's pricing. Flow reports of the completed work will also be the responsibility of the contractor. Also now noted on revision pages attached.



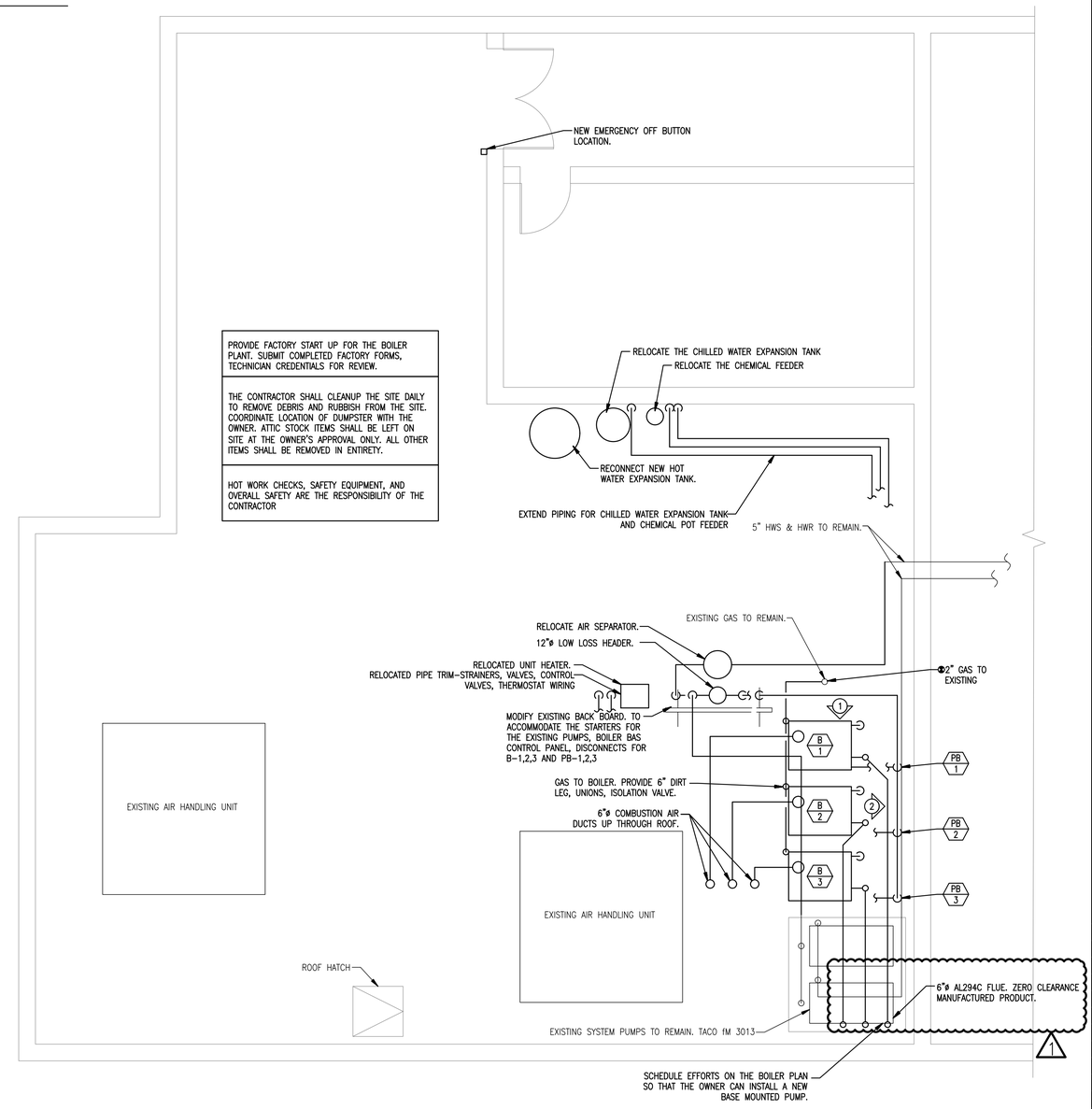
1 ELEVATION AT SIDE OF BOILERS

1/2" = 1'-0"



2 ELEVATION AT BEHIND BOILERS

1/2" = 1'-0"



3 MECHANICAL NEW WORK BOILER ROOM PLAN

1/4" = 1'-0"

NEW WORK NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND OPERATING SYSTEM. ENSURE THAT ALL EQUIPMENT ASSOCIATED WITH THE BOILER PLANT IS FUNCTIONING APPROPRIATELY.
2. PERSONNEL PERFORMING WORK SHALL BE EXPERIENCED TRADESMEN TRAINED FOR THE TASK BEING PERFORMED. HIRE APPROPRIATE TRADED TO PERFORM ELECTRICAL, CONTROLS, CONCRETE, ROOFING, ETC.
3. PROVIDE FLUE CONSTRUCTED OF AL294C. SYSTEM SHALL BE UL LISTED. PERFORM A LEAKAGE TEST AND INCLUDE REPORT WITH OPERATIONS AND MAINTENANCE MANUEL.
4. PROVIDE START UP SERVICES. EMPLOY A FACTORY CERTIFIED TECHNICIAN TO PERFORM START UP TASKS AND COMPLETE THE MANUFACTURER'S START UP CHECKLIST.
5. EXTEND THE EXISTING CONTROLS TO ACCOMMODATE SEQUENCE OF OPERATIONS. PROVIDE ALL NECESSARY WIRING, INTERFACE CARDS, RELAYS, SENSORS AND SWITCHES.
6. PROVIDE THREE EQUALLY SIZED BOILERS WITH DEDICATED BOILER PUMPS, INDIVIDUAL FLUES AND COMBUSTION AIR, NEW 6" PAD CONDENSATE DRAIN WITH NEUTRALIZATION KIT, FACTORY CONTROLS AND INTERFACE CARD TO COMMUNICATE WITH THE EXISTING BUILDING AUTOMATION SYSTEM.
7. PIPING, UNIONS, VALVES, PUMPS HOUSING AND ALL HOT SURFACE SHALL BE INSULATED WITH FIBERGLASS AND ALL SERVICE JACKETS. PROVIDE REMOVABLE COMPONENTS AT VALVES, UNIONS, ETC. PROVIDE HIGH DENSITY INSERTS AT ALL PIPING SUPPORTS.
8. ADEQUATELY SUPPORT PIPING, PUMPS AND EQUIPMENT FROM WALL, STRUCTURE ABOVE, OR FLOOR.
9. RELOCATE STARTERS FOR EXISTING SYSTEM PUMPS. EXTEND POWER AND CONTROLS TO ACCOMMODATE.
10. PIPING SHALL BE COPPER WITH SOLDER JOINTS OR STEEL PIPING WITH THREADED JOINTS.
11. ALL COMPONENTS SHALL BE RATED FOR 125 PSIG.
12. PROVIDE BRASS BALL VALVES WITH EXTENDED STEMS THAT PROTRUDE BEYOND THE INSULATION. VALVES SHALL BE FULL PORT, TWO PIECE WITH STAINLESS STEEL BALL.
13. PROVIDE VALVE TAGS FOR EACH NEW ISOLATION VALVES. TAGS SHALL BE BRASS WITH STAMPED LETTERS OR NUMBERS AND BEADED CHAIN.
14. PROVIDE STENCILS TO LABEL PIPING AND IDENTIFY GLOW DIRECTION.
15. PROVIDE PLASTIC EQUIPMENT LABELS AFFIXED TO EQUIPMENT.
16. PROVIDE OWNER TRAINING ON ROUTINE MAINTENANCE THAT SHOULD BE PROVIDED REGULARLY.
17. PROVIDE TEST AND BALANCE EFFORT PRIOR TO SUBSTANTIAL COMPLETION.
18. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PRODUCT SUBMITTALS FOE THE FOLLOWING:
    - A. PIPING, FITTINGS, JOINING MATERIALS.
    - B. BALL VAVLES, UNIONS, BALANCING VALVES, AND ALL PIPE DRAIN.
    - C. INSULATION, REMOVABLE INSULATION COVERS, AND HIGH DENSITY INSERTS.
    - D. PUMPS FLEX CONNECTIONS, PUMP CURVES,
    - E. BOILER.
    - F. EXPANSION TANK.
    - G. FLUE AND COMBUSTION AIR MATERIAL AND JOINING METHODS,
    - H. HANGERS AND SUPPORTS.
    - I. CONCRETE.
    - J. WIRING.
    - K. CONTROLS COMPONENTS – SENSORS, SWITCHES, RELAYS, CONTROLLERS.
    - L. GAGES.
19. PROVIDE OPERATION AND MAINTENANCE MANUAL THAT INCLUDES INFORMATION FOR THE BELOW ITEMS. PROVIDE A COVER SHEET THAT LISTS THE EQUIPMENT LABEL, MODEL NUMBER, SERIAL NUMBER, AND VOLTAGE. PROVIDE HARD COPIES AND PDF.
    - A. BOILERS.
    - B. PUMPS.
    - C. CONTROLS.
    - D. AS-BUILD DRAWINGS.
    - E. GAGES.
    - F. TESTING AND BALANCING.
    - G. TESTING – FLUE, PIPING.
    - H. START UP REPORTS.
20. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS. MAKE ANY ADJUSTMENTS TO LAYOUT TO AVOID COLLISIONS WITH EXISTING INFRASTRUCTURE OR OTHER TRADES. PROVIDE EFFORT TO DEVELOP COORDINATION DRAWINGS WITH SIGN OFF BY ALL CONTRACTORS OR SUB CONTRACTORS.
21. HIRE OWNERS PREFERRED ROOFING CONTRACTOR TO COMPLETE ROOFING WORK.

bailey edward

t 312.440.2300
f 312.440.2303
www.baileyedward.com

35 East Wacker Dr
Suite 2800
Chicago, IL
60601-2308

MEP Engineer
Bailey Edward Design
104 Northwest Highway
Fox River Grove, IL, 60021
847-516-0992

KENT W. LOCKE, JR. 062-046624 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

signature

07/07/2017
date

license expires on 11-30-2017

Issue Date	Title
07/24/2017	OWNER REVIEW
08/07/2017	ADDENDUM 1

MCHENRY COUNTY COLLEGE
BURNHAM BOILER REPLACEMENT

8900 U.S. ROUTE 14
CRYSTAL LAKE, IL 60014

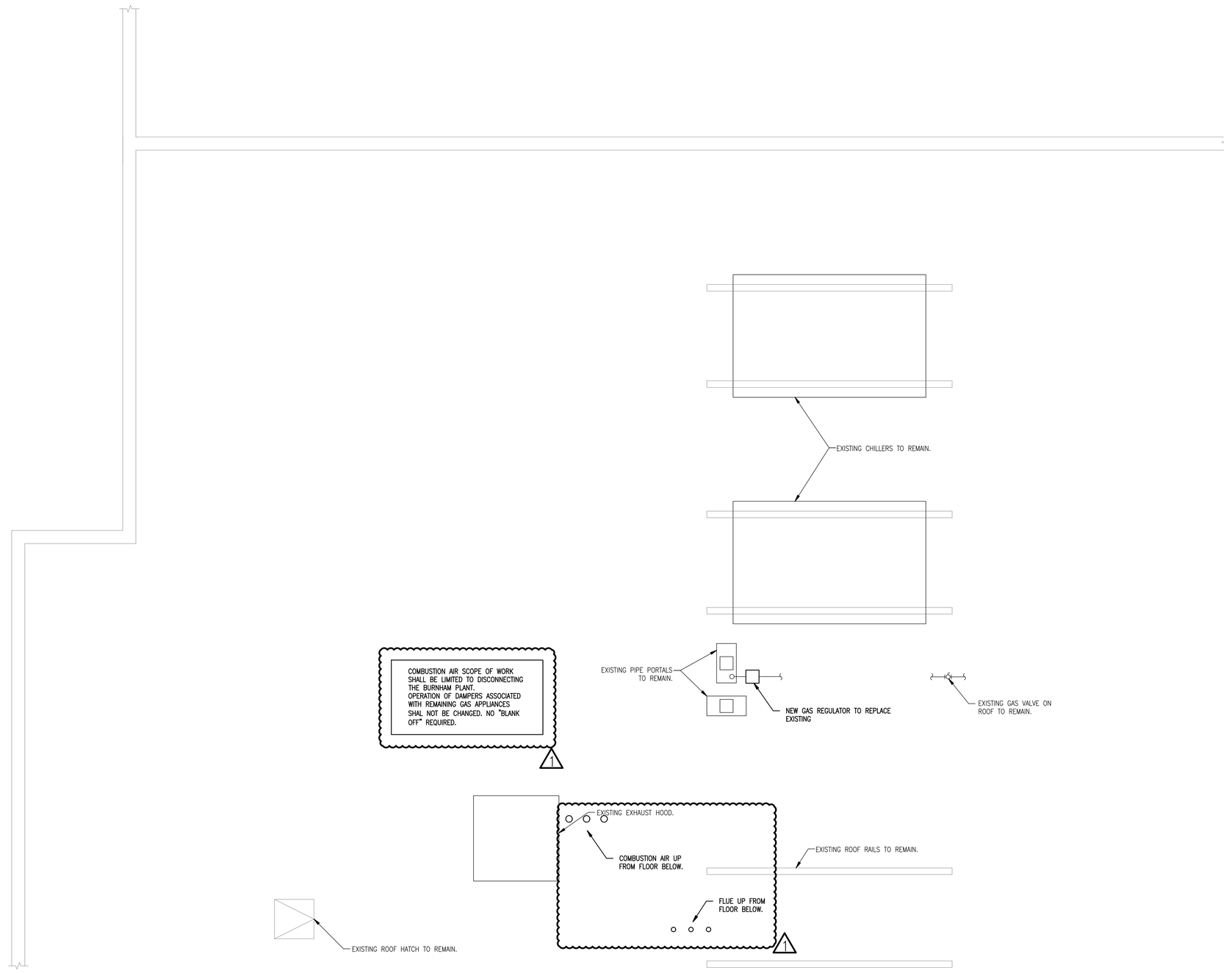
Drawing Title

MECHANICAL NEW WORK BOILER ROOM PLAN

BE Project No. 17021

Drawn By: JPB/CP

Drawing No. M100



1 MECHANICAL NEW WORK ROOF PLAN

1/4" = 1'-0"

0 2' 4' 8'

bailey edward

t 312.440.2300
f 312.440.2303
www.baileyedward.com

35 East Wacker Dr
Suite 2800
Chicago, IL
60601-2308

MEP Engineer
Bailey Edward Design
104 Northwest Highway
Fox River Grove, IL, 60021
847-516-0992

KENT W. LOCKE, JR.
062-046624
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

signature

07/07/2017
date

license expires on 11-30-2017

Issue Date	Title
07/24/2017	OWNER REVIEW
08/07/2017	ADDENDUM 1

MCHENRY COUNTY COLLEGE
BURNHAM BOILER
REPLACEMENT

8900 U.S. ROUTE 14
CRYSTAL LAKE, IL 60014

Drawing Title

MECHANICAL
NEW WORK
ROOF PLAN

BE Project No.
17021

Drawn By:
JPB/CP

Drawing No.
M101

GAS FIRED HOT WATER BOILER SCHEDULE (B)

TAG NO.	LOCATION/ SERVICE	BOILER TYPE		INCOMING GAS PRESS. INCH. W.G.	PIPE SIZE GAS CONN. IN.	GAS VALVE TRAIN	NATURAL GAS INPUT (MBH)	IBR OUTPUT (MBH)	MIN OUTPUT (MBH)	FLOW RATE (GPM)	E.W.T. °F	L.W.T. °F	TEMP RISE △ °F	MAX. WATER PRESS. DROP FEET	MAX. WORKING PRESS.	ELEC. POWER		REMARKS: ADVANCED THERMAL HYDRONICS IS BASIS OF DESIGN LOCHINVAR CAMUS ARE EQUAL
																MAIN POWER FEED	FLA	
1	MECH ROOM/ REHEAT	WATER		6"	1"	DUNGS	600	480	160	40	155.5	180	24.5	1.25	14	120V	5.2	KN600
2	MECH ROOM/ REHEAT	WATER		6"	1"	DUNGS	600	480	160	40	155.5	180	24.5	1.25	14	120V	5.2	KN600
3	MECH ROOM/ REHEAT	WATER		6"	1"	DUNGS	600	480	160	40	155.5	180	24.5	1.25	14	120V	5.2	KN600

NEW SEALED COMBUSTION CAST IRON BOILERS SUITABLE FOR OPERATION WITH RETURN WATER TEMPERATURE BELOW 120°F. BOILER CONTROL – START,STOP, FIRING RATE, ETC SHALL BE FACTORY PROVIDED. FRONT END CONTROL SHALL ENABLE/DISABLE HEATING, OVERRIDE, DISCHARGE SETPOINT. BOILER SHALL BE CAPABLE OF 5:1 TURNDOWN RATIO. ALTERNATIVE CAMUS OR LOCHINVAR BOILERS SHALL HAVE HEAT EXCHANGERS CONSTRUCTED ENTIRELY OF STAINLESS STEEL.

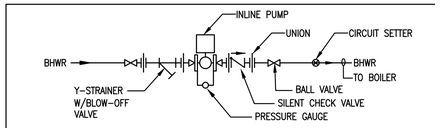
1

PUMP SCHEDULE

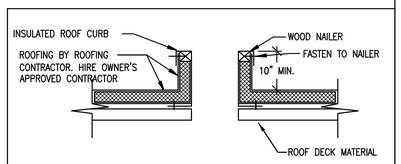
TAG NO. (P)	SERVICE/ LOCATION	CAP GPM	PUMP TYPE	TOTAL HEAD W.C. FT	WORKING PRESS MAX. PSIG.	LIQUID TEMP. °F	PUMP BHP	PUMP RPM	MOTOR V/PH/C	MOTOR HP	MOTOR RPM	VIBRATION ISOLATION TYPE	REMARKS
EX1	–	480	BASE MOUNT	155	175	250	24	1750	480/3	25	1750	INERTIA	TACO 3013 (1)
EX2	–	480	BASE MOUNT	155	175	250	24	1750	480/3	25	1750	INERTIA	TACO 3013 (1)
B1	–	40	INLINE	15	125	250	0.24	1750	120/1	0.5	1750	INERTIA	B&G E90 1.25AAB (2)
B2	–	40	INLINE	15	125	250	0.24	1750	120/1	0.5	1750	INERTIA	B&G E90 1.25AAB (2)
B3	–	40	INLINE	15	125	250	0.24	1750	120/1	0.5	1750	INERTIA	B&G E90 1.25AAB (2)

(1) EXISTING BASE MOUNTED PUMP ON INERTIA BASE.

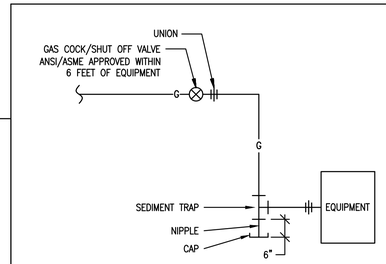
(2) NEW BOILER PUMPS. OPERATION SHALL BE MANAGED BY MANUFACTURERS BOILER CONTROL.



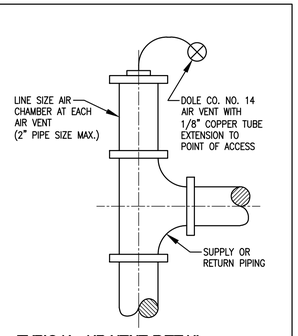
INLINE MOUNTED PUMP INSTALLATION
NO SCALE



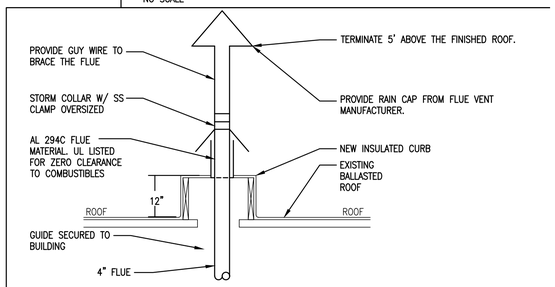
ROOF CURB DETAIL
NO SCALE



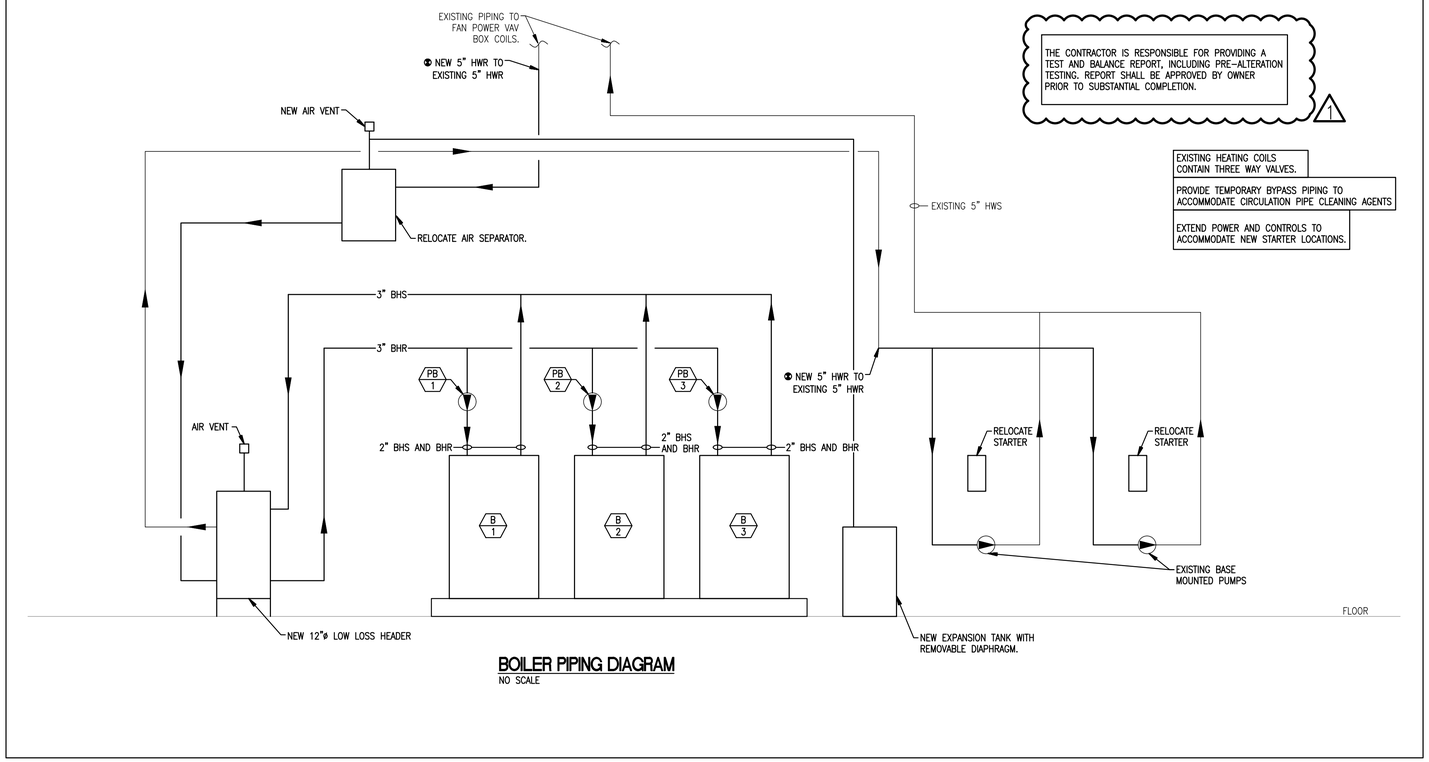
GAS PIPING DETAIL
N.T.S.



TYPICAL AIR VENT DETAIL
NO SCALE



ROOF PENETRATION DETAIL
NO SCALE



BOILER PIPING DIAGRAM
NO SCALE

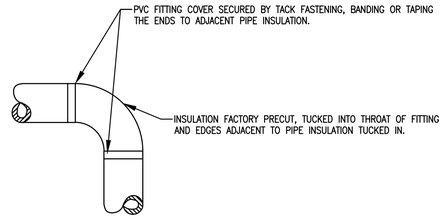
THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A TEST AND BALANCE REPORT, INCLUDING PRE-ALTERATION TESTING. REPORT SHALL BE APPROVED BY OWNER PRIOR TO SUBSTANTIAL COMPLETION.

1

EXISTING HEATING COILS CONTAIN THREE WAY VALVES.

PROVIDE TEMPORARY BYPASS PIPING TO ACCOMMODATE CIRCULATION PIPE CLEANING AGENTS

EXTEND POWER AND CONTROLS TO ACCOMMODATE NEW STARTER LOCATIONS.



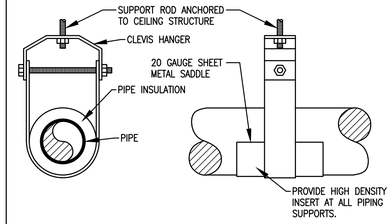
PIPE ELBOW INSULATION DETAIL
NO SCALE

NOTES:

1. TEE AND VALVE INSULATION & COVERS SIMILAR, USING INSULATION FACTORY PRECUT TO SHAPE. PROVIDE TURNS OF FIBERGLASS YARN AS REQUIRED FOR TEE OR VALVE INSULATION INSERTS TO PRVENT VOIDS OR HOT SPOTS.

2. FOR MECHANICAL GROOVE TYPE PIPE AND FITTINGS, INSULATE TO THICKNESS SPECIFIED AND APPLY PVC PREFORMED COVERS IN MANNER DESCRIBED FOR ELBOWS.

3. SIMILARLY, PROVIDE INSULATION AND PVC COVERS FOR REDUCERS, P-TRAPS, Y-BRANCHES, LINE FLANGES, BUTTERFLY VALVES, GATE VALVES, BALL VALVES, CHECK VALVES, CONTROL VALVES, STRAINERS, BALANCING COCKS, AND BALANCING DEVICES.



TYPICAL PIPE HANGER DETAIL
NO SCALE

bailey edward

t 312.440.2300
f 312.440.2303
www.baileyedward.com

35 East Wacker Dr
Suite 2800
Chicago, IL
60601-2308

MEP Engineer
Bailey Edward Design
104 Northwest Highway
Fox River Grove, IL, 60021
847-516-0992

KENT W. LOCKE, JR. 062-046624 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

signature

07/07/2017
date

license expires on 11-30-2017

Issue Date	Title
07/24/2017	OWNER REVIEW
08/07/2017	ADDENDUM 1

MCHENRY COUNTY COLLEGE
BURNHAM BOILER REPLACEMENT

8900 U.S. ROUTE 14
CRYSTAL LAKE, IL 60014

Drawing Title

MECHANICAL SCHEDULES AND PIPING DIAGRAM

BE Project No. 17021

Drawn By: JPB/CP

Drawing No. M201