

THE CITY OF WALTHAM  
MASSACHUSETTS

PURCHASING DEPARTMENT

**Boiler Replacement, Waltham Library**

**ADDENDUM NO. 3**

Sept 12, 2017

**CHANGES, CORRECTIONS AND CLARIFICATIONS**

The attention of bidders submitting proposals for the above subject project is called to the following addendum to the specifications. The items set forth herein, whether of omission, addition, substitution or clarification are all to be included in and form a part of the proposal submitted.

THE NUMBER OF THIS ADDENDUM (NO.3) MUST BE ACKNOWLEDGED IN THE FORM FOR GENERAL BID SECTION 00310 A

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**ITEM 1: ANSWERS TO POSED QUESTIONS**

**Q1.** Is the Con-Ex Card communication required with the boilers or just adaptable?

**A1.** The Con-Ex Card communication is not required

**Q2.** What is the material and thickness of the wall where the venting penetrations are to be made through?

**A2.** See attached drawing A3.04

**ITEM 2: DELETE AND REPLACE**

a) **DELETE** Drawings M-100 in the bid document and **REPLACE** WITH THE ONE ATTACHED HERE. The Drawings (M100 and M-200) have been modified to include the 'Sequence of Construction Notes' section, which addresses downtime of the heating system as discussed during the pre-bid meeting. Downtime will only be permitted Friday, Saturday, and Sunday, and will be coordinated with the owner.

b) **DELETE** Drawing M-200 in the bid document and **REPLACE** WITH THE ONE ATTACHED HERE. Drawing M-200 has also been revised to require the contractor to provide a cap on the existing roof curb after the B-1, 2, 3 flue has been removed.

### **ITEM 3 ADD ALTERNATE MODIFICATIONS**

Add Alternate 1 from page 00050-1 of the invitation to bid document has been modified to clarify scope and quantity of boilers to be provided:

“Provide an additional high efficiency boiler capable of providing the heating capacity of the existing boiler. This additional unit will allow the facility to operate the system with a fully redundant high efficiency boiler. Existing boiler will be demolished and new boiler installed in its place.

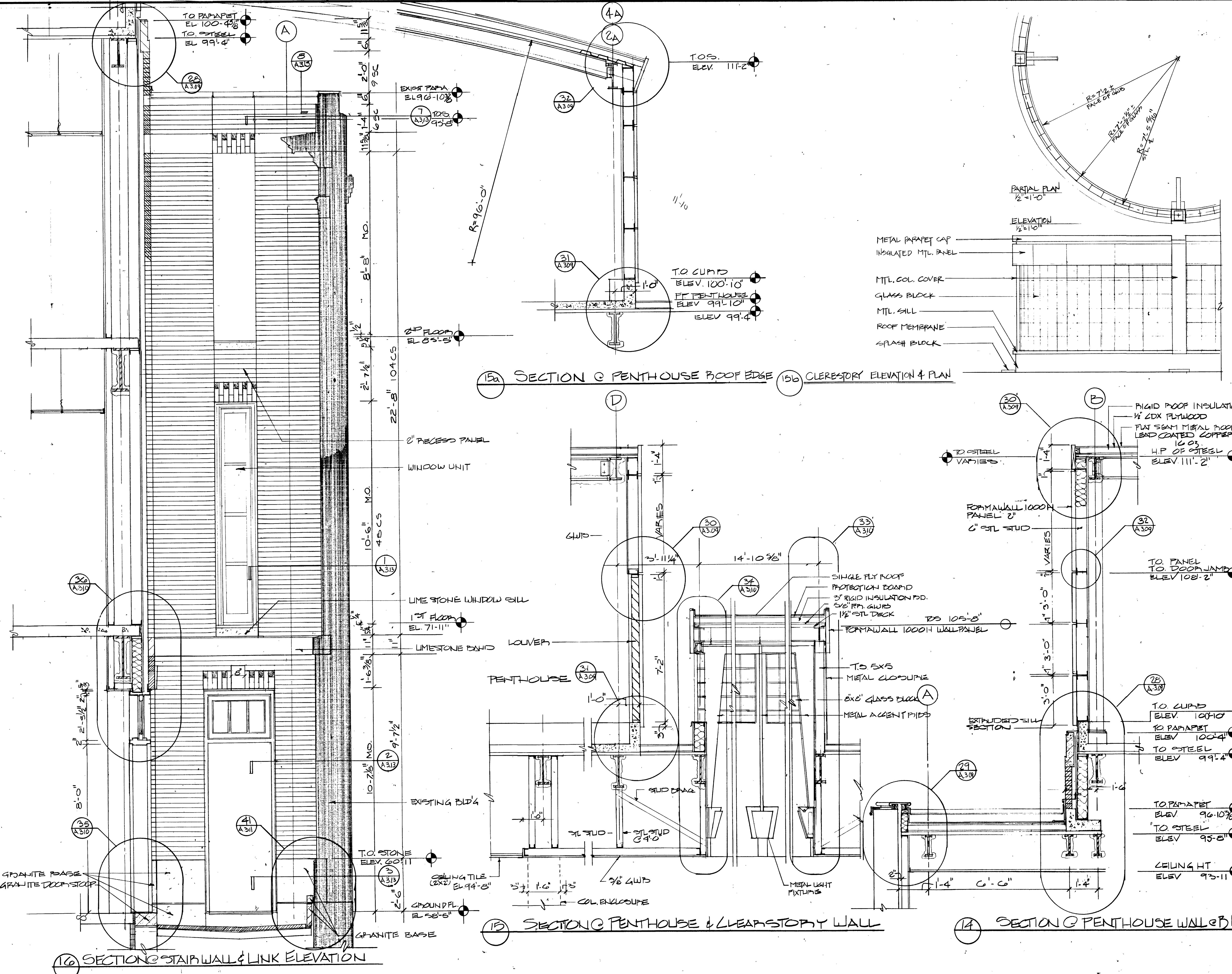
New boilers will have dedicated boiler pump and create a primary circuit off the existing boiler heating circuit that will become a secondary circuit. New boiler controls will have supply water outside air temperature reset and all required safeties. Boiler controls will be on-board the boiler, only requiring an external outside air temperature sensor.

Natural gas capacity feeding the demolished boiler will be extended over to the new boiler.

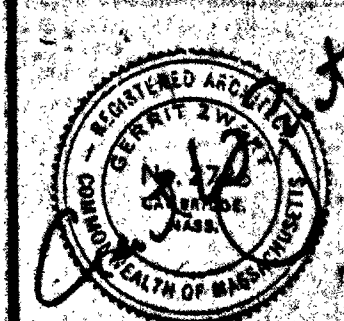
New electrical loads will be fed out of the existing panel PLP”

**End of Addendum 3**

GENERAL NOTES



REVISIONS

	
SHEPLEY BULFINCH RICHARDSON AND ABBOTT ARCHITECTS 40 BROAD STREET BOSTON MASSACHUSETTS 02109 477-43-1700	
<b>WALTHAM PUBLIC LIBRARY</b>	
<b>ADDITION &amp; ALTERATIONS</b>	
<b>WALL SECTIONS &amp; PENTHOUSE</b>	
JOB NO. 2738 DATE 30 JUNE 1991 DRAWING TITLE SCALE DRAWING NO.	<b>A 3.04</b>

GENERAL NOTES

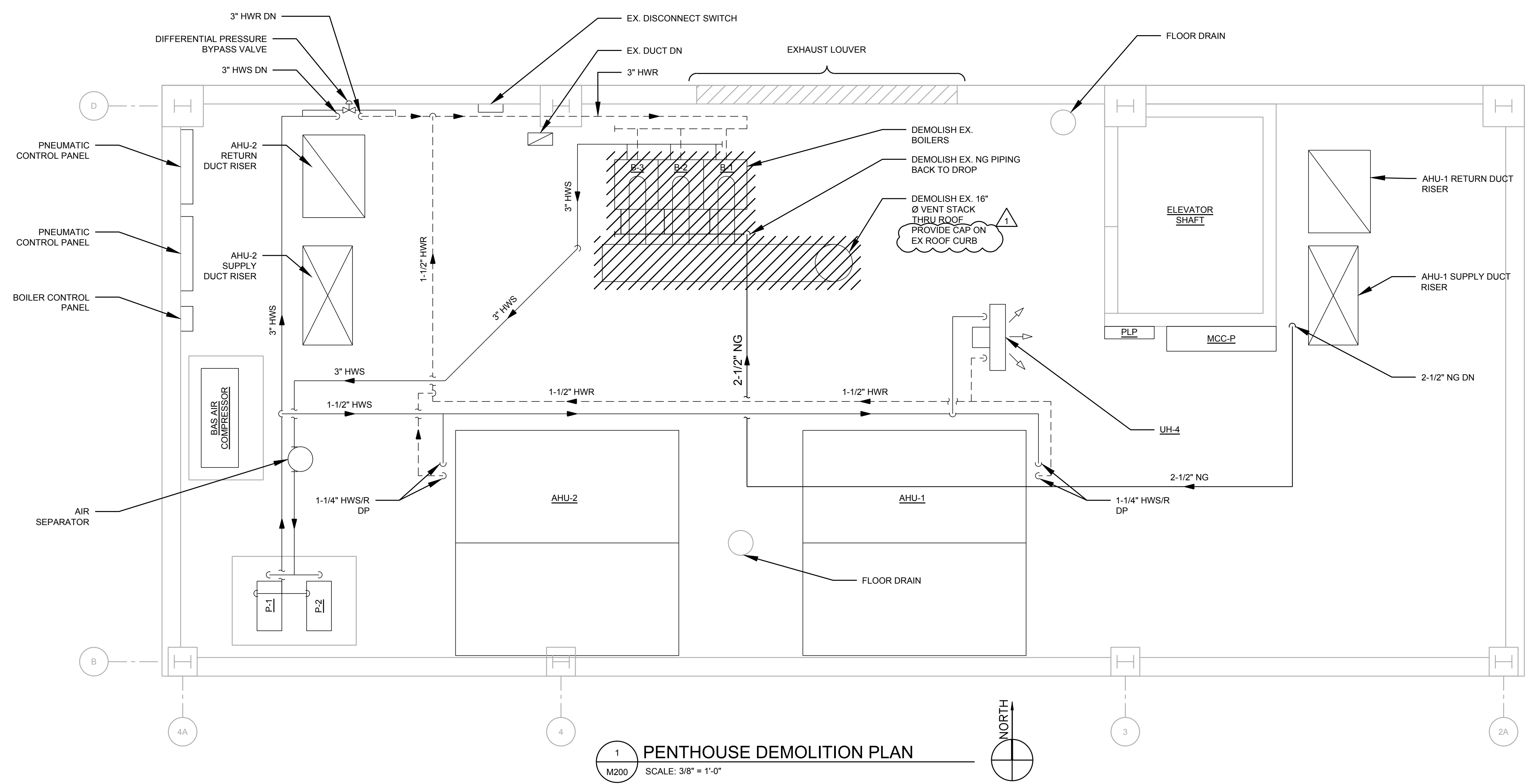
- PIPE AND EQUIPMENT SIZES, LOCATIONS AND GENERAL ARRANGEMENTS ARE BASED ON OWNER FURNISHED DRAWINGS TITLE "WALTHAM PUBLIC LIBRARY ADDITION & ALTERATIONS" DATED JUNE 30, 1991.

KEYED NOTES

- NEW BOILERS ON EXISTING CONCRETE PAD
- CONNECT TO EX. 2-1/2" NATURAL GAS HEADER AND EXTEND TO NEW BOILERS. PIPING SHALL BE ASTM A53 SCHEDULE 40 BLACK STEEL PIPE. GAS STOPS SHALL BE APOLLO #70-10207 THROUGH #70-108-07 WITH TEE HANDLE.
- CONNECT NEW BYPASS TO EXISTING HWSR.
- CONNECT NEW HWSR TO EXISTING HWS.
- 4" VENT AND COMBUSTION AIR PIPING 8' AFF. PIPING SHALL BE SCHEDULE 40 PVC IN ACCORDANCE WITH ANSIASTM D1785. FITTINGS SHALL BE IN ACCORDANCE WITH ANSIASTM D2466, AND PIPE CEMENT AND PRIMER SHALL BE IN ACCORDANCE WITH ANSIASTM D2564.
- TERMINATE VENT AND COMBUSTION AIR PIPES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE BIRDSCREENS ON OPENINGS.
- PITCH NEW 3/4" COND FROM BOILER TO FLOOR DRAIN. PROVIDE ACID NEUTRALIZATION TUBE FOR EACH BOILER.
- B-1 AND B-2 DISCONNECT SWITCHES FED FROM PLP. PROVIDE 3/4" EMT W/ 2#12, AND 1#12G TO B-1 AND B-2 RESPECTIVELY.
- BP-1 AND BP-2 DISCONNECT SWITCHES FED FROM PLP. PROVIDE 3/4" EMT W/ 2#12, AND 1#12G TO BP-1 AND BP-2 RESPECTIVELY.
- PROVIDE 15 AMP SINGLE POLE CIRCUIT BREAKERS FOR B-1 AND B-2. PROVIDE 3/4" EMT W/ 2#12, AND 1#12G TO DISCONNECT SWITCHES RESPECTIVELY.
- PROVIDE 15 AMP SINGLE POLE CIRCUIT BREAKERS FOR BP-1 AND BP-2. PROVIDE 3/4" EMT W/ 2#12, AND 1#12G TO DISCONNECT SWITCHES RESPECTIVELY.
- INSTALL OUTSIDE AIR TEMPERATURE SENSOR FOR BOILER HOT WATER RESET CONTROL.

SEQUENCE OF CONSTRUCTION NOTES

- HEATING SYSTEM DOWNTIME SHALL BE COORDINATED WITH THE OWNER, AND SHALL ONLY BE ALLOWED ON FRIDAY, SATURDAY AND SUNDAYS UNLESS TEMPORARY BOILERS ARE PROVIDED.



1 PENTHOUSE DEMOLITION PLAN  
SCALE: 3/8" = 1'-0"

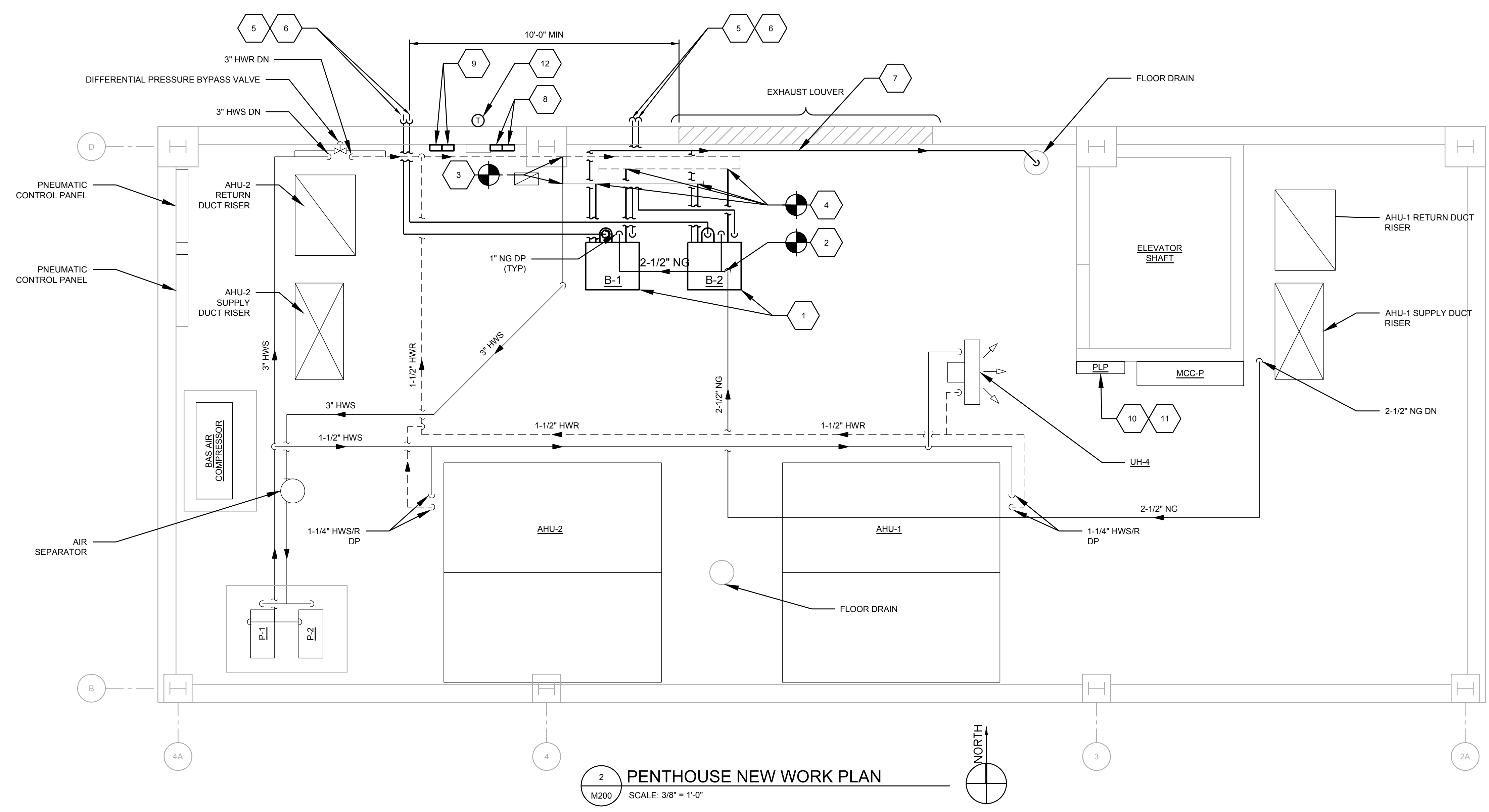
- NOTES:
- DUCTWORK NOT SHOWN FOR CLARITY

BOILERS														
MARK	SERVICE	TYPE	FUEL	INPUT MBH	MIN EFFIC	GPM	EWT	LWT	MAX DP FT	RELIEF VALVE PSI	V/PH	AMP	BASIS OF DESIGN	NOTES
B-1	HEATING HOT WATER	CONDENSING	NATURAL GAS	600	94%	39	110	140	3.2	50	120/160	<12	LOCHINVAR FTX600	1
B-2	HEATING HOT WATER	CONDENSING	NATURAL GAS	600	94%	39	110	140	3.2	50	120/160	<12	LOCHINVAR FTX600	1

- NOTES:
- PROVIDE W/ VARIABLE SPEED BOILER PUMP KIT.

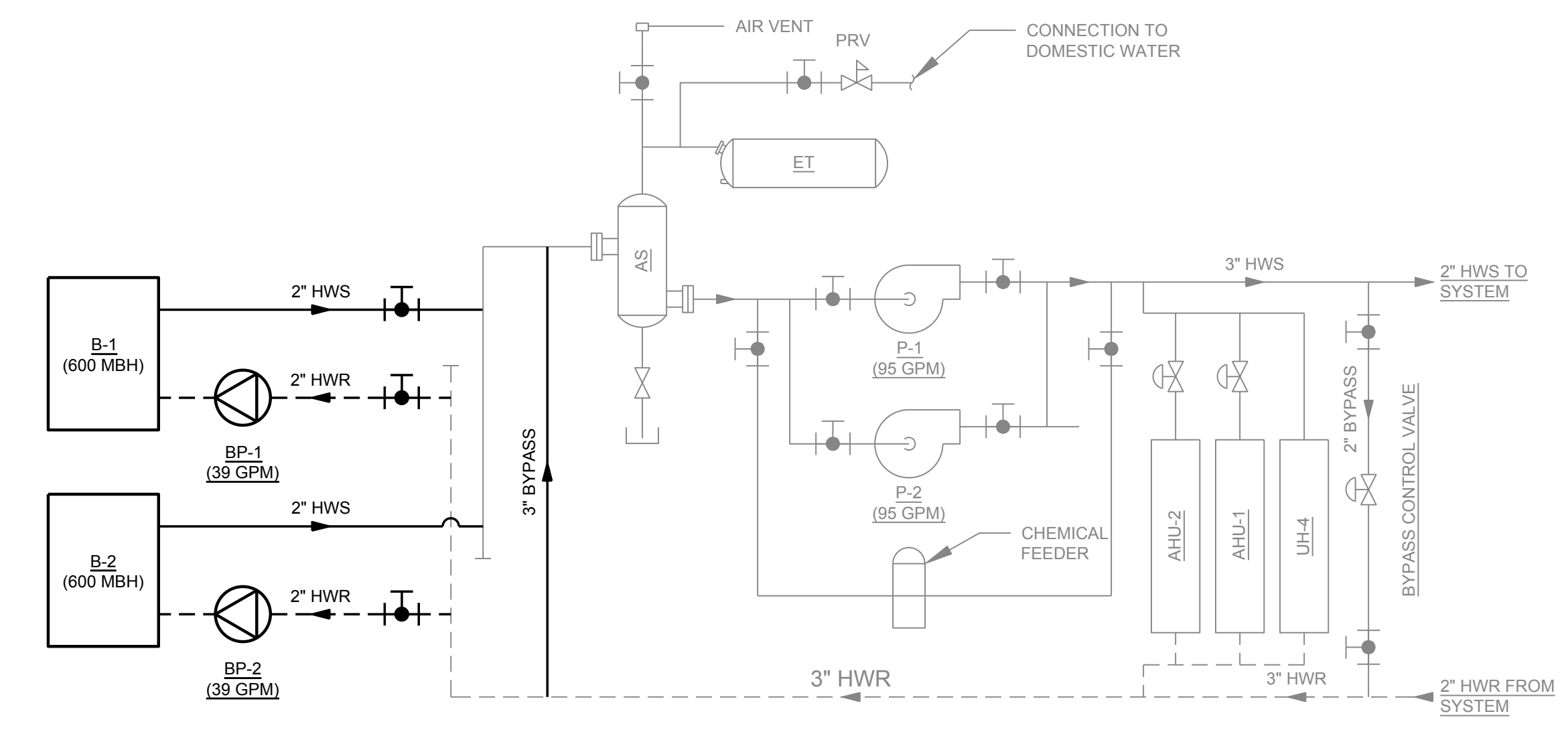
PUMPS								
MARK	SERVICE	TYPE	GPM	HEAD FT	V/PH	HP	BASIS OF DESIGN	NOTES
BP-1	B-1	INLINE CENT.	39	110	120/160	1/6	B&G XL15-75	1
BP-2	B-2	INLINE CENT.	39	110	120/160	1/6	B&G XL15-75	1

- NOTES:
- VARIABLE SPEED PUMP CONTROLLED BY 0-10VDC SIGNAL FROM BOILER.



2 PENTHOUSE NEW WORK PLAN  
SCALE: 3/8" = 1'-0"

- NOTES:
- DUCTWORK NOT SHOWN FOR CLARITY



3 HW PIPING DIAGRAM  
SCALE: 3/8" = 1'-0"

1 ADDENDUM 3	09/11/17
9 ISSUED FOR BID	06/14/17
Revision:	Date:

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 Professional Engineer under the laws of the State of Massachusetts

Daniel Flaherty	
Date:	Reg. No.:
Project No.:	701103.00
Checked By:	D.M. FLAHERTY
Designed By:	D.M. FLAHERTY
Drawn By:	D.M. FLAHERTY
Date:	06/14/17
Scale:	AS NOTED

CITY OF WALTHAM  
NEW LIBRARY ADDITION  
HOT WATER BOILER  
REPLACEMENT

MECHANICAL  
PENTHOUSE  
DEMOLITION &  
NEW WORK PLANS  
ADD ALTERNATE 1

M200

GENERAL NOTES

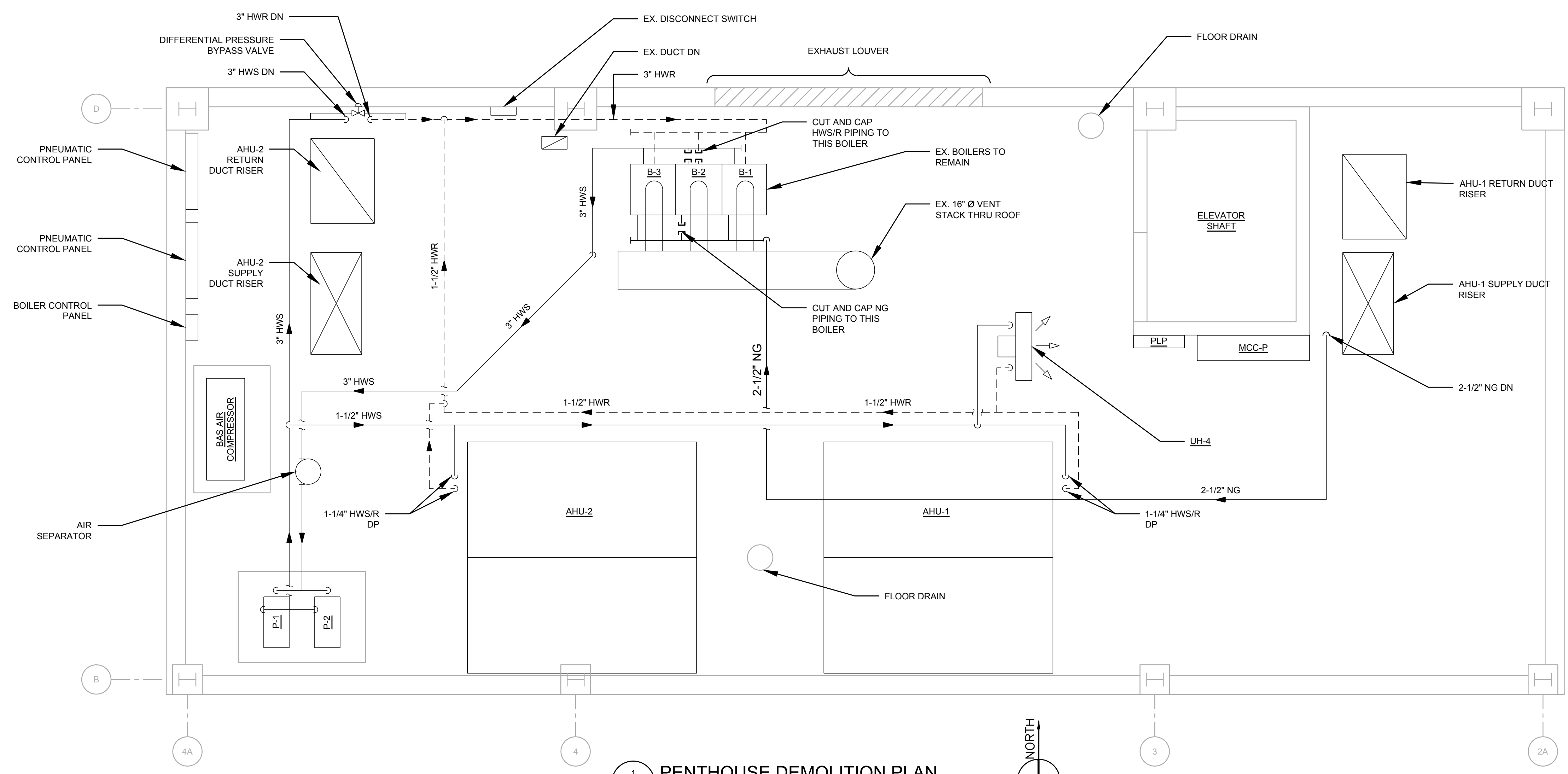
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KEYED NOTES

- NEW BOILER ON 4" HIGH CONCRETE PAD.
- CONNECT TO EX. 2-1/2" NATURAL GAS HEADER AND EXTEND TO NEW BOILER. PIPING SHALL BE ASTM A53 SCHEDULE 40 BLACK STEEL PIPE. GAS STOPS SHALL BE APOLLO #70-10207 THROUGH #70-108-07 WITH TEE HANDLE.
- CONNECT NEW BYPASS TO EXISTING HWSR.
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- PITCH NEW 3/4" COND FROM BOILER TO FLOOR DRAIN. PROVIDE ACID NEUTRALIZATION TUBE.
- B-4 DISCONNECT SWITCH FED FROM PLP. PROVIDE 3/4" EMT W/ #12, AND #12TG TO B-4.
- BP-4 DISCONNECT SWITCH FED FROM PLP. PROVIDE 3/4" EMT W/ #12, AND #12TG TO BP-4.
- PROVIDE 15 AMP SINGLE POLE CIRCUIT BREAKER FOR B-4. PROVIDE 3/4" EMT W/ #12, AND #12TG TO DISCONNECT SWITCH.
- PROVIDE 15 AMP SINGLE POLE CIRCUIT BREAKER FOR BP-4. PROVIDE 3/4" EMT W/ #12, AND #12TG TO DISCONNECT SWITCH.
- INSTALL OUTSIDE AIR TEMPERATURE SENSOR FOR BOILER HOT WATER RESET CONTROL.

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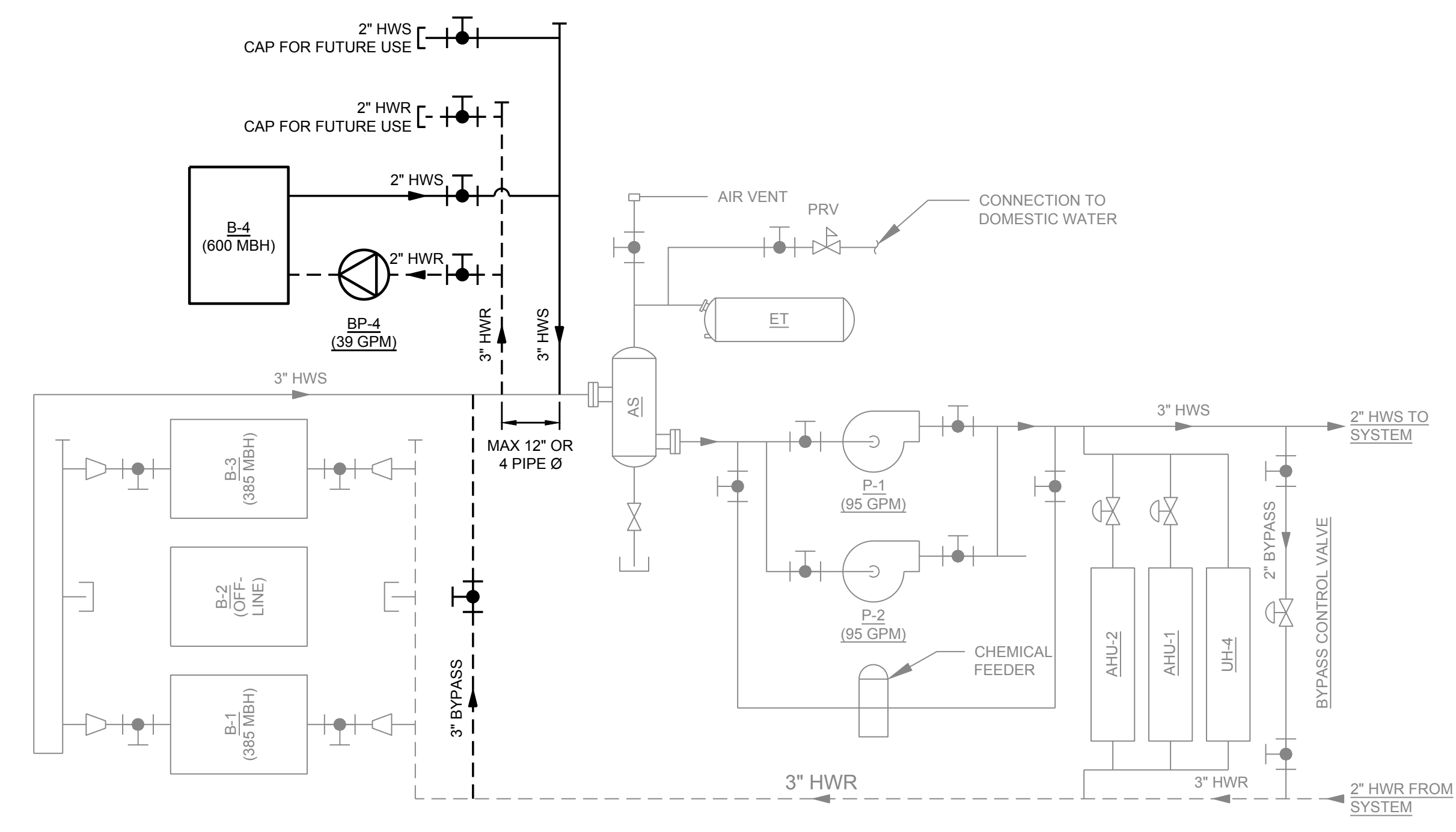
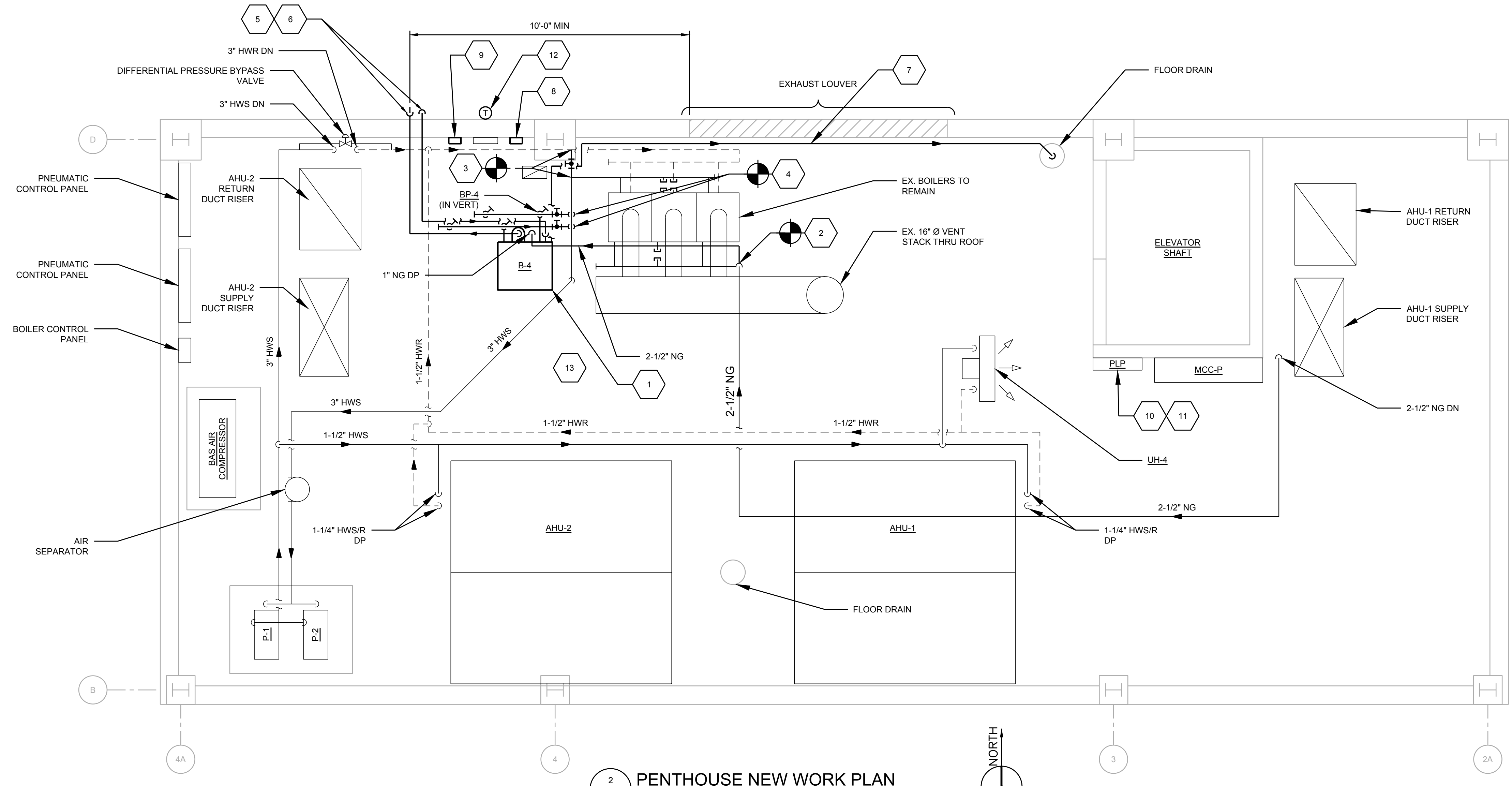


BOILERS														
MARK	SERVICE	TYPE	FUEL	INPUT MBH	MIN EFFIC	GPM	EWT	LWT	MAX DP FT	RELIEF VALVE PSI	V/PH	AMP	BASIS OF DESIGN	NOTES
B-4	HEATING HOT WATER	CONDENSING	NATURAL GAS	600	94%	39	110	140	3.2	50	120/160	<12	LOCHINVAR FTX600	1

- NOTES:  
1. PROVIDE W/ VARIABLE SPEED BOILER PUMP KIT.

PUMPS								
MARK	SERVICE	TYPE	GPM	HEAD FT	V/PH	HP	BASIS OF DESIGN	NOTES
BP-4	B-4	INLINE CENTRIFUGAL	39	110	120/160	1/6	B&G XL15-75	1

- NOTES:  
1. VARIABLE SPEED PUMP CONTROLLED BY 0-10VDC SIGNAL FROM BOILER.



1	ADDENDUM 3	09/11/17
0	ISSUED FOR BID	06/14/17

Revision: \_\_\_\_\_ Date: \_\_\_\_\_

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 Professional Engineer under the laws of the State of Massachusetts

Daniel Flaherty  
Date: \_\_\_\_\_ Reg. No.: \_\_\_\_\_

Project No.: 701103.00  
Checked By: \_\_\_\_\_  
Designed By: D.M. FLAHERTY  
Drawn By: D.M. FLAHERTY  
Date: 06/14/17  
Scale: AS NOTED

CITY OF WALTHAM  
NEW LIBRARY ADDITION  
HOT WATER BOILER  
REPLACEMENT

Sheet Title  
MECHANICAL  
PENTHOUSE  
DEMOLITION &  
NEW WORK PLANS

Sheet No.

M100