

**THE SCHOOL DISTRICT OF PHILADELPHIA
Office of Capital Programs
440 North Broad Street, 3rd Floor – Suite 371
Philadelphia, PA 19130**

TELEPHONE: (215) 400-4730

Addendum No. 02

Subject: John F. Hartranft School
SDP Contract No. B-056, B-057C, B-058C of 18/19

Location: John F. Hartranft School
720 West Cumberland Street
Philadelphia, PA 19133

This Addendum, dated October 21st, 2020 shall modify and become part of the Contract Documents for the work of this project. Any items not mentioned herein, or affected by, shall be performed strictly in accordance with the original documents.

Bid RFIs:

Question #1:

As per addendum 1, the response to bid RFI question 1 is incomplete. Referencing Drawing M-001 "Bidding Instructions" Copper, steel & pex piping ranges in sizes 1/4" up to?? In order to properly value the work per the Bidding Instructions on M-001, the pipe sizes must be provided by the professional/PSD.

Response:

Pipe size and material for bidding purposes shall be as follows:

- 6" steel
- 3" copper
- 3" pex

Question #2:

The response to bid RFI question number 2, your response directs us to drawing M1.1 section L note 4, that drawing does not exist. Kindly provide the correct information.

Response:

Refer to Bid Documents M-002, Section L, Note #4.

Question #3:

On E-101, there is a panel in the gym labeled "LPF" (N) with keynote 1. I believe this should be labeled as "LPE", because on E-101D the gym panel is labeled "LPE" (R) with keynote 1, and because another panel "LPF" is shown elsewhere. Panel LPE is not shown on the single line on E-600. Panel LPE is shown with keynote (1) on the demo single line on E-600D (the rectangle is labeled as "LPC" but the label underneath is shown as "LPE"). Please clarify if we are to replace panel "LPE" in kind. Please provide panel schedule. Please clarify where LPE is fed from and include the feeder size.

Response:

See Addendum #2 drawings, Sheets E-101D, E-600D, E-100, E-600, and E-601.

Question #4:

On E-401, the unit heaters, motor operated dampers, and BMS panel are each shown with a homerun labeled "DP2". These circuits are not shown in the single line on E-600, nor are they shown in the panel schedule on E-601. Please clarify circuitry, as this affects the number of breakers required in distribution panel DP2.

Response:

See Addendum #2 drawings, Sheet E-601 for panel schedule revision.

Question #5:

The response to Addendum 01 question #7 says to follow to the spec for raceway application. The spec says all panelboard feeders are to be in GRC conduit. The revised note 1 on E-001 says to provide EMT for feeder wiring where not subject to physical damage. Please clarify feeder conduit type for locations not subject to physical damage.

Response:

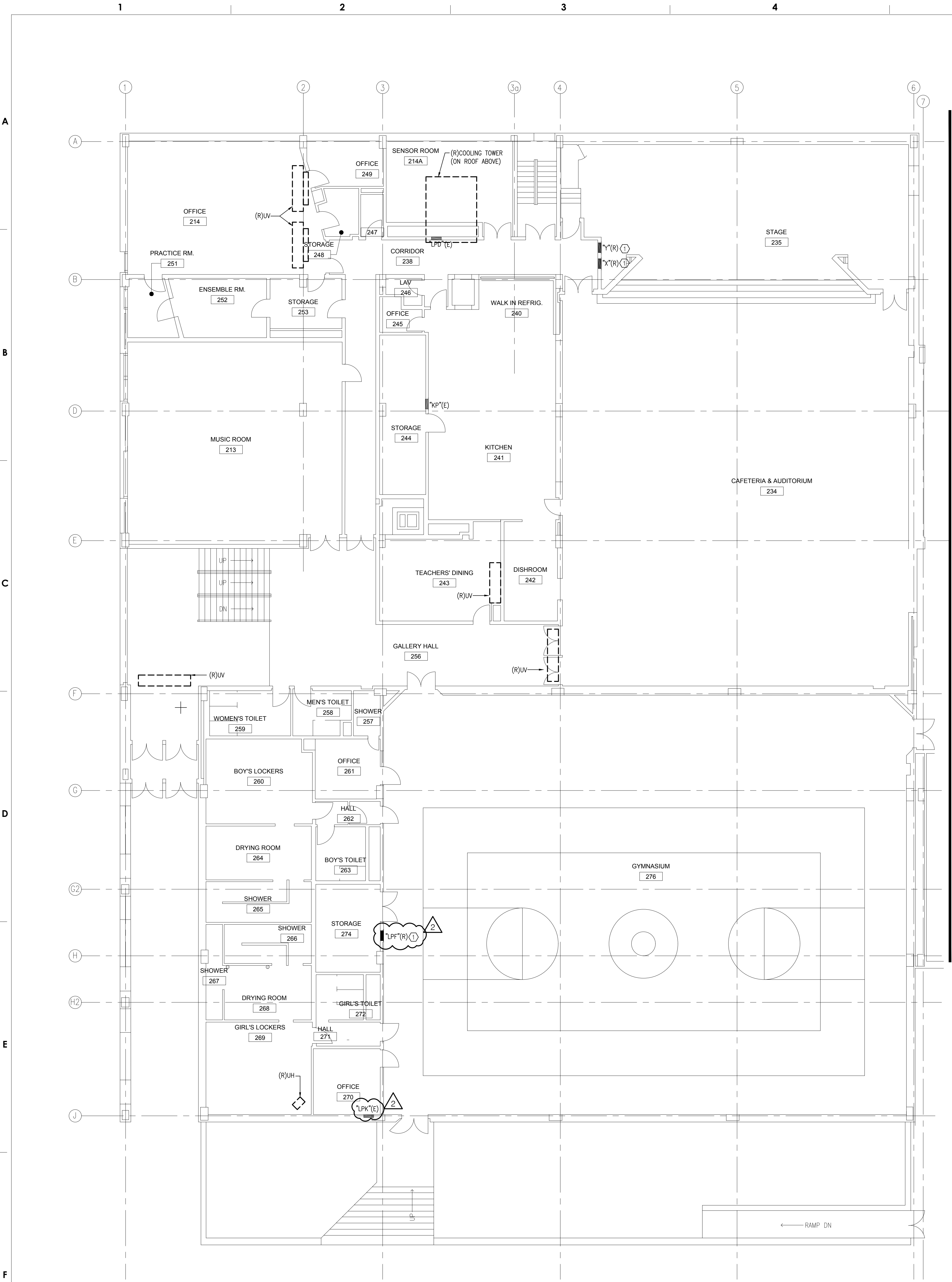
Specification will take precedence. See Addendum #2 drawings, Sheet E-001 for note revision.

Question #6:

Addendum 1 states there is a feeder schedule on E-001, I do not see a feeder schedule, please provide.

Response:

This should have been addressed in Addendum #1. See Addendum #2 drawings, Sheet E-001.



DEMOLITION GENERAL NOTES

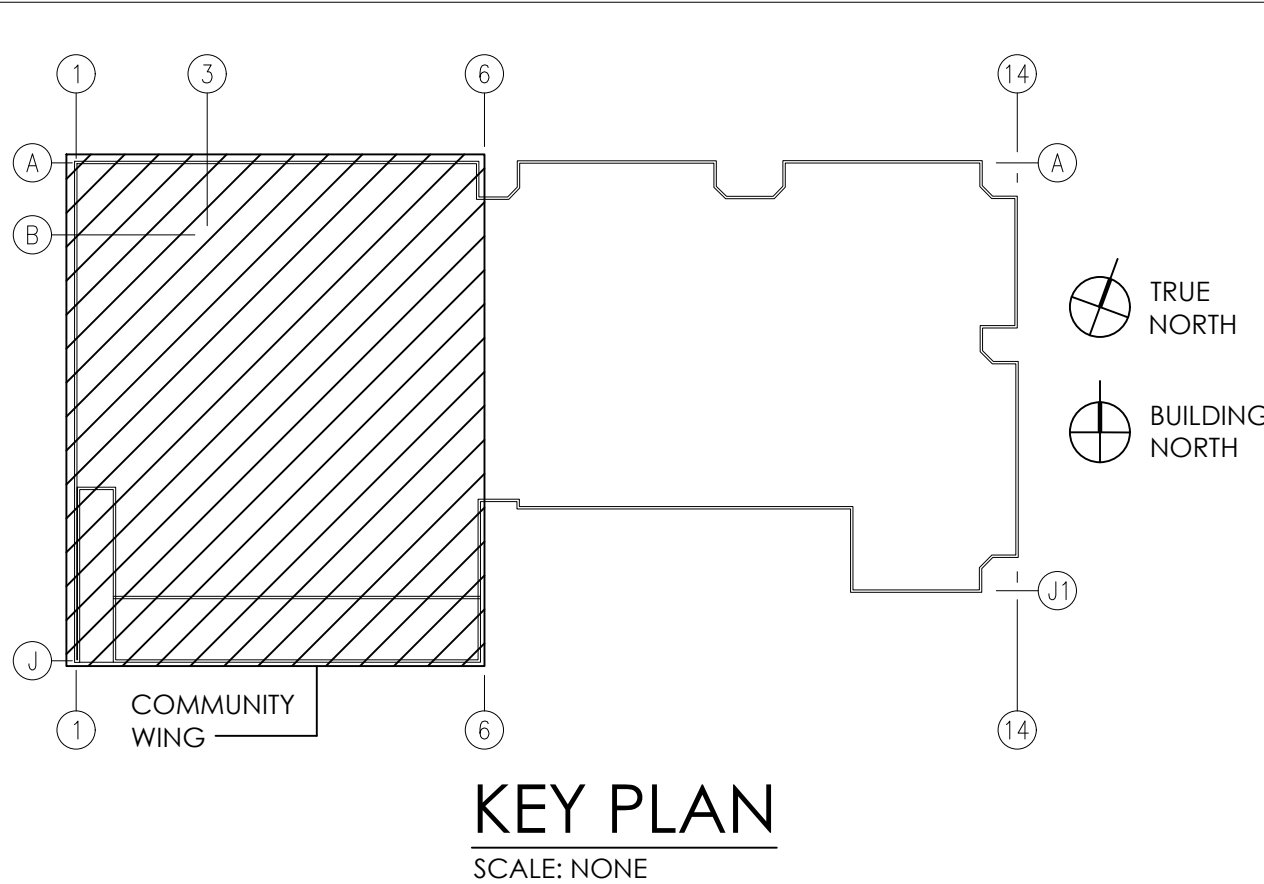
1. ALL SHOWN IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL VERIFY ALL EXISTING SOURCES OF POWER TO EQUIPMENT PRIOR TO FINAL REMOVAL.
3. THE CONTRACTOR SHALL COORDINATE ALL SHUTDOWN PROCEDURES WITH THE OWNER PRIOR TO DISCONNECTING ANY CIRCUITS.
4. EXTEND AND/OR REWORK ALL EXISTING WIRING & CONDUIT AS NECESSARY TO MAINTAIN CONTINUITY OF ANY EXISTING ELECTRICAL EQUIPMENT THAT SHALL REMAIN.
5. EXISTING MECHANICAL / PLUMBING EQUIPMENT SLATED FOR DEMOLITION IS TO BE REMOVED BY M.C. E.C. SHALL DISCONNECT EXISTING CIRCUIT AND REMOVE EXISTING CONDUIT, WIRING, AND ALL MISCELLANEOUS APPURTENANCES REQUIRED TO PROVIDE A COMPLETE REMOVAL OF EXISTING BRANCH CIRCUITING. E.C. SHALL COORDINATE WITH M.C. DURING DEMOLITION. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EQUIPMENT BEING DEMOLISHED.

DEMOLITION KEYED NOTES

1. PANEL SHALL BE REPLACED. CONTRACTOR SHALL DISCONNECT AND KEEP SAFE ALL BRANCH CIRCUITS FOR REUSE (UNLESS OTHERWISE NOTED). CONTRACTOR SHALL TURN OVER ALL MATERIAL REMOVED TO SCHOOL DISTRICT OF PHILADELPHIA. OR CONTRACTOR SHALL DISPOSE OF ANY EQUIPMENT AS DIRECTED BY THE SCHOOL DISTRICT OF PHILADELPHIA. CONTRACTOR SHALL DISCONNECT FEEDER FROM PANEL AND REMOVE CONDUIT AND WIRING TO SOURCE. CONTRACTOR MAY MAINTAIN AND REUSE PANEL BACKBOX IF IN GOOD CONDITION.

PHASING INSTRUCTIONS

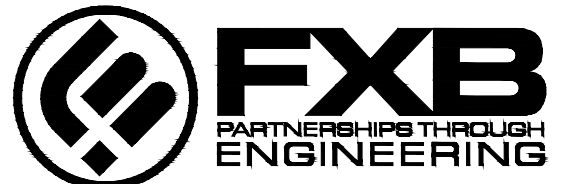
DUE TO SDP RESTRICTIONS CONSTRUCTION ACTIVITIES ARE LIMITED TO (2) CLASSROOMS AT A TIME. BIDS AND SCHEDULES SHALL BE ARRANGED ACCORDINGLY.



1 ELECTRICAL DEMOLITION PLAN - UPPER LEVEL COMMUNITY WING
E-101D SCALE: 1/8"=1'-0"

SEAL:

NAME (LICENSED PROFESSIONAL): PETE BONNES DATE
STATE AND LICENSE NO.: PA 046114E 09/30/2020



5 Christy Drive, Suite 307
Chadds Ford, PA 19317
610.558.3464 office
www.fxbinco.com

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CONTRACTS

B-06AC OF 18/19 (GENERAL CONTRACTOR)
B-057C OF 18/19 (MECHANICAL CONTRACTOR)
B-058C OF 18/19 (ELECTRICAL CONTRACTOR)

NO.	DATE	REVISION
2	10.21.20	ISSUE FOR ADDENDUM #2
1	10.13.20	ISSUE FOR ADDENDUM #1
0	07.09.20	ISSUE FOR BID
D	12.04.19	ISSUE FOR 100% REVIEW
C	10.22.19	ISSUE FOR 90% REVIEW
B	08.06.19	ISSUE FOR 60% REVIEW
A	04.07.19	ISSUE FOR 25% REVIEW

SCHOOL & LOCATION

JOHN F. HARTRANFT SCHOOL

720 WEST CUMBERLAND STREET
PHILADELPHIA, PA 19133

PROJECT TITLE

**UNI-VENT & TEMPERATURE
CONTROL REPLACEMENT**

DRAWING TITLE

ELECTRICAL DEMOLITION PLAN
- UPPER LEVEL COMMUNITY
WING

DRAWN BY

JMH

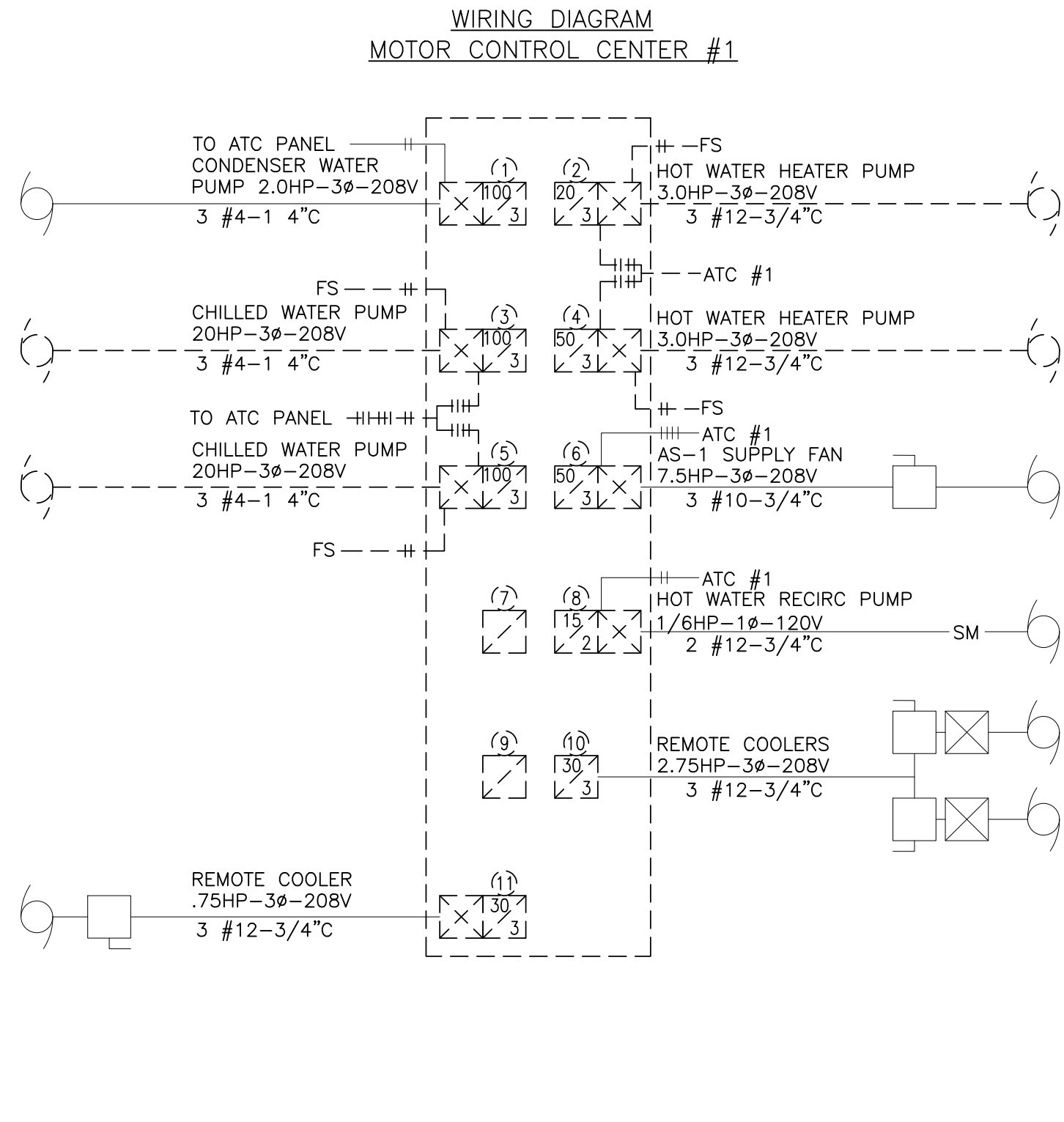
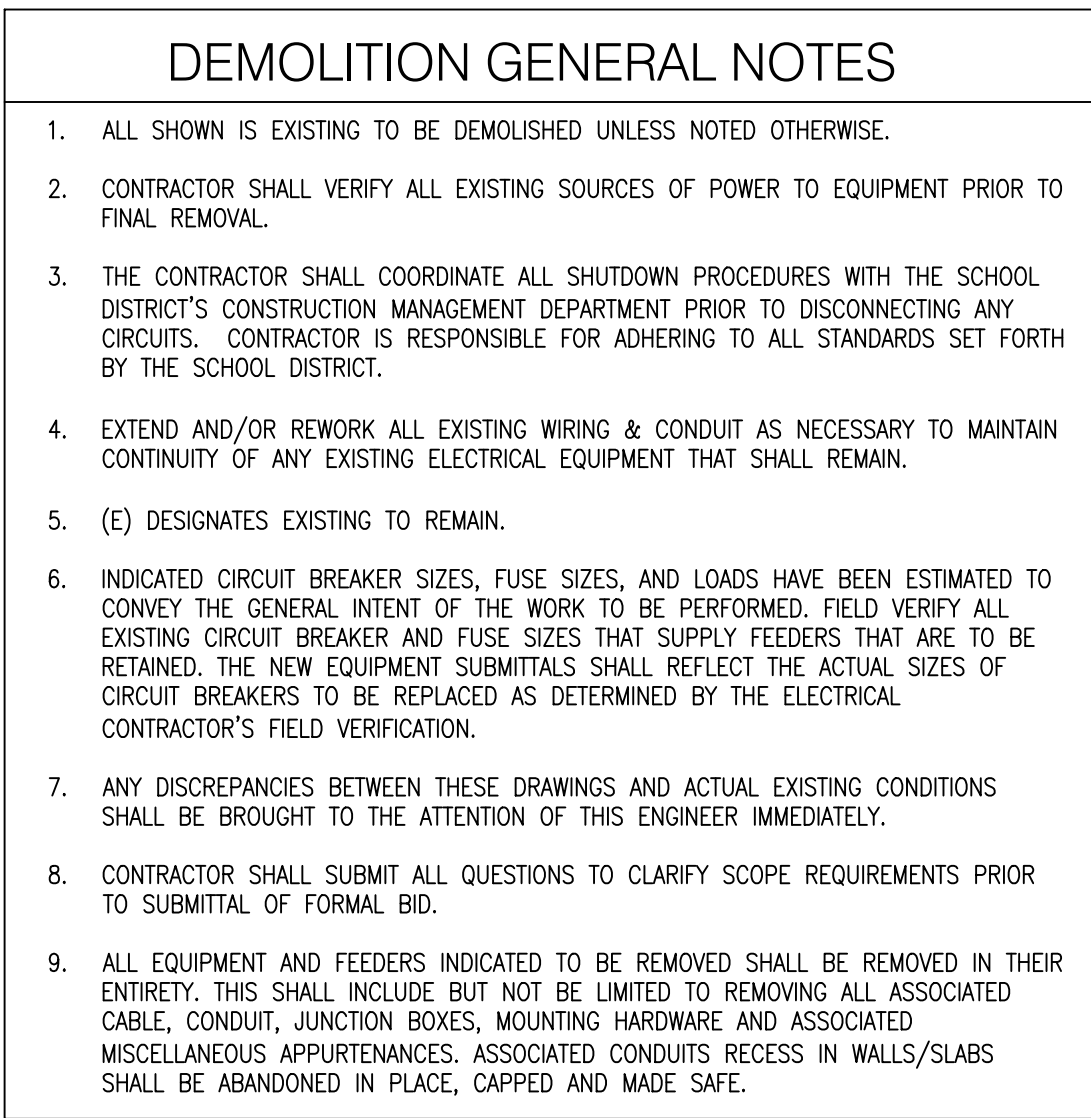
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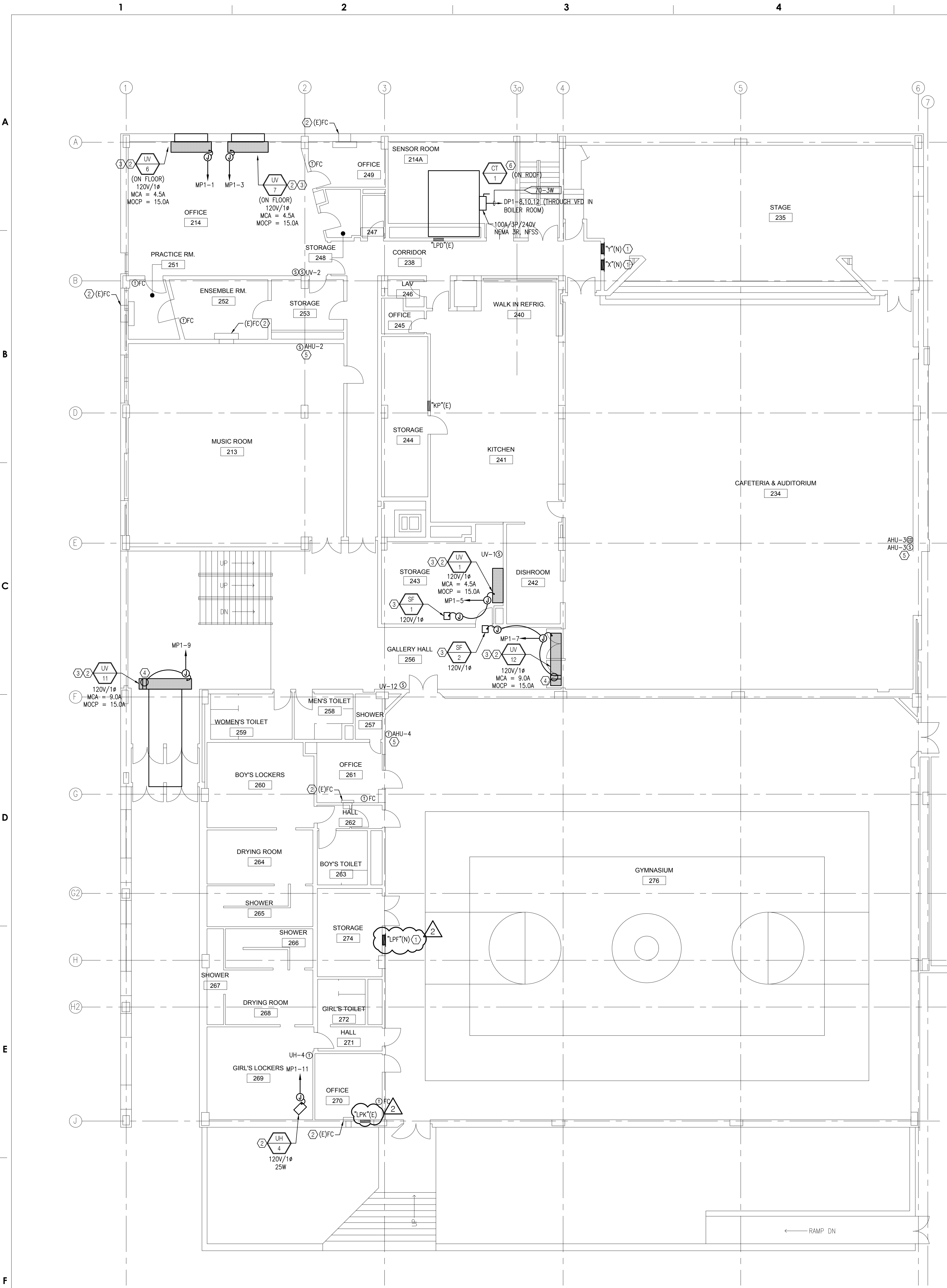
PJB

DRAWING NO.

E-101D

SHEET 38 OF 52





- GENERAL NOTES
1.

CONTRACTOR SHALL VERIFY ALL EXISTING SOURCES OF POWER TO EQUIPMENT PRIOR TO FINAL REMOVAL.
2.

THE CONTRACTOR SHALL COORDINATE ALL SHUTDOWN PROCEDURES WITH THE SCHOOL DISTRICT'S CONSTRUCTION MANAGEMENT DEPARTMENT PRIOR TO DISCONNECTING ANY CIRCUITS. CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL STANDARDS SET FORTH BY THE SCHOOL DISTRICT.
3.

EXTEND AND/OR REWORK ALL EXISTING WIRING & CONDUIT AS NECESSARY TO MAINTAIN CONTINUITY OF ANY EXISTING ELECTRICAL EQUIPMENT THAT SHALL REMAIN.
4.

(E) DESIGNATES EXISTING TO REMAIN.
5.

ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND ACTUAL EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THIS ENGINEER IMMEDIATELY.
6.

CONTRACTOR SHALL SUBMIT ALL QUESTIONS TO CLARIFY SCOPE REQUIREMENTS PRIOR TO SUBMITTAL OF FORMAL BID.
7.

ALL UNIT VENTILATORS ARE PROVIDED WITH A BIPOLAR IONIZER TO BE FIELD INSTALLED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL WIRE IONIZER TO BE POWERED BY THE UNIT VENTILATOR. ELECTRICAL CONTRACTOR SHALL COORDINATE REQUIREMENTS WITH UV MANUFACTURER.

- KEYED NOTES
- 1

NEW PANELBOARD. CONTRACTOR MAY REUSE BACKBOX IF IN GOOD CONDITION. RECONNECT ALL EXISTING CIRCUITS MAINTAINED DURING DEMOLITION. EXTEND/REWORK CIRCUITS AS REQUIRED.
- 2

CONDUIT AND CONTROL WIRING TO THERMOSTAT/SENSOR BY CONTROLS/MECHANICAL CONTRACTOR.
- 3

CONDUIT AND CONTROL WIRING TO BMS BY MECHANICAL/CONTROLS CONTRACTOR.
- 4

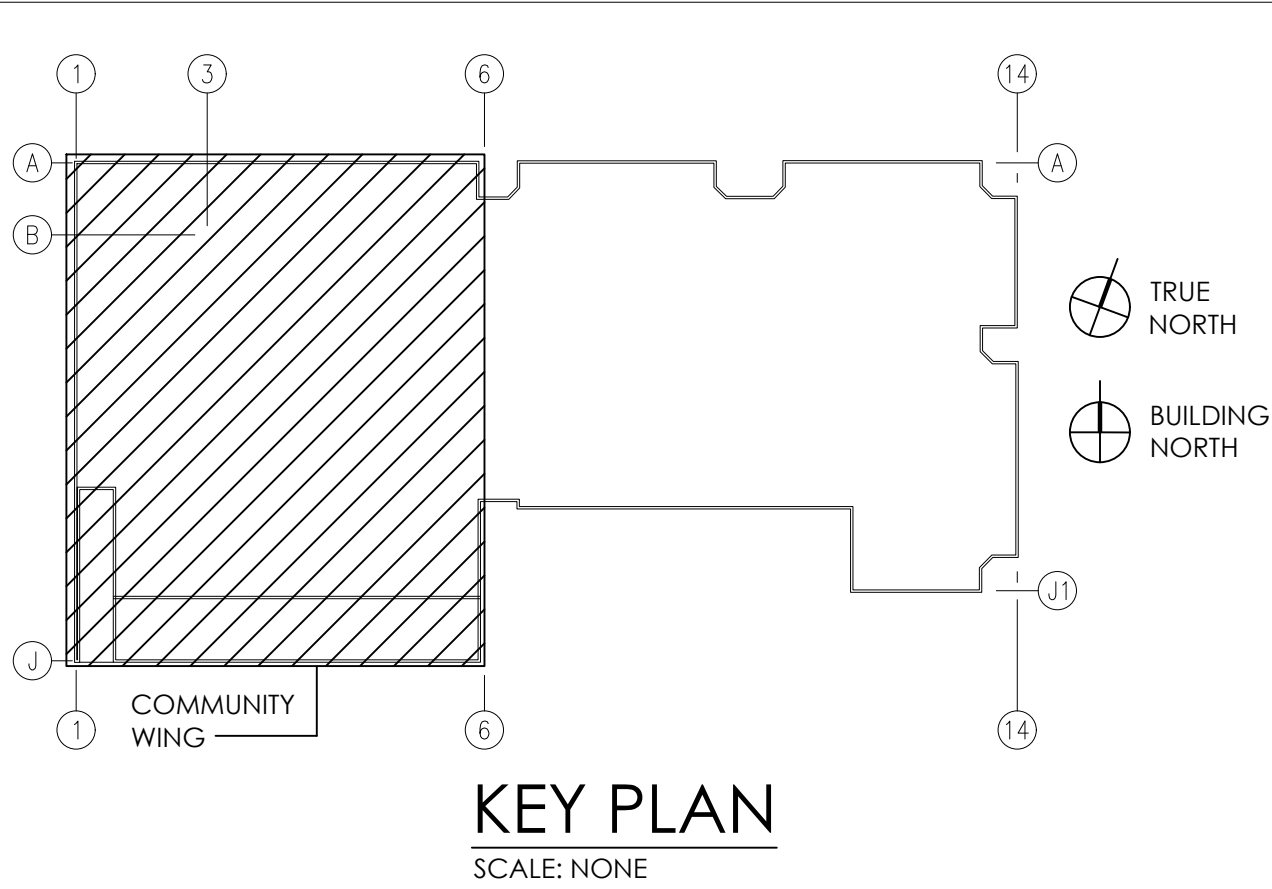
E.C. SHALL PROVIDE RECEPTACLE MOUNTED WITHIN UNIT VENTILATOR ENCLOSURE FOR CONDENSATE PUMP. CONNECT RECEPTACLE TO UNIT VENTILATOR POWER CIRCUIT. COORDINATE FINAL LOCATION WITH M.C.
- 5

CONDUIT AND CONTROL WIRING TO AHU CONTROLLER BY MECHANICAL/CONTROLS CONTRACTOR.
- 6

CONDUIT AND CONTROL WIRING TO CT-1 CONTROL PANEL IN BOILER ROOM FROM SUPPLY AND RETURN TEMPERATURE SENSORS AT TOWER BY MECHANICAL/CONTROLS CONTRACTOR.

PHASING INSTRUCTIONS

DUE TO SDP RESTRICTIONS CONSTRUCTION ACTIVITIES ARE LIMITED TO (2) CLASSROOMS AT A TIME. BIDS AND SCHEDULES SHALL BE ARRANGED ACCORDINGLY.



1

ELECTRICAL PLAN - UPPER LEVEL COMMUNITY WING

E-101

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

SEAL:

NAME (LICENSED PROFESSIONAL): PETE BONNES
STATE AND LICENSE NO.: PA 046114E
DATE: 09/30/2020



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PROJECT TITLE

UNI-VENT & TEMPERATURE
CONTROL REPLACEMENT

DRAWING TITLE

ELECTRICAL PLAN - UPPER
LEVEL COMMUNITY WING

DRAWN BY

JMH

CHECKED BY

PJB

DRAWING NO.

E-101

SHEET 44 OF 52

1

2

3

4

5

6

7

8

PANEL SCHEDULE "MP1"									
VOLTS: 208Y120V AMPS: 225 MLO				PHASE 3ø WIRE 4W		LOCATION: CORRIDOR MOUNTING: RECESSED		SHORT CIRCUIT RATING: 10kAIC PANEL LOAD: 22.7 kVA (0.0 A)	
CIR. NO.	DESCRIPTION	LOAD kVA	WIRE SIZE	CIRCUIT BKR	AMPS	POLES	WIRE SIZE	LOAD kVA	CIR. NO.
1	Unl. Mech Rm. Boiler Rm	0.0	#12	20	1	A	20	1	2
2	Unl. Receiving, Bear 151	0.0	#12	20	1	B	20	1	3
3	Unl. Ventilation	0.0	#12	20	1	C	20	1	4
4	Unl. Vent	0.0	#12	20	1	A	20	1	5
5	Unl. Vent	0.0	#12	20	1	B	20	1	6
6	Unl. Vent	0.0	#12	20	1	C	20	1	7
7	Unl. Vent	0.0	#12	20	1	A	20	1	8
8	Unl. Vent	0.0	#12	20	1	B	20	1	9
9	Unl. Vent	0.0	#12	20	1	C	20	1	10
10	Unl. Vent	0.0	#12	20	1	A	20	1	11
11	Unl. Vent	0.0	#12	20	1	B	20	1	12
12	Unl. Vent	0.0	#12	20	1	C	20	1	13
13	Unl. Vent	0.0	#12	20	1	A	20	1	14
14	Unl. Vent	0.0	#12	20	1	B	20	1	15
15	Unl. Vent	0.0	#12	20	1	C	20	1	16
16	Unl. Vent	0.0	#12	20	1	A	20	1	17
17	Unl. Vent	0.0	#12	20	1	B	20	1	18
18	Unl. Vent	0.0	#12	20	1	C	20	1	19
19	Unl. Vent	0.0	#12	20	1	A	20	1	20
20	Unl. Vent	0.0	#12	20	1	B	20	1	21
21	Unl. Vent	0.0	#12	20	1	C	20	1	22
22	Unl. Vent	0.0	#12	20	1	A	20	1	23
23	Unl. Vent	0.0	#12	20	1	B	20	1	24
24	Unl. Vent	0.0	#12	20	1	C	20	1	25
25	Unl. Vent	0.0	#12	20	1	A	20	1	26
26	Unl. Vent	0.0	#12	20	1	B	20	1	27
27	Unl. Vent	0.0	#12	20	1	C	20	1	28
28	Unl. Vent	0.0	#12	20	1	A	20	1	29
29	Unl. Vent	0.0	#12	20	1	B	20	1	30
30	Unl. Vent	0.0	#12	20	1	C	20	1	31
31	Unl. Vent	0.0	#12	20	1	A	20	1	32
32	Unl. Vent	0.0	#12	20	1	B	20	1	33
33	Unl. Vent	0.0	#12	20	1	C	20	1	34
34	Unl. Vent	0.0	#12	20	1	A	20	1	35
35	Unl. Vent	0.0	#12	20	1	B	20	1	36
36	Unl. Vent	0.0	#12	20	1	C	20	1	37
37	Unl. Vent	0.0	#12	20	1	A	20	1	38
38	Unl. Vent	0.0	#12	20	1	B	20	1	39
39	Unl. Vent	0.0	#12	20	1	C	20	1	40
40	Unl. Vent	0.0	#12	20	1	A	20	1	41
41	Unl. Vent	0.0	#12	20	1	B	20	1	42
PANEL BOARD NOTES: 1. NEW PANELBOARD.									

PANEL SCHEDULE "Y"									
VOLTS: 208Y120V AMPS: 225 MLO				PHASE 3ø WIRE 4W		LOCATION: BACKSTAGE MOUNTING: RECESSED		SHORT CIRCUIT RATING: 10kAIC PANEL LOAD: 0.0 kVA (0.0 A)	
CIR. NO.	DESCRIPTION	LOAD kVA	WIRE SIZE	CIRCUIT BKR	AMPS	POLES	WIRE SIZE	LOAD kVA	CIR. NO.
1	EXISTING LOAD			20	1	A	20	1	2
2	EXISTING LOAD			20	1	B	20	1	3
3	EXISTING LOAD			20	1	C	20	1	4
4	EXISTING LOAD			20	1	A	20	1	5
5	EXISTING LOAD			20	1	B	20	1	6
6	EXISTING LOAD			20	1	C	20	1	7
7	EXISTING LOAD			20	1	A	20	1	8
8	EXISTING LOAD			20	1	B	20	1	9
9	EXISTING LOAD			20	1	C	20	1	10
10	EXISTING LOAD			20	1	A	20	1	11
11	EXISTING LOAD			20	1	B	20	1	12
12	EXISTING LOAD			20	1	C	20	1	13
13	EXISTING LOAD			20	1	A	20	1	14
14	EXISTING LOAD			20	1	B	20	1	15
15	EXISTING LOAD			20	1	C	20	1	16
16	EXISTING LOAD			20	1	A	20	1	17
17	EXISTING LOAD			20	1	B	20	1	18
18	EXISTING LOAD			20	1	C	20	1	19
19	EXISTING LOAD			20	1	A	20	1	20
20	EXISTING LOAD			20	1	B	20	1	21
21	EXISTING LOAD			20	1	C	20	1	22
22	EXISTING LOAD			20	1	A	20	1	23
23	EXISTING LOAD			20	1	B	20	1	24
24	EXISTING LOAD			20	1	C	20	1	25
25	EXISTING LOAD			20	1	A	20	1	26
26	EXISTING LOAD			20	1	B	20	1	27
27	EXISTING LOAD			20	1	C	20	1	28
28	EXISTING LOAD			20	1	A	20	1	29
29	EXISTING LOAD			20	1	B	20	1	30
30	EXISTING LOAD			20	1	C	20	1	31
31	EXISTING LOAD			20	1	A	20	1	32
32	EXISTING LOAD			20	1	B	20	1	33
33	EXISTING LOAD			20	1	C	20	1	34
34	EXISTING LOAD			20	1	A	20	1	35
35	EXISTING LOAD			20	1	B	20	1	36
36	EXISTING LOAD			20	1	C	20	1	37
37	EXISTING LOAD			20	1	A	20	1	38
38	EXISTING LOAD			20	1	B	20	1	39
39	EXISTING LOAD			20	1	C	20	1	40
40	EXISTING LOAD			20	1	A	20	1	41
41	EXISTING LOAD			20	1	B	20	1	42
PANEL BOARD NOTES: 1. NEW PANELBOARD. CONTRACTOR MAY REUSE EXISTING BACKBOX IF FOUND TO BE IN GOOD CONDITION.									

PANEL SCHEDULE "LPJ"									
VOLTS: 208Y120V AMPS: 225 MLO				PHASE 3ø WIRE 4W		LOCATION: CORRIDOR MOUNTING: RECESSED		SHORT CIRCUIT RATING: 10kAIC PANEL LOAD: 0.0 kVA (0.0 A)	
CIR. NO.	DESCRIPTION	LOAD kVA	WIRE SIZE	CIRCUIT BKR	AMPS	POLES	WIRE SIZE	LOAD kVA	CIR. NO.
1	EXISTING LOAD			20	1	A	20	1	2
2	EXISTING LOAD			20	1	B	20	1	3
3	EXISTING LOAD			20	1	C	20	1	4
4	EXISTING LOAD			20	1	A	20	1	5
5	EXISTING LOAD			20	1	B	20	1	6
6	EXISTING LOAD			20	1	C	20	1	7
7	EXISTING LOAD			20	1	A	20	1	8
8	EXISTING LOAD			20	1	B	20	1	9
9	EXISTING LOAD			20	1	C	20	1	10
10	EXISTING LOAD			20	1	A	20	1	11
11	EXISTING LOAD			20	1	B	20	1	12
12	EXISTING LOAD			20	1	C	20	1	13
13	EXISTING LOAD			20	1	A	20	1	14
14	EXISTING LOAD			20	1	B	20	1	15
15	EXISTING LOAD			20	1	C	20	1	16
16	EXISTING LOAD			20	1	A	20	1	17
17	EXISTING LOAD			20	1	B	20	1	18
18	EXISTING LOAD			20	1	C	20	1	19
19	EXISTING LOAD			20	1	A	20	1	20
20	EXISTING LOAD			20	1	B	20	1	21
21	EXISTING LOAD			20	1	C	20	1	22
22	EXISTING LOAD			20	1	A	20	1	23
23	EXISTING LOAD			20	1	B	20	1	24
24	EXISTING LOAD			20	1	C	20	1	25
25	EXISTING LOAD			20	1	A	20	1	26
26	EXISTING LOAD			20	1	B	20	1	27
27	EXISTING LOAD			20	1	C	20	1	28
28	EXISTING LOAD			20	1	A	20	1	29
29	EXISTING LOAD			20	1	B	20	1	30
30	EXISTING LOAD			20	1	C	20	1	31
31	EXISTING LOAD			20	1	A	20	1	32
32	EXISTING LOAD			20	1	B	20	1	33
33	EXISTING LOAD			20	1	C	20	1	34
34	EXISTING LOAD			20	1	A	20	1	35
35	EXISTING LOAD			20	1	B	20	1	36
36	EXISTING LOAD			20	1	C	20	1	37
37	EXISTING LOAD			20	1	A	20	1	38
38	EXISTING LOAD			20	1	B	20	1	39
39	EXISTING LOAD			20	1	C	20	1	40
40	EXISTING LOAD			20	1	A	20	1	41
41	EXISTING LOAD			20	1	B	20	1	42
PANEL BOARD NOTES: 1. NEW PANELBOARD. CONTRACTOR MAY REUSE EXISTING BACKBOX IF FOUND TO BE IN GOOD CONDITION.									

PANEL SCHEDULE "PPBR-A/B"				VOLTS: 208Y120V AMPS: 400A M.L.O.		PHASE 3ø WIRE 4W		LOCATION: BOILER RM MOUNTING: SURFACE		SHORT CIRCUIT RATING: PANEL LOAD: 22kAIC 85.0 kVA (268.6 A)			
GR. NO.	DESCRIPTION	LOAD kVA	WIRE SIZE	CIRCUIT BKR	AMPS	POLES	CIRCUIT BKR	AMPS	POLES	WIRE SIZE	LOAD kVA	DESCRIPTION	CIR. NO.
1	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	SUPPLY PAN	2
2	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	3
3	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	4
4	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	5
5	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	6
6	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	7
7	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	8
8	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	9
9	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	10
10	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	11
11	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	12
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13	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	14
14	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	15
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19	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	20
20	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	21
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22	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	23
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26	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	27
27	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	28
28	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	29
29	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	30
30	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	31
31	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	32
32	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	33
33	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	34
34	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	35
35	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	36
36	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	37
37	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	38
38	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	39
39	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	40
40	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	41
41	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	42
42	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	43
43	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	44
44	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	45
45	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	46
46	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	47
47	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	48
48	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	49
49	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	50
50	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	51
51	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	52
52	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	53
53	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	54
54	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	55
55	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	56
56	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	57
57	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	58
58	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	59
59	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	60
60	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	61
61	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	62
62	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	63
63	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	64
64	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	65
65	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	66
66	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	67
67	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	68
68	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	69
69	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	70
70	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	71
71	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	72
72	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	73
73	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	74
74	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	75
75	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	76
76	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	77
77	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	78
78	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	79
79	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	80
80	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	81
81	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	82
82	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	83
83	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	84
84	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	85
85	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	86
86	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	87
87	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	88
88	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	89
89	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	90
90	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	91
91	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	92
92	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	93
93	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	94
94	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	95
95	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	96
96	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	97
97	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	98
98	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	99
99	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	100
100	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	101
101	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	102
102	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	103
103	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	104
104	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	105
105	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	106
106	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	107
107	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	108
108	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	109
109	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	110
110	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	111
111	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	112
112	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	113
113	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	114
114	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	115
115	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	116
116	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	117
117	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	118
118	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	119
119	Unl. Vent	4.8	#12	20	1	B	20	1	B	20	1	Unl. Vent	120
120	Unl. Vent	4.8	#12	20	1	C	20	1	C	20	1	Unl. Vent	121
121	Unl. Vent	4.8	#12	20	1	A	20	1	A	20	1	Unl. Vent	122