

DOCUMENT 00 90 00
ADDENDUM

ADDENDUM No.: 1

DATE: October 28, 2022

RE: LOGAN HS HVAC UPGRADES
SCHOOL DISTRICT OF LA CROSSE
1500 RANGER DRIVE
LA CROSSE, WI 54603
PROJECT NO. 22057

FROM: HSR Associates, Inc
100 Milwaukee Street
La Crosse, WI 54603
(608) 784-1830

TO: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated October 2022. Acknowledge receipt of this Addendum in the space provided on the bid form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of: 2 pages, 1 document, 0 sections, and 6 drawings.

DOCUMENT

1. SDL Logan Pre-Bid Meeting Sign In Sheet - 10-19-22

CHANGES TO SPECIFICATIONS

2. Section 23 64 16 WATER COOLED CENTRIFUGAL CHILLERS
 - a. See the narrative, immediately below, describing revisions to the section.
 - b. Add Multistack as an approved equal.
 - c. Cooling tower shall come with sump water level sensor (low and high alarm) with BACNet integration capability.

CHANGES TO DRAWINGS

3. Sheet M002 HVAC OVERALL FIRST FLOOR REMODEL PLAN 30"x42"
 - a. See the revised sheet included in this addendum. Disregard the previous version.
 - b. Modified routing of new 3" HWS/HWR piping to first floor ceiling and follow the routing of existing chilled water piping.
4. Sheet M003 HVAC OVERALL SECOND FLOOR REMODEL PLAN 30"x42"
 - a. See the revised sheet included in this addendum. Disregard the previous version.
 - b. Modified routing of new 3" HWS/HWR piping to first floor ceiling and follow the routing of existing chilled water piping.

5. Sheet M201 ENLARGED PLANS 30"x42"
 - a. See the revised sheet included in this addendum. Disregard the previous version.
 - b. Added motorized dampers (E)PF-1 and (E)PF-2 to floor plan.
6. Sheet M202 ENLARGED PLANS 30"x42"
 - a. See the revised sheet included in this addendum. Disregard the previous version.
 - b. Modified routing of new 3" HWS/HWR piping to come through the floor of the 1995 Boiler Room.
7. Sheet M601 HVAC SCHEDULES 30"x42"
 - a. See the revised sheet included in this addendum. Disregard the previous version.
 - b. Added (E)PF-1 and (E)PF-2 to Motorized Damper Schedule.
8. Sheet E103 ELEC. REMOVAL AND REMODEL PLAN 30"x42"
 - a. See the revised sheet included in this addendum. Disregard the previous version.
 - b. Add motors HWP-1 and HWP-2 to Motor Schedule
 - c. Add Note #4 to motor schedule remarks.
 - d. Revised remarks column in motor schedule.

END OF DOCUMENT 00 90 00

SDL LOGAN PRE-BID

10/19/22

NAME	COMPANY	PHONE	EMAIL
JAKE BERAN	HSR	785-4709	jberan@hsrassociates.com
Tim Wilcott	Complete Control	715 2133964	tim.wilcott@complete-control.com
BOB Cary	CARY specialized	608-790-0326	bob@caryspec.com
Jeff Johnson	LIRM	608-304-1027	jeffjcrn@gmail.com
Dan Bohm	Masters	608-275-7032	Dbohm@mastershvac.com
Sam Bayer	Masters	608-275-7033	sbayer@mastershvac.com
Jeff Beechey	Ahern	920-948-4160	J.Beechey@JFAhern.com
Tony Lewis	TLE	608-777-0707	TLEINL@outlook.com
Kevin Klich	T.D.P.	608-792-4887	
SCOTT Gerzsiak	HSR		

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Consultant:

SCHOOL DISTRICT OF LA CROSSE
LOGAN HS HVAC UPGRADES
HVAC OVERALL FIRST FLOOR REMODEL PLAN

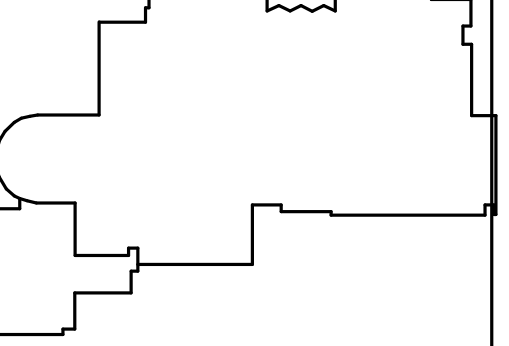
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LA CROSSE, WI 54603

Project Number: 22057

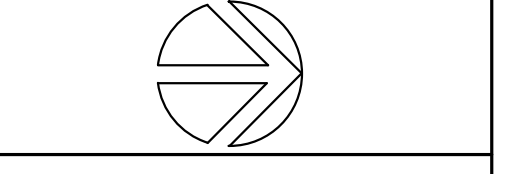
Project Date: OCTOBER 2022

Drawn By: JB

Key Plan:



OVERALL KEY PLAN

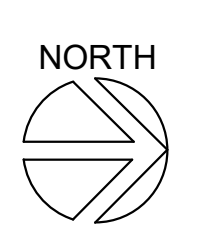
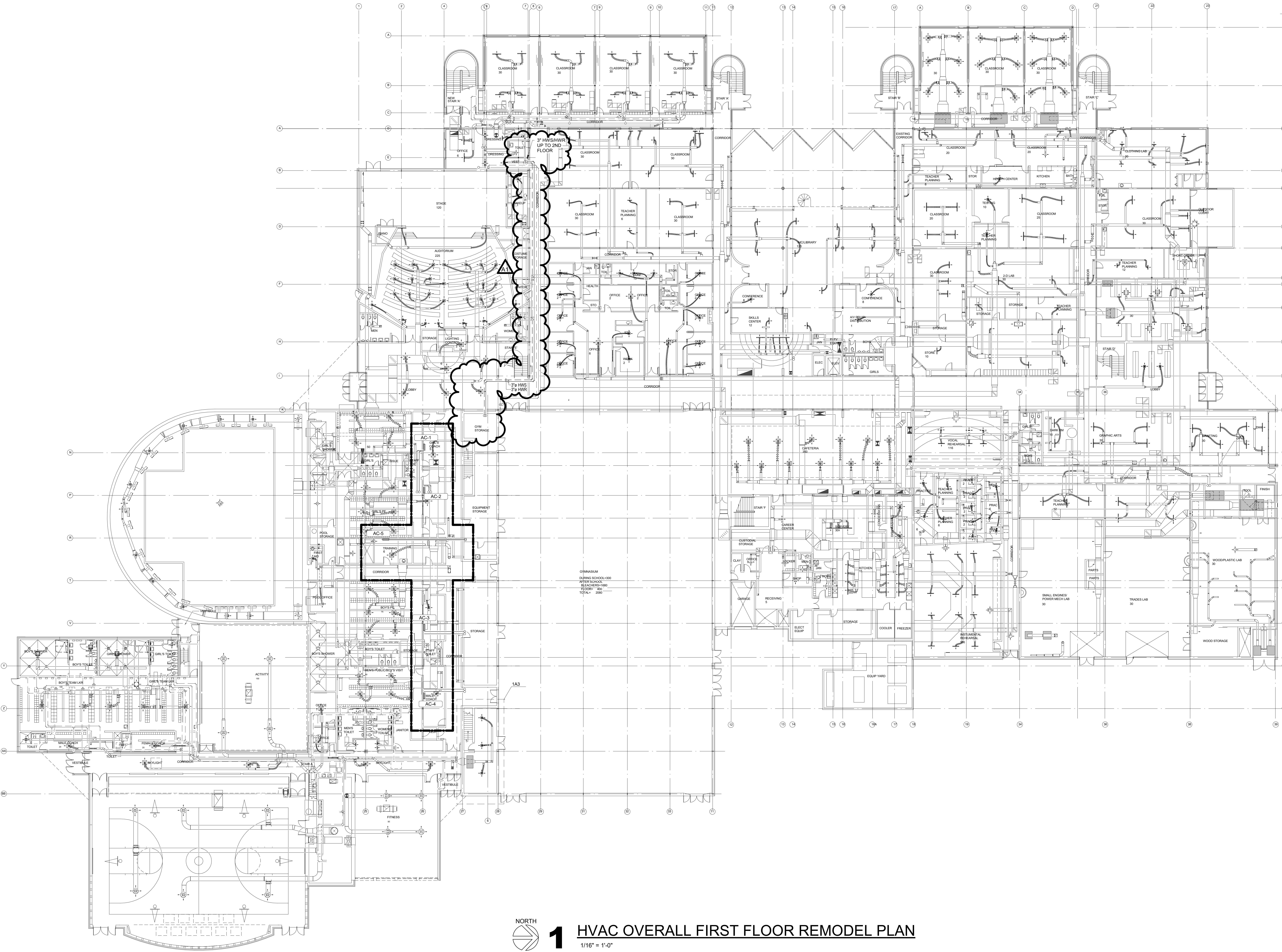


No.	Description	Date
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Graphic Scale: VARIES

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M002



1 HVAC OVERALL FIRST FLOOR REMODEL PLAN
1/16" = 1'-0"



Consultant:

Project Title:
**SCHOOL DISTRICT OF LA CROSSE
LOGAN HS HVAC UPGRADES**

Project Location:
1500 RANGER DRIVE
LA CROSSE, WI 54603

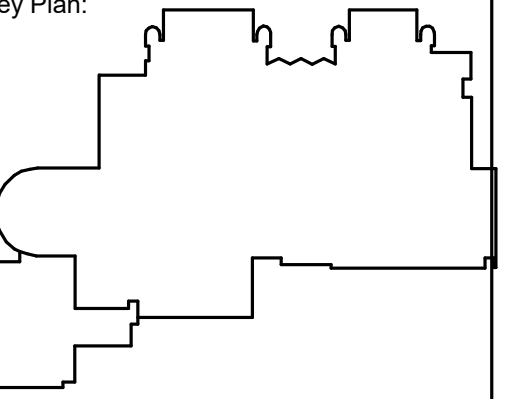
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HSR Project Number:
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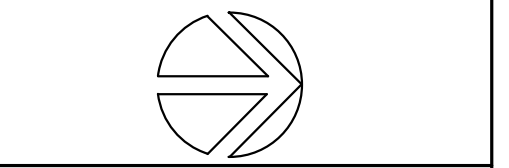
Project Date:
OCTOBER 2022

Drawn By:
JB

Key Plan:



OVERALL KEY PLAN

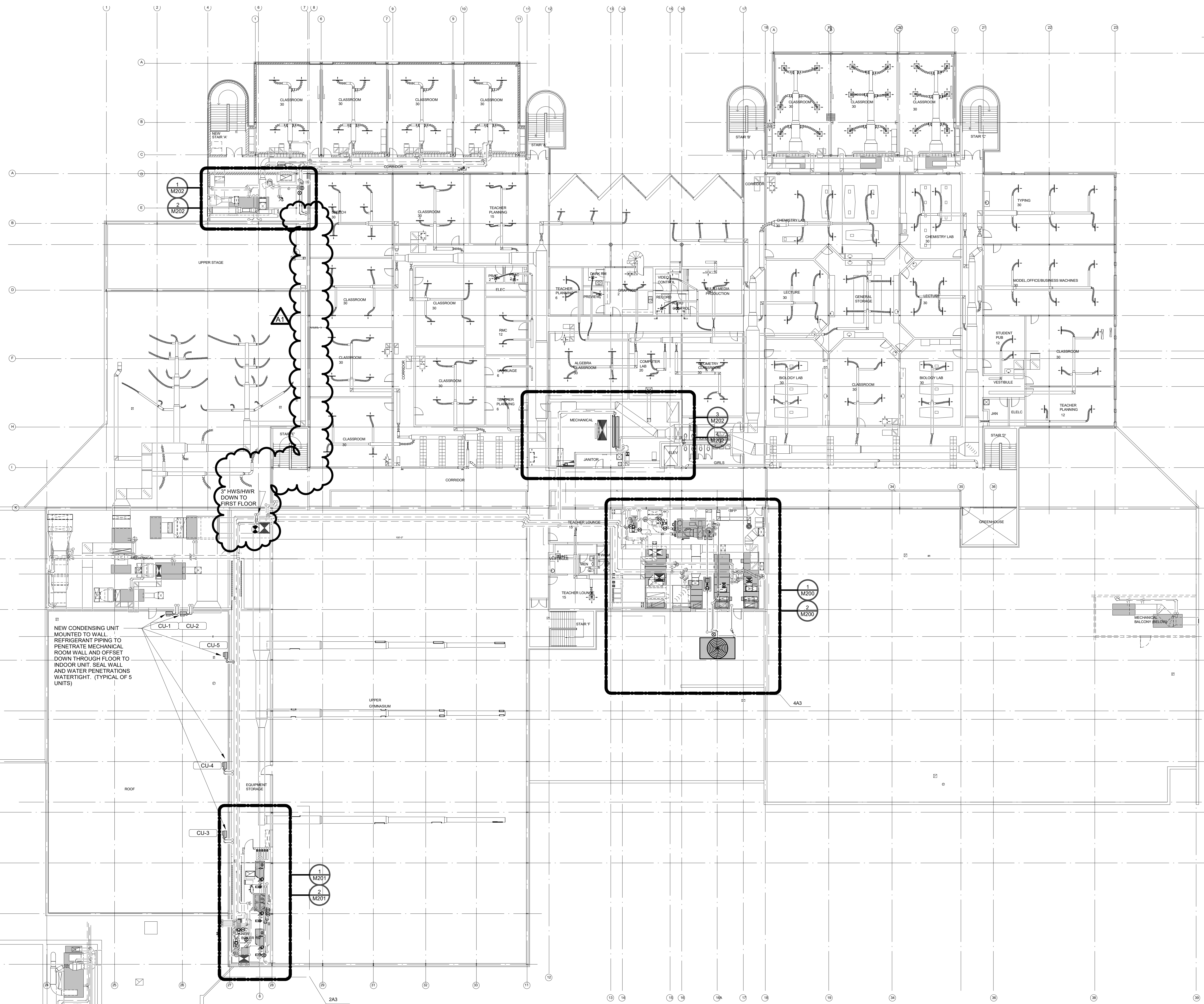


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M003

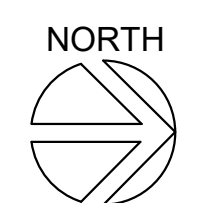
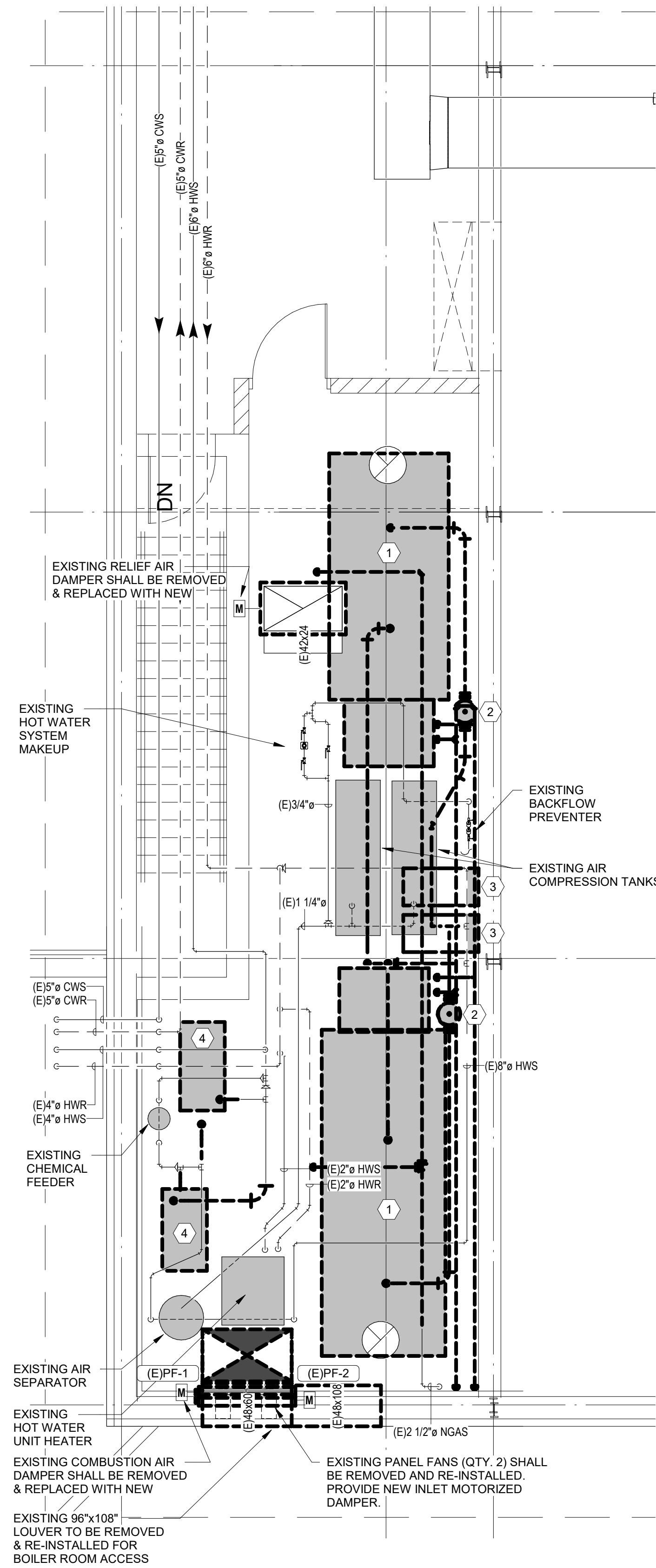


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HVAC OVERALL SECOND FLOOR REMODEL PLAN

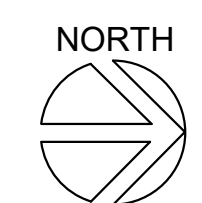
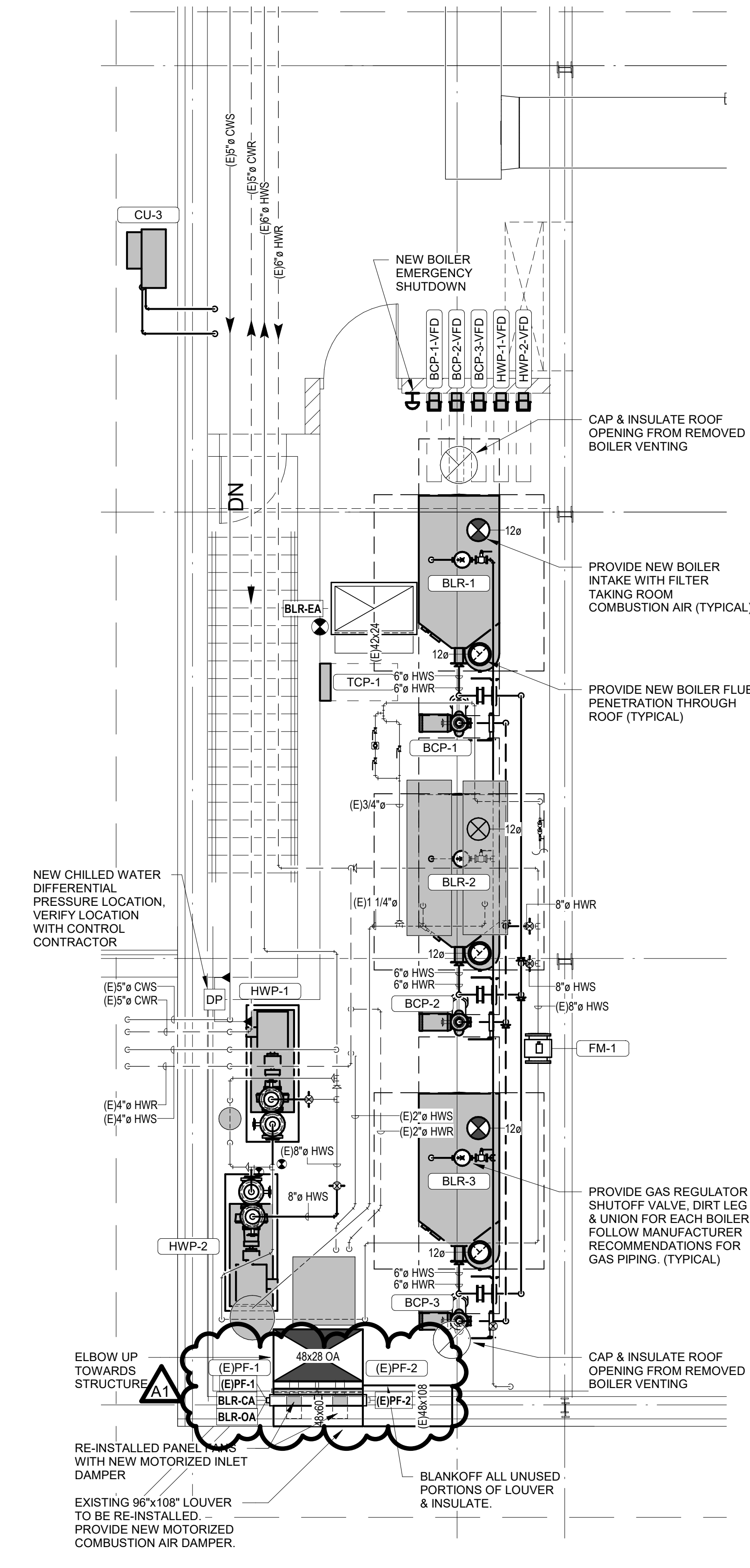
1/16" = 1'-0"

# KEYNOTES - DEMO M201	
Keynote Number	Keynote Description
	ALL REMOVED ITEMS THAT THE OWNER WANTS SHALL BE REMOVED AND TURNED OVER TO THE OWNER AT DESIGNATED STORAGE SPACE ON SITE. ALL REMAINING ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
1	REMOVE EXISTING BOILER & ASSOCIATED BRANCH PIPING, NATURAL GAS BRANCH, VENTING.
2	REMOVE EXISTING BOILER PUMP
3	REMOVE EXISTING BOILER TEMPERATURE CONTROL PANELS
4	REMOVE EXISTING HOT WATER PUMP & ASSOCIATED PUMP ACCESSORIES.



1 HVAC SECOND FLOOR REMOVAL PLAN - MAIN BOILER ROOM

1/4" = 1'-0"



2 HVAC SECOND FLOOR REMODEL PLAN - MAIN BOILER ROOM

1/4" = 1'-0"



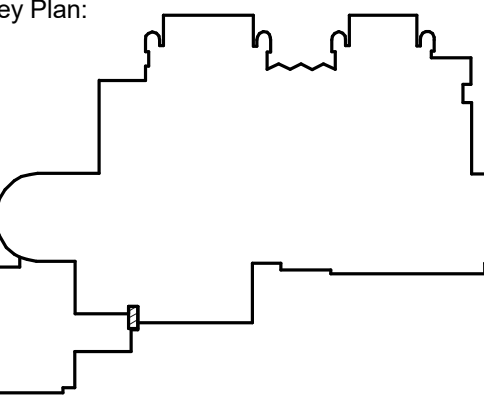
Consultant:

Project Title: **SCHOOL DISTRICT OF LA CROSSE
LOGAN HS HVAC UPGRADES**
Project Location: 1500 RANGER DRIVE
LA CROSSE, WI 54603
Sheet Title: **ENLARGED PLANS**

HSR Project Number: **22057**

Project Date: **OCTOBER 2022**

Drawn By: **JB**



OVERALL KEY PLAN



No.	Description	Date
A1	Addendum #1	10-27-2022

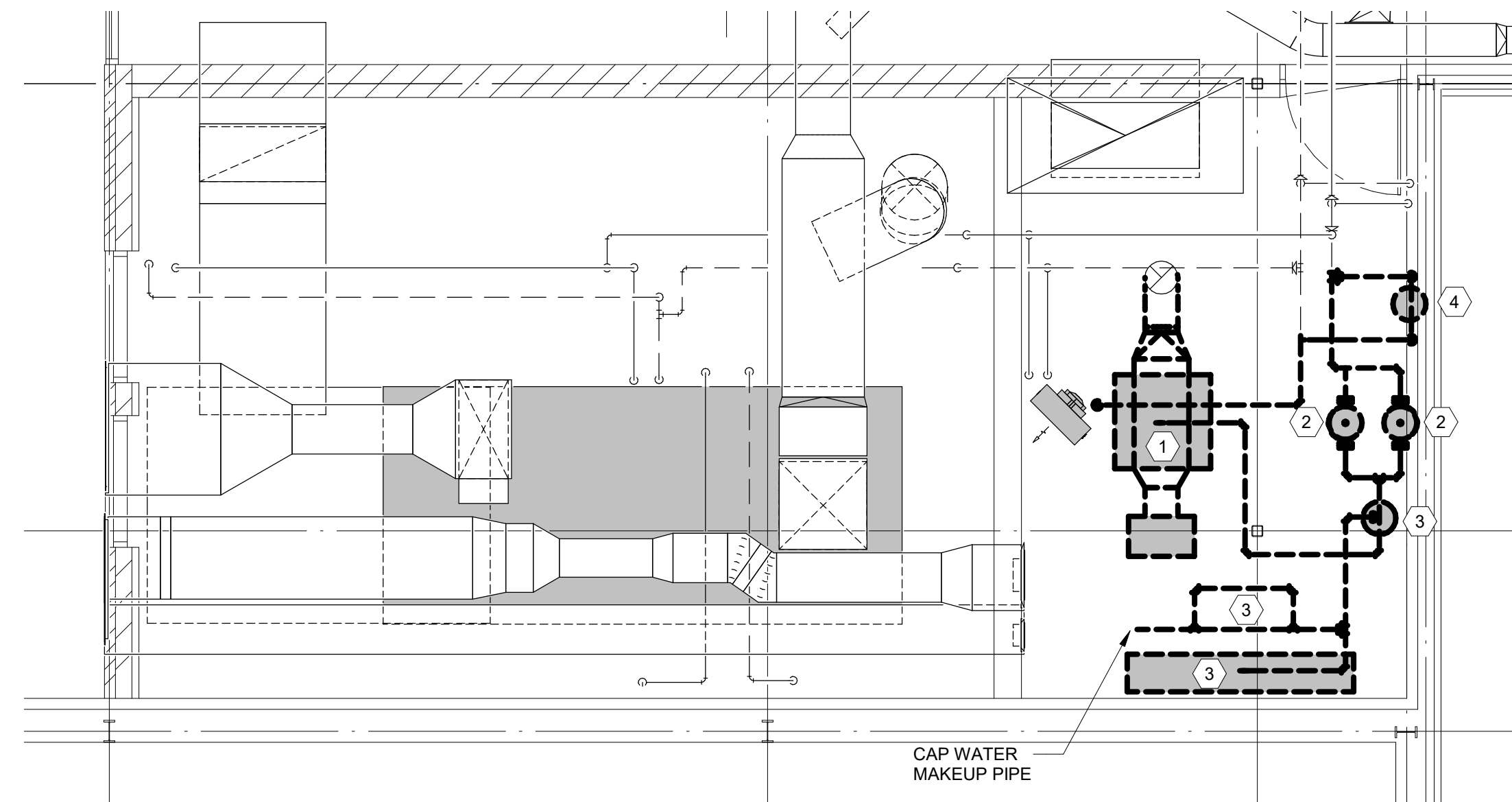
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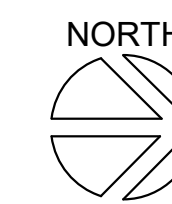
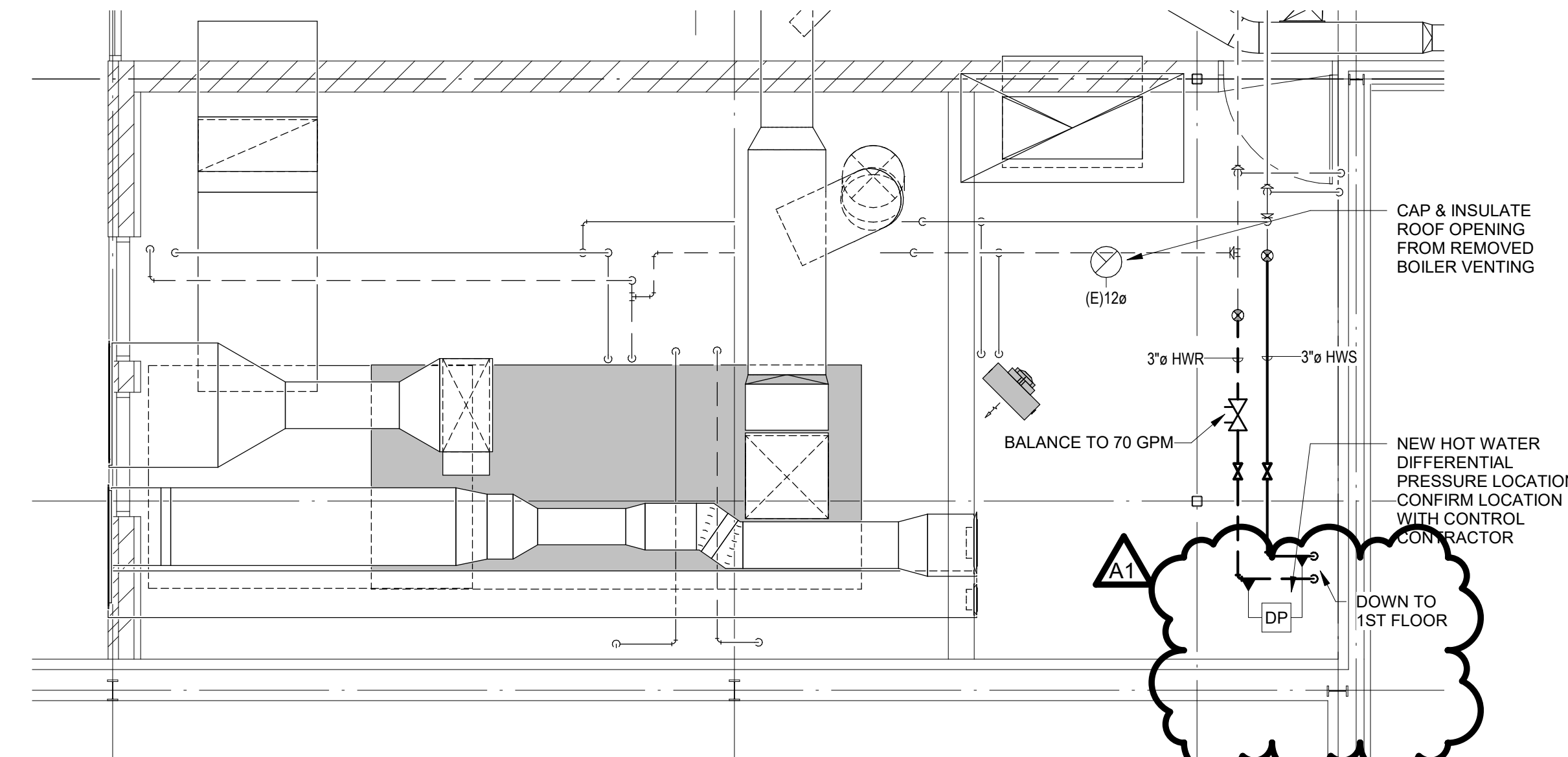
M201

KEYNOTES - DEMO M202

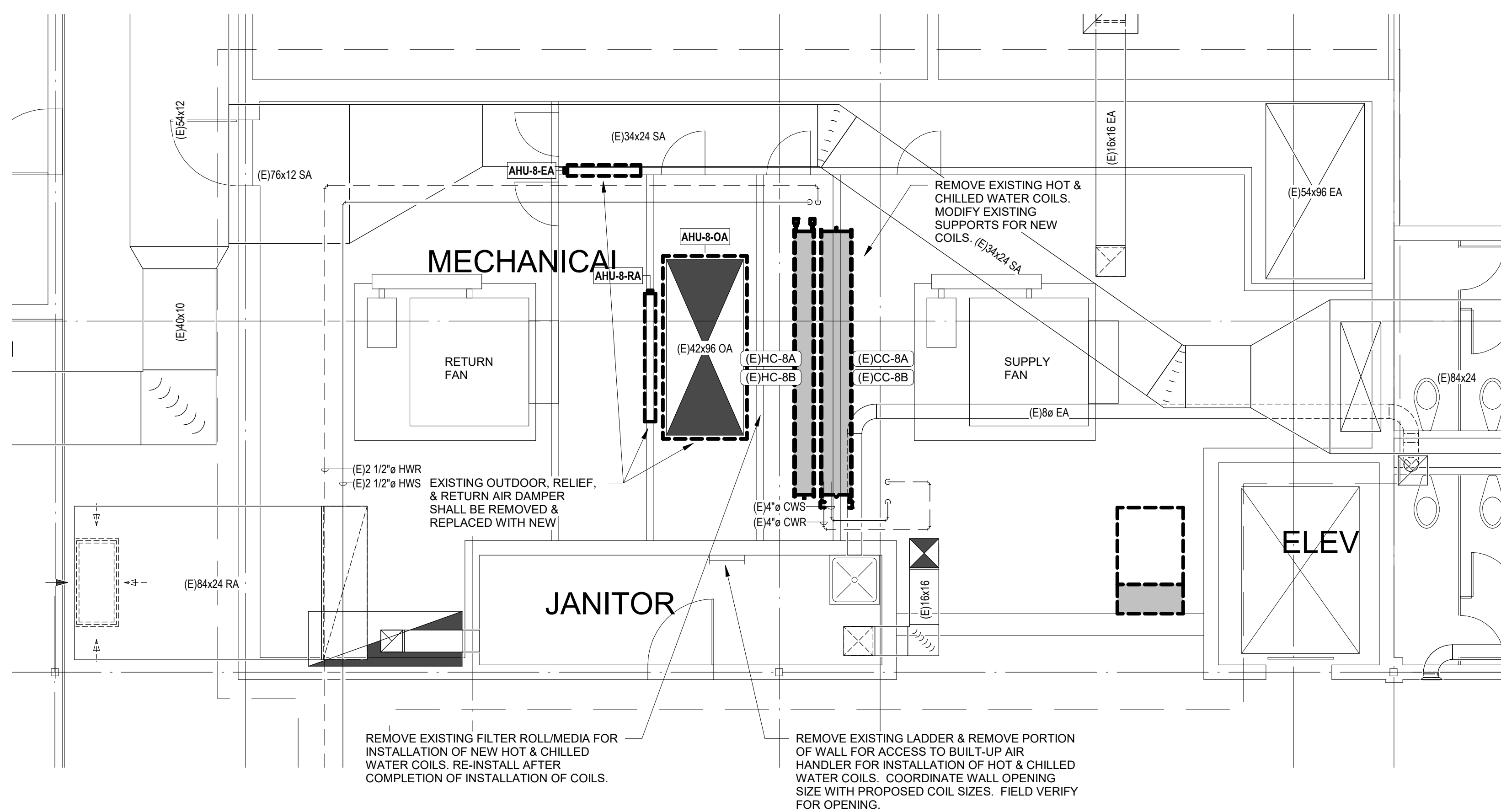
Keynote Number	Keynote Description
#	ALL REMOVED ITEMS THAT THE OWNER WANTS SHALL BE REMOVED AND TURNED OVER TO THE OWNER AT DESIGNATED STORAGE SPACE ON SITE. ALL REMAINING ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
1	REMOVE EXISTING BOILER & ASSOCIATED BRANCH PIPING, NATURAL GAS BRANCH, VENTING.
2	REMOVE EXISTING PUMP & ASSOCIATED BRANCH PIPING.
3	REMOVE EXISTING HOT WATER AIR SEPARATOR & ASSOCIATED WATER MAKEUP & EXPANSION TANK.
4	REMOVE EXISTING CHEMICAL FEEDER & ASSOCIATED BRANCH PIPING.



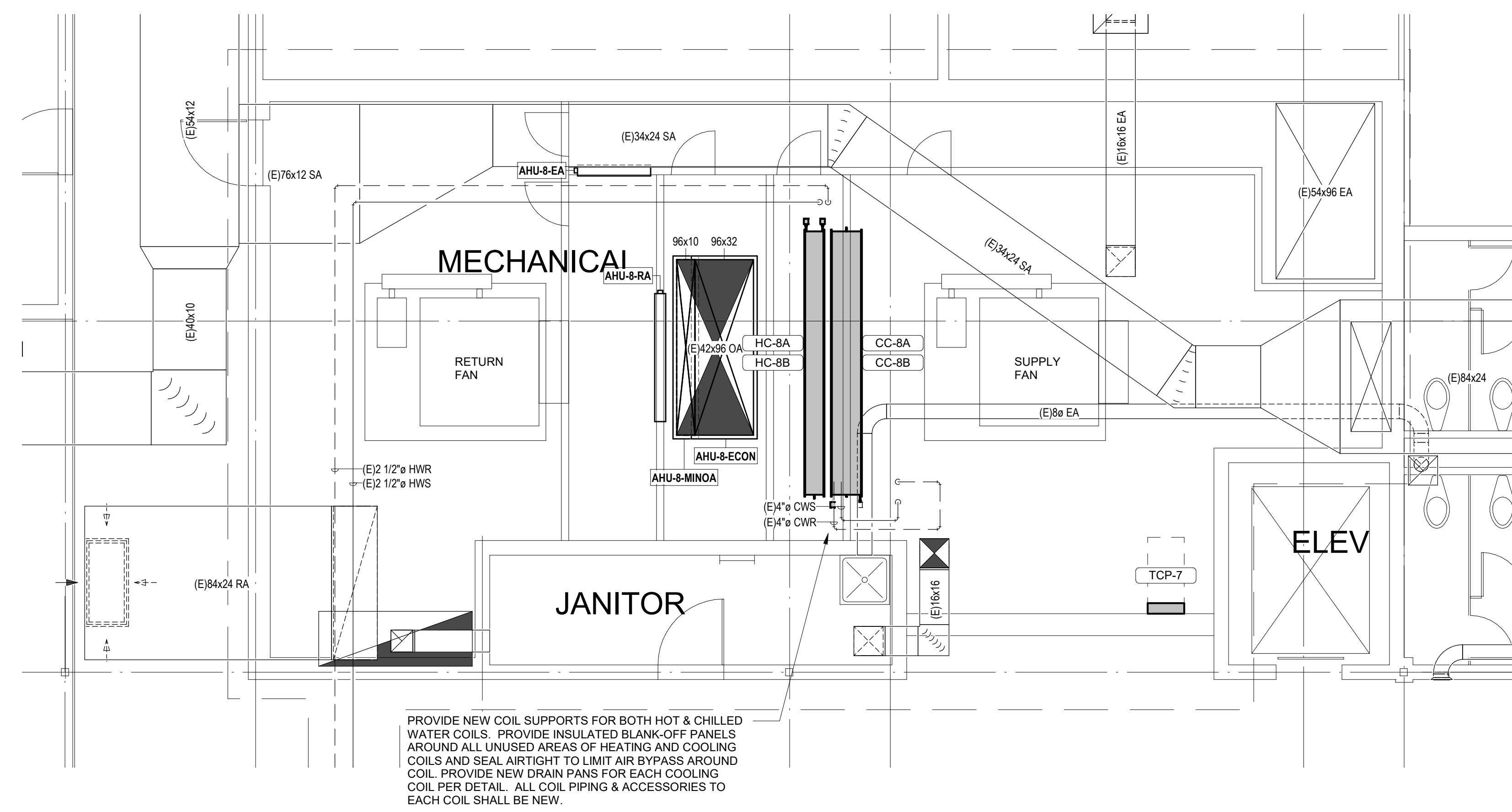
1 HVAC SECOND FLOOR REMOVAL PLAN - 1995 BOILER ROOM
1/4" = 1'-0"



2 HVAC SECOND FLOOR REMODEL PLAN - 1995 BOILER ROOM
1/4" = 1'-0"



3 HVAC SECOND FLOOR REMOVAL PLAN - BUILT-UP AHU-8
1/4" = 1'-0"



4 HVAC SECOND FLOOR REMODEL PLAN - BUILT-UP AHU-8
1/4" = 1'-0"



Consultant:

SCHOOL DISTRICT OF LA CROSSE
LOGAN HS HVAC UPGRADES

Project Location: 1500 RANGER DRIVE
LA CROSSE, WI 54603

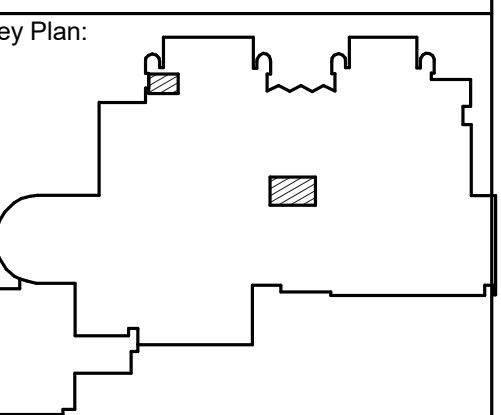
ENLARGED PLANS

HSR Project Number: 22057

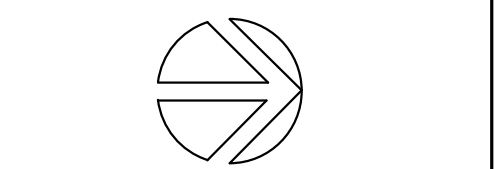
Project Date: OCTOBER 2022

Drawn By: JB

Key Plan:



OVERALL KEY PLAN



No.	Description	Date
A1	Addendum #1	10-27-2022

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M202



HSR ASSOCIATES INC.
100 MILWAUKEE STREET
LA CROSSE, WISCONSIN
PHONE: 608.784.1830
FAX: 608.782.5844
www.hsrassociates.com

Consultant:

AIR HANDLING UNIT SCHEDULE

UNIT NO.	MANUFACTURER	MODEL NO.	TYPE	ARRANGEMENT	SUPPLY FAN										RETURN FAN										FILTERS										CHILLED WATER COOLING COIL										HOT WATER PRE-HEATING COIL										UNIT WEIGHT
					AIRFLOW	TYPE	EXT. STATIC PRESS.	TOTAL STATIC PRESS.	FAN BRAKE POWER	FAN RPM	DRIVE TYPE	QTY.	POWER PER FAN	AIRFLOW	TYPE	EXT. STATIC PRESS.	TOTAL STATIC PRESS.	FAN BRAKE POWER	FAN RPM	DRIVE TYPE	QTY.	POWER PER FAN	TYPE	AREA	EFFICIENCY	PRESSURE DROP MID-LIFE	TOTAL CLG. CAP.	SENSIBLE CLG. CAP.	EAT DB	EAT WB	LAT DB	LAT WB	FACE VELOCITY	PRESS. DROP	ROWS	FLOW	EWI	LWT	PRESS. DROP	GLYCOL TYPE	GLYCOL	HEATING CAP.	EAT DB	LAT DB	FACE VELOCITY	PRESS. DROP	ROWS	FLOW	EWI	LWT	PRESS. DROP	GLYCOL TYPE	GLYCOL		
AHU-6	TRANE	CSAA035	INDOOR	DRAW-THRU	2000 CFM	17000 CFM	PLENUM	3.00 in-wg	5.50 in-wg	22.0 hp	1800	DIRECT	2	15.0 hp	17000 CFM	PLENUM	1.50 in-wg	2.23 in-wg	10.9 hp	1800	DIRECT	2	7.5 hp	2" ANGLED	63 SF	MERV 8	0.56 in-wg	853,800 Btu/h	544,460 Btu/h	82°F	69°F	53°F	53°F	507 FPM	0.91 in-wg	8	142.0 GPM	45°F	57°F	8.72 ftH ₂ O	NONE	0%	700,590 Btu/h	42°F	80°F	467 FPM	0.15 in-wg	2	50.0 GPM	140°F	112°F	1.44 ftH ₂ O	NONE	0%	8501 lbf
AHU-7	TRANE	CSAA017	INDOOR	DRAW-THRU	1000 CFM	8000 CFM	PLENUM	3.00 in-wg	5.30 in-wg	10.6 hp	1800	DIRECT	1	15.0 hp	8000 CFM	PLENUM	1.50 in-wg	2.11 in-wg	4.2 hp	1800	DIRECT	1	5.0 hp	2" ANGLED	29 SF	MERV 8	0.57 in-wg	401,790 Btu/h	256,210 Btu/h	82°F	69°F	53°F	53°F	476 FPM	0.88 in-wg	8	58.0 GPM	45°F	59°F	8.41 ftH ₂ O	NONE	0%	390,420 Btu/h	45°F	90°F	512 FPM	0.28 in-wg	4	16.0 GPM	140°F	90°F	0.76 ftH ₂ O	NONE	0%	4524 lbf
AHU-9	TRANE	CSAA014	INDOOR	DRAW-THRU	700 CFM	6000 CFM	PLENUM	3.00 in-wg	5.18 in-wg	7.7 hp	1800	DIRECT	1	10.0 hp	6000 CFM	PLENUM	1.50 in-wg	1.84 in-wg	3.4 hp	1800	DIRECT	1	5.0 hp	2" ANGLED	18 SF	MERV 8	0.59 in-wg	301,340 Btu/h	192,160 Btu/h	82°F	69°F	53°F	53°F	457 FPM	0.78 in-wg	6	43.0 GPM	45°F	59°F	5.77 ftH ₂ O	NONE	0%	292,820 Btu/h	45°F	90°F	457 FPM	0.25 in-wg	4	10.0 GPM	140°F	80°F	0.58 ftH ₂ O	NONE	0%	3832 lbf
AHU-12	TRANE	CSAA012	INDOOR	DRAW-THRU	0 CFM	7000 CFM	PLENUM	3.00 in-wg	4.29 in-wg	8.0 hp	1800	DIRECT	1	10.0 hp	0 CFM		0.00 in-wg	0.00 in-wg	0.0 hp	0				17 SF	MERV 8	0.62 in-wg	0 Btu/h	0 Btu/h	0°F	0°F	0°F	0°F	0 FPM	0.00 in-wg	0	10.0 GPM	0°F	0°F	0.00 ftH ₂ O	NONE	0%	227,740 Btu/h	65°F	95°F	622 FPM	0.29 in-wg	2	16.0 GPM	140°F	110°F	0.63 ftH ₂ O	NONE	0%	1831 lbf	

Grand total: 4

AHU-6 SOUND DATA

Sound Path	63 (Hz)	125	250	500	1K	2K	4K	8K
Supply top:	87 dB	87 dB	86 dB	90 dB	85 dB	86 dB	87 dB	73 dB
Return:	84 dB	82 dB	79 dB	74 dB	75 dB	84 dB	77 dB	62 dB
Outdoor:	86 dB	84 dB	80 dB	83 dB	82 dB	86 dB	83 dB	69 dB
Exhaust:	86 dB	84 dB	80 dB	84 dB	82 dB	87 dB	84 dB	69 dB
Casing:	89 dB	88 dB	89 dB	88 dB	84 dB	72 dB	66 dB	58 dB

AHU-7 SOUND DATA

Sound Path	63 (Hz)	125	250	500	1K	2K	4K	8K
Supply top:	78 dB	89 dB	80 dB	84 dB	79 dB	76 dB	74 dB	64 dB
Return:	75 dB	74 dB	80 dB	89 dB	86 dB	88 dB	82 dB	64 dB
Outdoor:	76 dB	75 dB	82 dB	75 dB	71 dB	70 dB	64 dB	57 dB
Exhaust:	75 dB	78 dB	82 dB	75 dB	72 dB	72 dB	65 dB	59 dB
Casing:	79 dB	89 dB	82 dB	84 dB	78 dB	67 dB	64 dB	59 dB

AHU-9 SOUND DATA

Sound Path	63 (Hz)	125	250	500	1K	2K	4K	8K
Supply top:	81 dB	85 dB	80 dB	80 dB	76 dB	73 dB	67 dB	60 dB
Return:	80 dB	81 dB	80 dB	74 dB	67 dB	70 dB	62 dB	55 dB
Outdoor:	78 dB	81 dB	82 dB	76 dB	71 dB	69 dB	63 dB	58 dB
Exhaust:	78 dB	81 dB	82 dB	76 dB	71 dB	69 dB	63 dB	58 dB
Casing:	81 dB	80 dB	82 dB	82 dB	73 dB	62 dB	58 dB	51 dB

AHU-12 SOUND DATA

Sound Path	63 (Hz)	125	250	500	1K	2K	4K	8K
Supply top:	83 dB	86 dB	78 dB	82 dB	78 dB	76 dB	70 dB	62 dB
Return:	80 dB	80 dB	74 dB	70 dB	68 dB	71 dB	65 dB	57 dB
Casing:	80 dB	79 dB	76 dB	84 dB	73 dB	61 dB	58 dB	49 dB

AIR HANDLING UNIT SCHEDULE - CONT.

UNIT NO.	CIRCUIT 1 - SUPPLY FANS				CIRCUIT 2 - RETURN FANS				CIRCUIT 3 - LIGHTS				REFERENCE		REMARKS
	MCA	MOP	VOLTAGE	PHASE	MCA	MOP	VOLTAGE	PHASE	MCA	MOP	VOLTAGE	PHASE	CW COIL DETAIL NO.	HW COIL DETAIL NO.	
AHU-6	47 A	60 A	460 V	3	26 A	45 A	460 V	3	3 A	15 A	120 V	1	11M501	7M501	3-WAY HW, 3-WAY CW
AHU-7	26 A	45 A	460 V	3	10 A	15 A	460 V	3	3 A	15 A	120 V	1	11M501	8M501	2-WAY HW, 3-WAY CW
AHU-9	18 A	30 A	460 V	3	10 A	15 A	460 V	3	3 A	15 A	120 V	1	11M501	9M501	2-WAY HW, 3-WAY CW
AHU-12	18 A	30 A	460 V	3					3 A	15 A	120 V	1		8M501	2-WAY HW

Grand total: 4

HOT WATER HYDRONIC COIL SCHEDULE

UNIT NO.	SERVES	MANUFACTURER	MODEL NO.	TYPE	HOT WATER HEATING COIL					HOT WATER HEATING COIL					DIMENSIONS			REFERENCE			REMARKS		
					HEATING CAP.	AIRFLOW	EAT DB	LAT DB	PRESS. DROP	ROWS	FLOW	ENTERING WATER TEMP	LEAVING WATER TEMP	PRESS. DROP	GLYCOL TYPE	GLYCOL	DEPTH	WIDTH	HEIGHT	UNIT WEIGHT		DETAIL NO.	CONTROL VALVE
HC-8A	AHU-8	TRANE	W	DRAINABLE	913,950 Btu/h	19000 CFM	50°F	95°F	0.27 in-wg	4	36.7 GPM	140°F	90°F	4.60 ftH ₂ O	NONE	0%	0" - 10"	144"	36"	699 lbf	12M501	2-WAY	FIELD VERIFY EXISTING COIL DIMENSIONS. PROVIDE NEW GALVANIZED COIL SUPPORTS
HC-8B	AHU-8	TRANE	W	DRAINABLE	913,950 Btu/h	19000 CFM	50°F	95°F	0.27 in-wg	4	36.7 GPM	140°F	90°F	4.60 ftH ₂ O	NONE	0%	0" - 10"	144"	36"	699 lbf	12M501	2-WAY	FIELD VERIFY EXISTING COIL DIMENSIONS. PROVIDE NEW GALVANIZED COIL SUPPORTS

Grand total: 2

CHILLED WATER HYDRONIC COIL SCHEDULE

UNIT NO.	SERVES	MANUFACTURER	MODEL NO.	TYPE	CHILLED WATER COOLING COIL										DIMENSIONS			REFERENCE			REMARKS						
					TOTAL CLG. CAP.	SENSIBLE CLG. CAP.	COOLING AIRFLOW	EAT DB	EAT WB	LAT DB	LAT WB	FACE VELOCITY	PRESS. DROP	ROWS	FLOW	ENTERING WATER TEMP	LEAVING WATER TEMP	PRESS. DROP	GLYCOL TYPE	GLYCOL		DEPTH	WIDTH	HEIGHT	UNIT WEIGHT	DETAIL NO.	CONTROL VALVE
CC-8A	AHU-8	TRANE	D2	CHILLED WATER	815,810 Btu/h	565,490 Btu/h	19000 CFM	80°F	67°F	53°F	53°F	528 FPM	0.82 in-wg	8	135.5 GPM	45°F	57°F	19.13 ftH ₂ O	NONE	0%	1" - 4"	144"	36"	1242 lbf	13M501	2-WAY	FIELD VERIFY EXISTING COIL DIMENSIONS. PROVIDE NEW GALVANIZED COIL SUPPORTS WITH NEW SLOPED DRAIN PANS
CC-8B	AHU-8	TRANE	D2	CHILLED WATER	815,810 Btu/h	565,490 Btu/h	19000 CFM	80°F	67°F	53°F	53°F	528 FPM	0.82 in-wg	8	135.5 GPM	45°F	57°F	19.13 ftH ₂ O	NONE	0%	1" - 4"	144"	36"	1242 lbf	13M501	2-WAY	FIELD VERIFY EXISTING COIL DIMENSIONS. PROVIDE NEW GALVANIZED COIL SUPPORTS WITH NEW SLOPED DRAIN PANS

Grand total: 2

ROOF EXHAUSTER SCHEDULE

UNIT NO.	MANUFACTURER	MODEL NO.	AIRFLOW	TYPE	EXHAUST FAN			EXHAUST AIR CONNECTOR		ROOF OPENING		ELECTRICAL			REFERENCE		REMARKS			
					EXT. STATIC PRESS.	FAN BRAKE POWER	FAN RPM	DUCT TYPE	DUCT WIDTH	DUCT HEIGHT	LENGTH	WIDTH	UNIT WEIGHT	SONES	FLA	VOLTAGE		PHASE	DETAIL NO.	
RX-2	GREENHECK	G-140-B	1200 CFM	DOWNBLAST	0.75 in-wg	0.28 hp	1140	DIRECT	1	0.33 hp	16"	16"	18 1/2"	18 1/2"	58 lbf	8.3	7 A	120 V	1	PROVIDE INSULATED ROOF CURB ADAPTER, CURB SEALS, GRAVITY BACKDRAFT DAMPER, BIRDSCREEN, DISCONNECT SWITCH, FACTORY MOUNTED DIAL SPEED CONTROLLER

Grand total: 1

MOTORIZED DAMPER SCHEDULE

TYPE	UNIT NO.	MANUFACTURER (OR EQUAL)	MODEL	SYSTEM TYPE	SHAPE	Size	COMMENTS
M	(E)JP-1	RUSKIN	CD60 LOW-LEAK	Outside Air	RECTANGULAR	24x24-24x24	NORMALLY CLOSED, 2-POSITION
M	(E)JP-2	RUSKIN	CD60 LOW-LEAK	Outside Air	RECTANGULAR	24x24-24x24	NORMALLY CLOSED, 2-POSITION
M	AHU-6-EA	RUSKIN	TE50 LOW-LEAK	Exhaust Air	RECTANGULAR	84x36-84x36	NORMALLY CLOSED, MODULATING
M	AHU-8-ECON	RUSKIN	ED50 LOW-LEAK INSULATED	Outside Air	RECTANGULAR	26x48-26x48	NORMALLY CLOSED, MODULATING
M	AHU-8-MINOA	RUSKIN	TE50 LOW-LEAK INSULATED	Outside Air	RECTANGULAR	10x48-10x48	NORMALLY CLOSED, MODULATING
M	AHU-7-EA	RUSKIN	TE50 LOW-LEAK INSULATED	Exhaust Air	RECTANGULAR	48x36-48x36	NORMALLY CLOSED, MODULATING
M	AHU-7-ECON	RUSKIN	TE50 LOW-LEAK INSULATED	Outside Air	RECTANGULAR	14x30-14x30	NORMALLY CLOSED, MODULATING
M	AHU-7-MINOA	RUSKIN	TE50 LOW-LEAK INSULATED	Outside Air	RECTANGULAR	10x30-10x30	NORMALLY CLOSED, MODULATING
M	AHU-8-EA	RUSKIN	CD60 LOW-LEAK	Exhaust Air	RECTANGULAR	36x72-36x72	NORMALLY CLOSED, MODULATING
M	AHU-8-ECON	RUSKIN	TE50 LOW-LEAK INSULATED	Outside Air	RECTANGULAR	32x96-32x96	NORMALLY CLOSED, MODULATING
M	AHU-8-MINOA	RUSKIN	TE50 LOW-LEAK INSULATED	Outside Air	RECTANGULAR	10x96-10x96	NORMALLY CLOSED, MODULATING
M	AHU-8-RA	RUSKIN	CD60 LOW-LEAK	Return Air	RECTANGULAR	66x48-66x48	NORMALLY OPEN, MODULATING
M	AHU-9-EA	RUSKIN	TE50 LOW-LEAK	Exhaust Air	RECTANGULAR	36x36-36x36	NORMALLY CLOSED, MODULATING
M	AHU-9-ECON	RUSKIN	TE50 LOW-LEAK INSULATED	Outside Air	RECTANGULAR	14x16-14x16	NORMALLY CLOSED, MODULATING
M	AHU-9-MINOA	RUSKIN	TE50 LOW-LEAK INSULATED	Outside Air	RECTANGULAR	10x16-10x16	NORMALLY CLOSED, MODULATING
M	BLR-CA	RUSKIN	CD60 LOW-LEAK	Outside Air	RECTANGULAR	48x60-48x60	NORMALLY CLOSED, MODULATING
M	BLR-EA	RUSKIN	CD60 LOW-LEAK	Exhaust Air	RECTANGULAR	42x24-42x24	NORMALLY CLOSED, MODULATING
M	BLR-OA	RUSKIN	CD60 LOW-LEAK	Outside Air	RECTANGULAR	48x24-48x24	NORMALLY CLOSED, MODULATING
M	REF-PURGE-OA	RUSKIN	CD60 LOW-LEAK	Outside Air	RECTANGULAR	36x24-36x24	NORMALLY CLOSED, MODULATING

Grand total: 19

TEMPERATURE CONTROL PANEL SCHEDULE

NOTE: PANELS HAVE BEEN SHOWN SCHEMATICALLY THROUGHOUT BUILDING. ANY ADDITIONAL PANELS OR ELECTRICAL CIRCUITS SHALL BE THE RESPONSIBILITY OF SECTION 23 09 93.

UNIT NO.	LOCATION	ELECTRICAL	REMARKS
TCP-1	HOT WATER SYSTEM	20 A, 120 V, 1	
TCP-2	CHILLED WATER SYSTEM	20 A, 120 V, 1	
TCP-3	AHU-6	20 A, 120 V, 1	
TCP-4	AHU-12	20 A, 120 V, 1	
TCP-5	AHU-7	20 A, 120 V, 1	
TCP-6	AHU-9	20 A, 120 V, 1	
TCP-7	AHU-8	20 A, 120 V, 1	

Grand total: 7

VARIABLE FREQUENCY DRIVE SCHEDULE

UNIT NO.	EQUIPMENT SERVED	MANUFACTURER	INPUT DISCONNECT	INTEGRAL BYPASS	MOTOR BHP	MOTOR HP	ELECTRICAL VOLTAGE	PHASE	REMARKS
BCP-1-VFD	BCP-1	ABB, Inc.	YES	NO	2.43 hp	5.00 hp	460 V	3	
BCP-2-VFD	BCP-2	ABB, Inc.	YES	NO	2.43 hp	5.00 hp	460 V	3	
BCP-3-VFD	BCP-3	ABB, Inc.	YES	NO	2.43 hp	5.00 hp	460 V	3	
CT									



Consultant:

SCHOOL DISTRICT OF LA CROSSE
LOGAN HS HVAC UPGRADES

Project Location: 1500 RANGER DRIVE
LA CROSSE WI 54603

ELEC. REMOVAL AND REMODEL PLAN

Project Title:
Project Number:
Project Date:
Drawn By:
Key Plan:

22057
OCTOBER 2022
SMG

Key Plan:

Key Plan:

Key Plan:

Key Plan:

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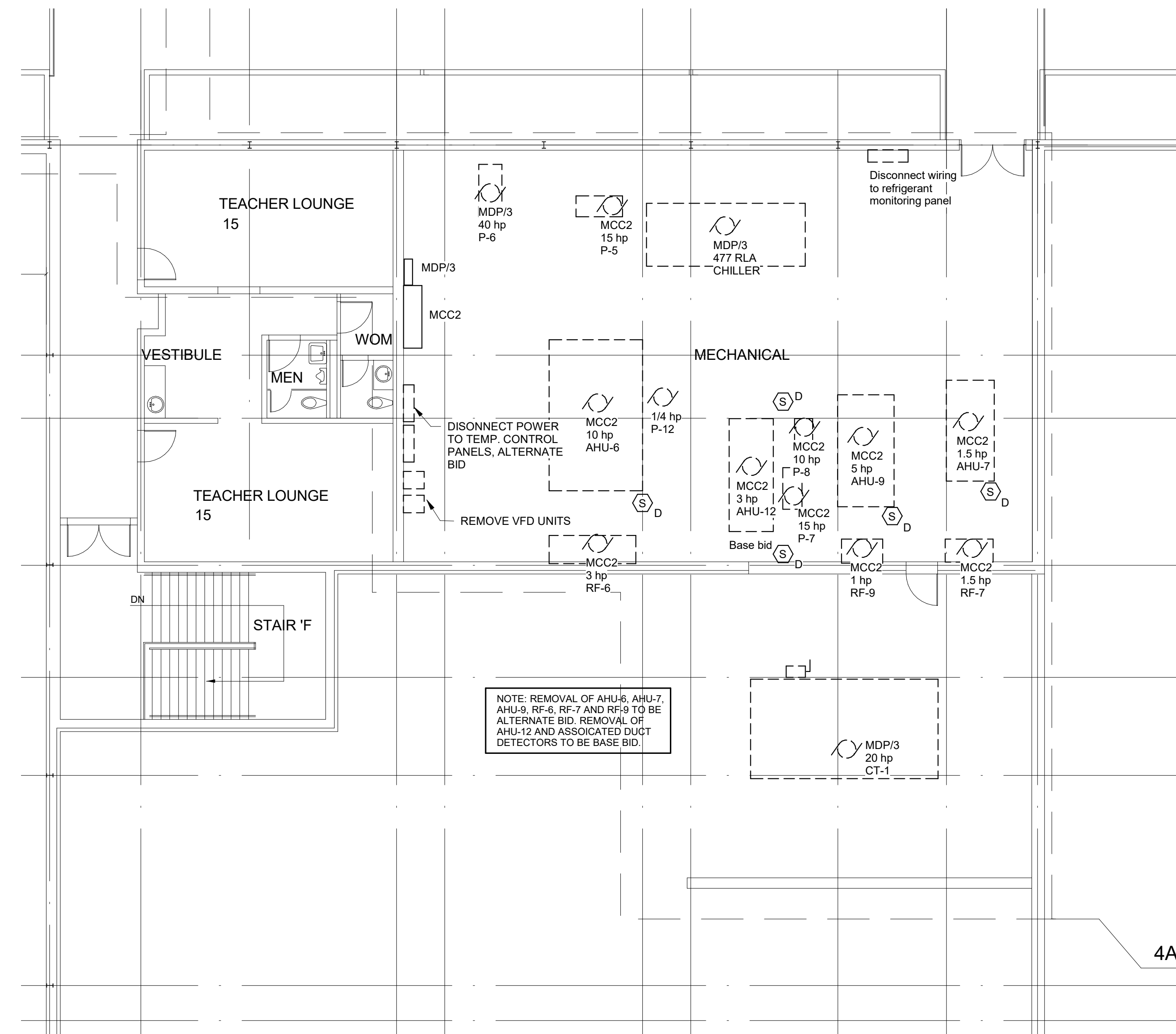
Key Plan:

Key Plan:

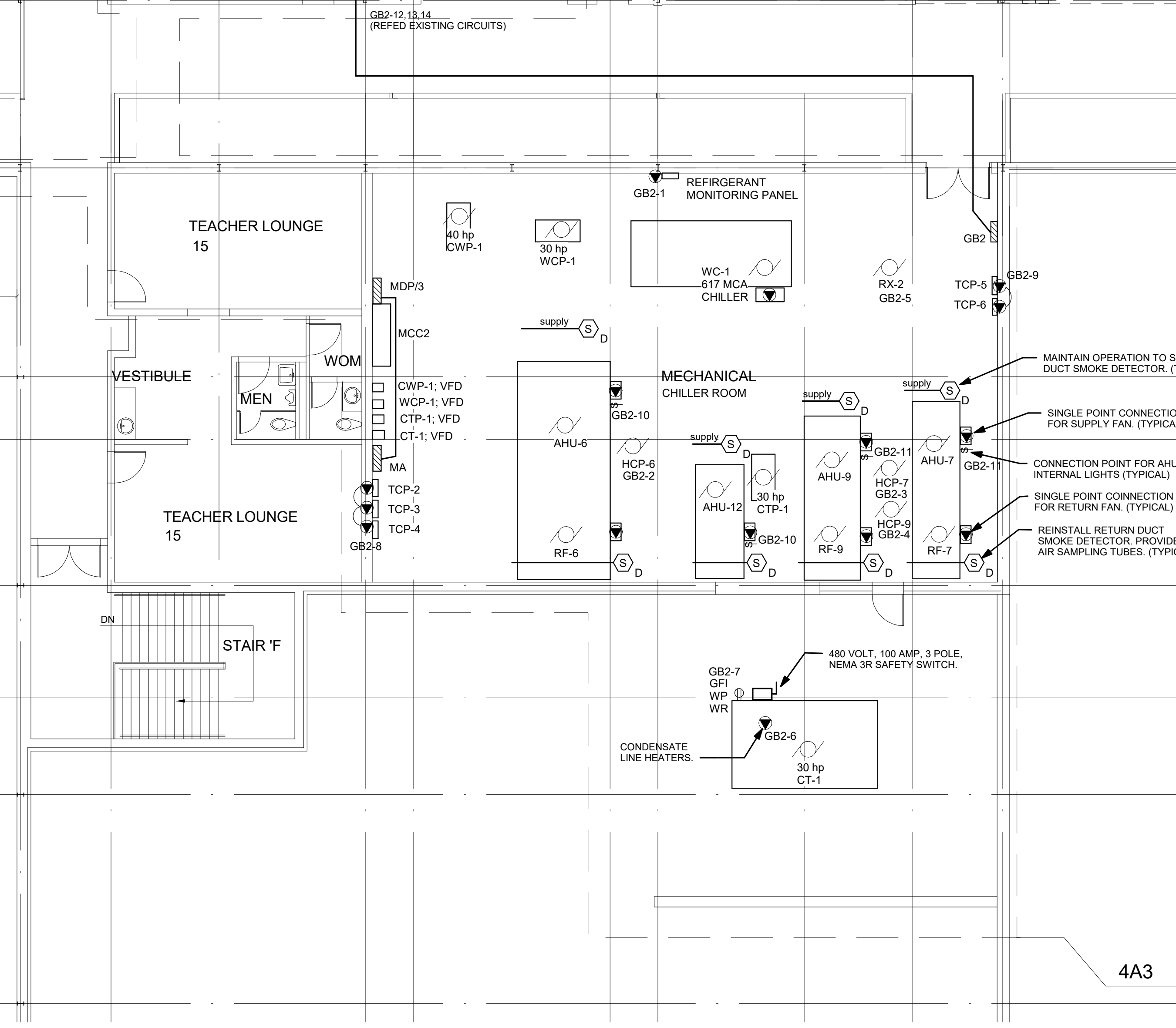
Key Plan:

Key Plan:

Key Plan:



1 SECOND FLOOR DEMO - MECH/CHILLER ROOM
1/8" = 1'-0"



2 SECOND FLOOR POWER - MECH/CHILLER ROOM
1/8" = 1'-0"

MOTOR SCHEDULE													
MOTOR	DESCRIPTION	HVAC/PLBG EQUIP. NO.	LOCATION ROOM NO.	MOTOR RATING HP	VOLT	PH	DISCONNECT BY MECH/ELECT	STARTER BY MECH/ELECT	CONTROL WIRING BY MECH/ELEC.	COND.	GRD.	REMARKS	
	WATER COOLED CHILLER	WC-1	MECH RM	617 MCA	480	3	X	NF	X	staged	X	2 parallel runs (3#500kcmil) (2) #1/0	1
	AIR HANDLING UNIT	AHU-6	Mech/Chiller room	47 MCA	480	3	X	VFD	X	VFD	X	3 #6	#10 2,3
	AIR HANDLING UNIT	AHU-7	Mech/Chiller room	26 MCA	480	3	X	VFD	X	VFD	X	3 #8	#10 2,3
	AIR HANDLING UNIT	AHU-9	Mech/Chiller room	18 MCA	480	3	X	VFD	X	VFD	X	3 #10	#10 2,3
	AIR HANDLING UNIT	AHU-12	Mech/Chiller room	18 MCA	480	3	X	VFD	X	VFD	X	3 #10	#10 2,3
	RETURN FAN	RF-6	Mech/Chiller room	26 MCA	480	3	X	VFD	X	VFD	X	3 #8	#10 2,3
	RETURN FAN	RF-7	Mech/Chiller room	19 MCA	480	3	X	VFD	X	VFD	X	3 #12	#12 2,3
	RETURN FAN	RF-9	Mech/Chiller room	10 MCA	480	3	X	VFD	X	VFD	X	3 #12	#12 2,3
	BOILER	BR-1	BOILER RM	5	480	3	X	TG	X	FVNR	X	3 #12	#12 2
	BOILER	BR-2	BOILER RM	5	480	3	X	TG	X	FVNR	X	3 #12	#12 2
	BOILER	BR-3	BOILER RM	5	480	3	X	TG	X	FVNR	X	3 #12	#12 2
	BOILER CIRCULATING PUMP	BCP-1	BOILER RM	5	480	3	X	TG	X	VFD	X	3 #12	#12 4
	BOILER CIRCULATING PUMP	BCP-2	BOILER RM	5	480	3	X	TG	X	VFD	X	3 #12	#12 4
	BOILER CIRCULATING PUMP	BCP-3	BOILER RM	5	480	3	X	TG	X	VFD	X	3 #12	#12 4
	HOT WATER PUMP	HWP-1	BOILER RM	40	480	3	X	VFD	X	VFD	X	3 #4	#8 4
	HOT WATER PUMP	HWP-2	BOILER RM	40	480	3	X	VFD	X	VFD	X	3 #4	#8 4
	CHILLED WATER PUMP	CWP-1	Mech/Chiller room	40	480	3	X	VFD	X	VFD	X	3 #3	#8 4
	WATER CHILLER PUMP	WCP-1	Mech/Chiller room	30	480	3	X	VFD	X	VFD	X	3 #4	#8 4
	WATER CHILLER PUMP	CTP-1	Mech/Chiller room	30	480	3	X	VFD	X	VFD	X	3 #4	#8 4
	HEATING COIL PUMP	HCP-6	BOILER RM	1/4 hp	120	1	X	TG	X	-	X	2 #12	#12 3
	HEATING COIL PUMP	HCP-7	BOILER RM	1/4 hp	120	1	X	TG	X	-	X	2 #12	#12 3
	HEATING COIL PUMP	HCP-9	BOILER RM	1/4 hp	120	1	X	TG	X	-	X	2 #12	#12 3
	ROOF EXHAUST FAN	RX-2	Mech/Chiller room	1/3 hp	120	1	X	TG	X	-	X	2 #12	#12

SEE REMARKS
 (CB) CIRCUIT BREAKER, (CS) COMBINATION STARTER/DISCONNECT, (F) FUSED SAFETY SWITCH, (NF) NON FUSED SAFETY SWITCH, (TG) TOGGLE SWITCH/FVNR FULL VOLTAGE NON-REVERSING MAGNETIC STARTER, (FVRS) FULL VOLTAGE REVERSING, (MS) MANUAL STARTER WITH OVERLOAD PROTECTION, (MSW) MANUAL SWITCH WITHOUT OVERLOAD PROTECTION, (MCC) MOTOR CONTROL CENTER, (PB) PUSH BUTTON STARTER, (VFD) VARIABLE FREQUENCY DRIVE, (MCA) MINIMUM CIRCUIT AMPS, (MDP) MAXIMUM OVER CURRENT PROTECTION.

REMARKS
 1. CHILLER UNIT IS FURNISHED WITH INTEGRAL SPEED CONTROLLER AND DISCONNECT. ELECTRICAL TO PROVIDE SINGLE POINT CONNECTION.
 2. PROVIDE SINGLE POINT ELECTRICAL CONNECTION AT UNIT CONTROL CABINET. INTERNAL WIRING BY MANUFACTURER.
 3. ASSOCIATED ELECTRICAL WORK TO BE PART OF AN ALTERNATE BID.
 4. VFD UNITS ARE FURNISHED BY THE MECHANICAL CONTRACTOR. ELECTRICAL TO INSTALL VFD UNITS AND PROVIDE ALL MOUNTING HARDWARE REQUIRED.

PANELBOARD SCHEDULE												
PANEL NAME	ROOM NO.	MFGRT TYPE	FLUSH SURFACE	WIDTH	DEPTH	ELECTRICAL SERVICE	AMP	LUGS	BREAKER SWITCH	FEED THRU LUGS	BRANCHES	REMARK
MDP/3	MECH ROOM	EXIST SQ D	X			480V/277 VOLT 3 PH, 4 WIRE	1200				1 800 3 WC-1 (CHILLER) 1 250 3 PANEL MA 1 100 3 CWP-1 (CHILLED WATER PUMP) 1 80 3 CT-1 (COOLING TOWER) 1 80 3 CTP-1 (COOLING TOWER PUMP) 1 80 3 WCP-1 (CHILLER PUMP)	EXISTING BREAKER EXISTING BREAKER EXISTING BREAKER NEW BREAKER NEW BREAKER NEW BREAKER
MA (NEW)	MECH ROOM	NEW SQ D NF	X	5.75"	20"	480V/277 VOLT 3 PH, 4 WIRE	250				1 60 3 AHU-6 2 45 3 AHU-7 & RF-6 2 30 3 AHU-9 & 12 2 15 3 RF-7 & 9 2 20 3 SPARES	42 SPACE PANEL
2/PF	MECH ROOM	EXIST SQ D	X			480V/277 VOLT 3 PH, 4 WIRE	150 AMP FEED				1 90 3 HWP-1 (HOT WATER PUMP) 1 90 3 HWP-2 (HOT WATER PUMP) 3 20 3 BLR-1,2,3 (BOILERS) 2 20 3 BCP-1,2 (BOILER CIRC. PUMP) 1 20 3 BCP-3 (BOILER CIRC. PUMP)	NEW BREAKER NEW BREAKER EXISTING BREAKERS EXISTING BREAKERS NEW BREAKER
1/GL	EQUIP ROOM	EXIST SQ D	X			208Y/120 VOLT 3 PH, 4 WIRE	200 AMP FEED				5 30 2 CU-1,2,3,4,5 (CONDENSING UNITS) 1 20 1 1/GL-1 (ROOF RECEPTACLE)	NEW BREAKERS NEW BREAKERS
2/GB	JANITOR	EXIST SQ D	X			208Y/120 VOLT 3 PH, 4 WIRE	200 AMP FEED				1 100 3 NEW PANEL GB2	NEW BREAKER
GB2	MECH ROOM	NEW SQ D GO	X			208Y/120 VOLT 3 PH, 4 WIRE	100				11 20 1 GB2-1, 2-11 3 20 1 GB2-12,13,14 6 20 1 SPARES	30 SPACE PANEL

SEE REMARKS
 PANELBOARD SCHEDULE REMARKS:
 GENERAL PANELBOARD NOTES: PROVIDE NEW CIRCUIT BREAKERS IN EXISTING PANELBOARDS WHERE INDICATED.
 PANELBOARD MDP/3: PROVIDE CIRCUIT BREAKERS RATED 30,000AFC.
 PANELBOARD 2/GB: REMOVE (3) CIRCUIT BREAKERS TO MAKE ROOM FOR 100 AMP BREAKER TO FEED NEW PANEL GB2. REFEED EXISTING BRANCH CIRCUITS FROM NEW PANEL GB2. CIRCUITS GB2-12,13,14.

GENERAL NOTES : REMOVAL	
A	REMOVE ALL ELECTRICAL DEVICES AND ABANDON WIRING/CONDUIT BACK TO ELECTRICAL PANEL, CABINET, RACK OR TERMINATION BOARD.
B	ELECTRICAL CONTRACTOR TO FIELD VERIFY WALLS AND CEILINGSS AND INCLUDE ALL DEVICES FOR REMOVAL.
C	MAINTAIN OPERATION OF ALL EXISTING RECEPTACLES AND DEVICES TO REMAIN. PROVIDE NEW HOMERUNS OF CONDUIT/WIRING WHERE REQUIRED.
D	PROVIDE COVERPLATES AT ALL OPEN DEVICE AND JUNCTION BOXES.
E	REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EQUIPMENT TO BE DISCONNECTED FOR REMOVAL.
F	REMOVE EXISTING FIRE ALARM SYSTEM SMOKE DUCT DETECTORS FOR INSTALLATION OF NEW AIR HANDLING UNITS. REINSTALL AFTER NEW AIR HANDLER AND DUCT INSTALLATION. THIS WORK TO BE ALTERNATE BID.
G	DASHED LINES SPECIFIC ITEMS FOR REMOVAL.

GENERAL NOTES : REMODEL	
A	ALL ELECTRICAL DEVICES SHOWN TO BE NEW UNLESS INDICATED OTHERWISE.
B	MAINTAIN OPERATION OF ALL EXISTING ELECTRICAL DEVICES. EXTEND WIRING/CONDUIT AS REQUIRED.
C	PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS
D	REFER TO MECHANICAL DRAWINGS FOR ALTERNATE BID ITEMS
E	ELECTRICAL CONTRACTOR TO REINSTALL SMOKE DUCT DETECTORS AND PROVIDE NEW SAMPLING TUBES WHERE REQUIRED. INTERCONNECT DUCT DETECTORS TO AIR HANDLING MOTORS TO SHUT DOWN FANS UPON ACTIVATION OF DUCT DETECTORS. PROVIDE NEW RELAYS, ACCESSORIES, WIRING AND PROGRAMMING AT FIRE ALARM CONTROL PANEL. TEST FIRE ALARM SYSTEM AND MOTOR SHUT DOWNS AFTER WOK IS COMPLETED.

EQUIPMENT SCHEDULE									
MARK NUMBER	DESCRIPTION	LOCATION ROOM NUMBER	RATING KW	HP	VOLT	PH	CONDUCTORS	GRD.	REMARKS
AC-1	DUCTLESS SPLIT SYSTEM - INTERIOR	GIRL'S COACH	-	208	1	2#10	#10	1,2	
AC-2	DUCTLESS SPLIT SYSTEM - INTERIOR	GIRL'S STAFF	-	208	1	2#10	#10	1,2	
AC-3	DUCTLESS SPLIT SYSTEM - INTERIOR	BOYS' COACH	-	208	1	2#10	#10	1,2	
AC-4	DUCTLESS SPLIT SYSTEM - INTERIOR	BOYS' STAFF	-	208	1	2#10	#10	1,2	
AC-5	DUCTLESS SPLIT SYSTEM - INTERIOR	TRAINING ROOM	-	208	1	2#10	#10	1,2	
CU-1	DUCTLESS SPLIT SYSTEM - EXTERIOR	EXTERIOR ROOF	16 MCA	208	1	2 #10	#10	1,2	
CU-2	DUCTLESS SPLIT SYSTEM - EXTERIOR	EXTERIOR ROOF	16 MCA	208	1	2 #10	#10	1,2	
CU-3	DUCTLESS SPLIT SYSTEM - EXTERIOR	EXTERIOR ROOF	16 MCA	208	1	2 #10	#10	1,2	
CU-4	DUCTLESS SPLIT SYSTEM - EXTERIOR	EXTERIOR ROOF	16 MCA	208	1	2 #10	#10	1,2	
CU-5	DUCTLESS SPLIT SYSTEM - EXTERIOR	EXTERIOR ROOF	16 MCA	208	1	2 #10	#10	1,2	
TCP-1	TEMPERATURE CONTROL PANEL	SEE DRAWINGS	50 WATTS	120	1	2 #12	#12	1	
TCP-2	TEMPERATURE CONTROL PANEL	SEE DRAWINGS	50 WATTS	120	1	2 #12	#12	1	
TCP-3	TEMPERATURE CONTROL PANEL	SEE DRAWINGS	50 WATTS	120	1	2 #12	#12	1	
TCP-4	TEMPERATURE CONTROL PANEL	SEE DRAWINGS	50 WATTS	120	1	2 #12	#12	1	
TCP-5	TEMPERATURE CONTROL PANEL	SEE DRAWINGS	50 WATTS	120	1	2 #12	#12	1	
TCP-6	TEMPERATURE CONTROL PANEL	SEE DRAWINGS	50 WATTS	120	1	2 #12	#12	1	

SEE REMARKS: MCA - MINIMUM CIRCUIT AMPACITY; FLA - FULL LOAD AMPS; MOP - MAXIMUM OVERCURRENT PROTECTION.
 REMARKS:
 1. PROVIDE TOGGLE SWITCH NEAR UNIT TO SERVE AS DISCONNECT.
 2. PROVIDE INTERCONNECTING WIRING BETWEEN INDOOR UNIT AND EXTERIOR CONDENSER. INCLUDE CONTROL WIRE (600 VOLT INSULATION RATING). PROVIDE NEMA 3R FUSED SAFETY SWITCH AT EXTERIOR UNIT AND TOGGLE SWITCH AT INTERIOR UNIT FOR DISCONNECTS. FUSE AT MANUFACTURERS RECOMMENDATIONS