



**JEFFERSON COUNTY PURCHASING DEPARTMENT**  
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**IFB NUMBER:** IFB 22-073/JW

**IFB TITLE:** Main Terminal HVAC Rehabilitation at the Jack Brooks Regional Airport

**IFB DUE BY:** 11:00 AM CT, Wednesday, Friday, 15, 2023

**ADDENDUM NO.:** 2

**ISSUED (DATE):** February 13, 2022

**Addendum to IFB**

**To Bidder:** This Addendum is an integral part of the IFB package under consideration by you as a Bidder in connection with the subject matter herein identified. Jefferson County deems all sealed bids to have been proffered in recognition and consideration of the entire IFB Specifications Package – *including all addenda*. For purposes of clarification, **receipt of this present Addendum by a Bidder should be evidenced by returning it (signed) as part of the Bidder's sealed bid submission.** If the bid submission has already been received by the Jefferson County Purchasing Department, Bidder should return this addendum in a separate sealed envelope, clearly marked with the IFB Title, IFB Number, and IFB Opening Date and Time, as stated above.

**Reason for Issuance of this Addendum: CLARIFICATIONS AND PLAN SHEETS**

**The information included herein is hereby incorporated into the documents of this present bid matter and supersedes any conflicting documents or portion thereof previously issued.**

Receipt of this Addendum is hereby acknowledged by the undersigned Respondent:

**ATTEST:**

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Witness

Approved by \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature (Respondent)

\_\_\_\_\_  
Title of Person Signing Above

\_\_\_\_\_  
Typed Name of Business or Individual

\_\_\_\_\_  
Address

Item	Specification	Drawing	RFI/Question	Confirm / Advise / Recommendation / Spec Edit	A/E Response
1	237313-2.2-A-7	M2.03A, M2.04, M2.05, M2.06A, M2.06B, M2.07	Spec requires units to be provided with Coil Piping Vestibules unless indicated otherwise. However, M-Plan pictures indicate that there will not be enough room between the units if Coil Piping Vestibules are provided.	Confirm that Coil Piping Vestibules are not required.	Coil piping vestibule viability will be evaluated on a unit-by-unit basis at the time of submittal review since specific manufacturers may or may not be able to comply. The submittal evaluation will consider the contractor's proposed means and methods. No change to bid documents.
2	237313-2.2-C	M2.03A, M2.04, M2.05, M2.06A, M2.06B, M2.07	Spec requires VFD to be mounted within the unit cabinet. However, M-Plan pictures show VFD's mounted on the outside of the Temtrol units; it is difficult to know if the Trane units VFD's are mounted on the inside of the units or if the VFD's are remotely mounted.	Advise if the VFD's are to be remotely mounted or mounted within the AHU.	Alternate locations will be considered at the time of submittal review since specific manufacturers may or may not be able to comply. The submittal evaluation will consider the contractor's proposed means and methods. No change to bid documents.
3	237313-2.2-D	N/A	Spec requires a 0.25" thick (1/4" thick) aluminum ID plate.	Confirm that this is a typo and 0.125" thick (1/8" thick) aluminum ID plates are required.	1/8 inch thick ID plates will be acceptable.
4	237313-2.3-A	N/A	Spec requires a minimum 12 gauge galvanized structural steel base rail. Thickness of "Structural Steel" is not stated in "gauge".	Confirm the words "structural steel" are meant as a unit support term and formed & welded minimum 12 gauge sheet metal is an acceptable material for the base rail.	No exception would be taken.
5	237313-2.3-A,B,C	N/A	Spec requires polyester resin paint. Not all manufacturers utilize polyester resin paint. No performance is provided for the paint.	Confirm Sherwin-Williams Genesis LV paint is acceptable.	No exception would be taken.
6	237313-2.4-A, 2.4-B, 2.5-B	N/A	Spec refers to fan & drive "bearings" but requires direct drive fans.	Confirm direct drive fans are required and sections referring to fan & drive bearings are N/A.	No exception would be taken.
7	237313-2.6-H	N/A	Spec requires intermediate drain pans that extend 6" from the coil face. Not all manufacturers can provide that amount of extension; the extension changes based on how tall the top coil is.	Confirm the manufacturer's standard intermediate drain pan extension is acceptable.	The drain pan must meet the requirements of ASHRAE 62.1 per paragraph 2.6.F.
8	237313-2.7-A	N/A	Spec requires metal tubing for the filter D.P. gauge. Some manufacturers mount the filter D.P. gauge flush in the access door; therefore poly tubing is used since it is flexible.	Confirm that poly tubing for the filter D.P. gauge is an acceptable material.	No exception would be taken.

AIR SEPARATOR SCHEDULE (AS)

PLAN MARK	LOCATION	SYSTEM	PIPE CONNECTIONS		FLOW (GPM)	WPD (FT WS)	MANUFACTURER	MODEL	NOTES
			INLET (IN)	OUTLET (IN)					
AS-1	CHILLER YARD	CHILLED WATER	3	3	280	5	BELL AND GOSSETT	--	1
AS-2	MECH ROOM	HOT WATER	3	3	200	5	BELL AND GOSSETT	--	1

NOTES:  
1. PROVIDE IN-LINE, LINE SIZE AIR SEPARATOR.

FAN SCHEDULE (EF) BID ALTERNATE

MARK	SERVICE	LOCATION	AIR VOLUME (CFM)	FAN TYPE	IN. WD	E. S. P.		WHEEL	DRIVE	RPM	V/PHZ	HP	MANUFACTURER & MODEL	REMARKS
						IN. WD	DA. (IN)							
EF-1	TOLUET EXHAUST	ROOF	125	CENT	0.50	-	-	-	DIRECT	1629	120/165	0.25	GREENIECA	1, 2, 3, 4
EF-2	TOLUET EXHAUST	ROOF	435	CENT	0.50	-	-	-	DIRECT	948	120/165	0.25	GREENIECA	1, 2, 3, 4
EF-3	MECH RM EXHAUST	ROOF	100	CENT	0.25	-	-	-	DIRECT	1635	120/165	0.25	GREENIECA	1, 2, 3, 4

REMARKS:  
1. REPLACE EXISTING EXHAUST FAN, RETAIN AND REUSE EXISTING CURB AND BACKDRAFT DAMPER.  
2. PROVIDE FANS WITH ECM MOTORS.  
3. PROVIDE FANS WITH 100% EFFICIENCY.  
4. PROVIDE FANS RATED FOR 120 MPH PER IBC 1609.

AIR COOLED CHILLER SCHEDULE

MARK	NOMINAL CAPACITY (TONS)	MINIMUM CAPACITY (TONS)	TOTAL UNIT POWER (KW)	COOLER					AIR COOLED		ELECTRIC SUPPLY	MCA	MCCP	OPERATING WEIGHT (LBS)	REFRIGERANT	MAKE AND MODEL	REMARKS
				FLOW GPM	ENT. FLUID TEMP °F	LUG. FLUID TEMP °F	MAX FLUID PRESS. DROP FT.	FLUID TYPE	CONDENSER AMBIENT TEMP °F								
C-1	80	72	101	175	58	44	12.5	WATER	105	460/3/60	181		4650	R-134A	YORK YLAA SERIES	ALL	
C-2																	EXISTING CHILLER

NOTES:  
1. PROVIDE UNIT SUITABLE FOR LOW AMBIENT OPERATION TO 0 DEGREES F.  
2. PROVIDE UNIT WITH SINGLE POINT POWER CONNECTION.  
3. PROVIDE UNIT WITH VARIABLE SPEED TEAO CONDENSER FAN MOTORS.  
4. PROVIDE FACTORY SUPPLIED NEOPRENE VIBRATION ISOLATORS.  
5. PROVIDE CHILLERS WITH 100% EFFICIENCY.  
6. PROVIDE FACTORY INSTALLED THERMAL DISPERSION TYPE FLOW SWITCH.  
7. PROVIDE CHILLER CAPABLE OF OPERATING AT 57% OF DESIGN FLOW RATE.  
8. SELECT THE CHILLERS FOR VARIABLE PRIMARY CHILLED WATER FLOW APPLICATION.  
9. PROVIDE CONDENSER COILS WITH FACTORY E-COAT AND TAIL GUARDS.  
10. PROVIDE CHILLERS WITH FACTORY REFRIGERANT CIRCUIT ISOLATION VALVES.  
11. PROVIDE CHILLER WITH CONTROLS COMMUNICATION INTERFACE TO EXISTING JCI BAS CONTROL SYSTEM.

VERTICAL WATER TUBE BOILER SCHEDULE

PLAN MARK	MANUFACTURER	TYPE	CAPACITY		DESIGN WATER TEMP		FLOW (GPM)	BURNER		NOTES
			GROSS OUTPUT (MBH)	GROSS INPUT (MBH)	SUPPLY (F)	RETURN (F)		NATURAL GAS INPUT (PRESSURE, SIZE)		
B-1	LOCHINVAR	POWERFIN	1,680	2,000	180	150	175	4" TO 14" WC, 1-1/2" NPT		ALL
										ALL

NOTES:  
1. PROVIDE LOW WATER CUT-OUT.  
2. PROVIDE HIGH LIMIT CONTROL-AUTO RESET.  
3. PROVIDE BOILER WITH FACTORY WIRED CIRCULATION PUMP MOTOR STARTER.  
4. PROVIDE BOILERS WITH LOW NOX EMISSION BURNERS.  
5. PROVIDE BOILERS WITH REMOTE HW SUPPLY TEMPERATURE SENSOR THERMAL WELL AND OUTSIDE AIR TEMP SENSOR.  
6. PROVIDE BOILER WITH MODULATING POWER BURNER WITH AT LEAST 4:1 TURNDOWN RATIO.  
7. PROVIDE BOILERS WITH FACTORY INSTALLED DIGITAL CONTROLLER, REFERENCE CONTROL DRAWING AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.  
8. PROVIDE BOILER WITH PRESSURE VESSEL, DESIGNED AND STAMPED FOR 160 PSIG WORKING PRESSURE, AND 50 PSIG ASME SAFETY RELIEF VALVE.

PUMP SCHEDULE

PLAN MARK	LOCATION	SERVICE	SERIES & MODEL	TYPE	GPM	HEAD (FT)	RPM	HP	ELECTRIC SUPPLY	REMARKS
CHWP-1	CHILLER YARD	CHILLED WATER	B&G SERIES 1510 MODEL 2EB	FRAME MOUNTED END-SUCTION	14.0	95	1,750	10	4,803/160	1,2,3
CHWP-2	CHILLER YARD	CHILLED WATER	B&G SERIES 1510 MODEL 2EB	FRAME MOUNTED END-SUCTION	14.0	95	1,750	10	4,803/160	1,2,3
HWP-1	MECH ROOM	BOILER CIRC	B&G SERIES 90 MODEL 2A4B	IN-LINE	115	20	1,750	1.0	4,803/160	4
HWP-2	MECH ROOM	HEATING WATER	B&G SERIES E-1532 MODEL 2AD	IN-LINE	200	90	3,550	7.5	4,803/160	1,2,3
HWP-3	MECH ROOM	HEATING WATER	B&G SERIES E-1532 MODEL 2AD	IN-LINE	200	90	3,550	7.5	4,803/160	1,2,3

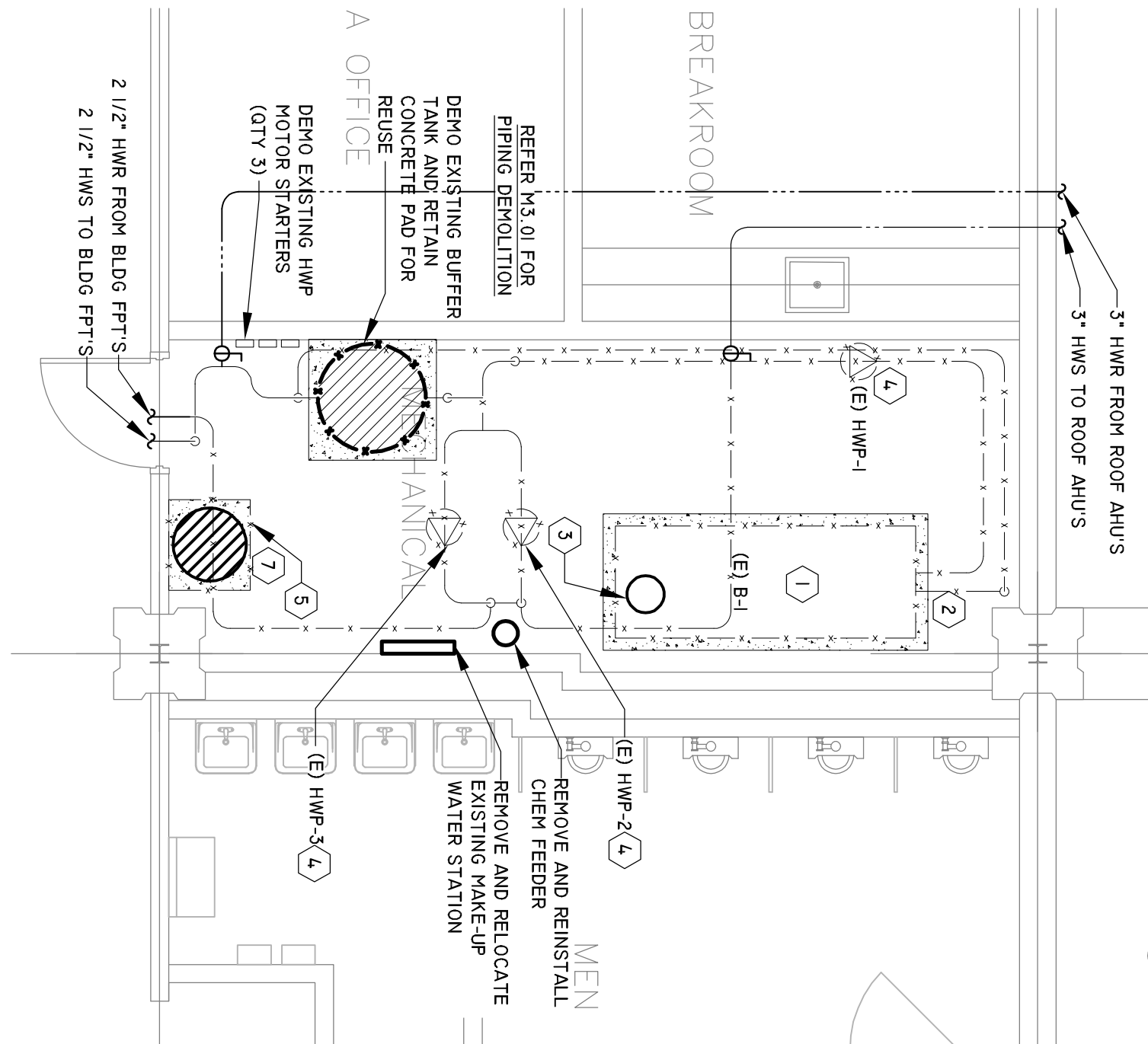
NOTES:  
1. PROVIDE PUMPS WITH MATCHING VARIABLE SPEED.  
2. PROVIDE PUMPS WITH PREMIUM EFFICIENCY, INVERTER DUTY TEFC MOTORS.  
3. PROVIDE PUMPS WITH SUCTION DIFFUSER.  
4. PROVIDE PUMPS WITH PREMIUM EFFICIENCY TEFC MOTOR AND HOA MOTOR STARTER.



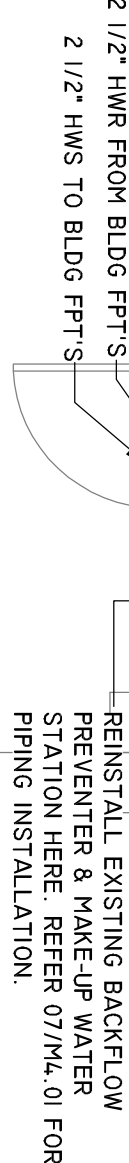
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SCALE: 1/4"=1'-0"

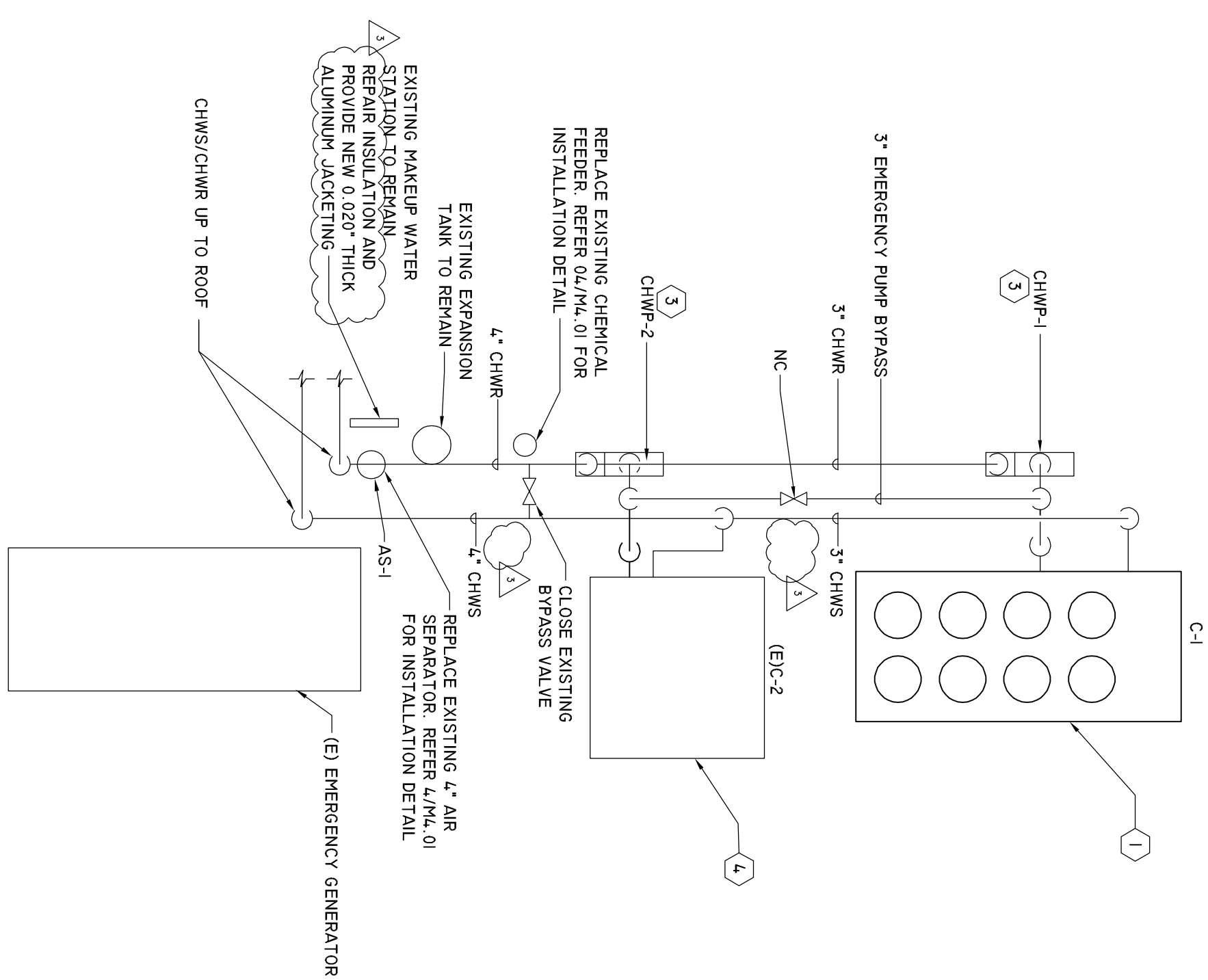


SCALE: 1/4"=1'-0"

- 1 DEMO EXISTING BOILER AND REPLACE WITH NEW BOILER PER SCHEDULE.
- 2 DISCONNECT EXISTING WATER AND GAS PIPING FROM BOILER AND RE-CONNECT WITH NEW BOILER.
- 3 DISCONNECT EXISTING 1/4" DIA VENT AND RECONNECT TO NEW BOILER.
- 4 DEMO EXISTING PUMPS.
- 5 DEMO EXISTING CONCRETE PAD.
- 6 EXTEND EXISTING CONCRETE PAD TO ACCOMMODATE BOILER AND NEW PUMPS AS REQUIRED. REFER 01/PM.02 FOR PUMP INSTALLATION DETAIL. REFER 02/PM.02 FOR CONCRETE PAD INSTALLATION DETAIL.
- 7 REMOVE AND RELOCATE EXISTING EXP. TANK.
- 8 EXTEND EXISTING 1 1/2" N.G. PIPING TO NEW BOILER. REFER 05/PM.01 FOR INSTALLATION DETAIL.
- 9 PROVIDE NEW AIR SEPARATOR AS PER SCHEDULE. REFER 06/PM.01 FOR INSTALLATION DETAIL.
- 10 REINSTALL EXP. TANK ON EXISTING CONCRETE PAD. REFER 06/PM.01 FOR INSTALLATION DETAIL AND 02/PM.02 FOR CONCRETE PAD INSTALLATION DETAIL.
- 11 REPLACE EXISTING CHW PUMP UFS.
- 12 PROVIDE CARBON MONOXIDE MONITORING SENSOR WITH NEW EXISTING BOILER. PROVIDE CARBON MONOXIDE DETECTOR EXCEEDING 50 PPM. CARBON MONOXIDE SENSOR SHALL BE MANUAL RESET TYPE AND FAIL-SAFE ON LOSS OF POWER.

SCALE: 1/16"=1'-0"





01 ENLARGED DEMO AND CONSTRUCTION PLAN - MECH YARD - HVAC  
SCALE: 1/8"=1'-0"

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

KEYED NOTES:

- 1 REMOVE AND REPLACE EXISTING CHILLER WITH NEW CHILLER AS SCHEDULED. REFER 08/M4.01 FOR INSTALLATION DETAIL.**

- 2 NOT USED 3

3. REMOVE AND REPLACE EXISTING CHILLER PUMP WITH NEW PUMP AS SCHEDULED. REFER 0114.01 FOR PUMP INSTALLATION DETAIL AND 0214.02 FOR CONCRETE PAD INSTALLATION DETAIL. REINSULATE PUMP SUCTION AND DISCHARGE BRANCH PIPING WITH NEW PENOLIC FOAM INSULATION AND 0.020" THICK ALUMINUM JACKETING.

- 4 EXISTING CHILLER TO REMAIN

