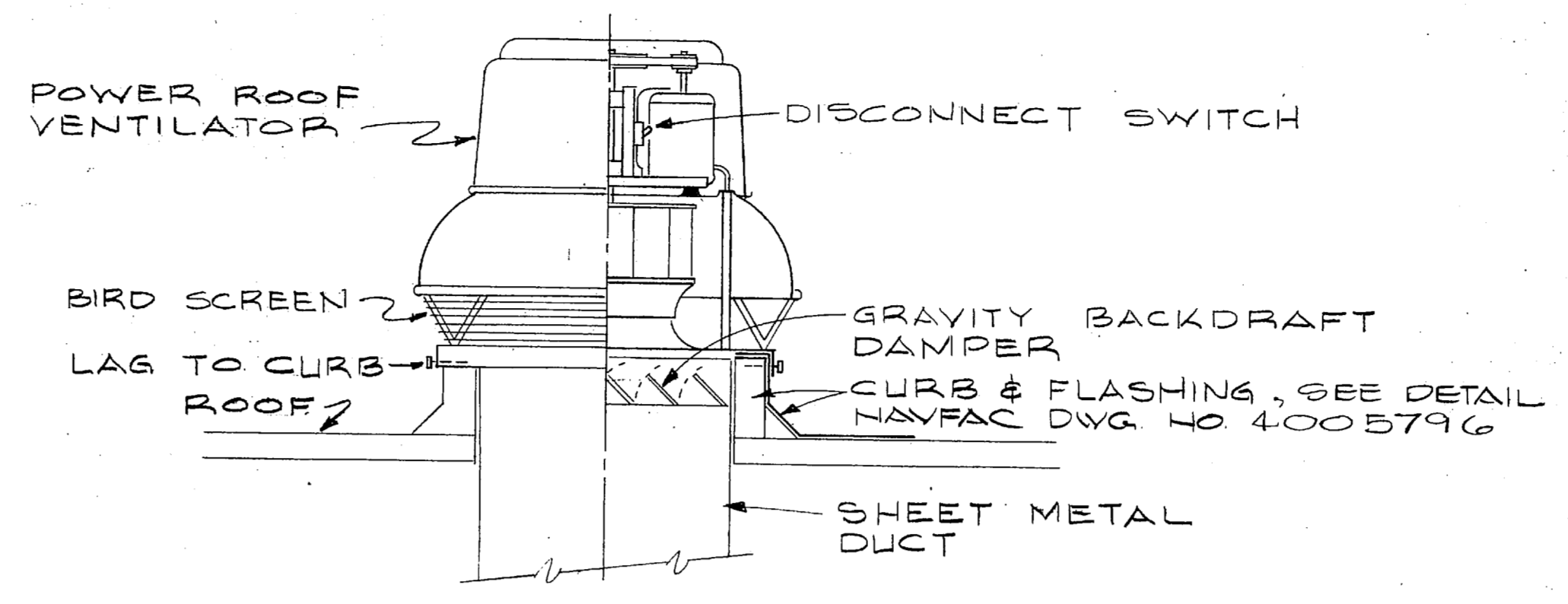
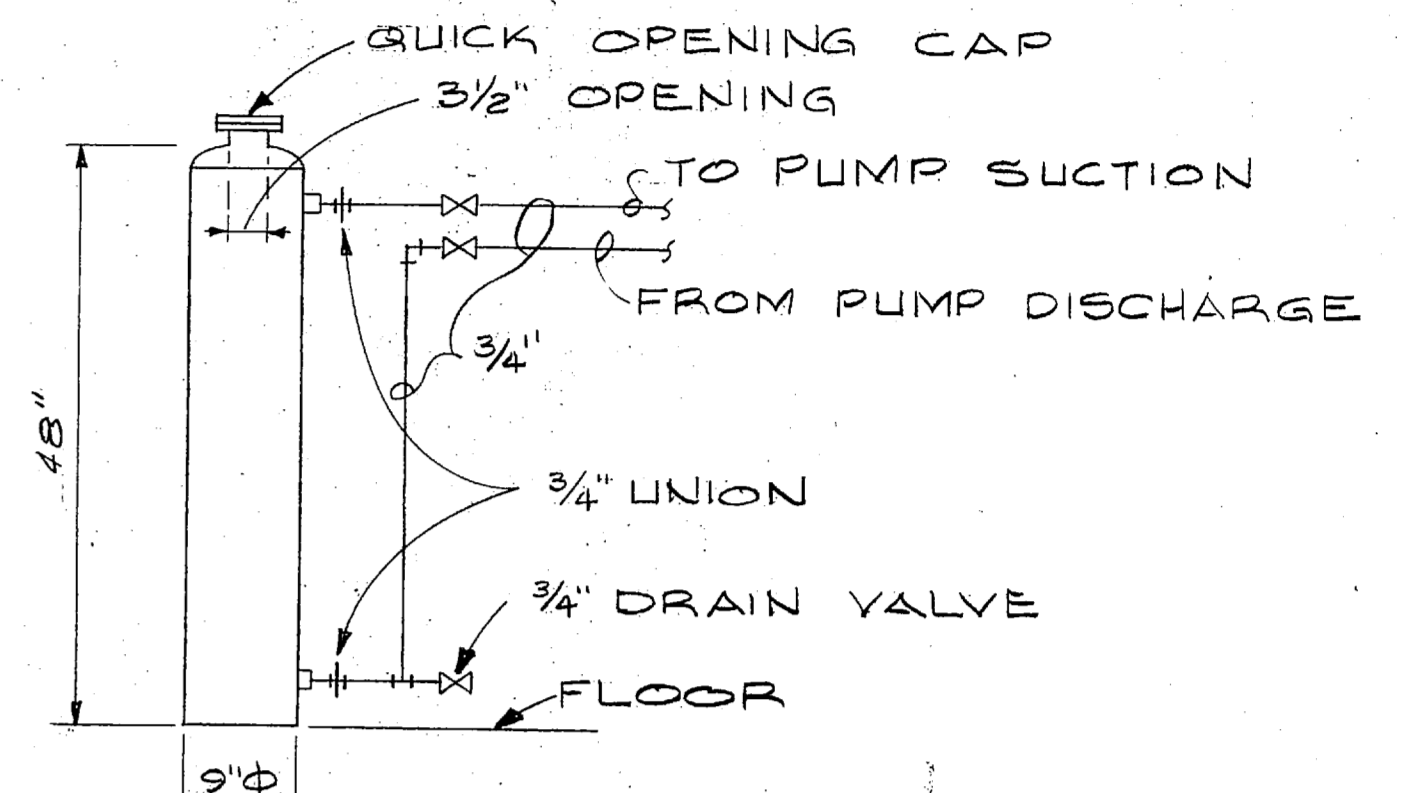


**EXISTING MECH. EQUIP. RM. PLAN**  
SCALE: 3/8" = 1'-0"  
(SHOWING NEW PIPING)



**POWER ROOF VENTILATOR DETAIL**  
NO SCALE

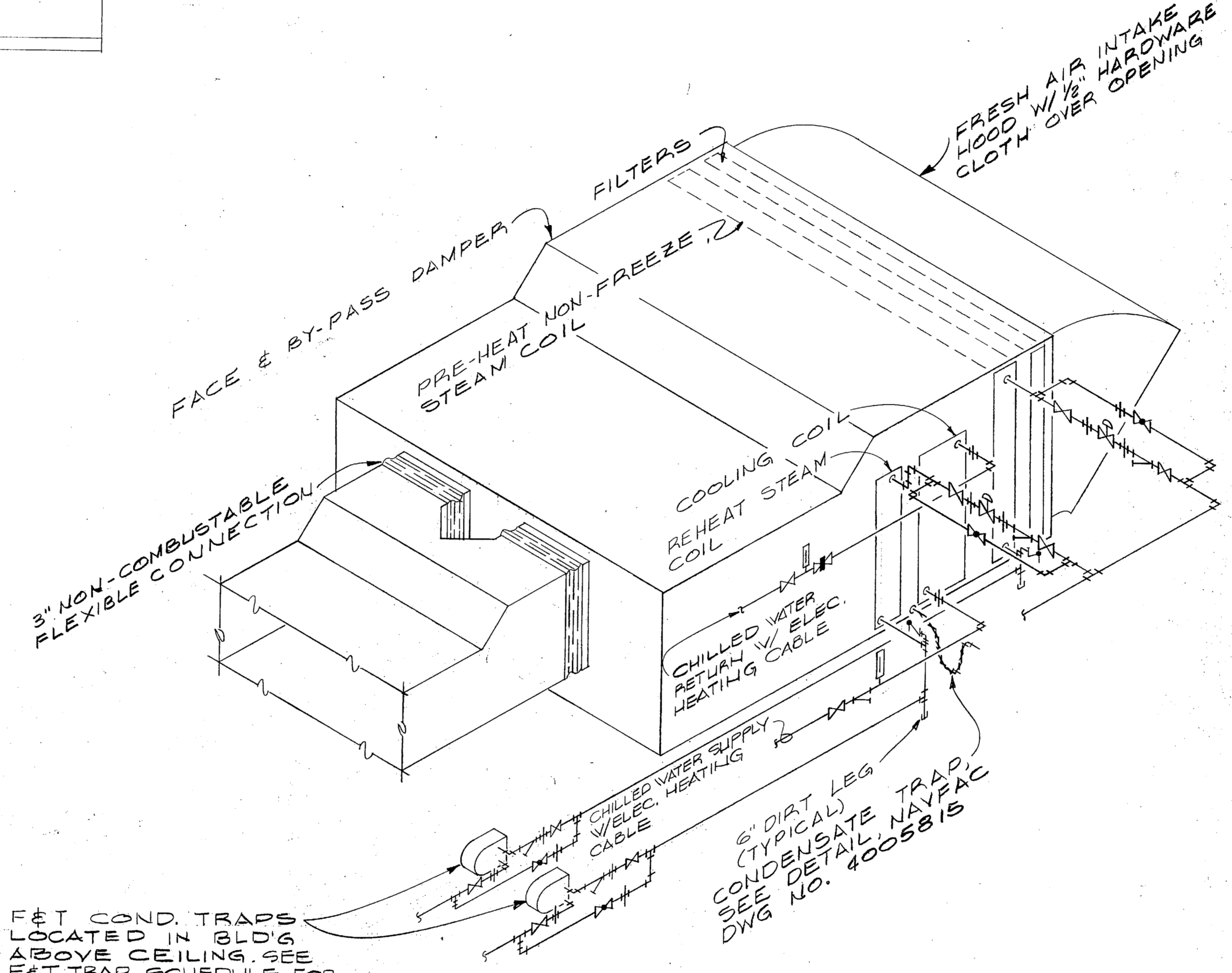
REVISIONS		
SYM	DESCRIPTION	DATE APPROVED



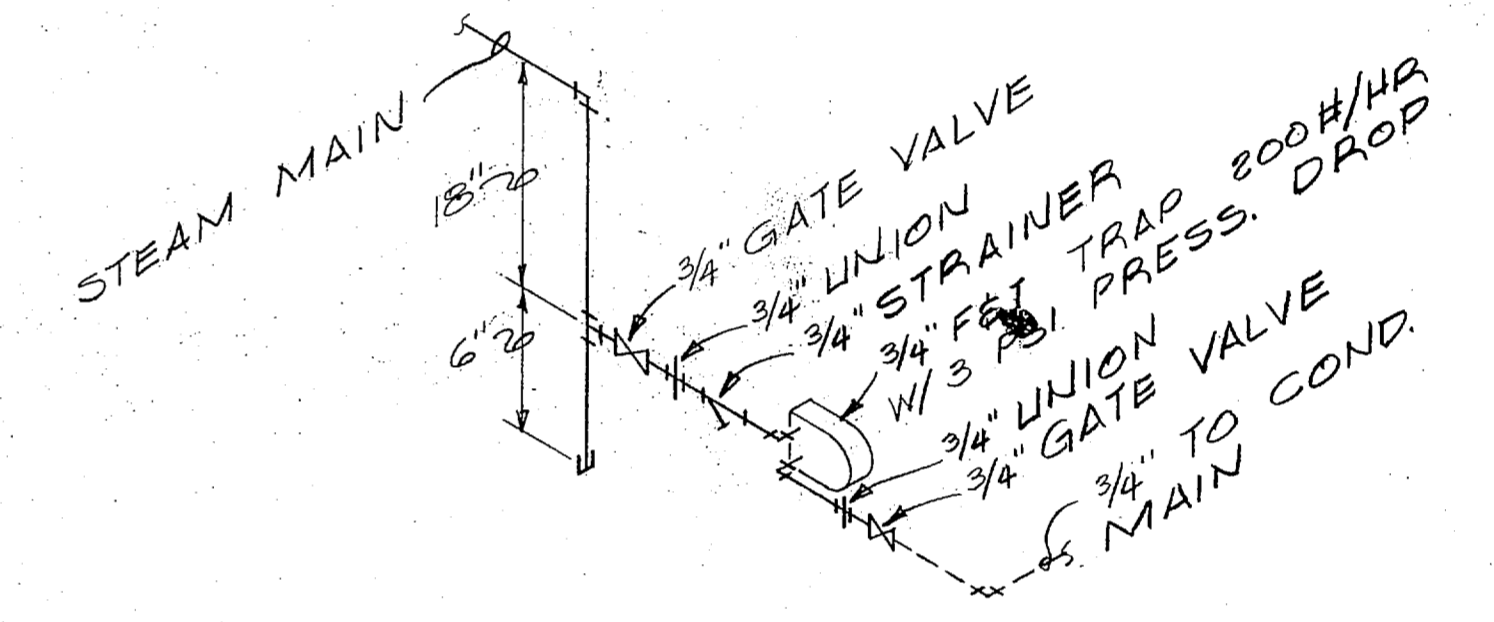
**CHEMICAL FEED SYSTEM DETAIL**  
NO SCALE

**NOTES:**

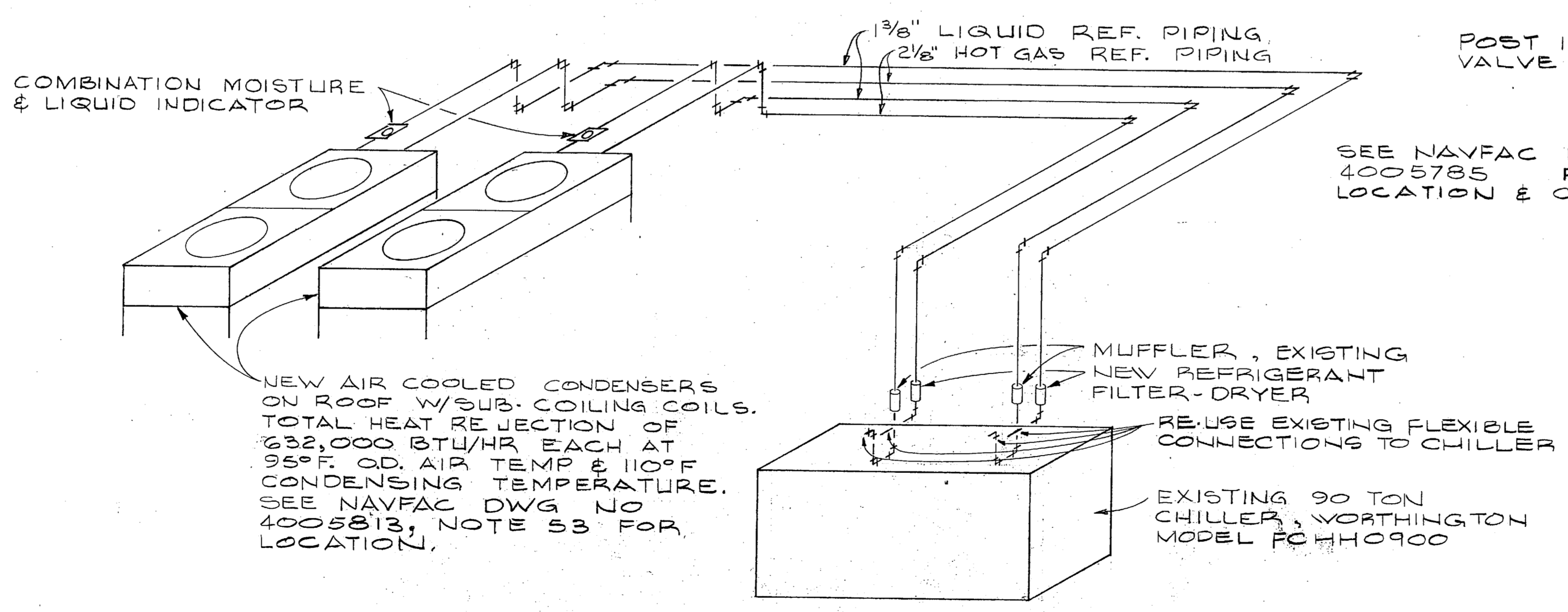
- 61. CONNECT NEW 1" COND. TO EXISTING COND. GATE VALVE AT H.W. HEATER COND. TRAP DISCHARGE.
- 62. CONNECT TO EXISTING 1" COND. MAIN AT CEILING & EXTEND DOWN ON WALL TO NEW 1/2" COND. MAIN.
- 63. CONNECT TO EXISTING 3/4" COND. NEAR CEILING. ROUTE & CONNECT TO NEW MAIN AS SHOWN.
- 64. CONNECT NEW 2" PUMPED COND. TO EXISTING 2" PUMPED RETURN AT THIS POINT.
- 65. CONNECT NEW 2" VENT LINE TO EXISTING VENT AT CEILING.
- 66. NEW COND. PUMP SHALL HAVE MINIMUM CAPACITY OF 9000 SF EDR WITH PUMP CAPACITY OF 15 GPM @ 100 PSIG DISCHARGE PRESSURE. 3HP, 1750RPM, 208V, 3P MOTORS.
- 67. REPLACE ORFICE IN EXISTING STEAM PRESSURE REDUCING VALVE TO INCREASE CAPACITY TO 2100 #/HR. WITH 150 PSIG INLET PRESSURE & IS PSIG OUTLET PRESSURE.
- 68. NEW RELIEF VALVE SHALL HAVE MINIMUM CAPACITY OF 9500 #/HR. AT 20PSIG SETTING.
- 69. MAKE NEW 1/4" GATE VALVE CONNECTION TO EXISTING 1/4" STEAM MAIN AT CEILING.



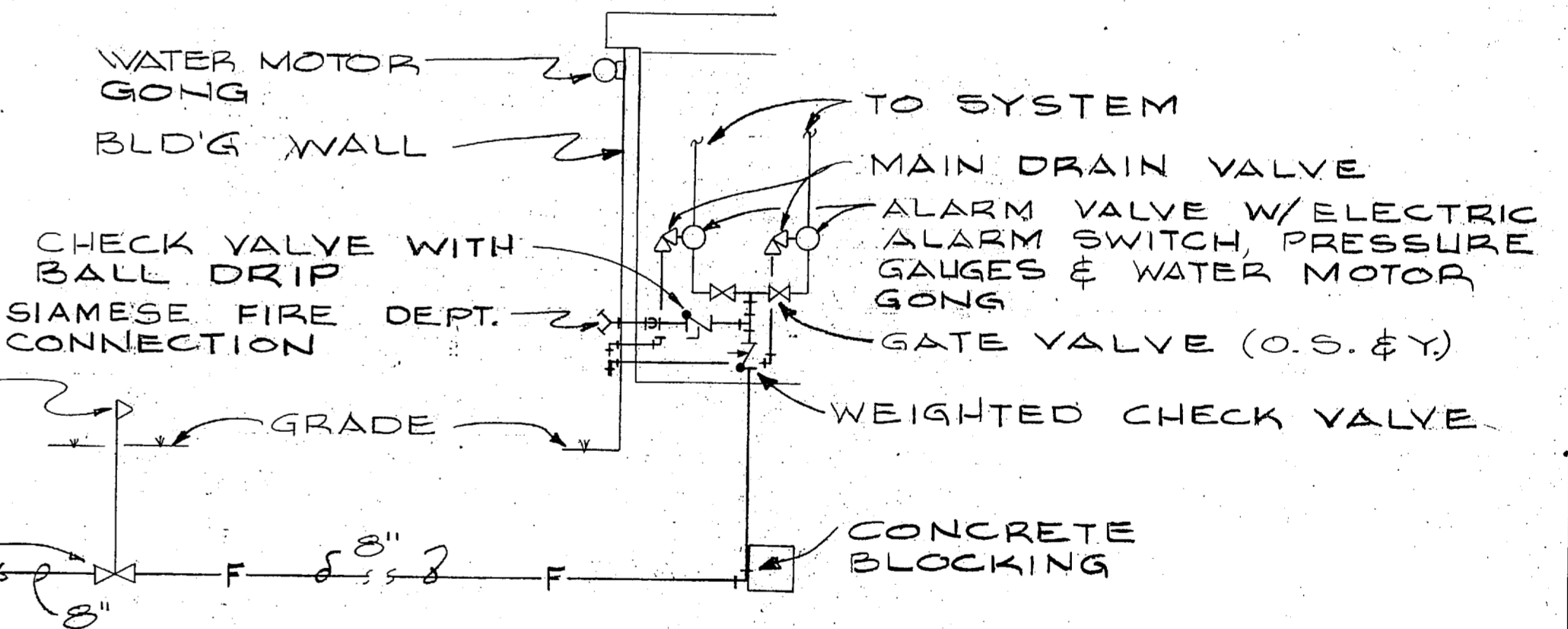
**PIPING SCHEMATIC FOR A.H.U. #1 & 2**  
NO SCALE



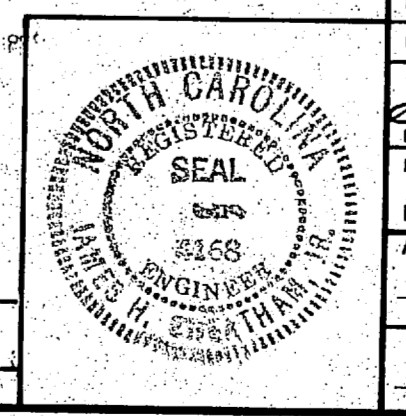
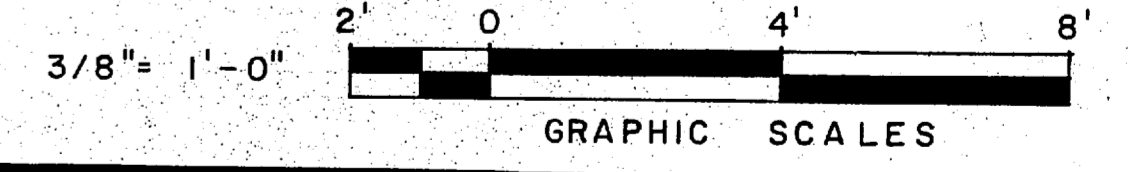
**END OF MAIN DRIP DETAIL**  
NO SCALE



**REFRIGERANT PIPING ISOMETRIC**  
NO SCALE



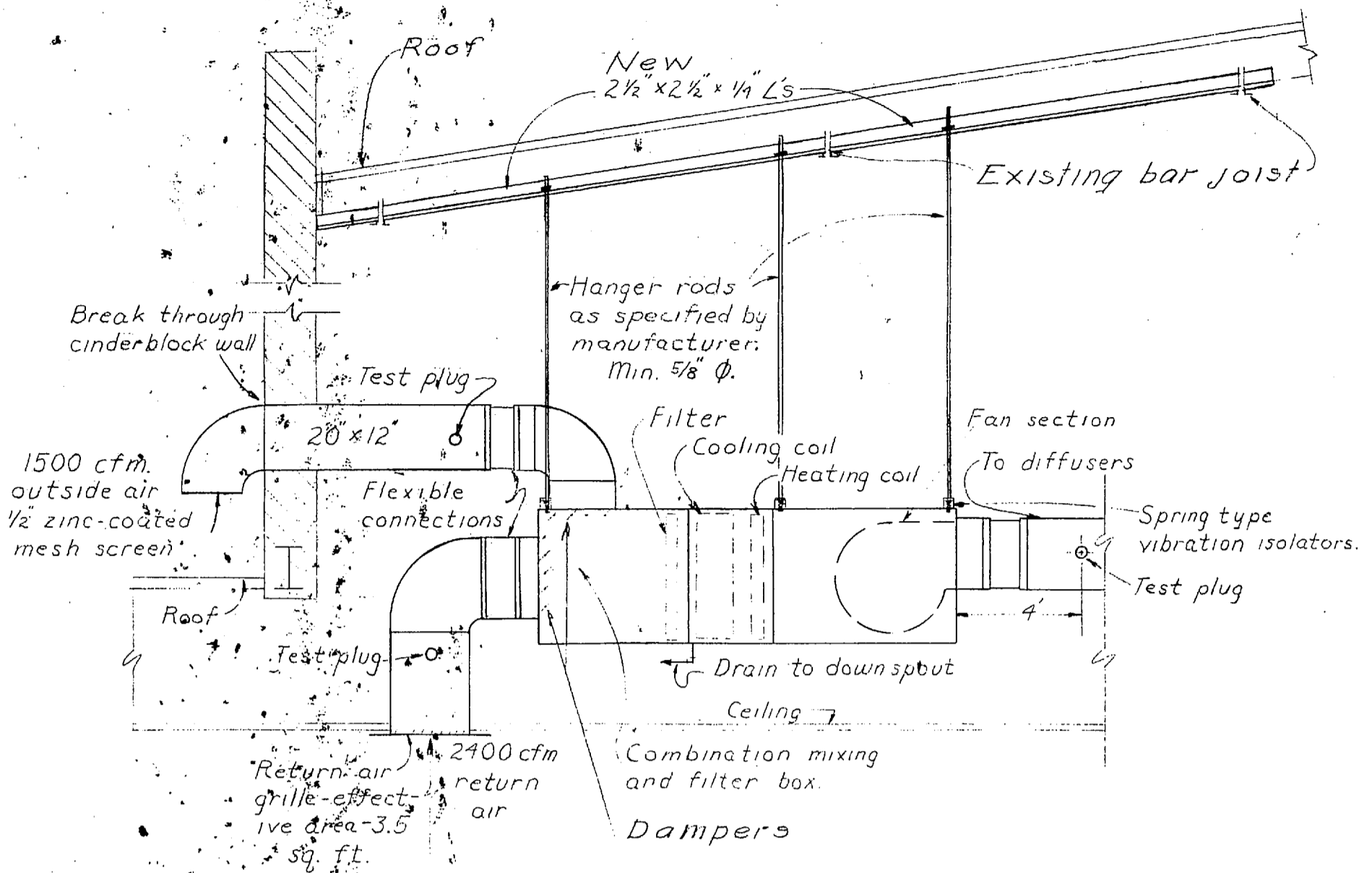
**SPRINKLER ALARM PIPING SCHEMATIC**  
NO SCALE  
(SEE NAVFAC DWG. NO. 4005812 FOR VALVE LOCATION)



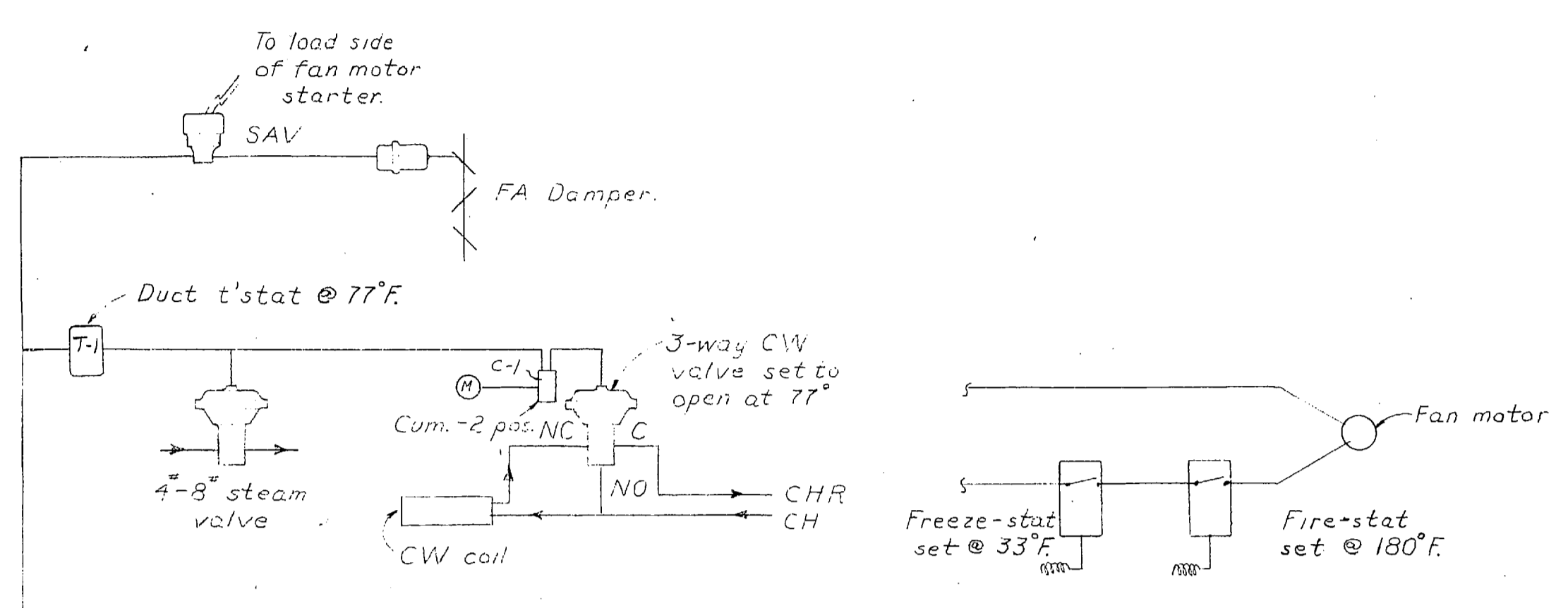
HENRY VON DEREN & ASSOCIATES CONSULTING ENGINEERS WILMINGTON, N. C.		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VA.	
DR. J. H. C.	DR. J. G. W.	CH. J. H. C.	
PROJ. MGR. CEP	CH. ENGR.	DATE	
22/10/1972		22/10/1972	
MEMBER		MEMBER	
NO. 2822		NO. 2822	
APPROVED		DATE	
OFFICER IN CHARGE		DATE	
		DATE	
FOR EPO FOR COMMANDER NAVFAC		SCALE AS SHOWN	SPEC. SHEET 31 OF 30

NAVFAC DRAWING NO. **4005814**  
CONTRACT NO. N62470-71-B-0979  
SHEET 31 OF 30



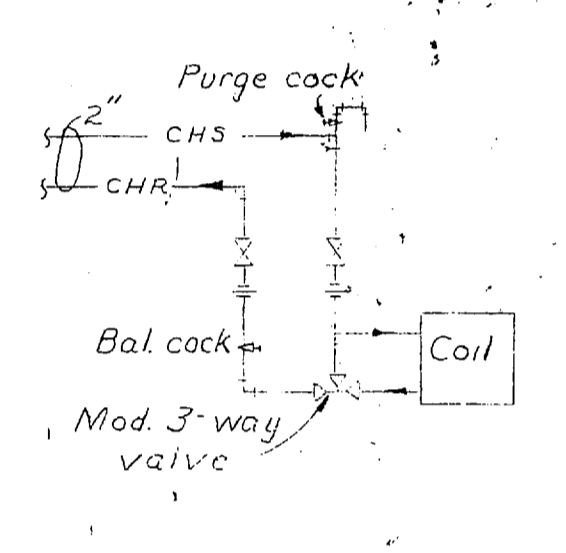


DETAIL AHU  
No scale

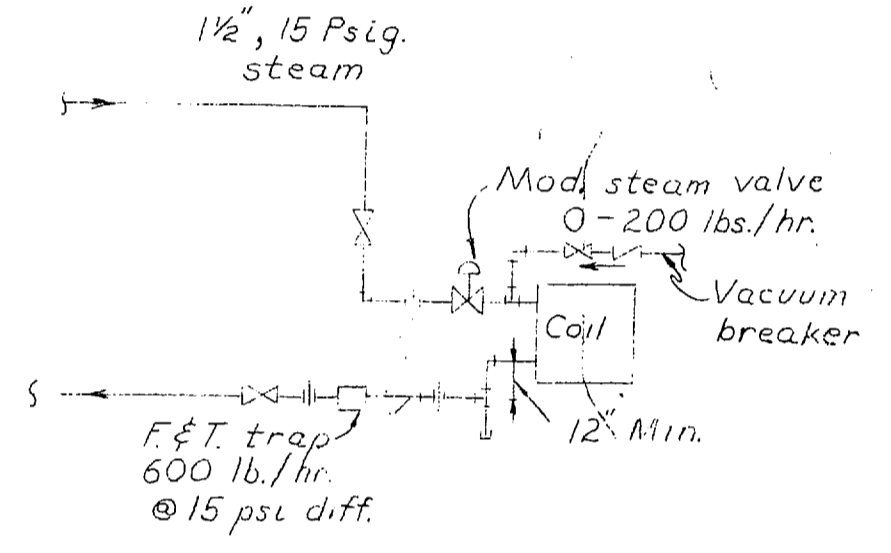


AHU CONTROL (2 Req'd)  
No scale

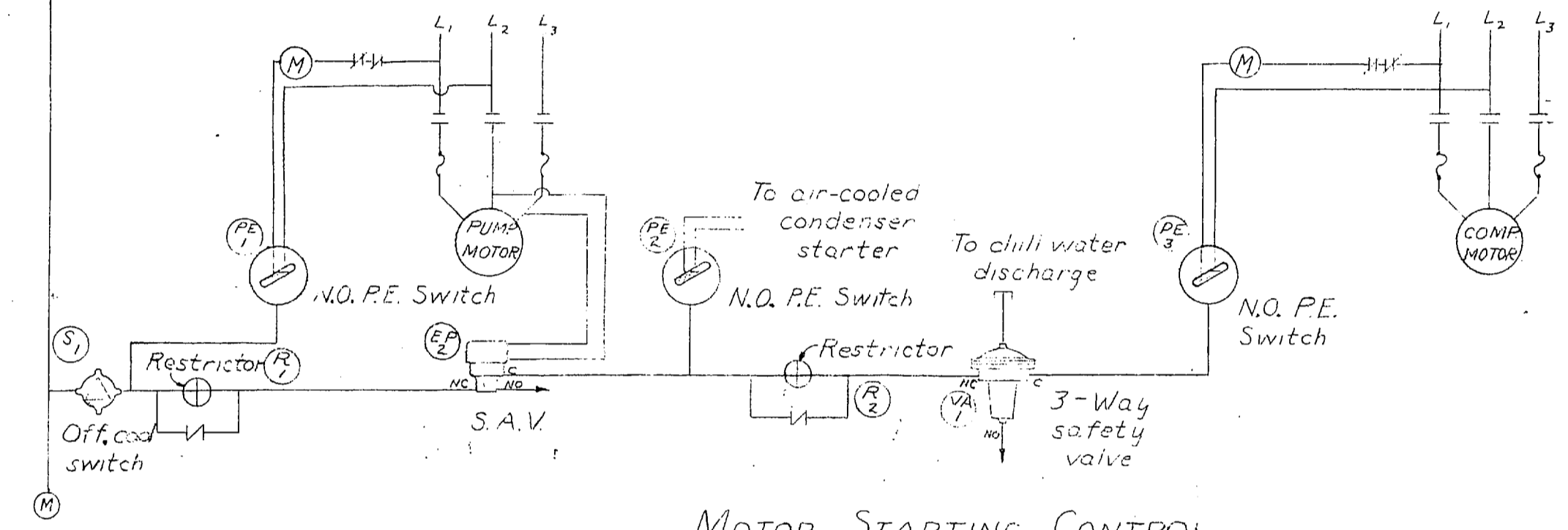
- LEGEND
- CH- Chilled water supply piping
  - CHR- Chilled water return piping
  - S- Steam piping
  - R- Condensate return piping
  - - - Existing piping (light lines)
  - - - New piping (heavy lines)
  - D- Drain piping
  - ⊙ Existing ceiling lights
  - ⊙ Existing speakers, ceiling mounted
  - HG- Hot gas refrigerant piping
  - L- Liquid refrigerant piping
  - C- Check valve
  - G- Gate valve
  - U- Union
  - FD- Floor drain



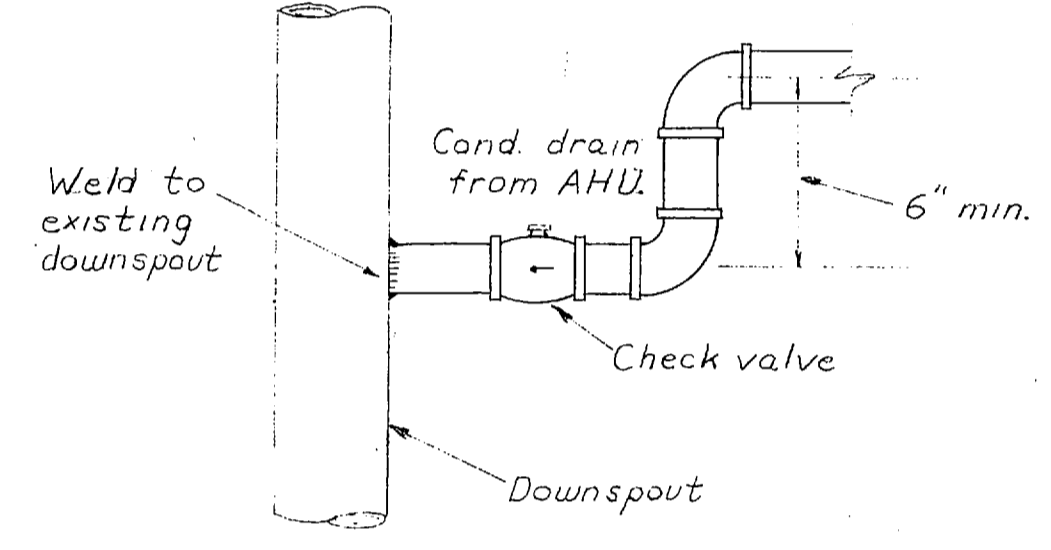
AHU CHILL WATER PIPING  
No scale



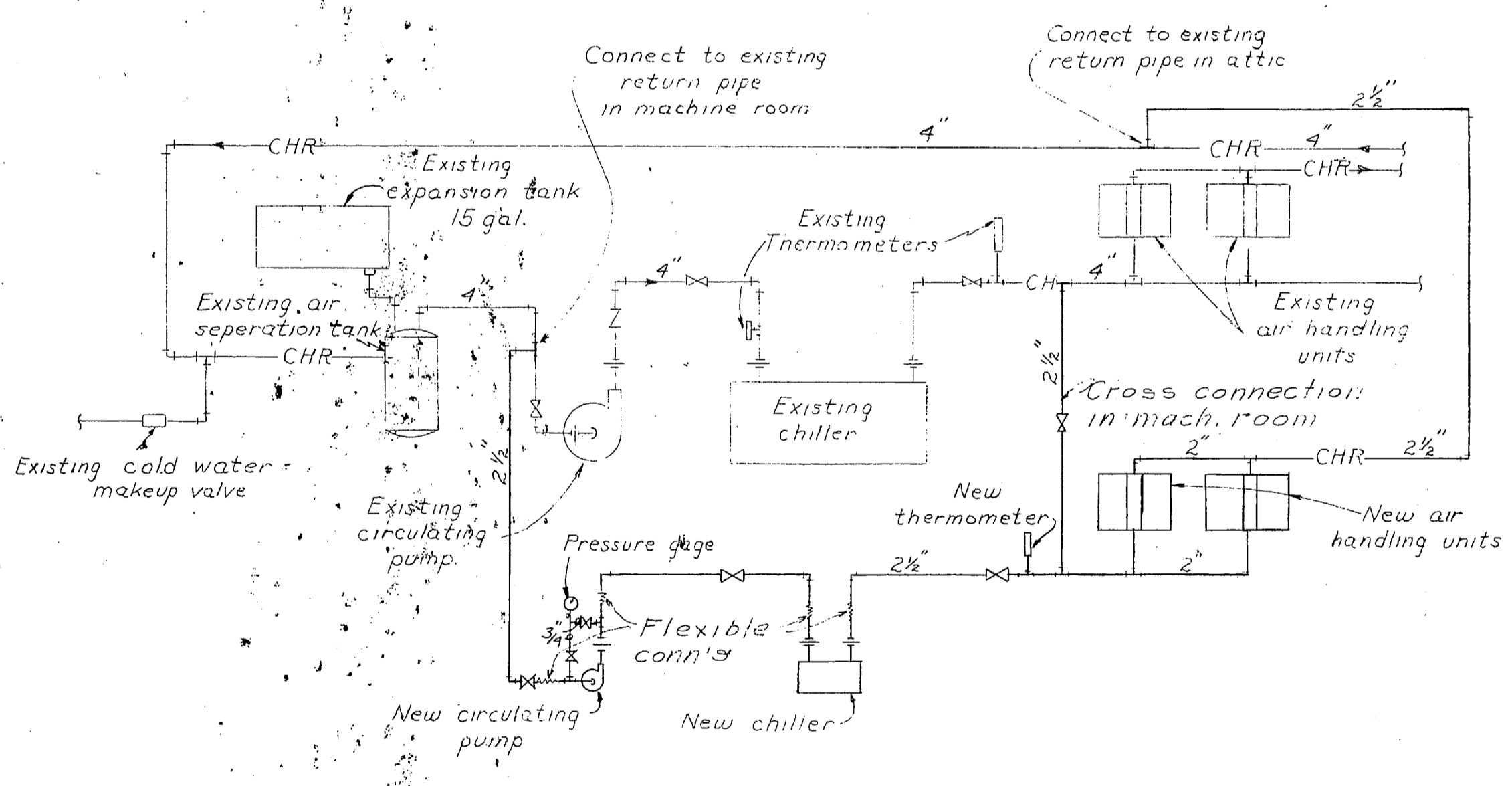
AHU STEAM PIPING  
No scale



MOTOR STARTING CONTROL  
No scale



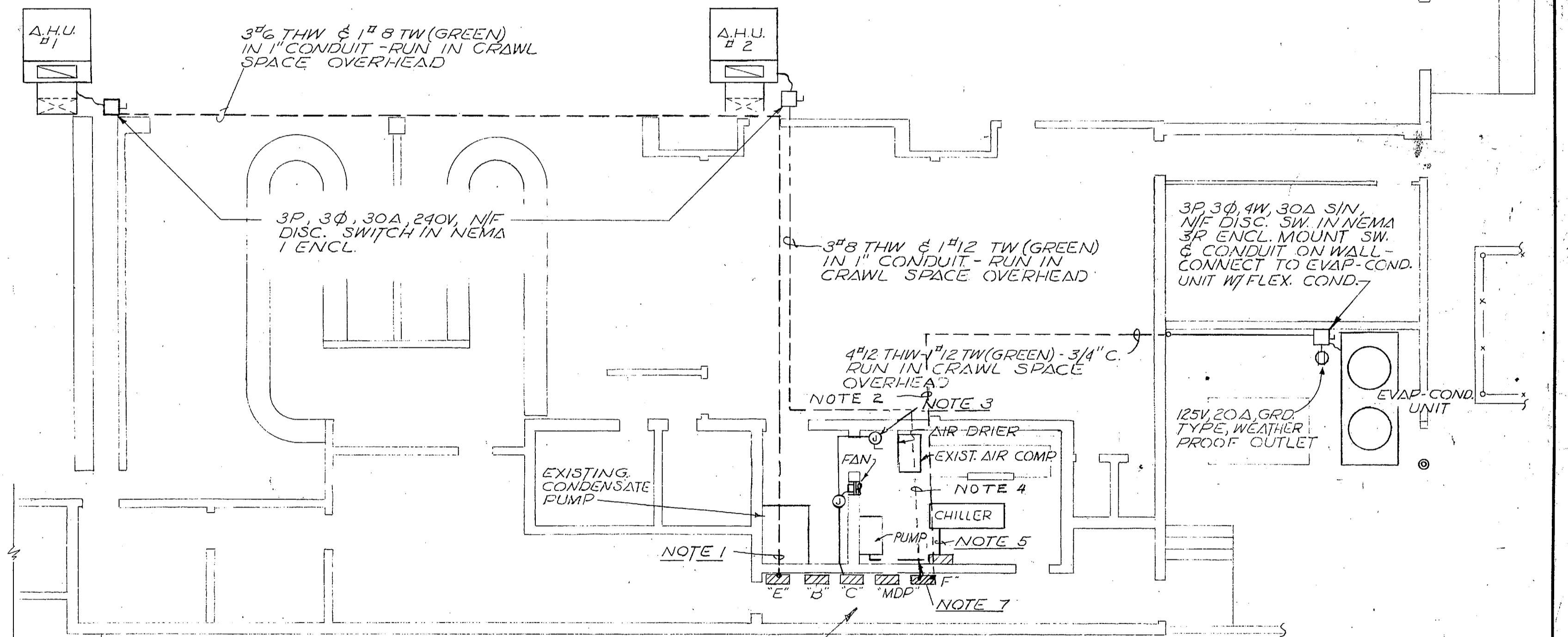
DETAIL CONDENSATE DRAIN CONNECTION TO DOWNSPOUT  
No scale



SCHEMATIC COOLING SYSTEM PIPING DIAGRAM  
No scale

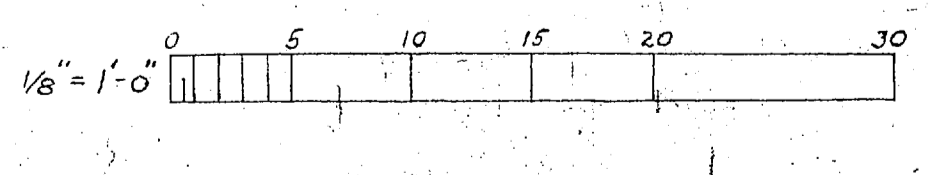
NOTES FOR ELECTRICAL WORK

- 1- PROVIDE 1-3P, 30A, CLASS 2C, CKT. BKR. IN EXISTING SPACE OF PANEL 'E' & CONNECT TO AHU#1
- 2- PROVIDE 1-3P, 30A, CLASS 2C, CKT. BKR. IN EXISTING SPACE OF PANEL 'B' & CONNECT TO EVAP. COND. UNIT
- 3- PROVIDE 1-1P, 30A, CLASS 2B, CKT. BKR. IN EXISTING SPACE OF PANEL 'C' & CONNECT TO EXHAUST FAN & TO REFRIGERANT AIR DRIER UNIT - CKT. SHALL BE 2#12 THW & 1#12 TW (GREEN) IN 1/2" C.
- 4- PROVIDE 1-3P, 30A, CLASS 2C, CKT. BKR. IN EXISTING SPACE OF PANEL 'M/D' & CONNECT TO AHU#2
- 5- PROVIDE 1-3P, 150A, CLASS 3B, CKT. BKR. IN EXISTING SPACE OF PANEL 'T' & CONNECT TO CHILLER W/ 3#2 THW & 1#4 TW (GREEN) IN 1/2" C.
- 6- RECONNECT THE EXISTING CONDENSATE PUMP & COMPRESSOR
- 7- PROVIDE 1-3P, 20A, CLASS 2C, CKT. BKR. IN EXISTING SPACE OF PANEL 'F' & CONNECT TO PUMP W/ 3#12 THW & 1#12 TW (GREEN) IN 3/4" C.



REV. A REVISOR: [Signature] DATE: [Date] DESCRIPTION: REVISED TO SHOW EXISTING CONDITIONS

PLAN - ELECTRICAL LAYOUT  
Scale: 1/8" = 1'-0"

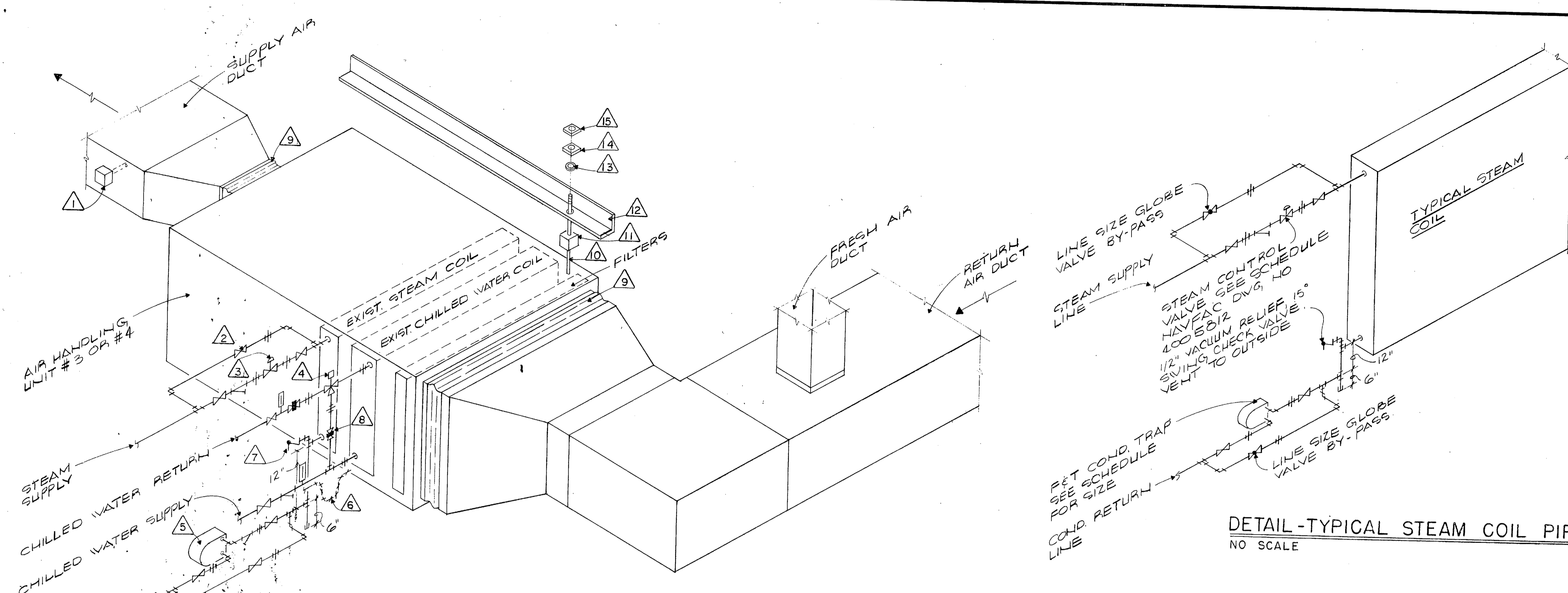


SATISFACTORY TO THE QUARTERMASTER GENERAL OF THE MARINE CORPS DATE: [Date]

REVISION	DATE	APPD.	DESCRIPTION	BY
A	7 Aug 66	[Signature]	AS BUILT REVISION	
MARINE CORPS BASE CAMP LEJEUNE, N. C.				
ADDITIONAL AIR CONDITIONING BONNEYMAN BOWLING CENTER				
PLANS & DETAILS MECHANICAL & ELECTRICAL				
APPROVED [Signature]			DATE	
[Signature]			30 Nov 1966	
[Signature]			SCALE GRAPHIC	SPEC 78345/66
[Signature]			SHEET 2 OF 2	NBY 78345
[Signature]			DATE Nov 30, 1966	NAVFAC DRAWING NO. 957930



REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED



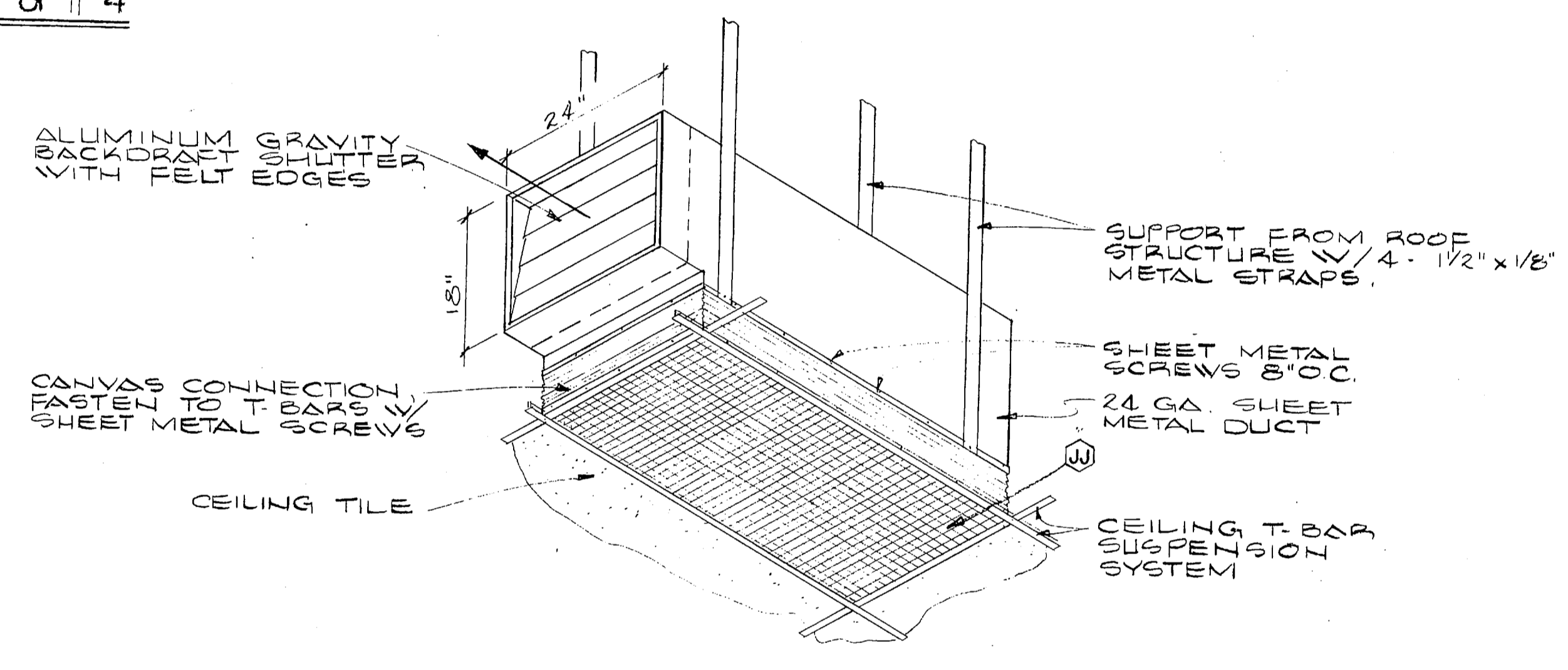
F & T TRAP SCHEDULE						
SYMBOL	STEAM PRESSURE	COND. # / HR.	PRESSURE DROP	SERVICE LOCATION	REMARKS	
F&T #1	15	189	3	PRE-HEAT COIL - A.H.U. #1		
F&T #2	15	312	3	RE-HEAT COIL - A.H.U. #1		
F&T #3	15	129	3	PRE-HEAT COIL - A.H.U. #2		
F&T #4	15	312	3	RE-HEAT COIL - A.H.U. #2		
F&T #5	15	75	3	RE-HEAT COIL - A.H.U. #3		
F&T #6	15	18	3	RE-HEAT COIL - A.H.U. #4		
F&T #7	15	12	3	RE-HEAT COIL - A.H.U. #5		
F&T #8	15	400	3	RE-HEAT COIL - A/C #1		
F&T #9	15	300	3	RE-HEAT COIL - A/C #2		
F&T #10	15	75	3	RE-HEAT COIL - A/C #3		
F&T #11	15	10	3	RE-HEAT COIL - A/C #4		
F&T #12	15	50	3	NEW UNIT HEATERS	2 REQ'D	

**DETAIL - AIR HANDLING UNIT #3 & #4**  
NO SCALE

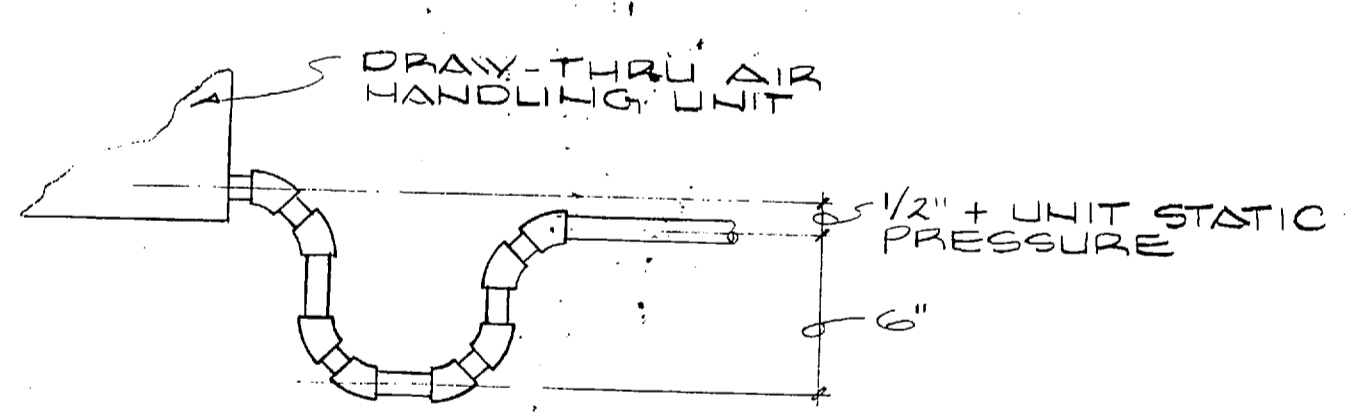
**NOTES**

- ▲ FIRESTAT MOUNTED IN SUPPLY AIR DUCT
- ▲ 1" GLOBE VALVE, BY-PASS
- ▲ STEAM CONTROL VALVE
- ▲ 3-WAY CHILLED WATER CONTROL VALVE
- ▲ STEAM CONDENSATE TRAP. SEE F&T TRAP SCHEDULE FOR SIZE
- ▲ CONDENSATE TRAP. SEE DETAIL, THIS SHEET
- ▲ 1/2" VACUUM RELIEF, 15" SWING CHECK VALVE VENT TO OUTSIDE.
- ▲ BALANCING VALVE, SET TO MATCH COIL PRESSURE
- ▲ 3" NON COMBUSTIBLE FLEXIBLE CONNECTION, HANGER ROD, (4 REQ'D EACH UNIT)
- ▲ RUBBER IN-SHEAR VIBRATION ISOLATOR, 2 1/2" X 2 1/2" X 3/8" L TO SPAN BOTTOM CORD OF JOIST (2 REQ'D EACH UNIT)
- ▲ WASHER (4 REQ'D EACH UNIT)
- ▲ NUT (4 REQ'D EACH UNIT)
- ▲ JAMB NUT (4 REQ'D EACH UNIT)

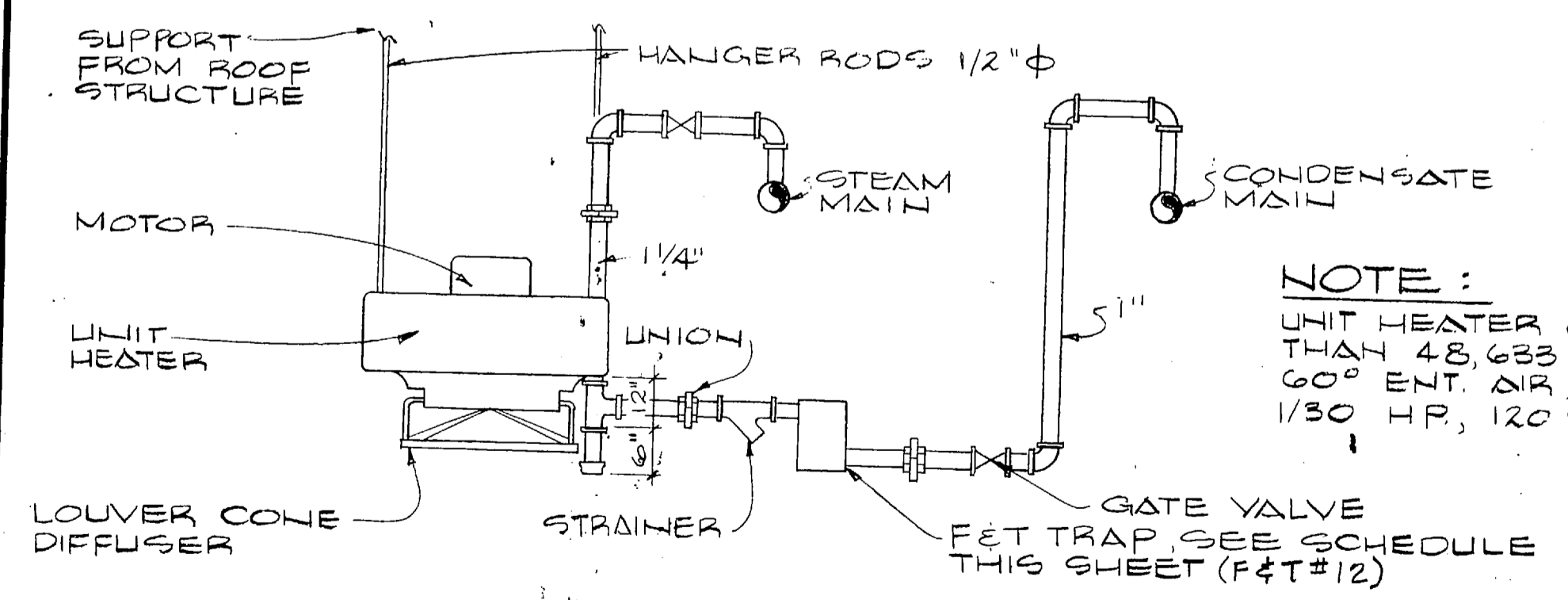
**DETAIL-TYPICAL STEAM COIL PIPING**  
NO SCALE



**EXHAUST GRILLE DETAIL**  
NO SCALE

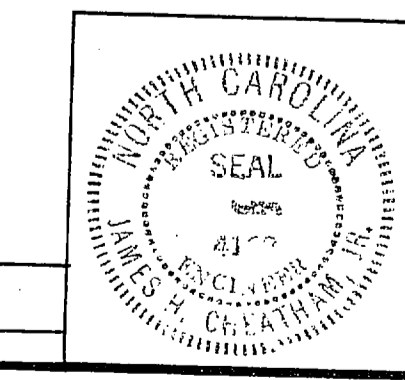


**CONDENSATE DRAIN DETAIL**  
NO SCALE



**NOTE:**  
UNIT HEATER CAPACITY TO BE NOT LESS THAN 48,000 BTU/HR. W/STEAM @ 2 PSIG, 60° ENT. AIR, 500 CFM @ 70", 1350 RPM, 1/30 HP, 120 V, 1 φ 60 V.

**UNIT HEATER DETAIL**  
NO SCALE



HENRY VON OESSEN & ASSOCIATES CONSULTING ENGINEERS WILMINGTON, N. C.		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VA.	
DES. J.H.C.	DR. J.G.W.	CHK. J.H.C.	
PROJ. WSR C.E.D.	CH. ENGR.		
SUBMITTED BY: <b>W. J. S. S.</b>	DATE: <b>JUN 30 1972</b>	ADDITIONS TO BONNYMAN BOWLING CENTER MARINE CORPS BASE CAMP LEJEUNE, N.C.	
NO. <b>4111</b>	REV. <b>3/22</b>	HEATING & A/C DETAILS	
APPROVED: _____	DATE: _____	SIZE: <b>F</b>	CODE IDENT. NO.: <b>405815</b>
OFFICER IN CHARGE	DATE: _____	NAVAFAC DRAWING NO. <b>405815</b>	
FOR STD FOR COMMANDER NAVAFAC		SCALE: <b>AS SHOWN</b>	SPEC: _____
SATISFACTORY TO _____		CONTRACTOR NO. <b>N62470-71-B-0979</b>	
TITLE _____		SHEET <b>32</b> OF <b>38</b>	

