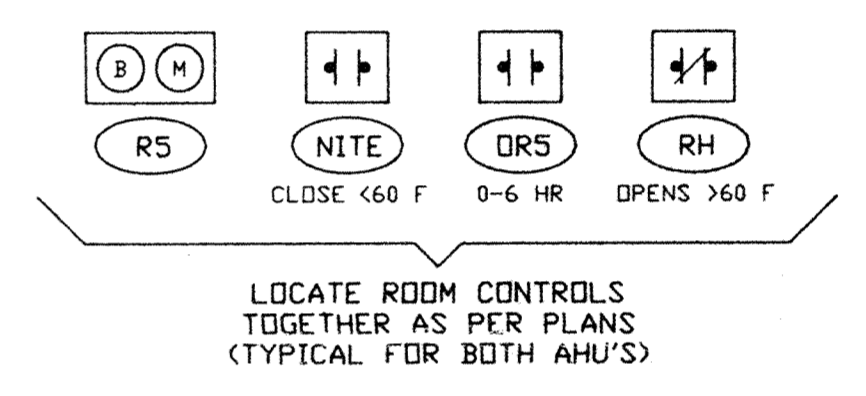


NEW AIR HANDLING UNITS 1 & 2  
(TYPICAL)

EQUIPMENT LIST

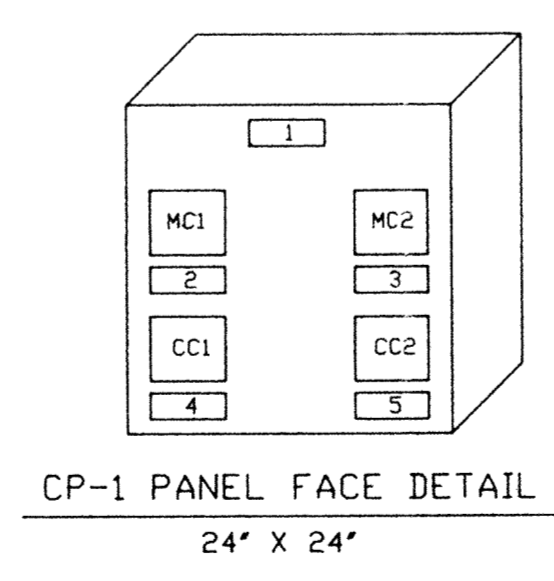
CONTROL SYMBOL	QUAN	PRODUCT NUMBER	DESCRIPTION
DM1	6	FM-24SR	BELIMO DAMPER MOTOR, SPRING RETURN
D1-D3	6	CD-50	RUSKIN CONTROL DAMPER
OAT	1	141-0520	SUN SHIELD
DAS	1	SHL10A-603R	OUTDOOR AIR THERMOSTAT
LL	2	QAM21	OUTDOOR AIR SENSOR
MAS	2	A70GA-1	PENN LOW LIMIT STAT, MANUAL RESET
HWV	1	QAM21.2	MIXED AIR SENSOR
RS	2	698-3120	H.W. VALVE, AHU-1
NITE	2	698-3140	H.W. VALVE, AHU-2
DRS	2	QAA231PD	ROOM TEMP. SENSOR
RH	2	90007	NITE THERMOSTAT
CP-1	1	V43A-14	MARKTIMER 0-6 HR SWITCH, W/O 'HOLD'
MCL2	2	567-222	PENN ROOM HUMIDISTAT, BLANK COVER
CC1,2	2	RWF61.3011-T122	MASTER CONTROLLER, FLUSH MTD
DS	1	SEL61.2001	2-STAGE COOLING CONTROLLER, FLUSH MTD
TC	1	3A690	KNIFE DISCONNECT SWITCH
RI-5	4	0525	7 DAY CLOCK W/7 DAY RESERVE, PARAGON
XFMR	2		BUCHANAN TERM. BLOCK



APPROVED AS CORRECTED  
REVISE AND RESUBMIT  
NOT APPROVED

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for coordination to be continued and completed at the job site for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

PETIT & PETIT  
CONSULTING ENGINEERS, INC.  
Date 6/12/89 By JRM



NAMETAGS (1' X 3')

- AIR HANDLING UNIT #1 & 2
- AHU-1 MASTER CONTROLLER
- AHU-2 MASTER CONTROLLER
- AHU-1 COOLING CONTROLLER
- AHU-2 COOLING CONTROLLER

GENERAL: ONE 7 DAY TIME CLOCK IN CONTROL PANEL, OR TWO (2) 6-HOUR CLOCK OVERRIDE TIME SWITCHES (LOCATED AT EACH ROOM THERMOSTAT) OPERATES HOT WATER BOILER AND PUMP AND AIR HANDLING UNITS 1 & 2.

AIR HANDLING UNIT 1: WHEN FAN STARTS, OUTSIDE AIR DAMPER OPENS TO MINIMUM POSITION. ROOM THERMOSTAT SEQUENCES 2-WAY PROPORTIONING HOT WATER COIL VALVE WITH THE CONDENSING UNIT. WHEN OUTSIDE AIR TEMPERATURE IS BELOW 70 F, ROOM THERMOSTAT THEN PROPORTIONS OUTSIDE, RETURN AND RELIEF AIR DAMPERS AND THE HOT WATER COIL VALVE IN SEQUENCE. MIXED AIR SENSOR PREVENTS AIR TEMPERATURE FROM FALLING BELOW 55 F. RELIEF AIR DAMPER OPENS WITH OUTSIDE AIR DAMPER AS RETURN AIR DAMPER CLOSES. IF ROOM HUMIDISTAT SENSES RELATIVE HUMIDITY ABOVE 60% OUTSIDE AIR DAMPER CLOSES TO MINIMUM POSITION AND ROOM THERMOSTAT CYCLES THE CONDENSING UNIT FOR COOLING. TWO NIGHT SETBACK THERMOSTATS OPERATE THE HOT WATER BOILER, PUMP AND BOTH AIR HANDLING UNITS 1 & 2 FANS. IF SPACE TEMPERATURE FALLS BELOW 60 F, OUTSIDE AND RELIEF AIR DAMPERS REMAIN CLOSED AND CONDENSING UNITS IS 'OFF' DURING NIGHT CYCLE. ROOM THERMOSTATS CONTROL THEIR RESPECTIVE HOT WATER COIL VALVES. FREEZE PROTECTION THERMOSTAT STOPS FAN, OPENS HOT WATER COIL VALVE AND STARTS HOT WATER BOILER PUMP, IF MIXED AIR TEMPERATURE FALLS BELOW 38 F. WHEN AIR CONDITIONING UNIT STOPS, OUTSIDE AND RELIEF AIR DAMPERS CLOSE AND CONDENSING UNIT IS DE-ENERGIZED. A BUILDING FIRE ALARM WILL STOP THE FAN.

AIR HANDLING UNIT 2: SAME SEQUENCE OF OPERATION AS AIR HANDLING UNIT 1.

HOT WATER BOILER AND PUMP: OUTDOOR RESET CONTROL (RATIO ONE TO ONE) (FURNISHED WITH BOILER) VARIES THE BOILER HOT WATER SEQUENCE TEMPERATURE INVERSELY WITH OUTSIDE AIR TEMPERATURE. BOILER CIRCUIT IS INTERLOCKED WITH WATER FLOW SWITCH. HOT WATER BOILER AND PUMP OPERATE BY 7 DAY TIME CLOCK, NIGHT SETBACK THERMOSTAT, EITHER CLOCK OVERRIDE SWITCH OR EITHER AIR HANDLING UNITS FREEZE PROTECTION THERMOSTAT. BULB THERMOSTAT STOPS BOILER AND PUMP IF OUTSIDE AIR TEMPERATURE IS ABOVE 55 F (ADJUSTABLE).

- NOTES:
- MIN. EMT 1/2", MIN. WIRE NO. 16 THHN.
  - = FIELD CONTROL WIRING.
  - = TERMINAL BLOCK @ CONTROL PANEL.
  - CONTROL CONTRACTOR TO MOUNT/WIRE FACTORY FURNISHED OUTDOOR AIR AND HOT WATER RESET SENSORS (SHIELDED FROM SUN).
  - REMOVE ANY CONTROLS, CONDUIT AND WIRE NOT USED OR REQUIRED FOR EXISTING AHU-1.
  - MOUNT FRAMED 'AS-BUILTS' ON MECH. RM. WALL AT JOB COMPLETION.
  - FAP = FIRE ALARM PANEL.

303-E-1517-1		POWERS OF ARKANSAS	REVISIONS
DATE	ENG	PROJECT NO. FSM-40997	
5-24-89	MW	AVIONICS/ECM POD/STORAGE	
		AIR NATIONAL GUARD	
		FT. SMITH, ARKANSAS	
DRW	CHK'D	TEMPERATURE CONTROL SYSTEM	
JMW	MW	NEW AHU-1 & 2	

Job  
Office Copy  
mmm6  
6-19-89  
AR