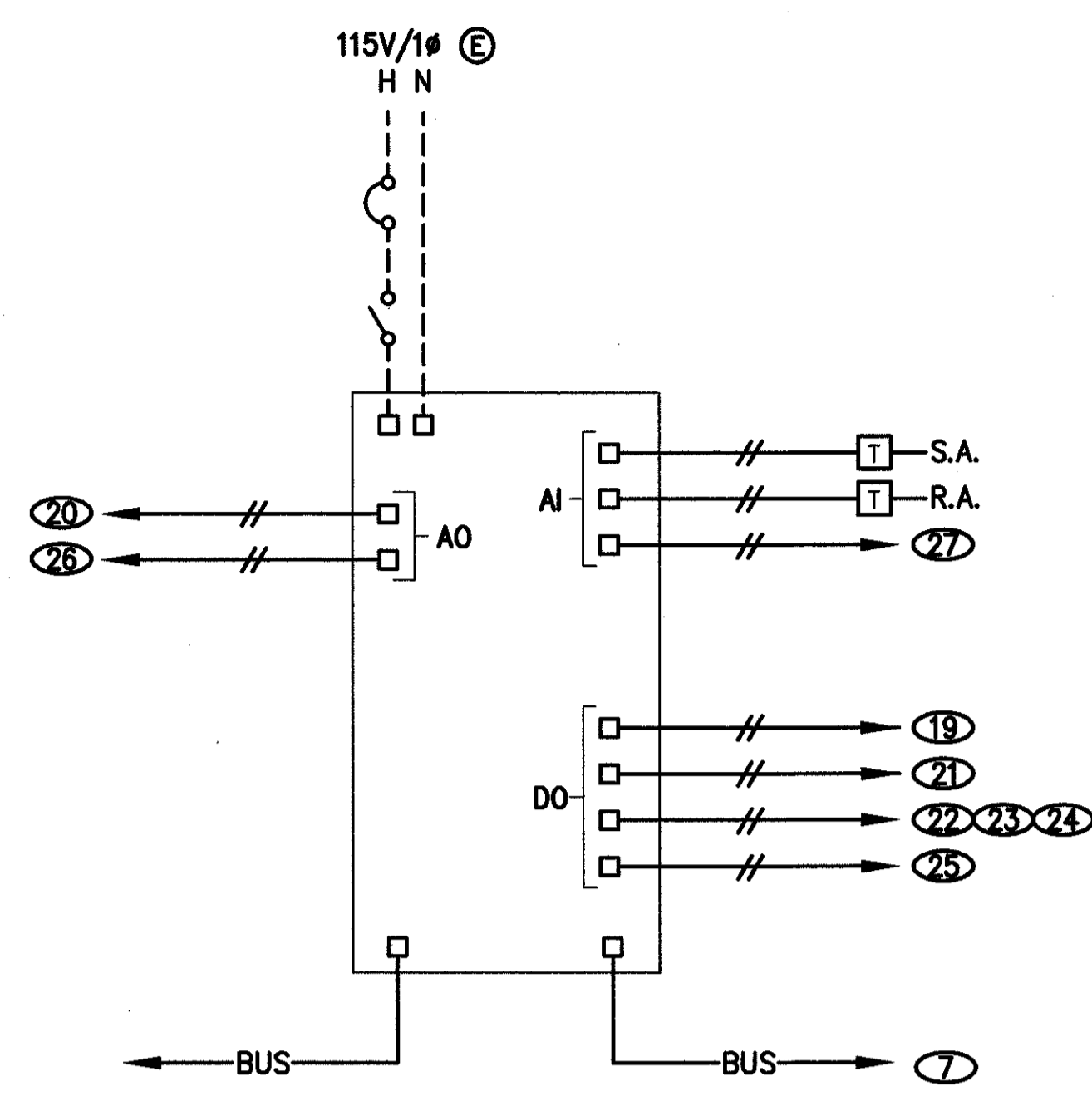
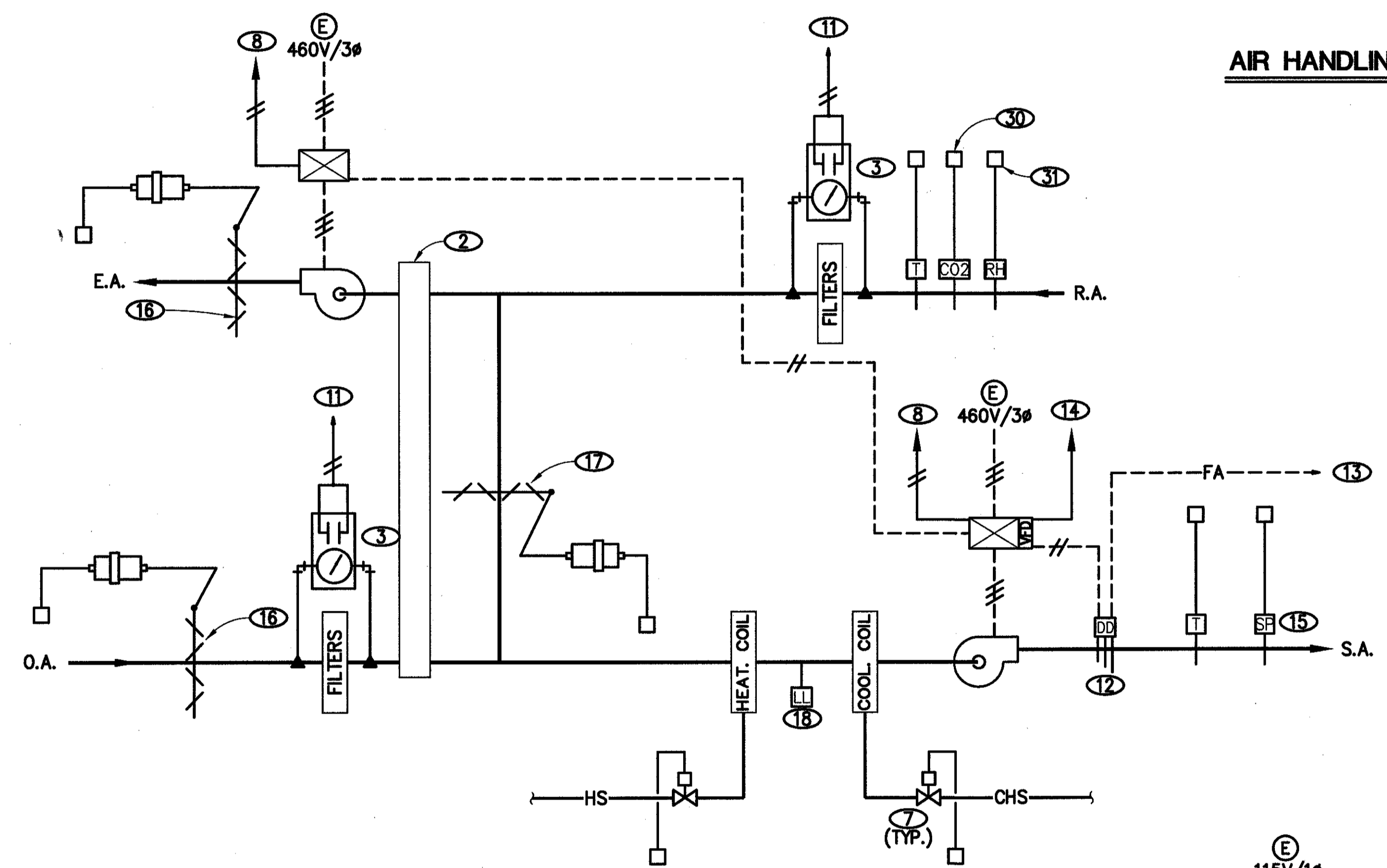


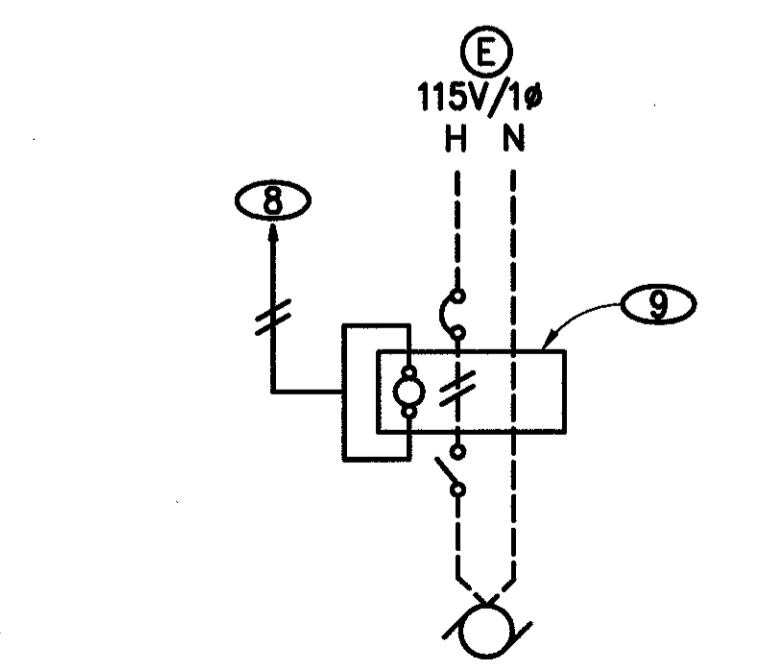
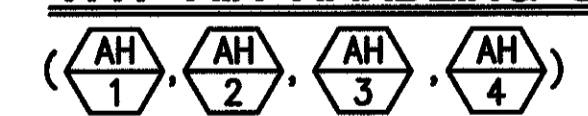
**ATC/EMCS ARCHITECTURE**



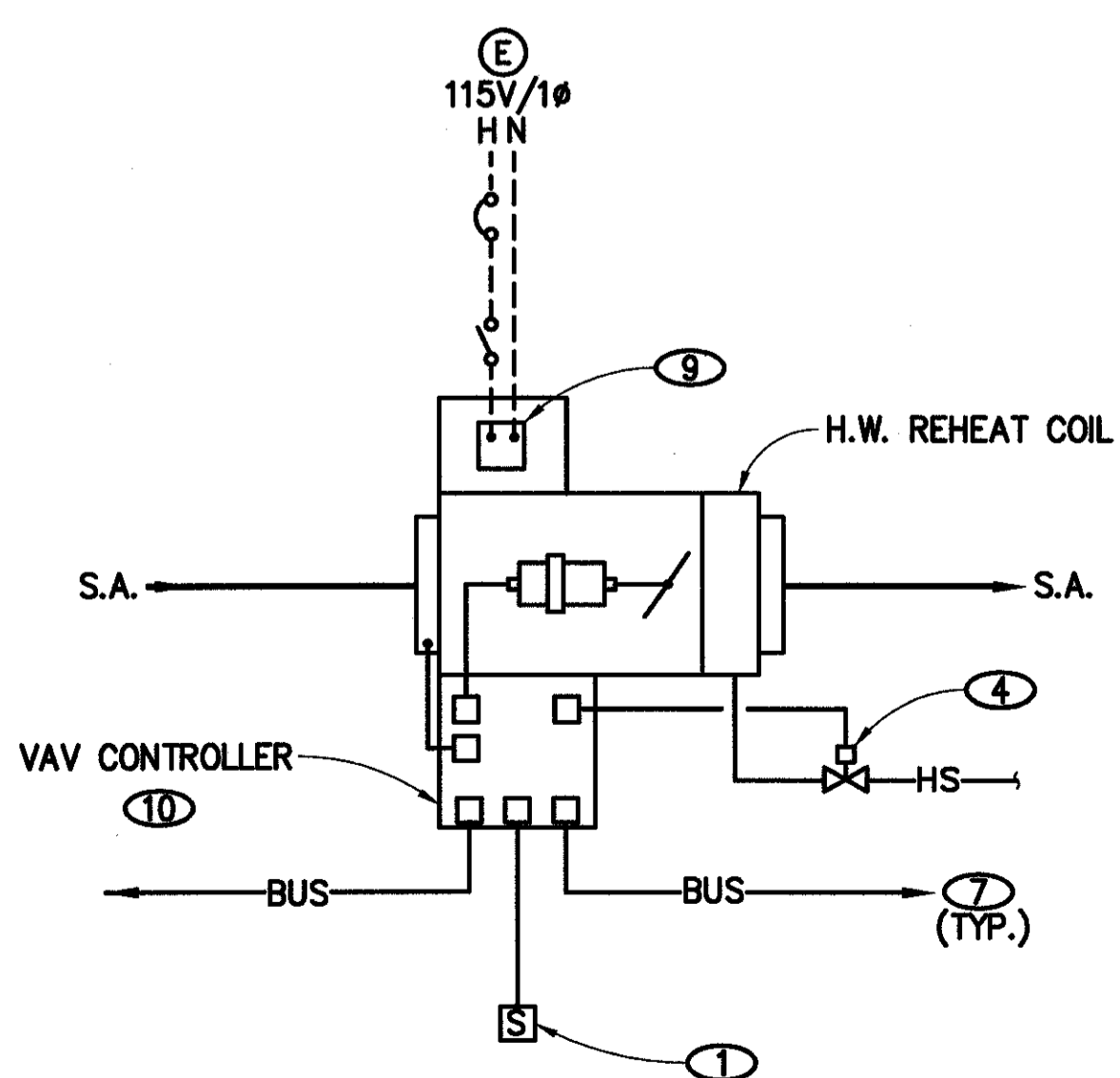
**AIR HANDLING UNIT DDC PANEL (AH)**



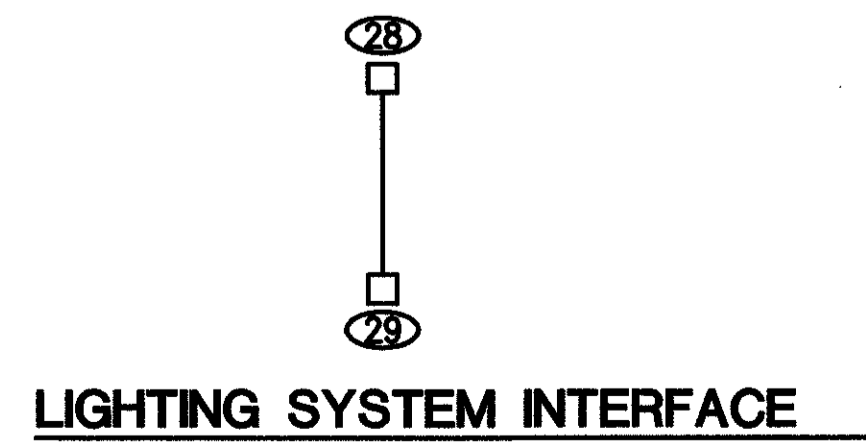
**VAV AIR HANDLING SYSTEM**



**TYP. GENERAL EXHAUST FAN**



**TYP. VAV/ REHEAT TERMINAL  
(PRESSURE INDEPENDENT)**



**LIGHTING SYSTEM INTERFACE**

**LEGEND**

	SPACE SENSOR W/ PLUG-IN PORT.
	PROVIDED BY DIVISION 16.
	ETHERNET LAN COMMUNICATIONS TRUNK (MIN. 10 MPS, TP) (CONDUIT & WIRE PROVIDED BY DIVISION 15, ATC/EMS SECTION).
	CONDUIT & POWER WIRING (HASH MARKS INDICATE QUANTITY OF WIRES). (E)
	DISCONNECT SWITCH (E)
	CONDUIT & LOW VOLTAGE WIRING PROVIDED BY DIVISION 15, ATC/EMCS SECTION (HASH MARKS INDICATE WIRE QUANTITY).
	MAGNETIC STARTER W/ PILOT LIGHT & H-O-A SWITCH.
	VARIABLE FREQUENCY DRIVE, FURN. BY DIVISION 15, INSTALLED & WIRED BY DIVISION 16.
	TEMPERATURE SENSOR/TRANSMITTER
	ELECTRIC/ELECTRONIC TWO-WAY CONTROL VALVE (50 PSIG ΔP)
	H-O-A
	D.D.C.
	N.O.
	N.C.
	S/S
	CONDUIT & WIRE PROVIDED BY DIVISION 16 (FIRE ALARM SECTION).
	DUCT MOUNTED PHOTOELECTRIC TYPE SMOKE DETECTOR (FURN., WIRED & TESTED BY DIVISION 16, INSTALLED BY DIVISION 15).
	DO
	DI
	AO
	AI
	U.L. LISTED CURRENT STATUS SWITCH (HAWKEYE SERIES 705 OR 708, AS REQ'D.) (PROVIDED BY DIVISION 15, ATC/EMCS SECTION, COORD. W/ DIVISION 16, FIRE ALARM SECTION.)
	FIRE ALARM COMMUNICATIONS TRUNK (CONDUIT & WIRE PROVIDED BY DIVISION 16, FIRE ALARM SECTION).
	DIFFERENTIAL PRESSURE TRANSMITTER
	DDC NETWORK COMMUNICATIONS TRUNK (MS/TP) (CONDUIT & WIRE PROVIDED BY DIVISION 15, ATC/EMCS SECTION).
	DAMPER OPERATOR

- 24 OA DAMPER.
- 25 HEAT WHEEL MOTOR START/STOP.
- 26 WATER CONTROL VALVE (TYP HEATING/COOLING).
- 27 SUPPLY AIR DUCT STATIC PRESSURE.
- 28 PROVIDE CONTROL INTERFACE AS SPECIFIED.
- 29 PROVIDE DO CONTROL POINT TO INTERFACE WITH LIGHTING CONTROL SYSTEM. COORDINATE WITH DIVISION 16. PROVIDE CONTROL WIRING AND DEVICES TO INTERFACE POINT.
- 30 CARBON DIOXIDE SENSOR.
- 31 RELATIVE HUMIDITY SENSOR.

- NOTES**
- 1 SPACE SENSOR WITH PLUG-IN PORT. SEE PLAN FOR LOCATIONS.
  - 2 HEAT WHEEL.
  - 3 DWYER MAGNEHELIC FILTER GAUGE. FURNISH WITH 0-2" W.C. RANGE, RED FLAG INDICATOR, VENT VALVES, PITOT TUBES, TUBING, DIFFERENTIAL PRESSURE SWITCH FOR INTERFACE WITH EMCS (DIRTY FILTER ALARM).
  - 4 2-WAY MODULATING CONTROL VALVE. SELECT FOR 5 PSIG MAX. WPD AT SCHEDULED FLOW AND 50 PSIG SHUT-OFF.
  - 5 ETHERNET LAN TO/ FROM EXISTING DDC NETWORK COMMUNICATIONS. COORDINATE CONNECTION TO EXISTING WITH OWNER.
  - 6 ETHERNET LAN COMMUNICATIONS BUS.
  - 7 COMMUNICATIONS BUS TO/FROM OTHER DDC PANELS OR CONTROLLERS.
  - 8 START/STOP VIA EMCS.
  - 9 SPST RELAY FOR ATC/EMCS INTERFACE (START/STOP). VERIFY EXACT INTERFACE REQUIREMENTS WITH ATC/EMCS SUPPLIER PRIOR TO BEGINNING WORK.
  - 10 VAV CONTROLLERS SHALL BE DELIVERED TO VAV TERMINAL MANUFACTURER FOR FACTORY MOUNTING OF BASE. FINAL WIRING AND TERMINATIONS SHALL BE BY ATC/EMCS CONTRACTOR IN FIELD.
  - 11 EMCS INTERFACE FOR DIRTY FILTER ALARM.
  - 12 PHOTOELECTRIC TYPE DUCT SMOKE DETECTOR TO DENERGIZE FAN & ANNUNCIATE AT FIRE ALARM UPON SENSING SMOKE.
  - 13 TO FIRE ALARM SYSTEM.
  - 14 SPEED CONTROL SIGNAL VIA EMCS.
  - 15 STATIC PRESSURE TRANSMITTER.
  - 16 DAMPER SHALL FAIL CLOSED.
  - 17 DAMPER SHALL FAIL OPEN.
  - 18 LOWLIMIT TEMPERATURE CONTROL TO DE-ENERGIZE FAN AND ALARM AT FRONT END EMCS. SET AT 40F (ADJUSTABLE).
  - 19 SUPPLY FAN START/STOP.
  - 20 SUPPLY FAN VFD SPEED CONTROL.
  - 21 EXHAUST FAN START/STOP.
  - 22 RA DAMPER.
  - 23 EA DAMPER.

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no.	revisions	date
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AUTOMATIC TEMPERATURE CONTROLS/EMCS WIRING DIAGRAMS

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