

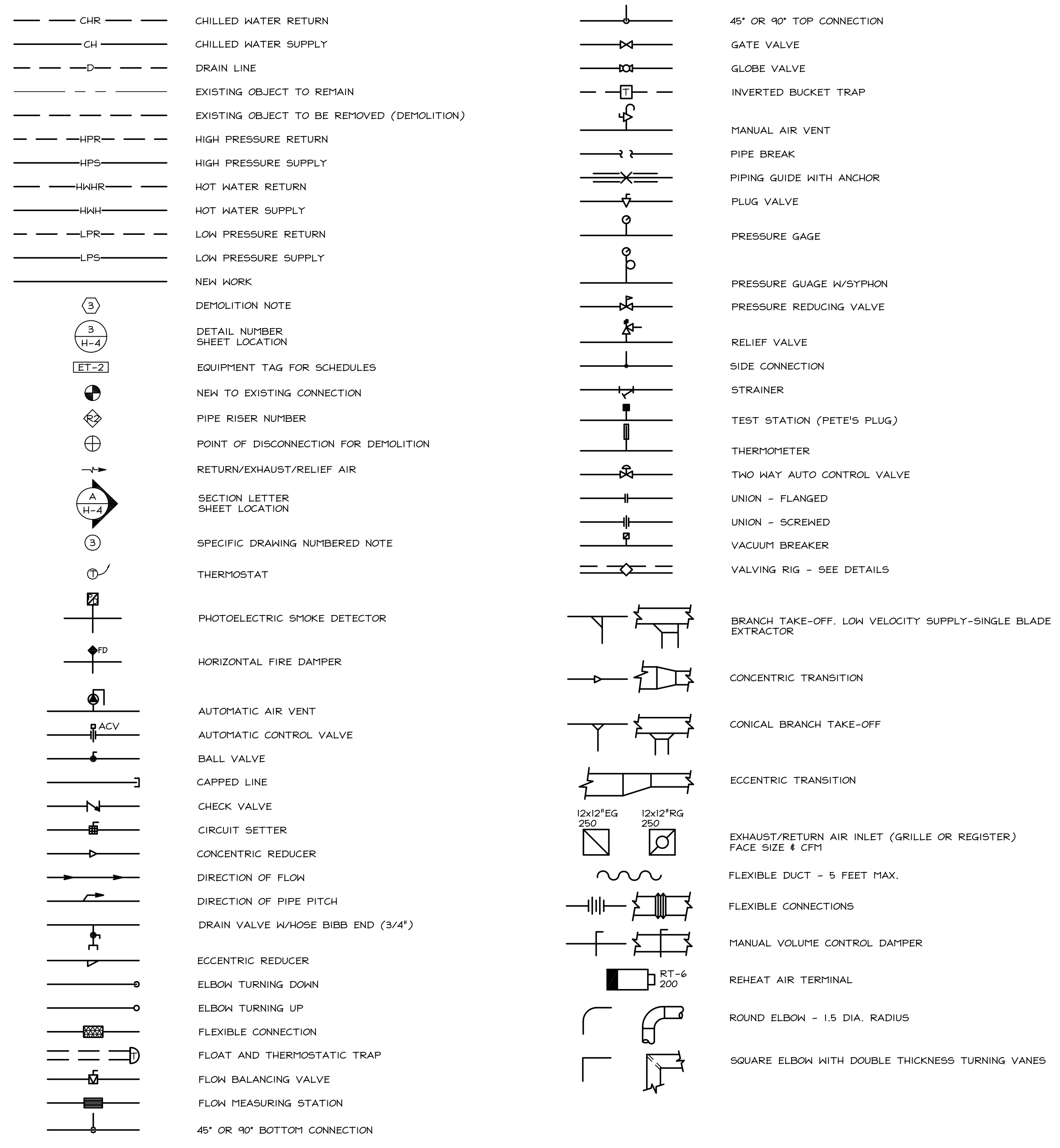
ELECTRICAL NOTES:

1. ALL STARTERS, DISCONNECTS, CONTROL DEVICES MARKED WITH AN (*) ASTERISK SHOWN ON THESE WIRING DIAGRAM SHALL BE FURNISHED BY THE HEATING CONTRACTOR (H.C.). SEE SPECIFICATIONS FOR DEFINITIONS OF THE WORDS FURNISHED, INSTALLED, PROVIDED FOR THIS PROJECT.
2. ALL POWER WIRING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
3. CONTROL WIRING IS SHOWN BY DASHED LINES TO THE CONTROL DEVICES. ALL CONTROL WIRING SHALL BE FURNISHED BY THE AUTOMATIC TEMPERATURE CONTROL (ATC) SUBCONTRACTOR.
4. ALL MOTOR HORSEPOWERS ARE SHOWN IN THE EQUIPMENT SCHEDULE. CONTRACTOR SHALL VERIFY THAT HORSEPOWERS OF EQUIPMENT SUPPLIED MATCH THAT OF EQUIPMENT SCHEDULED WITHOUT ANY DISCREPANCIES. THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SIZE VERIFICATION DURING BIDS.
5. ALL WIRING (INCLUDING LOW VOLTAGE CONTROL WIRING) SHALL BE RUN IN EMT CONDUIT EXCEPT FOR FINAL CONNECTIONS TO ROTATING OR VIBRATING EQUIPMENT WHICH SHALL BE MADE WITH FLEXIBLE GREENFIELD CONDUIT-NOT TO EXCEED 18" IN LENGTH.
6. ALL WIRING SHALL CONFORM TO THE SPECIFICATIONS AND TO THE NATIONAL ELECTRIC CODE.

ELECTRICAL ABBREVIATIONS

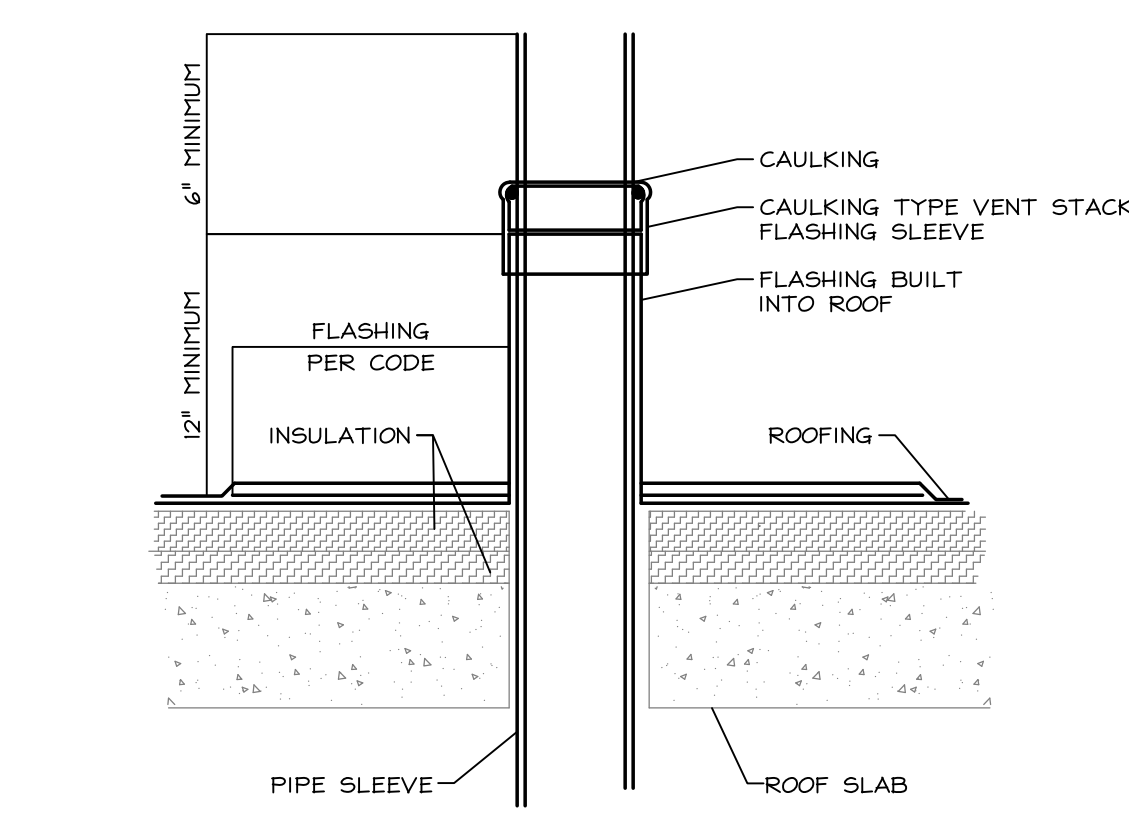
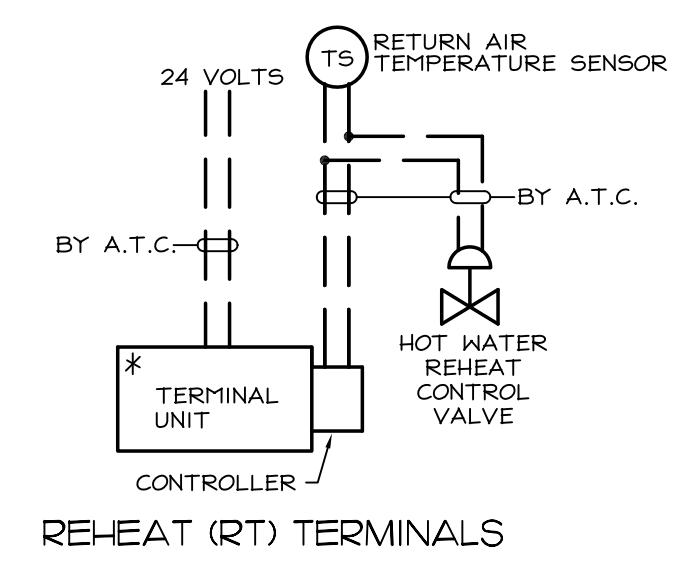
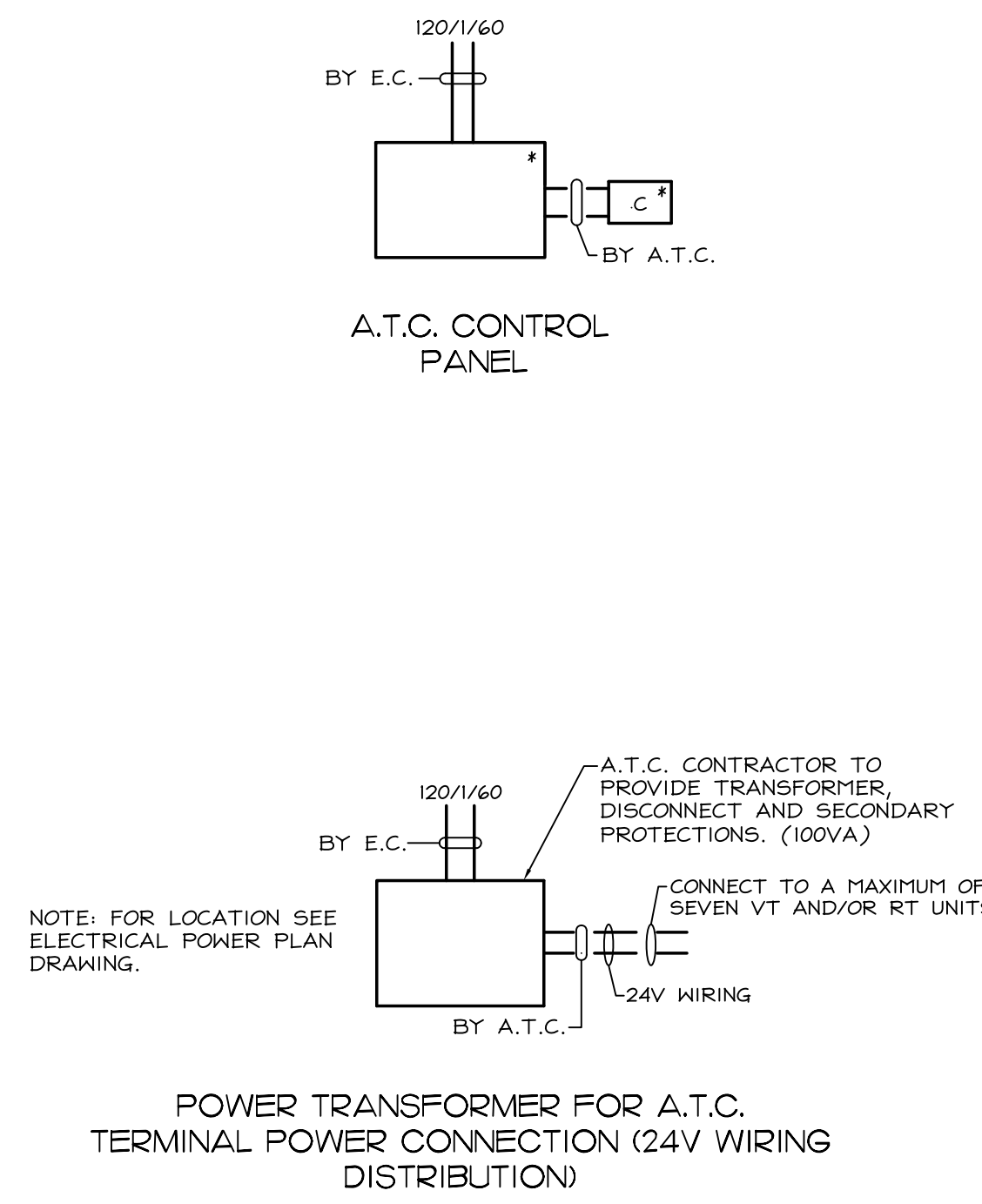
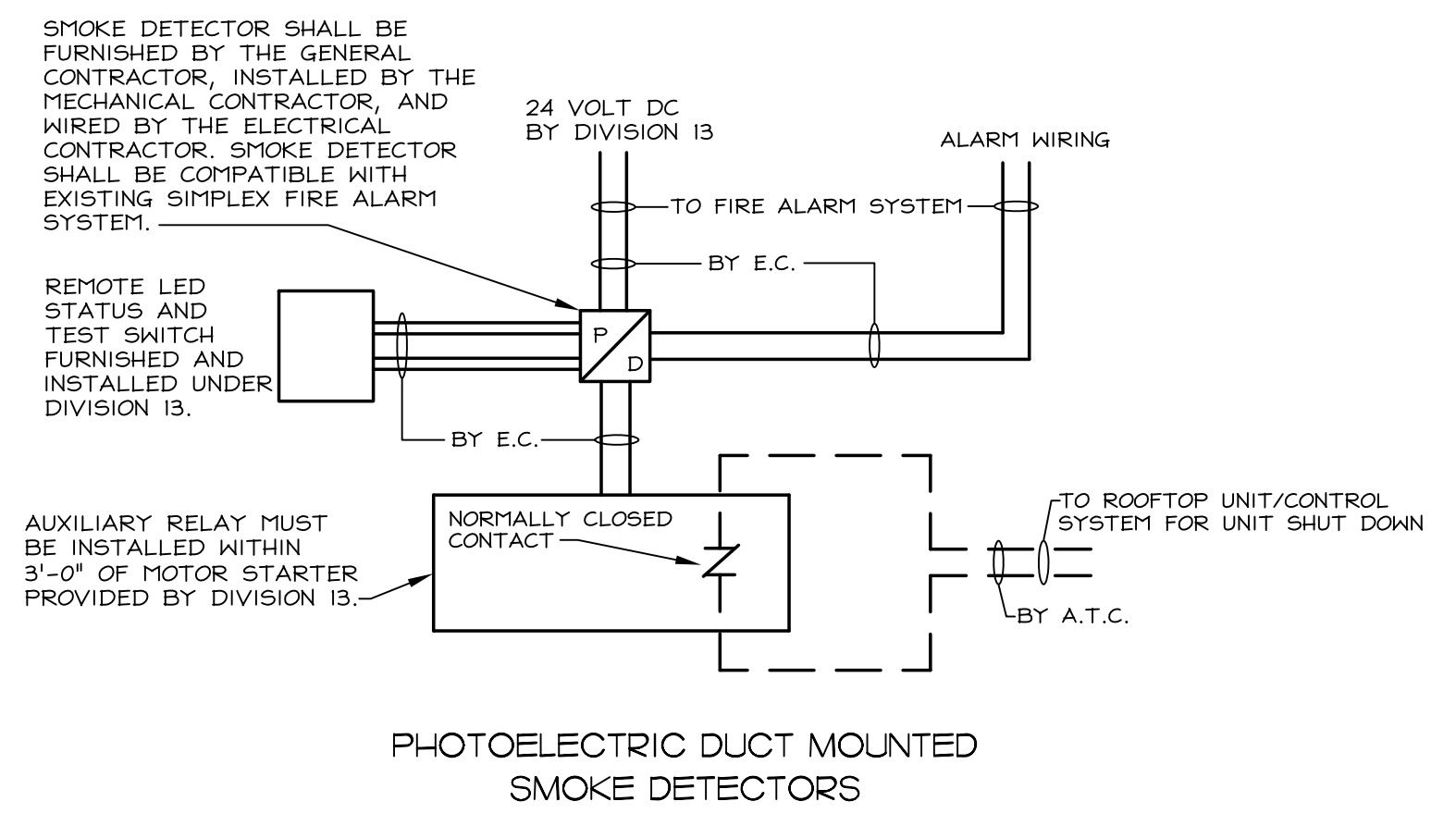
- D.S. DISCONNECT SWITCH
C.B. CIRCUIT BREAKER
M.S. MAGNETIC STARTER
M.M.S. MANUAL MOTOR STARTER
H.O.A. HAND-OFF-ON AUTO SWITCH (LOCATED ON FACE OF STARTER)
P.B. PUSH BUTTON ON/OFF SWITCH
P.L. PILOT LIGHT
PE PNEUMATIC ELECTRIC SWITCH (BY ATC)
EP ELECTRIC PNEUMATIC SWITCH (BY ATC)
FS FREEZE STAT (BY ATC)
ET ELECTRIC THERMOSTAT
D.D.C. CONTROL SYSTEM CONTACT (BY ATC)
V.F.D. VARIABLE FREQUENCY DRIVE
EMERG. EMERGENCY POWER
AFS AIRFLOW SENSOR
PD SMOKE DETECTOR
EC ELECTRICAL CONTRACTOR

HVAC SYMBOLS

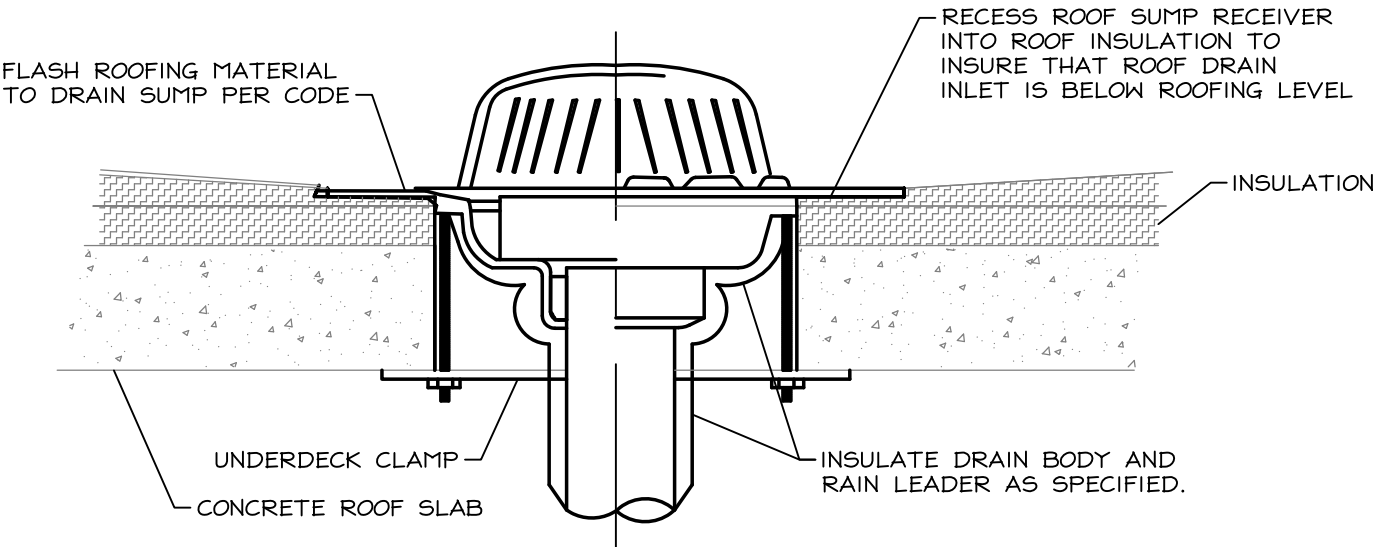


ABBREVIATIONS

- ACV AUTOMATIC CONTROL VALVE
AF AFTER FILTER
AFS AIR FLOW MEASUREMENT STATION
AHU AIR HANDLING UNIT
ARRANG. ARRANGEMENT
ASHRAE AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS
BTU BRITISH THERMAL UNITS
BTUH BTU PER HOUR
CAP. CAPACITY
CC COOLING COIL
CENTRIF. CENTRIFUGAL
CFM CUBIC FEET PER MINUTE
CHR CHILLED WATER RETURN
CH CHILLED WATER SUPPLY
COND. RAIN CONDUCTOR LINE
CONN. CONNECTION
D DEEP OR DEPTH; CONDENSATE DRAIN
DBA DECIBELS, AVERAGE
DIA. OR Ø DIAMETER
DISC. DISCHARGE
DNID DOUBLE WIDTH, DOUBLE INLET
EAT ENTERING AIR TEMPERATURE
EDB ENTERING DRY BULB TEMPERATURE
EQUIP. EQUIPMENT
ENB ENTERING WET BULB TEMPERATURE
ENT ENTERING WATER TEMPERATURE
F DEGREES FAHRENHEIT
FF FLOAT & THERMOSTATIC
FF FINAL FILTER
FLA FULL LOAD AMPS
FLEX. FLEXIBLE
FMS FLOW MEASURING STATION
FPI FMS PER INCH
FPM FEET PER MINUTE
FT. FOOT OR FEET
FT. W.C. FEET OF WATER COLUMN
GPM GALLONS PER MINUTE
H HEIGHT
HP HORSEPOWER
HPR HIGH PRESSURE STEAM RETURN
HPS HIGH PRESSURE STEAM SUPPLY
HR HOUR
HWR HOT WATER RETURN
HWS HOT WATER SUPPLY
I.C.R.A. INFECTION CONTROL RISK ASSESSMENT
IN. INCHES
LBS. POUNDS
LPR LOW PRESSURE STEAM RETURN
LPS LOW PRESSURE STEAM SUPPLY
LDB LEAVING DRY BULB
LWB LEAVING WET BULB
LWT LEAVING WATER TEMPERATURE
MAX. MAXIMUM
MBH 1000 BTUH
MIN. MINIMUM
MPR MEDIUM PRESSURE STEAM RETURN
MPS MEDIUM PRESSURE STEAM SUPPLY
N/A NOT APPLICABLE
N.C. NORMALLY CLOSED
NC NOISE CRITERIA
NO. NUMBER
N.O. NORMALLY OPEN
OA OUTSIDE AIR
OPER. OPERATING
OUT. OUTLET
P.D. PRESSURE DROP
PF PRE-FILTER
PRV PRESSURE REDUCING VALVE
PSI POUNDS PER SQUARE INCH
P.S.I.G. POUNDS PER SQUARE INCH, GAUGE
RA RETURN AIR
RAD RADIATED
RF RETURN AIR FAN
RG RETURN AIR GRILLE
RPM REVOLUTIONS PER MINUTE
RT VARIABLE VOLUME RE-HEAT TERMINAL UNIT
SA SUPPLY AIR; SOUND ATTENUATOR
SENS. SENSIBLE
SF SUPPLY AIR FAN
SH STEAM HUMIDIFIER
SHC STEAM HEATING COIL
SP STATIC PRESSURE
SHSI SINGLE WIDTH, SINGLE INLET
TEMP. TEMPERATURE
TYP. TYPICAL
VEL. VELOCITY
VFD VARIABLE FREQUENCY DRIVE
W WIDE OR WIDTH
WV WITH
W.C. WATER COLUMN
WG WATER GUAGE



1 TYPICAL VENT FLASHING
H-7 DETAIL NOT TO SCALE



2 TYPICAL ROOF DRAIN
H-7 DETAIL NOT TO SCALE

REVISIONS:	DATE:	VAPHS · UD University Drive Pittsburgh, PA 15240		Eagle A full service design/build construction company 436 Butler St. Pittsburgh, PA 15223 Ph: (412) 781-0119 Fax: (412) 781-2160		DRAWING TITLE HVAC WIRING DIAGRAMS		PROJECT TITLE DESIGN BUILD - REPLACE AHU 11E,10E,9E, 8E & 7E		DATE 11/12/07	DEPARTMENT OF VETERANS AFFAIRS		
RECORD DRAWINGS	12/15/08									SCALE: AS NOTED			
										DRAWING NO. H-7			
						PROJECT NO. 646-06-112		CONTRACT NO. V244C-0017		DESIGNED BY: JVL	DRAWN BY: DRS/MJK	CHECKED BY: CEM	LOCATION VAMC UNIVERSITY DR. PITTSBURGH, PA
						BUILDING NO. 1		JOB NO. XXXXX TUBE NO. XXXXX					