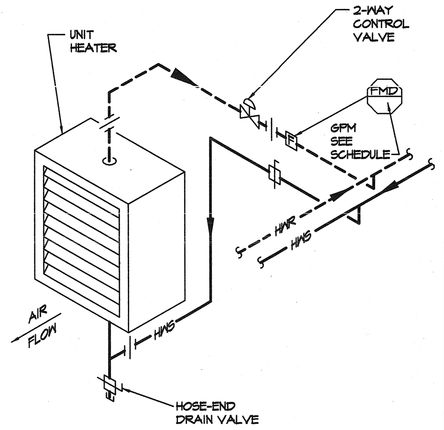
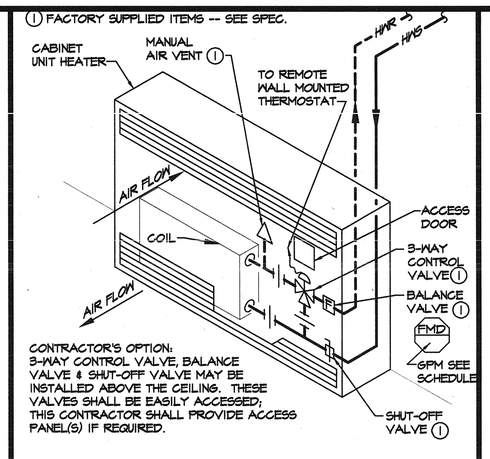
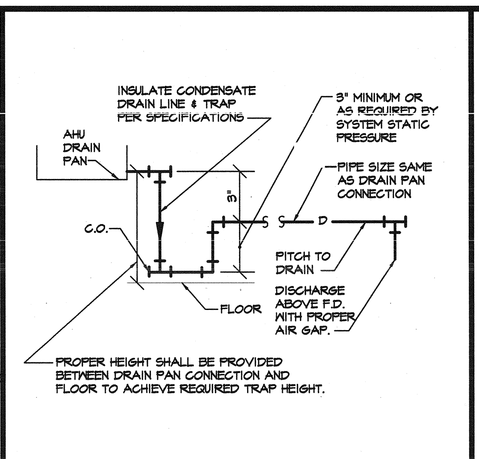
HOT WATER UNIT HEATER PIPING (1)



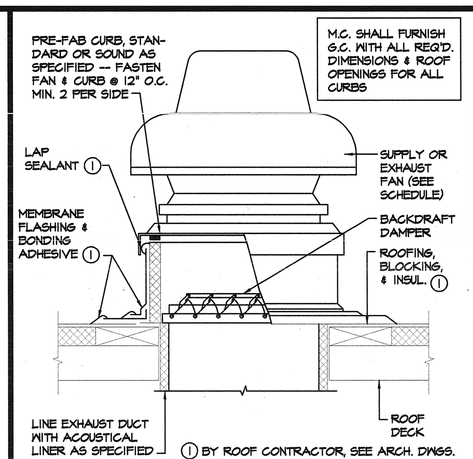
INVERTED CABINET UNIT HEATER PIPING (2)



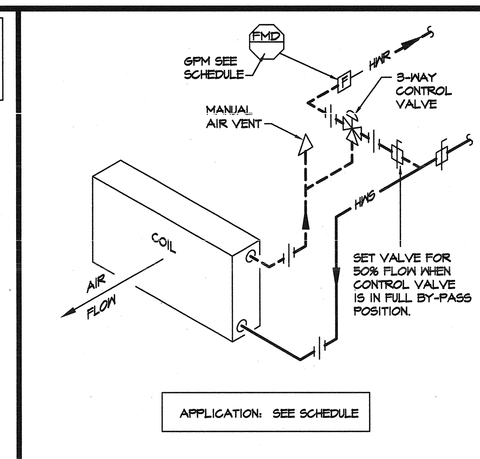
CONDENSATE DRAIN TRAP (3)



ROOF FAN (4)



REHEAT COIL 3-WAY VALVE (5)



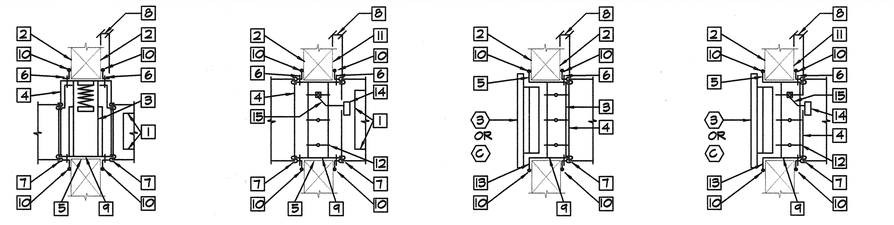
SYMBOLS

- D — DRAIN
- HWS — HOT WATER SUPPLY
- HWR — HOT WATER RETURN
- NG — NATURAL GAS
- RHG — REFRIGERANT HOT GAS
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- RV — RADON VENT
- CHECK VALVE
- STRAINER
- UNION
- GATE VALVE
- NORMALLY OPEN VALVE
- NORMALLY CLOSED VALVE
- GLOBE VALVE
- BALL/BUTTERFLY/SHUTOFF VALVE
- GAUGE COCK
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- PRESSURE/TEMPERATURE TEST PLUG
- CONTROL VALVE
- PRESSURE REGULATING VALVE
- THREE-WAY CONTROL VALVE
- PRESSURE GAUGE
- MANUAL AIR VENT
- THERMOMETER
- SAFETY/RELIEF VALVE
- DIRECTION OF FLOW
- FLOW MEASURING DEVICE LOCATION
- FMD GPM — FLOW MEASURING DEVICE DESIGNATOR
- TOP OF PIPE CONNECTION
- BOTTOM OF PIPE CONNECTION
- RA OR EA GRILLE OR REGISTER
- SA GRILLE OR REGISTER OR DIFFUSER
- A1 / M2 M50 — SECTION: SHEET SECTION DRAWN, SHEET SECTION TAKEN
- 2 / M10 — DETAIL NUMBER, SHEET DETAIL DRAWN
- 4 — KEYED NOTES
- FPT OR VAV
- 5 — THERMOSTAT
- BOX NUMBER
- H 5 — MISC. EQUIPMENT (ITEM # NO. (SEE ARCH. PLANS))
- EP 16 — EQUIP. EQUIPMENT DESIGNATOR (FOR ALL EQUIPMENT)
- ITEM#
- FLOOR DRAIN
- ROUND DUCT 9" & LESS
- ROUND DUCT 9" & LESS — FLEXIBLE DUCT (ANY SIZE)
- LINED DUCTWORK (SHADED) — FLEXIBLE DUCT CONNECTION
- MANUAL DAMPER — MOTORIZED DAMPER
- FIRE DAMPER — 12 DUCT DROP
- 18 DUCT RISE
- SUPPLY AIR DUCT SECTION — RETURN DUCT SECTION
- ROUND DUCT — EXHAUST DUCT SECTION

ABBREVIATIONS

AAV	AUTOMATIC AIR VENT
AB	AIR BLENDER
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AMB	AMBIENT
APD	AIR PRESSURE DROP
AT	AIR TERMINAL
ACC	AUTOMATIC CONTROL CONTRACTOR
B	BOILER
(B)	BACKDRAFT DAMPER
CAP	CAPACITY
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
DB	DRY BULB
DIA	DIAMETER
DN	DOWN
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EFF	EFFICIENCY
ET	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE
F	FILTER
(F)	FIRE DAMPER
FC	FLEXIBLE CONNECTION
FCU	FAN COIL UNIT
FMD	FLOW MEASURING DEVICE
FPM	FEET PER MINUTE
FR	FIN RADIATION
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GRV	GRAVITY ROOF VENTILATOR
HC	HEATING COIL
HD	HEAD
HP	HORSEPOWER
HT	HEIGHT
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE
(M)	MOTORIZED DAMPER
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	BTU (1000's)
MC	MECHANICAL CONTRACTOR
MD	MANUAL DAMPER
MFR	MANUFACTURER
MIN	MINIMUM
MP	PUMP
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OA	OUTSIDE AIR
PC	PLUMBING CONTRACTOR
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
RF	RETURN FAN
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SF	SUPPLY FAN
SC	SENSIBLE COOLING
SP	STATIC PRESSURE
ST	SOUND TRAP
TEMP	TEMPERATURE
TH	TOTAL HEAT
TC	TOTAL COOLING
UH	UNIT HEATER
VEL	VELOCITY
WB	WET BULB
WC	WATER COLUMN
WPD	WATER PRESSURE DROP
WTR	WATER

HOT WATER PRE-HEAT COIL PIPING DETAIL - 3-WAY VALVE (6)

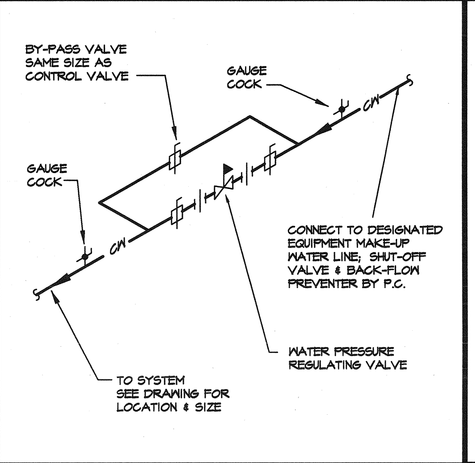


1. ACCESS DOOR
2. FIRE PARTITION
3. APPROVED FIRE DAMPER
4. APPROVED STEEL SLEEVE
5. CLEARANCE ; PER MANUFACTURER'S DETAIL
6. RETAINING ANGLES: SIZE, GAUGE, AND FASTENINGS PER MANUFACTURER'S DETAIL
7. SECURE DUCT TO SLEEVE WITH AN APPROVED BREAKAWAY CONNECTION; SEAL CONNECTION WITH A SEALANT APPROVED BY THE DAMPER MANUFACTURER.

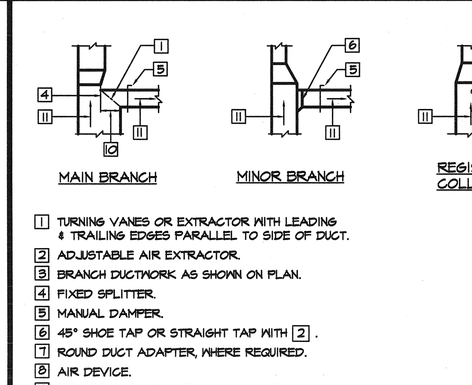
FIRE & SMOKE-FIRE DAMPERS SHALL BE U.L. APPROVED

8. SLEEVE TO EXTEND MAXIMUM OF 6" BEYOND PARTITION OR AS SHOWN ON MANUFACTURER'S LISTED DETAILS
9. SECURE DAMPER TO SLEEVE PER MANUFACTURER'S LISTED DETAILS
10. FIRE RATED PARTITIONS: PROVIDE FIRE RATED SEALANT ALONG MOUNTING ANGLES AS PER DETAILS ABOVE
11. SMOKE-FIRE PARTITION
12. APPROVED SMOKE-FIRE DAMPER
13. MINIMUM 3/4" FLANGE
14. SMOKE DAMPER OPERATOR/ACTUATOR EXTERNAL TO DUCT, DAMPER SLEEVE AND PARTITION
15. U.L. FUSIBLE LINK FURNISHED WITH SMOKE-FIRE DAMPER

DIRECT EXPANSION COIL SPLIT ROW PIPING (7)

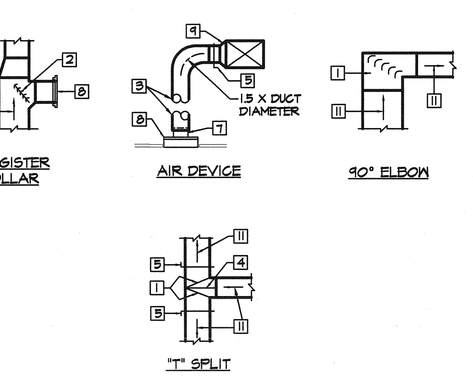


IN-LINE PUMP (8)



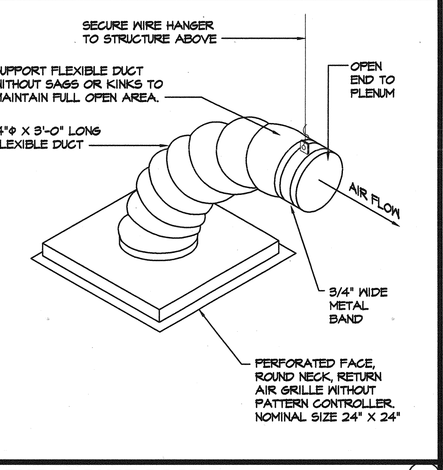
1. TURNING VANES OR EXTRACTOR WITH LEADING & TRAILING EDGES PARALLEL TO SIDE OF DUCT.
2. ADJUSTABLE AIR EXTRACTOR.
3. BRANCH DUCTWORK AS SHOWN ON PLAN.
4. FIXED SPLITTER.
5. MANUAL DAMPER.
6. 45° SHOE TAP OR STRAIGHT TAP WITH 2.
7. ROUND DUCT ADAPTER, WHERE REQUIRED.
8. AIR DEVICE.
9. SPIN COLLAR TAP WITH QUADRANT DAMPER, IF BRANCH DUCTWORK IS ROUND.
10. THROAT SIZE, KEY NOTED ON PLAN.
11. AIR FLOW.

EXPANSION TANK PIPING (9)

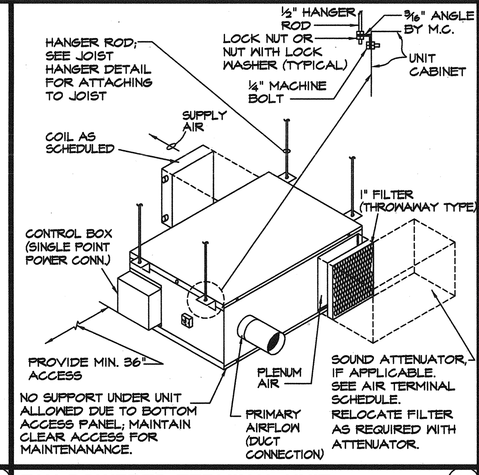


1. AIR SEPARATOR
2. SHUT-OFF VALVE, OPEN POSITION. REMOVE HANDLE
3. COLD WATER MAKE-UP
4. TANK-TROL FITTING
5. EXPANSION TANK
6. 3/4" HOSE END DRAIN VALVE
7. TO PUMP SUCTION
8. GAUGE GLASS

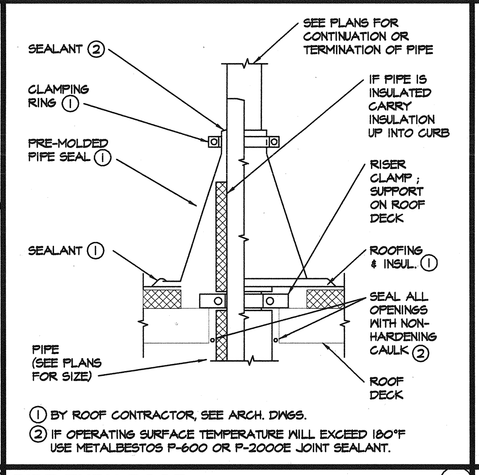
FLEXIBLE DUCT BOOT (13)



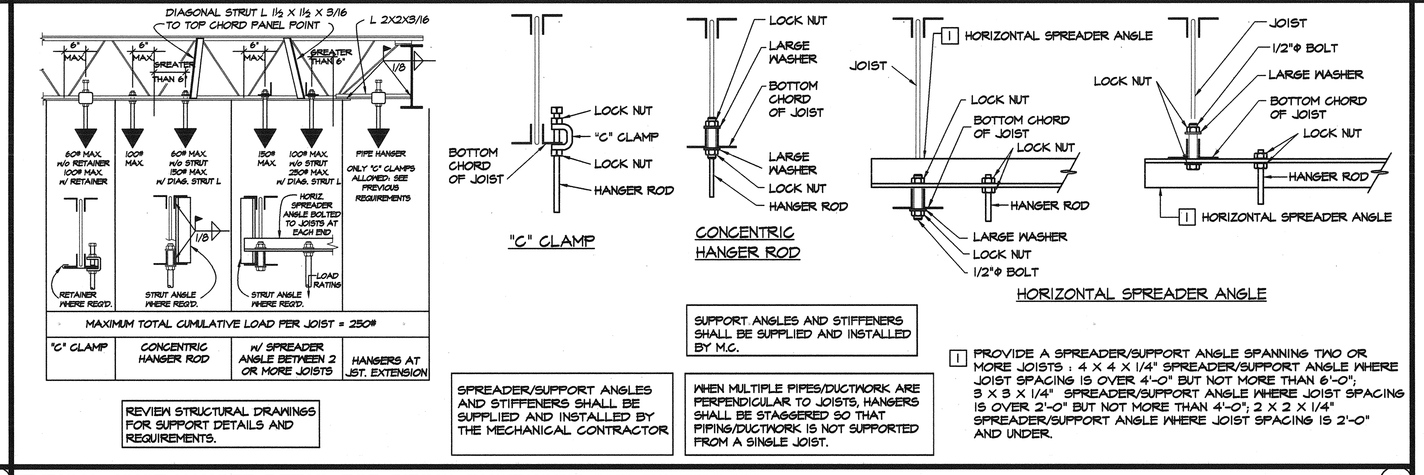
FAN POWERED TERMINAL UNIT (14)



PIPE THRU ROOF (15)



DUCTWORK AND CONNECTIONS (12)



FIRE, SMOKE-FIRE DAMPER DETAILS (10)

WATER PRESSURE REGULATING STATION (11)

TYPICAL JOIST HANGER DETAIL FOR PIPING, DUCTWORK, AND EQUIPMENT (16)

Scale: 1=1

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Frederick S. Scott, Architect
Ronald L. Hollander, Architect
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REGISTERED ARCHITECT * MAINE * ROBERT LYNN HOLLANDER 10021 STATE

REGISTERED ARCHITECT * MAINE * FREDERICK S. SCOTT 5855 STATE

DB	AB	CB
MN	LE	LSC

Sheet No. 4 of 5

M2.1

Details, Symbols & Abbreviations

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