

### ROOF TOP HEAT PUMP UNITS (HPU-1)

RTU NO.	NOMINAL TONS	MBH COOLING CAPACITY	SUPPLY FAN HP	SP	O.A. CFM	KW HEAT/STAGES	POWER	AMPS/CIR.BKR	GOODMAN NUMBER	WEIGHT
HPU-1	4	48.0	1600	.7	200	15/1	460/60/3-PHASE	43/50	CPH0480154B	600 LBS
HPU-2	3	36	1200	.7	120	10/1	460/60/3-PHASE	35/40	CPH0360104B	600 LBS
HPU-3	5	60.0	2000	.7	600	15/1	460/60/3-PHASE	47/60	CPH0600154B	1,250 LBS
HPU-4	7.5	90	2700	.7	960	15/1	460/60/3-PHASE	61/75	CPH0900154B	1,250 LBS
HPU-5	7.5	90	2700	.7	960	15/1	460/60/3-PHASE	61/75	CPH0900154B	1,250 LBS

#### ACCESSORIES:

1. PROVIDE PROGRAMMABLE THERMOSTAT WITH EXTERNAL LOCKABLE GUARD
2. PROVIDE TERMINAL STRIP FOR FUTURE DDC CONTROLS
3. PROVIDE FACTORY DISCONNECT WITH SINGLE POINT ELECTRICAL CONNECTION
4. SEE FIRE ALARM SECTIONS AND SUPPLY SMOKE DETECTOR.

#### FILTER TYPE:

1. 1" THICK, PLEATED MEDIA, THROW AWAY

#### REMARKS:

1. BLOWER PERFORMANCE SUBMITTALS MUST BE BASED ON A WET COIL AND CLEAN FILTERS
2. UNIT SHALL BE EQUIPPED FOR AUTOMATIC CHANGEOVER FROM HEATING TO COOLING
3. HEAT PUMP COOLING CAPACITIES ARE BASED ON 80°/67° EAT AND 95° O.A.
4. HEAT PUMP HEATING CAPACITIES ARE BASED ON 70° EAT AND 47° O.A.

### ENERGY RECOVERY UNIT SCHEDULE

MARK	LOCATION	MANUFACTURER	MODEL#	SUPPLY FAN CFM	S.P. EXH. HP	EXHAUST FAN CFM	S.P. EXH. HP	MINIMUM UNIT EFFECTIVENESS	VOLTAGE	MINIMUM CIRCUIT AMPS	MAXIMUM FLUE SIZE	WEIGHT (LBS.)	REMARKS	ACCESSORIES	
ERY-1	ROOF	VENMAR	HRV200E	1475	0.8	1350	0.8	1.5	80%	460/3/60	11.9	20	1160	1, 2, 3, 4	1 THROUGH 15

#### REMARKS:

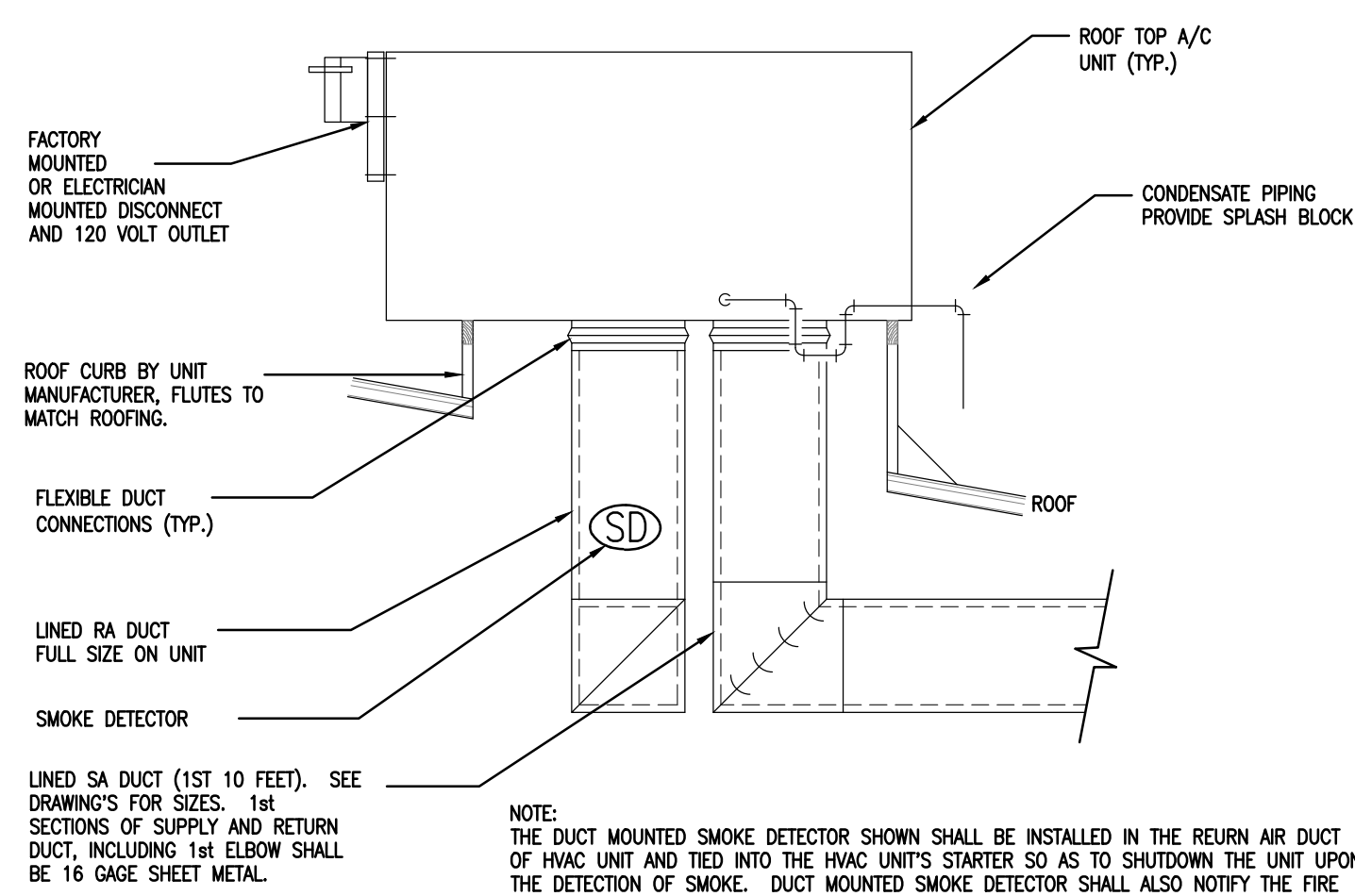
1. PERFORMANCE IN ACCORDANCE WITH ARI STANDARD 1060-2001.
2. EFFECTIVENESS SHOWN ARE BASED ON EQUAL SUPPLY AND EXHAUST CFM.
3. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. ACCEPTABLE MANUFACTURERS: VENMAR, SEMCO, COOK & GREENHECK.

#### ACCESSORIES:

1. PROVIDE UNIT WITH FACTORY DISCONNECT.
2. PROVIDE UNIT WITH THERMOSTAT TO STOP UNIT WHEN OUTDOOR IS 65° OR LOWER.
3. PROVIDE UNIT WITH 2" URETHANE INSULATION.
4. PROVIDE UNIT FOR EXTERNAL MOUNTING.
5. PROVIDE ROOF CURB TO MATCH ROOF PITCH AND ROOF FLUTE CONFIGURATION.
6. PROVIDE WITHOUT DAMPER.

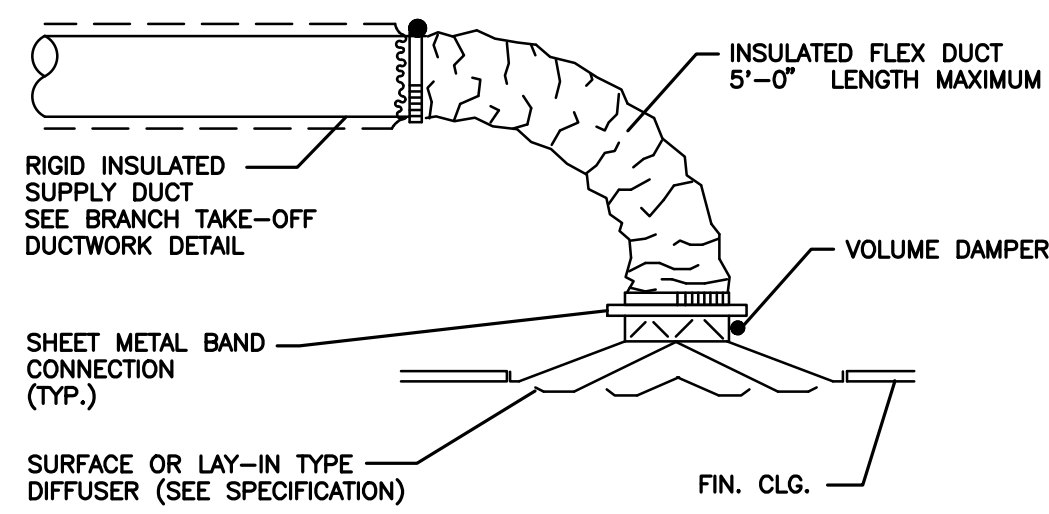
#### ACCESSORIES (CONTINUED):

7. PROVIDE UNIT WITH DOWNFLOW SUPPLY DISCHARGE.
8. PROVIDE UNIT WITH BOTTOM EXHAUST INLET.
9. PROVIDE BLOWER & FILTER DOOR WITH POLYIMIDE HANDLE & 1/4" TURN FASTENERS.
10. PROVIDE UNIT WITH DIRTY FILTER CONTACT COMBINED WITH ON UNIT RED WARNING LIGHT. UNIT TO SHUT DOWN WITH DIRTY FILTER.
11. PROVIDE UNIT WITH SPRING BLOWER ISOLATION.
12. PROVIDE UNIT WITH SENSIBLE AND LATENT RECOVERY.
13. WHEEL MAY BE MYLAR OR ALUMINUM.
14. PROVIDE UNIT WITH 80% FILTERS.
15. PROVIDE UNIT WITH CORROSION RESISTANT PAINT.
16. PROVIDE UNIT WITH EXTERNAL PROGRAMMABLE 7 DAY TIME CLOCK.



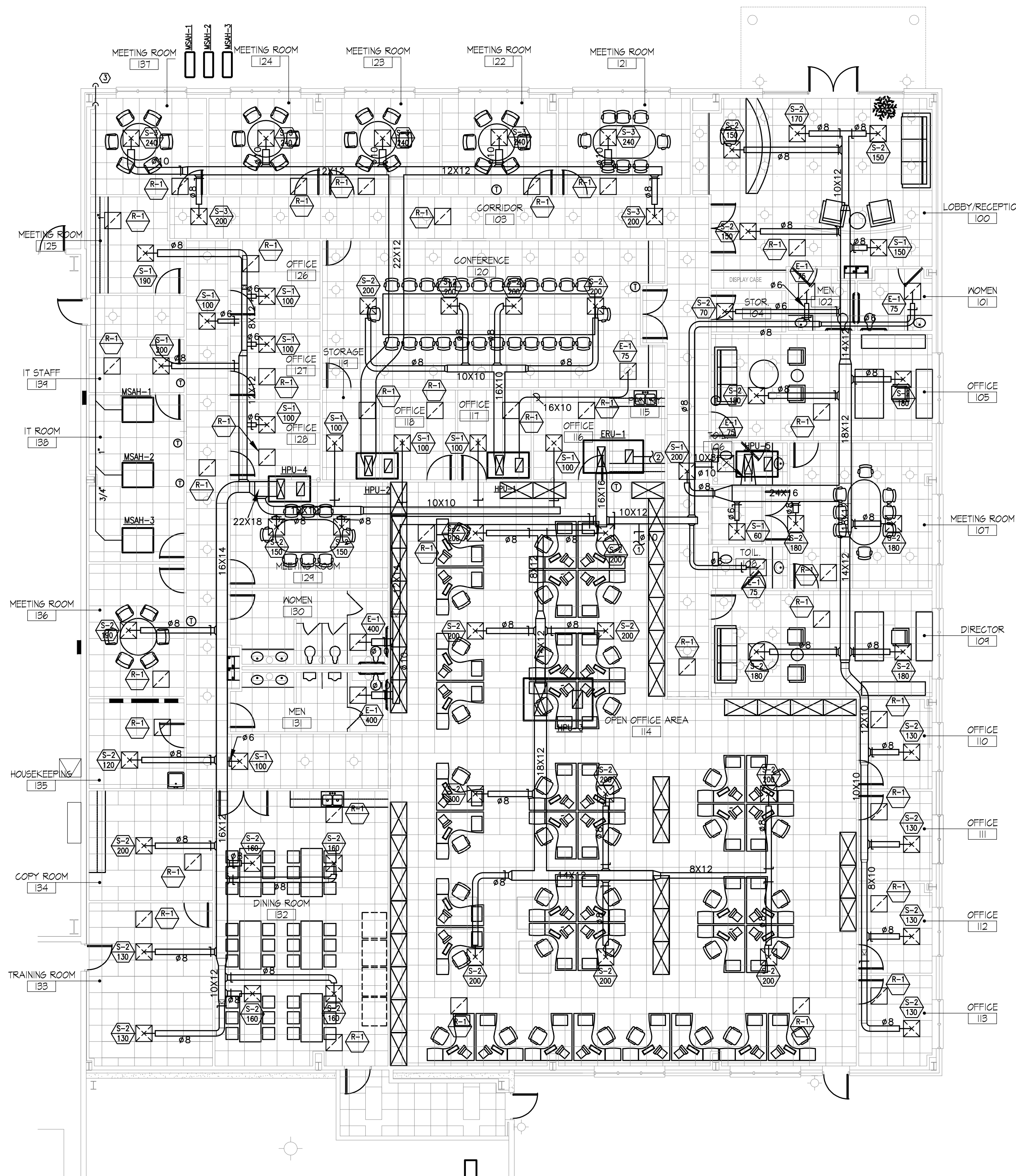
### ROOF TOP UNIT DETAIL

NOT TO SCALE



### TYPICAL DIFFUSER RUNOUT DETAIL

NTS



### ENLARGED OFFICE FLOOR PLAN - HVAC

SCALE: 1/8" = 1'-0"

### SHEET NOTES:

1. TAKE 375 CFM FROM ATTIC SPACE.
2. DISCHARGE AIR INTO PLENUM SPACE.
3. DROP CONDENSATE DRAIN BESIDE COLUMN, TURN OUT AND SPILL TO GRADE.

DATE	REVISION	BY
NOV 11 11	VALUE ENGINEERING RE-DESIGN DOCUMENT	

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PROJECT NO.	8529-02
DESIGNED BY	RCD
DRAWN BY	TBW
CHECKED BY	JLM
REVIEWED BY	JLM
DATE	JULY 2011
SCALE	AS NOTED

