

HVAC EQUIPMENT DESIGN FORM

House Address: _____ Permit #: _____ Date: _____

Permit holder: _____ Phone: _____

HVAC SYSTEM SIZING AND SELECTION

Heating and cooling equipment shall be selected in accordance with Manual S, based on loads calculated in accordance with Manual J.

Design loads:

Design cooling load _____ (Btu/h)

Design heating load: _____ (Btu/h)

Equipment specifications:

Cooling system output capacity _____ (Btu/h)

Cooling equipment make: _____

Cooling equipment model: _____

Heating system output capacity: _____ (Btu/h)

Heating equipment make: _____

Heating equipment model: _____

- ☐ Manual J report is attached
- ☐ Manual S report is attached
- ☐ Specified cooling equipment does not exceed 1.15 times the design capacity or the next larger nominal size, whichever is greater. (Exception: Heat pumps may exceed the design capacity by 1.25 times or the next nominal size.)
- ☐ Specified heating equipment does not exceed 1.40 times the design capacity or the next larger nominal size, whichever is greater
- ☐ Whole-house mechanical ventilation worksheet has been completed (see reverse)

HVAC EQUIPMENT DESIGN FORM

House Address: _____ Permit #: _____ Date: _____

Permit holder: _____ Phone: _____

WHOLE-HOUSE MECHANICAL VENTILATION DESIGN WORKSHEET

1. Fill in the conditioned floor area and number of bedrooms for the dwelling:

Conditioned Floor Area = _____ ft²

Number of bedrooms = _____

2. Circle the required airflow value on the table below:

IRC Table M1507.3.3(1)

Continuous Whole-House Mechanical Ventilation System Airflow Rate Requirements

Dwelling Unit Floor Area (square feet)	Number of Bedrooms				
	0-1	2-3	4-5	6-7	>7
	Airflow in CFM				
< 1,500	30	45	60	75	90
1,501 – 3,000	45	60	75	90	105
3,001 – 4,500	60	75	90	105	120
4,501 – 6,000	75	90	105	120	135
6,001 – 7,500	90	105	120	135	150
> 7,500	105	120	135	150	165

3. Does the fan operate continuously or intermittently?

☐ Continuous

☐ Intermittent

- 4. If the fan is to be operated intermittently on a pre-set schedule,** multiply the airflow value from Table M1507.3.3 (above) by the appropriate value in Table M1507.3.3(2) (below).

IRC Table M1507.3.3(2)

Intermittent Whole-House Mechanical Ventilation Rate Factors

Run-time Percentage in Each 4-hour Segment	25%	33%	50%	66%	75%
Factor	4.0	3.0	2.0	1.5	1.3

5. Enter the required airflow = _____ CFM

6. Enter the following information regarding the specified fan:

Rated fan airflow = _____ CFM

Fan make: _____

HVI-rated fan efficacy = _____ CFM/Watt

Fan model: _____