



# Commonwealth of Massachusetts



## Sheet Metal Permit

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Estimated Job Cost: \$ \_\_\_\_\_ Permit Fee: \$ \_\_\_\_\_

Plans Submitted: YES \_\_\_\_\_ NO \_\_\_\_\_ Plans Reviewed: YES \_\_\_\_\_ NO \_\_\_\_\_

Business License # \_\_\_\_\_ Applicant License # \_\_\_\_\_

Business Information: \_\_\_\_\_ Property Owner / Job Location Information: \_\_\_\_\_

Name: \_\_\_\_\_ Name: \_\_\_\_\_

Street: \_\_\_\_\_ Street: \_\_\_\_\_

City/Town: \_\_\_\_\_ City/Town: \_\_\_\_\_

Telephone: \_\_\_\_\_ Telephone: \_\_\_\_\_

Photo I.D. required / Copy of Photo I.D. attached: YES \_\_\_\_\_ NO \_\_\_\_\_

J-1 / M-1-unrestricted license

Staff Initial

J-2 / M-2-restricted to dwellings 3-stories or less and commercial up to 10,000 sq. ft. / 2-stories or less

Residential: 1-2 family \_\_\_\_\_ Multi-family \_\_\_\_\_ Condo / Townhouses \_\_\_\_\_ Other \_\_\_\_\_

Commercial: Office \_\_\_\_\_ Retail \_\_\_\_\_ Industrial \_\_\_\_\_ Educational \_\_\_\_\_

Institutional \_\_\_\_\_ Other \_\_\_\_\_

Square Footage: under 10,000 sq. ft. \_\_\_\_\_ over 10,000 sq. ft. \_\_\_\_\_ Number of Stories: \_\_\_\_\_

Sheet metal work to be completed: New Work: \_\_\_\_\_ Renovation: \_\_\_\_\_

HVAC \_\_\_\_\_ Metal Watershed Roofing \_\_\_\_\_ Kitchen Exhaust System \_\_\_\_\_

Metal Chimney / Vents \_\_\_\_\_ Air Balancing \_\_\_\_\_

Provide detailed description of work to be done:

Attach drawings if applicable

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## INSURANCE COVERAGE:

I have a current liability insurance policy or its equivalent which meets the requirements of M.G.L. Ch. 112 Yes ☐ ☐

If you have checked Yes indicate the type of coverage by checking the appropriate box below:

A liability insurance policy ☐ Other type of indemnity ☐ Bond ☐

OWNER'S INSURANCE WAIVER: I am aware that the licensee does not have the insurance coverage required by Chapter 112 of the Massachusetts General Laws, and that my signature on this permit application waives this requirement.

Check One Only

\_\_\_\_\_  
Signature of Owner or Owner's Agent

Owner ☐ Agent ☐

By checking this box, I hereby certify that all of the details and information I have submitted (or entered) regarding this application are true and accurate to the best of my knowledge and that all sheet metal work and installations performed under the permit issued for this application will be in compliance with all pertinent provision of the Massachusetts Building Code and Chapter 112 of the General Laws.

Duct inspection required prior to insulation installation: YES \_\_\_\_ NO \_\_\_\_

### Progress Inspections

Date

Comments

Date	Comments

### Final Inspection

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By \_\_\_\_\_

Title \_\_\_\_\_

City/Town Sturbridge

Permit # \_\_\_\_\_

#### Fees

Residential \$50.00

Commercial \$75.00

\_\_\_\_\_  
Inspector Signature of Permit Approval

#### Type of License:

- ☐ Master
- ☐ Master-Restricted
- ☐ Journeyperson
- ☐ Journeyperson-Restricted
- ☐ \_\_\_\_\_

\_\_\_\_\_  
Signature of Licensee

License Number \_\_\_\_\_

Check at [www.mass.gov/dpl](http://www.mass.gov/dpl)



# Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

Town / City of \_\_\_\_\_

Contractor \_\_\_\_\_

Mechanical License # \_\_\_\_\_

Building Permit # \_\_\_\_\_ Zone # \_\_\_\_\_

Job Address (Street or Lot #, Block, Subdivision) \_\_\_\_\_

## REQUIRED ATTACHMENTS

Manual J1 Form (and supporting worksheets): Or  
MJ1AE Form (and supporting worksheets):  
OEM performance data (heating, cooling, blower):  
Manual D Friction Rate Worksheet:  
Duct distribution system sketch:

## ATTACHED

Yes ☐ No ☐  
Yes ☐ No ☐  
Yes ☐ No ☐  
Yes ☐ No ☐  
Yes ☐ No ☐

## HVAC LOAD CALCULATION (IRC M1401.3)

### Design Conditions

*(Manual J)*

#### Winter Design Conditions

Outdoor temperature \_\_\_\_\_ °F

Indoor temperature \_\_\_\_\_ °F

Total heat loss \_\_\_\_\_ Btu

#### Summer Design Conditions

Outdoor temperature \_\_\_\_\_ °F

Indoor temperature \_\_\_\_\_ °F

Grains difference \_\_\_\_\_ Δ Gr @ \_\_\_\_\_ % Rh

Sensible heat gain \_\_\_\_\_ Btu

Latent heat gain \_\_\_\_\_ Btu

Total heat gain \_\_\_\_\_ Btu

### Building Construction Information

#### Building

Orientation (Front door faces) \_\_\_\_\_

North, East, West, South, Northeast, Northwest, Southeast, Southwest

Conditioned floor area \_\_\_\_\_ Sq Ft

Number of bedrooms \_\_\_\_\_

Number of Occupants \_\_\_\_\_

Envelope Tightness \_\_\_\_\_

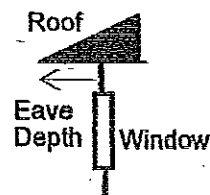
#### Windows

Eave overhang depth \_\_\_\_\_ Ft

Internal shade \_\_\_\_\_

Blinds, drapes, etc.

Number of skylights \_\_\_\_\_



## HVAC EQUIPMENT SELECTION (IRC M1401.3)

### Heating Equipment Data

*(Manual S)*

Equipment type \_\_\_\_\_

Furnace, Heat pump, Boiler, etc.

Model \_\_\_\_\_

Heating output capacity \_\_\_\_\_ Btu

Heat pumps - capacity at winter design outdoor conditions

Auxiliary heat output capacity \_\_\_\_\_ Btu

SEER: \_\_\_\_\_

EER: \_\_\_\_\_

### Cooling Equipment Data

Equipment type \_\_\_\_\_

Air Conditioner, Heat pump, etc.

Model \_\_\_\_\_

Sensible cooling capacity \_\_\_\_\_ Btu

Latent cooling capacity \_\_\_\_\_ Btu

Total cooling capacity \_\_\_\_\_ Btu

HSPF: \_\_\_\_\_

COP: \_\_\_\_\_

### Blower Data

Heating CFM \_\_\_\_\_ CFM

Cooling CFM \_\_\_\_\_ CFM

## HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

Design airflow *(Manual D)* \_\_\_\_\_ CFM

External Static Pressure (ESP) \_\_\_\_\_ IWC

Component Pressure Losses (CPL) \_\_\_\_\_ IWC

Available Static Pressure (ASP) \_\_\_\_\_ IWC

ASP = ESP - CPL

Longest supply duct: \_\_\_\_\_ Ft

Longest return duct: \_\_\_\_\_ Ft

Total Effective Length (TEL) \_\_\_\_\_ Ft

Friction Rate: \_\_\_\_\_ IWC

Friction Rate = (ASP x 100) / TEL

### Duct Materials Used (circle)

Trunk Duct: Duct board, Flex, Sheet metal,  
Lined sheet metal, Other (specify) \_\_\_\_\_

Branch Duct: Duct board, Flex, Sheet metal,  
Lined sheet metal, Other (specify) \_\_\_\_\_

I declare the load calculations, equipment selection, and duct system design were rigorously performed based on the building plan listed above. I understand the claims made on these forms will be subject to review and verification.

Contractor's Printed Name \_\_\_\_\_

Date \_\_\_\_\_

Contractor's Signature \_\_\_\_\_

Note: One form is required for each zone.