TOWN OF STURBRIDGE
308 Main Street
Sturbridge, MA 01566

PHONE: 508.347.2505 FAX: 508.347.8243

M

Type or Print Clearly

Building Location:_____ Date:_____

Owners Name:_____ Owners Address:_____

Residential____ 1-2 Family ☐ Multi-Family ☐ Condo ☐ Other ☐ Non-Residential_____

Is this application in conjunction with a building permit? YES_____ NO_____

New____ Renovation____ Replacement____ Plans Submitted: Yes ☐ No ☐

Cost of Equipment:_____ Estimated Total Cost of Project:_____

Indicate total number of fixtures in the applicable box below

1 & 2 Family	Basement	1st Floor	2nd Floor	3rd Floor	Roof	Ground
Air Handling/Hydro Units						
Evaporative & Refrigeration Coolers						
Heat Pumps						
Range Hoods Vented to Exterior						
Central Air Conditioners						
Combustion Air/Ventilation Fans						
Energy Recovery Ventilators						
Furnaces-Oil						
Other:						

Basic Building Code Commercial	Basement	1st Floor	2nd Floor	3rd Floor	Roof	Ground
Draft Inducers Oil Fired Equip						
Kitchen Vent & Exhaust Equipment						
Pool Heater						
Process Piping						
Roof Top Units						
Radiant Heat						
Hydro Air Systems						
Central Air Conditioners						
Other:						

INSURANCE COVERAGE:

I have a current insurance policy or its substantial equivalent which meets the requirement of MGL Ch. 142: YES ☐ NO ☐

If you have checked YES, indicate the type 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 142 of the Mass. General Laws, and that my signature on this permit application *waives* this requirement.

_____ Check One: ☐ Owner ☐ Agent

Signature of Owner or Owner's Agent

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 mechanical work and installations performed under the permit issued for this application will be in compliance with all pertinent provisions of 271 CMR.

Installing Company Name:_____

Address:_____ City/Town:_____ State:_____ Zip_____

Phone:_____ Cell:_____ Fax:_____ Email:_____

Signature:_____ Print Name_____ License #_____

Type of License ☐ J-1 / M-1 - Unrestricted license
☐ J-2 / M-2 - Restricted to dwellings 3 stories or less and commercial up to 10,000 SF / 2 stories or less

Official Use Only Fee_____

Permit#_____ Ck.#_____

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	ATTACHED
Manual J1 Form (and supporting worksheets): Or	Yes ☐ No ☐
MJ1AE Form (and supporting worksheets):	Yes ☐ No ☐
OEM performance data (heating, cooling, blower):	Yes ☐ No ☐
Manual D Friction Rate Worksheet:	Yes ☐ No ☐
Duct distribution system sketch:	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 _____

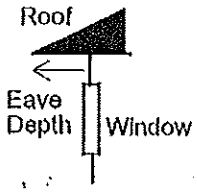
Windows

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

Auxilliary heat output capacity _____ Btu

Cooling Equipment Data

Equipment type _____

Air Conditioner, Heat pump, etc.

Model _____

Sensible cooling capacity _____ Btu

Latent cooling capacity _____ Btu

Total cooling capacity _____ Btu

Blower Data

Heating CFM _____ CFM

Cooling CFM _____ CFM

SEER: _____ EER: _____ HSPF: _____ COP: _____ AFUE: _____

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.

Residential Mechanicial & Sheet Metal Permits
(One and Two family dwellings)

The following is what is required to file for a residential mechanicial and or sheet metal permits:

- Mechanicial & Sheet Metal Permit Application & Completed Residential Plans Examiner Review Form
- Debris Disposal Form
- Workman's Compensation Affidavit (binders are not acceptable)
- Plans are required for new homes, additions in excess of 100 sf., large scale alterations which involve substantial interior demolition, a new system installed in existing dwelling, and any other work the Building Official determines plans are necessary. All plans shall contain the following information:
    1. Plans must be legible and drawn to scale. Maximum size is 24 x 36
    2. Layout of the HVAC System and/or regulated venting (i.e. Bath vents, kitchen hood vents, dryer vents, etc.) including but not limited to equipment and duct location including registers and returns, fresh air intakes and exhaust locations, duct sizes, and metal gauges of the duct work.
    3. CFM of air flow at each register of the HVAC system.
    4. For HVAC systems show applicable sizing calculations done in accordance with Manual D, J and S of the ACCA (Air Conditioning Contractors of America).
    5. R-Value of duct insulation. (If applicable)
    6. Any other information deemed necessary by the Building Official.

NOTE: Plans are not required if the project is limited to a new bath vent, new kitchen hood vent, new dryer vent or any other work the Building Official waives the requirement for plans.

The following items do not need a residential sheet metal permit according to official interpretation of the sheet metal board:

The replacement of an existing residential fan unit only. Note: If replacing duct work to fan unit will require sheet metal permit.

Change out of residential furnaces and air handlers

Metal Roofing

Metal Flashing

Flue and chimneys for gas fired, oil fired and solid fuel burning equipment