



**CITY OF LEOMINSTER  
APPLICATION FOR MECHANICAL PERMIT**

25 WEST STREET, LEOMINSTER MA 01453

Ph: 978-534-7517 Fax: 978-840-0039

**Mechanical Permits are inspected by the building inspector.**

**Is this application in conjunction with a building permit? YES # \_\_\_\_\_ NO**

Property Address: \_\_\_\_\_ Owner of Record: \_\_\_\_\_

Assessors Map # \_\_\_\_\_ Lot # \_\_\_\_\_ Type of Occupancy: \_\_\_\_\_

New: \_\_\_\_\_ Renovation: \_\_\_\_\_ Replacement: \_\_\_\_\_ Plans Submitted: Yes \_\_\_\_\_ No \_\_\_\_\_

Installing Company Name: \_\_\_\_\_

Company Street Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: \_\_\_\_\_

Company Phone Number: \_\_\_\_\_ Estimated Cost: \$ \_\_\_\_\_

Indicate total number of units in the applicable box below

<b>M</b> 1 & 2 Family	Basement	1 <sup>st</sup> Floor	2 <sup>nd</sup> Floor	3 <sup>rd</sup> 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:						

<b>Basic Building Code Commercial</b>	Basement	1 <sup>st</sup> Floor	2 <sup>nd</sup> Floor	3 <sup>rd</sup> Floor	Roof*	Ground*
	Generators					
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:						

Describe Project: \*Note: If any equipment is being placed outside of the footprint of the building, indicate setbacks to property line. A land survey may be required. Roof top units may require a Structural Engineer's review. All equipment is subject to Leominster's Noise By-Law:

\_\_\_\_\_

I certify that I have the authority to make the foregoing application and that all of the information I have submitted (or entered) in the above application is true and accurate to the best of my knowledge, information and belief, and that all mechanical work and installations performed under the permit issued for this application will be in compliance with all pertinent provisions of the Massachusetts State Building Code, the International Mechanical Code, and all laws/bylaws/regulations of the City of Leominster: **Workers' Compensation Insurance Affidavit required for all mechanical submissions**

Signature: \_\_\_\_\_ Print Name: \_\_\_\_\_ Type of License: \_\_\_\_\_ License #: \_\_\_\_\_

**This Section for Official Use Only**

Permit fee:	Receipt #:	Date Received:	Received by:
Issued By :	Approved Date:	Permit or Alteration Number:	



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

Form  
RPER 1.01  
8 Mar 10

## County, Town, Municipality, Jurisdiction Header Information

Contractor \_\_\_\_\_  
Mechanical License # \_\_\_\_\_  
Building Plan # \_\_\_\_\_  
Home Address (Street or Lot#, Block, Subdivision) \_\_\_\_\_

### REQUIRED ATTACHMENTS<sup>1</sup>

Manual J1 Form (and supporting worksheets):  
or MJ1AE Form<sup>2</sup> (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

#### Winter Design Conditions

Outdoor temperature \_\_\_\_\_ °F  
Indoor temperature \_\_\_\_\_ °F  
Total heat loss \_\_\_\_\_ Btu

#### Summer Design Conditions

Outdoor temperature \_\_\_\_\_ °F  
Indoor temperature \_\_\_\_\_ °F  
Grains difference \_\_\_\_\_  $\Delta$  Gr @ \_\_\_\_\_ % Rh  
Sensible heat gain \_\_\_\_\_ Btu  
Latent heat gain \_\_\_\_\_ Btu  
Total heat gain \_\_\_\_\_ Btu

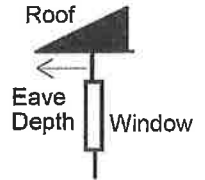
### Building Construction Information

#### Building

Orientation (Front door faces) \_\_\_\_\_  
North, East, West, South, Northeast, Northwest, Southeast, Southwest  
Number of bedrooms \_\_\_\_\_  
Conditioned floor area \_\_\_\_\_ Sq Ft  
Number of occupants \_\_\_\_\_

#### Windows

Eave overhang depth \_\_\_\_\_ Ft  
Internal shade \_\_\_\_\_  
Blinds, drapes, etc  
Number of skylights \_\_\_\_\_



## HVAC EQUIPMENT SELECTION (IRC M1401.3)

### Heating Equipment Data

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

### 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

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

Design airflow \_\_\_\_\_ 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 calculation, 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 \_\_\_\_\_

Reserved for use by County, Town, Municipality, or Authority having jurisdiction.

<sup>1</sup> The AHJ shall have the discretion to accept Required Attachments printed from approved ACCA software vendors, see list on page 2 of instructions.  
<sup>2</sup> If abridged version of Manual J is used for load calculation, then verify residence meets requirements, see Abridged Edition Checklist on page 13 of instructions.