



## Heating & Ventilation - Details for Basement Development Application

[Heating & Ventilation - Details for Furnace Replacement Application](#)

<b>Project Address:</b>
<b>1. Provide room-by-room heat loss values.</b>
Identify rooms as shown on the building permit application drawings (eg. utility, bedroom 1, bedroom 2). Identify total heat loss of each room or space on the drawing. Detailed calculations must be available upon request.
<b>2. Provide a line drawing of the HVAC system (<a href="#">example</a>), showing:</b>
<input type="checkbox"/> Location of heating equipment; <input type="checkbox"/> <a href="#">Supply air run-out sizing</a> with design capacity for each defined in <i>cfm</i> or <i>l/s</i> . <input type="checkbox"/> Return air locations defined as either low wall or ceiling, with design capacity for each defined in <i>cfm</i> or <i>l/s</i> .
<b>Notes:</b> <ul style="list-style-type: none"> <li>- Return air capacity <b>must not</b> exceed supply air capacity.</li> <li>- Flue gas vents and gas lines <b>must not</b> be located in the return air system.</li> <li>- Considering the potential of <a href="#">Radon exposure</a> and with the potential existence of natural draft gas appliances in the home, it is crucial the design does not depressurize the home. If you are adding exhaust to the house design, make-up air may be required. The information in the following documents will assist you in determining requirements for your project;  <a href="#">CAN/CGSB-51.71</a>  <a href="https://www.hrai.ca/worksheets">https://www.hrai.ca/worksheets</a> </li> <li>- Your design will need to demonstrate that 22 ° C can be achieved and maintained at @ - 30°C, 2.5% January design temperature in all living spaces. Heat loss calculations conducted will ensure this criteria is met.  <a href="https://www.hrai.ca/worksheets">https://www.hrai.ca/worksheets</a> </li> </ul> <p>Worksheets included in the document links are for assistance only and are <b>not</b> to be submitted.</p>

<b>GAS FURNACE</b>		
Make and Model:	CFM heating speed:	
<i>Heating equipment must be sized to maintain a design temperature of 22°C in finished spaces while covering 100% of heat losses, but not exceeding 130% of heat losses.</i>		
<b>EXHAUST FAN(S) and exhaust volume</b>		
Fan or HRV Make/Model/Capacity:	Inlet duct size:	Exhaust Volume:
Fan or HRV Make/Model/Capacity:	Inlet duct size:	Exhaust Volume:



**3. DEPRESSURIZATION check must show TOTAL exhaust capacity of dwelling does not exceed inlet capacity.**

Make-up air:  Required  Not Required

Determined by:  Calculation  On-site depressurization test

*The following may be useful:*

[CAN/CGSB-51.71-2005](#)

<https://www.hrai.ca/worksheets>

**Note:** Inspection begins with a walk around building perimeter to view all exhaust terminations, including flue gas vents, in relation to fresh air and combustion air inlets.

- Return air capacity **must not** exceed supply air capacity.
- **No** flue gas vents or gas lines may be located in the return air system.

Worksheets included in the document links are for assistance only and are not to be submitted.

I hereby declare that:

I am the  **Contractor**  **Homeowner** responsible for the premises in which the work will be conducted;

I assume responsibility for compliance with all applicable Acts, Codes & Regulations;

information provided on and with this form is, to the best of my knowledge, true and complete;

new equipment **commissioning reports** will be provided for review at time of Final Inspection

Type name to sign OR print form and sign

Date:

The personal information collected on this form is collected under the authority of section 33(c) of the Freedom of Information and Protection of Privacy Act (Alberta). It will be used to process your permit application. Please be advised that your name, address and details related to your permit may be included on reports that are available to the public as required or allowed by legislation. If you have questions or concerns about the collection, use, disclosure or destruction of the personal information collected on this form, please contact Service Advisor, 2nd Floor, Edmonton Tower, 10111 104 Avenue, Edmonton, AB, T5J 0J4, 780-442-5054.



## FLOOR PLAN