

Builders' Bulletin: Heating Systems (HVAC)

This bulletin is intended to provide clarification on the requirements for HVAC systems installed in the Village of Pemberton. Please be sure to consult the relevant Village of Pemberton Bylaws or contact staff if you have questions: <u>developmentservices@pemberton.ca</u>

Heating Requirements

Prior to the installation of any heating system in a single-family dwelling, duplex, townhome, or in multifamily units that have individual, self-contained heating systems for each dwelling unit, a homeowner needs to specify what type of system they will be designing in their building permit application and BC Energy Pre-Construction Compliance Report. A copy of the TECA Ventilation checklist is required prior to final inspection & occupancy.

Forced Air Systems

Forced air heating systems must be designed to meet either the latest edition of "Quality First Forced Air Guidelines", or relative standards recognized by the current edition of the BC Building code or under the design supervision of a professional engineer.

The following documentation is required prior to a framing inspection by the Building Official:

- 1. Appliance Selection Worksheet with manufacturer's furnace specification and blower performance data
- 2. Heat Loss Summary Sheet/Heat Load Worksheet
- 3. Supply Air Duct Summary
- 4. Return Air Duct Summary
- 5. If "Quality First Forced Air Guidelines" are used, then the contractor/installer QFC Certification number are required

Hydronic Systems

Hydronic Systems must be designed to either the latest edition of "Guidelines for the Design and Installation of Hot Water Heating Systems", or other relative standards recognized by the current edition of the BC Building Code and under the design supervision of a professional engineer.

The following documentation is required prior to a request for a hot water heating inspection by the Building Official:

- 1. Appliance Selection Worksheet
- 2. Heat Loss Summary Sheet
- 3. Hydronic Radiant Floor Panel Worksheet
- 4. Boiler Room Layout (from Hydronic Manual)
- 5. Schedule B for hydronic system
- 6.

Geoexchange Systems

In addition to the "Load Side System" — either forced air or hydronic as detailed above — the following documentation is required prior to the framing inspection for the Building Official:



- 1. A schematic diagram showing the geoexchange system including the heat pump and any back up system required to compensate for the shortfall of the geoexchange system.
- 2. Schedule B for the geoexchange system.
- 3. A written declaration that states the heating capacity of the geoexchange system, that confirms the geoexchange engineer has reviewed the heat loss calculation by a heating contractor for the forced-air or hydronic heating system, and that the geoexchange system is capable of supplying the required heat for the dwelling with or without a backup system.

Combo Systems

Combo systems must be designed to the latest relative guideline or other standards recognized by the current edition of the BC Building Code or under the design supervision of a professional engineer. The following documentation will be required prior to the framing inspection for the Building Official:

- 1. Combo System Appliance Selection Worksheet
- 2. Heat Loss Summary Sheet/Heat Load Worksheet
- 3. Supply Air Duct Summary
- 4. Return Air Duct Summary

Questions?

Please contact <u>developmentservices@pemberton.ca</u> for any additional questions you may have.