
November 1, 2022

Grey Gables Long Term Care
206 Toronto St. South
Markdale, ON N0C 1H0

Attn: David Lisk, Maintenance Manager

Re: Grey Gables Long Term Care – Boiler Venting
Markdale, ON

Dear David,

In follow-up to my site visit of October 12, 2022 and our discussion, I am providing this summary of findings and recommendation.

The existing boiler room is in the centre of the building down in the basement, which is unconventional.

From original design and construction this was a difficult location but installed with category one (1) vent (natural draft) in the centre of building, straight up thru the roof.

Also, the combustion air duct is a long run from an outside wall to the centre boiler room (longer than I wish to see).

The original design and construction do not allow for the new high efficiency condensing boiler and water heater equipment with forced air venting of Category 4.

The new challenge presented is how to properly vent new high efficiency boilers being proposed as the existing boilers are failing.

Also, within the building we reviewed the obsolete generator room, as the generator has been replaced with a newer outdoor generator unit.

The old generator room is on an exterior wall and with an exterior area well to further assist in venting a natural gas appliance as per attached picture.

Our recommendation is one of two options:

- A. Relocate new boilers to the old generator room.
- B. Relocate new water heaters to the old generator room.

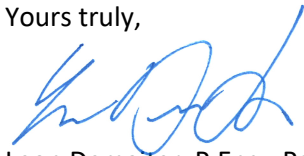
Based on the existing arrangement I recommend using "Option A" for the following reasons:

- a) Allows new boiler plant installed before disassembly of existing boilers.
- b) The old chimney can stay as a Category 1 with a new internal flue vent liner for the water heaters.
- c) The water heaters have the lesser natural gas input, so the long combustion air duct should have a lower demand.

DEI Consulting Engineers would be pleased to extend our engineering services for a new boiler plant design as recommend above should these services be required.

If you require any further information, please do not hesitate to call or contact me via email.

Yours truly,



Leon Demaiter, P.Eng., Partner

22337 Letter re Condensing Boiler Venting to Grey Gables Nov 1 22.docx
Mpd/HD



