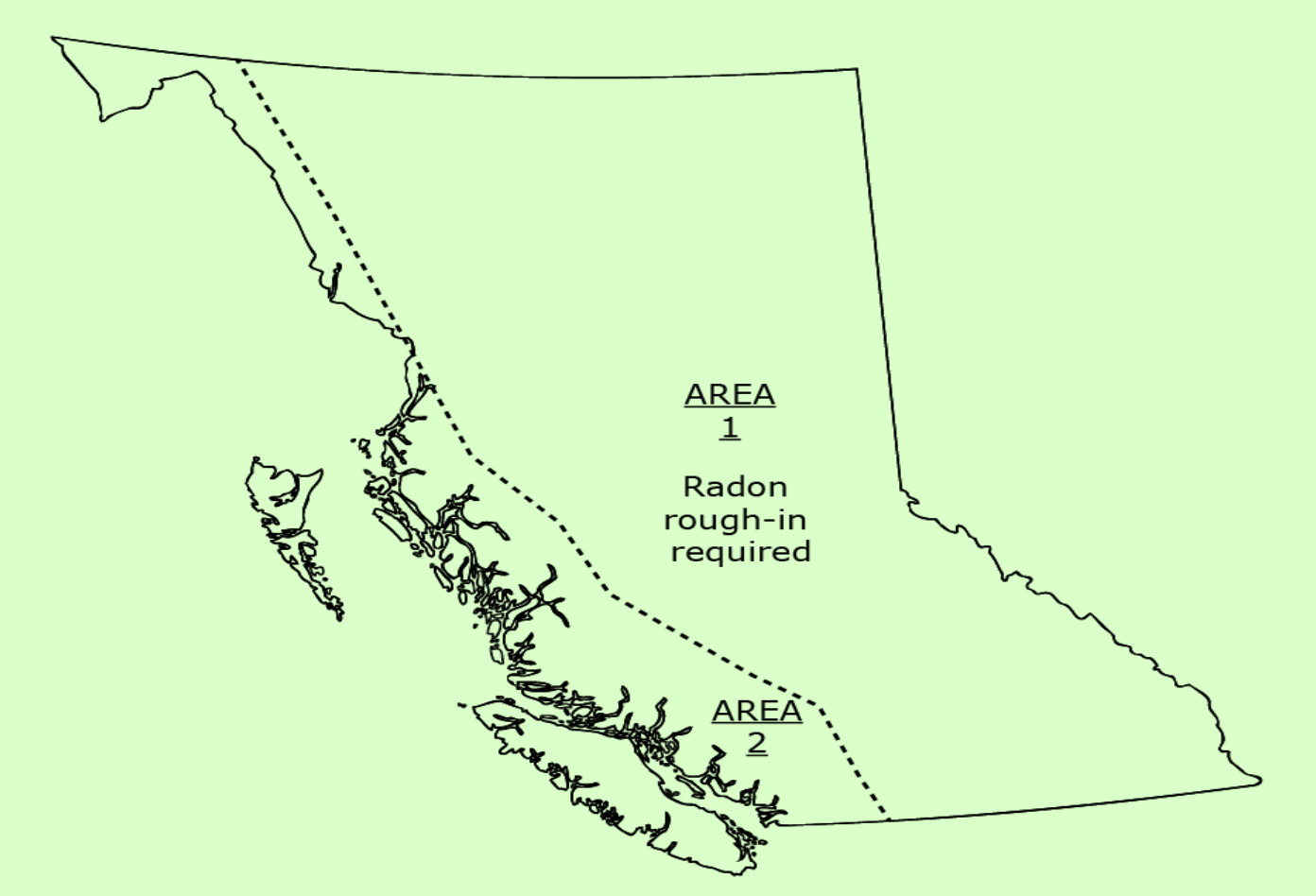
BCBC Energy Efficiency Requirements for Part 9 Buildings

Radon Rough-in and Resources

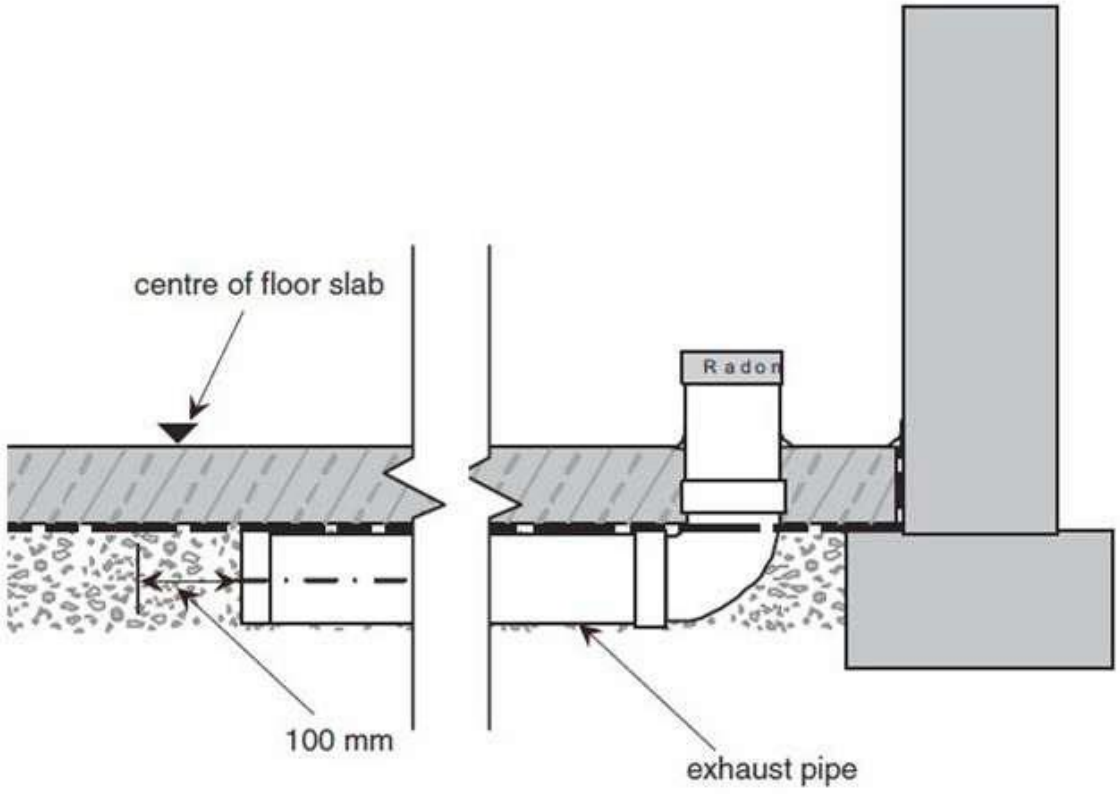
New Radon Rough-in Requirements

- Now require installation of a Radon pipe which extends through, and terminates outside, the building.
- Similar to the termination of a plumbing vent.
- Must account for routing of pipe in the building design.

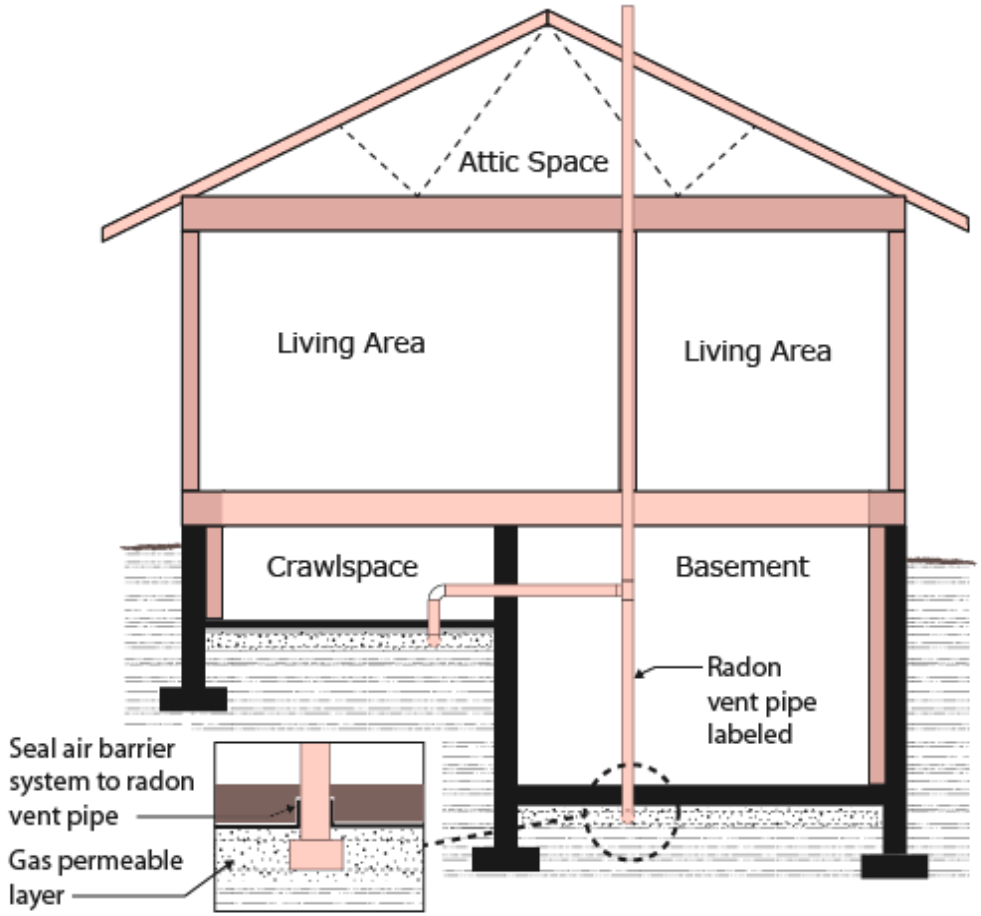
Radon Rough-in Zones



Old Radon Rough-in Provisions



New 4” Radon Pipe Configuration



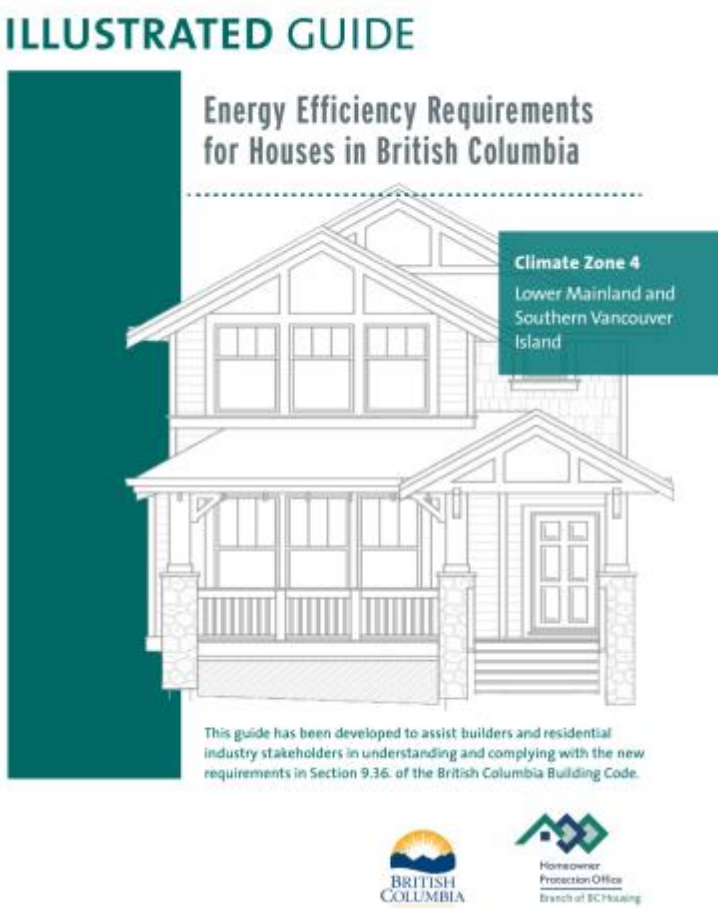
Radon Safety

- Fan not required at this time but provisions should be made to allow for the future installation of a fan (access and electrical rough-in).
- Recommend testing of home but it is owner's responsibility.

HPO Illustrated Guides

HPO: A guide for each specific climate zone in British Columbia is available for download:

- **Climate Zone 4 - Lower Mainland and Southern Vancouver Island**
- **Climate Zones 5 to 7A - North Vancouver Island and Interior**
- **Climate Zones 7B and 8 - The North**



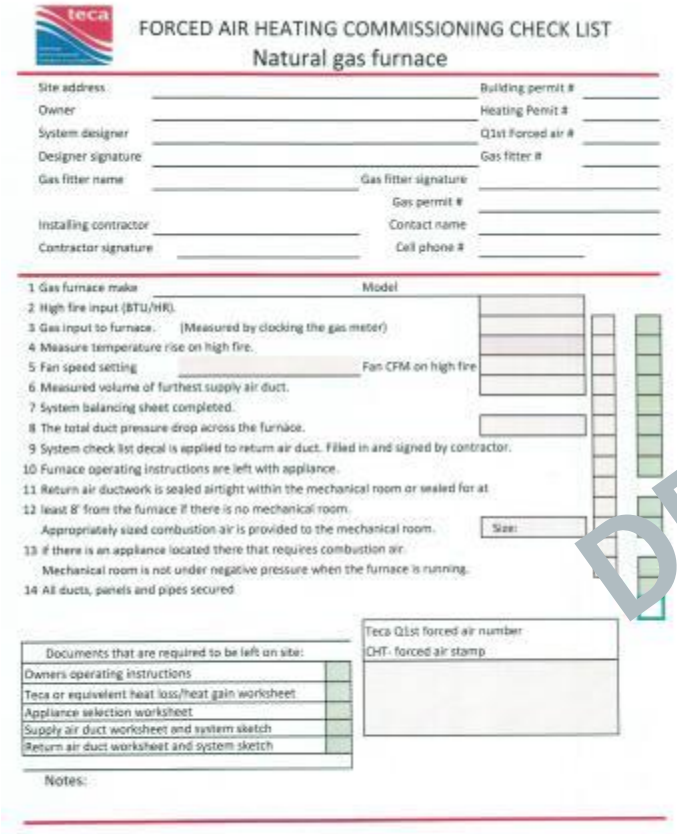
Canadian Wood Council Calculator

WALL ASSEMBLY COMPONENTS[1]		RSI	R
1	exterior air film	0.03	0.17
2	fired clay brick 4" (102 mm)[2]	0.07	0.40
3	1" (25.4 mm) air space with weep holes at base of wall	0.18	1.02
4	asphalt impregnated paper[3]	0.00	0.00
5	7/16" (11.1 mm) OSB sheathing	0.11	0.82
6	2x6 framing filled with R22 batt @ 24" o.c.	2.67	15.16
7	polyethylene	0.00	0.00
8	1/2" (12.7 mm) gypsum board	0.08	0.45
9	finish: 1 coat latex primer and latex paint	0.00	0.00
10	interior air film	0.12	0.68
Effective RSI / R Value of Entire Assembly		3.26	18.50
Centre of Cavity RSI / R Value		4.46	25.34
Installed Insulation RSI / R Value(nominal)		3.87	22.00
Effective RSI / R Value of Assembly with Advanced Framing (advanced framing as defined by NBC9.36.2.4.(1))		3.40	19.30

Energy Efficiency Programs

- R-2000 – energy target is 50% better than applicable code requirements
- Built-Green – tiered levels
- Energy Star – energy target is 25% better than applicable code requirements
- LEED for homes – under review; approx. equivalent to Energy Star as minimum
- Passive House – energy target approximately equivalent to R-2000
- PowerSmart New Homes – energy target similar to Energy Star

TECA



FORCED AIR HEATING COMMISSIONING CHECK LIST

Natural gas furnace

Site address _____ Building permit # _____

Owner _____ Heating Permit # _____

System designer _____ Q1st Forced air # _____

Designer signature _____ Gas fitter # _____

Gas fitter name _____ Gas fitter signature _____

Gas permit # _____

Installing contractor _____ Contact name _____

Contractor signature _____ Cell phone # _____

1 Gas furnace make _____ Model

2 High fire input (BTU/HR).

3 Gas input to furnace. (Measured by clocking the gas meter)

4 Measure temperature rise on high fire.

5 Fan speed setting _____ Fan CFM on high fire

6 Measured volume of furthest supply air duct.

7 System balancing sheet completed.

8 The total duct pressure drop across the furnace.

9 System check list decal is applied to return air duct. Filled in and signed by contractor.

10 Furnace operating instructions are left with appliance.

11 Return air ductwork is sealed airtight within the mechanical room or sealed for at

12 least 8' from the furnace if there is no mechanical room.

Appropriately sized combustion air is provided to the mechanical room. Size:

13 If there is an appliance located there that requires combustion air.

Mechanical room is not under negative pressure when the furnace is running.

14 All ducts, panels and pipes secured

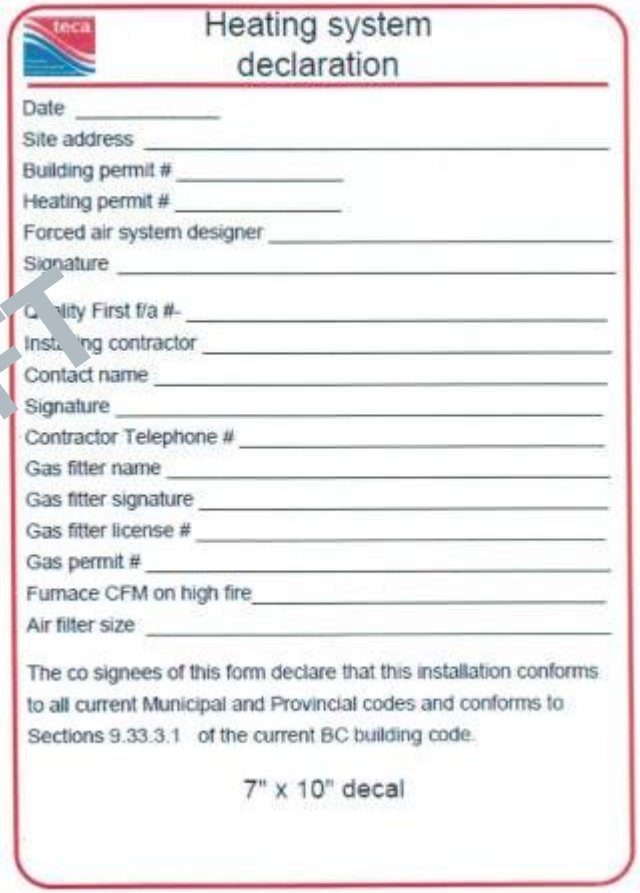
Documents that are required to be left on site:	
Owners operating instructions	
Teca or equivalent heat loss/heat gain worksheet	
Appliance selection worksheet	
Supply air duct worksheet and system sketch	
Return air duct worksheet and system sketch	

Teca Q1st forced air number

OHT- forced air stamp

Notes:

DRAFT



Heating system declaration

Date _____

Site address _____

Building permit # _____

Heating permit # _____

Forced air system designer _____

Signature _____

Quality First f/a #- _____

Installing contractor _____

Contact name _____

Signature _____

Contractor Telephone # _____

Gas fitter name _____

Gas fitter signature _____

Gas fitter license # _____

Gas permit # _____

Furnace CFM on high fire _____

Air filter size _____

The co signees of this form declare that this installation conforms to all current Municipal and Provincial codes and conforms to Sections 9.33.3.1 of the current BC building code.

7" x 10" decal

Code Compliance

Thank you for attending

Regional District of East Kootenay

MOUNTAINS OF OPPORTUNITY
CRANBROOK