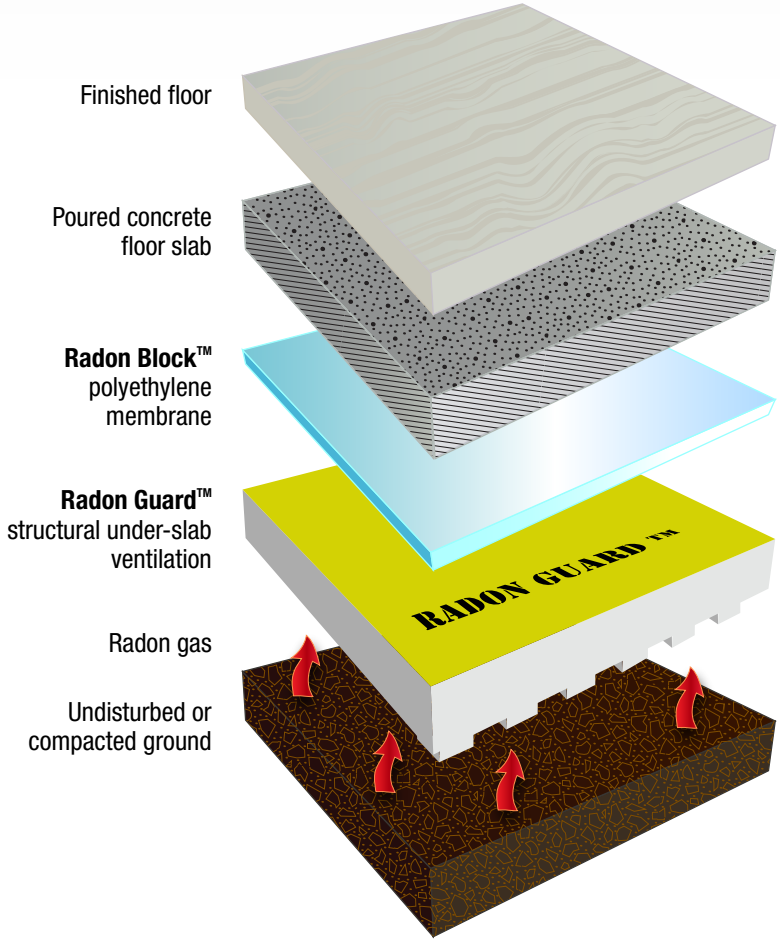
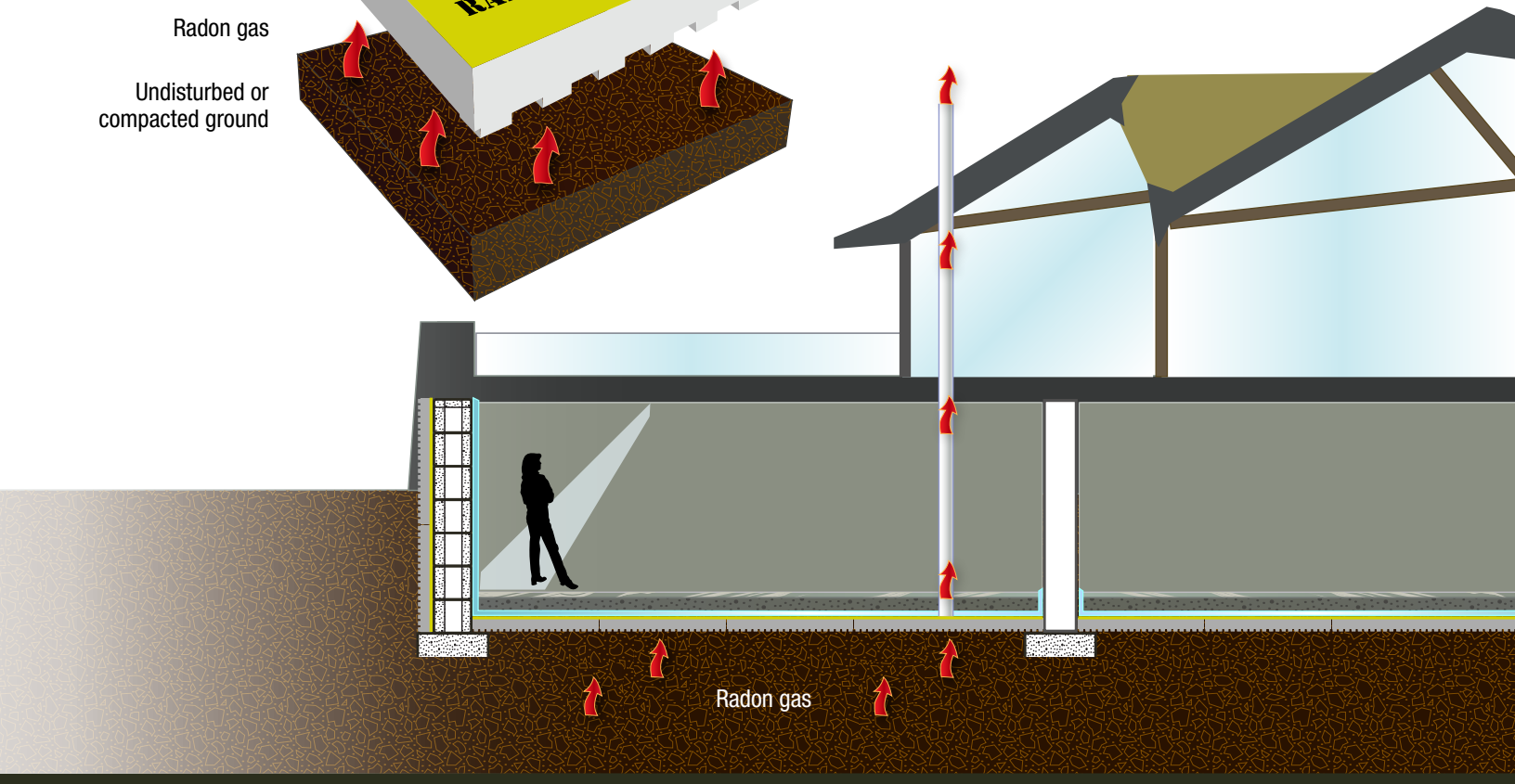
Radon Environmental

Radon Guard™ and **Radon Block™** will ensure your new home is safe and free from harmful levels of radiation.



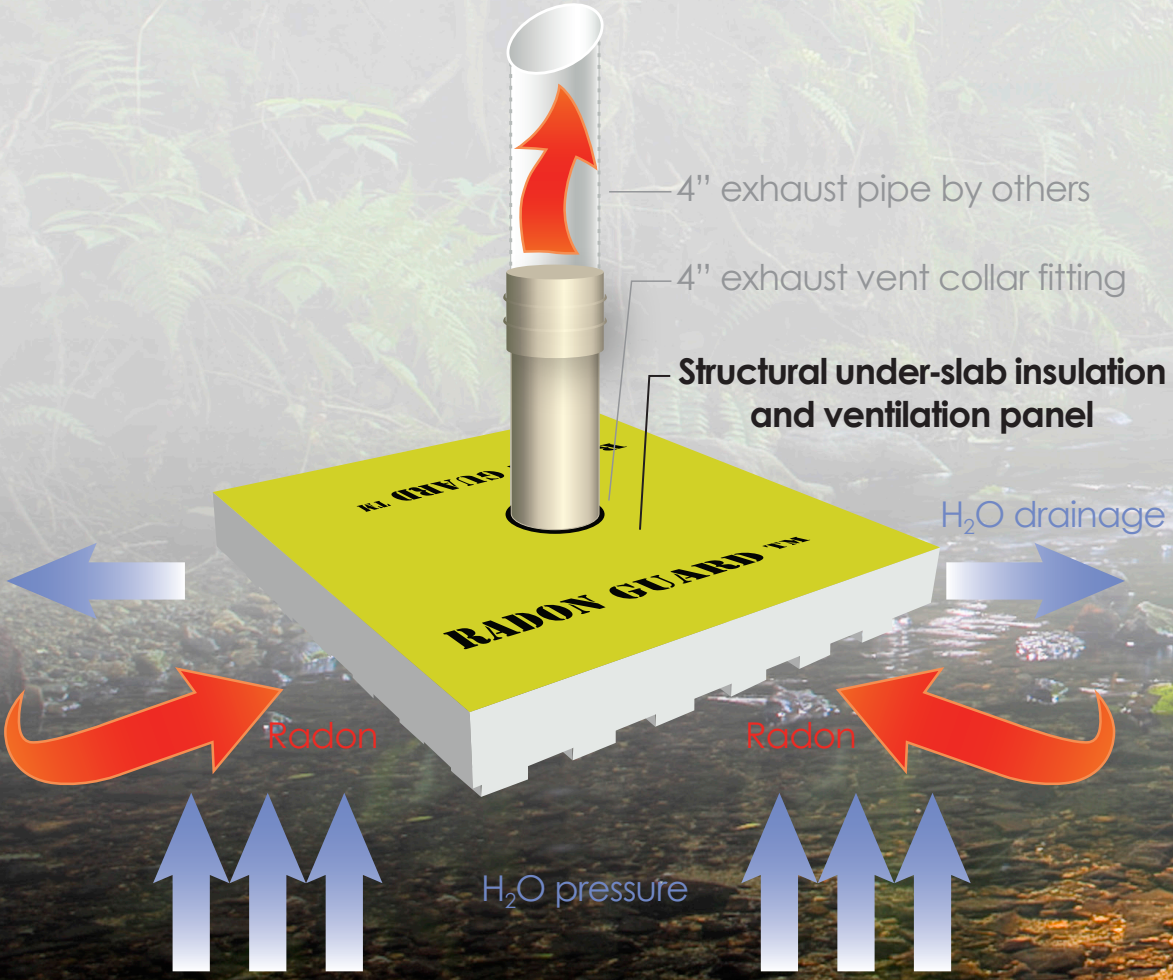


Developing innovative radon prevention technologies to protect Canadians.

RADON GUARD™

STRUCTURAL UNDER-SLAB VENTILATION

- **Radon Guard™ provides structural under-slab ventilation for radon mitigation as required by codes.**
- **Radon Guard™ is a patent pending system of structural collection and exhaust panels laid under the slab that provides for the extraction of radon gas from the sub-slab area to mitigate its entry into the building.**
- **Radon Guard™ is the code compliant one-to-one replacement for the gravel specified in the prescriptive building code solution.**



Radon Guard™ combined with the polyethylene membrane Radon Block™ provides a level of protection far superior to existing standard building materials.

Contact **David Innes, Director of Sales** | david.innes@radoncorp.com | 778.327.4717

Visit us online www.radoncorp.com

RADON GUARD™

STRUCTURAL UNDER-SLAB VENTILATION

Installation Instructions – Typical Conditions

1.0 Prepare sub-slab area as usual per industry standard, per code, or per engineer's requirements.

1.1 Install any under-slab infrastructure required below the Radon Guard (sewer, electrical etc.).

1.2 Radon Guard can be laid directly on undisturbed soil (no organics), or compacted fill or a sand base.

2.0 Lay Radon Guard panels with pedestals facing down.

2.1 Align the Radon Guard panels side by side and touching, in any pattern desired. Cover the entire under-slab area.

2.2 Trim panels to fit odd sizes and penetrations with a utility knife, saw, or hot wire.

2.3 Use non-expanding aerosol foam to fill large joints if desired. A tight-fitting assembly will ensure no concrete waste.

3.0 Insert exhaust collar fitting. Select a convenient location to allow direct vertical access to the future radon exhaust vent pipe system above.

3.1 Cut a 4" diameter hole completely through the Radon Guard panel using a 4¼" hole saw or a utility knife or saw.

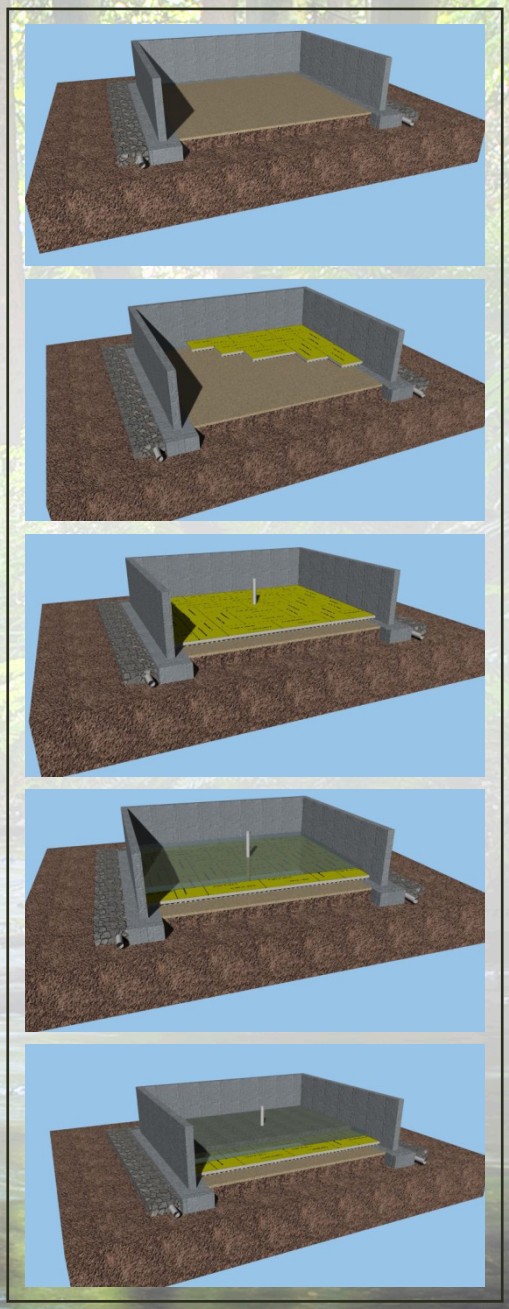
3.2 Insert the Radon Guard collar fitting. Ensure a tight fit.

3.3 Insert a length of 4" PVC pipe into the collar fitting.

3.4 Cap pipe to ensure no debris enters, and mark with radon information as usual per code.

4.0 Install Radon Block radon retarder membrane over the Radon Guard. Lap joints and seal edges and penetrations per industry standard and per code.

5.0 Pour slab as usual per industry standard, per code or per engineer's requirements. Install any in-slab items required as usual per industry standard, per code or per engineer's requirements (e.g. steel reinforcing, radiant heating, block-outs etc.). Caulk all penetrations and edges per code.



Radon Environmental

We're developing new mitigation technologies to improve methods for keeping poisonous gases away from indoor spaces.

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Radon Guard™ certifications

CCMC # TBD: NRC Construction Building Products

CAN/ULC-S701-05 “Thermal Insulation, Polystyrene, Boards and Pipe Covering”

CAN/ULC-102.2M “Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies”

Agencies

ASTM E2121 Standard Practice for Installing Radon Mitigation Systems in Existing Low-Rise Residential Buildings

ASTM E1465 Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings

National Research Council – Construction Building Services & Indoor Environment

References

Canadian National Building Code 2010 9.13.4 “Soil Gas Control”

International Code Council Appendix F 2012 “Radon Control Methods”

Health Canada, Cross-Canada Survey of Radon Concentrations in Homes 2010

US Census Bureau New Residential Construction Starts 2013

Statistics Canada, Housing Starts Canada 2013

EPA Listing of States and Jurisdictions with RRNC Codes

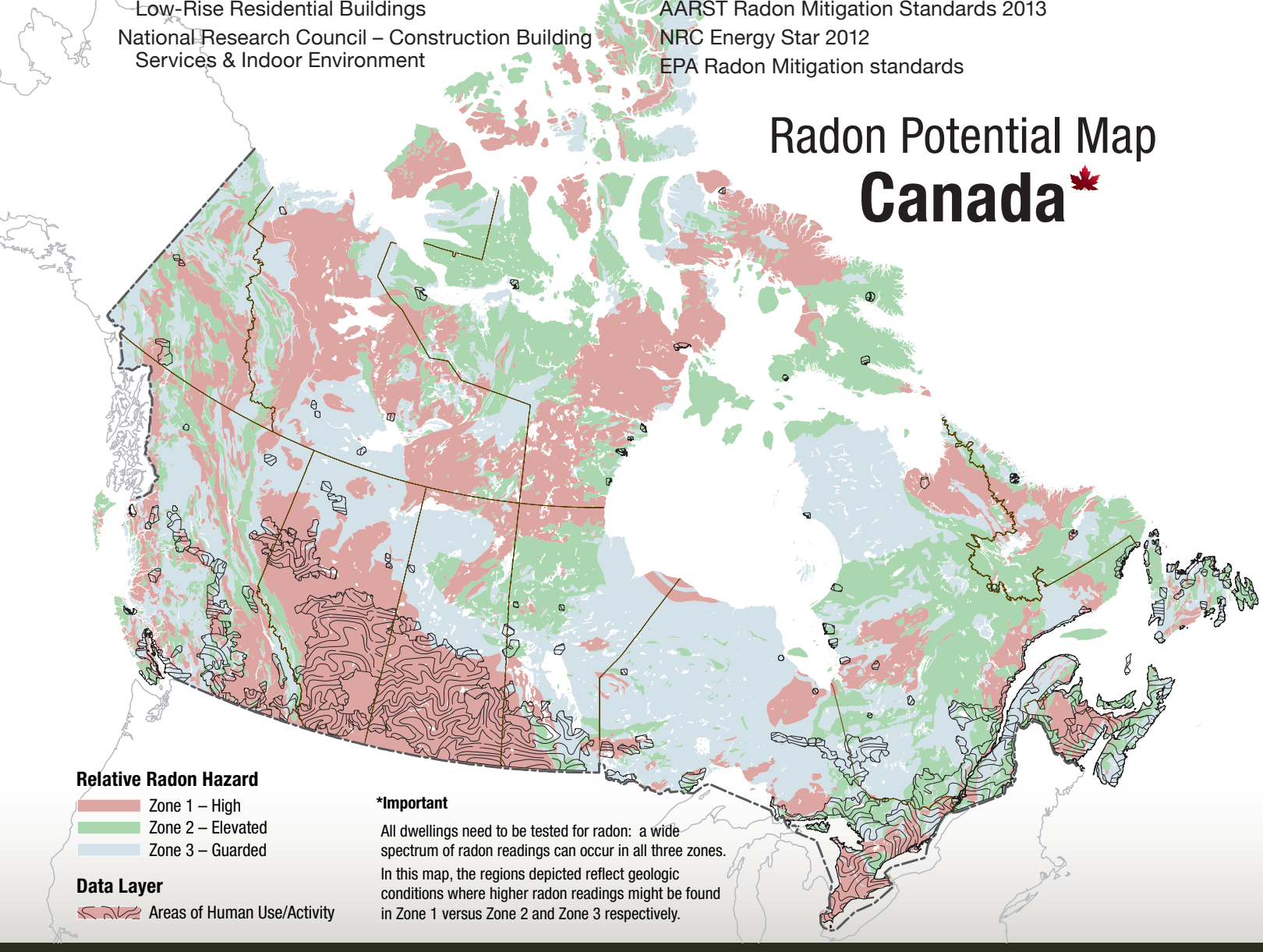
Government of Canada, Model Code Adoption across Canada 2013

AARST Radon Mitigation Standards 2013

NRC Energy Star 2012

EPA Radon Mitigation standards

Radon Potential Map
Canada



Relative Radon Hazard

- Zone 1 – High
- Zone 2 – Elevated
- Zone 3 – Guarded

Data Layer

- Areas of Human Use/Activity

***Important**

All dwellings need to be tested for radon: a wide spectrum of radon readings can occur in all three zones.

In this map, the regions depicted reflect geologic conditions where higher radon readings might be found in Zone 1 versus Zone 2 and Zone 3 respectively.

Learn more about radon and your health
www.radoncorp.com