



Pre-Pour Concrete Slab Inspections

Date: August 6, 2026

Overview

When constructing a building, concrete slab placement – including skim coatings on crawl space floors, represents a major, permanent milestone. Once concrete is poured, the underlying site preparations, structural elements, moisture and soil gas barriers, and mechanical rough-ins are permanently encased.

To ensure structural integrity, occupant health, and long-term durability, an inspection must be completed and approved by a Building Inspector prior to placing any concrete.

Placing concrete before an inspection is approved can result in significant project delays, potential destructive testing, or orders to remove non-compliant work.

Key Requirements Under the National Building Code of Canada (NBC) 2020

Pre-pour slab inspections verify compliance with several critical divisions of the NBC 2020 (Division B). Key requirements include:

1. Soil Preparation, Drainage, and Sub-base Support

A concrete slab is only as stable as the ground beneath it. Proper excavation, soil compaction, and granular base placement prevent settlement, cracking, and structural failure.

- **Granular Layer under Floors-on-Ground (Article 9.16.2.1.):** Requires a compacted granular layer under concrete floor slabs on ground to provide uniform support and prevent capillary moisture rise.
- **Soil Gas and Radon Mitigation (Article 9.13.4.2.):** Mandates a clean, coarse granular layer (or specified sub-slab ventilation layer) under the slab to facilitate depressurization systems as radon and other soil gases present a hazard.



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2. Dampproofing and Soil Gas Barriers

Uncontrolled moisture and soil gases entering a building through the slab can lead to mold, indoor air quality degradation, and structural decay.

- **Dampproofing Membranes (Article 9.13.2.6.):** Specifies requirements for polyethylene or equivalent dampproofing membranes placed beneath slabs-on-ground to prevent groundwater ingress.
- **Soil Gas Barriers (Article 9.13.4.3.):** Requires a continuous air barrier membrane under the slab, with sealed joints and penetrations, to prevent toxic soil gases (such as radon and methane) from entering living spaces. Inspectors must verify membrane continuity before it is covered.

3. Sub-Slab Insulation and Energy Efficiency

Energy efficiency standards require continuous thermal insulation below and/or around heated and unheated slabs.

- **Thermal Insulation beneath Slabs (Article 9.25.2.3.):** Specifies insulation requirements and placement standards beneath or along the perimeter of concrete slabs to control heat loss and prevent freeze-thaw degradation at slab edges.
- **Air Barrier placement and continuity (Articles 9.25.3.1. and 9.25.3.3.):** Requires an air barrier system to provide a continuous barrier to air leakage from space inside the building to the ground.

4. Mechanical, Plumbing, and Services Rough-Ins

Any plumbing, heating ducts, or electrical conduits buried beneath or running through the slab must be inspected and pressure-tested before encasement.

- **Protection and Inspection of Embedded Services (NBC Part 7 / National Plumbing Code Subsections 2.3.6. and 2.3.7.):** Plumbing underground pipes must be inspected and hydrostatic or air-pressure tested prior to backfilling and slab pouring to guarantee there are no leaks sealed beneath the concrete.

Why the Pre-Pour Inspection Matters

- **Preventing Irreversible Errors:** Missing moisture barriers, improper pipe grade, or inadequate gravel base could all result in costly and invasive repairs.
- **Occupant Health & Safety:** Ensuring radon barriers and proper sub-slab venting are installed correctly protects future occupants from dangerous indoor air pollutants.



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Booking Your Inspection

Contractors and builders must ensure all formwork, rebar/mesh reinforcement, sub-grade preparation, membranes, insulation, and rough-in plumbing are fully installed and ready before requesting an inspection prior to placing concrete.

To book an inspection please call 867-668-8340 or email inquirybuilding@whitehorse.ca

- **Notice Required:** Please request your inspection as early as possible. Staff aim to fulfil inspection requests within 72 hours of the request being made.

If you have any specific questions or require clarification, please contact Building Services at inquirybuilding@whitehorse.ca