



MEMORANDUM

Date: June 16, 2017
To: Crawl Space Encapsulation Installers
From: Karolee Towe, Plan Review Chief Building Safety & Permits
Subject: Crawl Space Encapsulation Plan Review and Inspection Requirements

Crawl Space Encapsulation

N1102.2.10 (R402.2.10) Crawl space walls.

As an alternative to insulating floors over crawl spaces, crawl space walls shall be permitted to be insulated when the crawl space is not vented to the outside. Crawl space wall insulation shall be permanently fastened to the wall and extend downward from the floor to the finished grade level and then vertically and/or horizontally for at least an additional 24 inches (610 mm). Exposed earth in unvented crawl space foundations shall be covered with a continuous Class I vapor retarder in accordance with this code. All joints of the vapor retarder shall overlap by 6 inches (153 mm) and be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (153 mm) up the stem wall and shall be attached to the stem wall.

Mechanical Ventilation

To comply with this provision, the crawl space must be mechanically vented or supplied with conditioned air from the living space.

One of the following must be provided:

- Continuously operated mechanical exhaust ventilation at a rate equal to 1 cubic foot per minute (0.47 L/s) for each 50 square feet (4.7m²) of crawlspace floor area, including an air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.10.
- Conditioned air supply sized to deliver at a rate equal to 1 cubic foot per minute (0.47 L/s) for each 50 square feet (4.7 m²) of under-floor area, including a return air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.10.

Insulation

- R-10 continuous insulation (rigid foam board) installed in accordance with Section N1102.2.10.

Continuous Insulation: Runs continuously over interior or exterior structural members or to an opaque surface of the building envelope.

Termite Inspection Gap

R408.3.1 Termite inspection.

Where an unvented crawl space is installed and meets the criteria in Section R408, the vertical face of the sill plate shall be clear and unobstructed and an inspection gap shall be provided below the sill plate along the top of any interior foundation wall covering. The gap shall be a minimum of one inch (25.4 mm) and a

maximum of two inches (50.8 mm) in width and shall extend throughout all parts of any foundation that is enclosed. Joints between the sill plate and the top of any interior wall covering may be sealed.

Exceptions:

1. In areas not subject to damage by termites as indicated by Table R301.2(1).
2. Where other approved means are provided to inspect for potential damage.

Where pier and curtain foundations are installed as depicted in Figure R404.1.5(1), the inside face of the rim joist and sill plate shall be clear and unobstructed except for construction joints which may be sealed.

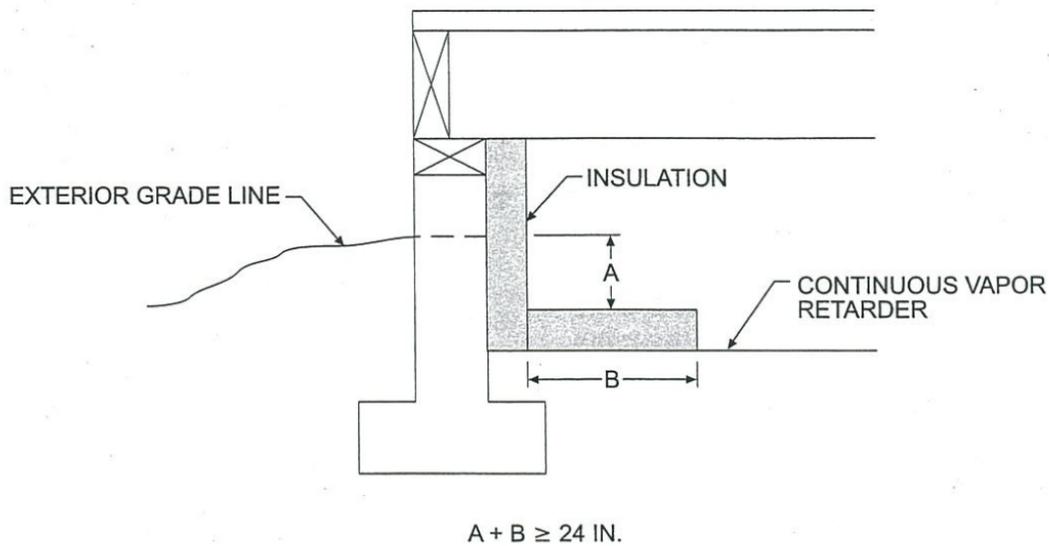
Exception: Fiberglass or similar insulation may be installed if easily removable.

Ignition Barrier

The foam plastic insulation is protected against ignition using one of the following ignition barrier materials:

1. 1½-inch-thick (38 mm) mineral fiber insulation;
2. ¼-inch-thick (6.4 mm) wood structural panels;
3. ⅜-inch (9.5 mm) particleboard;
4. ¼-inch (6.4 mm) hardboard;
5. ⅜-inch (9.5 mm) gypsum board; or
6. Corrosion-resistant steel having a base metal thickness of 0.016 inch (0.406 mm).

The above ignition barrier is not required where the foam plastic insulation has been tested in accordance with Section R316.6 - An ICC-ES report must be submitted with the Permit Application.



= 25.4 mm.

**Figure N1102.2.10
CRAWL SPACE WALL INSULATION**