

(EXTERIOR) FOUNDATION DRAINAGE AND WATERPROOFING

- Permits are required for all new and repair work on foundation drainage systems for existing homes.
- All materials and the installation of all materials must comply with the Minnesota State Building Code and the manufacturers' installation specifications for each product.

PERMIT CARD AND APPROVED PLANS (throughout the project) shall be:

POSTED prior to start of work - **VISIBLE** from street or driveway - **ACCESSIBLE** to the inspector

INSPECTION REQUIREMENTS:

- **MUST** schedule during office hours **AT LEAST** one business day prior to required inspection. If a specific date and/or time will be required, more notice may be needed – please plan ahead. A re-inspection fee may be charged for failure to cancel an inspection for which you are not ready, or for failure to pass an inspection.
- Office Hours: Monday - Friday • 8:00 a.m. - 4:30 p.m.
- Phone: (952) 442-7520 or (888) 446-1801

Inspections: See your permit card for required inspections for your particular project. For a new home or addition, the drainage system is checked at the pre-backfill inspection:

- **Foundation/pre-backfill:** PRIOR TO BACKFILLING around a foundation. Exterior drainage system, waterproofing, and exterior insulation (if required) must be in place. With regard to the drainage system, the following shall be in place at the time of inspection:
 - ✓ Aggregate installed below drain tile
 - ✓ Perforated drain tile with sock installed
 - ✓ Aggregate installed on top of drain tile
 - ✓ Fabric installed over entire aggregate area

Warning: The inspector may issue an order to remove materials to verify compliance with the MN State Building Code and manufacturer's installation requirements.

If a re-inspection is required, a re-inspection fee will apply. The permit holder (the signing applicant) or the permit holder's representative must meet the inspector at the site to provide access. The re-inspection will not be conducted if the re-inspection fee is not paid.

Note: The State of Minnesota requires that all residential building contractors, remodelers, roofers, plumbers, and electricians obtain a state license unless they qualify for a specific exemption from the licensing requirements. Any person claiming an exemption must provide a copy of a Certificate of Exemption from the Department of Labor & Industry to the Municipality before a permit can be issued.

Note: To determine whether a particular contractor is required to be licensed or to check on the licensing status of individual contractors, please call the Minnesota Department of Labor & Industry at 651-284-5065 or toll free 1-800-342-5354.

Note: For specific code requirements, please contact the Building Inspection Department at 952-442-7520 or 888-446-1801 or e-mail: info@mnspect.com.

PROJECT INFORMATION:

The following is information to assist in the compliance with the requirements of the MN State Building Code.

1309.405.1 Concrete or masonry foundations. Drains shall be provided around all **concrete** and **masonry foundations** that retain earth and enclose habitable or usable spaces located below grade. Drainage tiles, gravel, or crushed stone drains, perforated pipe or other *approved* systems or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system. Gravel or crushed stone drains shall extend at least 1 foot beyond the outside edge of the footing and 6 inches above the top of the footing and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be protected with strips of building paper, and the drainage tiles or perforated pipe shall be placed on a minimum of 2 inches of washed gravel or crushed rock at least one sieve size larger than the tile joint openings or perforation and covered with not less than 6 inches of the same material.

A drainage system is not required when the foundation is installed on well-drained ground or sand-gravel mixture soils according to the Unified Soil Classification System, Group I Soils.

1309.406.2 Concrete and masonry foundation waterproofing. Exterior foundation walls that retain earth and enclose below grade interior spaces, floors, and crawl spaces shall be waterproofed. Waterproofing shall be installed at a minimum from the top of the footing to the top of the foundation wall (refer to the following requirements) or in accordance with the manufacturer's installation instructions. Walls shall be waterproofed in accordance with one of the following:

1. 2-ply hot-mopped felts.
2. 55-pound (25 kg) roll roofing.
3. 6-mil (0.15 mm) polyvinyl chloride.
4. 6-mil (0.15 mm) polyethylene.
5. 40-mil (1 mm) polymer-modified asphalt.
6. 60-mil (1.5 mm) flexible polymer cement.
7. 1/8-inch (3 mm) cement-based, fiber-reinforced, water proofing coating.
8. 60-mil (1.5 mm) solvent-free liquid-applied synthetic rubber.

All joints in membrane waterproofing shall be lapped and sealed with an adhesive compatible with the membrane.

***Damp proofing is no longer allowed on masonry or concrete foundations.**

1322. R402.1.1 Insulation, waterproofing, and fenestration criteria. The building thermal envelope shall meet the requirements of Table R402.1.1 based on the climate zone specified in Chapter 3, and the requirements contained in Section R402.2. Cast-in-place concrete and masonry block foundation walls shall be waterproofed according to 1309.406 and the following requirements:

1. The waterproofing shall extend from the top interior wall edge, across the top of the wall, and down the exterior wall face to the top of the footing. If a full width, closed-cell material is installed to create a seal between the sill plate and the top of the foundation wall, the installation is deemed to meet the requirements for the top of the wall waterproofing.
2. If the walls are exposed to the exterior environment, the waterproofing system shall have a rigid, opaque, and weather-resistant protective covering to prevent degradation of the waterproofing system. The protective covering shall cover the exposed waterproofing and extend a minimum of 6 inches below grade. The protective covering system shall be flashed in accordance with 1309.703.8.

