

Geo Vapor®

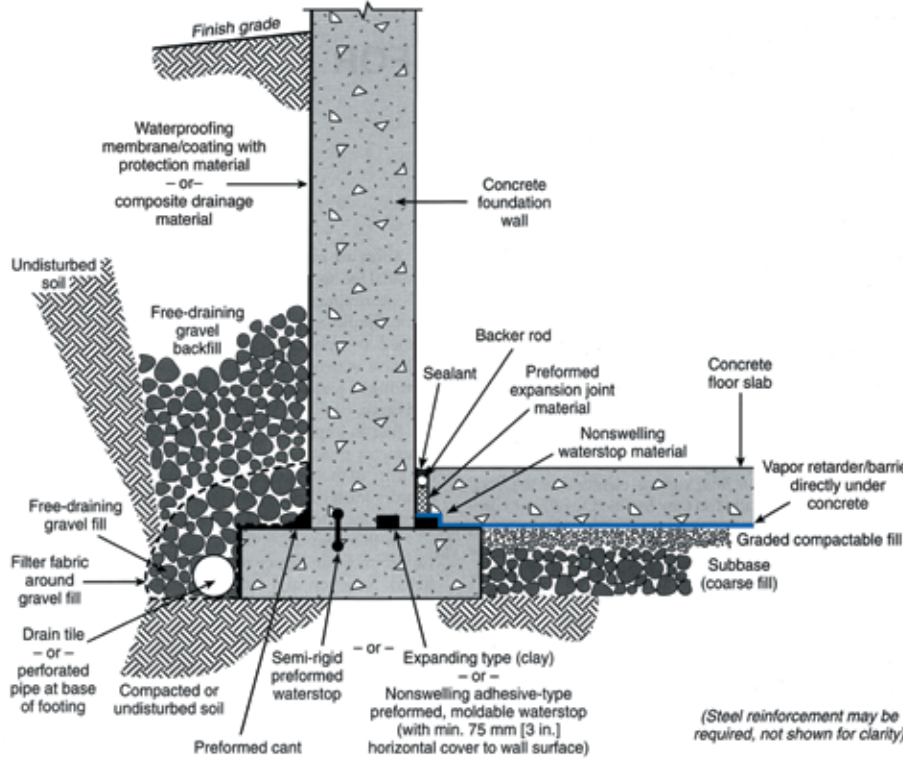
UNDERSLAB VAPOR RETARDER

INSTALLATION GUIDELINES

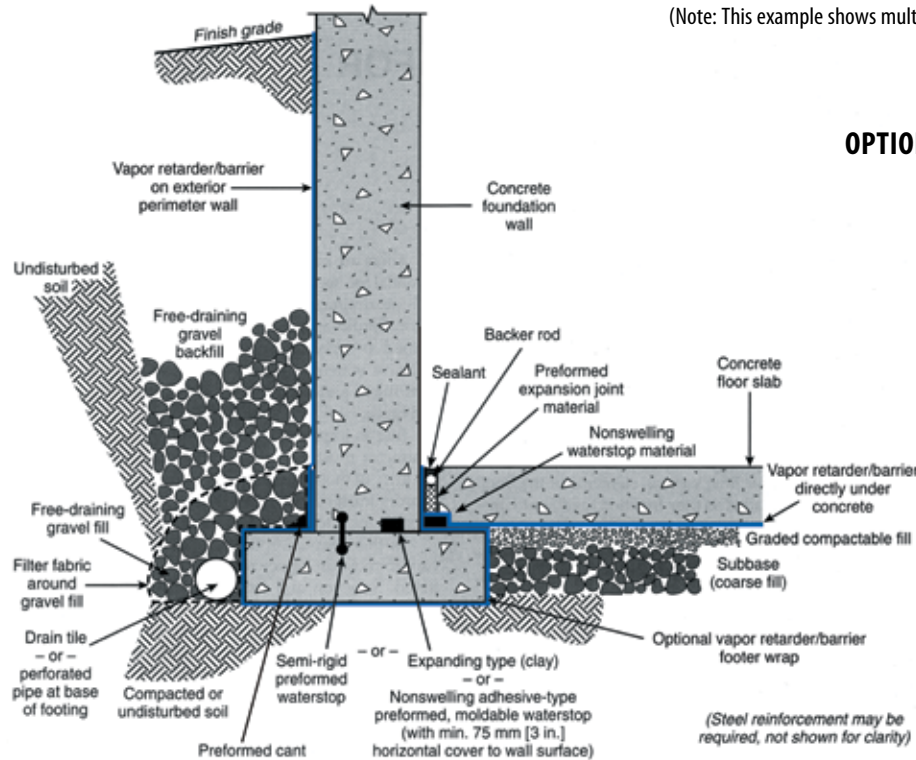
Please Note: Read these instructions thoroughly before installation to ensure proper use of **Geo Vapor®** ASTM E 1643 can also provide valuable information regarding the installation of vapor retarders. When installing this product, contractors shall conform to all applicable local, state and federal regulations and laws pertaining to residential and commercial building construction.

Materials List:

- Geo Vapor® Vapor Retarder (Barrier)
- VaporBond 4" Seaming Tape
- Butyl Seal 2-Sided Tape
- VaporBoot Pipe Boot System 25/Tube plus Tape
- VaporBoot Tape (optional)



Elements of a moisture-resistant floor system. General illustration only.
(Note: This example shows multiple options for waterstop placement.)



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OPTIONAL PERIMETER WALL & FOOTER METHODS

An optional perimeter wall class "A" vapor retarder can be installed with or without a bituminous coating applied to the concrete.

Geo Vapor® 10 or 15 mil (Class A) vapor retarders can be sealed to the perimeter wall with Butyl Seal Tape. An optional footer wrap may also be applied.

Original diagrams on this page were reprinted with permission by the Portland Cement Association. Reference: Kanare, Howard M., Concrete Floors and Moisture, EB119, Portland Cement Association, Skokie, Illinois, and National Ready Mixed Concrete Association, Silver Spring, Maryland, USA, 2008, 176 pages.

GEO VAPOR® PLACEMENT

- 1.1. Level and tamp or roll granular base as specified by your architectural or structural drawings. If sharp crushed rock is used, a 1/2" layer of fine grade compactable fill is required between the base and the vapor retarder.
- 1.2. Unroll **Geo Vapor®** running the longest dimension parallel with the direction of the pour and pull open all folds to full width. (Fig. 1)
- 1.3. Lap **Geo Vapor®** over the footings and seal with 2-sided Butyl Seal tape. Prime concrete surfaces and assure they are dry and clean prior to applying Butyl Seal Tape. Apply even and firm pressure with a rubber roller.

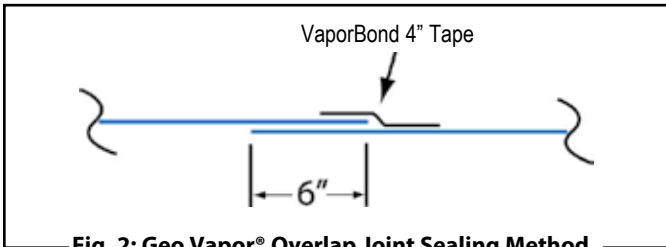


Fig. 2: Geo Vapor® Overlap Joint Sealing Method

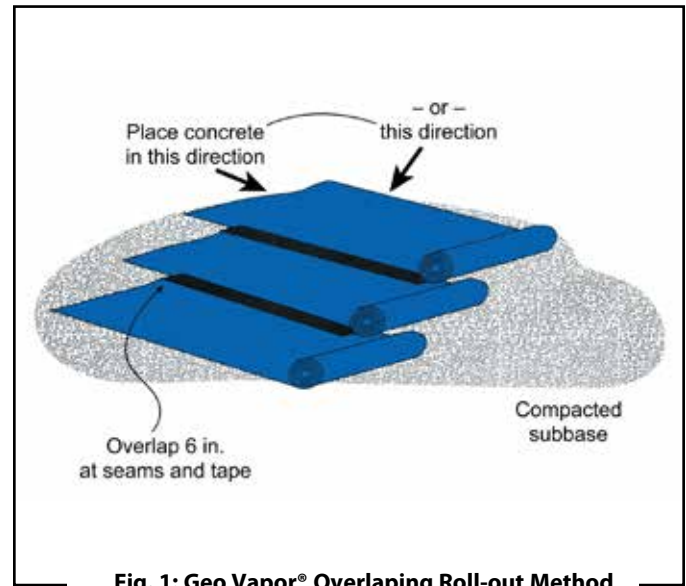


Fig. 1: Geo Vapor® Overlapping Roll-out Method

SINGLE PENETRATION PIPE BOOT INSTALLATION

Overlap joints a minimum of 6" and seal overlap with VaporBond Tape.

- 1.4. Seal around all plumbing, conduit, support columns or other penetrations that come through the **Geo Vapor®** membrane. The VaporBoot Pipe Boot System is the recommended sealing method. (Includes 25 pre-cut Geo Vapor® pipe boots along with 1 roll of VaporBoot Tape). (Fig. 3 & 4)

Pipe boots may also be fabricated from excess **Geo Vapor®** membrane (Fig. 3 & 4) and sealed with VaporBoot Tape or VaporBond Tape (sold separately).

Reminder Note: All holes or penetrations through the membrane will need a patch cut to a minimum of 6" from the opening in all directions.

To fabricate pipe boots from **Geo Vapor®** excess material (see Fig. 3 & 4 for A-E):

- A) Cut a square large enough to overlap 6" in all directions.
- B) Mark where to cut opening on the center of the square and cut four to eight slices about 3/8" less than the diameter of the pipe.

- C) Force the square over the pipe leaving the tightly stretched cut area around the bottom of the pipe with approximately a 1/2" of the boot material running vertically up the pipe. *(no more than a 1/2" of stretched boot material is recommended)*

- D) Use VaporBoot Tape or VaporBond Tape to secure the boot to the pipe.

VaporBoot Tape (option) – fold tape in half lengthwise, remove half of the release liner and wrap around the pipe allowing 1" extra for overlap sealing. Peel off the second half of the release liner and work the tape outward gradually forming a complete seal.

VaporBond Tape (option) - Tape completely around the pipe overlapping the to get a tight seal against the pipe.

- E) Complete the process by taping over the boot perimeter edge with VaporBond Tape to create a monolithic membrane between the surface of the slab and moisture sources below and at the slab perimeter. (Fig. 3 & 4)

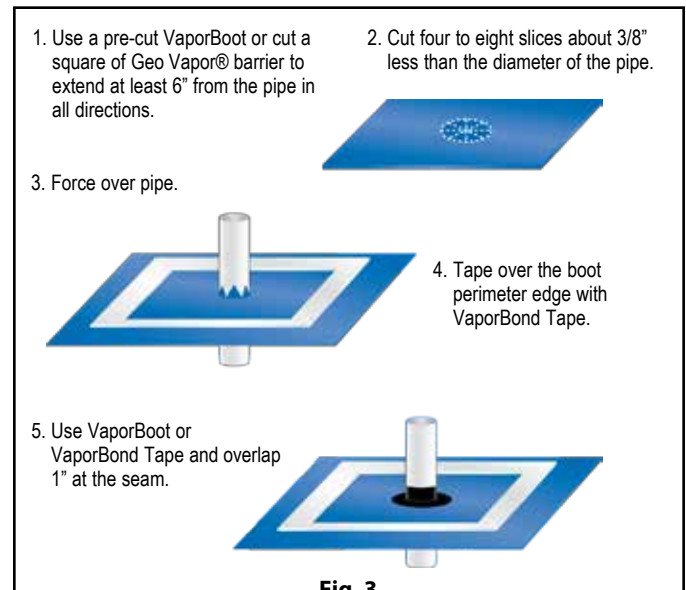


Fig. 3

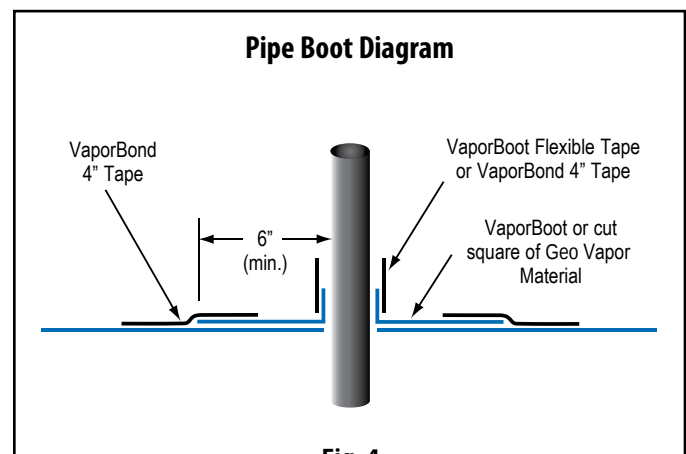


Fig. 4

MULTIPLE PENETRATION PIPE BOOT INSTALLATION

1.5. For side-by-side multiple penetrations;

- A) Cut a patch large enough to overlap 6" in all directions (Fig. 6) of penetrations.
- B) Mark where to cut openings and cut four to eight slices about 3/8" less than the diameter of the penetration for each.
- C) Slide patch material over penetration to achieve a tight fit.
- D) Tape around each of the penetrations and the patch with VaporBond 4" Tape. (Fig. 7) For additional protection apply an acceptable polyurethane elastomeric sealant around the penetrations. (Fig. 8)

1.6. Holes or openings through **Geo Vapor®** are to be repaired by cutting a piece of **Geo Vapor** 6" larger in all directions from the opening. Seal the edges of the patch with VaporBond Tape.

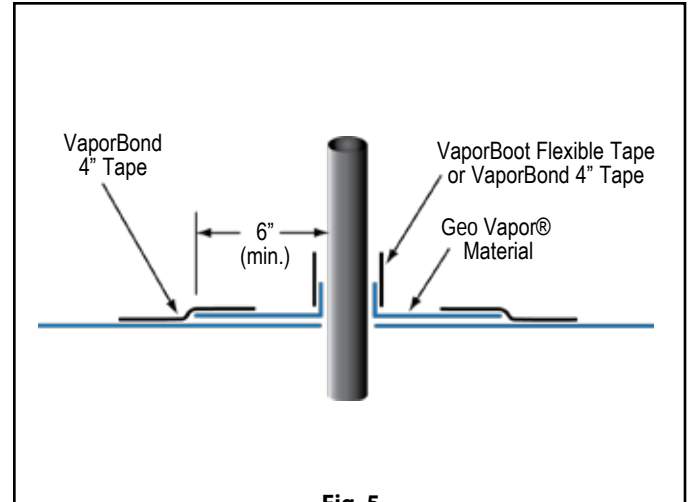


Fig. 5

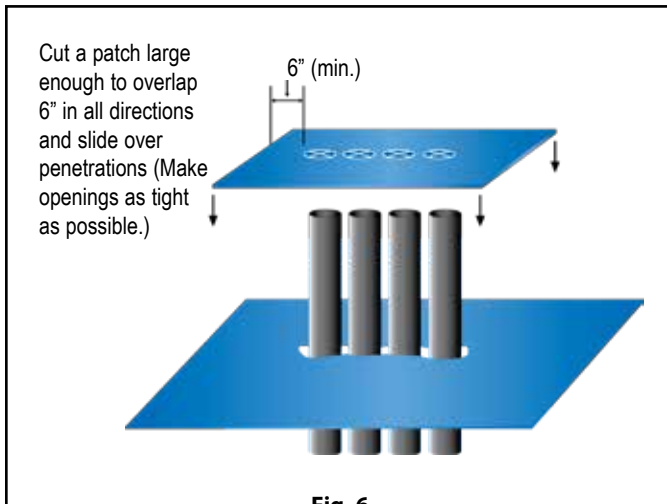


Fig. 6

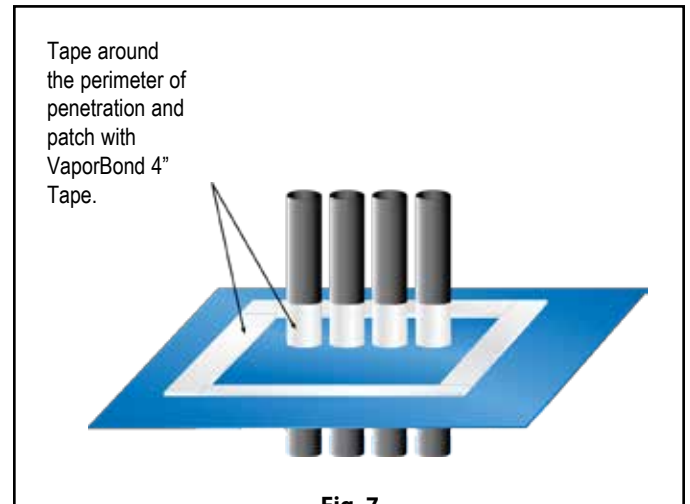


Fig. 7

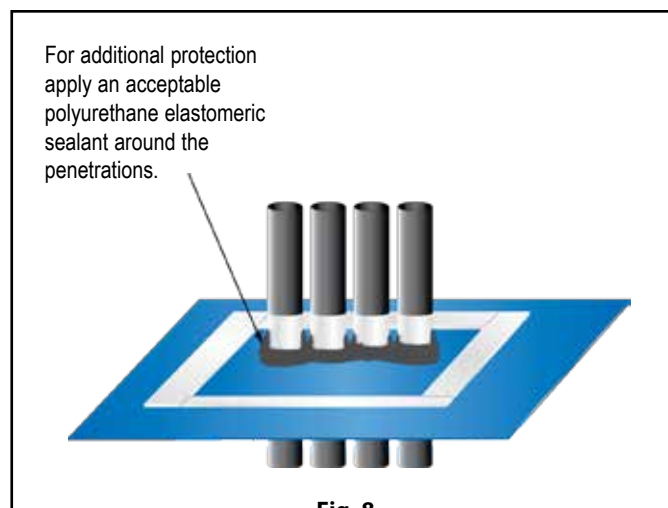


Fig. 8

GEO VAPOR® PROTECTION

- 2.1. When installing reinforcing steel and utilities, in addition to the placement of concrete, take precaution to protect Geo Vapor®. Carelessness during installation can damage the most puncture-resistant membrane. Sheets of plywood cushioned with geotextile fabric temporarily placed on Geo Vapor® provide for additional protection in high traffic areas including concrete buggies.
- 2.2. Use only brick-type or chair-type reinforcing bar supports to protect Geo Vapor® from puncture.
- 2.3. Avoid driving stakes through Geo Vapor®. If this cannot be avoided, each individual hole must be repaired.
- 2.4. If a cushion or blotter layer is required in the design between Geo Vapor® and the slab, additional care should be given if sharp crushed rock is used. Washed rock will provide less chance of damage during placement. Care must be taken to protect blotter layer from precipitation before concrete is placed.

Note: To the best of our knowledge, these are typical installation procedures and are intended as guidelines only. Architectural or structural drawings must be reviewed and followed as well as on a project basis. NO WARRANTIES ARE MADE AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS OR GUIDELINES REFERRED TO, no guarantee of satisfactory results from reliance upon contained information or recommendations and we disclaim all liability for resulting loss or damage.

