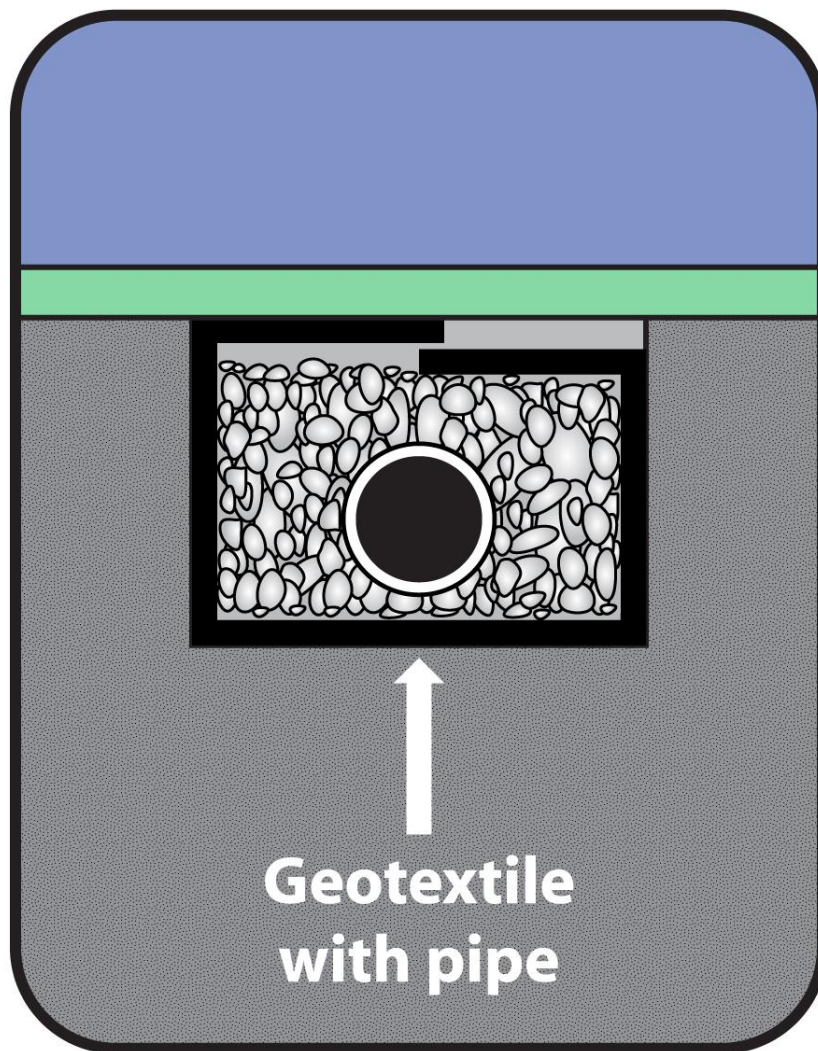




Construction Geosynthetics

Geotextile French Drain – Interior Basement Wall – Installation Guide

FRENCH DRAIN



1.0 General

- 1) This guideline covers general installation of nonwoven geotextile in an interior basement French drain.
- 2) Where contradictions occur follow the instructions of the project engineer.

2.0 Equipment & Materials

- 1) Circular saw with diamond cutting blade
- 2) Sledgehammer or jackhammer
- 3) Dry vacuum
- 4) Masks or respirators, eye and ear protection
- 5) Shovel, pick mattock, wheelbarrow or buckets
- 6) Concrete
- 7) ¾ inch washed stone
- 8) 4 inch diameter, perforated PVC pipe
- 9) Filtration geotextile

3.0 Evaluate the Perimeter of Your House

- 1) Ensure the ground next to your foundation wall slopes away from the foundation, not towards it.
 - a) If necessary, regrade the area.
- 2) Make sure your downspouts are discharging at least 5 feet away from your foundation.
- 3) Make sure plantings are at least 1 foot away from the foundation.

4.0 Prepare Work Area

- 1) Repair defects in poured concrete walls such as cracks and the places where pipes and form tie rods go all the way through the concrete.
 - a) Keep in mind a large majority of basement water intrusion is wall related.

5.0 Saw Cut and Remove Existing Floor

- 1) A typical residential concrete slab is 3.5 to 4 inches thick.
 - a) As such, you may not be able to make it all the way through with your saw cut.
- 2) Saw cut the existing concrete slab 16 inches from the foundation wall.
- 3) Sledgehammer or jackhammer the portion to be removed.
 - a) Stay about 3 inches away from the foundation wall with jackhammer so you do not damage it.
 - b) Be careful not to damage the footer as well.

6.0 Remove Soil

- 1) Remove soil to the bottom of the footer.

7.0 Install Geotextile

- 1) Cut a piece of the filtration geotextile the length and width of the trench.
 - a) A good utility knife is all that is required.
 - b) The piece must be wide enough to be completely folded back over the top after the pipe and gravel are placed.
- 2) Lay the geotextile into the trench with the flaps laying open.

8.0 Place Pipe and Gravel

- 1) Place the perforated PVC pipe in the trench and it run to the sump pump.
- 2) Fill the trench with the stone.
- 3) Fold the geotextile over the top (like a burrito).
- 4) Be sure to leave 3 to 4 inches unfilled on top for the new slab to be poured.

9.0 Replace Concrete Floor Slab

- 1) Pour new concrete.
- 2) In cases where radon is not a concern, leave a 1 inch opening at the base of the foundation wall to capture any moisture that may run down the foundation walls.

10.0 Storage

- 1) Filter fabric rolls are wrapped in a UV protective cover.
- 2) If stored outdoors for a prolonged period, elevate the fabric from the ground and cover with a tarpaulin or opaque plastic.
 - a) Contractor must insure rolls are adequately protected from:
 - i) Moisture
 - ii) Ultraviolet radiation
 - iii) Chemicals that are strong acids or bases
 - iv) Temperatures in excess of 140°F
 - v) Animal destruction

This material is presented for general information only. Always verify the suitability for a specific application with the project engineer. Where contradictions occur, follow the instructions of the project engineer. There is no implied or expressed warranty regarding the installation procedures or the geosynthetic products in this guide. Installation procedure and product choice is the sole responsibility of the contractor and contractor assumes all liability.