

UPDATE

A PERIODICAL FOR THE HOMEOWNER

CONTROLLING GROUNDWATER

If your home is located at the foot of a slope and you are experiencing water problems in the basement consider adding a swale and pipe drainage system.

The slope causes surface and subsurface water to flow toward the structure, and unless the water is diverted it seeps into the building through open joints and cracks in the foundation or floor slab.

There are several things you can do to prevent or reduce water intrusion. Make sure that gutters are clean, so they don't overflow during a rain. Also, the ground should slope away on all sides of the building for a distance of 6 to 10 ft. This prevents water from accumulating around the foundation, and it forms a depression in the ground (also called a swale) that collects surface water. The swale extends around the sides of the structure so that water is directed away from the building.

Subsurface water can be controlled with drains at the building's footing. These usually are installed when the structure is built. However, older buildings often have footing drains that are plugged or broken. If a swale doesn't solve the problem, consider installing a curtain drain, as shown above. Often referred to as a French drain, this is a trench containing a perforated pipe surrounded by gravel. The pipe extends about 10 ft. beyond the sides of the building. Note that a geotextile fabric covers the gravel to prevent soil infiltration from above. The fabric is covered with a minimum of 2 in. of topsoil, preferably 3 in.

A solid drainpipe is connected to the end of the perforated pipe. The solid pipe is not surrounded by gravel, and it runs to a point where it can discharge into a storm drain or onto the lawn away from the building.

