



GUIDE TO DRAINAGE FEATURES

Drain Pipes

If you have a drain pipe (roof water or French drain water) that outlets to a ground surface such as a sloped yard or at the edge of a street, icing can be a real problem with extremely cold and snowy winters. When snow from a snowplow or just normal snowfall covers the end of an exposed pipe for a long time, the end of the pipe can freeze. This can cause a back-up of the water flowing through the pipe all the way to the source of the water, which can cause serious problems depending on the drainage system you have. You must periodically check to make sure the ends of the pipe are clear of snow and ice and that they are not frozen. If you notice frozen pipes, clear the ice and snow with a shovel. Hot water can also sometimes help to melt the ice, but be very careful.

This problem of icing over can also happen to drain pipes that exit into a public storm sewer or catch basin in the road. Be sure to monitor these as well.

Area Drains & Catch Basins

If you have an area drain or catch basin to collect surface water from a patio, sidewalk, or driveway, it is important to keep the slotted grate on the top of the drain clear of leaves and debris to allow water to enter. If you have a certain type of catch basin, you might notice water sitting in the bottom of it. This is normal. There is a "well" in the bottom of the drain to collect mud and debris. The debris settles to the bottom and the cleaner water flows off of the top and into the outlet pipe.

Regardless of whether your drain has a "well" in it or not, all area drains and catch basins should be cleaned *at least* once per year. This involves taking the grate off and removing all accumulated debris in the drain. Once the heavy debris is removed, use a garden hose to flush everything down and clean it. This is also a good time to inspect the drain for any cracks or damage, especially if the drain sees vehicular traffic.

If your grate is in a sidewalk or patio, we recommend not using the screws that are typically provided to hold the grate in place. Even though they are stainless steel, they normally rust to some degree and get filled with silt. This makes getting a screw driver into the slots extremely difficult. Leaving the screws out completely is fine. The weight of the grate will hold it in place.

French Drains

French drains are trenches in the earth with perforated pipe surrounded by gravel. Over time, the pipes and gravel at the bottom of the drain can become clogged with silt and debris as water flowing through the French drain carries silt and mud. The amount of water flow typically determines the life expectancy of the drain.

Some French drains have stones or gravel exposed at the surface to let surface water in. In these cases, the top few inches of gravel can become silted up and clogged much faster than the bottom of the French drain. The best solution is to remove and replace the top few inches of gravel if this happens or if you notice water pooling around the gravel. Call our office if you notice this happening, or if you require some assistance.

Drainage Swales

Drainage swales, mostly shallow or low-lying channels that are designed to redirect surface runoff water towards a more suitable location. Another key feature in the design of a drainage swale are its sloping sides. Depending on the designed function, drainage swales may run along the contour lines of a hillside, along property boundaries, or at the base of a natural grade.

Newly designed swales can have grass seed planted in and around it, along with a photodegradable polypropylene blanket (straw blanket), which helps to control erosion. In some cases, gravel or heavy limestone may be used in some swales. Newly installed swales may have small puddles of water in the center of the swale. This is common, as it will take some time for the grass to establish, helping minimize the ponding of water in the center of the swale. Lastly, it is important to not introduce anything to the swale that will impede the flow of water.