

# Basement Water by Finn Home Inspectors

Typically, 90% of basement water entry into homes is caused by improper yard drainage.

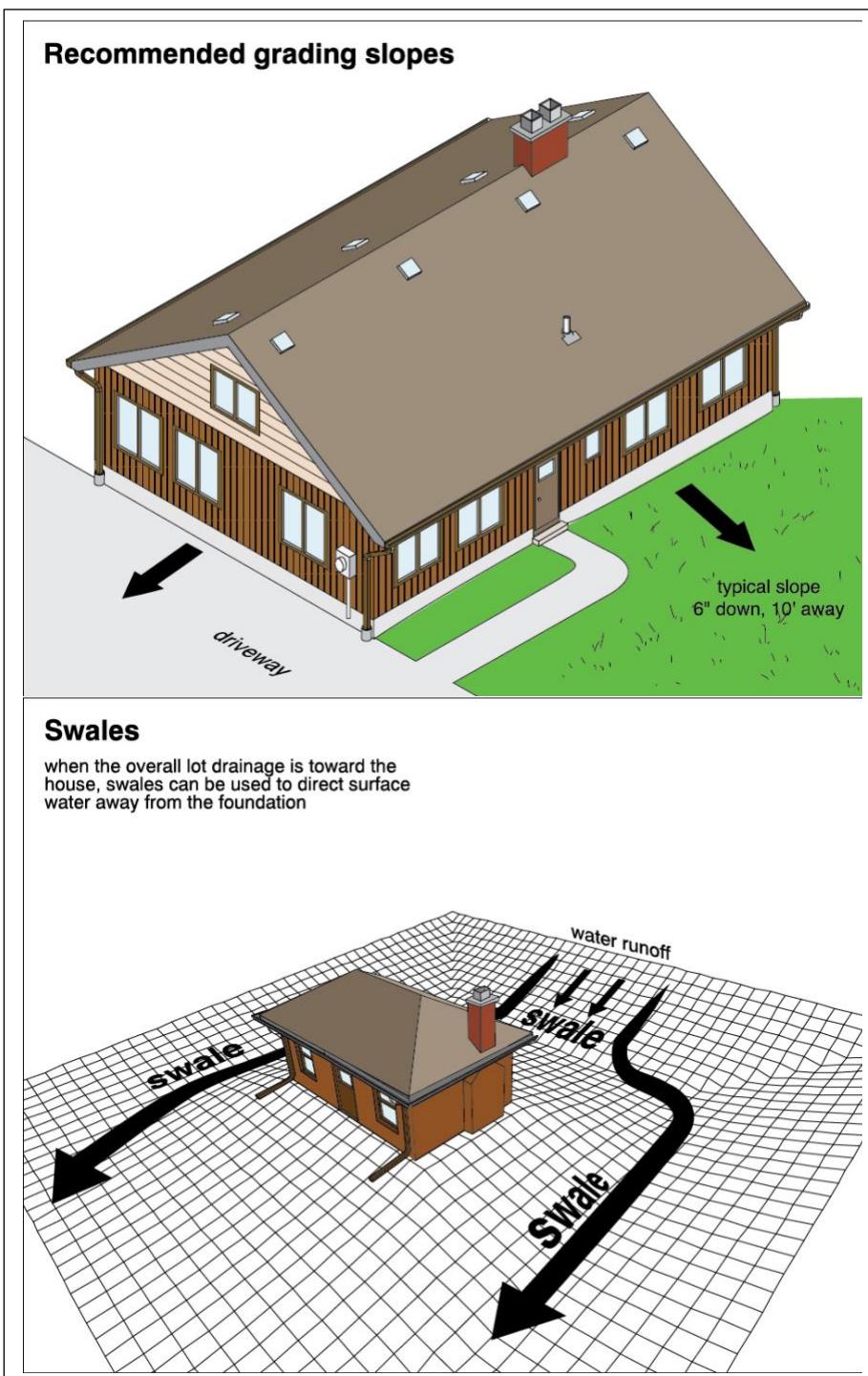
Correcting yard drainage usually can be accomplished by adding soil around the house. This soil needs to be dense enough to resist water seepage, such as a soil with a high clay content. Don't be fooled by mulch which is too light and is useless in shedding water away from a house. When adding soil, at least 6 inches of foundation needs to remain showing. In some situations, soil will need to be removed from around the house and the yard sloped to shed water at least 6 feet from and around the house. This gap will help avoid wood rot in the siding and wall. The exposed concrete allows much of the water in the concrete to evaporate before it comes in contact with the wood.

If there is a large area of the yard that sheds water toward the house, a swale is recommended. A swale is a trench that is contoured into the yard that you can mow over. The swale will divert the water around the house. See diagram below.

In the other 10%, basement water entry may be from subsurface water. In these cases, a Curtain/French drain or a Footing/Tile drain may be needed. See photos below.

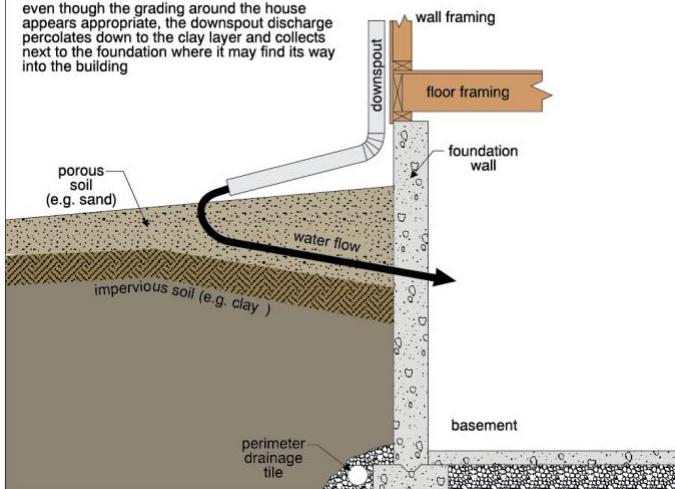
Rain gutters are needed over decks and landings to prevent water from splashing up on the house. The down spout discharges need to shed water well away from the house and not onto porous soil/mulch that can shed water back to the foundation.

Some of the diagrams below from Carson/Dunlop.

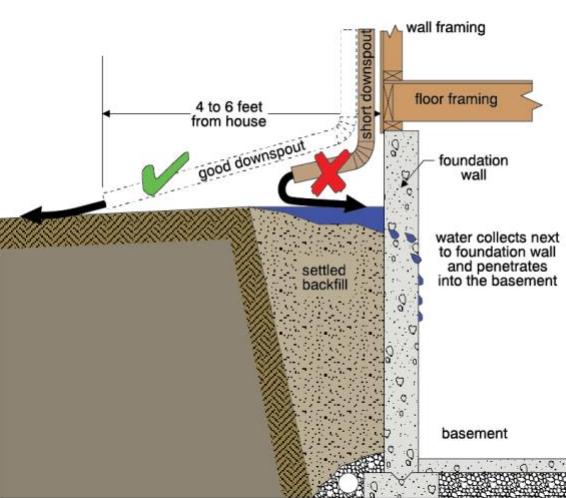


### Water penetration due to subgrade soil conditions

even though the grading around the house appears appropriate, the downspout discharge percolates down to the clay layer and collects next to the foundation where it may find its way into the building



### Downspout extension too short



The Tile/Footing drain is installed during initial construction of the home at the base of the foundation footing.

Curtain/French drains are 10 to 15 feet deep, a distance from the house foundation and generally wraps around the house to shed water away.