

YARD DRAINAGE DESIGN CONSIDERATIONS

One of the areas that sometimes gives homeowners problems is how to dispose of runoff water from their rear and side yard areas. Each yard is different and has unique issues that the homeowner must deal with, but the following are some general guidelines and standards that should be considered in the design of any surface or subsurface system that disposes of water.

- Hold the finish surface of any paving a minimum of three (3) inches below the finish floor or two (2) inches below the stucco drip screed line of the house.
- If you have an out-swinging door, then the paving that serves as a landing for this out-swinging door can be no more than one (1) inch below the finish floor.
- Hold the finish grade adjacent to the home a minimum of six (6) inches below the finish floor or four (4) inches below the stucco drip screed line.
- Slope all paved surfaces to drain at a minimum of 1% or with a minimum vertical fall or difference of 1/8 inch in 12 inches of horizontal run.
- Slope all dirt and/or planted areas to drain at a minimum of 2% or with a minimum vertical fall or difference of 1/4 inch in 12 inches of horizontal run.
- Slope all underground drain pipes to drain at a minimum of 1/2% or with a minimum vertical fall or difference of 1/16 inch in 12 inches of horizontal run. If at all possible, it is better to slope the pipe at 1% or even 2% as it will stay cleaner.
- Hold the finish grade adjacent to paved surfaces a minimum of one (1) inch below the surface elevation.
- Slope dirt and/or planted areas a minimum of 2% away from the residence for at least the first three (3) feet next to the house.
- Provide some form of access to the drain line (a cleanout, drain inlet, etc.) at least every fifty (50) horizontal feet.
- Make sure that walls, curbs or other vertical obstructions to drainage do not trap water against the residence or other areas. If this occurs, make sure to provide at least one (1) and preferably two (2) drain inlets to dispose of the water. The second inlet is in case the first one clogs.
- If at all possible, provide an overland route for water to get away from the house should the drain system clog or fail. You want to allow the water to get away from the house and out to the street or storm drain before it gets into your house and/or garage.
- Use domed grates in plant beds so that they are not as easily clogged with leaves and debris. Flat grates are okay in lawn areas and paved surfaces.
- If a raised planter must be located next to a property line wall, fence and/or the house, make sure to allow for an air gap of no less than 2 inches so that if the planter wall leaks, the water will not enter the house or soak into the property line wall and/or fence. Make sure to keep this area clear of any leaves and debris and keep both ends open so that any water in this area can escape.
- If it is at all possible, attach half of the back and side yard drains to one system and the other half to a second system so that if one system fails, the other will be able to assist and thereby minimize any damage or problems.
- Drain line connections and joints, other than the drain inlet grate, should be glued and sealed so as to prevent and/or minimize plant root intrusion.