



Maintaining Drainage Around Foundation

Most of the subsurface soils in the greater Houston area are either expansive or sandy soils, each with its own challenge for drainage. The proper drainage about the perimeter of the foundation is critical to the successful performance of a foundation. The finished grade must slope away from the foundation a minimum of six-inches in the first 10 feet. Where that is not possible, a minimum of a 5% slope away from the foundation shall be maintained within the first 10 feet. Impervious surfaces must slope a minimum of 2% away from the foundation. Water must not be allowed to stand at or near the edge of the foundation.

Owner maintenance is also important to a healthy foundation. Planting beds must not be built up or bermed such as to create a dam up against the foundation preventing water from draining. Although visually appealing, this can cause expansion of the surrounding soils putting additional stresses on the foundation. Gutter down spouts, if installed, must be directed away from the base of the foundation. Any changes in the landscaping must not hinder rapid storm water runoff. Maintaining reasonably constant moisture content in the soil will minimize the expansion or contraction of the soils.

If a catch basin occurs near the foundation, either naturally or by other causes, such as pet excavation, the basin should be filled with select fill type soil and compacted to repair the drainage slope. Bank sand or topsoil is too porous to prevent excess water penetration in the area where the catch basin was located.

Placing additional concrete against the foundation in areas for which the foundation was not designed will limit the natural absorption of water near the foundation. This will result in a change in moisture content of the underlying soils which may result in foundation movement.

Sincerely,

DPIS Engineering, LLC