

RESIDENTIAL GRADING AND DRAINAGE PLAN REQUIREMENTS

- 1) A drainage plan shall be required for new construction of any building or addition with an area of 400 square feet or greater and for any grading or landscaping that will change the elevations of a lot. The following items make up a checklist of information that will be required to constitute an adequate drainage plan. Six (6) copies of the drainage plan will be required, each certified, signed and sealed as noted above. Plans shall be submitted with the permit application to the District's Office.
- 2) The residential grading and drainage plan shall be prepared by a registered professional engineer licensed in the State of Texas. The engineer shall affix the certification (stamp) & signature of a registered engineer.
- 3) Existing elevations shall be provided to adequately portray drainage patterns on and adjacent to the parcel for which the drainage plan is submitted. Such existing elevations shall include, at a minimum, existing grades at lot corners, at grade breaks, adjacent top of curbs, ground elevations at on-site and adjacent structure foundations, and elevations at least 25 feet outside the parcel along the side and rear lot lines, ditch flow lines and culverts where applicable, and any storm runoff receiving structure within those limits. Proposed grades shall be shown at lot corners, grade breaks, swales, berms and around the foundation of new structures and anywhere around the structure that the grade changes. If you are preparing a drainage plan for a lot in a subdivision that has a master drainage plan then the grades from the master drainage plan shall be used to design your plan. Plans can be hand drawn or computer generated and must be drawn to scale, plan sheets shall be on an 8½" x 11" or 24" x 36" sheet. Show the scale on the drawing.
- 4) Property identification includes: Name of plat, lot number, address, or metes and bounds description. Lot line dimensions must be shown. Include area of lot.
- 5) Properly oriented North Arrow.
- 6) Show utility easements, type and dimension.
- 7) Indicate street names adjacent to proposed site with correct right of way width.
- 8) Show any Floodplain, Floodway and or wetland delineation information which may affect the site.
- 9) Provide the location, elevation, and datum of benchmarks to be used on the construction site.
- 10) Benchmarks shall match those provided in accordance with the master drainage plan when applicable.
- 11) Show locations of new buildings, existing buildings, driveways, sidewalks, existing utility lines and appurtenances.

- 12) Dimension the closest point of structure from all lot lines. Show the square footage of the footprint of building including home, garage and stoop.
- 13) Include the name & phone number of firm submitting the plans.
- 14) Legends are necessary. Proposed & existing grades shall be shown differently.
- 15) Drainage patterns should flow along lot lines whenever possible. Lot line grades should not be disturbed in an existing neighborhood without the written approval of adjacent lot owners.
- 16) Show proposed grades at home or structure and everywhere they change around the foundation.
- 17) Minimum slopes: on grass areas shall be 1.0% (1" per 100') on asphalt areas shall be 0.50% (6" per 100') on concrete areas shall be 0.40% (4 ¾" per 100')
- 18) If a culvert is necessary (such as a driveway) then the diameter, length & type is a type III RCP 12" in diameter. Show proposed flow line grades at both ends. Also show existing & proposed flow lines grades in ditches.
- 19) Sump pump water shall discharge not closer than 8 feet to any lot line. A sump pump installed in conjunction with the construction of a residential building shall discharge to the municipal storm sewer via an approved connection. This requirement shall apply where a storm sewer lateral is available for the construction of new single-family & two-family residences.
- 20) Erosion control measures shall be detailed on the drainage plan. Erosion control shall be maintained through construction until landscaping is completed. Erosion control design and installation standards can found on the TCEQ website. All erosion control measures shall follow the TCEQ standards.
- 21) Contractors, excavators & landscapers shall ALWAYS work with stamped approved drainage plan. A copy of the approved drainage plan shall be on site whenever grading work is being performed.