

City of Knoxville, Tennessee Stormwater Engineering Division www.knoxvilletn.gov/engineering/ Land Development Manual July 2013

### Chapter 6

#### SMALL SINGLE FAMILY RESIDENTIAL DEVELOPMENT

#### 6.1 Overview of SSFR

Small Single Family Residential (SSFR) development is defined as the development of a single recorded residential lot (single-family house or duplex unit) with less than 10,000 square feet of disturbed area. The entire property is assumed to be disturbed until a site plan is submitted to indicate differently. The site plan must be submitted on a topographic map with 2-foot contours (such as the computer-generated maps available from the Technical Services Counter, Chapter 3), but the topographic requirements are not as rigorous as other types of site development.

The site plan is not required to be stamped by a design professional, unless additional information is specifically required due to unusual circumstances, such as complicated stormwater drainage structures or retaining walls over 4' high. A formal erosion and sediment control plan is not needed, although adequate erosion control measures must be used to ensure that no sediment leaves the property. A stormwater detention basin is not required unless there are known drainage problems in the immediate downstream vicinity and it is determined by the Stormwater Engineering Division that a detention basin is the only feasible solution. The presence of a sinkhole or drainage problems may require a drainage study by a professional engineer. In general, residential development does not require a construction bond. However, a construction bond may be required for steep sites with known erosion or drainage problems.

In many cases, the property owner or developer does not want to perform any site grading, utility work, clearing of vegetation, driveway work, or other improvements prior to starting the actual house construction. If this is the case, then a Site Development Permit can be obtained as part of the process of getting a Building Permit from the Inspections Bureau (Suite 505, City County Building). The Inspections Bureau can serve as a "one-stop shop" for the various permits and inspections for Small Single Family Residential projects.

# **6.2** Plan Submittal Requirements

A typical SSFR site development plan, without unusual grading or drainage problems, will consist of the following steps:

1. Obtain a topographic map at a suitable scale from the Technical Services Counter (4<sup>th</sup> floor City County Building) or from the Engineering Department directly. Carefully draw the location footprint of any proposed structures (house, garage, shed, driveway). Indicate areas where existing trees and vegetation will be cleared. Show areas where utilities will be located, and whether excavation is necessary to construct a basement. Indicate locations on the site where the ground elevation will change (as either cut or fill). This map will serve as the site plan.

- 2. Fill out the top half of the Site Development Permit Application (<u>Form A</u>). The bottom half of the form is for larger projects; most of these items do not necessarily apply to SSFR development. The principal exception is for floodplains and stream buffer zones, which will be determined by the city plans reviewer based on FEMA maps and profiles during review.
- 3. Submit topographic map and the permit application to the 4<sup>th</sup> floor of the City County Building. In most cases, the city plans reviewer will check the permit application as you wait. Erosion control measures (silt fence, construction entrance, straw bale) will be added to the topographic map if warranted. The city plans reviewer will conduct a quick check for nearby drainage problems, sinkholes, floodplains and stream buffer zones. A site development permit fee of \$10 will be charged for SSFR development.
- 4. If the property is located within or next to a floodplain, then the applicant must obtain a Floodplain Development Permit (<u>Form H</u>). This permit is free, and merely gives information about the required minimum floor elevations. The applicant is required to obtain a Flood Elevation Certificate (<u>Form N</u>), with surveyed floor elevations, soon after the structure has been built.
- 5. If any construction occurs within the public right-of-way, then another permit is also needed. A Construction Right-Of-Way Permit (<u>Form I</u>) can be obtained from the Inspections Bureau (5<sup>th</sup> floor City County Building). The applicant will specify the type of driveway, sidewalk, and utilities involved during construction. A fee will be computed based on any disturbance to public property within the right-of-way.

## **6.3** Typical Concerns

The following items are the most frequently observed problems with SSFR site plans.

- A. Fixed structures may not be constructed within public right-of-way, since these structures may pose a hazard to the driving public. This includes: retaining walls, fences, signs, sign posts, playground equipment, etc.
- B. Brick or masonry mailboxes may not be placed within public right-of-way. Only wooden 4"x4" posts or other "breakaway" designs may be used for mailboxes located within public right-of-way. Brick mailboxes are a safety hazard if located within 10 feet of the street pavement.
- C. The City of Knoxville requires that driveway aprons and driveway connections must be paved within the public right-of-way line. Gravel driveways that "wash out" into the street are unacceptable.
- D. Stormwater drainage channels (such as ditches, swales or ravines) should be stabilized using grass sod or check dams as soon as possible. Filter all stormwater that leaves the project site using silt fence or straw bales.
- E. The City of Knoxville does not allow open burning, unless a special exemption has been obtained in advance from the Knoxville Fire Department. Therefore, trees and vegetation can either be taken to a waste transfer station or landfill, or can be chipped on site to use as mulch.