S T A T E O F T E N N E S S E E
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Opinion No. 04-018

Subdivision Regulations

QUESTIONS

1. Under Tenn. Code Ann. § 62-18-102(3), the term "practice of land surveying" includes "the platting and layout of lands and subdivisions thereof, including the topography, drainage, alignment and grades of streets . . .."

a. Within the definition, what does the term "drainage" mean?

b. Does the statute allow land surveyors to conduct and perform drainage design and calculations required for the construction of subdivisions, including determining the detention and retention of storm water as well as determining the size of ponds, basins, pipes and culverts which will hold and through which storm water will flow?

2. a. Does a county or municipality such as the Town of Arlington have the right to impose regulations on the zoning, subdivision and development of land within its boundaries that are additional to and more stringent than those imposed by the State?

b. If the answer to question 2.a. is yes, may a city impose regulations that require a licensed engineer to perform any drainage design and calculations required for a subdivision or a site plan even if it is determined that licensed surveyors may perform drainage design and calculations in the performance of their profession?

OPINIONS

1. a. As used in the statute, we think this term refers to the components of a land drainage system, including storm and wastewater drainage.

b. A licensed land surveyor who is not a registered engineer may not conduct and perform drainage design and calculations required for the construction of subdivisions, including determining the detention and retention of storm water as well as determining the size of ponds, basins, pipes and culverts which will hold and through which storm water will flow.

2. In this case, the subdivision regulation does not appear to conflict with state law governing the practice of land surveying and engineering. Even if a minor conflict exists, we think

where, as here, there is some ambiguity, a city, in the exercise of its land planning authority, is not bound by the minimum standards governing the practice of land surveying and engineering. In this instance, therefore, we think a city may require an engineer to perform functions that, arguably, may be performed by a land surveyor. In any case, we think a court would conclude that city subdivision regulations may require that any subdivision plan that includes drainage design and calculation must be prepared by a registered engineer.

ANALYSIS

1. Scope of Practice of Land Surveying

This opinion concerns a subdivision regulation in effect in the Town of Arlington. Arlington is a city in Shelby County organized under the mayor-aldermanic charter, Tenn. Code Ann. §§ 6-1-101, *et seq.* Zoning and subdivision regulations are in effect in the city. This Office has not reviewed these regulations. The request indicates that these regulations provide for certain steps to be taken and documents produced in the subdivision and development of land within the city boundaries. Some of these documents, such as plats and plans, must be produced and sealed by a licensed land surveyor, and others by a licensed engineer. Under the subdivision regulations, drainage design and calculations must be performed by a licensed engineer and not a licensed surveyor. We assume that the regulation refers to a drainage system adequate to meet the needs of proposed property development. The request raises several questions about the scope and legality of this requirement.

Under Tenn. Code Ann. §§ 13-4-101, *et seq.*, the chief legislative body of a city may establish a municipal planning commission. The municipal planning commission may adopt a plan for the development of the city. Tenn. Code Ann. § 13-4-201. The municipal planning commission must then adopt regulations governing the subdivision of land within the municipality. Tenn. Code Ann. § 13-4-303(a). These regulations may include:

> requirements of the extent to which and the manner in which streets shall be graded and improved, and water, sewer *and other utility mains, piping, connections or other facilities shall be installed* as a condition precedent to the approval of the plat.

Tenn. Code Ann. § 13-4-303(b) (emphasis added). No subdivision plat for city land may be recorded by the county register until it has been submitted to and approved by the municipal planning commission. Tenn. Code Ann. § 13-4-302(c)(1).

The profession of land surveying is governed under Tenn. Code Ann. §§ 62-18-101, *et seq.* Under Tenn. Code Ann. § 62-18-101(b), it is unlawful for any person to practice land surveying in Tennessee unless the person has been duly registered or is exempted from registration under the statute. The statutory scheme defines the "practice of land surveying" as follows:

> "Practice of land surveying" means any service of work, the adequate performance of which involves the application of special knowledge of the principles of mathematics, the related physical and applied sciences, and the relevant requirements of law for adequate evidence to the act of measuring and locating lines, angles, elevations, natural and man-made features in the air, on the surface of the earth, within underground workings, and on the beds of bodies of water for the purpose of determining areas and volumes, for the monumenting of property boundaries, and for the platting and layout of lands and subdivisions thereof, including the topography, *drainage*, alignment and grades of streets, and for the preparation and perpetuation of maps, records, plats, field notes, records and property descriptions that represent these surveys[.]

Tenn. Code Ann. § 62-18-102(3) (emphasis added).

As further discussed below, there is some overlap between the functions of a licensed engineer and those of a licensed land surveyor. This Office has concluded that a registered engineer who wishes to practice land surveying as defined by the statute must register as a land surveyor and place the "registered land surveyor" seal on all plats. Op. Tenn. Atty. Gen. 82-453 (October 5, 1982). The statutes upon which this opinion was based have not been materially altered since that time. The first question is the meaning of the term "drainage" as used in this statute. We think this term refers to the components of a land drainage system, including storm and wastewater drainage. The real question, however, is whether a licensed land surveyor who is not a licensed engineer is authorized to conduct and perform drainage *design* and calculations *required for the construction* of subdivisions, including determining the detention and retention of storm water as well as determining the size of ponds, basins, pipes and culverts which will hold and through which storm water will flow.

The profession of engineering is governed by applicable provisions of Tenn. Code Ann. §§ 62-2-201, *et seq.* That statutory scheme, however, does not define the practice of engineering, nor do regulations promulgated by the Board of Examiners for Architects and Engineers, which regulates the profession. In 1980, this Office addressed the overlap between the functions of land surveyor and engineer. Op. Tenn. Atty. Gen. 80-537 (November 10, 1980). That opinion addressed whether, under Tenn. Code Ann. § 62-2-107(a) (then codified at Tenn. Code Ann. § 62-236), state and local governments could accept subdivision plats prepared by a land surveyor who was not a registered engineer. That statute provides in relevant part:

> (a) Neither the state, nor any county, city, town or village, or other political subdivision of the state, shall engage in the construction or maintenance of any public work involving architecture, engineering or landscape architecture for which the plans, specifications and

> estimates have not been made by a registered architect, registered engineer or registered landscape architect.
>
> (b) Nothing in this section shall be held to apply to such public work wherein the contemplated expenditure for the complete project does not exceed twenty-five thousand dollars ($25,000), and such work does not alter the structural, mechanical or electrical system of the project.

Tenn. Code Ann. § 62-2-107. This language is substantially the same as that considered in our 1980 opinion.

This statute would not necessarily apply to a proposed subdivision that contemplates a drainage system to be built and paid for by a developer. But, in interpreting this requirement, the Office addressed the distinction between the services of a land surveyor and those of a registered engineer. The Office concluded that, under Tenn. Code Ann. § 62-2-107 as then codified, state and local governments could accept subdivision plats prepared by a registered land surveyor, so long as the plats did not involve matters of design within the special competency of engineers. The opinion also noted that "[t]he installation of sewers almost of necessity would involve matters of design requiring the services of an engineer. If the platting and layout of a subdivision are involved, that engineer must also be licensed as a land surveyor." The opinion stated that the statute governing public works "should be read to require an engineer's services for public works involving engineering *in its special and peculiar domain, that is, the study and design of projects involving more than the mere location of lines and angles."* (Emphasis added). The opinion, therefore, distinguished between services that fell within the definition of the "practice of land surveying" under Tenn. Code Ann. § 62-18-102, and design services uniquely within the domain of engineering that *must* be performed by a registered engineer under Tenn. Code Ann. § 62-2-107.

The statutes upon which this conclusion was based have not been materially amended since 1980. In addition, a policy issued by the Board of Examiners for Architects and Engineers supports the same distinction. In 1997, the Board adopted a revised policy entitled "Delineation of Engineering and Surveying." The first paragraph states:

> In rural areas regarding subdivision development of property, an issue has arisen between surveyors and engineers wherein the surveyors feel they should take responsibility for engineering design because engineering expertise is not available and the importance of such engineering expertise is questionable. Engineers do not subscribe to this extension of the responsibilities of surveyors into their practice.

The policy contains four paragraphs delineating engineering and surveying under Tennessee law. Paragraphs 3 and 4 provide:

> 3. Culverts, storm drainage pipes, water lines, sewer lines, electric power lines or other utilities *not existing prior to development* shall not be shown on a subdivision drawing *unless that drawing bears the seal of the engineer who designed them.* Culverts under roads, having open ends, leading from one road ditch to the other, which are prefabricated manufactured pipes, may be shown on a subdivision drawing sealed by either a surveyor or an engineer.
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> 4. Drainage *design* for special consideration, such as storm water retention or flood control, *must be performed by an engineer,* and the engineer's seal must be applied to the drawing.

(Emphasis added). Thus, under the Board's interpretation, any subdivision plan that contains new drainage facilities or requires drainage design for special consideration must bear the seal of a licensed engineer. Further, a licensed land surveyor who is not a registered engineer may not conduct and perform drainage design and calculations required for the construction of subdivisions, including determining the detention and retention of storm water as well as determining the size of ponds, basins, pipes and culverts which will hold and through which storm water will flow.

2. Legality of Subdivision Regulations

The next question is whether a city may adopt regulations on the zoning, subdivision and development of land within its boundaries that are additional to and more stringent than those imposed by the State. As discussed above, subdivision regulations are typically adopted locally and not at the state level. We assume your question refers to the requirement that a licensed engineer rather than a land surveyor perform drainage design and calculation functions with regard to a subdivision plan. As described, the regulation does not appear to be inconsistent with state law governing the respective functions of land surveyors and engineers. The Board's policy delineating those functions does indicate that a land surveyor may include a culvert within a subdivision plan. It is not clear, however, whether, under either the Board policy or the city subdivision regulation, including a culvert in a subdivision plan is part of drainage design or drainage design and calculation. That question should be addressed to the Board. As described, however, the regulation appears to be consistent with the Board's interpretation of the relevant state statute.

Even if the city regulation is somewhat more stringent than the standards governing the profession, we think that in this instance a court would not find it invalid. As the discussion above indicates, there is some uncertainty about the precise scope of functions that are simply land surveying and those that include designing and must, therefore, be performed by an engineer. We think where, as here, there is some ambiguity, a city, in the exercise of its land planning authority, is not bound by the minimum standards governing the practice of land surveying and engineering. In this instance, therefore, we think a city may require an engineer to perform functions that, arguably, may be performed by a land surveyor. In any case, we think a court would conclude that

city subdivision regulations may require that any subdivision plan that includes drainage design and calculation must be prepared by a registered engineer.

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