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# SIDE SHOTS

Professional Land Surveyors of Colorado

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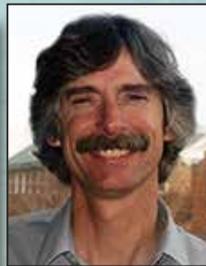
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# Grading and Drainage Certifications

By Earl Henderson, PLS

How many PLS's reading this right now, and you know who you are, and I have heard through the fence-line there are many of you, are stamping and signing Grading and/or Drainage Certifications that read something like: "I certify the lot grading has been constructed in *substantial accordance with the approved drainage plan...*" or "*The Grading and Drainage Design for the lot shown hereon accurately reflects the design intent of the approved area Grading Plan...*"? (emphasis added) That's scary stuff. If you're stamping and signing these certifications you are taking a big risk, in my humble opinion, and here's why. This reads to me as the practice of engineering. So you're putting your license at risk. Plus your insurance probably doesn't cover you for anything outside the practice of land surveying. Read that second one again. It starts out by saying the plan you have just stamped and signed is a "Design". Common sense says that is not land surveying but engineering. Both of the statements quoted above mention that the plan you show topography on is either "in substantial accordance with" or "accurately reflects" the design intent or plan. Again, common sense tells me that if I am not qualified

to create such a design intent or plan then how could I possibly be qualified to determine if the finished grading matches those qualifications? But so far only common sense has been called in for use here and we all know that common sense isn't all that common, right? So let's break it down legally.

I'm not going to fully quote all the statutes and rules that I reference. They can all be read on the DORA website. But I will describe their intent as I view them. From the Land Surveying statutes consider 12-25-202(6)(a)(III) which is the part of the definition of "Professional Land Surveying" that includes "Determination of...elevations of land parcels" within our purview as licensed professionals. So the showing of topography on a Grading or Drainage Certificate for a particular day is the practice of land surveying. But the statute does not include the analysis of the topography as it relates to the intent of an engineered plan. Furthermore, Rule 6.2.3 requires that we use our own judgment when determining the extents of the topographic survey to be used on a Grading and Drainage Certificate. Rule 6.2.3 still doesn't allow us

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to perform any analysis as it relates to the engineering plans, but it requires that we not allow ourselves to be limited by someone else telling us “Don’t include that settlement pond and 15’ deep irrigation ditch.” or “Pay no attention to the man behind the curtain.” We are required to use our own judgment without allowing others to influence us in this way.

Now, to borrow from Gene Roddenberry, I’m going to go where no PLS has gone before. I’m going to review a couple of statutes that apply to engineers, so brace for impact. 12-25-102(4) defines “Engineering” in part as “analysis” and 12-25-102(10)(a) defines “Practice of Engineering” in part “...to evaluate compliance with plans and specifications...”. So it seems quite clear, even if the subject isn’t directly addressed in the surveying statutes, that it is in the engineering statutes and that analysis of topography as it relates to the intent of a design or plan is expressly included in the definitions of engineering. The AES Board further defined the situation in Rule 5.2.3 Grading and Drainage Certificates, when it stated that “Professional engineers who provide grading and drainage certifications are responsible for reviewing *the data provided to them by land surveyors* (emphasis added) and personally visiting the area to be certified.” And again in Rule 5.3(a) wherein the AES Board has directly addressed Construction Observation to be “...to monitor general compliance with the plans, specifications, and *the intent of the design.*” (emphasis added yet again)

How much more clear can it be? Signing a certification statement similar to, or exactly like those quoted at the beginning of this article is the practice of engineering and not land surveying. But we still have a problem. We have a client that needs a certification done and a municipality that is insisting that the certification be stamped and signed by a Professional Land Surveyor. What can we do about that? Well, I’m not here just to complain. I’m also here to help with a solution.

First it’s important to remember that you cannot be forced to stamp and sign anything. I know what kind of pressure is exerted on us not only by the client and municipality but by ourselves too. I want my clients to be happy with my services and I’m sure you all do too. It’s hard to say no. But signing a statement like that above is taking the very real risk of endangering your license. Those statements include the practice of engineering and 12-25-208(1)(g) forbids us from “Performing services beyond one’s competency, training, or education.” and unless you are also a PE then engineering is obviously beyond your training. But let’s not forget 12-25-202(6)(a) (III) which, as stated above, includes the determination of elevations as part of land surveying and Rule 5.2.3 for engineers which stated that they were “...responsible for reviewing the data provided to them by land surveyors...”? Just as the analysis of the data is the practice of engineering, the collection and demonstration of that data is the practice of land surveying. So we’re left with

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a quandary. The PE can't measure the elevations since that is outside their area of practice while the PLS can't analyze the elevations relative to the design since that is outside their area of practice.

Rule 6.1.5 gives us the opportunity to provide all the services we can in this situation without endangering our licenses. "Rule 6.1.5 Limiting Scope of Responsibility. To limit a professional land surveyor's scope of responsibility on a document, the licensee shall include a written statement or *certification* (emphasis added) that defines the surveying services performed under his or her responsible charge. All aspects of the professional land surveyor's work shown on that document shall be sealed, signed, and dated by the licensee in responsible charge." So as a PLS we shouldn't be stamping and signing the certifications as written at the beginning of this article, but we can write our own certification statement outlining what we are able to attest to as shown on the grading and drainage certificate and then pass that on to a PE who can write their own certification statement (Rule 5.1.5 for PE's) and stamp and sign the same grading and drainage certificate. Between the two, all the attestations that the municipality wants in

their certification statement can be covered and hopefully they'll be happy. If not, I still strongly suggest that you not succumb to the pressure by signing statements as a PLS similar to those quoted above. You will be endangering your license to practice land surveying.

One of the goals for us in this situation should be to educate all the municipalities and departments that are insisting on certifications such as those above. They don't know the statutes and rules we are governed by. They just want a stamped and signed certification. They need to be told that they are requesting either the PE or the PLS to attest to conditions beyond their licensing restrictions. Hopefully, just a short explanation of why you can't sign such a statement will be enough to let them know that what they're asking is inappropriate. Make copies of this article and hand them out. Point them to the DORA AES Board for additional explanation. It will take time. But if we all work together and provide a common front then they will learn and it will change. It has to if we just plain refuse to sign their certifications. We can all back up each other.

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