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SIDE SHOTS

Professional Land Surveyors of Colorado

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What Direction Are You Going?

By Earl F. Henderson, PLS

We all may have noticed that there exist between Architecture and Engineering (A&E) many differences with Land Surveying, but I'd like to focus on one fundamental difference that keeps coming to mind.

First, consider A&E wherein a professional comes up with a conceptual design and applies that to paper through a complicated methodology to create a set of plans. Those plans are then used to construct a site or structure in reality, or on the ground. If a problem or issue arises during or after the creation of the reality, the plans are consulted to verify what was proposed and compare that to the reality. If there's a difference, the proposed plans are looked on as the definitive design and the reality is adjusted to match the proposed plans.

Performing an original land survey works fundamentally the same as the first half of the A&E process. We take a design, be it a subdivision plat or the BLM manual, which is itself just a complicated set of instructions for a subdivision design, and apply that design to the ground, stake out the property corners, and set monumentation in the proposed locations. At that precise moment, when the original monuments have just been set, the fundamental process of land surveying changes

to the opposite direction. At that moment land surveying becomes an historical and legal profession, not a technical one, and we become Retracement Land Surveyors. I see many land surveyors applying original survey mentality incorrectly when they are performing Retracement Land Surveying. It is very unusual in the private sector to perform original surveys anymore unless you're contracted by the Federal Government who owns almost all of the un-surveyed land, or you're creating a subdivision of some kind. But a subdivision requires that first you perform a Retracement Land Survey of the perimeter of the property. It is important to understand that once the original survey is completed the laws that govern Retracement Land Surveying require us to proceed in the opposite direction.

Retracement Land Surveying is fundamentally different from A&E and original surveys in that our plat is a depiction of the reality. In other words, the flow of information is in the opposite direction, from ground to plat. We measure the ground, the evidence and existing conditions first and what we find dictates our decisions, what appears on our plats, and where we place monumentation. The prior survey plats (even the original) and the deeds are guides during this process to be used to direct us to the locations of the original corners,

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but they do NOT govern or dictate where the corners are located. The original corners were defined by the original survey on the ground and will never change. And the courts have determined, many times over and over again, that the original corners were NOT defined by the original plat or deed but by the original survey on the ground. It is our duty to find those locations and monument them as best as we can. Our plat is then governed by the ground, not the other way around. I am reminded of a Zen quote, "The map is not the territory." which in this case can be stripped of its spiritual and existential deeper meanings and applied here in a more earthly fashion. In Retracement Land Surveying we are legally required to survey property NOT descriptions and then show the differences on our plat.

One way that that has been communicated throughout our profession for centuries is the often heard phrase "Follow in the footsteps of the original surveyor". Notice that the phrase uses the term "original surveyor" not "original subdivision plat" or "original deed". Subdivision plats and deeds are pieces of paper that aren't capable of leaving footsteps. The original surveyor, and the clients of that surveyor, did leave footsteps in the form of evidence. It is our duty to evaluate all the evidence we can find and determine where the original corners were placed to the best of our ability, NOT to use mathematics to calculate a theoretical location, nor to proportion a location when contrary evidence exists. Every survey text book states this in one form or another

including the BLM Manual. I have, in my copy of the 2009 BLM Manual, at least 8-10 places highlighted that state the preference for using the evidence of the original survey over proportionate measurements. This applies even if the original survey was in error. The original surveyor may not have even been a licensed professional. It is possible and legal that the original surveyor was the farmer, who paced off a piece of land that his attorney described in a deed as the NW1/4 NW1/4 of Section 21 which the farmer then sold off to his cousin's nephew. It may be their footsteps we are trying to retrace so the measurements are sure to be rough.

So be very aware of the difference between original surveys and retracement surveys as you perform your work. Know which one applies to your current project and know the laws that guide your processes. And if you're performing a Retracement Land Survey and you find yourself taking a plat or deed description and applying that to the ground and then claiming that is the location of the property, you're going in the wrong direction and a head-on collision may be imminent.



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