

PROFESSIONAL SURVEYOR

Gigglebytes: Mr. Fix It (a work of fiction)

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I knew I was going to have a handful of a survey when I landed this particular project. When I was informed that I'd won the job I felt lucky that I'd included a substantial budget. What I was asked to retrace was the NE quarter of the NE quarter of Section 1, Township 1 North, Range 69 West of the 6th Principal Meridian. When I was first asked to quote the price I didn't realize how extensive the work would be. But on closer examination and, luckily prior to providing my quote, I realized a fundamental issue about this particular piece of property. It involves the corner of four townships.



My preliminary research showed that a state highway runs east to west along the township line. ROW plans might shed some light on the situation. Several land survey plats (LSPs) had also been done on the surrounding properties. So I wagged a price at it (Wild Assed Guess) and got lucky when the client called with the notice to proceed.

The original BLM survey was done in two stages, first in 1877 and continued in 1894. They had also completed a dependent resurvey in 1953 for some reason. The surrounding LSPs I found referenced some pretty old surveys from the 1920s, copies of which I couldn't seem to find. But the more recent LSPs referenced the 1920s LSPs as having mentioned finding bearing trees and resetting the township corner from them. Can you believe that?

I located the quarter corner monuments in all four directions without any difficulty at all. They all had monument records on them and were found easy enough. When I did the double proportionate measurement per the directions in the BLM manual (and I must admit here that I'm pretty proud of my proportioning skills), the location fell 33' south of the one shown on the LSPs. Of course, when I then checked farther south along the east line of Section 1 to the SE corner I found that the quarter corner for Section 1 was totally out of agreement with my NE corner location, so I felt obligated to reset that to its correct mathematical location, once again proportioning in the location. The quarter corner wasn't really a part of this survey, but what the heck, I like to go the extra mile.



I figured I'd better do some additional checking to the south, so I started finding and locating monuments along the east line of the township. You might be pretty surprised to hear the details of what I found. Suffice it to say that I ended up resetting all the section corner monuments and quarter corner monuments all the way down to the baseline. I don't think any of those surveyors know how to measure! And I feel sad for all the poor property owners who are now going to have to move all those fences because of them.

I probably should have stopped there, but, like I said, I try to be thorough in my work. So, once I got to the baseline I thought I'd just check the monuments to the east and west of where I had calculated my position. You'll never guess how far off they were. I reasoned that my responsibilities for this survey ended at this range line, so I disregarded everything to the west and began locating monuments east of my position with the hope I would find one somewhere set by a real surveyor that I could agree with.

I'm writing this from the passenger seat of the work truck as the instrument operator drives us through Kansas. We're heading for the initial point of the 6th PM. After finding every monument along the baseline within 12 miles of my range line significantly off from my calculated positions, I thought it best to forgo re-measuring the entire baseline until I check the initial point. If that's correct, then I can re-calculate the baseline with GPS and fix the monuments as needed on the way back to Colorado. If the initial point is off, then I figure we'll keep on driving to the Pennsylvania-Ohio line and see what we find. I've heard the seven ranges in Ohio are a pretty tough area to survey in, but if the origin of the PLSS is off, I guess someone has to fix all this.

So much for the budget on this one.

About the Author



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Earl is owner of Zenith Land Surveying, Inc. in Boulder, Colorado. He has been surveying in various states since