

The Mystery of Surveying

[PART 2]

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It has been said that lovers of sausage and those who respect the law, should watch neither being made.¹ Much the same could be said of surveying.

Because surveyors use precise instruments, mathematics, and generate answers to many decimal places, it is widely believed that a survey is accurate. While the act of measurement itself can be relatively accurate, what to measure is a different story altogether and can require the very subjective weighting of often conflicting evidence. But even the science of measurement is uncertain, for no quantity can be measured to its absolute true value and each measurement has some doubt associated with it.

Excluding blunders, there are two types of errors associated with surveying measurements: systematic and random. Systematic errors are those associated with the measuring devices themselves. In the case of a tape, they include temperature, amount of tension and inherent defects in the length of the tape. Each of these affects the tape and the length of a measured distance, but systematic errors can be minimized by calibration and adjustment.

There are also random errors. Any group of measurements will vary from the true value particularly when obtained by different individuals using different equipment. Systematic errors can be reduced statistically but every measurement is subject to some uncertainty and there is no perfect measurement.

While surveying is widely thought to be accurate, actually, it's precise.

Accuracy in surveying is the nearness to the true value, but precision is the nearness of the readings to one another, which may or may not be accurate. Figure 1 illustrates the difference between precision and accuracy.

THE IRON LAW OF TITLE

Some years ago, Donald Trump became engaged to Marla Maples and he purchased a beautiful diamond ring for her from the jeweler, Harry Winston. The engagement was broken, Donald hadn't paid for the ring and so the question was: who owns the ring: Donald, Marla or Harry? (When I pose this question in a live class, the women inevitably say that Marla owns the ring.) In fact, Harry owns it, and this illustrates the iron law of title; you cannot pass better title than you have. Because Donald never paid for the ring, he never acquired title to it and therefore could not pass title to Marla.²

In the case of property, the iron law is best illustrated this way. (see Figure 2 next page)

Suppose a deed to a property indicated it was 200 feet wide and suppose the owner sold the easternmost 100 feet to A and then sometime later conveyed the westernmost 100 feet to B. If, after a survey, the property actually measured to be only 198 feet wide, how much does each party own? The answer is A owns the easternmost 100 feet (this is called a senior right) but B owns only 98 feet because at the time of the conveyance the grantor only had 98 feet left and could not convey any more than he owned. This is despite the fact that B's deed says he owns 100 feet!

It is also widely assumed that a deed is conclusive proof of ownership. But a deed is only *evidence* of ownership. A deed could include a description purporting to convey more than the grantor owned, or the grantor's signature could be invalid, he could be insane, or incompetent, or the ex-spouse could have acquired the property in a divorce among many other issues.

The system of recording deeds in Maryland as well as in most states is simply a means for publically documenting land

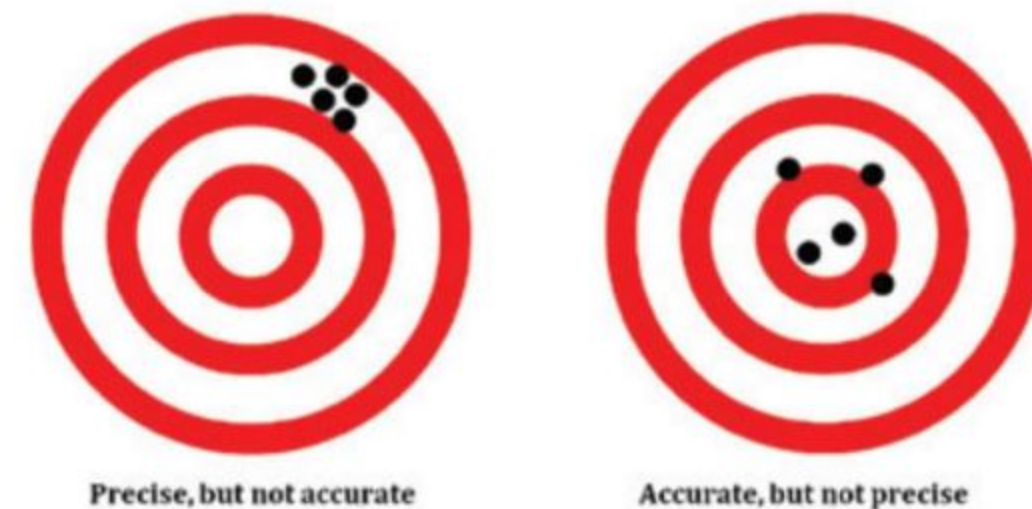


Figure 1

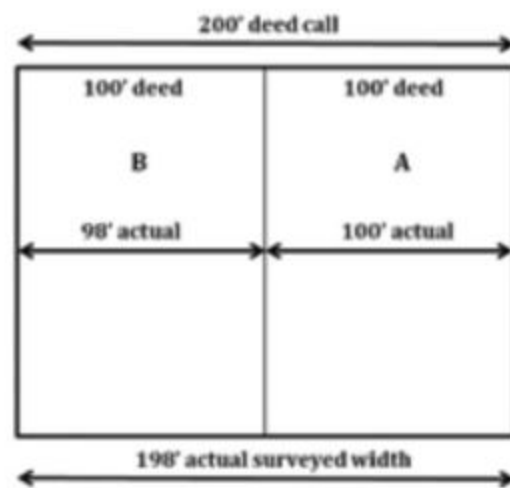


Figure 2

titles and interests and does not, in fact, determine who owns a property.

PRIORITY OF DEEDS

Suppose I sold you a piece of property in the morning and then sold the exact same property to somebody else in the afternoon. Can I do that and who then owns the property? Well, anyone who sold the same property twice would probably go to jail, but no one actually stands guard at the courthouse recording desk to prevent recordation of fraudulent deeds or bad descriptions. Maryland follows the so called *Race-Notice* principle. A subsequent purchaser for value owns the property if (1) at the time of conveyance the subsequent purchaser had no actual or constructive notice of the prior conveyance and (2) the subsequent purchaser records first. This is why it's important to record deeds. If someone buys the same property for value without actual or constructive notice (and recording a deed is constructive notice) of your prior purchase and records the deed before you do—that person owns the property.

HIERARCHY OF EVIDENCE

In determining boundaries, there are inevitably many conflicts that must be resolved by the surveyor. There is a hierarchy of rules that have been established by the courts for weighing conflicting evidence. These are:

1. *Unwritten rights*
2. *Senior rights*
3. *Written rights*
 - a) monuments
 - 1) natural
 - 2) artificial
 - b) adjoining
 - c) direction and distance
 - d) area
 - e) coordinates

1. *Unwritten rights*

As odd as it may seem, unwritten rights that grow into a fee, extinguish all written rights and therefore are of the highest priority. This is despite the Statute of Frauds³, which requires that all property conveyances be in writing. The unwritten rights include:

- a) Adverse possession. Adverse possession is where one person acquires title to another's property, which can be without compensation or permission by holding the property under certain conditions for a statutory period. For there to be adverse possession, the possession must be actual, open, notorious, hostile (this does not mean waving a shotgun around rather it means treating the property as your own and not allowing others to use it except by permission) and for the statutory period, which is 20 years in Maryland. Adverse possession is often asserted and not infrequently encountered in homebuilding. A typical situation is where A puts up a fence several feet *inside* his own property line, B cuts the grass outside of his property up to the fence and then after many years, asserts adverse possession. Such a claim would likely fail as it does not meet all the required elements. Adverse possession claims are strictly construed and are usually very difficult to prove.
- b) Acts of nature such as accretions or erosions. Sometimes, deeds call to the centerline of streams. Stream channels, of course, can move. If the stream channel moves gradually (known as accretion or reliction) the property line moves with it but if the stream channel moves suddenly (known as avulsion), say after a big storm, then the property line does not move. Such are the mysteries of surveying.
- c) Public or private uses that have ripened into Z rights-of-way or easements.

A common practice up until the early 20th century was for deeds to call to the centerline of roads. In fact, the famous *Act of 1892*, now Section 2-114 of the Maryland Real Property Article, creates the presumption that, unless otherwise specified, a deed containing a call binding on a private or public road carries title to the centerline of the road. Many property owners commonly believe that if their deed encompasses a road, then the road belongs to them. But when the public uses a road for a long period of time, more than 20 years, the use generally ripens into a fee and the road becomes public (similar in a way to adverse possession) notwithstanding the fact that someone else has the deed to the road bed.

- d) Those which involve agreement either expressed or implied including practical location and acquiescence. Two parties may agree as to the location of a boundary line between their lands, which if followed by possession can become binding. The line isn't established by transfer of title from one to the other, which can only be done in writing, but this serves to determine the true location of the boundary line already established between their lands.

2. *Senior rights*

Senior rights take precedence over junior ones because you cannot convey more than you own. But if a deficiency occurs in a subdivision plat, the deficiency is apportioned equally among all the lots whose line is deficient. It is presumed that all the lots were created simultaneously and therefore none is senior to the other.

3. *Written rights*

- a) Monuments. Monuments take precedence over metes and bound calls in written descriptions. For instance, if a line calls 100 feet to a stone, but actually measures only 97 feet in the field, then the survey will hold the line at 97 feet. As natural monuments were believed to have more permanence than artificial ones, they take precedence.
- b) Adjoiners. A call to an adjoiner frequently is a call to a senior right but not always. The call to the adjoiner does not take precedence over one to a monument but does over a call for distance and direction.
- c) Direction and Distance. In Maryland and Texas unlike most of the country, direction takes precedence over distance (*Wood v. Hildebrand*, 185 MD 56, 42 A2d 919, 1945).
- d) Area. Area is a very uncertain element and is given very low precedence. Generally, area does not control unless it is obvious that to ignore it would violate the manifest intention of the parties.
- e) Coordinates. Coordinates have traditionally been accorded little or no credibility by surveyors and are seldom mentioned in court opinions. With the advent of GPS, coordinates have become much more reliable and reproducible. Technology changes faster than the law, however, and so coordinates are still given very low weight in reconciling boundaries.

ALTA/ACSM SURVEYS

Most commercial surveys now require the *Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys* (ALTA standards), jointly published by the American Land Title Association and American Congress on Surveying and Mapping. These standards have been frequently revised through the years and the current edition became effective

February 23, 2011. The minimum standard detail requirements are the standards that surveyors must follow when performing ALTA surveys. Several significant changes were made in the 2011 edition. Perhaps the most significant was that the term "relative positional accuracy," which had been used in prior editions was changed to the more correct term "relative positional precision" and the ALTA standards provide the required degree of precision for the survey.

In prior years, attorneys would sometimes require the surveyor to certify to all sorts of things that were often expressed guarantees or warranties far beyond the realm of surveying. For instance, the surveyor might have been asked to certify that a structure met all ADA laws and regulations. The 2011 edition now requires that the surveyor only certify that the survey was done in accordance with the ALTA standards and it now mandates that the required certification language *cannot be altered*.

WHY HAVE A SURVEY?

There have been numerous cases where structures were built over a property line or in violation of a zoning setback. In one famous case in Florida, a million dollar home was built entirely on the wrong lot. It is also not uncommon for the area indicated in a deed to differ substantially from the actual area of the property and so needless to say, it is highly recommended that prior to the purchase of any property, a survey be performed and title run. ■



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more than 200 articles and five books, and has won numerous life time achievement awards including Icon of the Industry. He also holds both the highest professional engineering award in Maryland, now known as the Thaler Prize, and the Maryland Distinguished Service Cross, Maryland's highest military honor.

¹ This venerable quote along with several variations have been variously attributed to Mark Twain, Benjamin Franklin and Otto von Bismarck, among others.

² Actually, most states have laws related to broken engagements. The general rule is that an engagement ring is a conditional gift, conditioned on the marriage and must be returned to the grantor if the marriage doesn't take place. This is not the case in all states and there are exceptions. However, after the marriage, the engagement ring belongs to the recipient.

³ The Statute of Frauds which was originally adopted by the English Parliament in 1677, requires certain contracts to be in writing including those for the transfer of real property. It is codified in Maryland Law in the Real Property Article Section 5-103.