

Forensics in surveying



— by Donald A. Wilson

Surveyors are investigators when it comes to the discovery and collection of documentary, physical, and parol evidence. To be a competent investigator in any field demands inquisitiveness, diligence, patience, and attention to detail. Part of the process also requires the preservation of evidence and careful note-taking. There is no place for guesswork; facts raise no doubts and evidence does not lie.

Some of the guidelines followed during a proper investigation are noteworthy here. Most investigators do not work alone, they incorporate the observations and conclusions of others into their reasoning. Most investigators try to learn as much about a site as possible before arriving there. Deed research done beforehand tells field investigators what to look for and what they might find. Further research may be necessary if there is conflicting evidence or if additional questions arise.

One should always be aware of false readings. Metal items will give a reading with a metal detector, but only uncovering, followed by observation, will insure it is the monument sought. Similarly, words and phrases in title documents can be misleading, and only a complete chain of documentation back to the origin, compared with adjoining descriptions, will lead to the correct combination of statements.

Investigators also take copious notes and photographs. They are vitally important at future times for refreshing the memory, or to document the conditions and circumstances as they were at the time the investigation took place.

Many failures in the investigative process can be attributed to lack of patience and thoroughness, premature conclusions without proper support, and lack of imagination.

Consider the situation where there is a deed with abutting calls only and an area recitation

of “one acre, more or less.” The deed was traced back in time to an estate from which three parcels were conveyed as a subdivision of a larger tract, but two of the deeds, including the one in question, had not been recorded. Field investigation by three different surveyors uncovered no physical evidence at the site.

The estate contained a list of grantees for the sales, which identified the first time each of the parcels was described. Since there was no public record, these grantees were searched, their heirs and successors determined, and, eventually, an individual was found who had “a lot of old papers in her attic.”

Reviewing the papers produced the original deed, which confirmed that there had never been a public record. How much time did this all take? Three years, working intermittently. The original deed contained a complete metes and bounds description—an acreage of one acre and 120 square rods (1¾ acres). Based on this description, the surveyor found evidence at all four corners of the site. However, marking an acre as stated in the found deed would have been wrong, and giving up too soon would not have solved the problem. With perseverance, the goal—to locate the parcel and produce a survey plat—was accomplished. Some things simply take longer, and demand more diligence than others.

Field investigation involves forensics too. Consider an estate divided in 1875 into two parcels which has incomplete, and conflicting, metes and bounds descriptions. Only by finding evidence on the ground can a proper conclusion be reached as to which of the conflicting pieces of evidence is acceptable. The difference in question was 20 rods (330 feet), and the site was destined to become a shopping center.

Initial reconnaissance by compass and pace revealed nothing, nor did the second visit using a

compass and four-rod chain. The third and fourth visits utilized additional data from abutting parcels, while the fifth and sixth visits involved three searchers, including two surveyors.

A traverse was established through the area and corner evidence located on all of the abutting parcels. Back in the office, several theoretical positions were computed for the points in question. Then, further detailed search conducted with a rake to remove the overburdening leaves and material, revealed a stone.

The position of the stone was located and compared with the remaining data, and the high point selected on it was found to be within 0.012 feet of being on line between two other stones marking the same line. It took seven half-days by two and three people at a time to find that one piece of evidence, which, in all probability, is the most critical piece of evidence on the entire site. Without the stone, the next available evidence would have been distance, which would have been erroneous by 20 rods, and one would have no way to prove this.

There is no substitute for thoroughness. Even though the odds sometimes stack up against being successful, one will never know for certain until one follows theories and possibilities to the very end. As Sherlock Holmes has many times been quoted as saying, “when you have eliminated the impossible, whatever remains, however improbable, must be the truth.”

This is the second of two articles written by Don Wilson, LLS, PLS, RPF, and Land Boundary Consultant, who has been in the business of providing forensic services to the surveying and legal communities for over

