

Professional Land Surveyors of Colorado - Making a Difference through Standards of Care, Ethics, and Education

by John B. Guyton, PLS

Inseparably linked to Colorado's development, the role of the land surveyor has evolved over the past 150 years. From mineral, rural/ranch and railroad surveys, to precise geodetic positioning for modern land planning, one of the surveyor's vital historic roles has been to report facts. Colorado's nineteenth century surveyors were indispensable in the resolution of boundary disputes relating to overlapping mining claims. This arbiter role remains unchanged for twenty-first century surveyors. Central to our profession from the earliest days of civilization has been reliable disclosure of objective facts; the credibility expected in the surveyor's report. To help promulgate the surveyor's ancient mission locally, we have the Professional Land Surveyors of Colorado, Inc. (PLSC).

The existing professional societies, the Land Surveyors Division of the American Congress on Surveying and Mapping (ACSM) and the Colorado Society of Engineers, were not satisfactorily addressing issues important to surveyors in Colorado, so in 1966 it was decided to form a new society. A group of concerned land surveyors including Dexter Brinker and Warren Andrews, along with other leaders in the land surveying community, met at the School of Mines student union in Golden to form our state society, the PLSC. Their purpose was to help promote standards and laws to protect the public interest, as well as the private property rights of individuals. The original PLSC mission statement was: "Dedicated to the improvement of surveyors and surveying in Colorado". To accomplish this mission, two approaches have been employed; first, to codify and publish minimum standards of care; and second, to lobby for the establishment of formal educational opportunities locally.

Standards of Care:

In the period prior to the founding of the PLSC, there were relatively few Colorado statutes directly governing the practice of land surveying. Some have argued that the disorder created by the lack of standards was exacerbated by a wide range of competency and training among those offering surveying services. How was the public going to be protected from unreliable surveys (the "long tail" of surveying) and what was the best way to promote the surveyors' historic role? The lack of standards of care presented challenges to the courts, and often unnecessarily damaged the parties involved in the development process from commercial lenders to title insurers.

Saddled by a lack of written surveyor standards for competency, the court's results were often unpredictable. This unpredictability often forestalled development because business planners, owners, and developers could not model costs for their projects. Individual homeowners also suffered loss of property value and/or loss of actual land due to improperly performed surveys. One of the first cases I worked on as an Expert Witness

was dismissed due to the lack of a standard defining competence. In my opinion, there was a clear departure from even the lowest of surveyor standards, but the judge felt that she could not rule for incompetence because no record of standards was available. Clearly help was needed. For economic development to proceed unburdened by lack of precedent, a standard of minimum competency for the various kinds of survey activity was necessary in Colorado.

Much of the early legislative effort by the PLSC addressed the establishment of standards of competency and training. The PLSC continues to be relentless in its pursuit of lessening the risks to the public associated with poorly trained surveyors. The PLSC has been instrumental in crafting survey-related legislation in Colorado since 1967. Major legislative items include standardization of procedures for subdividing sections, ways to resolve disputed boundaries, and requiring preparation of monument records; as well as legislation creating Improvement Location Certificates and requiring the deposit of boundary (land survey) plats with county offices in order to place them in the public record. The PLSC also provides input on the rules and policies of the state regulatory agency for surveyors that define minimum standards for professional competency for surveyors and engineers.

An important aspect of the Standards of Care implemented by the PLSC is the establishment of a Code of Ethics. To establish our Code of Ethics, we are guided by history. In the late eighteenth century, inspired by European philosophical currents, rationalism, and empirical method, surveyors became more closely aligned with the ethic of independent inquiry and with reliance on data that can be observed, tested, analyzed, and repeated. The scientific method has come to shape our notion of survey reports. Adopted in February of 1978, the PLSC published a professional Code of Ethics specific to surveyors, outlining ethical standards for dealing with the public, clients, and other surveyors. Members of the PLSC are expected to adhere to the Code in all their personal and professional dealings.

Education:

Active membership in the PLSC is one of the forms of educational opportunity envisioned by our founders and fostered by the PLSC. The six regional chapters of the PLSC offer workshops and seminars to all who care to attend, and the PLSC Inc. presents Technical Sessions annually that contribute to continuing education for surveyors.

In addition to workshops and seminars, there are four regional Chapters of the PLSC's McComber Memorial Mentoring Sessions. Sessions are in Denver, Colorado Springs, on the Western Slope and in Fort Collins. These courses are an excellent way to get an overview

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of many survey related topics, and attendees can then determine whether they wish to pursue additional study to become a competent practitioner in those areas.

These courses are a great way to boost personal and professional development and to get the next generation of surveyors involved in the PLSC.

The PLSC has also worked with local colleges and technical schools to implement formal local education opportunities for surveyors. From the former Brinker School of Surveying and Mapping (now Westwood Community College) to Metro State College of Denver (MSCD), the PLSC has been actively involved in promoting the surveying programs. In fact, MSCD offers

the only local four year degree in surveying, and the program exists in part due to the PLSC's involvement and lobbying efforts.

It is a privilege to be part of an organization with a long list of distinguished members who have made great contributions to our profession. The PLSC is one of the oldest professional societies for land surveyors in the country, and we have forged a path for others with establishment of legislation, standards and educational opportunities. We continue to work for the betterment of our profession, going forward with a mission "Dedicated to the Improvement of Land Surveying Education and Practice."

McCOMBER MENTORING PROGRAM

Come and join - there is still room !

The cost of admission is \$10 each session

Southern Chapter – Colorado Springs

The Southern Chapter is "moving into more advanced areas of mentoring/training and delving into professional or expert opinion for both licensed surveyors and technicians" according to Tom Adams. The schedule for the next 4 sessions – open to anybody who is interested, is:

- April 15 & 19 Multiple monumentation by Doyle Abrahamson
- May 17 Beginning Boundary Law by Dave Pehr
- May 24 Legal research by Stan Vermilyea

For more information contact: Tom Adams, tom.adams@dot.state.co.us

Cell: 719-251-7980

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Central Chapter – Denver Area

The Central chapter is also shifting to legal topics related to surveying – but still open to suggestions of topics from the audience. The schedule for the next 4 sessions – open to anybody who is interested, is:

- April 12 Surveying calculations and Trig. by Gaby Neunzert
- April 26 Boundary Law Basics for Field Crews by Dave Pehr
- May 10 Multiple Monuments by Doyle Abrahamson
- May 24 Legal Research by Dave Pehr and Gene Kooper

For more information contact: Gene Kooper, ekooper@uswest.net, office: 303-989-5424

Northern Chapter – Loveland Area

The Mentoring program for the Northern Chapter has just started. Gaby Neunzert is giving all presentations and again the sessions are open to anybody who is interested with the near term schedule:

- April 18 Data bases, NAD'27, NAD'83, HARN'92, etc.
- May 2 & 16 The GLO system, also known as the U.S. Land Survey System

For more information contact: Steve Variano, stevev@co.tait.com, office: 970-613-1447