

The Surveying Profession

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SUMMARY

The surveying profession may be subject to different governance structures in various jurisdictions around the world but the responsibilities of a surveyor are reasonably consistent in most countries.

A surveyor is a fact finder, an information sleuth if you will. The surveyor's duty is to seek out the truth as to the actual features of a parcel of land at a given point in time and document the location of those features on a plan or some other medium that is easily understood by other professionals and members of the public. He (or she) may be asked to present the evidence obtained in the survey in a court of law. A surveyor may also be asked to set out the location of proposed new structures in reference to a coordinate framework or cadastral boundaries to facilitate the construction of those structures in accordance with engineering or architectural drawings.

In all of these duties the surveyor is a sworn public officer, assigned to render his expertise ethically and to the best of his ability and to use sound judgment in the practice of the survey profession.

The information in this paper is intended to be general in application but relates specifically to the practice of the Alberta Land Surveyors' Association in the province of Alberta, Canada.

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1. INTRODUCTION

When the general public thinks of a surveyor, they often identify with the rodman or instrument man seen on road or building construction sites. These persons may be part of a survey crew or part of the staff of a construction company, but are not what is normally referred to as a “professional land surveyor”.

The term “surveyor” is derived from the term *sur voir* which is translated to mean “overseer”. A surveyor in the generic sense is thus an overseer. A surveyor in the context of this paper was historically an overseer of land. In the modern connotation, however, the scope of the term has been expanded to include positioning and measurement of land as well as the gathering of land information and the management of land.

Since there are so many aspects of the surveying profession I will deal more specifically with the field of surveying called *cadastral surveying*, which is commonly referred to as “land surveying” or sometimes even “legal surveying”. Cadastral surveying addresses the location of legal interests in land and in particular the boundaries between those legal interests. The study of the legal aspects of boundaries is commonly referred to as “survey law” or “boundary law”.

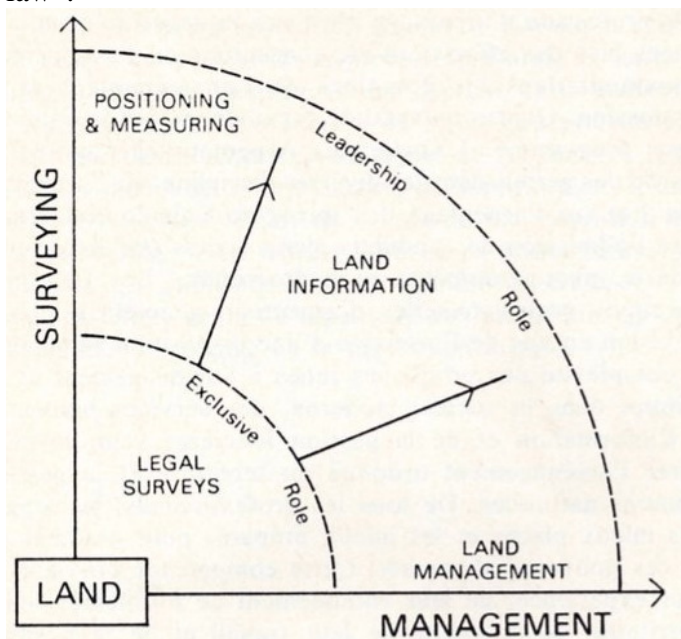


Figure 1 CCLS Model of the Expanded Survey Profession [Raymond 1981]

“Land and people are our two most important resources.” [Barlowe, 1986]. From the land we obtain our food, building materials for shelter, minerals for fuel, and materials for clothing. Land is basic to human habitation and has been the subject of human occupation and possession for millennia. Wars and neighbourhood squabbles are often fought over the right to own and possess land. As Henry George observed in *Progress and Poverty*:

. . . land is the habitation of man, the store-house upon which he must draw for all his needs, the material to which his labor must be applied for the supply of all his desires. . . . On the land we are born, from it we live, to it we must return again – children of the soil as truly as the blade of grass or the flower of the field. Take away from man all that belongs to land, and he is but a disembodied spirit. [Barlowe, 1986]

2. THE ROLE OF THE PROFESSIONAL SURVEYOR

Even though cadastral surveys are very local in nature the role of cadastral surveys in the broader context serves society in a more global sense in that cadastral surveys when all pieced together form the geographical grid upon which all land management functions are based. Boundaries defined by the land surveyor, monuments placed, and plans prepared, become the basis for cadastral records that form the very foundation of land registration systems. Land record systems for municipal public works and taxation departments, utility companies and mapping agencies also rely on the cadastral fabric created by this labyrinth of cadastral surveys and compilation of survey plans. Even though a single landowner retains the surveyor’s services to subdivide the owner’s parcel of land, the data created by that survey becomes an integral part of the public record upon which land-related data of all future landholders is based. Society becomes the ultimate beneficiary of the surveyor’s diligence. Whether we are referring to a small town, a city or an entire country the framework for all land data is based on the cadastral fabric of individual parcels of land ownership.

Surveyors are data gatherers. With their measuring skills and their measurement devices they accurately locate various features over, under, or on the surface of the earth in relation to various geographic reference frameworks. Surveyors may be engaged to provide an opinion as to the existence of certain features in order to define boundaries that have become uncertain over the passage of time; or perhaps to determine the causes of vehicular or other accidents. Essentially the surveyor is an information sleuth. By searching through as-built, historic, oral, or legal records a surveyor is able to identify various features and relate them positionally to other relevant information in order to provide an accurate picture of a given situation at a given point in time. The surveyor measures in four dimensions: three spatial coordinates - x , y and z as well as the dimension of time - t .

The survey professional is a man or woman of many hats. He or she must be familiar with the technology and appreciate its limitations. The surveyor must understand the law—in particular the law of real property. One can think of cadastral surveying as the application of measurement technology to real property law. Cadastral surveying is, however, more than measurement and legal concepts—it is also about local history, subdivision design, land management, logistics, business management and many other fields of endeavour. A professional surveyor is very much a generalist. In a normal survey practice, a land surveyor

may deal with many pieces of legislation, in addition to case law. A surveyor may not be conversant with all details of this legislation but must be familiar with those sections that pertain to land and survey practice.

The modern term for the broad field of surveying is “geomatics”. One definition of this term (there are others) is given by Gagnon and Coleman:

Geomatics is a field of scientific and technical activities which, using a systematic approach, integrates all the means used to acquire and manage spatially referenced data as part of the process of producing and managing spatially based information. [Gagnon 1990]

From this definition it is apparent that geomatics includes not just surveying disciplines but also the mapping disciplines, and in particular the integration of those disciplines to include the application of positioning and measurement to the gathering of land information for the purpose of land management.

3. THE SURVEYING PROFESSION

In the context of this paper when we speak of the surveying profession we speak primarily about the profession of the cadastral surveyor. Cadastral surveyors perform other types of surveys but in most jurisdictions there are limitations on who can perform cadastral surveys and how they are performed. This makes sense since cadastral surveys define the boundaries of private and public property, and in fact define the boundaries between land holdings and other legal interests of different individuals, corporations or governments.

4. MAINTAINING PROFESSIONAL COMPETENCY

One of the main reasons referred to in the *Alberta Policy on Professions and Occupations* for the statutory regulation and control of professions is:
to protect the public against incompetence and fraud that would endanger the . . . property of citizens [Hohol 1978].

There are a number of ways to protect the public against incompetence and fraud. It is important to ensure that practitioners are properly qualified in the first place. It is, however, even more important to ensure that practitioners once qualified and admitted into the practice of land surveying maintain their competence and keep up with the rapidly evolving changes in science, technology, law and professional practice.

4.1 Continuing Professional Development

Once practitioners become registered they can normally maintain their registration by paying their annual fees and complying with normal administrative requirements. This is, however, no guarantee that the public is being protected against incompetence or obsolescence of registered practitioners. The Alberta Land Surveyors’ Association (ALSA) therefore is active in maintaining a program of professional development for its members. Despite the fact that the program is voluntary, most members are not only cognizant of their obligations, but eager

to keep abreast of new developments in attending Association-sponsored seminars as well as meetings and conferences.

In addition to ALSA sponsored events there are several other professional development opportunities sponsored by the Canadian Council of Land Surveyors (CCLS) Professional Liability Insurance program, Canadian Institute of Geomatics (CIG), International Federation of Surveyors (FIG), local educational organizations and other bodies in which members participate. As well as formal educational seminars there are a variety of other means whereby a professional may keep abreast of the times and retain his competency. These include active participation in professional affairs, formal courses, conferences and seminars, research, professional journals, peer reviews, and quality assurance audits, to name a few.

Loss control seminars sponsored by the CCLS Professional Liability Insurance program are especially valuable to members because of their relevance to maintaining a financially viable practice free from adverse claims against their insurance coverage. As in any insurance program, a high incidence of insurance losses soon results in an increase in insurance premiums. Since the CCLS insurance program is dedicated to the surveying profession and managed in part by a CCLS committee, there is a strong incentive for surveyors to attend loss control seminars in an effort to learn how they can assist in reducing claims.

Members are encouraged to maintain records of their professional development endeavours in case their competency is ever called into question in a practice review or a disciplinary action. Both the Practice Review Board and a disciplinary tribunal have the mandate to direct a practitioner to take professional development courses when warranted.

4.2 Practice Review

Section 12 of the Alberta *Land Surveyors Act* establishes a Practice Review Board (PRB). The PRB consists of no fewer than five members, one of whom must be a public member appointed by the Government of Alberta. The mandate of the PRB is the *evaluation of desirable standards of competence of practitioners* among other things; all related to the educational, experiential and competency standards of the surveying profession. The Board is also obligated to conduct reviews of the practice of individual practitioners.

The program of practice review is a key component in the maintenance of competency in the surveying profession in Alberta. In accordance with the direction of the governing statute the Systematic Practice Review program is established as a peer review program aimed at ensuring that the public can rely on practitioners to offer an acceptable level of expertise primarily in the practice of cadastral surveying. In point of fact the Council feels that an acceptable level of expertise is the minimum acceptable standard, and philosophically the program should encourage a standard of excellence.

The overriding philosophy of practice review in Alberta has always been to act as a coach as opposed to a police officer. In this regard the program is of an educational nature despite the fact that section 13(2) of the *Land Surveyors Act* does give the Practice Review Board certain

disciplinary powers. The Board has always taken the position that it will not wear its disciplinary hat but rather refer potentially punitive decisions to the Discipline Committee for an independent evaluation and resolution when warranted. The early decision of the ALSA to maintain a separation between the concept of coaching as opposed to punitive action has proved to be wise in view of several court decisions. As an example, the court in *Chandler v. Association of Architects (Alberta)*, [1989] 6 W.W.R. 521, relating to sections 38-39 of the *Architects Act*, RSA 2000, c.A-44, which contained (at the time of the decisions) nearly identical provisions to sections 12 and 13 of the *Land Surveyors Act*, found the role of the Practice Review Board as a disciplinary tribunal to be somewhat problematic. This tradition adopted by the ALSA has helped to establish the acceptance and credibility of the Practice Review Board in the eyes of survey practitioners and the courts.

4.2.1 The Review Process

A review consists of an internal audit and an external audit.

The internal audit consists of a face-to-face review by the Director of Practice Review with the practitioner in that practitioner's office. The internal review may consist of a review of staff experience and education, types and volume of work, field and office equipment available, quality control processes, supervision, safety programs, advertising and promotion programs, office systems and field procedures employed in the practice, filing and archival systems, and an on-site review of a number of files selected at random. Files may also be selected for a subsequent external audit. A review of corrective actions as a result of previous reviews may also be included in the internal audit.

The external audit includes a random review of a selection of plans registered by the practitioner in the Land Titles Office, a review of field notes and a field inspection. Standardized checklists are used in the examination of plans and field inspections.

Upon completion of the auditing process a report of findings with recommendations is compiled and submitted to the practitioner with a request for a response. The report with the practitioner's response, together with an overall general analysis is submitted to the Practice Review Board for its information and deliberation. The anonymity of the practitioner is maintained in all reports submitted to the Practice Review Board. If so desired, the practitioner may voluntarily appear before the Board to answer questions or provide further comment on the report. The Board may also request that the practitioner appear before it, if it feels that further clarification is required.

Statistics are maintained which compare the practice review ratings from year to year based on several different types of surveys, and are broken down into categories of plan conformity, field notes and field inspection. Areas which are noticeably out of sync with good practice are highlighted and further analysis and general remedial actions may be proposed.

4.3 Discipline

The disciplinary process is a quasi-judicial process, which must be initiated by a complaint. A complaint may be made by a member of the public, by another land surveyor, by the Practice Review Board or by the Registrar. An investigated person has a full opportunity to respond to the complaint at all levels and can be, and in practice is encouraged to be, represented by counsel. In the event that a member is found to be guilty of either unskilled practice or unprofessional conduct that member can be subjected to a reprimand, a fine not exceeding \$10,000, membership suspension or cancellation. He or she may also be required to practice under supervision or to take additional courses or a number of other remedial measures.

A practitioner has full recourse to appeal first to the Council of the ALSA and if Council upholds the conviction, then an appeal may be made to the Alberta Court of Appeal. A practitioner may be levied the costs of the hearing and the appeal and the decision is usually published in *ALS News* once all appeals have been exhausted. Neither the Council nor the complainant has a right to appeal the decision of the Discipline Committee.

As a quasi-judicial process, all of the rules of natural justice apply ensuring that the investigated person receives adequate notice including reasonable particulars of the charges to be defended. All evidence is disclosed to the investigated person who has a full right, either personally or through legal counsel, to cross examine any witnesses and to argue any aspects of the proceedings or points of law. As noted by Justice Belzil in *Fang v. The College of Physicians and Surgeons*, a practitioner is a compellable witness and may be required to produce plans, field notes or other documentation and must answer to his conduct before the disciplinary tribunal.

A practitioner can be disciplined for either unskilled practice or unprofessional conduct. Webster's dictionary defines unskilled as "having no special skill or training." In the context of a disciplinary action involving a professional person the definition probably means not applying a skill or training to one's practice, although it is not improbable that a professional may not have kept current with advances in technical or professional practice and may be practicing in an area beyond the limits of the skills and training that he or she has acquired and maintained. With so many advancements in modern society, it is essential that a professional keep up to date by a combination of formal and informal educational upgrading. The definition of unprofessional conduct is perhaps a little more elusive. *Unprofessional* is defined as *violating the rules or ethical code of a given profession; not of, characteristic of, belonging to, or connected with a profession; nonprofessional*. Black's Law Dictionary is somewhat more helpful in defining unprofessional conduct as:

That which is by general opinion considered unprofessional because immoral, unethical or dishonorable. That which violates ethical code or rules of profession or such conduct which is unbecoming member of profession in good standing. It involves breach of duty which professional ethics enjoin. Within statutes, rules, etc., promulgating standards of professional conduct for attorneys denotes conduct which is recommended to be made subject to disciplinary sanctions.

4.4 Code of Ethics

Ethical codes are somewhat nebulous and subject to a fair degree of interpretation usually based on the application of the ethical code to a given set of facts. As Lord Moulton once said:

The real greatness of a nation . . . is measured by the extent of . . . Obedience to the Unenforceable [Moulton 1924].

A code of ethics is very difficult to enforce but the Discipline Committee is charged with making a determination of whether a practitioner is guilty of unprofessional conduct based largely on adherence to the Code of Ethics.

Nothing distinguishes the professional from the businessman more than reliance on ethics in fulfilling commitments to colleagues, employers, clients, and society as a whole. Where the businessman's creed is *profit, products, people* and *principle* - in that order - the professional must exactly reverse the order and importance of these criteria. [Allred 1991]

The Code of Ethics of the Alberta Land Surveyors' Association is actually a government regulation (AR 324/82) approved by the Lieutenant Governor in Council. The *Policy on Professions and Occupations* previously referred to requires that all professional associations have a code of ethics and that it be made available to the public. The Alberta Land Surveyors' Association has actually had a code of ethics for many years prior to the policy but upon adoption of the policy the code was refined and ratified by the membership and introduced as a government regulation. Since the formal adoption of the code, the Association has added a *Commentary to the Code of Ethics*, which expands on the nine respective canons of the code by detailing more specific principles. The commentary has been adopted by the membership as part of the Manual of Standard Practice.

The Code of Ethics details such specific responsibilities as duties to personnel, confidentiality, integrity and competence, and unauthorized practice.

FIG has a model code of professional conduct adopted in 1998.

5. STANDARDS OF PRACTICE

Every profession has standards of practice, although very often they are not codified. It is particularly helpful to the neophyte practitioner to have some written standards, which can be referred to for guidance in difficult situations. A proactive enunciation of standards by a professional body is much more desirable than forcing members (and particularly their clients) to learn from their own mistakes. We can all benefit from the wisdom of our peers in discussing and establishing rules or guidelines that conform to normal standards of practice. To expect every practitioner to search out, and develop standards on their own is an inefficient model for building a professional practice. That is not to say that standards need to be developed to micro manage the details but rather to develop broad general principles which

can apply in routine situations, and in particular can be applied generally to new ground-breaking situations. Perhaps the major benefit of developing standards of practice is the process of developing them. Through a thorough review and deliberation of each individual standard among a variety of practitioners, each standard is fully aired and debated prior to adoption. Many hours of committee work are involved but the process in itself is an education for everyone involved and the end result is usually a clear understanding of the issues involved, with a resulting firm consensus.

6. PROFESSIONAL RESPONSIBILITY

The cadastral surveyor holds a unique position in society. In establishing a boundary, the land surveyor may be engaged by one landowner but nevertheless the monuments placed also define the extent of the lands of the client's neighbour and potential adversary.

6.1 The Land Surveyor as a Public Officer

Although not specifically designated as such, a land surveyor is in fact a public officer whose actions are based on the functions and responsibilities that the surveyor owes to society [Allred 1995]. The surveyor's role as a public officer imposes several ethical obligations on the exercise of professional duties. Clients and the public at large must be able to rely on the objectivity and integrity of the surveyor in rendering professional opinions regarding private and public boundaries. A boundary is always a dividing line between one legal interest and another; therefore the land surveyor in carrying out his or her boundary defining function must not be biased either in favour of or against the client. These obligations may sometimes appear to be in conflict with the surveyors' obligations to clients, associates and other professionals. A land surveyor however, unlike the lawyer, does not represent his client against that client's neighbour. He or she is engaged as an arbiter to determine to the best of his or her ability where the boundary between client and neighbour is located.

The first-rate land surveyor is a superior person who is ethical and has the intelligence to appreciate his role as sometimes judge and jury - acting for both his client and the adjoiner. [Slack 1961].

The first duty of a surveyor is not to the client but rather to the public at large. The surveyor is basically a fact finder and provider of geographic information. Based on the facts the surveyor has found, he or she is often expected to give a professional opinion as to various outcomes or solutions to society's problems. Whether the surveyor is investigating a private boundary matter or designing a system for land management, his or her skills are employed in order to determine the best information that the situation permits. It is therefore important that the surveyor be diligent, competent, impartial and of unquestionable integrity in ensuring that the information he or she searches out and provides is true, correct and complete, to the best of his or her ability. As an Australian colleague sums it up, "A surveyor's obligation is to the truth!" [Allred 1998].

6.2 Liability and Negligence - Duty of Care

A land surveyor, like all professionals, is responsible for his or her errors and omissions. We are all human - we all make mistakes. We learn to apply the theoretical knowledge acquired to practical situations and at times make errors of judgment. We may overlook facts that in retrospect would have a bearing on the opinion being rendered. At times these errors in judgment will cause a client or another party to suffer damage. The surveyor may find that he or she has a financial liability for that damage.

Generally speaking, a surveyor may be liable in contract or tort.

In contract, a surveyor is only liable for those things that he or she has contracted to perform for a client or possibly some other party. The contract can be oral or written. Obviously written contracts are preferred because they spell out for all to see exactly what the parties have agreed to. In the absence of a written contract it will be up to the parties and probably an adjudicator of some form to determine what in all probability the parties actually agreed to either specifically or implicitly. Oral contracts often lead to disputes as to the actual terms of the agreement, which requires the adjudicator to make certain findings based on the best available evidence. In the end a surveyor may be found liable if he or she breached the terms of whatever contract the adjudicator determines that the parties agreed to.

Tort is a different matter in that it will be up to the adjudicator to determine what a reasonable surveyor would have, or should have done to determine whether the surveyor in question was negligent in the performance of his or her duties. The courts usually attempt to determine the reasonable standard of care of a competent practitioner. This is not the standard of an expert in the field or of a novice but of a normal practitioner. The test for negligence is therefore not what the most competent person in the field would have done but what the normally competent practitioner would have done.

7. PERSONAL SUPERVISION

Section 10 of the *Alberta Surveys Act* requires that all surveys made pursuant to the *Act* be carried out under the personal supervision of an Alberta Land Surveyor. Section 3 of the *Land Surveyors Act* is somewhat more specific.

3 (3) Everything done in the practice of land surveying shall be done by or under the supervision, direction and control of a practitioner.

(4) No Alberta land surveyor shall sign a plan or document in the practice of surveying unless it is prepared by him or under his personal supervision, direction and control.

There are many different concepts on what constitutes *personal supervision*. Pratt in an article in *ALS News* states:

In all professions, there is an expectation that all services relating directly to the field of expertise will be carried out by the professional engaged. Certainly there is an expectation that a lawyer will personally represent his client in court, and that a surgeon will personally perform your surgery. [Pratt 1998]

Why then should you not expect that a surveyor will personally perform a survey on your property? The noted legislation requires a land surveyor to exercise *personal supervision, direction and control*. Pratt goes on to cite Webster's dictionary which defines:

- supervision - to oversee for direction, to superintend, to inspect;
- direction - to guide or supervise action; and
- control - to direct influence over.

The meaning of *personal* is clear, in that it is to be *done in person, not through an agent or other representative*. It therefore seems fair to say that there is a requirement for the surveyor personally to direct, guide, superintend and inspect all surveys for which he or she is responsible. The word overseer or *sur voir* also appears in the definition of supervise. In the context of personal supervision, an Alberta Land Surveyor is an overseer of a survey in much the same way a surveyor was historically an overseer of land.

The general practice is that a land surveyor will be personally responsible and supervise an individual project but may not actually be on the ground in the field for the duration of the project. The surveyor should however be present at all material times and should be engaged in the preliminary setup of the survey and review of the final plan of survey. Of course, if boundary uncertainties become apparent during the conduct of the project the land surveyor would attend in the field and ensure that he or she was totally comfortable with the assessment of the physical, documentary and oral evidence that was found and that it is totally acceptable, or alternatively to expand the search for further evidence of the boundaries in question.

The Alberta Court of Appeal had the opportunity to address the concept of personal supervision in a discipline appeal where the Discipline Committee had found that "*the plan was not prepared under the personal supervision*" of a practitioner. The Court commented that "*supervision must relate to effort and promptness, and not merely to accuracy*" when addressing supervision as it related to ensuring that a project is completed in a timely fashion. [ALS News 1995-1]

The fact is, however, that most land surveyors are responsible for several field crews and often do not get the opportunity to spend as much time in the field as they would like. They therefore must rely heavily on articulated pupils and experienced party chiefs to perform most of the fieldwork. Nevertheless they remain personally and professionally responsible for the results of each and every survey which they accept.

8. RIGHTS AND PRIVILEGES

A land surveyor has a number of statutory privileges with regard to the acquisition of evidence of boundary location and entering upon private properties. In view of the fact that every boundary represents the dividing line between two or more properties, it is often impossible to survey the boundaries of one client's property without entering the property of several other landowners. Particularly in the case of a rural parcel of land it may be necessary

to enter eight or ten different properties in order to determine and demarcate the boundaries of a single parcel.

8.1 Right of Entry

Section 16 of the *Surveys Act* authorizes *a surveyor and his authorized assistants* to enter upon the land of any person for the purpose of conducting cadastral surveys. The surveyor is, however, responsible for any damage caused by the survey operation. Damage would typically include cutting trees, damage to fences, crops, etc. In the urban context a surveyor normally has to dig up private lawns, which often causes considerable consternation to residents, particularly when they are not benefiting from the survey.

The Alberta Land Surveyors' Association has developed a number of policies to alleviate some of the adverse public impact caused by the necessity to enter upon private properties. The ALSA Commitment to Property Damage Mitigation [*Alberta Land Surveyors' Association Website*], which is available from members and at the Association's office as well as on the ALSA website, encourages the surveyor and his field staff to attempt to contact landowners before entering onto private property and, where it is necessary to dig up lawns or cut trees, to do as little damage as possible and restore the site as nearly as possible to its original condition. The policy also requires field crews to leave a message with a landowner when they are not able to contact them and to display proper contact information on vehicles.

8.2 Taking Oaths

Since survey monuments that may have been placed to mark original boundaries one hundred or more years ago have often disappeared it is often necessary to rely on other evidence as to where the original boundary monument was established. This may involve taking testimony from an elderly landowner who has lived on the land for many years and may recall the original survey monument being removed for the erection of a fence or some other improvement. That person's testimony may in fact be the best evidence of the location of the boundary in question. Section 13 of the *Surveys Act* authorizes a surveyor to examine witnesses and administer an oath setting out the person's oral evidence. The surveyor must ensure that full particulars are obtained from the landowner and that the information is recorded properly in case it ever needs to be produced in court.

9. SUMMARY

The surveying profession is a broad-based discipline in which measurement science is applied to establishing geographical order to society's legal system of parcel identification and determination. Surveyors work in conjunction with a variety of real property professionals such as lawyers, town planners, engineers, architects, appraisers, realtors and municipal officials to create and maintain orderly and efficient settlements for modern society.

Surveys establish settlement patterns and boundaries that create indelible marks on the face of the earth. Urban agglomeration is a product of many individual surveys dating back to the

time when the first settler carved off a parcel, thereby leading to a new era of socialization. As such the role of the surveyor is intertwined with other real property professionals in the complexities of building villages, towns, and cities. Even prior to the development of Western Canada, surveyors played a key role in designing the system that established the largest coordinated project of land division in the world - the system that is commonly known as the Dominion Land Survey system.

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BIOGRAPHICAL NOTES

The Alberta Land Surveyors' Association (ALSA), established in 1910, is a self-governing professional association legislated under the Land Surveyors Act of Alberta, Canada. The Association regulates the practice of land surveying for the protection of the public and administration of the profession.

G. K. (Ken) Allred is a past president of the Alberta Land Surveyors' Association. He is also a Vice President of FIG. He was chair of Commission 1 - Professional Practice from 1994 to 1998.

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