Institutional Affiliate of American Congress on Surveying and Mapping

The California Surveyor

THE VOICE OF THE LAND SURVEYORS OF CALIFORNIA

NO. 46 SUMMER EDITION 1977

Surveyor vs. Engineer—No Contest

By GUNTHER GREULICH, P.E., R.L.S.
President, Boston Survey Consultants, Inc.
Boston, Massachusetts

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SECOND OF THREE INSTALLMENTS.

Education

Contrary to public opinion, surveying is first and foremost an activity of the mind and only secondly an exercise of leg muscles. Eldridge, Brown, Dix, McNair, Brother Barry, Curtis, and many other great minds in American surveying have again and again stressed the importance of education. Most of them agree that surveying is one of the applied sciences and should be retained under the larger field of engineering. Like all engineering, the science of surveying has built its technical knowledge upon mathematics and physics as a base.

While it is true that almost all civil engineering starts with surveying, it is also true that, by far, not all surveying leads to civil engineering design and construction. Although a great number, perhaps the majority, of American surveying professionals have a civil engineering background, there are many who do not. Foresters, mathematicians, astronomers, cartographers, geographers, geologists, hydrographers, military engineers, mining engineers, and others have also contributed to the great variety of educational backgrounds in surveying.

Today, there are many who became professional surveyors via the apprenticeship system. While it has worked well for them in the past, it just won't do in the future. In this rapid paced world of the "future shock" there is neither time, nor patience, nor money to learn on the job. Professor Ralph M. Berry warned in 1957 that the apprentice system "serves admirably for the training of plumbers, but fails miserably as a means of inspiring original thinking."[6]

Professor Arthur J. McNair deplored in 1964 that no one was taking studies or performing research in land surveying in the United States and that "We have some fifty years of decadence to overcome."[13]

The 1974 New England White Paper on Surveying Education is a step in the right direction and supported by six state surveyors' associations.

If the surveyor is to be independent and free from domination by others, a degree in technology is not the answer. The Engineers' Council for Professional Development tells us why:

"Engineering problems require solutions of varying degrees of complexity and are constrained by both technical and non-technical considerations. As the technical leader, the engineer determines the policy basic to technical solution and exercises his responsibility to society in the non-technical dimensions. The technician and the technologist work in many functional and responsive ways to execute the applications indicated."[15]

Which engineer would best determine surveying policy, if the surveyor were only a technologist?

Continued on Page 16

The Surveying Profession

by D. E. Bender, L.S.

The selection of a title by the respected Wm. C. Wattles for his article appearing in the fall 1976 edition of The California Surveyor has prompted me to review my dictionaries and statute books. While the theme of Mr. Wattle's excellent article is directed to the "procedure" used in land surveying, I feel the claim to the key word "profession," deserves separate and searching consideration.

The term profession has slipped easily into the vocabulary of most practicing land surveyors and consequently appears frequently in our publications. But what does the term profession mean? What level of applied *specialized knowledge* can the consumer public expect from one who would include himself within the time honored professions? For the purpose of discussion, I will first quote a few recognized sources in order to focus on the substance of a definition which I would hope land surveyors could accept as society's standard for recognition as a profession.

Profession: a calling requiring *specialized knowledge* and often long and intensive preparation including instruction in

Continued on Page 14

PRESIDENT'S CORNER

On behalf of the association, I would like to thank the convention committee for the fine job they did in putting on a successful convention, last March. There is a great deal of work that has to be done to put on a convention, much of which is tedious. Again, we would like to thank the committeemen and especially their wives, for a job well done.

You may have a complaint about the service that you received from the association or you may have an idea or suggestion that you think the association should be made aware of. Or maybe there is some information you wish. The association would like to assist its membership in anyway that it can. To contact the association headquarters, please write to P. O. Box 1363, Santa Rosa, CA 95402 or phone 707/526-2572. Any communications will be appreciated.

As you probably know, practically all the work done by the association is done by volunteers. There is a constant need for additional members to work on committees whose activities they would be interested in. The success or failure of the association depends, to a large measure, on the members who serve on its committees. I wish to invite members who might be interested in serving, to write me or contact me by phoning 707/526-2572.

I would like to ask that anyone who has a need for summer help to contact California State University, School of Engineering, Fresno, CA 93740. The students at Fresno State who are studying surveying need the money to continue their studies and the on the job experience that they will get should help them, after they graduate. It is important to support surveying education in California and the hiring of a student would be one way of showing your support. ▲

NORTHERN CALIFORNIA CONFERENCE OCTOBER—1977

October 29, 1977 is the scheduled date for the 3rd Annual Northern California Land Surveyor's Conference, to be sponsored by the Feather River and Northern Counties Chapter, in Chico, California.

Mr. Walter G. Robillard, Regional Cadastral Surveyor for the U.S. Forest Service in Atlanta, Georgia, will be the guest speaker. The tentative subject for Mr. Robillard's lecture is "BOUNDARIES."

A complete agenda and the registration information will be in the Fall Edition of the Califoria Surveyor. ▲

CALIFORNIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

Written Examination Schedule 1978

Examination Dates	*Final Filing Dates
Land Surveyor-in-Training—LSIT	
April 15, 1978	January 30, 1978
Land Surveyor—LS	
November 4, 1978	July 10, 1978

*Applications filed after the final filing date specified will be considered for the following examination.

NOTE: This schedule is subject to change at any time without prior notice. ▲

The California Surveyor

is the quarterly publication of The California Land Surveyors Association and is published as a service to the Land Surveying profession of California. It is mailed to all Licensed Land Surveyors and Land Surveyors in Training in the state of California as well as to all members of California Land Surveyors Association. The California Surveyor is an open forum for all surveyors, with an editorial policy predicated on the preamble to the constitution of the California Land Surveyors Association and its stated aims and objectives, which read:

"Recognizing that the true merit of a profession is determined by the value of its services to society, the 'California Land Surveyors Association' does hereby dedicate itself to the promotion and protection of the profession of Land Surveying as a social and economic influence vital to the welfare of society, community, and state."

"The purpose of this organization is to promote the common good and welfare of its members in their activities in the profession of Land Surveying, to promote and maintain the highest possible standards of professional ethics and practices, to promote professional uniformity, to promote public faith and dependence in the Land Surveyors and their work."

Advertising

Commercial advertising is accepted by "The California Surveyor" and advertising rates and information can be obtained by contacting the Editor, P.O. Box 3707, Hayward, CA 94540.

Classified advertising is published at the rate of $2 per line for members of C.L.S.A. and $4 per line for non-members and should also be directed to the Editor of "The California Surveyor."

Sustaining Membership

Membership in the California Land Surveyors Association as a sustaining member is open to any individual, company or corporation who, by their interest in the Land Surveying profession, is desirous of supporting the purposes and objectives of this association. For information regarding sustaining membership, contact the Editor of "The California Surveyor."

Editorial Material

All articles, reports, letters and contributions are accepted and will be considered for publication regardless of the author's affiliation with the California Land Surveyors Association. Material should be sent to "The California Surveyor," P.O. Box 3707, Hayward, California 94540.

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DEADLINE DATES FOR THE CALIFORNIA SURVEYOR

FALL .....AUGUST 12, 1977
WINTER .....NOVEMBER 11, 1977

Articles, Reports, Letters, etc., received after the *above mentioned date will be placed in the next edition.*

Editor

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Letters to the Editor

Editor:

The article entitled, "A Thought on Caltrans Entry Into Private Practice" published in the 1977 Spring Edition of *The California Surveyor* lends credence to the expression that "you can't believe what you read." The author's "thought" is without foundation because Caltrans has not entered, on any occasion, the domain of the private land surveyor. The three surveys mentioned in the article were performed by State survey personnel to define the boundary of State-owned property.

As provided in the California State Constitution, and as specified statutorily in the Government Code, State agencies can work for each other. Consequently, the various agencies for many years have engaged in inter-agency agreements (under the rules of the Department of General Services, the State Personnel Board, and the Department of Finance) to assist each other by providing specialized services. The Department of Transportation had such an agreement with the Department of Parks and Recreation to define portions of the boundaries of some of the latter's park holdings. The three records of survey cited in the article resulted from the surveys performed under the agreement. The agreement had been processed under the rules of the aforementioned control agencies.

The following comments respond to the questions raised under the subheadings of the subject article:

LIABILITY

In reply to the questions regarding liability for surveys, Caltrans, if it were the cause of any damages, would be liable in each instance cited. The individual who signed the maps, records, etc., would also be subject to regulations of the Board of Registration.

The statement that Caltrans is specifically exempt from liability regarding its own work is not true. Perhaps the reference is to Section 8772 of the Land Surveyors Act which exempts the Division of Highways from the requirement of marking or tagging its monuments with an L.S. or R.C.E. number.

Or, it might refer to Section 8765(a) which exempts maps filed for surveys made by a public officer from the recording requirement. It might even refer to Section 8730(b)(1) which exempts certain public employees from the licensing requirement provided they are directly responsible to a licensed or registered person.

In the first case, assume the monument exemption is intended. The Division of Highways (Caltrans) has not used this exemption per se. Our policy is to identify all monuments set with a tag, disk, or plug which is inscribed with our agency name. While this could be considered a use of the exemption by our not placing the official title of the public officer on the monument, it does identify the monument and provide a source for anyone seeking further information.

Secondly, assume the author refers to the portion of the Land Surveyors Act that describes procedures under which maps of surveys made by public officers may be filed with the County Surveyor in lieu of filing a record of survey. This is not an exemption from liability.

Thirdly, assume the reference is to the licensing exemption at certain levels in public employment. There is neither an expressed nor implied exemption from liability in it. On the other hand, it does specify that the exempt individual must be responsible to a licensed land surveyor or a registered civil engineer.

CONSUMER PROTECTION

In the case of land surveying, Caltrans is responsible for providing procedures that will assure accomplishment of proper research, field surveys, and the filing or recording of maps and records as required under the various sections of the Land Surveyors Act. The engineer or surveyor who signs such maps and records has responsible charge for the conduct of the field survey. He must assure that the map or record is complete and shows all facets of the survey as prescribed in the Land Surveyors Act, and Rule 465(d) and other "Rules and Regulations" of The Board of Registration.

The State is liable for property damage that is inflicted by its personnel or equipment during the conduct of a survey. The State may be brought to court to litigate claims for such damage.

PRESERVATION OF FIELD NOTES

We certainly agree there isn't any substitute for original field notes. Each of our Districts maintains a permanent file of original field notes. The notes are indexed for accurate and speedy retrieval. In some instances, storage limitations have forced photo-reduction of original notes. Reductions follow the certification procedures outlined in 1969 instructions from the State Attorney General regarding destruction of public records.

When Caltrans performs land surveys for other State agencies, a dual source of information is generally provided: one agency maintains the original notes and the other agency files complete copies thereof. This procedure provides a more direct access to the notes. A surveyor who finds a monument in the field or described on record maps will know the State surveyor's L.S. or R.C.E. number because it will be stamped on the monument. In addition, the monument will be inscribed with the requesting agency's name.

Field survey notes and related data are public information. As such, they are available upon request. Time required to fill a request for data will vary depending on factors such as age, storage limitations, and others. Problems in this respect are not too dissimilar from that of the private practioner and are more or less relative to the size of the organization.

ETHICS

It is erroneous to imply that "Caltrans enters into the private sector using State employees and equipment. . . ." As previously stated it is legal for Caltrans to survey for other State agencies.

The Courts have determined that the State Constitution prohibits any State agency from entering into contracts for services that could be performed by State employees. Accordingly, an agency without surveying capability must query other State agencies regarding the availability of such services before

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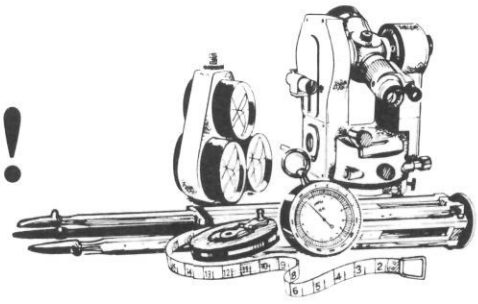

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Land Representation

by Eugene L. Foster, L.S.

One of the primary elements of civilization is the dedication of land areas to definite purposes. When the purpose of the dedication becomes clouded, or when the deliniation of areas becomes vague, such confusion arises that progress is threatened. These truths are so well recognized that the first step upon the occupation of new territory is the assignment or division of land.

Under the principle of private ownership, possession of land carries with it the right to direct its use, under certain restrictions. It then becomes quite clear that, if progress is to be expected and economy realized, ownership and the limits of ownership must be clearly defined. If land is to have its greatest value, it must be readily negotiable. Therefore, the public records must be quickly available and, if not accurate as to recited measurements, unimpeachably correct and adequate for identification.

Land represents more than just dry earth. It is a virgin forest, unmined ore, wild birds and animals, a running stream, or a subterranean reservoir of water. All these natural opportunities constitute land, without which labor, with the aid of capital, which is stored up labor, cannot produce wealth, which is the measure of progress. Through the wise direction of the use of land, all those natural opportunities are transformed into the articles of civilization which we call wealth.

It follows, then, that land is really the foundation of the wealth we possess and, as such, is as valuable as the wealth which its wise use will produce. So, then, we find that land possesses two values. On the one hand it has a value as real estate which concerns its immediate owner. On the other hand it has a greater value as a natural resource which is the concern of the general public.

So, if it be true that land bears this greater value to the common public, then it becomes of great concern to the public that its ownership, its conditions of ownership and especially its boundaries of ownership be clearly defined and of public record. If all land were under public ownership, as has been advocated by some economists, accurate delineation of the area of occupation and use would still be necessary.

In the beginning, the United States Government, through the General Land Office, recognized the important fact that, especially where private ownership of land was to be anticipated, and practiced, there would be an urgent need for a systematic subdivision of the land which was to pass into private ownership. It was also realized that, for purposes of identification, a simple yet perpetual system of monuments must be established. Thus, the vast systems of rectangular surveys were formulated and marked far and wide across the land.

In passing, it can be stated that there is no other method of defining land subdivisions which is clearer, simpler, more accurate or more uniform in application than the General Land Office rectangular surveys. Some states which were settled and in which land was appropriated prior to the adoption of the rectangular surveys, have adopted Statewide Plane Coordinate Systems. Such geodetic systems have a definite value and are as accurate as they are complicated. In areas which were not sectionized under the cadastral surveys, their value is vastly greater than in areas which are already monumented under the General Land Office systems. Cadastral Retracement with the same instruments and the same limits of accuracy as used in Geodetic Work, when applied to the G.L.O. surveys will produce the same degree of accuracy in a system already in place.

Land was conveyed from public to private ownership, then from private to private ownership many times, always described with reference to permanently recorded plats based upon permanently marked points upon the ground. It has been repeatedly held by both State and Federal courts that plats and field notes referred to in patents may be resorted to for the purpose of determining the limits of the area that passed under such patents, as if such descriptive features were written out upon the face of the deed or grant itself.

After the granting of the title by the United States, the jurisdiction over the property passed to the state, since the Federal Government retains its authority only with respect to the public lands. Thus, where the lands are in private ownership it is a function of the County Surveyor, principally, to restore lost corners and to subdivide the sections. Disputes concerning these questions must come before the state courts. The duties of the County Surveyors are set forth in Sections 27550 et. seq. of California Government Code. The duties of surveyors in general, acting within the scope of their licenses are set forth in Sections 8706 et. seq. of the California Business and Professions Code.

Property Boundary location is an art and profession as distinct and different from civil engineering as dentistry is different from medicine. The mere fact that the mechanics of surveying, the use of transit, tape, and computing tables, is common to both is no criterion of identity. The fact that a person is versed in the tactics of surveying as taught in school or college does not warrant the assumption that he is a land surveyor any more than that he is a civil engineer.

As stated in Article 391 of the Manual of Instructions for the Survey of Public Lands, there are certain questions of a purely judicial nature involved in resurveys of every description where the decision is to be reserved to the General Land Office, particularly those relating to compliance with the general laws in respect to the entry of the public lands. Thus it comes within the realm of the surveying process to identify and mark out on the ground the various legal subdivisions of the public domain, but it is a judicial question beyond the function of the Land Surveyor to determine whether or not specified lands have been duly earned under a certain entry. In the resurvey process the Land Surveyor will determine whether or not lands embraced within a claim (as occupied) have been correctly related (in position) to the original survey, and where the demonstration of this question may be one involving more or less uncertainty, (as is often the case), the Land Surveyor will examine and weigh the evidence relating strictly to the surveying problem involved, and he will interpret the evidence in respect to its effect upon the manner in which the resurvey shall be executed looking to the protection of the valid rights acquired under the original survey. The Land Surveyor has no authority to enter into any agreements looking to the exchange of one subdivision for another, or to bind the General Land Office in this respect.

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Courtroom Techniques For The Land Surveyor

by Honorable John Fenton, Associate Justice,
Massachusetts Land Court

Editor's Comment: The following article is the transcript of a speech delivered by Justice Fenton to the Massachussets Association of Land Surveyors and Civil Engineers. His comments are valid in any courtroom situation when a surveyor appears as an expert witness.

My purpose is to try to talk to you about some of the things I think surveyors have to concern themselves with if and when the result of their work arrives in the litigation process, and there is a serious dispute, and the person who prepared the plan, the information, has to appear in Court to justify the end result.

It seems to me that very few surveyors really understand the objective of, the purpose of, the litigation process. What is it all about? Everybody involved in the litigation process where there is a dispute in a courtroom should be involved really in one search, and that is the search for truth. What actually happened as a matter of objective reality. One side says this happened, and the other side says not so, something else happened. One side says this set of physical monuments appears in the ground and these are the lines of this particular piece of land. The other side says not so, we disagree.

Now, what is the function, what are the methods by which a human being can judge, has got to make a determination, from listening to contrary evidence. People, human beings, are put on the witness stand. They are called testimonial witnesses. At what function do we ask them to perform in a very strange environment. They are brought into a courtroom, a strange forum to many of them in many instances, many of them are nervous, they are uneasy, they are brought before a judge or a jury in a jury case, and this adds to their consternation, concern, and they are asked very selective questions. They cannot express themselves freely as they wish to do, they have to respond to very selective questions. What are they asked to do?

They are asked to go back and verbally recreate something which occurred many months or many years ago. What functions do they perform? Their powers of memory are involved, their powers of perception, and their powers of communication. After they testify on what is called direct examination, they are taken over on a cross-examination by another attorney who tries to disect, cast out, much of what they have said.

It is a very imperfect and imprecise process, the courtroom process, because we are relying on the imperfections of a human being's power of perception, his power of memory, and his power of communication. Any of these powers can fail, due to the fact that a person is testifying about events which occurred months or years ago. It is not easy for a trial judge to reconcile conflicting stories. He or she has got to listen to the events as they unfold and try to make a human judgement as to who is right. Not easy at all.

Now, I have no idea how often you appear in courtrooms. Some of you may appear often, others of you may never have appeared. But just let me try to suggest to you, that if you do appear to justify your work in a contested land matter, let me try to express to you some things that court might expect, some of the things which might be helpful to you to make a mo effective presentation.

First of all, it seems to me in cases that I have sat on thus far, the cases that I have been involved in when I was practicing law, that there is not enough communication between an attorney and the surveyor. I'm amazed, frankly, when I see land surveyors get on the witness stand and it almost seems to me that the attorney who was questioning his surveyor was talking to this individual for the first time, trying to learn something about the plan which has been testified to by the surveyor. It's extremely important, it seems to me as professional people which you are, to have sufficient pre-trial time with the attorney who has engaged you. You should be candid with an attorney. If there are problems with the survey that you have done, if there is some doubt with respect to some of the lines that have been drawn, some of the monuments that have been placed on a plan, it's very important it seems to me, for you to relate that information to the person who has engaged you. It's very important from the standpoint of the attorney to tell you, appraise you, in advance of putting you on the stand, as to the areas of inquiry.

Many attorneys adopt the process of going through a dry run interrogation so that you may familiarize yourselves with the line of inquiry that will be conducted when you are put under oath and appear on the stand. It is equally important, it seems to me, for you to ask the attorney who has engaged you, what am I likely to be asked on cross-examination. You not only want to know, should want to know, but you are going to be asked by the attorney who engaged you. But it is equally important to know what areas the cross-examining counsel may explore with you.

It is very important, once you get on the stand, to relate your background and experience and credentials to the court. When a land surveyor is on as a witness and the first question is asked, "Would you relate your credentials, please, to the court," some attorneys have a practice as a matter of trial strategy of standing up and saying, "There is no need to do that, I'll be happy to stipulate that this person is a registered land surveyor and may testify as such." That isn't done in the interest of conserving time, it is done very often in an effort to foreclose from the court the dimensions of that person's background and skill. If I am sitting on a case and have to decide a disputed question of fact which involves two professional skilled people, it is helpful to me to evaluate the judgment and credibility of a witness if I know the professional credentials that an individual has. So, I suggest to you that you spend some time in appraising the court as to the nature of and the dimensions of your background and experience, so that the court can really evaluate the depth of that which you tell it.

Very often when land surveyors appear in a courtroom they are appearing in the nature of an expert witness, not the ordinary witness, the lay person who usually comes into a courtroom. The reason you are there is that you have speci skills. Expert witnesses can only testify in a matter of law courtrooms if the subject matter of the inquiry is one which i beyond the annotated understanding of the fact finder, the jury

Continued on Page 20

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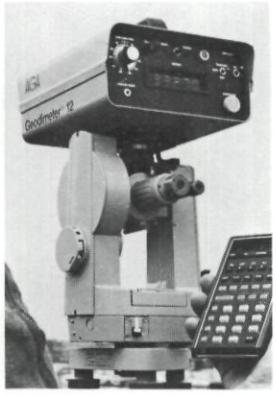

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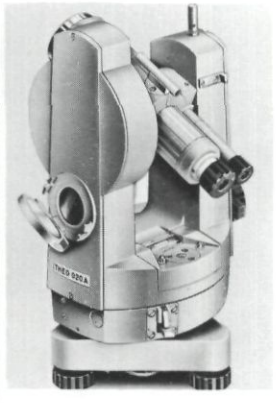

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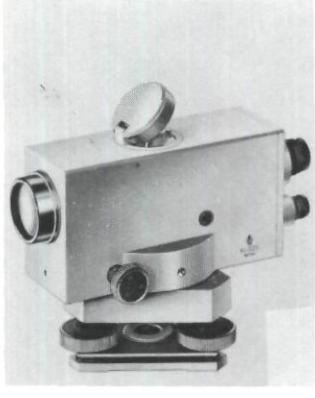

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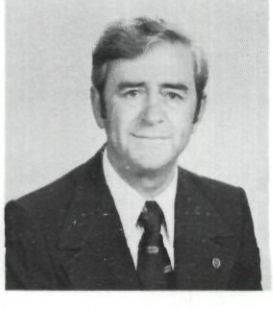

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Land Representation

Continued from Page 6

Whatever function a land surveyor is called upon to perform, he generally must first locate the boundaries of a parcel of land. If he can locate two of the corners and possesses a recorded bearing between those two corners, a large portion of his difficulties have been overcome. Sooner or later he must find mention of a point of beginning which should be referred to some public survey line or monument. He must certainly identify that public survey line or monument at the outset of the process.

Many times extensive retracements of public surveys and also adjoining property boundaries become necessary both to identify a starting point and to reconcile his property survey to neighboring properties. All this frequently involves more of an investment of the surveyor's time and money than can reasonably be charged against the particular parcel under survey. He is forced to use secret marks to safeguard his investment and to maintain a complete office record of his solutions. He has created a public benefit by his labor which is not available unless he is re-employed.

To overcome this difficulty two things could be done. First, the official survey positions monumented and published by the General Land Office could be very religiously improved and maintained by the State. Secondly, there could be created a repository for all survey data and a means created for publishing certain basic survey information such as the public monument reference ties which are the basis of identification. These two functions could be accomplished by the creation of a State Bureau of Surveys operating locally through the County Surveyors. However, the County Surveyors must be taken out of the half public—half private category in which they are now found and placed in the position of Deputy Surveyor—General. Each County Surveyor's Office could be a branch office of the State Bureau of Surveys with as many crews in the field as would be necessary to maintain the Public Surveyors. The Surveys office could provide facilities for recording any basic survey information either discovered or brought into being. Basic survey information is meant to include (1) evidence witnessing the location of all monumented and recorded points and (2) the lengths and directions of all lines on the Public Surveys, and all other recordable subdivisions of land.

Private surveyors, then, would be willing to record the aforementioned surplus surveying data with the Bureau of Surveys in full confidence that they, in return, will have available to them published data which may reduce immensely the time spent on some future survey. Thus, everyone profits. The landowner gets a less expensive survey; the surveyor is saved a lot of duplicated time consuming work and the public's interest in the land is safeguarded. ▲

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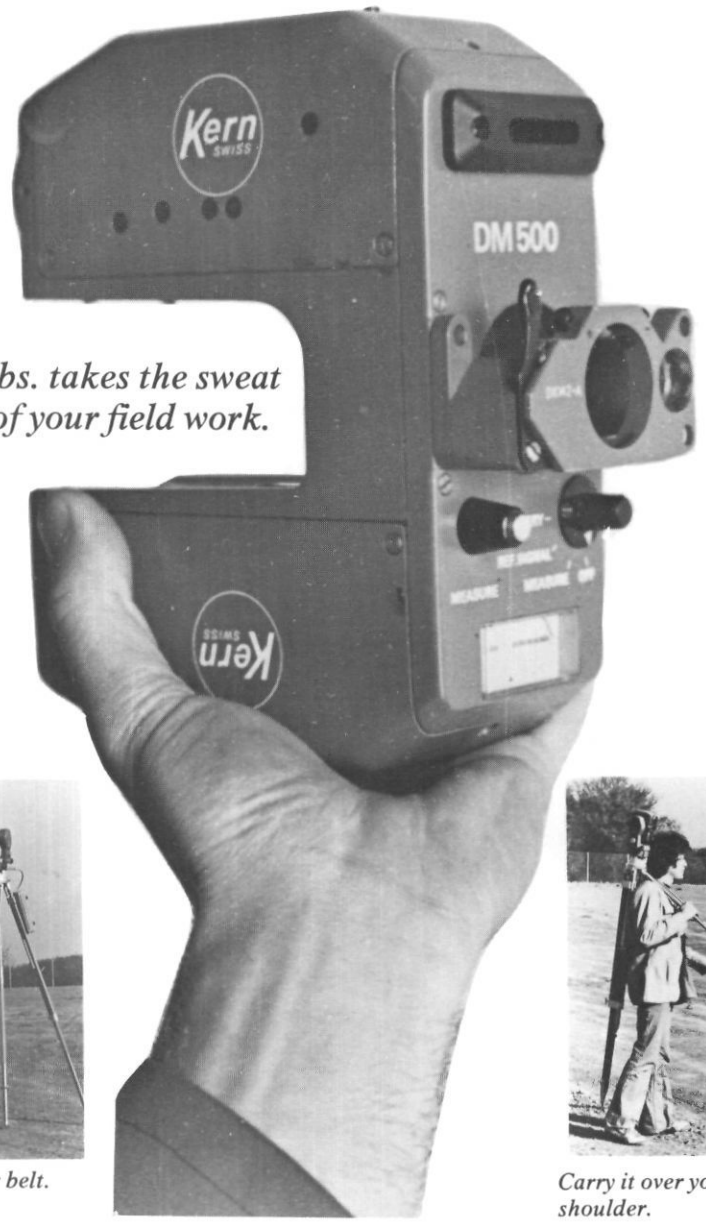

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The Surveying Profession

Continued from Page 1

skills and methods as well as in the scientific, historical, or scholarly principles underlying such skills and methods, maintaining by force of organization or concerted opinion high standards of achievement and conduct and committing its members to continued study and to a kind of work which has as its prime purpose the rendering of a public service—see learned profession. (Webster's Third New International Dictionary)

Profession: a vocation, calling, occupation or employment involving labor, skill, education, *special knowledge* and compensation or profit, but the labor and skill involved is predominantly mental or intellectual, rather than physical or manual. (Black's Law Dictionary).

Professional employee: engaged in work (1) predominantly intellectual and varied in character as opposed to routine mental, manual, mechanical, or physical work; (2) involving the consistent exercise of discretion and judgment in its performance; (3) of such a character that the output produced or the result accomplished cannot be standardized in relation to a given period of time; (4) requiring knowledge of an advanced type in *a field of science or learning* customarily acquired by a prolonged course of specialized intellectual instruction and study in an institution of higher learning or a hospital, as distinguished from a general academic education or from an apprenticeship or from training in the performance of routine mental, manual or physical processes. (20 U.S.C.A. sec. 152 (12))

Professional employee: engaged in work requiring *specialized knowledge* and skill attained through completion of a recognized course of instruction. (California Government Code sec. 3507.3)

First professional degree: programs that require at least two academic years of previous college work for entrance and a total of at least six years of college work for completion; e.g., medicine, law, theology, dentistry, veterinary medicine, osteopathic medicine. (Education Directory, U.S. Department of Health, Education and Welfare, National Center for Education Statistics)

Professional Society: organizations having as members at least a majority of the eligible licentiates in the area served by the particular society. (California Civil Code sec. 43.7)

From the foregoing definitions, I would then propose the following minimum criterion of competence for land surveyors in order to obtain society's recognition as a profession.

1. an occupation requiring *specialized knowledge in a field of science or learning;* and
2. performed after completion of a long and intensive recognized course of instruction, and
3. providing a service that is predominantly mental or intellectual; and
4. involving consistent exercise of discretion and judgment in rendering a public service; and
5. characterized by high standards of achievement and conduct; and
6. practiced by persons committed to continued study; and
7. maintained by force of organization or concerted opinion of at least a majority of the eligible licentiates.

The commentary on profession in Black's Law Dictionary may be directly on point to a discussion as to whether land surveying is a profession. "The term (profession) originally contemplated only theology, law, and medicine, but as applications of *science and learning* are extended to other departments of affairs, other vocations also receive the name which implies professed attainments in *special knowledge* as distinguished from mere skill."

What then is the field of *science and learning* in which land surveyors have *specialized knowledge* and thus the claim to the first element of the above professional standard? The 1974 Standard Classification of Fields of Science and Engineering developed by the National Science Foundation and promulgated by the U.S. Office of Management and Budget does not mention surveying or land surveying as a field or as a discipline within a field of science or engineering. The 1970 Taxonomy of Instructional Programs in Higher Education promulgated by the U.S. Department of Health, Education, and Welfare National Center of Education Statistics does not mention surveying or land surveying as a subdivision or subject field of any of the Conventional Academic Subdivisions of Knowledge and Training. While I can admit these two publications may not make or break a profession, I am unable to find a recognized national or international classification scheme that reports surveying or land surveying as a field of science or learning.

There are, however, recognized sources that report land surveying as an economic activity. The 1972 Standard Industrial Classification Manual published by the U.S. Office of Management and Budget provides for a segment of economic activity in the service area titled "engineering, architectual, and surveying services." The U.S. Bureau of Census collects census data in its Economic Census for a service category titled "architectural, engineering, and land surveying services." And the United Nations, in its 1976 International Standard Classification of all Goods and Services, provides for a separate category of land surveying services under the group heading of "Engineering, Architectural and Technical Services."

Is there then a recognized field of *science and learning* to which land surveyors claim to have *specialized knowledge?* I leave that question to be answered by others within the alleged profession of land surveying. ▲

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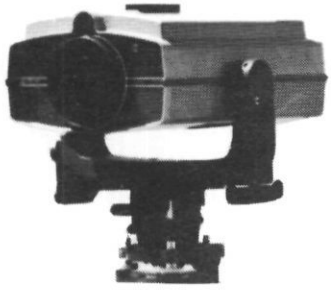

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Surveyor vs. Engineer

Continued from Page 1

The first civil engineering degree in the United States was conferred by Rensselaer Polytechnic Institute in 1835.[19] The three-year course of studies and engineering exercises for the degree of civil engineer in 1852 was loaded with surveying and included the following:

MATHEMATICS: Geometry, Trigonometry, Mensuration, Analytical Trigonometry, Analytical Geometry, Differential Calculus, Integral Calculus.

GEODETICAL ENGINEERING: Operation in the Field; Measuring of Lines; Chain and Compass Surveys of Fields and Farming Estates; Dividing Land; Computations of Areas, etc; Mapping of Surveys; Theory and Adjustments of Field Instruments; Trigonometrical Determination of Heights and Distances; Field Exercises in General Geodetic Operations; Field Practice in Hydrographical Surveying; Higher Geodetic Surveying of Extensive Areas by Trigonometrical and Astronomical Methods; Topographical Surveying with Field Practice; Reductions, and Construction of Maps, Surveys, Location, etc., of Engineering Works.

PRACTICAL ASTRONOMY: Investigation of Astronomical Principles and Data for the Solution of the Practical Problems of the Meridian, Time, Latitude and Longitude of a Place, Sextant and Transit Observations, including Computations for and Reductions Made by Students.

GRAPHICS: Graphical Construction of Chain and Compass Surveys, Topographical Drawing, Drawing Maps and Sections of Surveys for Lines of Transit.

The first engineering course in Canada, which consisted of instruction in surveying, was begun in 1854. Since 1965, the Department of Surveying Engineering is one of the four departments in the Faculty of Engineering at the University of New Brunswick.[17]

Several American universities are now offering four-year couses in survey sciences leading to a bachelor's degree. It must not become a dead-end street. Two well-meaning but ill-advised American educators announced to the world at the F.I.G. (Federation Internationale des Geomètres) Conference in Washington, D.C., in September 1974, that candidates for advanced education in surveying are to be recruited from mathematics, physics, or civil engineering. They will "take off from where the [B.S. degree] surveyor landed." "He [the graduate student] would be prepared to work and lead in areas or levels generally out of the reach of the [B.S. degree] land surveyor," they wrote.[14]

Much of today's controversy stems from fear—fear that too close an association with engineering, particularly civil engineering, will cause the disappearance of surveying, even before it has had a chance to fully unfold itself.

A strong and vigorous surveying profession with a suture must develop its own academic leadership. A B.S. degree in land surveying or survey engineering should be the first, and not the final, step in the formal education of our profession. This education must include some civil engineering design. A surveyor without an understanding of the fundamentals of road and drainage design cannot subdivide land.

The Civil Engineer—Superman?

The letter "S" seems to have a special significance in civil engineering. All of its major functions start with that letter: Surveys, Soils, Streets, Sewers, Structures.

The term "civil engineer" was first adopted by John Smeaton, builder of early roads, structures, and canals in England, who about 1782 signed himself under that title in presenting expert testimony in the courts.[19]

The field is so large and diversified now that registration boards have long ago separated structural and sanitary engineering from its parent group. They have recognized that no one person can contain the vast knowledge signified by the term civil engineering. Professional engineers have learned that sooner or later they must decide and specialize, lest they be known as the proverbial Jack-of-all trades and master of none.

The civil engineer as such does not exist in most of continental Europe. The professional activity is shared by several engineering disciplines. In Germany, for instance, where the survey engineer is responsible for cadastral surveys, engineering surveys, geodetic surveys, photogrammetry, land and town planning, appraisals, site improvements, irrigation and drainage (culture technique), optical instrument design, etc., the tiefbau engineer (engineer for low structures) is responsible for hydraulics, sanitary engineering, highway design, traffic, etc. The hochbau engineer (engineer for high structures) handles bridges, buildings, and other structural engineering matters. In addition, there also exists the cartographic engineer, mining engineer, and many others. All take overlapping courses incidental to their specialty, of course.

What does all this tell us? It tells us that the Civil engineering science, as we used to know it, has outgrown its master. It has become either a misnomer or a term too general to say at all. What is left is an umbrella title under which many different engineering specialties have gathered. The 15 ASCE divisions are indicative of the situation: Air Transport, Construction, Engineering Mechanics, Environmental Engineering, Geotechnical Engineering, Highway, Hydraulics, Irrigation and Drainage, Pipeline, Power, Structural, Surveying & Mapping, Urban Planning & Development, Urban Transportation, Waterways, Harbor & Coastal Engineering.

The Language Barrier

American engineers have long struggled with that confusing title "engineer." Confusing only in the English language, one might add. Professional language, such as *Civil Engineer*, ASCE, and *Professional Engineer*, NSPE, regularly print letters from engineers who are disturbed over the possibility or fact that they may be mistaken for engine operators. The Georgia Registration Code, Section 84—2103, found it necessary to explain that "Nothing contained in this Act shall include the work ordinarily performed by persons who operate or maintain machinery or equipment."

Bergen Evans, Professor of English at Northwestern University, had this to say about it:

"The glamorous figure who ran the locomotive came in America, as early as 1832, to be called the 'engineer' . . . and many contemporary members of the various engineering professions seem to resent this application of the word, as if it were a recent debasement. Though actually it has at least historical priority over many other applications of the term,

and engineers will have to grin and bear it, just as college professors have to put up with the historical fact that 'professor' was formerly the invariable title of the man who played the piano in a saloon. . . . But despite this understandably annoying exploitation, the term 'engineer' is going up rather than down in the scale of dignity simply because the profession it designates is increasing in importance.''[9]

Only the English language associates the title ''engineer'' with the design or operation of an engine (mechanical tool). In all other European languages, the title ''ingenieur, ingenier, inzenyr, ingenior, ingenjor, ingeniero'' is derived from the word ingenuity (skill or cleverness in devising or combining).

Nobody will argue the fact that surveying requires ingenuity. It is, therefore, no surprise when a F.I.G. study of educational systems in the world reveals that of 25 countries no less than 17 associate surveying with engineering.[1]

How Do Others See It?

The Bureau of Land Management

The U.S. Department of the Interior created the Bureau of Land Management as successor to the General Land Office in 1946. It is the largest employer of land surveyors in the United States. One of its functions is to manage and supervise the most comprehensive and ingenious land records system in the world, a cadastre.

In its *Manual of Surveying Instructions,* the title ''engineer'' is overwhelmingly used. As a matter of fact, from pages 6 through 60 the term appears 28 times.[12]

Under ''Laws Relating to Surveys'' the fourth and seventh rules of survey commence with ''The cadastral engineers, respectively, shall cause to be marked on a tree near each corner established. . . .'' or ''Every cadastral engineer shall note in his field book. . . .''

TO BE CONTINUED IN THE FALL EDITION OF THE CALIFORNIA SURVEYOR

Letters

Continued from Page 4

considering contracting for the work. This lack of capability may be temporary or long-term. Caltrans, of course, is not the only State agency with surveying capability.

The author asks, "At what level and by whom is it determined that the survey was properly conducted?" He mentions that the maps he has seen filed have been signed by a Land Surveyor while Caltrans has no positions in its table of organization with the prerequisite of licensing as a land surveyor. The observation is correct that Caltrans has no position with the prerequisite of a land surveyor license. This is by no means a failure on the part of Caltrans to recognize the abilities and qualifications of our licensed surveyors or the situations that legally require a license or registration. Nor does it mean that the licensed surveyor who signs the map is a technician without responsibility. The man who signs the map is responsible whether he is a licensed land surveyor or a registered civil engineer.

The specific maps referred to in the article were signed by a licensed land surveyor whose number and seal were affixed thereto. He was in responsible charge of the survey and supervised the survey crew. The procedure conformed to all governing laws and regulations and does not ignore or dodge any legal, moral, or ethical responsibility.

SPECIFICS

Each of the three surveys, obviously, were accepted by the County Surveyor. Yet, the author pursues his self-appointed task of being both judge and jury as to what constitutes competency in land surveying. Seldom, if ever, will two land surveyors express themselves identically, as he should well know. The author's disagreement with the maps does not make the maps wrong. After all, he is credited with the declaration that "Land Surveying is an Art!" (No. 44, Winter Edition, 1976, *The California Surveyor*).

The author indicates that a violation of the Land Surveyors Act has been committed. He questions the competence and ability of a licensed land surveyor. Perhaps the author should seek proper adjudication of his claim from the Board of Registration.

PERSONAL OPINION FROM A PRIVATE PRACTITIONER'S POINT OF VIEW

The author's contentions are completely unfounded. If, indeed, State employees and equipment were used for surveys in the domain of the private sector, these facts should have been brought to our attention for proper rectification. But the State performed the surveys for the purposes of determining boundaries of State properties.

A State employee who was duly licensed by the Board of Registration was in responsible charge of the surveys. There are no exemptions in The Land Surveyors Act which permits any licensed person to operate outside the purview of the Board of Registration.

The motives of the author are difficult to fathom. Charges and accusations were made without apparent research or verification of facts. We did not find any indication of attempts to contact individuals or agencies involved to ascertain the facts. Accusations were made by inuendo and inferences, rather than by direct statements, for which there is no substantiation.

CLOSING COMMENTS—AN OBSERVATION

C.L.S.A. has lamented in open forum its inability to attract a greater number of licensed public employees as members. It is no wonder that those in public employment are gun-shy of your organization. How can your editorial policy be treated so casually as to permit the subject article to be printed without verification of purported facts?

Your editorial policy in part reads, "The purpose of this organization is to promote the common good and welfare of its members in their activities in the profession of Land Surveying. . . ." Ironically, the Caltrans employee who was in responsible charge of the three surveys is a member of C.L.S.A. Further, he is a past president of one of your Chapters.

George P. Katibah, Chief
Office of Geometronics ▲

EDITOR'S NOTE:

It is regrettable that Mr. Katibah, or anyone, assumed that George Dunbar's article was a statement of position by C.L.S.A. Nothing could be further from the truth. "The California Surveyor" states in its editorial declaration that it "is an open forum for all surveyors." Mr. Dunbar's article was an unsolicited statement of his personal opinion and its publication was not subject to approval of the C.L.S.A. Board of Directors.

Our policy has been and will continue to be one of open discussion. We have always contended that one of the primary problems confronting the surveying profession was the lack of communication between individuals working in different sectors. We hope that we stimulate that discussion, and by doing so, resolve the differences that fragment surveyors.

The Department of Transportation has made significant contributions to the surveying profession in California, and we are sure they will continue to do so in the future. It is regrettable that the lines of communication are sometimes closed by our own ignorance. Those lines of communication are left open in C.L.S.A. by having equal participation from both the public and private sector. This participation is of paramount importance to the continued success of the Association. ▲

Editor:

I have read the Spring Edition of The California Surveyor and found all of the articles very interesting. Of special interest was the very fine article by Allan Ralls, a student at Cal State Fresno. This article was not only well written, but showed great insight into the problem of achieving professional stature for the Land Surveyor.

I would like to comment on his quotation of Eugene Lockto regarding the achieving of the baccalaureate. A portion of th quotation reads, "The common ground is not the training for increased earnings but the other fraction of the curriculum, the humanities and those disciplines calculated to generate a broader interest in life and to point the way to ethical be-

havior."

This quotation, the dictionary definition of technician (one skilled in the technical details of a trade, profession, subject, art, etc.), and the message found in the letter can leave little doubt that Land Surveying is not a profession. As more people like Allan Ralls enter the practice, we will have more professionals practicing Land Surveying, and when only professionals practice Land Surveying it will become a profession.

This conclusion was reached by taking an overall view of the actions and writings of those in the practice of Land Surveying. For instance, the letter in your Spring Edition regarding the disuse of Corner Records. The Corner Record came into existence by legislation sponsored by your own Organization and yet it has become a farce by its disuse by those who proudly proclaimed the accomplishment of the legislation.

Perhaps, too, the lack of the "other fraction of the curriculum" is typified by the following errors found in the Spring Edition of The California Surveyor, "The Voice of the Land Surveyors of California."

PAGE

1. professional spelled porfessional.
2. box says deadline for Spring is May 13, 1977 and Summer is August 12, 1977.
4. paragraph 4 has those instead of thus.
6. paragraph 2 auspices is wrong word.
6. paragraph 5 laissiz-faire is wrong word.
6. practitioner's is misspelled.
8. U.C. Davis not U.S. Davis.
10. (i.e. registration) should be (i.e. licensed).
10. line 4, column 2 should say "registration or licensing."
12. in announcement—sessions begin not begins.
18. surveying is spelled sureving.
22. in Peters' letter, omniscient is misspelled.
23. last sentence makes no sense.

C.L.S.A. emblems on front and back covers are not the same.

The application for membership has an apostrophe 's' in the first line while the label on the back cover does not. In the directions for mailing the application there is no 's' at all.

To paraphrase Allan Ralls, "It's not how professional we think we are, it's how professional we appear to the professionals."

Sincerely yours,

Douglas L. Dean, L.S. ▲

EDITOR'S NOTE:

Mr. Dean's critique of our publication is appreciated and in light of his concern for professionalism, I would like to invite him to join C.L.S.A. and serve his profession by volunteering as an assistant editor of our publication. His copyreading skills are certainly needed and could play an important part in upgrading "The Surveyor."

As Mr. Dean points out, professionalism is not a commodity to be had for the asking. It is regretable that more surveyors like himself have not joined in the efforts to make it a conscious reality. ▲

Courtroom Techniques

Continued from Page 8

in a jury case, or the judge in a jury-waived case. You are there to explain and to help and assist the court. You are not there to confuse or to cause difficulty for the court. You are there to assist and help. For that reason, it seems to me that you should be candid and obviously you should be truthful as professionals. You should not be evasive; You should not consider the court or the presiding judge as enemy. He or she is there with the solemn oath to try to resolve differences in judgment, differences in opinion between litigants.

In case you are challenged or if some of your work is challenged, it is helpful to the court if you bring with you the resource material you used to justify whatever survey or plan resulted from your work. There is nothing wrong, as many of you know who have testified, with you resorting to looking at any information you might have brought with you. The best witnesses are certainly not those who merely try to memorize a particular type testimony. You are perfectly free, once you get on a witness stand to have with you any information that will be helpful in explaining testimony that you give. Field notes, computation charts, anything that you have in your file should be resorted to if it will help you in answering any question that is put to you by counsel or by the court.

If you are given a question by counsel and you do not know the answer to that question, and you can't know the answer, can't testify and respond without looking at something you have with you, don't be afraid to look. Don't take a chance on being wrong by chancing to your memory. If you have a reliable answer in your field notes, must look at certain computation charts that you have in file which you brought to court, by all means just say that you would like to refresh your memory with information you have with you. You need not fear that your case is being weakened, your testimony is being weakened, simply if you have to pause and refresh your memory by looking at everything you brought with you to court.

I ran into a situation a few weeks ago where a land surveyor was trying to justify the existance of monuments which appeared on a plan which was marked as an exhibit and accepted as such. When he was taken over under cross-examination he indicated that he had no personal knowledge of the information that appeared on the plan. He had never gone out into the field, never seen the monuments, and had never known whether or not monuments existed on the ground as had been testified. The surveyor was a contested issue in this case. Cross-examination brought out that he had no personal knowledge, he had never gone into the field and made any personal observation of these monuments.

At that point the question arises as to whether his testimony should be stricken. Is his testimony heresay? Obviously someone else in his office did the field work and the best he could do was testify that he reviewed the field notes and the computations of the individual in his office. He adopted them and made the required certification. I suggest to you that you should be very much aware that if you get into a very serious land dispute which involves whether or not physical monuments appear in a certain place on the ground that you advise the attorney. In order to establish whether or not the monuments appeared on the ground, if you haven't done the field work, you are not going to be the best witness to testify in that type of case. The person that should testify as to what existed on the ground is the person who saw what existed on the ground and not somebody who had never seen what existed on the ground to whom the information was related. Courts want first hand primary evidence, not evidence once removed, or heresay information. Try to remember that. Always spend sufficient time with your examining counsel in advance of trial.

I found when I was practicing law, that clients and even attorneys sometimes were shocked when they received the surveyor's bill for professional services, as they were when they received the attorney's bill. One of the problems is that the client or the attorney have no idea how much time you people put in, all they know is that they get in touch with an attorney who very often retains a surveyor and a plan results. They don't know whether you spent two hours, or whether you spent 200 hours out in the field. They haven't the slightest idea. All plans look the same to clients. It's very important, it seems to me, when you send a bill to an attorney for presentation to a client, or if you are dealing directly with a client and not through an attorney, for you to document in detail the number of hours that had been spent in the field, the number of hours in research that had to be expended. If you had a very complicated problem, clients for whom you work just do not understand the skill and the research and advanced state of knowledge that is current in your profession. It's up to you to justify that in detail to them if you expect to get paid without some type of difficulty. ▲

TITLE TIPS

Prepared by the Legal Staff of
TITLE INSURANCE AND TRUST COMPANY

IMPLIED EASEMENTS

By John F. Forward II and William J. McGovern
Senior Associate Counsel Law Clerk

An easement is a non-possessory interest in the land of another which entitles the owner of that interest to a limited use or enjoyment of the land in which the interest exists. Such an interest must be created by grant or agreement, express or implied. Among the usual methods of creation are by written instrument, prescription, or an executed oral agreement based upon a valuable consideration.

The less common method of creation is by implication based upon a pre-existing quasi-easement. The basic principle behind implied easements is that a grantor is presumed to grant everything necessary for the reasonable enjoyment of the estate granted. (CC §3522). The extent of an implied easement is determined by the nature of the enjoyment by which it was acquired. (C.C. §806).

A quasi-easement exists while all the land is held by the common owner, and it is not a true easement. By definition, a common owner cannot have an easement on his own lands. But upon transfer of a portion of his land to another, unity of possession ceases and the prior use becomes a true easement. The question remains, did the common owner transfer the burdened portion or the benefitted portion? To answer this question will also be to answer the important question of whether the easement arises by implied grant or by implied reservation.

What purpose does the doctrine of implied easements serve? The purpose of the doctrine is to give effect to what may be deemed to have been the actual intent of the parties to the conveyance. Civil Code §806 has the effect of making intent the criterion. In order to determine the intent, the court will consider the particular situation of the parties, the state of the thing granted, and all the surrounding circumstances. (*Bartholomae Corporation v. W. B. Scott Investment Co.*, 119 C.A. 2d 41, 259 P.2d 28 (1953)). More specifically, to find an easement implied by grand or reservation, there must exist certain conditions at the time of conveyance. Under Civil Code 1104, the courts have prescribed the conditions which must exist at the time of the conveyance before an easement by implication will be given effect:

1. Prior common ownership by the grantor of the land conveyed and the land retained.
2. A continuous, obvious, and apparent use of one portion of the land for the benefit of the other sufficient to show that it was intended to be permanent, or something in the nature of a permanent artificial structure.
3. Reasonable necessity of the easement for the beneficial enjoyment of the land conveyed or retained.

(*Swartzwald v Cooley*, 39 C.A. 2d 306, 103 P.2d 580 (1940); *Fischer v. Hendler*, 49 C.A. 2d 319, 121 P.2d 792 (1942)).

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Title Tips

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The unity of ownership may be severed by a voluntary or an involuntary conveyance: by grant deed; by foreclosure of mortgage (*Dixon v. Schermeier,* 110 C. 582, 42 P. 1091 (1895)); by sale under a trust deed (*Hamburger and Sons v. Lemboeck,* 20 C.A. 2d 565, 67 P.2d 380 (1937)); by will (*Cheda v. Bodkin,* 173 C.7, 158 P. 1025 (1916)); by lease (*Owsley v. Hamner,* 36 C. 2d 710, 227 P.2d 263, 24 ALR 2d 112 (1951)); or by execution of a conditional sale contract for real property (*Orange Cove Water Co. v Sampson,* 78 C'A. 334, 248 P.526 (1926)). As the law does not favor the implication of easements, such implication can only be made in connection with a conveyance. (*Orr v. Kirk,* 100 C.A. 2d 678, 224 P.2d 71 (1950)). Under the title theory, a use created after the giving of a mortgage does not result in an easement in favor of the mortgagee. But under the lien theory such a use would give rise to an easement which would in turn pass to the purchaser at the sale under the trust deed.

A use is regarded as obvious or apparent if it could have been discovered by a reasonably prudent investigation by the parties, or if it was known to the parties at the time of the conveyance. An easement is apparent where there is external evidence of an underground servitude. (*Rubio Canon Land & Water Assn. v. Everett,* 154 C. 29, 96 P. 811 (1908)). An implied easement for a drain or sewer system several feet below the surface is also apparent although there might be nothing visible on the ground or in the house to indicate its existence. (3 Tiffany, Real Property (3rd ed.) 263, §784).

It is the use at the time of the conveyance which is to be considered in determining the extent of the implied easement. The parties are presumed to contract in reference to the condition of the property at the time of sale. But the owner of the dominant tenement is not necessarily limited to the use made at the time of the conveyance. It is to be measured by such uses as the parties might have reasonably expected from the future uses of the dominant tenement. Uses which are appropriate in the course of normal development are acceptable; abnormal uses or those which put an improper added burden on the servient tenement are unacceptable. (*Fristoe v. Drapeau,* 35 C.2d 5, 215 P.2d 729 (1950)).

Strict necessity is not a requirement for an implied by grant easement, only reasonable necessity. The claimed easement does not have to be the sole means of access. (*Marin County Hospital District v. Circurel,* 154 C.A. 2d 294, 316 P.2d 32 (1957)). What is required is necessity for the convenient and comfortable enjoyment of the property as it existed when the severance of common ownership was made. (*Navarro v. Paulley,* 66 C.A. 2d 827, 153 P.2d 397 (1944)). One test of necessity, adopted in *Navarro v. Paulley, supra,* was to determine whether the party claiming the right could, at a reasonable cost, create a substitute on his own estate. There is a distinction between an easement by implied grant and an easement by necessity; the latter arises from strict necessity alone, continues only while the necessity exists, and does not rest on a pre-existing use. (*Reese v. Borghi,* 216 C.A. 2d 324, 30 Cal. Rptr. 868 (1963)).

Where a use is not reasonably necessary and is only permissive or a neighborly act of convenience or accommodation, this is evidence that an implied easement was not intended. (*Orr v. Kirk, supra).* Whether the use is under a claim of right or a matter of neighborly accommodation is a question of fact for the court to determine, considering the relation of the parties, their conduct, the situation of the property and all the surrou ing circumstances. (*Grimmesey v. Kirtlan,* 93 C.A. 658, 27 P. 243 (1928)). The realization of the intention of the parties is an important objective of the law of implied easements. The court will not impose an implied easement where doing so would be contrary to the expressed intent of the parties. (*County of Los Angeles v. Bartlett,* 203 C.A. 2d 523, 21 Cal. Rptr. 776 (1962)).

It was held in *Piazza v. Schaefer,* 255 C.A. 328, 63 Cal. Rptr. 246 (1967), that there need not be a division of adjoining and contiguous parcels of land to create an implied easement, as long as the other necessary conditions of an implied easement are present. There the plaintiff's property was neither contiguous to the water supply or to the defendant's lot, and the plaintiff sought to have declared an implied easement of water rights entitling him to maintain a pipeline across the defendant's land and to use the water for domestic purposes. The court found that all elements of an easement by implied grant were present, and that the lands of all parties to the action had been held in common at one time. But the dictum of the court went on to say that even if the defendant had no actual, constructive or inquiry notice, the defendant's purchase of his land in good faith could not act to destroy the plaintiff's rights which were implied in the grant to him.

The rule of implied easements is reciprocal. (*Rosebrook v. Utz,* 45 C.A. 2d 726, 114 P.2d 715 (1941)). While a ben

may be conferred upon the grantee, so too may a burden be imposed upon a portion of the land conveyed to the grantee. The essential conditions which must exist at the time of the conveyance are the same for easements by implied reservation in the grantor as those for easements by implied grant, with the following exception. The showing of necessity must be greater than merely reasonable and convenient, although the necessity does not have to be strict and absolute. It may be said that the less apparent the use is to the grantee, owner of the servient tenement, the greater must be the necessity of the use of the dominant tenement for the courts to give it effect. The language of the conveyance is to be construed more strongly against the grantor. (*Jordan v. Henck,* 166 C.A. 2d 321, 333 P. 2d 117 (1958)). The courts hesitate to contradict an unqualified grant by implying an easement that burdens the grantee's property and derogates from the grant. In *Narvarro v. Paulley, supra,* the defendant claimed an easement over the plaintiff's property by implied reservation. In this quiet title action by the plaintiff, the court held that the defendant's garage could be moved to a location totally within her lands without any great hardship.

Civil Code 1104 applies only to grantees, and thus to easements by implied grant. *(Jordan v. Henck, supra).* The courts are not sympathetic to the plight of the grantor, and where existence of the use is not so permanent and obvious that the grantee's knowledge thereof can be implied, the bona fide purchaser will receive title to the servient tenement without the burden of the unknown easement. (*Pettits v. General Telephone of California,* 66C. 2d 503, 58 Cal. Rptr. 316, 426 P.2d [illegible] (1966)).

An implied easement by grant may also arise by representations of various kinds. In *Gagnon v. Adamson,* 122 C.A. 2d 253, 264 P.2d 620 (1953), the plaintiffs were purchasers of lots in a development who were told by real estate salesmen that they would have use of an abutting road for its full length. While inspecting the property, the plaintiffs needed to use the portion of the road on the defendant's land because the road in the other direction occasionally became impassable. The defendant, a subsequent purchaser of a lot in the development, obstructed passage along the road through her land. The court found that the prior use of the property was not an essential circumstance and that, by estoppel, all the plaintiffs, including those with no real need, had an implied easement across the defendant's land based upon the representations made by the salesmen.

Where a conveyance makes reference to a tract map, plat, or plan of development, recorded or not, the grantee acquires an easement which is independent of dedication to the public use. It follows that the easement survives abandonment or vacation of the public use. (*Danielson v. Sykes,* 157 C. 686, 109 P.87 (1910); (See C.C. §812)). But the closing of a street which is of no material benefit to the particular lot in question will not be enjoined. *(Danielson v. Sykes, supra).* Where such maps indicate there is to be no access to a lot except by canal, and that no dedication of adjoining lands is to be made, an implied easement will not be imposed. *(County of Los Angeles v. Bartlett, supra).* The street must be a part of the subdivision or the doctrine of easements by implied grant will not apply. (*Norcross v. Adams,* 263 C.A. 2d 362, 69 Cal. Rptr. 429 (1968)). It has been held that reference in a conveyance's description of land to a recorded land survey is not sufficient to raise an implied easement (*Metzger v. Bose,* 183 C.A. 2d 13, 6 Cal. Rptr. 337 (1960)).

For the purpose of title insurance, reliance upon the creation of an easement in general must be confined to those created by express grant. This, of course, excludes easements created by operation of law, such as the implied easements discussed here. These cannot usually be considered insurable interests until their validity, and the rights of the parties have been adjudicated, and that adjudication is made a part of the record chain of title. The parties to a conveyance would be wise to express their intention in clear language in the instrument after a patient probing for potential present and future sources of trouble. ▲

SUSTAINING MEMBERS

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