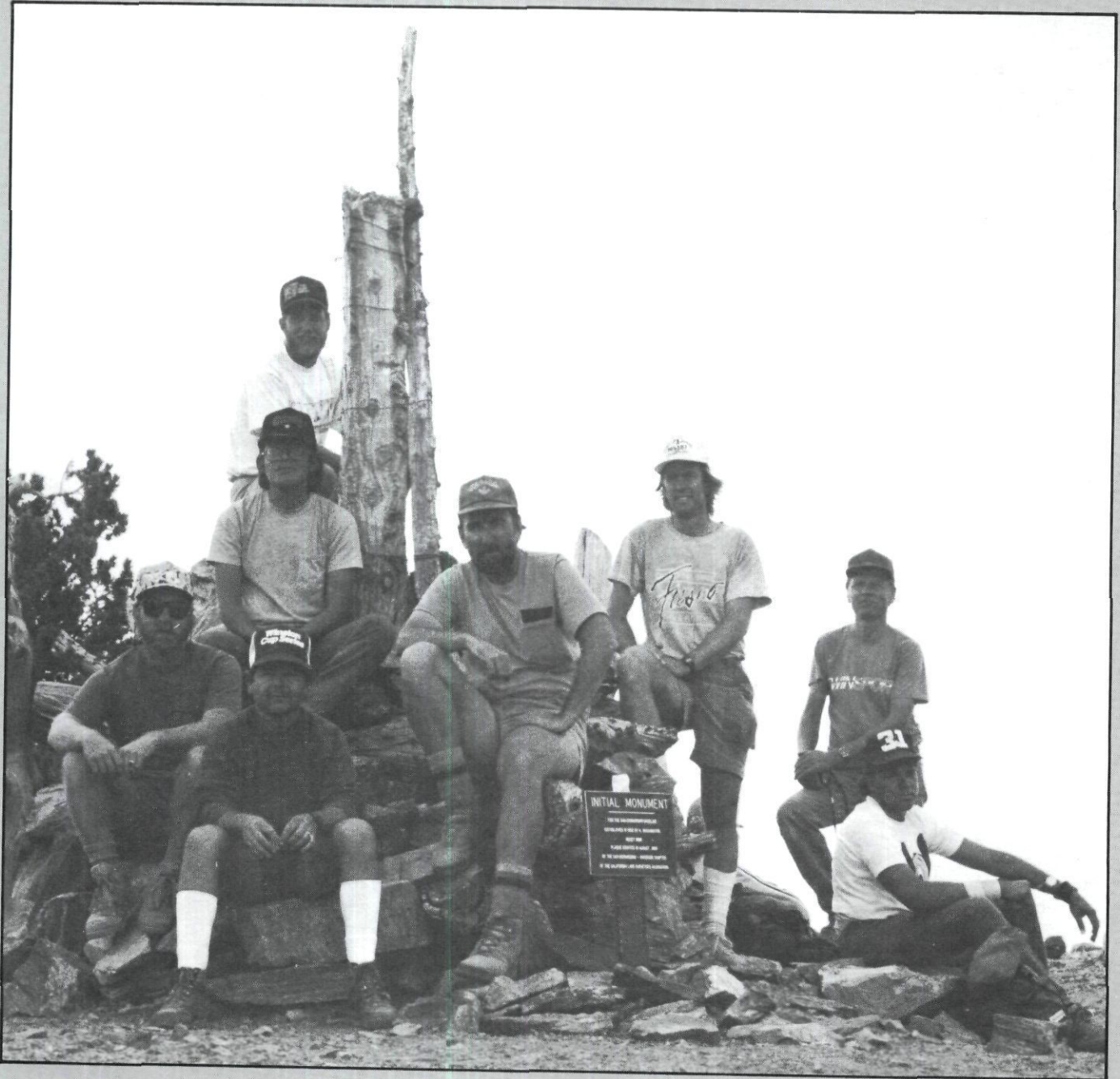


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Cover Photo: 1988 Mt. Washington survey expedition members: (top to bottom, left to right) Mike Raihle, Manuel Cortez, Glenn Snoke, Larry Bradt, Dan Moye, Mike Duffy, Kari Launen and Ruben Ibarra.

The California Surveyor

is the quarterly publication of The California Land Surveyors Association, Inc. 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, Inc. *The California Surveyor* is an open forum for all surveyors, with an editorial policy predicated on the preamble to the Articles of Incorporation of the California Land Surveyors Association, Inc. 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."

Personnel

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Sustaining Membership

Membership in the California Land Surveyors Association, Inc. 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, Inc. Contributions submitted on floppy diskette medium is encouraged. For compatibility, the following requirements should be met: 5 1/4-inch floppy diskette, PC DOS or MSDOS format, ASCII text files, and no formatting codes in the text. Material should be sent to *The California Surveyor*.

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Spring February 20, 1989

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President's Message

Webster defines motto as "a sentence, phrase or word inscribed on anything as indicative of or appropriate to its purpose or character; a maxim adopted as expressing one's guiding idea or principle." Mottoes such as "be prepared", "in God we trust", and "semper fidelis" are familiar to all of us. They are brief, to the point and express a purpose of being.

Our association does not have such a motto. I've given this a lot of thought lately. I would like to see C.L.S.A. adopt the theme of our 1987 conference, "Educate, Legislate and Communicate" as our motto. These three words are indicative of our main thrust over the last three years and I see no change in 1989.

We have increased our workshop and seminar activity and our support for the surveying programs at Fresno and Pomona, and we are preparing a corres-



pondence course in Basic Surveying. The Education Committee is actively studying the concept of Continuing Education for Relicensing.

The Legislative Committee has prepared an ambitious list of proposed bills

to present during the next session and John Tooker, our advocate has proven very effective in getting our bills sponsored and approved.

We continue to maintain liaison with N.C.E.E., West-Fed, The Board of Registration, CAL-Council, and A.C.S.M., among others. Our C.L.S.A. News and Cal-Surveyor magazine provide information to our members and to all surveyors in California. The Bulletin Board has proven an effective way for our members to communicate with each other.

During 1989 I will attempt to increase C.L.S.A.'s impact on our profession through the use of education, communication and legislation. I would like to adopt this as our motto to insure that future administrations will have a clear understanding of the courses we must take to be effective.

Paul A. Cuomo, L.S.

1988 President's Message

1988 has come to a close, as has my tenure as President. Six years ago, I came to your Board of Directors as a Representative from the Central Coast Chapter. I was curious about the state organization but had little, if any experience with their activities or the issues facing our profession, beyond those affecting my own local area and practice. I vividly remember entering that room full of strangers and I would like to express a special thank you to Hal Davis of the East Bay Chapter for making me feel welcome and at ease that first meeting. Since that Saturday morning, I have been able to meet hundreds of Surveyors throughout California and the rest of the country on your behalf. For that opportunity, I would like to thank the Association.

I've heard that no outgoing President is ever satisfied with the progress made during their tenure but I feel it is only because the Association's potential is so

great. As for this past year, we have continued to improve and build our association, as others have before us.

In publications, a revitalized "CLSA NEWS", edited by Gerald Forsman, augments "The California Surveyor". Also, in addition to our newly published L.S. Roster, L.S. Act and Board Rules, the Subdivision Map Act is now in print and available from our Central Office.

The Board of Directors has approved an ambitious legislative agenda for the 1989-1990 session and renewed our contract for legislative advocacy. Through the successful efforts of John Tooker, C.L.S.A. has truly become an association to reckon with in Sacramento.

C.L.S.A. is also strengthening its position in regional and national arenas. We have increased our involvement in and direction to the Western Federation of Professional Surveyors. We are active as a participating organization of N.C.E.E. at both the Western Zone and

National meetings, as well as, at N.S.P.S./A.C.S.M. national conferences.

Our Education Fund continues to grow and now includes a "President's Scholarship" funded by contributions from the past presidents of our association.

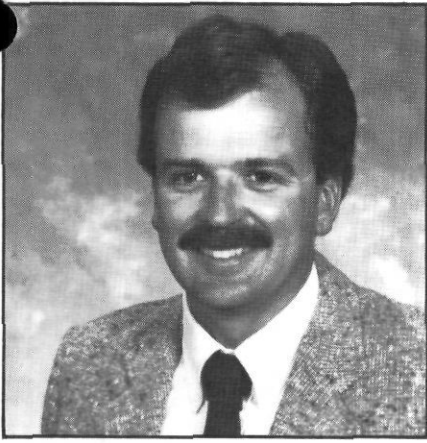
These are only some of the activities our association is accomplishing and with your support and involvement, our continued growth will be assured.

I would like to extend my best wishes to the new officers and board members of 1989 and to Dorothy Calegari and her staff, a special thanks for all their help over the years.

I look forward to seeing you all at the Anaheim Conference in March and in closing, remember old presidents do disappear, they are just assigned another committee.

Susan Anne Jensen, L.S.

From the Editor:



A couple of definitions from the C.L.S.A. bylaws:

Article 2, Section 2.01 (a) CORPORATE MEMBER: Any person who is licensed as a Land Surveyor or Photogrammetric Surveyor in the State of California, shall be eligible for membership in this Corporation as a Corporate Member. Voting privileges and eligibility to hold office in this Corporation shall be limited to Corporate Members.

Article 2, Section 2.01(c) AFFILIATE MEMBER: Any person interested in the field of surveying, but not licensed as a Land Surveyor or Photogrammetric Surveyor or does not hold a valid certificate as a Land Surveyor in Training, who in their profession or vocation relies upon the fundamentals of land surveying shall be eligible to apply for membership in this Corporation as an Affiliate member. Such application must be endorsed by a Corporate Member.

Did you know that pre-1982 registered Civil Engineers (those who are authorized to practice land surveying) cannot be "Corporate" members of C.L.S.A.? They are required to be "Affiliate" members of our Association. It's hard for me to understand how this can be. Here's a group of professionals who have all the rights, privileges and responsibilities of a licensed land surveyor, but because of their title can only be affiliate members.

There have been attempts to right this wrong, with our State Board of Directors. However, each attempt to amend the C.L.S.A. bylaws to allow pre-1982 RCE's to become Corporate members has failed by close vote. Why did the directors vote against the bylaw amendment? Two reasons seem to stand out: 1) "C.L.S.A. should be for Land Surveyors Only" and 2) "If we let RCE's become Corporate

members they will take over the Association."

C'mon people, these are pretty weak excuses. We've already discussed excuse number 1; pre-1982 RCE's are land surveyors in every way except title. As for excuse number 2, I'd be really surprised if we would gain more than 200 to 300 corporate members by this change, and if more did join, we'd have to get off our duffs and recruit more L.S.'s as members. Excuse No. 2 seems to stem from a fear of the RCE's and their superior numbers. This fear has led our Association to a practice of professional bigotry.

Are there other solutions to this situation? There have been some very informal discussions held to find a way to make all parties happy. One possible solution is to "Grandfather" in all pre-1982 RCE's as land surveyors. In addition, all L.S.'s would then be required to take continuing education classes to maintain their license. This would "weed out" all the RCE's (and L.S.'s) who aren't actually interested in practicing land surveying. Another possibility is to require retesting at regular intervals to maintain authority to practice land surveying. Again this would remove those not truly interested in the profession.

But these changes require rewriting state law and as we all know this is a very time consuming process. Until then, I think our own bylaws need a little rewriting.

(Editor's Note: Due to some pre-publication concerns voiced by members of C.L.S.A., I must substantiate the fact that this editorial is my opinion only and not necessarily the opinion of C.L.S.A. and/or its Board of Directors.)

RESPONSE TO THE LETTER "FROM THE EDITOR"

Well, here we go again! It seems that every time we have a successful legislative session in Sacramento or some headway is made for the Land Surveyor, this question rears its ugly head. We have to ask why?

With the myriad of engineering societies in our state, including A.S.C.E., N.S.P.E., C.L.C.P.E., C.E.A.C., C.S.P.E., etc., none of whom allow our full membership, why are we again being asked to alter our requirements in order to accommodate the engineer?

C.L.S.A. is the only professional society in California which specifically speaks for and is responsible to the "Land Surveyor." This is the very reason for our existence and why the organization was founded.

We would like to pose some questions to those who might consider this change as beneficial to the Land Surveyor. If your officers and directors had been Civil Engineers, do you think Senate Bill 2, which removed the C.E. exemption would have been proposed, let alone passed? Do you believe legislation allowing us the equal right to employ Civil Engineers would have been passed? Would legislation regulating legal descriptions under the Land Surveyors Act and the authority to coordinate consultants have become law? Think about it.

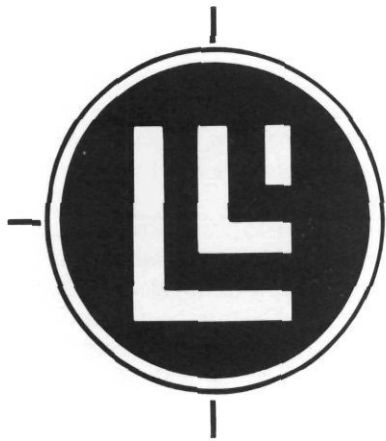
In addition, we take exception to the comment that "Pre-'82 Engineers are land surveyors in every way except title." The authority to practice land surveying by Civil Engineers was removed in 1979 because the legislature determined that Civil Engineers could not demonstrate that they were educated, experienced or examined in land surveying. The implementation date of January, 1982 was authorized in order to accommodate those already preparing for the C.E. exam, not because minimum competency in land surveying had been proven.

The pat answer to the concerns we raise continues to be "Surveyors are paranoid." Well, maybe so... with 80,389 Registered Engineers vs. 2,996 Licensed Land Surveyors in the State of California, can we be blamed for occasionally glancing over our shoulders?

Further, for those of us who have been involved for many years and continue to monitor the legislative arena, the Board of Registration and N.C.E.E., we have personally witnessed far too many intrigues perpetrated by some members of the engineering community, at the expense of the Land Surveyor, to so quickly forgive and forget. We are not seeking a confrontation with Engineers authorized to practice through the pre-'82 exemption, but we do believe deeply that ours is a distinct and separate profession and that C.L.S.A. should continue its advocacy on behalf of the "Licensed Land Surveyor."

This is not a question of whether some engineers are highly qualified and experienced in land surveying or even if they are "good guys." Ours is an association of and for Land Surveyors. For those surveying Civil Engineers who feel it is necessary to become full corporate

continued on page 8



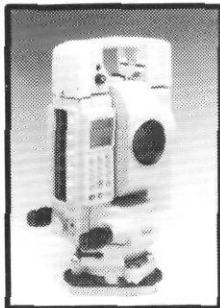
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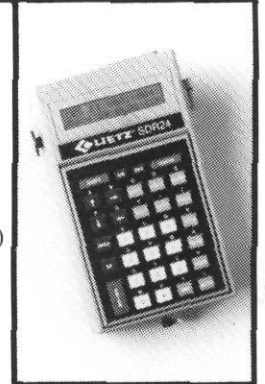
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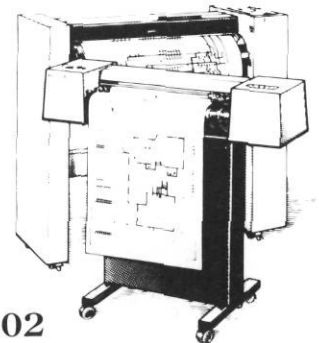
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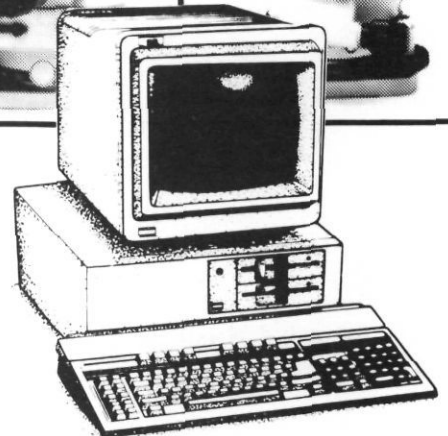
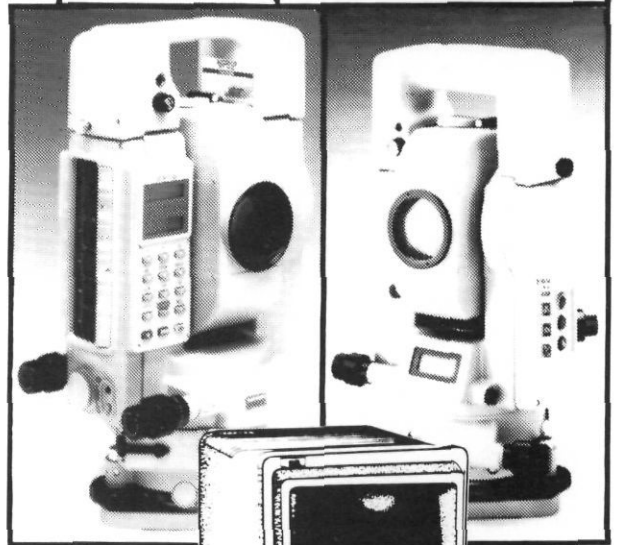
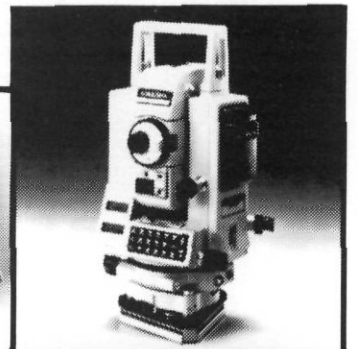
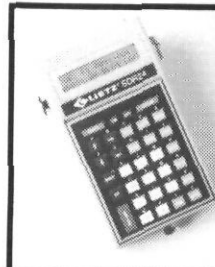
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To the Editor:

Dear Editor:

In response to Joe Bell's letter in the Fall 1988 issue of *The California Surveyor*, I would like to restate the goals of the California Foundation for Land Surveying Education "CFLSE":

1. To enhance land surveying education at all levels of education in the State of California.

2. To initiate a program at a four-year college or university in the Southern California area.

3. Once a program is initiated, support a full time, tenure track position at the chosen school to guide the surveying program.

4. To support the surveying program by funding a recruitment drive to bring enrollment up to a level that would demand a Department of Land Surveying.

5. Through the accomplishment of Steps 1 through 4, a stand-alone surveying program can be realized.

The first goal is an ongoing one at the Foundation. We have supported math fairs at the high school level. At the community college level CFLSE has supported a promotional effort in the Bay area and helped revive an all but dropped surveying program in Southern California. Chico State University has received donations of equipment through the Foundation. Donations to Fresno State University has included funds to help purchase an analytical plotter, support of the Masters Program and the summer camp not to mention several scholarships presented to Fresno students.

For goal number two, just finding a university that would work with us in starting a surveying program from scratch was not easy in this post proposition 13 environment. The program at Cal Poly Pomona was started as an extension to the school and classes were taught on Saturdays by practicing land surveyors such as Ira Alexander, Dick Hauck, Dr. James Crossfield, Bob Hennon, Kevin McHugh and Joe Bell among others.

Unable to create a new department at the school, Cal Poly offered a survey option to the Civil Engineering Degree. Regarding this as a stepping stone toward a four-year surveying degree, the option program was accepted by CFLSE and a 39-unit option program was created.

The next goal, the addition of a surveying professor to the program, was accomplished with the appointment of Dr. Howard Turner to fill that position. Dr. Turner is leaving Purdue University and will start at Cal Poly in January, 1989.

Goals 4 and 5 are not going to be easy. Attracting students will be Dr. Turner's job and CFLSE will support him in every way. Initiating another degree program at Cal Poly will require a great deal of work and will depend on how well goal number 4 is met.

All of the directors of CFLSE are also members of CLSA. They are fully aware of the desire of the Civil Engineering Profession to get land surveying back in their court and are not going to let this happen. But without an education program, land surveying will die as a profession all by itself.

Sincerely,
Lawrence L. Truman, L.S.
President, CFLSE

*Response
continued from pg. 5*

members of C.L.S.A., we encourage them to take the additional step required for that membership by sitting for and passing the Land Surveyors exam, as many others have done. For those who have supported us over the years through their affiliate membership, we hope they will continue to work on our behalf in their engineering societies, as well as, with C.L.S.A., so that our two professions can move ahead in the 1990's.

Sincerely,
Susan Anne Jensen, L.S.,
Immediate Past President
Howard W. Brunner, L.S.,
President-Elect
Kenny L. Fargen, L.S.,
Secretary

A Suggestion

Don't offer "constructive criticism" when discussing an employee's performance. *Instead:* Offer "constructive suggestions." "Criticism" is a word that evokes negative feelings and can prompt defensive reactions from those being counseled. □

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How to Gain High Visibility

Do you believe that:

• You gain power not because of your ability but because of your visibility?

• High visibility has become so critical that professionals of all kinds are finding out that they are only as successful as they are visible?

Even if you gave a qualified "yes" to just one of these questions, you should read the 366 pages of *High Visibility*, a book that explains how to create, market and achieve successful celebrity images.

Written by Irving Rein, Philip Kotler and Martin Stoller—three well-known marketing and communication experts—the book identifies three marketing styles to launch people who aspire to be celebrities:

• Pure selling approach. Here the agent sees the client "as a fixed product that simply has to be sold, as is, to the best market that can be found!"

• Product improvement approach. In this instance, the agent takes an inventory of the person's characteristics and suggests ways to improve. This is also known as a "value-added approach."

• Market fulfillment approach. Here the agent scans the market to see what kinds of needs exist and then searches for a qualified aspirant to promote into the role.

According to the authors, visibility can occur on a local, regional, national or international basis. And it centers on nine sectors: entertainment, sports, politics, culture, business, religion, science, the professions and academics.

The authors view what they term "the storyline" as vital to gaining celebrity status with mass audiences. The storyline, they say, enables celebrity marketers to highlight dramatic elements in people's lives or to mix their real lives with fictional story elements—to get audiences interested and involved in their lives.

Here are a few of the 22 major storylines they cite:

• First of a kind. Geraldine Ferraro, Jackie Robinson.

• The incredible feat. S. I. Hayakawa putting down the rebellion at San Francisco State, Peter Ueberroth masterminding the Olympics.

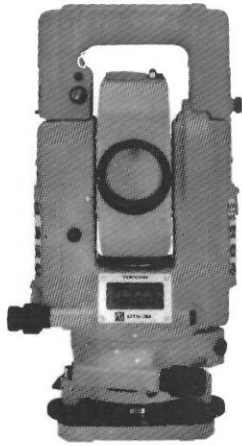
• The pure archetype. Actor Clint Eastwood, Baseball manager Earl Weaver.

• Outrageous behavior. Publisher Larry Flynt, Benihana founder and sportsman Rocky Aoki. □

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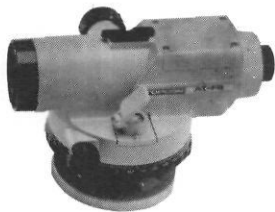
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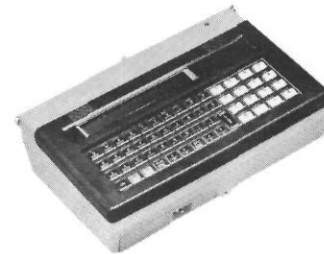
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Liability of Local Government for Obliteration of Monuments

A copy of a memorandum to Darlene Stroup, Executive Officer, Board of Registration for Professional Engineers and Land Surveyors.

By Donald Chang

You have requested an opinion concerning Section 8771 of the Business and Professions Code (all section references are to that code) as it relates to the obliteration of monuments which occur during a city or county work project. We have restated your questions as follows:

1. Would the paving over of surveying monuments by a city or county work project violate Section 8771?

2. If so, who in the city or county is accountable?

Conclusion

A city or county that paves over existing monuments located in streets or highways without resetting such monuments in the surface of the new construction is in violation of Section 8771. The Board of Registration for Professional Engineers and Land Surveyors (Board) possesses the authority to discipline the Land Surveyor or Civil Engineer who was in responsible charge of such a construction project. However, the Board lacks authority to initiate administrative action against a city or county which violates Section 8771. In addition, a city or county would not be subject to criminal prosecution for paving over monuments located in streets or highways.

Analysis

It is our understanding that in some cities and counties it is a common practice for city or county work crews when performing road or sidewalk maintenance/repair services to intentionally pave over pre-existing land surveying monuments located thereon.

Section 8771 covers the re-establishment of controlling monuments and provides in relevant part as follows:

"* * * When adequate records exist as to the location of subdivision, tract, street or highway monuments, such monuments shall be located and referenced by or under the direction of a licensed Land Surveyor or registered Civil Engineer at the time when streets or highways are reconstructed or re-

lated. They shall be reset in the surface of the construction, a suitable monument box placed thereon, or permanent witness monuments set to perpetuate their location. Sufficient controlling monuments shall be retained or replaced in their original positions to enable land lines, property corners, and tract boundaries to be re-established without devious surveys necessarily originating on monuments differing from the ones which currently control the area. It shall be the responsibility of the governmental agency or others performing construction work to provide for the monumentation required by this section . . ."

Under Section 8771 a city or county is required when performing street or highway construction to "reset in the surface of the new construction, a suitable monument box placed thereon or permanent witness monuments set to perpetuate" the location of the existing monuments. Thus, where a city or county has paved over pre-existing monuments without resetting the monument in the surface of the new construction a violation of Section 8771 has occurred.

The question now posed is what liability attaches for a local government's failure to comply with Section 8771.

Section 8780 allows the Board to initiate disciplinary action against a Land Surveyor or Civil Engineer who has violated any provision of the Professional Land Surveyors Act or any other law relating to or involving the practice of land surveying. Section 8771 is contained in the Professional Land Surveyors Act and also involves the practice of land surveying. Thus, the Board is empowered to take disciplinary action against a Land Surveyor or Civil Engineer who was in responsible charge of a construction project which failed to reset monuments which were obliterated by the project.

A question is presented concerning possible criminal liability for violation of Section 8771. Although Section 8771 does not mention criminal liability, Section 8792 provides that a person "who violates any provision of this chapter" is guilty of a misdemeanor. The California Attorney General's Office has opined that such words in a general penalty section require construction and not every violation of the chapter, code

or statute referred to in such a general penalty section is made a crime thereby. 29 Ops.Cal.Atty.Gen. 28, 29. See also, *People v. Superior Court of Orange County* (1979) 155 Cal.Rptr.704.

Thus, Section 8771 must be examined to determine what, if any provision thereof, the Legislature intended to come within the general penalty language of Section 8792. In examining Section 8771, we note a number of acts which are required of local governments with regard to the establishment of controlling monuments. The syntax is more indicative of procedural direction rather than defining a new crime. For example, it does not contain prohibiting language such as, "it shall be unlawful for any person to . . ." followed by a description of conduct which spells out the elements of a crime. We would conclude that a local government's failure to reset monuments following a work project which obliterates is not a misdemeanor pursuant to Section 8792.

However, Section 605 of the Penal Code makes it a misdemeanor for a person who either:

"1. Maliciously removes any monument erected for the purpose of designating any point in the boundary of any lot or tract of land, or a place where a subaqueous telegraph cable lies; or

2. Maliciously defaces or alters the marks upon any such monument."

Paving over existing monuments would not constitute a removal of the monument since it would continue to remain where it was originally placed. However, an argument could be made that paving over of a monument obliterates the monument such that it constitutes a defacement of the marks upon the monument as prescribed by paragraph 2 of the Penal Code Section 605.

"Deface" is defined as "(1) to mar the surface or appearance of, disfigure, (2) to obliterate wholly or partially, as an inscription; efface." *Funk & Wagnalls Standard College Dictionary* 1968, p.349.

In addition, subsection (4) of Section 7 of the Penal Code defines "maliciously" in relevant part, as "an intent to do a wrongful act."

Accordingly, where an individual paves over an existing monument with knowledge that such activity is wrongful,

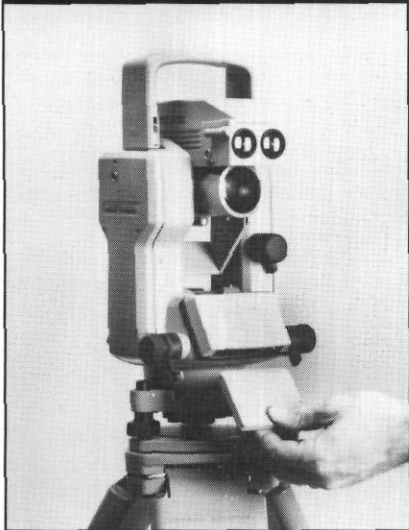
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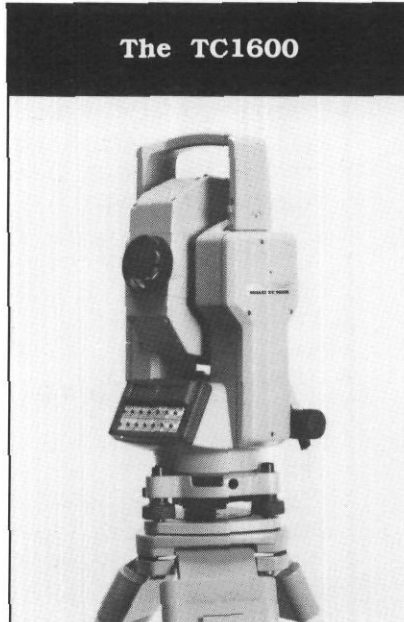
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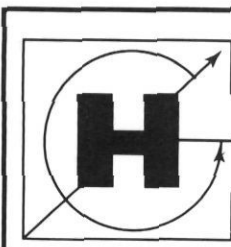
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he or she would be guilty of violating Penal code Section 605.

The next question posed is whether local governmental agencies are subject to criminal prosecution. Penal Code Section 7 defines "person" as "includ(ing) a corporation as well as a natural person." The California Attorney General's Office has previously considered whether state or local governmental entities could be subject to criminal prosecution for violations of the Penal Code. The Attorney General's Office noted that when the California Penal Code was first enacted in 1872, Penal Code Section 7 read: "the word 'person' includes bodies politic and corporate." In the 1873-74 session the Legislature amended Penal Code Section 7 and changed the definition to its present form, i.e., "the word 'person' includes a corporation as well as a natural person." The deletion of the words "bodies politic" from the Penal Code definition of person in 1873-74 is presumed to have made a substantial change in the law by removing "bodies politic" from the meaning of the work "person" wherever it appears in the Penal Code. The term "body politic" has been held to include counties and cities (citations omitted). 67 Cal. Atty. Gen. Ops. 355, 359, Ftn. 5. Since the Penal Code defines most crimes in terms of the conduct of "persons" such crimes would not apply to the conduct of bodies politic after the 1873-74 amendment. Accordingly, a city or county would not be liable criminally for violating Penal

Code Section 605.

Thus, a person who paves over a monument with knowledge that such conduct is wrongful would be guilty of a violation of Penal Code Section 605. However, the local government entity who employed or directed its employees to pave over a monument would not be subject to criminal prosecution for violation of Penal Code Section 605.

We trust that the foregoing is of assistance.

Thomas M. Cecil
Deputy Director
Legal Affairs

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- Consider printing an inexpensive "thank-you" card and have each staff member keep a stack on the desk, ready to send out. Results: time saved by not writing letters and fast feedback on information that has been received.

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Dear Editor:

This letter is to inform you of cadastral survey plats approved by the Chief Cadastral Surveyor for California during the third quarter of FY 88, (April 1 - June 30, 1988).

These plats are now on file in the Survey Records Office, Bureau of Land Management, California State Office, 2800 Cottage Way, Room E-2841, Sacramento, California 95825.

Approval/Township	Date	Type of Survey
T21N.,R.13E.,MDM	4-07-88	Dependent Resurvey & Subdivision
T47N.,R17E.,MDM	4-07-88	Dependent Resurvey
T10N.,R19E.,MDM	4-15-88	Dependent Resurvey & Subdivision and Metes & Bounds Survey
T10N.,R20E.,MDM	4-15-88	Dependent Resurvey & Subdivision and Metes & Bounds Survey
T27N.,R4E.,MDM	4-15-88	Dependent Resurvey & Subdivision and Metes & Bounds Survey
Tps32S.,Rs17&18E.,MDM	4-20-88	Corrective Dependent Resurvey
T9N.,R2E.,SBM	4-29-88	Supplement Plat
T2N.,R7W.,SBM	5-04-88	Survey of Tract
T9N.,R2E.,SBM	5-12-88	Supplement Plat
T9N.,R3E.,SBM	5-12-88	Supplement Plat
T22S.,R9E.,MDM	5-13-88	Supplement Plat
T13N.,R12E.,MDM	5-19-88	Dependent Resurvey & Subdivision
T9N.,R1W.,SBM	5-20-88	Dependent Resurvey and Metes & Bounds Survey
T2N.,R5E.,SBM	5-26-88	Dependent Resurvey & Survey
T9N.,R3W.,SBM	5-27-88	Dependent Resurvey & Subdivision and Metes & Bounds Survey
T7S.,R22E.,SBM	6-01-88	Supplement Plat
T20N.,R7E.,MDM	6-02-88	Supplement Plat
T13N.,R10W.,MDM	6-14-88	Dependent Resurvey & Subdivision
T4S.,R6E.,SBM	6-20-88	Supplement Plat
T9N.,R5W.,MDM	6-23-88	Dependent Resurvey & Subdivision
T1S.,R7W.,MDM	6-27-88	Dependent Resurvey & Survey

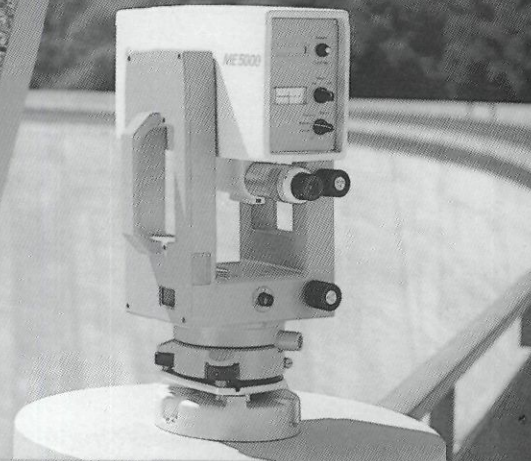
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Sincerely,
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The Certification

By Gary R. Kent, L.S.

As professional surveyors registered under the laws of the State of Indiana we are all familiar - or should be - with the minimum Standard Certificate for Indiana Land Title Surveys, but what of the profusion of requirements and certificates demanded by any of a thousand lenders and agencies? Do you know what you can safely certify to and when you are needlessly sticking your neck out? The purpose of the following discussion is not to give legal advice or to be a substitute for same, but rather to highlight some potential certification pitfalls and offer some alternatives to a few of them.

Now that the 1986 ALTA/ACSM minimum Standards for Land Title Surveys have replaced the previous 1962 standards, it might be interesting to ask how many surveyors who certified to the 1962 standards realized that they were certifying to a positional tolerance of only 0.02 feet on urban surveys. This points out the first rule to observe when a lender instructs you to "sign this certificate and attach it to the survey". *Read it first.* In the past five years, I don't recall that I have ever agreed to sign a lender's certificate without making some changes in order to assure that I was not 1) certifying to something of which I had no knowledge or 2) needlessly exposing myself to liability.

This leads directly to my second rule which is *do not be afraid to confront the lender and make changes to the certificate.* In 99 cases out of 100, the surveyor either knows or should know what the lender is trying to accomplish with the wording in the certification. It should take no time at all to reword the language to protect yourself, but don't forget the lender's needs - it may take a little imagination to meet both of your requirements.

Quite often, the lender's certificate addresses the lender's concerns in a manner similar to killing a fly with a shotgun. Many times, objectionable wording can be toned way down while still meeting the lender's ultimate objective. On the other hand, some certificates contain language which is entirely unsatisfactory and which no modest change will make palatable. Following is a list of some subjects and wording frequently found in lender's certificates together with some brief

thoughts regarding this wording. If you are signing certificates containing this language, you are asking for trouble unless you are taking extreme care.

Improvements

"The location of all improvements on the property."

First, never certify to any improvements other than those which can be seen - "visible" is the word we use. Secondly, ask yourself what constitutes an improvement? Webster defines it as "an addition or change that improves something". Now, what about those shrubs, that little walkway, that handicap ramp, the yellow paint on the curb, that no parking sign? Often, I will substitute words such as "buildings and substantial visible improvements". Along the same lines, be careful of the word "structure" - "building" should suffice.

Finally, do not certify to the non-existence of anything that cannot be verified. For example, you may certify that there are no buildings, but do not certify that there are no sewers. You may wish to state that none were observed but do not state that none exist.

Title Matters

"All matters which may affect title to the subject tract."

If you think you can recite even half of the matters which may affect title to the subject tract - not to mention know what they all "look like" - we've got some property in Florida you might be interested in. We never allow words of this nature to creep into a certification.

Another very frequent request is to certify that all easements affecting the property have been shown. We will state that we have shown all easements which are listed in a particular title commitment (or abstract) or of which there is visible evidence, but we will not go beyond that.

Several times, attorneys have told me that I should certify that all easements are shown since any easements in existence would be listed in the title commitment. This merely shows a complete lack of understanding of the facts.

Utilities

"All utilities required for the operation of the premises. . ."

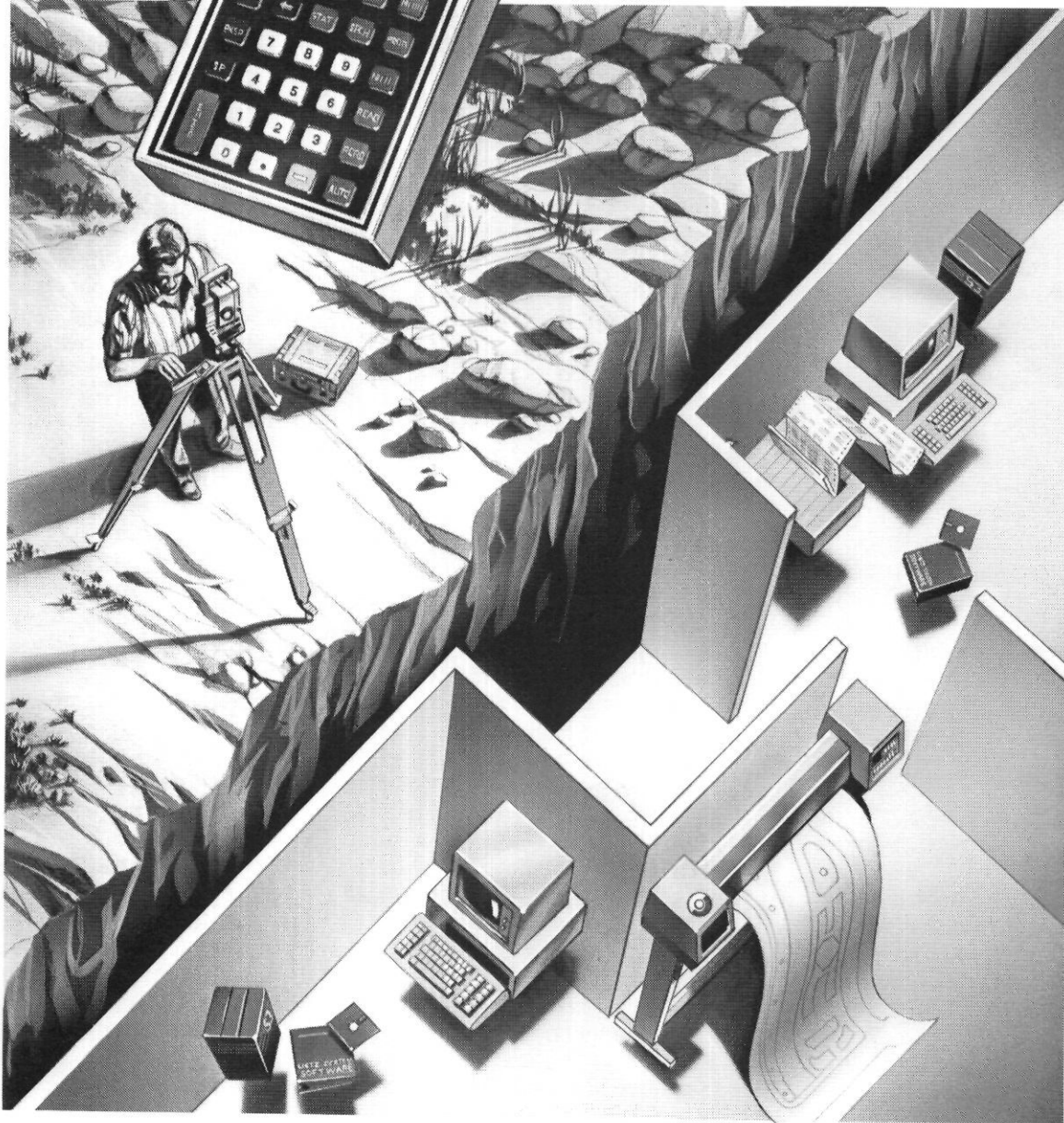
What is required for operation of the premises? Cable TV? LP gas? Distilled water? Steam? We elect to merely list

continued on page 16

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continued from page 14

those utilities which we know serve the property. This should meet the lender's needs.

Zoning

"No violations of zoning, covenants or restrictions of record."

Once again we never allow language such as this into our certifications. Is a tenant in an apartment complex running a small business out of her unit? If so, the zoning law may be violated. How about a large apartment complex? Did you verify the heights and check the distances between all interior, adjoining units? Do they meet the minimum spacing requirements? In Indianapolis, the required distance between units inside an apartment complex may depend on such variables as height of the adjoining units and whether or not there are windows in the walls.

Often, the lender is really only after an assurance that the minimum setback distances from the side, rear and front lines are met, but the surveyor should be very careful in this case also. Remember that the front, side and rear yard setback requirements many vary depending on the zoning of the adjoining property. Frequently we are asked to certify that the setbacks for "any and all zoning regulations, restrictions, and covenants affecting the property" are met. We elect not to make any such a blanket statement. Additionally, we virtually never depict the zoning setback lines graphically. Instead we will identify the zoning classification for the property and list the applicable setback distances for that zoning.

Regarding zoning, we have been specifically advised *not* to certify that any zoning requirements are met. That is considered an administrative judgment on the part of the zoning authority, not a survey matter.

1986 ALTA/ACSM Minimum Standard Requirements

Unfortunately ACSM has, in my opinion, elected to mix apples and oranges in the 1986 Minimum Standard Requirements by including "Minimum Angle, distance and Closure requirements for Classes of Surveys". These requirements are unclear and not applicable in many cases. If taken at face value, they would appear to prohibit any linear measurement of less than 20 meters on a Class A survey. I routinely will certify that the requirements have been met "except with regard to minimum angle, distance and closure requirements for classes of surveys."

Drainage

Many lenders want the survey to certify that the survey shows the disposal of all surface and roof drainage. There is nothing wrong with signing such a statement, just be sure you have done the necessary work.

True and Correct

The best recommendation regarding these two words, which probably occur more frequently than any others in lenders' certificates, is to first look them up in the dictionary and then decide if you can use them to describe your work. Webster's Third International Dictionary contains one definition of "correct" which is "free from errors". Black's Law Dictionary lists the word "correct" as a synonym for the word "true".

Be sure your certificate allows you the "allowable" error that we all know occurs in any survey. Do not assume liability for any standard higher than the "normal standard of care" (remember that any standards adopted by your professional societies may be held up as the normal standard in a court of law).

Miscellaneous Outrageous Certifications

One national lender has a new certificate requiring the surveyor to certify that none of the electrical transformers on the subject tract contain PCBs. We finally agreed to substitute wording that none of the transformers were labelled as containing PCBs, but would have nixed that had both transformers on the site not been on the ground. The lender's counsel was obstinate on this issue.

Protect Yourself

Several of the items above highlight another rule that should be observed. Before signing any certificate, be sure that you are not stating as *fact* matters which you *believe* are true, but which you cannot be *absolutely* sure are fact.

Additionally, be careful not to make representations which are beyond the scope of the professional services which you have contracted to provide. This concern bears directly on clients who order an ALTA/ACSM and/or Indiana Land Title Survey then, after the survey has been completed and delivered, forward the "lender's requirements" which are almost always much more stringent than the Land Title Survey requirements.

To limit the possibility of this happening, we virtually always obtain a signed contract prior to commencement of the work (or at least prior to completion of the work in the case of a short time frame).

If I have the feeling that the client is going to follow up later with the "lender's requirements", I may place the following statement on the contract "An Indiana Land Title Minimum Standard Certificate and/or a 1986 ALTA/ACSM Land Title Survey certification will be provided as a part of this survey. Any other certificate required may be provided for an additional minimum fee of \$300.00. Any additional field work required in order to meet such a certification will be invoiced at hourly rates". We are not doing this as a regular practice, but probably will soon since this sort of practice is occurring more and more frequently.

Your Professional Opinion

Remember that your survey and certification represent your professional opinion and judgment, not necessarily bare fact. Do not allow any wording that is or implies an express warranty or guarantee - your insurance will not cover any claim arising out of such wording. The words "warranty" or "guarantee" do not even have to be present to pose a problem. In fact when claims arise the most frequently misused word is "certify". In some cases, courts have ruled that the word "certify" means "guarantee".

In conclusion, some important items regarding certifications are 1) Read and understand the certificate 2) Consult with the client and make changes in wording to correct unsatisfactory language 3) Do not certify to anything which you do not have personal knowledge or which represents a requirement you may not have met 4) Do not certify to anything which is the responsibility of a public agency 5) Do not create guarantees or warranties and 6) Do not hold yourself to a standard higher than the *normal standard of care*. □

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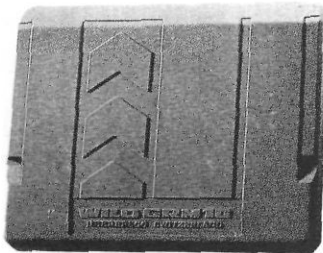
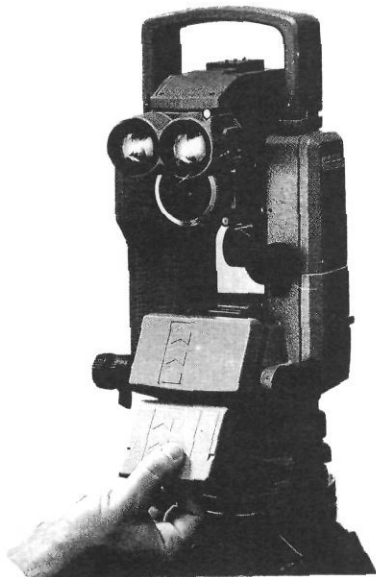


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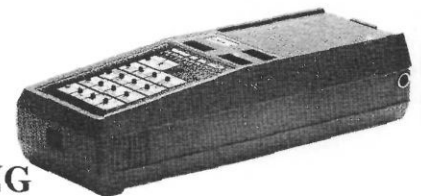
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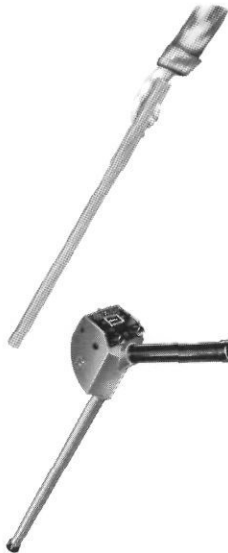
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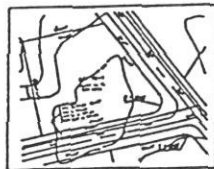
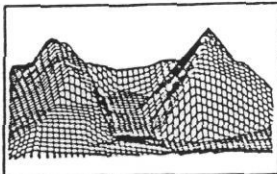
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The Board (of Registration for Professional Engineers and Land Surveyors) has responded to the question:

"Does Section 8726 require a licensed professional Land Surveyor to prepare any description in a title document which, for the purpose of describing the limit of real property, establishes a boundary for any parcel of land?"

We ask that you disseminate to your members and/or appropriate employees, a copy of our response.

S.B. 1123 amended Section 8726 to add subdivision (k) to provide that a person engages in the practice of land surveying where he or she:

"(k) Determines that information shown or to be shown within the description of any deed, trust deed, or other title document prepared for the purpose of describing the limit of real property in connection with any one or more of the functions described in subdivisions (a) to (f), inclusive."

In addition subdivision (c) of Section

8726 provides that a person engages in the practice of land surveying where he or she:

"(c) Locates, relocates, establishes, reestablishes, or retraces any property line or boundary of any parcel of land, right-of-way, easement, or alignment of those lines or boundaries."

A title company or an attorney does not engage in the practice of land surveying where, in preparing deeds of conveyance or other documents of title, he or she extracts a property description from recorded documents. However, any new property description which creates a new or different boundary that is not recorded in the County Recorder's Office would constitute the practice of land surveying.

An additional question was less clear: "If the description prepared follows lines which existed as property boundaries on past documents, but which are no longer parcel lines, and no field survey is required, would the preparation of the description fall within the practice of land surveying?"

If this question is directed at the situation where a parcel of land has been merged with another parcel and a boundary line eliminated, the preparation of a new description of the whole would be required to be performed by a surveyor. However, where a person owns contiguous legal parcels which are described as metes and bounds description as parcels 1, 2, 3, etc. and the owner decides to sell one existing legal parcels, the property description of this conveyance would not have to be performed by a Land Surveyor.

It is also noted that a title company that makes a request to change a new description for their underwriting purposes would not appear to be engaging in the practice of land surveying.

We trust that the foregoing is of assistance.

Sincerely,
Darlene Atkinson Stroup
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The PR Principle

By Robert W. Foster

Consider the case of Fred Foresight, a registered professional surveyor in a medium-sized city. He employs two regular two-person field crews, a drafter/graphics specialist, a computer/drafter and a secretary/receptionist. His teenage son is working for him for the summer. By adding a combination of his son, his drafter/graphics person or his computer/drafter, he is able to file three two-person survey crews to meet short term demand.

Fred handles all initial client contact, negotiation with lawyers and planning officials, research, billing and collections. He considers himself to be totally responsible for marketing his company's services. But on a typical day in the life of Fred Foresight Surveying Services Inc., the following events occur:

Fred briefs his two crew chiefs on their day's assignments, gives instructions to his office staff, then leaves to perform several functions out of the office, including research at the registry of deeds, a meeting with his banker and a conference with a client regarding a proposed commercial development project. Fred will be out of the office all day but gives his secretary/receptionist

no details.

One of Fred's survey crews is sent to an industrial site where they are to re-establish a property line. It turns out that the line goes through the corner of a warehouse. The crew chief returns to the truck to check his work. While the second member of the crew is standing by the instrument, a stranger approaches and asks what is going on. The surveyor/technician explains that they have just re-established a property line and "it chops of the corner of this warehouse; somebody sure screwed up!" What he doesn't realize is that this "stranger" is his boss's client and is also the owner of the warehouse. Further, Fred Foresight performed the construction staking for the warehouse when it was built ten years earlier.

That morning a phone call comes into Fred's office. The caller is a prospective client who wants to talk to Fred about a 40-acre survey. The secretary/receptionist says she doesn't know where Fred is or when he'll return. She neglects to ask for a number where the caller may be reached.

Five minutes later there is another phone call from a client asking for a progress report on his plan, due for a

closing in two days. The secretary/receptionist isn't familiar with the project and calls the drafter/graphics (DG) specialist to the phone. The DG, who is overloaded with work and has no help today since the other drafter is in the field, knows that the client's project is way behind schedule. In his frustration the DG offers the explanation that the file on that project has been lost and he cannot tell the client when the plan will be done.

Fred's teenage son can only work in the morning on this day since he must spend most of the afternoon with his orthodontist. To keep him busy, the secretary/receptionist (in her de facto position as office manager) sends him across town to deliver a set of plans to a law office. Sonny arrives at the plush law offices of Tanner, Turner & Tort with his shirt unbuttoned to his navel and his trendy high top sneakers untied. As he hands the roll of plans (not wrapped, no cover letter) to the attractive receptionist he makes a remark that he thinks is suave, cool and cute. To her it is fresh, rude and stupid.

These four incidents demonstrate that every one of Fred Foresight's employees' activities have public relations implications, for better or for worse. Every time an employee steps out of his home and comes in contact with people, he is relating a public image. The way he dresses, his manner of speaking, his personal conduct all announce who he is. The same goes for his image as an employee. His behavior reflects upon his employer and the firm. During company hours every employee becomes an ambassador of his working place.

An owner must be doubly aware of his own conduct, for he sets the mood for his company. If he gives little thought to how his company is coming across to the public and his clients, then his employees will use that as a signal and will not care either. All it takes is one careless public appearance to leave a lasting and sometimes devastating impression.

The moral of the story is not that Fred should stay in his office all day, every day. He must go out to conduct business, meet with clients and do research at the registry of deeds. While away from his office he must rely upon his employees to make good impressions on the public when they meet them. For meet them they will, regularly and frequently.

Fred must recognize his vulnerability to the unintended public relations affects
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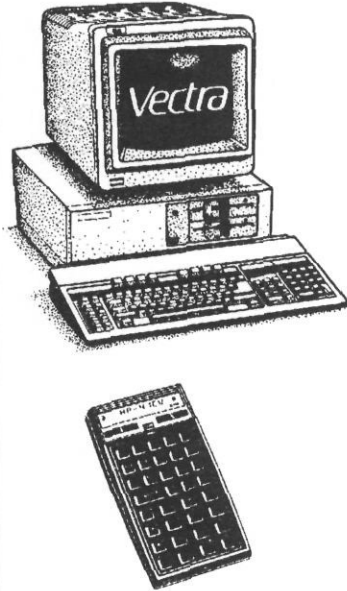
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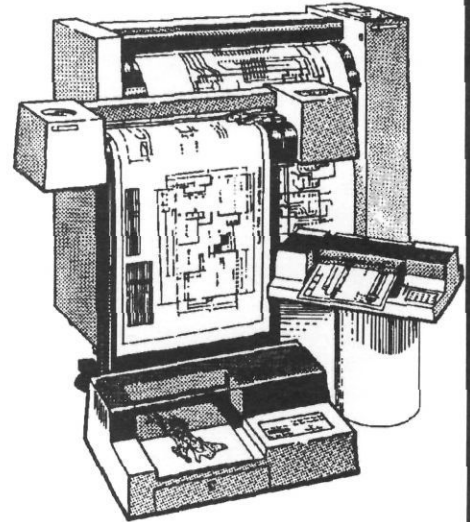
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of his employees. Fred will hear about the unfortunate incident at the warehouse and the "lost file" explanation, but he may never hear about the poor impression made at the law office by his teenage son, and he will never know about the 40-acre survey job he didn't get for lack of a return telephone number.

The PR Component

Building a strong public image begins with implementing a cohesive public relations strategy that communicates a business philosophy of competence and quality.

First of all, let's recognize that public relations is but one component of marketing, along with market analysis, advertising, sales and business development. Public relations implies public image, and if a business has a poor public image, its whole marketing effort will be severely handicapped. So how does a business person - more specifically a sole proprietor, more specifically the surveyor/proprietor - conduct a public relations program?

Training

Fred should begin to train his people in some of the finer PR techniques. The first thing he should do is point out to them that they are all - without exception - involved in public relations. The unbuttoned shirt, the poor telephone technique, the ingenuous excuse for blown deadlines and the careless talk to strangers at the site all have a dangerous and damaging impact on Fred's public image. Sullied reputation, lost work, even litigation may be the result.

Fred may hire a consultant to perform market analysis for his business. He may hire a graphic designer to work on unifying the image projected by Fred Foresight Surveying Services, Inc. in its printed materials. Fred may even formalize his sales efforts by creating a file of potential clients, and by making regular follow-calls on current and past clients. But will Fred involve all of his people in his public relations program? Will he adjust their attitudes by educating them to the importance of their own conduct and communications with the public and the clientele? Assuming that all of Fred's employees have good intentions toward Fred and the business, he could with a little effort convert them to PR people with a positive impact.

Some Principles

A few principles are in order here. Fred's employees should never be put in a position where they must cover up for him. He should let his secretary/receptionist know where he is going and when he will return.

No one with telephone answering responsibilities should be put in a position of having to lie for an employer. The tell-him-I'm-out syndrome is bad for PR, bad for sales and bad for employee morale. It also establishes a style for the whole company in dealing with clients. It encourages employees to make excuses for all kinds of deficiencies in their own performance - even to their employer!

Another principle deals with assigning responsibilities. When a project is in schedule trouble, it should be clearly understood who is to communicate that fact to the client. Good client relations (a vital component of public relations) requires good client communications. If the job is in trouble and cannot be delivered on time, there is no refuge in procrastination. Tell the client sooner rather than later.

In the field, only one person should be in charge, and only one person should discuss any aspect of the project with the client or with curious passersby. *Gratuitous statements should not be made* (e.g., "somebody sure screwed up"). The spokesperson should clearly understand who he is talking to: Client? Adjoining property owner? Newspaper reporter? Busy-body? Further, a client can be quickly annoyed and frustrated when discussing the project with the survey crew when everybody tries to talk at once. If the crew chief and the instrument person are both trying to explain the intricacies of surveying to the client, it appears that no one is in charge. That's a bad message to the client who may be paying a hundred dollars an hour for their services.

Though beauty is only skin deep, appearances can leave lasting impressions. Enough has been written about the way surveyors dress on the job without it having to be repeated here. But surveying can be a tough, hot, sweaty, sometimes dirty job. It takes extra care and sensitivity on the part of survey crew who have worked eight hours on a dusty construction site on a hot summer day, to maintain a neat appearance when they stop for some refreshment on the way back to the office. The same is true for the company clerk who delivers plans to the offices of clients. They all carry the banner for their boss, advertising his style to the whole world.

Attitude Adjustment

Reference has been made here to attitude adjustment. It's a chain reaction. The public forms strong impressions from the attitudes of people offering services. The attitude which a survey crew has toward its work and appear-

ance may be a direct reflection of the signals that their boss is sending out to the world.

Surveyors working in the field should see themselves and talk about themselves as providing a professional service. They are not laborers. They are people involved in a highly technical service which demands particular expertise shared by no other profession. Road signs should not say "Men Working in Road." They should say "Land Surveyors Ahead."

The same principle applies to the survey vehicle. Dragging tail pipes and flopping fenders are a poor image to project to the public. But the sign on the door of the truck is important, too. Some survey vehicles look more like Good Humor wagons than vehicles from which a professional service is to be delivered. A plastic magnetic sign hanging on the door suggests impermanence. Worse yet is the hand-lettered cardboard sign stuck in the window of a carry-all.

One of the tangible work products of the Land Surveyor's service is the monument he sets at a property corner. The form and appearance of the surveyor's work product carry important PR connotations. Which is more impressive to the public as a sign of a professional service: an iron pipe driven into the ground at the property corner, knurled over like the tops of an old pair of boots? Or a marker with a neat cap that reports the registration number of the professional responsible for its placement? The appearance of the employer's work product may indeed have a direct impact on the employees' attitudes toward their work.

Conclusions

Public relations awareness is not just for the proprietor who is starting in business. Nor is public relations something we start doing when we decide that it is important. Public relations is something we are all doing all of the time, whether we recognize that fact or not. All employees of the surveyor in private practice are part of that proprietor's on-going public relations campaign. The path to a healthy and successful business starts with involving everybody in a conscious effort to develop and maintain solid PR attitudes and habits.

Good public relations is everybody's business. □

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Orange County Surveyor Converts to the North American Datum 1983

By John Canas

The Orange County Surveyor Division has pursued a continuing commitment to maintaining a high order Horizontal Control System. For more than a century, the National Ocean Service/National Geodetic Survey organization has established a reference datum forming a network of control points throughout the country. Because of recent improvements in positioning technology, discrepancies in horizontal locations based on the present North American Datum of 1927 have been of sufficient magnitude to require readjustment. The resultant North American Datum of 1983 was adopted by the State of California, on August 28, 1986. The new official geodetic datum became the basis for the California Coordinate System of 1983, which the County coordinate system is tied into. An accurate coordinate system is of the utmost importance in establishing the basis for all engineering projects. All

stations on the national geodetic survey become practically indestructible. Material marks may be destroyed but the positions they occupied on the ground can be reproduced.

The County found itself in a difficult situation. Major engineering projects are presently under way that will span through the next ten to fifteen years. They include three large transportation corridors and an extensive network of interconnecting roadways being coordinated with extremely large Federal and local flood control projects. Faced with a soon to be obsolete coordinate datum, the county had to take decisive action to insure its ability to provide accurate horizontal control surveys.

Solution:

The County did not wait until January 1, 1995 when the State mandated law was to take effect. Instead, it successfully completed the conversion to the North American Datum of 1983 (NAD83), six years before it was required. This effort

was accomplished by the defining and confirming of a primary control scheme and consequently submitted the results to the National Geodetic Survey (NGS) organization.

The first step in the long range Geodetic Management/First Order Horizontal Control System was to select twenty-six (26) primary control stations along the County boundary line. The majority of these stations were previously established by the NGS and had been a part of the National Geodetic Network since 1886. Prior to accepting the Primary Control Scheme, the County Surveyor visited each selected station and verified its existence, monument character and reference marks. Discrepancies were recorded and later submitted to NGS.

After defining the County wide net, a comprehensive geodetic survey was completed using the 26 primary control stations. Upon the survey's completion, eight (8) control stations were held as

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fixed to form a three-dimensional least squares adjustment. The maximum positional shift found in any of the 8 control stations, relative to each other was less than three parts per million (PPM). The other eighteen (18) primary stations were adjusted to conform to the constraints imposed by the 8 selected stations and showed positional shifts of less than ten (10) PPM.

Global Positioning Survey (GPS) technology (satellite surveying) was used to complete the geodetic network that formed the framework for all future control surveys within the County. The County's use of satellite surveying, wherein all distances are reduced to a common reference surface conforming to an ellipsoid defined by the center of the earth, was selected due to its precision, reliability and cost effectiveness. It also provided an independent check on the accuracy of the NAD83 coordinates provided by the federal government. All GPS surveys by the county were carried out in conformance with the Federal Government Coordinate Control (FGCC) standards for First Order, Class A control surveys.

Upon completion of the County's GPS network, all measured data, baseline reductions, loop closures and adjustment files were submitted for review to NGS. The NAD83 positions for the 26 Primary Control Stations will be published in future hard and electronic editions of the "Blue Book" and made a part of the National Network.

County Role:

The Orange County Surveyor Division initiated the conversion of their Horizontal Control System to the NAD83. The decision to complete the change-over early came from the demands imposed upon the County to provide NAD83 coordinates for the extensive and extremely large engineering projects that they will be involved in through the next fifteen years. They include the San Joaquin Transportation Corridor, Foothill Transportation Corridor, and Eastern Transportation Corridor. It was also appropriate to use the new datum for other major long range projects such as the Assessment District Road Projects, Santa Ana River Mainstem and new flood control programs. All surveying performed to define and confirm the Primary Control Network and all subsequent points were subcontracted out to private surveying firms. Surveyor staff and other County personnel closely monitored the work and preserved the information. The available points sur-

veyed on the new datum have been plotted, and the description entered into the County's Geographical Information System, a computer data base composed of a compilation of interrelated levels of information founded on a digital land base. The County Surveyor Division will monitor the condition of the control stations and preserve them from destruction. Five hundred to a thousand new points will be added to the system yearly.

Costs:

\$20,000 was used from the State Mandated Survey Monumentation Fund to establish the Primary Control Network. One hundred eleven additional points were surveyed at a cost of \$69,100, also funded by the Monumentation Fund. One hundred thirty seven other control points were established at a cost of \$165,800 using funds from specific Public Works project numbers. Total cost of conversion was initially \$20,000 but the County has to date spent a total of \$255,200 in the network's expansion and maintenance.

Results:

After January 1, 1995, the North American Datum of 1927 (NAD27) will be obsolete. The State of California allowed sufficient time for the orderly transition from NAD27 to NAD83 as the national reference system. The County felt the urgent need to make this transition six years before the State deadline. Their need stemmed from the requirements prescribed by the California Transportation Department to provide accurate horizontal control surveys using NAD83 coordinated for the major transportation projects that are being initiated in Orange county. By correlating the County's comprehensive Geodetic Control System with their Geographical Information System (GIS), the Primary Control Scheme developed because of a certain need, was proliferated to other existing survey areas. These areas previously surveyed on the old datum can be mathematically related and adjusted to form new coordinate values without a labor intensive effort being made. This ability will impact all surveying performed within Orange County. Not only has the county met their own immediate requirements to provide control surveys for the transportation corridors and other projects, but also extended the NAD83 control to form a comprehensive County wide geodetic control system available to all private surveyors/engineers. The County has created the basic framework and the tools are in place to make it pos-

sible for all surveying within its boundaries to be placed on the same datum resulting in better accuracy and engendering consistency between existing control points. It will also allow for new development to tie into the major transportation and flood control projects. The Geographical Information System has the ability to map anything within its data base at an effective scale. There are eighty-one existing base maps covering the full extent of the County that have been digitized for computer applications. The system's mapping capabilities are an added service for the County and all private surveyors/engineers.

The development of the geodetic control system on the NAD83 datum also aided the County's ability to preserve monuments destroyed due to rapid development and construction of large scale projects. The need for monument control for future development projects, for engineering projects including infra-structure and development of a geographical information system was critical. A reliable geodetic control base made it possible to preserve monumentation in Orange County. The County's use of Global Positioning System surveying technology allowed the geodetic control system to expand at an accelerated rate keeping up with the County's monument preservation requirements and has made it possible for the County to preserve and maintain their geodetic control system.

The County's geodetic control system has been incorporated within the County's Block and Module system enabling research to be accomplished on any horizontal control point on the new datum by either its name or location. Research will reveal a full description of the monument character, location description, and coordinate values. The inquiry will also disclose when the control was set and its coordinate relationship to nearby points.

The County's successful conversion of its geodetic control system to the North American Datum of 1983 has created a comprehensive County wide Geodetic Control System available for Geographical Information Systems, major engineering project, accessible reliable mapping control, monument preservation use, a Geodetic Management System incorporated into the County's Block and Module system, computerized maintenance of the County's horizontal control network and has prepared Orange County for 21st century surveying. □

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The First Annual CAL Poly-Pomona Surveying and Mapping Conference

By Patrick Mercado

The Surveying/Engineering department at Cal Poly Pomona, in cooperation with The California Foundation for Land Surveying Education, presented the First Annual Surveying and Mapping Conference held at the Kellogg West Conference Center on the Cal Poly campus on Saturday, October 22, 1988.

Paul Cuomo, president elect of State CLSA and a director with the Foundation, welcomed over 170 registered participants and introduced Dean Hohman, the head of Cal Poly's School of Engineering, who presented an enthusiastic overview of Cal Poly's structure and the future of the Survey Option Program. As a signal of Cal Poly's commitment to surveying education, Dean Hohman welcomed the day's keynote speaker, Dr. Howard Turner, PhD., PLS, who will come to Cal Poly in January 1989 as Head of the Survey Option program.

Dr. Turner is an assistant professor in the School of Engineering at Purdue

University. He highlighted his illustrious career and presented an outline of his proposed curriculum for the Survey Option program.

Students from the Survey Option program acted as moderators for the conference and presented to the audience Mr. Francois "Bud" Uzes, L.S. Mr. Uzes' career spans 33 years with the State Lands Commission and he is presently the owner of the firm of Boundaries Unlimited. Mr. Uzes is well known for his efforts and background in historical surveys. He presented a lecture that spanned the history of ancient Egyptian rope stretchers to astronomical observations of the American Indians to tidal disputes in Southern California. Mr. Uzes is an active member in the Surveyors Historical Society that is committed to the preservation of surveying instruments and records.

The next speaker in the morning session was Mr. Ira Alexander, L.S., P.E. Mr. Alexander is a past national president of ACSM and currently is vice president of Metrex Systems. He presented some

dynamic insights into where the professional surveyor has fit into society in the past, and how technology and public demands will affect surveyors in the future.

The conference included an interesting variety of exhibitors and equipment manufacturers demonstrating the latest technology in surveying equipment and computer software. Participants were treated to "hands-on" opportunities that included total station and state-of-the-art data collectors to G.P.S. technology.

During the lunch break, Mr. Robert Nelson, P.E. spoke about Cal Trans Surveying Contracts. He is the Headquarters Survey Engineer for Cal Trans.

Leading the afternoon session was an informative overview of the applications and accuracies of the Global Positioning System (G.P.S.). This presentation was given by Mr. Fred Henstridge, L.S. He is Vice President of PSOMAS and Associates, a firm solidly committed to the development of this technology and a pioneer in a wide variety of G.P.S. surveying applications.

1989 LS ROSTER, LS ACT & BOARD RULES AND SUBDIVISION MAP ACT NOW AVAILABLE

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THE LS ACT and BOARD RULES . . . indicates all the latest changes to law as amended January 1, 1989.

THE SUBDIVISION MAP ACT . . . indicates all the latest changes to law as amended January 1, 1989.

THE BINDER . . . is three-ring, navy blue with gold hot-stamp lettering on the front and spine. Printed index tabs, with Mylar reinforcement on holes and tabs, are included for ease of reference to the LS Roster, LS Act & Board Rules and the Subdivision Map Act.

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Next, on the afternoon agenda, was a presentation on the complexities of the final map preparation for vertical subdivisions. This was given by Mr. Robert Hennon, a principal in the firm of Hennon and Associates. He reviewed a project that included the Los Angeles Contemporary Art Museum and his discussion led to many interesting and intricate details that occur in this complex map processing. Mr. Hennon also spoke of the amended map process in Los Angeles County and the advantages of this alternative to lot line adjustments.

Concluding the afternoon session of guest speakers was Ms. Ella Smith who is an attorney and Assistant Orange County Recorder. Ms. Smith was invited to speak at the conference and address some of the current problems the County Recorder's office is facing in the map recordation process. Ms. Smith apologized for history's shortest speech, but was relieved to announce that there were no real problems with the surveying community that the County Recorder's office were facing. Instead Ms. Smith highlighted the efforts her office is making towards upgrading the recording process. This includes the probability of acquiring state-of-the-art photostanning equipment which, if coupled with standard document size regulations,

could greatly decrease the time required to record final maps.

Paul Cuomo closed the conference by reviewing the Foundation's commitment to continued support of the excellent progress Cal Poly has shown towards providing the type of surveying education that is unmatched in southern California.

Again a warm welcome was extended to Dr. Howard Turner and great thanks to the day's speakers, as well as, congratulations to the students and staff of Cal Poly Pomona for providing a tremendously successful First Annual Surveying and Mapping Conference. □

Photo Tip

When arranging employees for a group photo, seat tall people and let the shorter ones stand behind them. This tighter composition avoids that awkward space between the tops of the heads of those seated and the chests of standees. □

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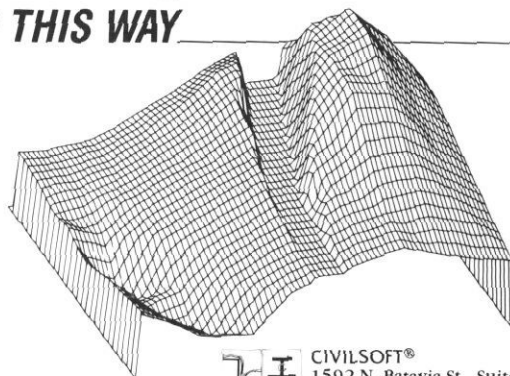
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California's Surveying Information Database

By Tom Mastin, BBS Editor

CLSA'S Electronic Bulletin Board

For the past year and a half the California Land Surveyor's Association has run an Electronic Bulletin Board System (BBS) through the Central Office computer for the use of members and non members alike. The use of the bulletin board has been low, but with many new added features use on the board is starting to pick up. One problem is letting people who have never called the Board, know what new features the board has on it. This article is going to review what is on the BBS and how you get on the BBS.

Bulletin boards since their inception have been primarily used as a way for people to leave messages and transfer information to others via computers and telephone lines. BBS usually are based on some common interest so that the messages develop response and those responses develop more responses. The obvious common interest in CLSA BBS users is surveying and mapping.

Messages . . . Send, Receive or Just Read Them

One of the two main sections of the CLSA Bulletin board is the message section. The message section is to send or receive messages from individuals. These messages, although generally addressed to one person, may be read by all and anyone may respond to them. There is the ability to make the messages private, but in general open messages are preferred. Within this section there are 6 areas that may be accessed by anyone. Additionally there are 5 other areas that may be accessed by CLSA members only.

Some of the Message areas are:

GENERAL PUBLIC MESSAGES: As the title indicates messages left here are about anything. Often used just to say hello or talk about something non technical in nature.

FEEDBACK TO CENTRAL OFFICE . . . This is where questions or comments concerning the BBS can be left for the System Operator (SYSOP).

SURVEYOR'S FORUM . . . This area is for discussion of surveying topics primarily dealing with California. It can cover such things as Equipment and techniques to discussions of boundary determination.

LEGISLATIVE BULLETINS AND MESSAGES. These are messages

dealing with current legislative action. Also this is where questions or recommendations can be left to be viewed by members on the legislative committee.

SURVEYING & MAPPING *National Echo*. This is one area limited to members. It is a national conference that is indirectly hooked up to other BBS's around the country that are also interested in Surveying. Currently there are two other very active surveying BBS's that are on this. One is Terrapin Station from Chicago, the other is Leased Squares out of New Hampshire.

HP HANDHELD COMPUTERS *National Echo*. Again this is limited to members. There are many of knowledgeable people transferring information on Hewlett Packard hand held computers of all types.

File Section

The second main area within the Bulletin Board is the File Section. The file section is for transferring large amounts of information to and from the Bulletin board. There are 9 areas within this section available to all. Additionally there are 4 areas limited to members only. Some of the areas are:

UPLOADS: Shareware and miscellaneous

UPLOADS: Articles for publications

Uploads indicate that files are being sent to the BBS.

TEXT FILES: Legislate bills & info

TEXT FILES: Fed. & State surveying RFPs

TEXT FILES: Hardware & software reviews

TEXT FILES: Magazine Indexes & articles

PROGRAMS: Miscellaneous Shareware
The next 3 are limited to members only

PROGRAMS: Business & Finance

PROGRAMS: Surveying & mapping

PROGRAMS: Desktop publishing.

The programs are generally Public Domain, meaning anyone may use them for free or ShareWare meaning that you may try them for free, and if you like the program you should send a set amount to the author, usually \$20-\$50.

Some of the programs on the BBS are some Cogo Programs, basic CAD program, general ledger program, money management program, top notch communications program, file compression program and an excellent menu & disk organization program.

How To Get Started . . .

First you must have three things. A

computer, A Modem hooked up to a telephone line and some communications software to run the modem.

Then all you need to do is set your modem (through your software) to the following:

Baud Rate 300 or 1200 (1200 preferred)

8 Data Bits

NO parity

1 stop bit

NOTE: most communications software defaults to this setting.

Then CALL up the BBS Phone No. (707) 578-4406

The time of operations are:
5:00 PM to 8:00 AM Monday thru Friday
ALL DAY Saturday and Sunday

First Time On

The CLSA BBS runs on FIDO v12 software. The software is somewhat user friendly, in that there are menus displayed. Instructions are entered usually by entry of a single letter and the [RETURN] or [ENTER] key. We will run through getting on the BBS and then getting into the message section.

With everything hooked up, the first thing is to make the call through your software. Follow the software instructions for dialing through your modem. Your software may indicate that no connection was made. There are numerous reasons this might happen. Such as the lines are busy, or the BBS is not on line, or sometimes there is so much "noise" on the telephone lines that it cannot get a good connection. Feel free to try again. When connection is made, usually a blank screen will appear.

To make contact with the BBS send two (2) hard returns. That is hit the ENTER or RETURN key twice. Then a LogOn message will display on the computer screen. Then the screen will ask for a first name, then a last name. It will verify the name. If at that time it is a first time caller then the program will ask where you are calling from. Next it will ask for a password. This is the code you will have to enter each time you log on to verify that you are a validated user.

Next another message about the use of the BBS will appear. Then you will be asked to fill out a questionnaire. The questionnaire covers where you live, what your professional status is and what type of computer equipment you use.

Now additional messages will appear on the screen along with a list of new

messages to people. Then the main section menu will appear. After all this you are in the BBS and can now venture freely through all the sections.

The first menu that will appear is the MAIN Section menu. It looks like:

MAIN Section:

M)essage Section F)ile Section
B)ulletins S)tatistics
C)hange Settings U)nread Messages
Q)uestionnaire G)oodbye
Command (?=help): f

To get into the message section the M RETURN keys are entered. That brings up a menu that looks like :

Message Area 1: General Public
Messages
Total Messages: 35
Highest Message: 42
Highest read: 1

N)ext P)revious E)nter K)ill T)o-You
A)rea-Change R)eply C)ontinuous L)ist
S)earch U)pdate-Msg O)verride-Path
G)oodbye M)ain-Menu
Command or Message Number
1-42(?=Help) [1 N]:

As you can see there are a number of commands. The ? RETURN keys will give an explanation of each command. The RETURN key by itself will display message 1. The message will show who wrote it, to whom they wrote it to and the subject that it is covering. Then the message will follow. To change to a different message area hit the A RETURN keys. The program will list all the message areas available to you. Just pick which area you want. Then go on reading or entering messages.

To get to the file section first you would have to go back to the Main menu (M RETURN) then into the FILE menu (F RETURN). Until you become a validated user, you are not allowed to send or receive files. However you may view the files using the Type Text file command (T RETURN).

Fido Basics

To get help with your menu choices, use the ? key at any menu. Or enter "x?" (without quotes), where "x" is the letter of the command you need specific help with.

To log off of the system, use the G)oodbye option from the either the Main, Message, or File Menu. You will be asked, "Leave a private message to the sysop? [y,N]:" If you have any questions, suggestions, or complaints, answer Y to this prompt and then type your message. All messages to the

SYSOP (System Operator) will be answered in Message Area ±. Feedback to Central Office - Sysop Q & A.

You must enter a Subject when prompted, or you will not be able to enter your message. Remember that to end your message, YOU MUST ENTER A BLANK LINE. You will then be given the option to S)ave your message.

Helpful Tips

There is an excellent Shareware Communications Program on the BBS. It is Procomm, one of the first big shareware programs. It has all the features desired out of a communications program.

Another program you will need to get is the File compression and expansion programs available on the BBS. These programs make the file size smaller for transferring files. Which in turns reduces the time it takes to send the file. If you do not have this type of program it should be the first one you download, as most all other programs must be run through this program after downloading them.

It is easy to create your messages before calling. Then get into the message area you want to be. Start a message and then transfer your file. The file should be an ASCII type file. This makes it much easier to edit your message, although FIDO does have some editing capabilities.

It is also easy to capture the messages you are reading onto a file. This allows you to read the messages later at your leisure.

Most all communications software, including Procomm, have the ability to create Macros, or a series of predefined keystrokes. It is nice to have the Log on as a macro. This way you do not have to remember the Password or even your name!

If there is a lot of "noise" on the telephone lines all sorts of additional characters will appear on the screen. When this happens it is not a good idea to try transferring large files. The noise wreaks havoc with transfers.

Why A Bulletin Board?

The CLSA Bulletin Board is for the use of surveyors. It is an excellent way to share ideas concerning our profession. The more the bulletin board is used the better it becomes. Everyone should feel free to leave messages. More importantly, every one should feel free to read the messages of others. The flow of information is a major ingredient in keeping our profession from becoming static.

With this Bulletin Board surveyors in California have a way to informally communicate with other surveyors in the State and across the Nation.

CALIFORNIA LAND SURVEYORS ASSOCIATION BULLETIN BOARD SYSTEM

Fact Sheet

Hours of Operation:
Monday thru Friday 5:00 PM
to 8:00 AM
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- Rewards don't have to be only in the paycheck. Look for creative ways to reward outstanding performers.

- Be sure that employees know what's expected, however. An employee may work hard while the boss is around but will "go on vacation" when the boss isn't there. Let employees know that you know. □

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California Land Surveyors Association 1989 ANNUAL CONFERENCE MARCH 8-12

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