



The California Surveyor

THE VOICE OF THE LAND SURVEYORS OF CALIFORNIA

Institutional Affiliate of American
Congress on Surveying and
Mapping

No. 31

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1973

PRESIDENT'S CORNER

by Eugene Lockton, L.S.

"The corner is where the surveyor put it, not where he said he put it" is a familiar apothegm among surveyors. It might be of interest to know what the President does, rather than what he says he does. To that end, the following is reprinted with the full permission of the copyright owners. The scene opens on Oct. 25 with the receipt of the following letter:

Gentlemen:

The California State Board of Registration for Professional Engineers has recently appointed an ad hoc committee to investigate the "overlap" between civil engineering and land surveying in the State of California.

The fact that the Board has seen fit to appoint this committee must indicate that there truly is a problem, or that enough engineers and surveyors in the state think there is a problem, to justify the investigation.

Our Council is unique in its structure in that we are the only group in California that represent exclusively licensed civil engineers and land surveyors and recognize their membership on equal status. We feel that this unique membership characteristic does place us in position to speak with authority on the relationship between civil engineers and land surveyors and to discuss the problem of overlap, if any, and potential solutions thereto.

We present this data to the board in hopes that it will be passed on to the ad hoc committee to in some way serve a useful purpose in their deliberations.

(Continued on page 12)

ASSEMBLYMAN JOHNSON

SPONSORS CLSA LEGISLATION

by Dave Roberts, L.S.

AB 1614, the corner record bill, and AB 1272, the Surveyors Access Law, were introduced in behalf of CLSA by Assemblyman Ray Johnson of Chico. Through the guidance of Assemblyman Johnson, both bills moved smoothly through committee hearings, were passed by both houses of the state legislature and were signed into law by Governor Reagan. Both of our new laws will become effective on January 1, 1974.

The corner record bill as signed into law provides for the filing with the county surveyor's office of the monumentation of a single corner. It will no longer be necessary to file a Record of Survey Map upon the remonumentation of a section corner.

The Surveyors Access Law provides for legal entry onto private property for access to survey monuments. The surveyor will not have to trespass any longer.

CLSA is fortunate to have obtained the services of Ray Johnson as our legislative sponsor. Ray has expressed an interest in future CLSA legislative activity. Unfortunately, the proposed redistricting by the State Supreme Court will be splitting through the middle of the district presently occupied by him. Although it is possible that he might be placed in District 3, it is most likely that Assemblyman Johnson will find himself placed in District 1 to face Assemblywoman Pauline Davis of Portola in a tough election campaign.

Ray Johnson is working for us, and we are fortunate to have his help. We can now show our appreciation by helping support Ray in his 1974 re-election campaign. ▲

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BOARD OF DIRECTORS MEETING

by Harold B. Davis, L.S.
Secretary-Treasurer

The Board of Directors met at the Royal Inn of San Francisco Airport on October 20, 1973.

President Eugene Lockton began the meeting with a commentary relative to the LS-CE controversy.

The Secretary-Treasurer's report was read. Expenditures to date total \$13,151.01, leaving a budget balance of \$4,782.99. Bank balances total \$8,018.62.

ATTENDANCE

President, Eugene Lockton	Present
Vice-Pres. & Exec. Sec., James E. Adams	Present
Secretary-Treasurer, Harold B. Davis	Absent
Immed. Past Pres., Charles A. Wooldridge	Present
Director, Homer Banks, Jr.	Absent
Director, Robert L. Carpenter	Present
Director, Lawrence J. Cloney	Present
Director, A.E. Griffin	Present
Director, Paul W. Lamoreaux, Jr.	Present

Chapter Representatives

Bakersfield, Jerry Vancuren	
for Donald Ward	Present
Central Coast, Robert Leger	Present
East Bay, Roy Watley	Absent
East Bay, Ray Thinggaard	
for Roger Swink	Present
Eastern Sierra, Bob Baron	Present
Feather River, Gary T. Lippincott	Present
Lake Mendocino, Joseph Scherf	Present
Monterey Bay, James M. Prendergast	Present
Marin, George Colson	Absent
Mother Lode, Frederick W. Kett	Present
Northern Counties, Jack Ashbaugh	
for Kenneth G. Burton	Present
Sacramento, Jim Dowden	
for Dan Radman	Present
Sacramento, George W. Bridges	Present
San Diego, Bill Karn	Present
San Fernando Valley, Leonard Lindenbaum	Present
San Joaquin Valley, William O. Gentry	Present
Santa Clara-San Mateo, Hank Young	Absent
Santa Clara-San Mateo, George T. Stock	Absent
Santa Clara-San Mateo, Charles Randall, Jr.	Absent
Sonoma County, Rodney Pitts	Absent
Tahoe, Jerry W. Tippin	Present

Non-voting members and guests:

John Pedri	State Board of Registration
William J. Marum	President, Tahoe Chapter
Donald E. Bender	Chairman, Status Committee

Jim Adams, Executive Secretary and Vice-President reported on the current membership. To date CLSA has 462 members, of whom 330 are regular members, an increase of 15% since January first. Jim then reported as CLSA delegate to COSA. This meeting was held on October 5, 1973, in conjunction with the ACSM fall meeting in Orlando, Florida.

The major item of discussion at this meeting was continuing education, which seems to be a problem for all states. The Virginia Association of Surveyors proposed that COSA become a better forum for land surveyors, by dividing into regions and holding quarterly meetings.

Leonard Lindenbaum reported for the FAM Committee. This committee presented a proposal to streamline the structure of the Association — which, among other things would assign spheres of responsibility to the Directors-at-Large. After extended discussion, this proposal was adopted by the Board.

Larry Cloney reported for the Nominating Committee, presenting a slate for 1974. These are:

President: Joseph J. Scherf
Vice-President: Harold B. Davis
Secretary-Treasurer: Donald E. Bender
Directors-at-Large:
Robert L. Carpenter
Lawrence J. Cloney
A.E. Griffin
Frederick W. Kett
Richard J. Stephan
Raymond B. Thinggaard
Roy Watley, Jr.

For ballot placement, the names of the nominees for Director-at-Large were placed in a hat and drawn from random order. Subsequently, Fred Kett requested that his name be withdrawn.

The Constitution and By-Laws Committee reported several proposals to amend the Constitution. After discussion and amendment, these proposals were adopted for submission to the membership at the annual election. The San Diego Chapter was chartered as Chapter No. 18 by Resolution 73-3.

Fred Kett reported on Legislation. Both CLSA Bills have been signed by the Governor. These bills were AB 1614, which allows for filing of Corner Records, and AB 1272, which gives the Surveyor right of access to monuments. He then presented a proposal for the Legislative Program for 1974.

Don Bender reported for the Status Committee. There exists a problem in Los Angeles, where 13 Land Surveyors were unable to be certified as a Professional Unit for bargaining purposes as "The Class of Survey Supervisor and Senior Supervisor are not Professional." After extended discussion, the Board passed a motion stating "We make ourselves available and give wholehearted support to the effort to keep the surveying groups in Los Angeles from being placed in the category of Technicians, with all resources available, and authorization, not to exceed \$500.00, at the President's discretion. That a letter go out from the President to the Los Angeles Employment Relations Board stating that the California Land Surveyors Association supports the position of these 13 individuals as to professional status."

The several chapters reported on their activities since the last meeting.

The meeting adjourned at 6:00 P.M., with the next meeting to be held at the Airport Marina Inn. All members are urged to attend. ▲

THE SURVEYOR OR THE ENGINEER — WHICH HAS ADMINISTRATIVE AUTHORITY IN THE SUBDIVISION OF LAND?

by Don Ward, L.S.

The Land Surveyor's Act of 1891 was born of a time when chaos existed in California as a result of the lack of regulations for the systematic recording of surveys being made in this State.

The Act of 1891 was the first step toward the Regulations of the Subdivision of Land. It required that, when surveys were made establishing points for roads or easements or boundary, a record of that survey be filed with the County Recorder. The Land Surveyor was the first authorized Professional Engineer to deal with the subdivision of land.

The 1907 Legislature created the first subdivision law requiring the recording of maps of subdivision of land into lots for the purpose of sale. It implied, but did not specifically specify, that the maps of subdivisions be attested by Licensed Land Surveyors.

This Act was amended in 1913 and required that a map of a subdivision was to be attested by a Civil Engineer or Licensed Land Surveyor. The Civil Engineer would not have a Practice Act for yet another 16 years.

The law of 1913 was the first division of the practice of Land Surveying which to this point was exclusively the function of the Licensed Land Surveyor.

After the collapse of a dam in Southern California in 1928 causing the loss of many lives, public pressure resulted in the enactment of new regulations to control the practice of Civil Engineers so that the public could be assured of a Civil Engineer with minimum requirements with respect to the design and construction of buildings and structures commonly referred to as "fixed works." This Act exempted small buildings and structures, and specifically exempted the Civil Engineer from the right to do Land Surveying or in any way affect the Land Surveyor's Act of 1907.

Concurrently with the Civil Engineer's Act of 1929 came the Map Act (Chapter 837) which required that the Tentative Map be prepared and signed by a Licensed Land Surveyor or a Civil Engineer. In addition this Act required the subdivision to be surveyed and a Final Map be prepared within a specific time period and it, too, to be signed by a Licensed Surveyor or Civil Engineer.

The specified purposes of the Subdivision Map Act are:

1. To set down provisions governing the design, improvement and survey data of subdivisions and content of Tentative and Final Maps, the procedure for securing approval, and the enactment of local ordinances.
2. To put the control of subdivision design and improvement of subdivisions in the hands of local governing bodies.

Following the legislative directive of the Map Act of 1929, governing bodies throughout the State enacted ordinances that set forth the requirements of the Map Act. These ordinances required that Tentative and Final Maps be prepared and signed by a Licensed Land Surveyor or a Civil Engineer and made reference to either being the engineer by definition. Such features of design as street improvement, grades, widths and

alignment, drainage requirements of alignment and widths of easements and rights-of-way, and disposal of all surface and storm waters were part of the specific requirements of both the Map Act and local ordinances.

That the Land Surveyor was given the legislative authority as one of the administrative professionals responsible for the design and construction of subdivisions cannot be disputed, and that authority has been perpetuated by the statutes and local ordinances to this day.

The Civil Engineers' argument is that the Land Surveyor is not authorized to perform engineering dealing with "fixed works" embraced within the practice of Civil Engineering. The Land Surveyor does not dispute that engineering dealing with "fixed works," as defined by the Professional Engineer's Act, embraces the practice of Civil Engineering. But the Land Surveyor does dispute that the subdivision of land, as defined by the Map Act, is "fixed works" embraced within the practice of Civil Engineering. If it can be defined as "fixed works" at all, it is "fixed works" embraced within the practice of Land Surveying. The two Acts of 1929 are crystal clear regarding this point.

The Engineer's Act defines the practice of Civil Engineering and "fixed works." It includes the practice of Surveying. The Map Act defines the "fixed works" of subdivisions and includes it in the practice of Surveying.

To this day the Professional Engineer's Act (the original Act called the Civil Engineer's Act) is silent as regards the subdivision of land. However, it does include Land Surveying as Civil Engineering, and since Land Surveying embraces the subdivision of land, then the Professional Engineer's Act also includes the subdivision of land, but by reference only.

The Land Surveyor's Act is the only Act which includes the subdivision of land as a part of the practice of Land Surveying and the present-day Map Act makes reference to it by requiring signatures of the Licensed Land Surveyor or Registered Civil Engineer.

The history of the legislative acts creating first, the Land Surveyor's Act of 1891 which included the subdivision of land in the practice of land surveying, second, the Civil Engineer's Act of 1929 which defined "fixed works" embraced within the practice of civil engineering, but excluded land surveying as a part of civil engineering, is strongly persuasive evidence that the subdivision of land was exclusively a practice of land surveying.

Simultaneous with the Engineer's Act of 1929 was the Map Act of 1929 which required that either a Land Surveyor or a Civil Engineer be the administrative professional dealing with the subdivision of land. However, the Engineer's Act was silent as regards the subdivision of land. Only the Land Surveyor's Act included subdivision of land in its practice.

Since the subdivision of land was strongly oriented to land surveying, it would appear the Civil Engineer could only practice in this area if he were first qualified as a Land Surveyor, which is exactly the requirement of the Land Surveyor's Act. Only those individuals that can (1) show qualification and (2) pass an examination are permitted to practice land surveying.

In 1959 the Professional Engineer's Act was changed to include the practice of land surveying as defined by the Land

Surveyor's Act as civil engineering. This brought with that change the subdivision of land since it is a part of the practice of land surveying.

But "fixed works" embraced within the practice of civil engineering as defined by the Professional Engineer's Act is still a separate definition from that of the subdivision of land as defined by the Map Act and included in the practice of land surveying under the Land Surveyor's Act which was clearly separated by the Acts of 1929. ▲

DRAFT LEGISLATION FOR CONTINUING PROFESSIONAL DEVELOPMENT FOR LAND SURVEYING AND PHOTOGRAMMETRY

Add Article 4.5 to the Land Surveyors Act, to read as follows:

Article 4.5 Professional Development

8755. There is under the jurisdiction of the State Board of Registration for Professional Engineers a Committee for the Professional Development in land surveying and photogrammetry, consisting of six members appointed by the Board for a term of two years. The membership shall be appointed with representation from the Board, the faculty of colleges teaching land surveying and photogrammetry in the State of California, and practicing Land Surveyors or Photogrammetric Surveyors within the state. The Board's representative shall be the land surveyor member of the Board. Such members shall receive the per diem and expenses provided for in Section 103. The Committee shall advise the Board on matters pertaining to this article. The terms of three of the members first appointed shall expire on January 1 after they have served a full twelve

months or more. The terms of the other first three members shall expire on January 1 after they have served a full twenty-four months or more.

8755.1 The Board shall adopt rules and regulations for the effective administration and enforcement of this article, after considering the advice of the Committee. They shall prohibit renewal of any license, certificate or registration authorizing the practice of land surveying or photogrammetry unless the applicant therefore certifies that he has complied with the rules and regulations adopted pursuant to this Article. They may provide for exception to the requirements in cases of emergency or hardship, for licensees neither residing nor practicing in this state, and for honorary renewal for retired licensees over age sixty.

8755.2 The rules and regulations shall outline and specify those activities constituting professional development, and the method of determining the amount of effort or time that must be devoted to the various activities. Such activities shall consist of, but need not be limited to, undergraduate and postgraduate studies, classes, institutes, seminars, symposiums, lectures, conferences, workshops, refresher courses, extension studies, in-house training, correspondence courses, technical and professional publications or presentations, study tours, public service, professional work in land surveying and photogrammetry, and active membership in professional and technical organizations and attendance at their meetings and conferences. Such activities shall be pertinent to the socioeconomic and legal aspects of land

(Continued on page 6)

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FOR REGISTRATION AS LAND SURVEYOR**

NORTHERN CALIFORNIA

Alkire, Gary Alan	Fortuna
Alvarez, David	San Jose
Andrews, Duane John	Modesto
Arana, Gerald Leroy	Santa Cruz
Bell, Ruddle D.	Fresno
Berti, Robert Cornelius	Shingle Springs
Bodiford, Robert Lee, Jr.	Livermore
Brookman, Robert Alan	Yuba City
Castle, Terry Lee	Carmichael
Craig, Robert W.	San Francisco
Davis, Johnny Earl	Los Banos
DeLange, Cornelis	Jamestown
Egan, Thomas M.	Walnut Creek
Enke, David W.	San Ramon
Every, Paul Anthony	Santa Rosa
Fantazia, Richard Anthony	Turlock
Feeney, Robert James	Benicia
Feiro, James De Witt	Napa
Frakes, Howard Dean	Lafayette
Francis, Roger Louis	Pleasanton
Frizzell, Joe Patrick	Susanville
Gant, Kelcie Edward	Daly City
Goodman, David	Sacramento
Graves, Ronald Lee	Oroville
Jervis, Thomas Howard	Novato
Keller, Roland Vernon	Stockton
Kirkwood, Stanford	Sonora
Koch, Hans Arnold	Fresno
Lawson, James Wesley	Rocklin
Lindsay, Julian	Sacramento
Loser, George Henry	Garden Valley
Mason, Raymond Jerrold	Burlingame
May, Curtis Don	Yuba City
McKibbin, Thomas H.	Yuba City
McKissick, Michael Shaun	Berkeley
Mello, Robert A.	Sacramento
Misner, Kenneth Allan	Vacaville
Monk, Don Wayne	Fresno
Olsen, Garrett Allen	Eureka
Parker, McLaren Alton	Oroville
Raymond, Frank Whitcomb	Saratoga
Reed, Robert Charles	Chico
Renfrow, Homer Clyde	Nevada City
Richards, John Tudor	Placerville
Salling, Robert William	Calistoga
Schoeffler, Wayne Robert	Wilton
Schoenberger, Kent J.	Sonora
Seibel, Monte Kurt	Lodi
Sikora, Charles Victor	North Fork
Swart, Wayne Charles	Rescue
Turoid, Jack Edward	Davis
West, Raymond William, Jr.	Carmel

SOUTHERN CALIFORNIA

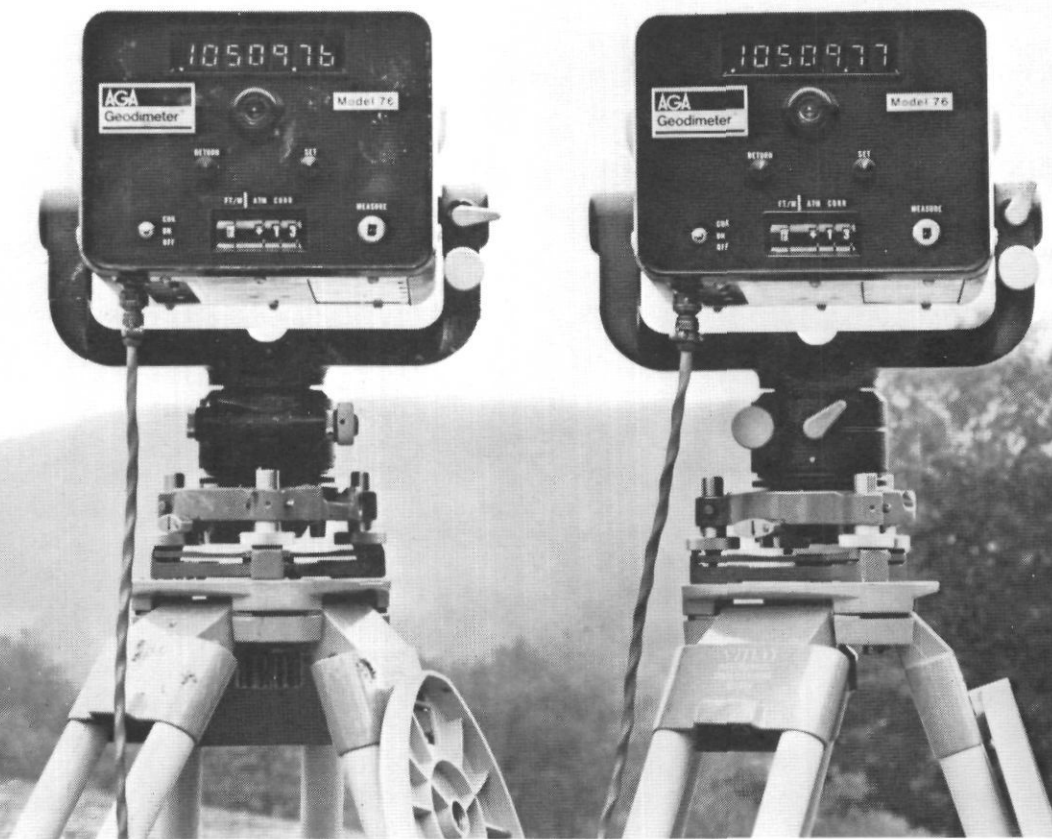
Adams, Richard Leon	Lakewood
Anderson, Clinton J.	Granada Hills
Andrus, Charles William	Bishop
Asato, Harry Seiichi	Monterey Park
Beeler, Joseph N.	Riverside
Bender, Barry C.	San Diego
Billington, Pete	Palm Springs
Bowser, Jerry Lee	Arroyo Grand
Brier, Bradley Lynn	Placentia
Bruce, James Wallace	El Cajon
Brunelli, Michael Charles	La Palma
Cherry, Ned Wayne	Corona
Crawford, Leslie D.	Redlands
Cunningham, Ross Howard	Torrance
Doherty, Frederick J.	San Diego
Dubron, Arthur Lewis	No. Hollywood
Dye, G. Howard	San Diego
Eberly, Don Eltn	Pico Rivera
Forester, Dennis Randall	Visalia
Freeman, Jerome S.	No. Hollywood
Freemon, Albert William	Los Angeles
Fullerton, Darrell Leland	Temple City
Garlinger, John Jackson	Poway
Greer, Joseph Thomas	Bishop
Henderson, Eugene Lee	Atascadero
Hill, Richard Byrd	San Marcos
Hiller, J. Lance	Bakersfield
Hinek, Jon Lance	Bishop
Hobson, Richmond Byron	Whittier
Holcomb, Freeborn Page	Hanford
Hull, Jay Alton	Glendale
Ibsen, Erling Arne	Solvang
Ingle, Delmar Dean	San Luis Obispo
Jones, Fenton Grant	La Crescenta
Klassen, La Verne William	San Diego
McGee, William Joseph	Newport Beach
Mendoza, Manuel	Fountain Valley
Mueller, Glenn H.	Saugus
Newcombe, Jesse Ernest	Ventura
Noland, Geoffrey William	Van Nuys
O'Connor, John Edward	San Diego
Peirce, Wayne Virgil	Sepulveda
Pond, Stanley Joseph	Long Beach
Raymond, Martin James	La Habra
Renison, Robert George	Canoga Park
Robb, Charles E.	Downey
Rodriguez, Fernando Marquez	Los Angeles
Rose, Robert E.	Canoga Park
Schwind, Larry John	Santa Barbara
Siegel, Gary Richard	Santa Ana
Sockey, Richard Anderson	Bakersfield
Steffens, Carl A.	San Diego
Stotts, Allen Wilmot	San Marcos
Wilkerson, Allen Thurman, Jr.	Chula Vista
Williams, David Harrison	Walnut
Young, Earl Lafoy	Fontana

DRAFT LEGISLATION (Continued from page 5)

surveying or photogrammetry, or the application of equipment or techniques to the solution of land surveying or photogrammetric problems. The subject matter covered by such activities may include, but need not be limited to, ethics, economics, mathematics, science, legal aspects, analysis, safety, oral or written communication, and professional practice management.

8755.3 The rules and regulations shall provide for the renewal of the registration of a civil engineer without rights to practice under this chapter if such civil engineer elects not to meet the requirements of this Article. They shall also provide for full reinstatement following exemption under Section 8755.1 or this paragraph. ▲

Editor's Note: This draft was submitted by a CLSA member and does not necessarily reflect CLSA policy.



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THE SURVEYOR AND SURVEYING

or

TECHNICIAN'S BUST OF THE TECHNOLOGICAL BOOM

by Robert L. Reilly, L.S.

An unsolicited review of surveying practices for the California State Board of Registration for Professional Engineers.

Editor's Note: This article is continued from the Fall, 1973 Edition.

The Unique Solution

Any problem in surveying for which there are two or more proven formulae will solve identically regardless of which formula is used. True or false?

Stated so blandly it is almost inconceivable that anyone, professional or layman, would call this false. Yet "false" is the answer upon which the surveyor predicates his reasoning. Even though he may give verbal acknowledgment of this principle, as in "there is no check for a single three-point," he stops short of "because all three-point problems solve perfectly," and improvises his own interpretation. When a perfect solution does not resolve, he attributes this not to mistakes in the computation, but to errors in the given arguments, and thereby claims a spurious ability to evaluate the accuracy of the given arguments. The perfect solution the electronic computer always gives will not be accepted by him as an overt demonstration of the computer's correct programming, but attributes it to apocryphal "adjustments" that always give a perfect solution.

Granted the three-point is an occasional problem, but the reckless use of the single trilaterated triangle, and even chains of unsupported triangles, since the event of the electronic distance meter, is evidence of the misunderstanding of fundamental theory and its universal application.

The Transit Traverse is the surveyor's predominant method of establishing horizontal control; and it is from the traverse, almost exclusively, that he derives his methods and opinions.

The traverse is a computation of multiple entries and operations, none of which have immediate checks, and the elimination of mistakes in the computation is determined entirely by the competence of the computer and checker. Since the various methods of adjustments do not give identical results, the choice is determined by individual judgment.

In contrast, triangulation from the single closed triangle to the most complicated net has, or may be contrived, theoretical checks that, when properly employed, make the immediate identification and elimination of mistakes infallible. And since the various adjustments give identical results, the choice is determined by the structure of the figure.

When the surveyor enters into the field of triangulation, which he inevitably does, he retains the case-hardened methods of the traverse to the exclusion and opposition to any other. When confronted by poor and sometimes outrageous misclosures, he rationalizes his position by specious arguments, even to the point of denying the validity of mathematical theory.

This is exemplified best by his treatment of the single triangle. When the angles are measured, he accepts the

difference of the sum of the measured angles and the theoretical 180 degrees exactly as the error of the measured angles. But when the sides are measured and the angles computed, certain that the errors of measurement must reflect in the computed angles, he concludes the sum of the angles can never equal 180 degrees exactly. And such is the psychological force of his reasoning that, when in the position of checking a computation not done by electronic computer, he can be relied upon to accept, or even to insert, a mistake of computation that results in the sum of the angles greater or less than 180 degrees. The mathematician's caveat "There is no check for the single trilaterated triangle" is not comprehensible to him.

Although the surveyor may accept the double entry theory of checking, as in the level computation where the algebraic sum of the backsights and foresights applied to the starting elevation will equal the carried closing elevation exactly. If it does not, he concedes the error to be a mistake of computations only and the error of measurement cannot be determined until this requirement is fulfilled. But he does not accord similar credence to the theoretical checks of mathematical formulae. His jaundiced opinion of the theoretical checks, as noted from the Inverse Position and the step-by-step checking that is necessary in the traverse computation, has so conditioned his thinking that any sequence of computations whose correctness is predicated entirely by its conformity to theory is taken as an affront to his intelligence and training. To the surveyor there is no unique solution but a variety of solutions dependent upon the formula used, the acclaimed competence of the computer, and the intuitive genius of the supervisor to make the choice. Ironically, he accepts the solution of the electronic computer as the "best" solution in spite of the publicized fact that the computer can't think.

The inability of the surveyor to distinguish between a mistake in computation and an error of measurement and the acceptance of individual opinion over mathematical proof has totally invalidated his judgment and nullified his competence. To defend his position he must deny the basic premise of all mathematics for the "unique solution" is simply the end product of the proven mathematical theorem.

The monumental impudence of his stand should be apparent.

Basis of Bearings

That a Basis of Bearing is required for any Record of Survey Map is stated in the Land Surveyor's Act and every County Surveyor enforces the requirement in some respect. The necessity of this is of such an elementary nature that it is assumed that anyone qualified to file a Record of Survey knows the purpose of it and why one line is so designated and not a random choice of any of the other lines. The reason is, since *all* maps are on plane co-ordinates wherein all meridian lines are parallel and, therefore, all other bearings vary from true North by the amount of convergence from the line designated as the Basis of Bearing, and *there is no other reason*.

The objection to this dogmatic statement will be as numerous as the surveyors who read it and no doubt just as

dogmatic. Yet the mathematician might wonder why it is necessary even to mention it, for the diversity here between the surveyor and the mathematician is such that rational communication no longer exists.

The surveyor has accepted the judicial concept of direction which is largely derived from the variable and often erratic magnetic bearing. Yet it is in direction that the surveyor has, or should have, the unique position wherein he can establish an absolute measurement. All linear distances are fiat measurement and the surveyor must rely on calibrations extraneous to his own ability and equipment to establish their absolute correctness. But in direction, with no addition to his usual equipment but an accurate watch, the competent surveyor can establish the direction of a line measured from True North to an accuracy that the line must be extended more than 1000 feet before the error becomes measurable by the surveyor's tape. The permanency of direction is attested by the always noted precise orientation of the Egyptian Pyramids whose construction date is usually given as 2800 B.C. (The aforementioned 1910 is A.D.) But the surveyor will not accept direction as a reliable entity, or accept the argument that a survey of any magnitude can precisely conform to the earth's axis. This is clearly demonstrated by the several Counties who published their specifications for Records of Survey employing the California State Coordinates. In all the example maps shown one line was designated as the Basis of Bearing. But the Basis of Bearing in State Coordinates is the Central Meridian of the Zone in which the map lies and there cannot be another. To defend the use of other Basis of Bearing, the surveyor must resort to the spurious argument that no survey can be extended and retain precise orientation. But this is to deny the validity of the entire State Coordinate system which is the N.G.S. North American 1927 datum expressed in a medium that the ordinary surveyor might be able to understand and utilize. That such a denial has been made is reflected in the current legal opinion that is usually quoted "California State Co-ordinates have no legal value." While the lawyer will defend this opinion on semantic arguments separate from the physical and mathematical components of surveying, the Surveyor has accepted it as an authority to defend his own work and as an argument to disparage the established reputation of the National Geodetic Survey. It is probably from this curious situation that the surveyor, when he embarks on a course of self-improvement, usually studies Law.

Read "Theodolite" Conclusion in the next edition.

THE ESSENCE OF PROFESSIONALISM

by Don Ward, L.S.

So long as there is a difference between public and private property, so long will there be a need to identify property lines.

So long as the individual member of the public has a need to own a single piece of real property, so long will the subdivision and development of private lands take place.

So long as the individual owner is jealous of his boundary lines, so long will there be a need for land surveyors.

645TH MEETING OF THE STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

by Ray Thinggaard, L.S.

I attended the meeting of the Board at the Hyatt House in Burlingame on September 12, 1973.

Items of interest covered at the meeting are as follows:

1. The Board accepted a petition for establishment of "Environmental Engineers" as a branch of the engineering profession. The hearing date will be December 11, 1973, at the State Office Building in Los Angeles.

2. The Board maintained their neutral posture on AB 1272, CLSA's "Access to Monuments" bill, and AB 1614, CLSA's "Corner Record" bill as both have been amended.

3. The ad hoc committee formed to study the overlap between civil engineering and land surveying has redefined the scope of their study to determine what work can be performed by a land surveyor. The committee, as you may recall, came into existence because of the contention of some local jurisdictions that the grading plans of tentative maps must be signed by a C.E. The committee could not reach agreement on the definition of fixed works and will therefore prepare a letter to the attorney general for a legal opinion on the term.

4. It was pointed out by the rules committee that applicants for titles under the new engineering disciplines will have to be examined as opposed to grandfathered. The examination, however, be it written or oral, will be premised on the applicant's experience, etc.

5. The professional development committee indicated that although October is the deadline for response on their request for input from the various organizations, they have not as yet received any. This relates to continuing education and CLSA should make every effort to formulate a response at the earliest possible time.

6. Don Nance, the executive secretary, reported that Oral Lewis, the C.E. whose license had been suspended for 90 days for 15 counts of incompetent land surveying, had filed a writ of mandate and has been successful in obtaining a stay on the suspension.

7. Attached is a list of new L.S.'s as a result of the examination in April. I will attempt to obtain a list from the Board complete with addresses so that contacts can be made by the appropriate chapters in the hope of enlisting new members.

8. At the last meeting of the Board in Los Angeles, which was attended by both Bob Carpenter and me, the only action taken of interest was the decision without discussion to continue present policy that only C.E.'s investigate C.E.'s on matters relating to land surveying. ▲

So long as the land surveyor can demonstrate to the public superior knowledge and trust in matters of boundary identification, so long will he be accorded the status of professionalism.

The need of the individual members of the public for services which they themselves cannot perform and which are held sacred and personal is the essence of professionalism. ▲

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FROM 1973 LEGISLATIVE SESSION

- **SB 165** Cusanovich and Alquist, to provide for the registration of construction inspectors with their own board. Exemption for CE's and LS's (among others) insofar as they practice within their own profession was amended in the last few days to apply only to school buildings. FOLLOW. Chapter 1145, Statutes of 1973.
- **SB 380** Way, to permit extension of time limit for action on Tentative Map, for land project where submission to Department of Intergovernmental Management is required. FOLLOW. Chapter 306, Statutes of 1973.
- **SB 529** Committee on Natural Resources and Wildlife, Nejedly and 27 other Senators, Spot bill, amended to be a complete rewrite of the Forestry Practices Act. UNDER STUDY. Chapter 1156, Statutes of 1973.
- **SB 733** Collier, Spot bill amended to authorize purchase of vacant school lands for parks and recreation. FOLLOW. Chapter 738, Statutes of 1973 with Urgency clause to take effect immediately.
- **SB 963** Stull, to permit County Service Area to provide services and to require such Areas to cover entire unincorporated area of county. FOLLOW. Chapter 750, Statutes of 1973.
- **AB 129** L. Greene, to delete requirement for roster of LS's and PE's being filed with county recorders and county clerks. SUPPORT WITH AMENDMENT. Chapter 60, Statutes of 1973.
- **AB 184** Powers, to amend several codes including Subdivision Map Act, regarding fees for bridges. FOLLOW. Chapter 665, Statutes of 1973.
- **AB 197** Brown, to change present 30 day period for the Director of Consumer Affairs to review rules made by Boards, to 30 days in which he may disapprove such rules. FOLLOW. Urgency clause, Chapter 40, effective May 10, 1973.
- **AB 227** Z'berg, and 13 others, to rewrite Forestry Practices Act, among other things to exempt Board actions from veto powers of Director of Consumer Affairs. FOLLOW. Chapter 880, Statutes of 1973.
- **AB 520** Warren, to maintain and update various codes including parts of B & P code. FOLLOW. Chapter 77, Statutes of 1973.
- **AB 635** Arnet, to direct the resources agency to develop by Jan. 1, 1975, with the help of private consultants, a manual which local agencies may use in evaluating private land use proposals, and the economic efficiency and fiscal impact of alternate land uses for their own projects. FOLLOW. Chapter 895, Statutes of 1973.
- **AB 823** Keene, to permit local agency to establish sewer standby or availability charges and collect with taxes. FOLLOW. Chapter 545, Statutes of 1973.
- **AB 829** Lanterman, to require design of state highway structures. FOLLOW. Chapter 682, Statutes of 1973.

****AB 1354** Powers, to require negotiation instead of bid for architectural or engineering services, for all public contracts. ACTIVE SUPPORT IF AMENDED TO INCLUDE LAND SURVEYING. Amended to change composition of Registration Board to 3 Civils, 1 Mechanical, 1 Chemical, 1 Structural, 1 Engineer from the most populous branch, 1 LS and 3 public members. No relationship to contracts. Chapter 250, Statutes of 1973.

ASSEMBLY BILL

No. 1272

This measure was signed by the Governor and is now Chapter 435 of the California Statutes. This bill becomes effective January 1, 1974.

**Introduced by Assemblymen
Ray E. Johnson and Mobley**

The people of the State of California do enact as follows:

SECTION 1. Section 846.5 is added to the Civil Code, to read:

846.5. (a) Right of entry to investigate and utilize boundary evidence is a right of surveyors legally authorized to practice land surveying and it shall be the responsibility of the owner or tenant who controls property to provide reasonable access without undue delay for making surveys with respect to property affected by the monuments or control stations of record needed.

(b) *The requirements of subdivision (a) do not apply to monuments within access-controlled portions of freeways.*

(c) *When required for a property survey, monuments within a freeway right-of-way shall be referenced to usable points outside the access control line by the agency having jurisdiction over the freeway when requested in writing by the registered civil engineer or licensed land surveyor who is to perform the property survey. The work shall be done within a reasonable time period by the agency in direct cooperation with the engineer or surveyor and at no charge to him.* ▲

ASSEMBLY BILL

NO. 1614

This measure was signed by the Governor and is now Chapter 702 of the California Statutes. This bill becomes effective Jan. 1, 1974.

Introduced by Assemblyman Ray E. Johnson

The people of the State of California do enact as follows:

SECTION 1. Section 8773 is added to the Business and Professions Code, to read:

8773. (a) A licensed land surveyor or registered civil engineer shall complete, sign, stamp with his seal and file with the county surveyor or engineer of the county where the corner is situated, a written record of corner establishment or restoration to be known as a "corner record" for every public land survey corner, as defined by the Manual of Instructions for the Survey of the Public Lands of the United States, and accessory to such corner which is found, set, reset, or used as control in any survey by such land surveyor or civil engineer.

(b) A licensed land surveyor or registered civil engineer may file such corner record as to any property corner, property

controlling corner, reference monument, or accessory to a property corner.

SEC. 2. Section 8773.1 is added to the Business and Professions Code, to read:

8773.1. The board shall be regulation provide and prescribe the information which shall be necessary to be included in the corner record and the board shall prescribe the form in which such corner record shall be presented and filed, and the time limits within which the form shall be filed.

SEC. 3. Section 8773.2 is added to the Business and Professions Code, to read:

8773.2. (a) A "corner record" filed with the county surveyor or engineer shall, after being examined by him, be filed with the county surveyor.

(b) The county surveyor of the county containing the corner shall receive and record the completed corner record.

(c) The corner record filed with the county surveyor of any county shall be securely fastened by him into a suitable book provided for that purpose.

(d) The charge for examining, indexing and filing the corner record shall be the same as provided for the recording of a deed.

SEC. 4. Section 8773.3 is added to the Business and Professions Code, to read:

8773.3. In every case where a corner record is filed pursuant to Section 8773, the licensed land surveyor or registered civil engineer shall reconstruct or rehabilitate the monument of such corner, and accessories to such corner, so that the same shall be left by him in such physical condition that it remains as permanent a monument as is reasonably possible and so that the same may be reasonably expected to be located with facility at all times in the future.

SEC. 5. Section 8773.4 is added to the Business and Professions Code, to read:

8773.4. (a) No corner record shall be filed unless the same is signed by a licensed land surveyor or registered civil engineer and stamped with his seal, or in the case of an agency of the United States government or the State of California the certificate may be signed by the chief of the survey party making the survey, setting forth his official title.

(b) No corner need be filed when:

(1) A corner record is on file and the corner is found as described in the existing corner record.

(2) All conditions of Section 8773 are complied with by proper notations on a record of survey map filed in compliance with the Land Surveyor's Act or a parcel or subdivision map, in compliance with the Subdivision Map Act.

This section shall not apply to maps filed prior to the effective date of this section.

SEC. 6. No appropriation is made by this act, nor is any obligation created thereby under Section 2164.3 of the Revenue and Taxation Code, for the reimbursement of any local agency for any costs that may be incurred by it in carrying on any program or performing any service required to be carried on or performed by it by this act because additional fees or self-financing authority have been provided to cover any such costs in the Business and Professions Code as added by subdivision (d) of Section 8773.2. ▲

COMMENTS AND LETTERS, From In, Out and Around

PRESIDENT'S CORNER (Continued from page 1)

The controversy between some engineers and surveyors is as old as the Engineers Act and will continue to age accordingly unless some positive step is taken in a counter direction. There are two basic arguments that keep cropping up: One is the engineer's exemption to the Land Surveyors Act and the other is the land surveyor's involvement in engineering as it relates to land development.

The Board's recent investigation to determine where most complaints against surveying are aimed did not indicate the exemption was resulting in vast malpractice by civil engineers. On the other hand our Council is not aware of a myriad of complaints aimed at land surveyors for providing inadequate service in land development (i.e., engineering without a license). Nevertheless, the debate between engineers and land surveyors pertaining to the competence of each to practice in the other's field continues to rage up and down the state requiring far too much valuable effort from those interested persons and associations whose time could best be oriented toward the more current problems of today and the future.

Based on the premise that most civil engineering associations consider land surveying to be a part of civil engineering our Council did, on April 26, 1969, adopt a plan that we felt, if enacted, would lay to rest the engineer-surveyor dilemma. This plan was reaffirmed by our Board of Directors in October 1971, January 1972 and again in October 1972. We still believe this plan is the most realistic solution to the problem and is outlined as follows:

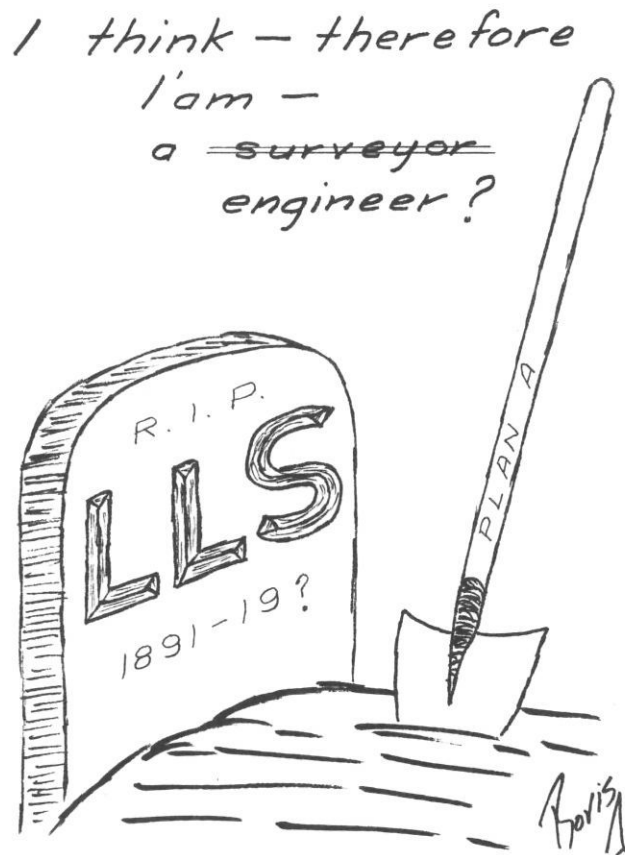
1. All land surveyors licensed to practice at the time of implementation of this plan would be automatically grandfathered as licensed civil engineers.
2. All civil engineers who can demonstrate proficiency in land surveying would be grandfathered as licensed land surveyors.
3. From the date of implementation forward a land surveyor's license would be issued as a supplement to the engineer's license, similar to the structural engineer's certification.

(Continued on page 16)

YREKA CIVIL ENGINEER'S LICENSE SUSPENDED

The Board of Registration for Professional Engineers, Department of Consumer Affairs, has suspended for 90 days the civil engineer's license of Orel E. Lewis, 328 W. Miner, Yreka, effective August 8.

After a hearing before the Office of Administrative Hearings, Lewis' license was suspended for 90 days on each of 15 counts of incompetency and violations of the Business and Professions Code regarding the practice of surveying, but the suspensions were ordered to run concurrently. ▲



CSPE PROPOSES NEW PROFESSIONAL ENGINEERS ACT

by Dave Roberts, L.S.

The California Society of Professional Engineers is preparing to introduce into the reconvened session of the State Legislature a Professional Engineers Act prepared using the model act of the National Council of Engineering Examiners as a guide. This proposal would remove the Civil Engineers exemption from licensing as a Land Surveyor (with a five-year grandfather provision) and prepare the way for the introduction of our proposed Land Surveyors Act.

Under the provisions of the proposed P.E. Act, all engineers would be classified as Professional Engineers. Separate licensing for the various branches of engineering would be eliminated with the exception of Structural Engineer. The Land Surveyor License would also be maintained as a separate license and would have to be obtained by examination by engineers in future years.

Candidates for registration as Professional Engineers would also be required to be graduates of a Bachelor Degree Program properly accredited in Engineering Education. It is expected that this will receive opposition, however. CLSA, ably represented by Ed Griffin of the Legislative Committee, has assisted in the preparation of this proposed legislation. ▲

LETTER TO THE EDITOR

Dear Sir:

When I received my copy of the "California Surveyor," Fall Edition, I was surprised and pleased that you had included my Review of Surveying. But my pleasure was short lived. Although I knew that it could stand editing in regard to spelling and punctuation, I was not prepared for the deletion and insertion of words that changed meaning.

I refer first to the end of the first paragraph on Page 10 where you added "has been discredited." Why? It makes it a completely ambiguous statement and I am sure it would confuse any reader.

In the first sentence of the last paragraph on page 15, you deleted "But its" and inserted "The computer computation." The "its" I used refers to the false value given multiple decimal places and not on the "computer computation" as the example in the rest of the paragraph should indicate. Believe me, I have more respect for the electronic computer than those who are garnering fat salaries and profits from the misuse of it.

I am enclosing a copy of the remaining chapters that I have checked and ask that you use this if you continue publication. But I have to insist that you make no corrections or changes. You of course can insert the editorial "sic" in italic or parenthesis wherever you deem necessary, or you can head it with the editorial note that I requested no editing. But without acceptance (SIC) of this proviso I would rather that you did not continue publication.

I can't avoid noting that had the import of "Significant Figures" been understood, the article "Errors in S.P. No. 253" would never have been published, for the basic argument was, and I quote, "due to the computer's capability of computing up to 16 digits." Yet I am glad it was published for it provoked the reply from Capt. Leonard S. Baker. This reply, in my book, was the brightest pages the "California Surveyor" ever published. Who knows, the cloud of calumnious (SIC) claptrap that has been hung over the U.S.C. & G.S. may be showing a silver lining and the Golden Age of Surveying may yet materialize.

Yours truly,
Robert L. Reilly, L.S.
Sacramento, CA

TWO BAKERSFIELD CIVIL ENGINEERS' LICENSES SUSPENDED

The Board of Registration for Professional Engineers, Department of Consumer Affairs, has suspended for 75 days the civil engineer's license of Carl R. Moreland, 2716 21st Street, Bakersfield, and suspended for ten days the civil engineer's license of Jeffery A. French, 6212 Stockdale Highway, Bakersfield, effective Augut 8, for violation of the Business and Professions Code.

French and Moreland were found to have misrepresented that work complied with drainage plans submitted to the Kern County Public Works Department, and Moreland was found to have performed work incompetently.

The suspension followed an administrative hearing before the Office of Administrative Hearings.



JOHN SAID IT BEST

by Roy Watley, Jr., L.S.

In a recent edition of the *Pennsylvania Surveyor*, John Liebig, Pennsylvania's Surveyor of the Year, contributed the following:

Ten Commandments for Surveyors

1. Thou shalt do all work correctly once, lest thy master's wrath be provoked and thy paycheck revoked.
2. Thou shalt balance the level rod on rounded T.P.'s and keepeth backsights and foresights equal wherefore to properly close the circuit.
3. Thou shalt use standard note forms so all persons knowest what was done.
4. Thou shalt double all angles to assure purity of work and measure distances with precision comparable to that for angles to close thy traverse within accuracies prescribed.
5. Thou shalt plan all work both field and office lest thy oversights haunt thee forever.
6. Thou shalt make thorough search of all records for behold they enlighten and reward the diligent in full measure.
7. Thou shalt analyze all research to provide fullness of knowledge from which floweth efficiency, productivity and good works.
8. Thou shalt calculate closures in the field and immediately re-do thy work which meeteth not prescribed accuracy for it is there that thy work lies for ever and ever.
9. Thou shalt prepare field books, drawings and calculations to have but one interpretation; they must be complete, neatly executed and contain all necessary information lest thy work is in vain and thy reputation be torn from thee.
10. Thou shalt be confident in thy competence, knowing what thou knowest and knowing what thou dost not know; possessing courage to persist with judgment, and wisdom to support thy work lest thy adversary smiteth thy pocketbook with suit.

Published for the edification of all who cherish the unrefutable truths distilled from human experience, aged and tempered by unbelievers now departed whose failure to heed these concepts provided ample testimony to support their immutable timeliness.

PEACE

DEAD LINE DATES FOR THE CALIFORNIA SURVEYOR

Spring/Convention Edition . . . February 16, 1974
Summer Edition May 18, 1974

Articles, Reports, Letters, etc., received after the above mentioned date will be placed in the next Edition.
- Editor



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RAYTHEON DE-119D RECORDING FATHOMETER — Portable, 12 VDC, 240' depth range	20.00	12.00	8.00
CUBIC DM-20 ELECTROTAPES — Two units including tripods, psychrometers and altimeters	40.00	24.00	16.00
ELECTROTAPE TILTING HEADS — Two units	2.50	1.50	1.00
SPECTRA-PHYSICS LT-3 LASER TRANSIT-LITE — Including fan beam attachment 12 VDC-115 VAC power supply and tripod	20.00	12.00	8.00
ASKANIA A-2e 1" DIRECTIONAL THEODOLITE — Including tripod	15.00	9.00	6.00
ASKANIA A-1e 20" REPEATING THEODOLITE — Including tripod	10.00	6.00	4.00
AMERICAN PAULIN MODEL M-2 SURVEYING ALTIMETER — 0 to 10,000 feet, 2 foot graduation	4.00	2.40	1.60
20" SURVEYORS TRANSIT — Including tripod	4.00	2.40	1.60
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4. When the plan becomes effective, "land surveying" could be performed only by licensed land surveyors.

We appreciate the main objection raised by the engineering community is in the licensing of approximately 1,400 land surveyors as engineers who, in many instances, may not be able to demonstrate proficiency in engineering. We feel, however, that land surveyors by their own professional recognition have enough integrity not to practice beyond the scope of their capability. The number of men involved is relatively small, and it is a closed end issue.

Our plan also acknowledges the complaint that all engineers regardless of qualification are currently eligible for practicing land surveying; and, therefore, our plan restricts land surveying to the land surveyor.

We feel that adoption of our plan would place the engineering community in the position to insist that the educational institutions provide land surveying at the upper division or graduate level as an adjunct to the civil engineering degree and full curriculums aimed directly at land surveying would not be required. We feel that it is easier to supplement the existing program than to develop new ones.

What we have presented is not startling, nor for that matter is it necessarily new, but it is a solution to the debate and implementation is merely dependent upon the trust by many of the few.

Representatives of our Council would be more than willing to meet with whomever you direct to explore this matter in depth.

Very truly yours,

Clifford C. Hood, President (C.C.C.E.L.S.)

With unbelievable promptness the following letter went out, and your President guessed wrong again.

To all members of the Executive Committee:

The enclosed copy of Cliff Hood's letter to the Board of Registration was sent to me from Don Ward of the Ad Hoc committee, how confidentially I don't know - give it a 'restricted' classification.

I would like permission from the Committee to also address the Board of Registration along the same line. Only coalition efforts succeed. This great and lasting truth was disclosed to us through the medium of AB2296 as I remember. Surely this would be the most handsome partner we ever had.

The only objection that I can foresee will stem from that loyalty to the past which demands continuity into the future. Clearly changing conditions deny such course. We have been yelling for higher qualifications for a long time, now we are challenged to either put up or shut up.

I don't think the Exec. Comm. need convene. We must act before the 14th to be heard effectively. There might be some protection given to prospective L.S.'s who are already in the pipeline, but I prefer not to rock

the boat. I would welcome your suggestions and, if you concur, permission to act on behalf of CLSA. No final or drastic action is imminent, only the chance to answer roll call. We should take it.

Sincerely,

Eugene Lockton, President (CLSA)

When this scene opens the third President is already on stage, speaking the following lines:

Dear Gene:

Sorry, but this time I can't agree. The CCELS "solution" is not the answer, in my mind. Our Board of Directors rejected the above and beyond theory once, and I don't think the majority are ready to abandon ship yet!

This is the original Plan A. If enacted, no one can be a land surveyor until after he has passed the EIT, CE and then the LS exams. While I'll agree that this background wouldn't hurt the surveyor, I can't accept the necessity to be a fully qualified and registered Civil Engineer before specializing in surveying.

You are right that cooperation is the only way we'll see any change. And I've been convinced for quite some time that the Council would be the best possible ally. But I believe the ultimate solution should result from compromise, not capitulation.

I will, of course, work for whatever position CLSA adopts. I have, in the past, promoted a position I was not 100% convinced was the best. But, until adopted by CLSA, I can't endorse the old PLAN A.

May I request that you proceed carefully with any reply. Please solicit and consider the comments of the entire executive committee and committee chairmen, both present and nominees, before taking any action.

The Council was willing to compromise at one time, dropping Plan A in favor of a PE in Land Surveying. The stumbling block was that it was a compromise. They weren't enthused over it, and neither were we. To me, it does indicate that the Council is not necessarily married to Plan A.

Sorry to dash cold water on your hopes, but that's my honest opinion. Good luck in finding a consensus. I'm afraid it won't be easy.

Sincerely,

Chuck Wooldridge

In the last act, to the accompaniment of a slow dirge, your President steps up to the footlights and mumbles the following lines:

Dear Chuck:

I am much indebted for your prompt and direct answer to my proposal to go along with the CCELS offer. Your reply alone would suffice to curtail further action on my part, not that I intended to take any without the express approval of the Executive Committee. Larry Cloney phoned in nearly identical comment and stated that Paul Lamoreaux, while not so

(Continued on page 18)

THOUGHTS ABOUT A PROFESSIONAL

by *Gurdon H. Wattles, L.S.*

A Professional is one engaged in, or worthy of, the high standards of a profession. The word "professional" represents what is considered to be a desirable status. It is an attitude. It is an accomplis de feat.

For one who wants to be professional — it is the attainment of an aura, so to speak, around the individual which imparts a certain impression on those whom he contacts. However, the possession of such a condition is achieved not just by thinking or acting but by attendance upon and constant practice of high standards by following many specifically directed efforts.

The acquisition of much education or longevity in one position does not of itself render the status of "professional" to any person.

It is rather the consummate expression of multiple facets of learning — academic and practical — and experience in not only some predominant area but also in many correlative fingers of that area; the express understanding of people in such a way as to accommodate their many requirements when called upon to develop environmental betterment; a comprehension in perspective of the intertwining socio-impacts which require intelligent direction; creative thinking and planning in solving problems.

All of these and correlative matters go together to make a "Professional." ▲

CANADIAN INSTITUTE OF SURVEYING — 67TH ANNUAL MEETING — VANCOUVER HOSTS 1974 CIS CONVENTION

by *G.M. Thomson*

All you want to know about the CIS but were afraid to ask — come to Vancouver next April.

Vancouver is fortunate in hosting the 1974 CIS National Convention, between April 3 to 5, 1974, at the Vancouver Hotel.

As this convention will be a first west of the Rockies, and along with expecting a strong eastern delegation, various international representatives have been invited, with many expected particularly from the south and the Pacific Rim areas.

The '74 Convention Committee has spent considerable time and is making every effort to obtain a varied program of technical subjects — both in the field of surveying and topics of outside interest to stimulate its contents. Anyone interested, whether a CIS member or not, is invited to submit titles for papers, with a brief outline, for presentation, at the technical sessions. Preference will be given to submissions which are in accord with the convention theme "Down to Earth."

All correspondence should be directed to The Secretary, 1974 CIS Convention Committee, P.O. Box 10062, 700 West Georgia Street, Vancouver, B.C.

Registration forms, Vancouver Hotel rate and room cards, along with both technical and social program formats, will be available for mailing to all CIS members and any other known participants during December of this year. Everyone is welcome. ▲

PLANNING FOR CIVIL ENGINEERS AND LAND SURVEYORS

Place: Alisal Ranch, Solvang, California

Dates: February 11-15, inc., 1974

Fee: \$190 (does not include food and lodging) payable approximately December 21, 1973. (DO NOT FORWARD NOW.)

Purpose: To broaden the understanding and background of the civil engineer and surveyor in planning with particular attention to these aspects: (1) an appreciation of the objectives and principles of community planning; (2) increased familiarity with contemporary principles and processes of project planning; (3) a better understanding of environmental factors; (4) an increased knowledge of the role of other design professionals. In addition to a general orientation in planning, the seminar will include topics on the Comprehensive General Plan and its Implementation as well as on Project Planning for commercial, industrial, residential, public works, transportation and urban renewal projects. Likewise, the future of planning and planning education will be discussed.

For information contact:

Robert E. Cron, Jr., ITTE
University of California
1301 South 46th St.
Richmond, California 94804 ▲

C.L.S.A. POLICY

The California Land Surveyors' Association holds the following view with respect to the place of land surveying in the engineering profession with all that is implied thereby as to ethical conduct, professional development, education promotion and other duties of a practitioner to his profession.

1. The Land Surveyors Act enacted in 1891 by the State of California established the first registration of the surveyor, so-called "civil" engineers, then in 1929 for the protection and welfare of the public the Civil Engineers Act was enacted, recognizing that special qualifications and education are needed to practice Civil Engineering.
2. The Land Surveyors Act was amended in 1939 to allow Civil Engineers to practice land surveying without a qualifying examination as their education requirements included comprehensive course in land surveying, thus allowing those who practice land surveying to have a minimum quality of expertise in that branch of engineering.
3. During the past three decades the education program for professional engineers have become increasingly science-oriented, eliminating required and optional courses in land surveying, thus creating a new generation of Civil Engineers who can offer to the public the service of land surveying without any expertise in that branch of engineering.
4. For the welfare and protection of the public, future professional engineers who wish to offer the public the service of land surveying be required to show qualifications and be examined in the same manner as a Land Surveyor.

by Bill Marum, L.S.

adamant, was nevertheless very cool on the idea. Larry rather insisted that the matter be brought up for a face to face discussion at an Exec. meeting. There is one scheduled for Dec. 1, that could perhaps be moved up to the 10th of this month if it were important enough to act prior to the 14th deadline. At the present state of opinion, I doubt that it would be worth the effort.

Hopefully our commitment to oppose Plan A will have no longer life than our "Do or die for 2296" had when we then may be able to enter a period of negotiation to obtain:

1. The exclusive franchise in surveying;
2. A higher level of qualification for surveying;
3. Continuing practice under our present designation;
4. Professional prestige equal to (or greater than) the CE;
5. Closing the floodgates against the deluge from the unions;
6. Greatly improved income position through the supply of a better service by fewer people.

Maybe I was carried away by the offer of support for all that in one package deal.

Maybe my hopes are at low ebb from seeing only the spectre of 2296 where we failed to gain a foothold in even the acquisition of item 1.

Maybe I overestimate the effect, time-wise, of those changes announced by the addition to our vocabulary of such words as "ecology," "environmental impact," etc., upon the stability of a profession which must expend vital energy in the contention that it is in fact, a profession, I think most will agree that it was.

Maybe, on the other hand, I should go home and pour myself a stiff drink.

Sincerely,
Eugene Lockton

The lights are lowered, and your President exits right, musing on how much gin is left in the bottle at home. ▲

SAN DIEGO? Why should I spend three days in San Diego in early April?

- The Sun!
- The Beaches!
- A Sport Fishing Trip!
- A Shopping Tour to Tijuana!
- San Diego Zoo!
- Sea World!

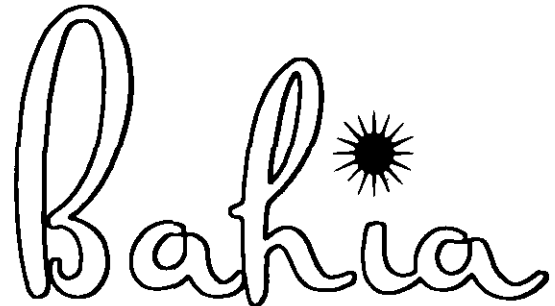
Well, yes, all of those and more. And the more? 1974 C.L.S.A. Convention at the Bahia on Mission Bay.

Discussions and speakers aimed at keeping us abreast of our profession.

Commercial exhibitors to demonstrate (and sell) the equipment we all need, both the standard day to day equipment, and the new and innovative equipment to make our work easier and more precise.

As if the above reasons were not enough to get me to San Diego in April, a gigantic snowflake just hit me on the head, and come April 4, I am sure that the sun in San Diego will look awfully good. ▲

THERE'S MORE TO SEE AT



BY THE BAY

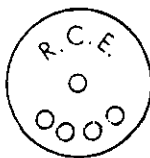
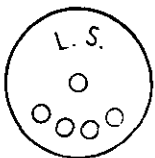
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	<p>AGA</p> <p>Service throughout the world.</p>	

APPLICATION FOR MEMBERSHIP IN THE CALIFORNIA LAND SURVEYOR'S ASSOCIATION

- MEMBER GRADE:** Have a valid California Land Surveyor's or Photogrammetric Surveyor's License
- AFFILIATE MEMBER GRADE:** R.C.E. or those who rely upon the principles of land surveying.
- ASSOCIATE MEMBER GRADE:** Work in land surveying and be recommended by a member.

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b. Address _____ Zip _____

c. Mailing Address _____ Phone No. _____

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Name of Firm or Agency _____

e. Signature and L.S., P.S. or C.E. No. _____

f. Recommended by (Associate & Affiliate Grade Only) _____

Dues schedule: *Member \$50.00 Affiliate \$25.00 *Associate \$10.00 (*Entrance Fee \$15.00)

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