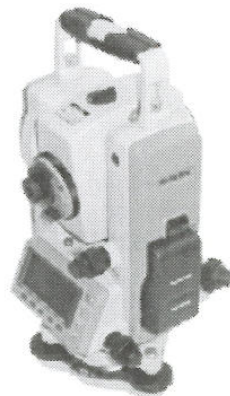
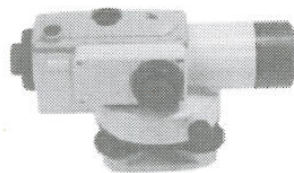


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VOLUME 13, NO. 3

OCTOBER 2001



P.L.S.W.

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☐ APPROVED BY BOD ☐ REJECTED BY BOD SEC./TREAS. _____ DATE _____

2001 PLSW MEMBERSHIP APPLICATION PROFESSIONAL LAND SURVEYORS OF WYOMING

AFFILIATE — AMERICAN CONGRESS ON SURVEYING AND MAPPING
MEMBER — WESTERN FEDERATION OF PROFESSIONAL SURVEYORS



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States other than Wyoming in which you are registered: _____

Additional information or comments (optional): _____

CLASS OF MEMBERSHIP APPLIED FOR: (check one only and please submit dues with application, prorated for the remainder of the calendar year)

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☐ **Special Member**, Student, annual dues \$15. (Pursuing a post secondary academic course of study, and currently enrolled.)

☐ **Sustaining Member**, annual dues \$100. (Persons, institutions or corporations desiring to assist PLSW financially.)

I AGREE TO OBSERVE THE CONSTITUTION AND BY-LAWS OF THE PROFESSIONAL LAND SURVEYORS OF WYOMING AND THE CHAPTER THEREOF TO WHICH I WILL BELONG AND TO SUPPORT SAID ORGANIZATIONS IN THEIR ENDEAVORS.

APPLICANT'S SIGNATURE

SPONSOR'S SIGNATURE
(For Affiliate Member applicants only.)

NOTE: All portions of the state have chapters. Chapter dues or assessments may vary in amount. Applications are considered by the board of Directors at quarterly meetings. Send completed application to PLSW, c/o Herbert W. Stoughton, Sec./Treas., 2821 Carey Ave., Cheyenne, Wyoming 82001.

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EDITORIAL POTPOURRI

O NEW MEMBERS OF PLSW - At the May meeting of the Board of Directors, the following new members were approved.

Dan McGee	Member	Billings, MT
James Claflin	Member	Jackson, WY
James Jacob	Student Member	Burns, WY

O PLSW 2001 FALL TECHNICAL SESSION - The PLSW Education Committee has set the dates for the fall technical session on December 6th & 7th, 2001 at the Parkway Plaza Convention Center in Casper, Wyoming. Mark your calendars. More information will be presented as the date approaches.

O BOARD OF DIRECTORS MEETINGS 2001 - The last 2001 Board of Directors meeting will be at the fall technical session in Casper on 6 or 7 DEC 01.

Contact your director for time and place. All are welcome.

O Lines & Points FAX - Our fax numbers are 307-235-5604 or 307-235-8184.

O Lines & Points E-MAIL - Contact dond@wlcwyo.com. or johnhh@trib.com.

O PLSW KEY RINGS - The South Central Chapter has key rings for sale (\$5). Contact the South Central Chapter or *Lines & Points*.

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PLSW (Professional Land Surveyors of Wyoming) is a statewide organization of Registered Land Surveyors licensed to practice in the Equality State of Wyoming. PLSW is dedicated to improving the technical, legal, and business aspects of surveying in the State of Wyoming. PLSW is affiliated with the American Congress on Surveying and Mapping and the Western Federation of Professional Land Surveyors.

Editorial Staff: John Hibsman, Steve Strang, Don Davis.

Lines and Points subscription \$50/year

Advertising Information

Camera ready advertisements with payment should be mailed to *Lines & Points*, PLSW, Box 904, Casper, WY 82602

Advertising rates are as follows:

	Year	Issue
Full page	\$300	\$80
Half page	\$175	\$50
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Deadline for next issue — 15 DEC 2001



National Society of Professional Surveyors Foundation, Inc.

The **N**ational **S**ociety of **P**rofessional **S**urveyors **F**oundation, **I**nc. is a non-profit corporation whose mission is to promote educational, scientific and charitable activities in the field of surveying and mapping.

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(Please check one.)

☐ 1. Regular Member \$35 contribution	☐ 3. Sustaining Member \$500 contribution
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PRESIDENT'S MESSAGE

As I write this message, the TV is on in the background and there are numerous references to the destruction of the World Trade Center's Twin Towers. Much has been written and said about the catastrophe, however, little has been said about the opportunity that such a depraved action has created. It seems odd to talk about opportunity in the wake of the disaster, but we need to recognize an underlying message now more than ever.

The message that we need to listen to is that our lives can change in a instant. The opportunity we have is to cherish and love our friends and families as never before. We are fortunate to live in Wyoming; we seldom are affected by world affairs because of our remoteness and small population. The end result is that we tend to focus more on our work and other activities than we do our friends and families. I would exhort you who read this to take a moment to give your loved ones a hug and tell them that you love them. We are fortunate to have them in our lives. Seize the opportunity!

On another note, John Lee and I presented the concept of the computerized survey control database to the last meeting of the Board of Professional Engineers and Land Surveyors. We proposed that the data base could be used to make the preparation of section corner recordation forms easier and make the completed forms more easily available through the Internet. The board's reaction was mixed. John and I are scheduled to present the same proposal to the GIS committee at WYDOT. We hope that this state agency might be able to house and steward the database in cooperation with the BLM. More later as things develop.

A final note: those of you that are members of the ACSM/NSPS should remember to vote for Becky Braman for area 7 Director, and Dr. Herb Stoughton for Vice President. We need to support our local candidates.

2001 Fall Technical Session

I would like to submit, for your review, the schedule of events for the 2001 Fall Technical Session. Unfortunately the dates in November, requested by the board in an earlier letter to me, were not available at the Parkway Plaza. Rather than trying to find another location that suited our needs, I felt that it would be better to move the event back several weeks.

Location: Parkway Plaza, Casper, Wyoming

Date & Time: Thursday, December 6, 8:00 - 12:00 and 1:00 - 5:00 Friday, December 7, 8:00 - 12:00.

Speakers: Marlin (Lin) Livermore and Clifford (Skip) Robinson

Both Lin and Skip are retired BLM Cadastral Surveyors with many years of experience in the land surveying profession and have been doing consulting/public speaking since retirement several years ago. Lin mentioned that he has presented his topic, Why Does the Manual Say That, to over six hundred surveyors in the past fifteen months and will be giving the same presentation at the ACSM Conference in Las Vegas this year.

Subjects: Thurs. - Independent Resurveys, Why Does the Manual Say That Fri. - Why Does the Manual Say That, cont.

If you have any questions or concerns feel free to contact me.

Sincerely, Joel Ebner

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-CERTIFICATION PROGRAM

(Continued from Page 9)

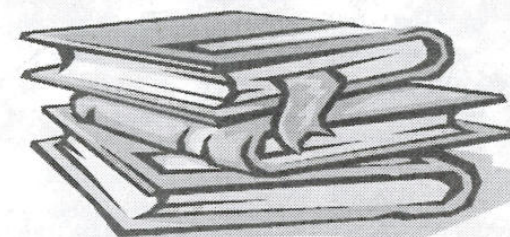
to government agencies, like the ACSM Hydrographic Surveyor Certification required to perform some Corps of Engineers funded work.

It is within the context of providing both a credential and an evaluation tool that the Certified Survey Technician (CST) program, run through NSPS and ACSM, was created. The program has been in existence for several years. It has been within the past few years, though, that it seems to have begun to generate greater interest among employers, technician level employees, and those who procure surveying services. As a company owner, I would like to have the ability to better gauge an applicant's capabilities than is typically possible through what is written on their resume. Likewise, those seeking employment need a credential to show that they have achieved recognition for a certain level of competence. While a procurement requirement that a firm have CST's on staff may not become mandatory in contracting for surveying services, agencies could certainly begin to allow extra credit to those firms who do. These are among the factors that make the CST program a meaningful benefit to the surveying profession.

The CST program is overseen by a board of volunteers from within NSPS/ACSM. The board is responsible for assuring that the test questions are legitimate, and for reviewing any challenges to questions that have been posed by examinees. They are also responsible for setting the pass/fail cutoff score for each test. The board also develops new questions to be inserted into the existing question banks, currently about 2600 questions. Staff members at NSPS/ACSM headquarters provide the administrative support necessary for the applications, testing, and renewals processes to function properly.

Currently, the CST testing cycles are administered in

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conjunction with NICET, a national testing organization. NICET provides the routine test sites, the proctors, and grading of the tests. Sometimes there are not enough test seats available at the NICET test sites to accommodate those wishing to take a CST exam. When this occurs, or if testing is requested within the test cycle by those who cannot go to a NICET site, a test can be set up if a proctor and a site can be found. As interest has grown in the program, "special" tests as they are known, have become more prevalent. Future growth of the program may at some point require rethinking of the arrangement with NICET, if for no other reason than the volume of applications for tests. It seems appropriate that NSPS/ACSM should seek to develop arrangements with the various state surveying societies to identify proctors and test sites so that applications for testing can be accommodated regardless of whether there are available NICET seats.

Another aspect of CST is that it can serve as the basis for a career track for the technician level employees who may not have the opportunity to achieve the professional surveyor level because of existing or impending laws requiring a four-year degree. The CST program should be promoted as a benefit to members who can offer it to their employees at a reduced rate. Building a career track for technicians is critical to the future of the surveying profession because people need to have documentation that they have reached a particular level of competence. Without that documentation, the incentive to not only progress, but also just to stay in the profession may not exist.

With the help of many volunteers across the country, the CST Board, and the leadership within NSPS in particular, the program has made great strides. Recently, it was selected as the source for certification of Land Survey Technicians by the Arizona Department of Transportation. This is a program that deserves to be encouraged and utilized by the surveying community, and one that can serve as a model for future certification programs that may be considered by ACSM.

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Certification Program Available for Survey Technicians

I hope you are aware of the NSPS/ACSM program known as CST. It is a certification program for survey technicians.

The purpose of the program, as discussed in the attached article, is to provide a benefit to the technicians across the country, which are such an important part of the profession we love. It is also intended to be a benefit to their employers. I would appreciate it if each of you will publish the article in your newsletter.

I believe together we can continue along the path of building unity and strength among surveyors across the country, and I hope a more consistent communication with them from ACSM will encourage them to join in a commitment to make that happen.

Thanks, Curt Sumner

PREAMBLE:

With so much emphasis being placed these days on the perpetuation and enhanced professional standing of surveying through the development of educational opportunities in our four-year university programs, it is sometimes easy to overlook a significant segment of the profession. That segment is the multitude of technicians who every day collect and process the data on which we, the professional surveyors, base our analyses and form our opinions.

As we pursue and encourage the concept of a four-year degree requirement for licensure, it is important that we also plan for the career advancement of those who, for whatever reasons, will not attain that status. We in the professional ranks must understand that the incentive and initiative necessary to keep our invaluable technicians in the business can only be recognized if a clear career path is defined.

A uniformly recognized method for documenting one's progress and achievements can be a major factor in this process.

"CERTIFIED COMPETENT"

Many years ago I played with a team of softball players who

traveled to various parts of the country to compete. One of our players, who found humor in any situation, commented once that another of our teammates was crazy and had a certificate from a psychiatrist to prove it. While that statement is in poor taste, the point implied (probably unwittingly) is that a certificate carries with it a level of authority.

Certification is used by many organizations to acknowledge, through testing or some other mechanism, that someone has met requirements it has set forth for a particular activity. Certification is not the same as licensure, which bestows upon one the right to provide a service (usually a professional service) to the public in return for acceptance of the responsibility and liability associated with that right. It does, however, provide credibility for the person holding the certification.

Likewise, certification is a tool that can be used by anyone who wishes to purchase something for which the value may be subjective. For instance, if one wishes to purchase a used car, a notification on the window that the car is "certified" implies to the potential buyer that some extra care has been taken to increase the car's value. In surveying, a certification statement on a plat, signed by the surveyor, indicates that the service provided in order to create the plat was conducted at a level of high professionalism and quality. Whether a service one needs or wishes to purchase relates to repair of the washing machine, the car, or the computer, we all feel more confident that the service provided and the work done will somehow be better if performed by a "certified" technician.

When holding a certification is recognized by some entity as being necessary in order for one to be considered competent to provide a service, those wishing to provide that service will place great value on the certification. Such is the case with some consulting contracts through which private firms provide services

(Continued on Page 17)

-PLSW MEMBERS

(Continued from Page 8)

South Dakota, 1983, Colorado, 1989; Party Chief, cadastral surveys, water rights, construction surveys, 1975-82; Founder Intermountain Professional Services in Cheyenne, WY, working in construction surveying, cadastral surveys, engineering surveys, water rights and legal research. 1982-2000: currently Chief Surveyor for Jorgensen Associates in Jackson, WY.

Professional Associations: American Congress on Surveying and Mapping (ACSM), National Society of Professional Surveyors (NSPS), Professional Land Surveyor of Wyoming (PLSW).

Professional Activities: President, PLSW, 1991 and 1992, Secretary/Treasurer. 1986-90; NSPS Governor from Wyoming, 1991-1999; NSPS Director, 1999-present; NSPS Certified Survey Technician Board, 1994-present.

Publications: Presented paper on Certified Survey Technician Program to Minnesota Society of Surveyors, 1997 and to Professional Land Surveyors of Wyoming, 1998; State-specific examination question writer for Wyoming Board of Registration for Professional Engineers and Professional Land Surveyors; presented program on ALTA/ACSM surveys to Wyoming Land Title Association, 2001.

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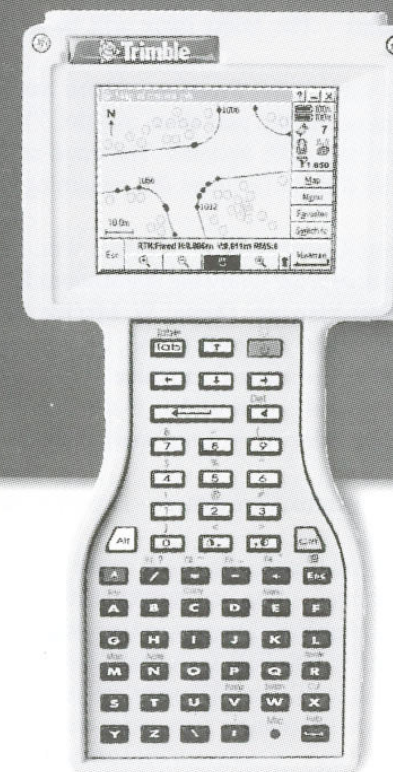
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DRAFT
Professional Land Surveyors of Wyoming
Board of Directors Meeting Minutes, 25 August 2001

The Board of Directors' Meeting of the Professional Land Surveyors of Wyoming.

- a. Location: Telephone conference call.
- b. Date & Time: Saturday, 25 August 2001 at 10:00 hrs. M.D.T.

c. Presiding Officer: Mr. S. Dennis Dawson, P.L.S., President.

2. Agenda: The final agenda is appended [Enclosure No. 1].

3. B.O.D.Minutes:

- a. Motion was made by K. Jones/Fehringer to approve the corrected minutes of the Board of Directors' meeting of 19 May 2001 at Casper. Motion carried.

4. Secretary's Report: Secretary Stoughton reported that member Raymond E. Connin died on 10 July in Simi Valley, California. He would provide an obituary to Lines & Points at a later date.

4. Treasurer's Report: The financial reports were distributed. Motion was made by J. Jones/K. Jones to accept the published reports. Motion carried.

- a. Income [Enclosure No. 21.
- b. Checking Account activities [Enclosure No. 3].
- c. Quarterly investment statement from Dain-Rauscher [Enclosure No. 4]. This document included a letter from financial advisor Ms. Rosalyn Baker discussing the general trends in the investment program. The Board of Directors recommend that Treasurer Stoughton discuss the division of the funds dedicated to CD investment to a combination of long and short term periods. The current CD's will mature on the 16 November and the 30 November.

5. President's Report:

- a. President Dawson reported on a problem he encountered with the HARN station data in Montana. He had worked on a project a couple of years ago and when he revisited the station for subsequent work found new positional data published for the station. It seems that a readjustment had been performed in the interim. It should be noted, that henceforth, when positional data is used, the metadata (data about data) should be appended to the project report in order to provide a paper trail of the origin of the positional data/information.

b. President Dawson stated that after the Board of Directors' meeting, he would like to have a consensus of the attendees as to their impressions of the first PLSW Board of Directors' teleconferencing call.

6. Committee Reports:

- a. Audit-Finance Committee - submitted at the Annual Meeting.
- b. Bylaws Committee - No report.
- c. Convention Committee - The Northeast Chapter has the responsibility of coordinating the land surveying technical program for the 2002 WES Annual Meeting in Sheridan. It was recommended that the tentative program should be finalized by

speakers and the Parkway Plaza have been made for the 2001 Fall Technical Session - 6 and 7 December 2001. An informational flyer advertising/announcing the conference will be mailed at least one month before the conference (probably in early November). An information announcement will be submitted to P.O. B. and Professional Surveyor magazines for publication.

e. History Committee - The update to the PLSW History has been published, circulated, and will be mailed to the general membership (24 May 2001).

f. Legislative Committee - No report.

g. Lines & Points - The latest issue will be in the mail shortly.

h. Manual of Professional Practice - There has been no activity by this committee in the past three months. The current status has the draft manual 50% updated. The good news is the manual is currently on disk to facilitate the remaining updating tasks.

i. Membership Committee - Motion was made by Stoughton/Chilcott to accept the following applications for various membership categories: Member: Daniel W. McGee and James D. Claflin; Student Member: James E. Jacob. Motion carried.

j. Nominations & Elections Committee - No activity.

k. P.L.S.W. Handbook: - The update to the PLSW History and the 2001 PLSW Roster have been mailed to the PLSW membership.

1. Professional Awards Committee: - Report is submitted at the Annual Meeting.

m. Public Relations Committee: - No report.

n. S.O.S. Committee - The committee reminds everyone that the ACSM/NSPS Map/Plat Competition judging will be held in conjunction with the PLSW Fall Technical Session in Casper. Please submit entries to your Chapter Director, mail them to Jeffrey B. Jones, or bring them to the session. Categories are: Topographic Surveys; ALTA Surveys; Cadastral/Boundary Surveys; Miscellaneous Surveys; and Color Maps. Entry fees and entry forms will be prepared by PLSW for the winners which are submitted to ACSM/PLSW. The corner recordation forms prepared for the S.O.S. competition will be held at the WES 2002 Annual Meeting in Sheridan.

o. Scholarship Committee - The Northeast Chapter has awarded one scholarship, and PLSW has paid its contribution. The recipient was Terry W. Kessel.

p. Standards, Ethics & Professional Practice Committee - The committee has not been contacted with any matters, and has nothing to report.

q. Trig-Star Committee - The state-wide Trig Star competition was completed. Seven schools around the state participated in 2001. This year's winner, Nathan Priddis, competed in the national competition, but the results are not known at this time.

r. Allen W. Mace Memorial Raffle - No report.

7. Delegate Reports:

**PETITION TO THE PLSW BOARD OF DIRECTORS TO FORM
TWO CHAPTERS WITHIN THE PRESENT
CENTRAL CHAPTER OF THE STATE PLSW**

WHEREAS the boundaries of the Central Chapter (Area 3) of the Professional Land Surveyors of Wyoming presently encompass all of Fremont, Sublette and Teton Counties and all of Lincoln County north of the northerly boundary of Sweetwater County extended to the west boundary of Wyoming; and

The By-laws of PLSW, Article X, Section 4, require that chapters meet not less than three times per year; and

The Central Chapter has and continues to struggle with generating enough membership participation to be an active and effective organization and therefore falls short of satisfying the yearly meeting requirements; and

The members by majority of written response agree that the present Central Chapter encompasses too large of a geographic area thus restricting meeting attendance; and

The By-laws of PLSW, Article X, Section 3, allows for the formation of a PLSW chapter upon petition to and acceptance by two-thirds majority vote of the Board of Directors:

THEREFORE we the undersigned members and associates of the current Central Chapter of the PLSW wish to petition the Board of Directors to form two Chapters within the boundaries of the present Central Chapter. One Chapter to be known as the Central Chapter (area 3), and will include all of Fremont County. The second Chapter to be known as the West Chapter (area 7) which will encompass the counties of Sublette and Teton and all

of Lincoln County north of the northerly parallel of Sweetwater County extended to the west boundary of Wyoming; and

THEREFORE both the proposed Central Chapter and West Chapter agree to divide equally between them any funds accumulated and now on hand in any accounts held by the present Central Chapter.

Jeff Genzel, former owner of Intermountain Professional Services and the Office Manager of Hook Engineering in Cheyenne, has formed his own company.

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-BOD DRAFT

(Continued from Page 6)

submitted a report which was published in Lines & Points.

b. WestFED - The report of the meeting of 2 June 2001 of the WFPS Board of Directors meeting has been submitted for publication in Lines & Points. The next WFPS Board of Directors' meeting is scheduled for 13 October 2001 in Reno, Nevada.

8. Old Business:

a. GPS Control Data Bases - The State of Washington [Washington Council of County Surveyors - WCCS] has developed a state wide data base, and it is operational. Copies of the communications between Mr. Dawson and Gavin Schrock (Seattle Public Utilities/Engineering Services Branch) were presented to Secretary Stoughton for distribution. The system was developed by Terra of Boise, Idaho. The Washington project is for a state wide system, rather than a county wide system. Interested individuals can inspect the material by visiting the WCCS web site at: <http://www.surveycontrol.state.wa.us/data.htm>.

b. Sale of PLSW memorabilia - Kevin Jones submitted a final report concerning the status of the subject. Motion was made by K. Jones/Hatle to have manufactured 100 PLSW lapel pins with the South Central being the sponsor/coordinator. Motion approved.

c. Formation of the West Chapter. Gary Hatle presented documents, including a petition, for the division of the Central Chapter into a Central Chapter and a West Chapter. Motion was made by K. Jones/Hatle for PLSW By-laws Committee to review the proposal of division of the Central Chapter and the formation of a West Chapter, and to submit the by-law changes for the December Board of Directors' meeting (7 December 2001).

Motion approved. Secretary/Treasurer Stoughton was directed to contact John Dolinar, chairman, By-laws Committee, concerning this matter.

9. New Business:

a. Wyoming Corner Record Checklist - Rick L. Hudson has prepared a document entitled:

State of Wyoming Corner Record Checklist [Enclosure No. 8]. Motion was made by Stoughton/Chilcott to adopt the checklist as part of the corner record file, and the document would be distributed with the forms and other documentation. Motion approved.

10. Announcements:

a. The schedule for the remaining 2001 PLSW Board of Directors' meeting is Friday, 7 December 2001; Casper, Wyoming, Parkway Plaza.

b. The PLSW Fall Technical Session will be held Thursday and Friday, 6 and 7 December 2001 at the Parkway Plaza.

c. The 2002 Annual Meeting will convene on Thursday, 7 February 2002 at 13:00 hrs. MST, in conjunction with the WES Annual Meeting at the Sheridan Holiday Inn.

d. The Metropolitan State College of Denver has received a grant to develop a coordinated education program with community colleges (offering lower division courses) and MSCD Surveying and Mapping Program (offering surveying and mapping courses and upper division courses) for a B.S. (Surveying & Mapping) degree. The surveying and mapping courses will be offered through a distance learning program.

11. Adjournment: Meeting was adjourned at 11:25 hrs., M.D.T.

Respectfully submitted,

Herbert W. Stoughton, Secretary/Treasurer

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HERBERT STOUGHTON

Candidate for Vice President from AAGS

Born: Ann Arbor, Michigan, 1940. Education: He received his elementary and secondary education in Central New York State. In 1958, he enrolled at the University of Michigan and earned a B.S. (Civil Engineering) degree in 1963. While at the University of Michigan, Stoughton became interested in surveying and mapping, and studied under ACSM Honorary Member Ralph Moore Berry. In 1962, he became a member of ACSM, ASPRS, and AGU.

After graduation, Stoughton worked for the firms of Atwell-Hicks, Inc., in Ann Arbor; and O'Brien & Gere in Syracuse, New York. In 1966, Stoughton moved to Southern California and joined the Metropolitan Water District of Southern California. Here, Stoughton performed engineering and minor geodetic surveys to support the \$2.2 water distribution system and dam monitoring program.

In 1969, Stoughton received the ACSM-Cubic Electrotape Fellowship, and returned to the University of Michigan to continue his studies under Professor Berry. At the University of Michigan, Stoughton was awarded a M.S.E. (Geodetic Engineering) and Ph.D. (Civil Engineering).

In 1973, he took a more active role in ACSM activities. He was appointed the Control Surveys Division Reporter/Editor and elected Director, and later Chairman. He served on the ACSM Publications Committee, was chairman of the Constitution and Bylaws Committee during the 1979 reorganization. Later, he was elected an ACSM Director for two terms.

Between 1973 and 1979, Stoughton taught in the Surveying Program at the SUNY at Alfred.

In 1980, he moved to Cheyenne, Wyoming, his current residence, to join the DMA Geodetic Survey Squadron as a geodesist and physical scientist. There he worked on geodetic development and training programs, and directed the GPS-HARN project in Paraguay.

In 1996, Dr. Stoughton joined the Metropolitan State College of Denver, where he is Head of the Surveying and Mapping Program. He has developed eleven video surveying courses for distance learning.

Publications: Through the years, Dr. Stoughton has authored numerous publications and presented numerous technical papers at ACSM meetings, and served as the AAGS technical program chairman for one annual meeting and one fall conference.

Awards: In 1999, Stoughton received the Walter S. Dix Award

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for contributions to the surveying and mapping profession and the Earle J. Fennell Award for contributions in surveying and mapping education.

After moving to Wyoming, Stoughton also became active in the Professional Land Surveyors of Wyoming. He served as chairman of several committees, chapter president, and State President. Currently, he is serving his fourth term as PLSW State Secretary/Treasurer. Stoughton was elected director of the ACSM Colorado Section, and is completing his first term.

Dr. Stoughton serves on the ASPRS committee reviewing applications for Certified Mapping Scientist.

Dr. Stoughton is a licensed professional engineer in Colorado, New York, and Wyoming; a licensed land surveyor in Colorado, Michigan, New York, Ohio, Pennsylvania, Vermont, West Virginia, and Wyoming; and an ASPRS Certified Photogrammetrist.

Dr. Stoughton and his wife, Catherine, have one son, Sean, who is a civil engineer.

FOR NSPS AREA 7 DIRECTOR—Colorado, Idaho, Montana, North Dakota, South Dakota, Utah, Wyoming, Alberta, and Saskatchewan.

BECKY J. BRAMAN

Member, ACSM. Born: Jackson, WY September 4,1950. Education: Central High School, Cheyenne, WY, 1968; University of Wyoming, Mathematics and Zoology, 1969-71; Laramie County Community College, Assoc. Science, Mathematics, 1987.

Experience: Professional Land Surveyor, Wyoming, 1982,

(Continued on Page 16)

Yes	No	N/A	Description of Requirement
☐	☐	☐	(iv) Description, including material, inscriptions, dimensions, etc., of monuments and accessories used to perpetuate and rehabilitate the original location of the corner. Where appropriate, the system of marking monuments shall follow the "Manual of Instructions for the Survey of Public Lands", (currently the 1973 edition);
☐	☐	☐	(v) Courses and distances to adjacent corners if determined in this survey which information may be depicted by a sketch or prose;
☐	☐	☐	(vi) Distances and bearings to local objects, if available, in sufficient detail to allow reestablishment of the corner monument if it is destroyed. If the monument is in a vulnerable location, reference monuments will be located and tied;
☐	☐		(vii) Superimposed over the imprint of the seal shall be the signature of the registrant and the date signed;
☐	☐	☐	(viii) Corner Records are to be filed for monuments searched for and not found in accordance with this act;
☐	☐		(ix) The alphabetical-numerical coordinate for the cross index plat are to be marked in the cross index section of the form;
☐	☐		(x) Each Corner Record will refer to only one corner and be prepared upon bond paper;
☐	☐	☐	(xi) If the corner monument is determined to be "obliterated", the evidence used to reestablish the position is to be shown. If affidavits are used, a copy of the affidavit should be attached to the corner record or the reference to the recordation of said affidavits be indicated upon the corner record;
☐	☐	☐	(xii) If the corner monument is determined to be "lost", the method, rationale and measurements used for reestablishing and the rationale, if warranted;
☐	☐	☐	(xiii) If the state plane coordinates are shown, they must include the system used, zone, horizontal datum, scale factor, and elevation referred to the vertical datum used as appropriate, in accordance with W.S. 34-25-101 through 34-25-107;
☐	☐	☐	(xiv) Restoration, rehabilitation, and perpetuation of corner monuments is emphasized in accordance with this act. The words "established or reestablished" as used in the "Manual of Instructions for the Survey of Public Lands" shall mean to determine the true position of a corner.

Chapter V, Sections 3, 4, 5 and 6, of the above mentioned Board Rules and Regulations set forth the requirements for minimum monumentation materials and practices; as well as requirements for the rehabilitation of original Public Land Survey System monuments and the subdivision of sections of same.

The content of State of Wyoming Corner Records must also comply with these monumentation and procedural requirements.

ADDITIONAL COMMENTS PERTAINING TO THIS REVIEW:

Reviewed by: _____ ☐ PLS _____ (OR) ☐ PELS _____ Date: _____



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SURVEYOR'S ROLE

(Continued from Page 9)

today is the heart of the City of Detroit.

In 1887, Michigan enacted one of the first statutes concerning the subdivision of land.¹² The statute describes to size of the map, use of monuments, bearings and distances of boundaries, identification of lots and streets, and filing requirements and procedures. No mention of the design of water distribution systems, sewerage collection systems, street design, and hydrological studies appears in the legislation. Disregarding the filing requirements and procedures, the statute pertains to monumentation of boundaries and proper identification of the original and "new" boundaries of the subdivision.

After World War I, the subdivision of land into "residential lots" (of a few tenths of an acre to a few acres) became a major portion of land surveying practice in metropolitan areas. Since 1920, various legislative bodies (village, town, city, county, and state) have added various requirements before acceptance and filing of subdivision maps. Most of these new requirements pertain to engineering work, which was not formerly required (i.e. sanitary sewers, storm sewers, water supply systems, highways, and environmental impact statements).

CONCLUSION

The work of the land surveyor is to establish and/or re-establish property lines according to law, evidence, and in cases of subdivision, proper layout of property boundaries. The most important fact the land surveyor must remember is that the work concerning boundary retracement and/or establishment is subject to judicial review.

Since colonial times, the land surveyor (and he/she has always been identified as a surveyor or land surveyor by custom or statute and not identified as an engineer) has subdivided and re-subdivided property. It has been only in the past few decades that additional duties have been appended through legislation to subdivision work.

FOOTNOTES

1. Thompson, F.M.L.: *Chartered Surveyors, The Growth Of A Profession*; (London: Routledge & Kegan Paul; 1968); p. 2.
2. Ibid.; pp 10 and 11.
3. The authors were: Leonard Digges (1556 and 1571); Ralph Agas (1596); Aaron Rathborne (1616); William Leybourne (1650 and 1653); and George Atwell (1658).
4. Robinson, W. Stitt, Jr.: *Mother Earth, Land Grants In Virginia, 1607- 1699*; (Charlottesville: University Press: 1957); p. 24.
5. Taylor, Eva Germain Rimington: *The Mathematical Practitioners of Tudor and Stuart England, 1485 - 1714*; (Cambridge: Cambridge University Press; 1970); pp 202 and 353.
6. Robinson, W. Stitt, Jr.: op. cit.; pp 24 and 25.
7. Love's work is considered so important in retracement surveys of colonial patents that the 1688 edition has been reprinted (1977).
8. Stoughton, Herbert W.: *A Goodly Heritage; Surveying In New York State; 1776 - 1976*; (Almond, New York: privately printed; 1976); pp 2 and 3.
9. Donaldson, Thomas: *The Public Domain*; (Washington: Government Printing Office; 1884). [This work encompasses over 1,300 pages of material concerning the public lands

acquired by the Federal Government. Besides this work, the annual reports of the Commissioner of the General Land Office to Congress and more than one hundred other works document these surveys.]

10. The Holland Land Purchase, Phelps and Gorham Purchase, and the Morris Reserve (all in western New York State) and the Macomb Purchase (in northern New York State) are excellent examples.
11. Proceedings Of The Land Board Of Detroit - Governor and Judges Journal; p. 3 (this is the reprint of 1915 edited by M. Agnes Burton).
12. Act No. 309; Laws of 1887.



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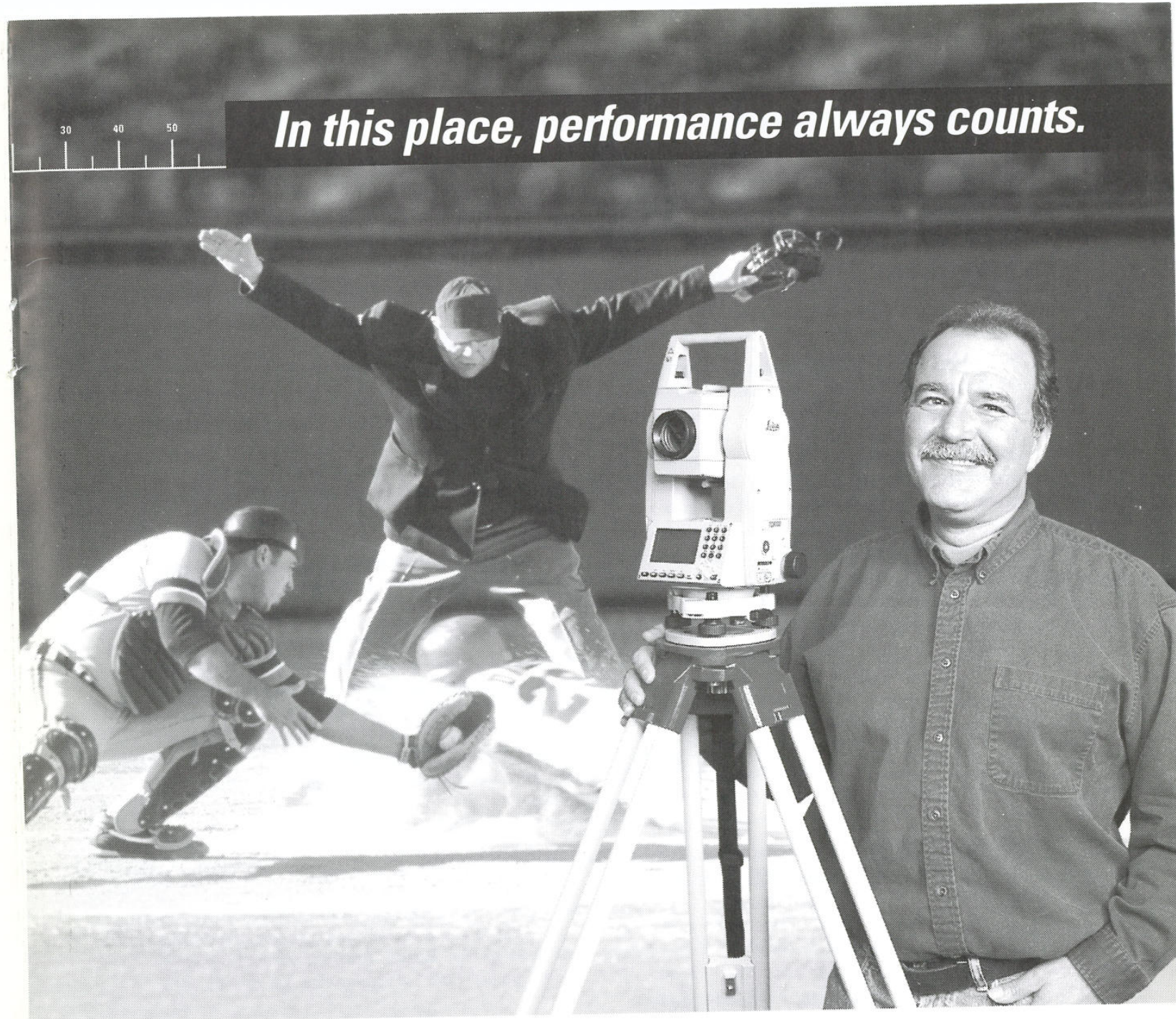
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Land Surveyor's Role In Subdivision Design

Herbert W. Stoughton, Ph.D., P.E., P.L.S., C.P.

STATE OF WYOMING CORNER RECORD CHECKLIST

In accordance with Title 33, Chapter 29, Wyoming Statutes 1977 "Corner Perpetuation and Filing Act" and Chapter VIII, Rules and Regulations of the Wyoming Board of Registration For Professional Engineers and Professional Land Surveyors (March 6, 2000) "Corner Record"

Corner Name: _____ Sec.: ____ T ____ R ____; ____ M. Cross-Index No.: _____

STATUTORY REVIEW

Sec. 33-29-142 Completion of "corner file"

A surveyor shall complete, sign and file with the county clerk where the corner is situated, a written record of corner establishment or restoration to be known as a "corner file" for every public land survey corner and accessory to such corner which is established, reestablished, monumented, remonumented, restored, rehabilitated, perpetuated or used as control in any survey by such surveyor, and within ninety (90) days thereafter, unless the corner and its accessories are substantially as described in an existing corner record filed in accordance with the provisions of (this act).

Sec. 33-29-144 Information to be included in corner file; form.

The board shall by regulation provide and prescribe the information which shall be necessary to be included in the corner file and the board shall prescribe the form in which the corner record shall be presented and filed.

Yes	No	N/A	Description of Requirement
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☐	☐	☐	Sec. 33-29-146 Reconstruction or rehabilitation of monument
--------------------------	--------------------------	--------------------------	--

The surveyor must 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. 33-29-147 Signature on corner record required
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No corner record shall be filed unless the same is signed by a registered land surveyor (exceptions for governmental employees).

REGULATORY REVIEW

Chap. VIII, Sec. 3 Preparation and Filing of Corner Records

☐	☐	Chap. VIII, Sec. 3.(a)
--------------------------	--------------------------	-------------------------------

Corner Records . . . shall be prepared upon bond paper, in a form prescribed by the Board. This does not preclude the use of word processor or computer generated form that is identical to the format prescribed by the Board. (Current form designated "SBRPEPLS/PLSW: March 1994; PLSW January 1998", Wyoming size AA, 8½" by 14".)

☐	☐	☐	Chap. VIII, Sec. 3.(b)
--------------------------	--------------------------	--------------------------	-------------------------------

Corner Record shall be filed for all corners of the Public Land Survey System actually established and monumented in an original or resurvey of the G.L.O. and/or B.L.M. . . . which are established, perpetuated, or used as control in any survey by a PLS, unless the corner and its accessories are substantially as described in an existing Corner Record filed in accordance (with the above mentioned act.)

☐	☐	Chap. VIII, Sec. 3.(b)(i)
--------------------------	--------------------------	----------------------------------

All corner records shall be filed within 90 days. The ninety (90) day time for filing shall begin on the date the corner is recovered, established, reestablished, remonumented, restored, rehabilitated, or used as control in any survey.

Chap. VIII, Sec. 3.(c) Corner Records relating to corners of the Public Land Survey System will include as a minimum the following information:

- | | | |
|--------------------------|--------------------------|--|
| ☐ | ☐ | (i) Date of field work and the date of preparation of Corner Record; |
| ☐ | ☐ | (ii) The original G.L.O. and/or B.L.M. field note record for any lost or obliterated corners of the Public Land Survey System reestablished; |
| ☐ | ☐ | (iii) Description of the corner and accessory evidence found including material, inscriptions, dimensions, etc.; |

INTRODUCTION

In recent years, discussions have ensued concerning the role of engineering and land surveying in subdivision design. A significant reason for these discussions is an apparent ambiguity in the statutes and other "legal documents." Since our common law is based on historical precedence, it would be prudent to review the historical developments of the role of land surveying in subdivision design.

This document will outline the significant developments pertaining to surveying in the subdivision of land in the United States.

COLONIAL PERIOD

The first use of the term surveyor in England appears in John Fitzliverbert's Booke of Surveying [1523] and comes from the French word Surveieur.¹ By 1658 seven different major works on surveying were published in England.^{2,3} These works were so popular that most went through several editions. The role of the surveyor was to measure lengths and areas of land holdings for tenures and rents.

The colonial surveyors established themselves in the English Colonies early in the colonies' settlement. Although much has been said about colonies being established for religious and political freedom, the major purpose was commercial investment. The Crown encouraged settlement to strengthen claim of title (claim to land made by various explorers, i.e. Cabot, Frobisher, etc.); additional funds for royal coffers; etc. The crown generally issued large grants of land to relatives, political friends, and corporations (called proprietors) to develop the North American colonies. In turn, the proprietors issued patents to individuals to induce settlement in the colony, particularly for skilled craftsmen (i.e. blacksmiths, carpenters, masons, etc.). The common procedure was to grant a specific number of acres and passage to the colony in turn for services to the proprietor in the colony. A surveyor would 'lay-out' and prepare the description and/or map of the grant. A letters patent would be issued by the proprietor. Ignoring royal grants, this is the first subdivision of lands in the English colonies.

Although Richard Norwood [1590 - 1675] is the first known surveyor to visit the English colonies, there is no evidence remaining that he performed any surveys.⁴ Norwood wrote his book on surveying in 1637, but there is no mention of surveying in the colonies (at this time most books on surveying cited surveys performed by the author to illustrate various techniques).⁵ The next surveyor in the English colonies was William Claibourne [C. 1587 - c. 1677]. In 1621, Claibourne accompanied Governor F. Wyatt to Virginia, and supervised most of the surveys for the 184 patents which appear in the list of activities of the governor for the year 1625.⁶

Through the first century of Virginia's existence, the surveys of lands were a major concern in the colony. In 1624, a Surveyor General was appointed whose responsibility was to maintain the survey records. The colonial legislature established the surveyor's fees (generally in pounds of tobacco) for surveys. Besides setting the surveyor's fees, the legislature studied the matter of incompetent surveyors and enacted legislation to resolve conflicting surveys (gores, over-laps, etc.).

Virginia was not alone in employing surveyors to delineate boundaries of real property (on the ground, in maps, and deed descriptions). John Love spent several years in Carolina, and upon his return to England published Geodaesia, Or The Art Of Surveying First printed in 1688, the work went through eleven editions in England and at least two editions (after 1775) in the United States. Love's work was the first book to specifically discuss procedures and problems of surveying in the American colonies.⁷

The late colonial period [1740 - 1775] saw men like Peter Jefferson (Thomas Jefferson's father) George Washington, Daniel Boone, Thomas Hutchins, David Rittenhouse, and Park Holland performing surveys for the subdivision of large tracts of land along the frontier.

FEDERAL PERIOD

After the American Revolution the Federal Government acquired title to most of the lands west of the Appalachian Mountains (except for Kentucky and most of Tennessee), and established a system to subdivide and sell the lands This procedure was employed for all other territorial acquisitions except Texas, Hawaii, and the territories acquired after the Spanish-American War. The territory to be surveyed usually was delineated by an act of Congress, and the work was supervised by a Surveyor General. The Surveyor General appointed deputy surveyors to perform the actual surveys (New York State implemented a similar program in western and other portions of the state⁸),⁹ The deputy surveyors laid out "lots" according to instructions furnished by the Surveyor General (sometimes these instructions were mandated by statute). Their field notes and/or maps of these surveys were returned to the Surveyor General, and the lands were sold "unimproved" in the manner prescribed by law.

At the same time, the entrepreneurs employed similar procedures.¹⁰ In most instances, none or minor improvements were made to the land at the time of the surveys. This is due to the nature of the land tenure and settlement in the United States. In most areas, there was little regular development of "residential subdivisions" or city planning except in major metropolitan areas.

After the American Civil War a significant portion of land surveying shifted from the agrarian-rural surveys (i.e. farm surveys) to municipal-city surveys. Early surveying textbooks omitted any discussion of "city surveys" Surveying textbooks omitted any discussion of "city-surveys" until about 1880. Two of the earliest "systematized" city surveys resulted from the need for a national capitol and the reconstruction of a village totally destroyed by fire. Andrew Ellicott and his brothers, Benjamin and Joseph, performed surveys to execute L' Enfant's plan for the District of Columbia.

On 11 June 1805, Detroit was obliterated by fire, which is generally attributed to careless smoking of a "segar" in the stable behind John Harvey's bakery near the center of the village.¹¹ Governor W. Hull and Judges Bates and Woodward assumed their territorial duties on 1 July 1805, and immediately employed their territorial duties to implement a new revised plan for the village. The plan provided for extra wide streets (today, these streets will accommodate from six to eight lanes of traffic), municipal parks, etc. This plan is known as the "Governor and Judges Plan" and

(Continued on Page 10)



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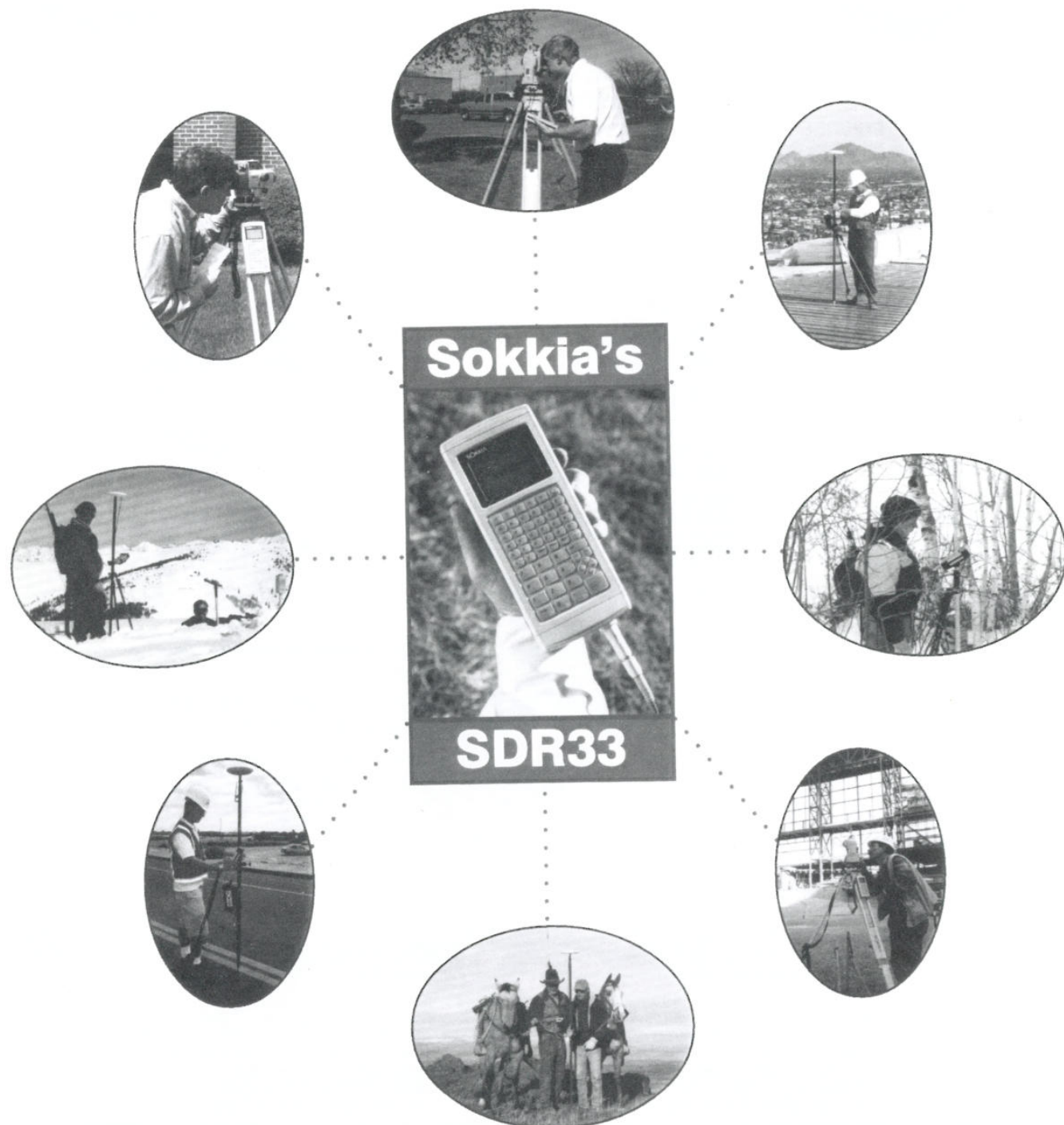
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