



Central Valley Chapter - California Land Surveyors Association  
[www.californiacentralvalleysurveyors.org](http://www.californiacentralvalleysurveyors.org)

# Central Valley Chapter THE PRISM



**Date:** January 24, 2018

**Time:** 6:00 p.m.

**Location:** Perko's @ 901 North Carpenter Road, Modesto

**Speaker:** Tristan Higgins, Turlock Irrigation District

**Topic:** Project Tracking Solution Using Google Earth

**Date:** February 28, 2018

**Time:** 6:00 p.m.

**Location:** Perko's @ 901 North Carpenter Road, Modesto

**Speaker:** Annette Hovorka, State President-Elect

**Topic:** State CLSA

**2018 Chapter Officers**  
 President: Rich Fultz  
 Vice President: Will Paul  
 Secretary: Rich James  
 Treasurer: Warren Smith  
 Chapter Director: Warren Smith  
 Chapter Director: Rich James  
 Alt. Chapter Dir: Will Paul  
 Alt. Chapter Dir: Rich Fultz

**2018 Chapter Committees**  
 By-Laws Committee:  
 Keith Spencer (Chairman)  
 Education Committee:  
 Keith Spencer (Chairman)  
 Membership Committee:  
 Rich Brown (Chairman)  
 Monument Pres Committee:  
 Mike Quartaroli (Chairman)  
 Newsletter:  
 Rich Brown (Editor)  
 Professional Practices Committee:  
 Mike Quartaroli (Chairman)  
 Website:  
 Keith Spencer (Web Master)

**2018 Chapter Programs**  
 Public Outreach Committee:  
 Zachary Wong (Coordinator)  
 Workshops:  
 Rich Brown (Coordinator)

## Announcements

### 2018 CHAPTER OFFICERS

The Central Valley Chapter Officers for 2018 are as follows:

- President - Rich Fultz
- Vice President - Will Paul
- Secretary - Rich James
- Treasurer - Warren Smith
- Director - Warren Smith
- Director (Odd Year) - Rich James
- Alternate Director - Will Paul
- Alternate Director (Odd Year) - Rich Fultz

### 2018 CLSA CONFERENCE HAS LOCAL VENUE

The CLSA Annual 2018 State Conference is set for March 23-27, 2018 at the Hyatt Regency Hotel, in Downtown Sacramento. Go to <http://www.californiasurveyors.org/conference.html> for more information.

### LOCAL SURVEYOR EARNS STATE AWARD

Central Valley Chapter's Warren Smith is named County Engineers Association of California's (CEAC) Surveyor of the Year during the December 1, 2017 meeting in Sacramento.

### 2018 CHAPTER MEMBERSHIPS ARE DUE

Please help support your local chapter of the CLSA. Submit your 2018 membership dues as soon as possible. Bring a check to our next Chapter meeting, mail to the Chapter's home address, or go to the Chapter's website to pay with a credit card <http://californiacentralvalleysurveyors.org/join.shtml>.

**Table of Contents**

Page 2	Classes, Training & Education
Page 2	Editor's Message
Page 3	Technology & Info
Page 5	State News
Page 7	Monument Obituaries
Page 8	Pictures of the Issue
Page 8	Just For Laughs
Page 9	Classifieds

## Classes, Training, and Continuing Education

### CAD Masters - AutoCAD Level I (3-Day Course)

Jan 29-31, 2018, Sacramento  
 Feb 12-14, 2018 Walnut Creek  
 Feb 26-28, 2018, Sacramento  
 Mar 12-14, 2018 Walnut Creek  
 Mar 26-28, 2018, Sacramento

[Register here](#)

### CAD Masters - AutoCAD Level II (2-Day Course)

Feb 1-2, 2018, Sacramento  
 Feb 20-21, 2018 Walnut Creek  
 Mar 12-13, 2018, Sacramento

[Register here](#)

### CAD Masters - AutoCAD Level III (1-Day Course)

Mar 29, 2017, Walnut Creek

[Register here](#)

### CAD Masters - Civil 3D Introduction (3-Day Course)

Feb 5-7, 2018, Walnut Creek  
 Feb 21-23, 2018, Sacramento  
 Mar 5-7, 2018, Walnut Creek  
 Mar 19-21, 2018, Sacramento

[Register here](#)

### CAD Masters - Civil 3D Advanced (2-Day Course)

Feb 22-23, 2018, Walnut Creek  
 Mar 14-15, 2018 Sacramento

[Register here](#)

### CAD Masters - Civil 3D for Surveyors (2-Day Course)

Apr 17-18, 2018, Walnut Creek

[Register here](#)

# Mark Your Calendars

### CAD Masters - Map 3D (2-Day Course)

Apr 14-15, 2018, Sacramento

[Register here](#)

### CLSA Webinars

Sections 8762/8771 R.O.S. Triggers

Feb 21, 2018, 11:00am-12:00pm

[Register here](#)

NSPS CST Program

Apr 11, 2018, 11:00am-12:00pm

[Register here](#)

### 2018 Fresno State Geomatics Conference

Fresno Convention Center, Fresno

Jan 26-27, 2018

[More Information here](#)

### 2018 CLSA Annual Conference

Hyatt Regency, Sacramento

Mar 23-27, 2018

[More Information here](#)

If you have information about a training or class, please submit to: [editor@californiacentralvalleysurveyors.org](mailto:editor@californiacentralvalleysurveyors.org)

## Editor's Message



Another year has flown by. 2017 has come to a close and 2018 is underway. With the changing of the calendar, the Central Valley Chapter has changed its reins of leadership. After 7 years, I have stepped down as your Chapter Secretary but will remain on as the Newsletter Editor and Membership Committee Chairman. It has been a great pleasure and a unique experience for me these past years. I have witnessed immense growth with our Chapter, as membership has risen to an all time high. Our Chapter has been honored several times as "Chapter of the Year", as well as our website and newsletter. Our Chapter has risen to its current status only by the hard work of a few individuals. As I moved on to different challenges I ask that each of you think about expanding your comfort zone by taking on new responsibilities. There is something for everyone, whether you can spend a little or a lot of time helping. Thank you again for all the great years.

Rich Brown

If you would like to comment on this topic or suggest another, please submit it to: [editor@californiacentralvalleysurveyors.org](mailto:editor@californiacentralvalleysurveyors.org)

## Technology & Info

### Watching The 4th Dimension

By Kevin Lidtka

Time is the rate that we experience change here on Earth. It can either be a friend or an enemy depending on our circumstance; sometimes it can fly by at shocking speeds and other times it can't move quickly enough. Anyone with kids knows that we'll do all we can to try to save memories, and we'll do so in all kinds of ways.

What a fortunate time it is to live in when we can record our experiences in incredible resolution and clarity! I may not think I will ever look back at those 1000 pictures I took of my kid's birthday party, but something tells me that by taking those photos I'm doing my future self a favor.

I know there will come a time when my kids will be all grown up and out on their own, and I'll find myself in a quiet house with nothing but my faded memories to keep me company. How wonderful will it be to hook up that harddrive to the TV and look through old videos and pictures of times past! I'll have a digital storage of my memories.

#### OLD-SCHOOL PANOS

Being able to control time would be pretty cool; the idea of setting up a process in which you can capture an environment for work at different stages in time seems futuristic. Eight years ago the method was so lengthy and prone to errors that it was easy to talk yourself out of it and opt for just a folder full of still shots taken from the borrowed office camera.

Sure, there were push-button methods of capturing 360° images, but it was very expensive and hard to justify. Instead, I bought a wide-angle 8mm lens for my DSLR Nikon and a special tripod bracket that could be set up to lock at certain angles.

I would mount the camera on this bracket with the camera sideways in portrait mode, hook up a shutter remote, set the aperture and other settings depending on the lighting conditions in the room, snap three photos (one for each exposure level for manual HDR), turn the bracket until it clicked at the next angle, take another three images, keep turning until I completed the circle, and then I faced the camera up at the ceiling to take another two pictures 90° from each other.

*Continued on page 6*

# Carlson for Surveyors

## From field... to finish

### BRx5 GNSS Receiver

Combined with SurvCE4.0, get highest positional accuracy, plus:

- 270-channel receiver
- Dual Bluetooth ports
- Dual hot-swap batteries
- Each receiver can be configured as Base, Rover or Network Rover

Power Your Field  
Data Collection With –

# Carlson SurvCE

Produce Your  
Deliverables With –

# Carlson Survey

Western Regional Sales Director  
Shane Gardner  
442-444-0119 [sgardner@carlsonsw.com](mailto:sgardner@carlsonsw.com)  
[www.carlsonsw.com](http://www.carlsonsw.com)

Software, Data Collectors,  
GPS and  
Robotic Total Stations

 **Carlson.**  
...For the Total Project

# SANDIS IS HIRING!

SANDIS is hiring numerous employees throughout the Central Valley to staff our work with California High Speed Rail.

[CLICK THIS AD TO SEE OPEN JOBS!](#)

## ABOUT SANDIS

SANDIS has been in the engineering and surveying industry for over 50 years and has over 165 employees. We actively recruit well-rounded individuals whom are technically skilled, team oriented, honest, optimistic, energetic and communicative. Through structured internal and external training programs, we continuously invest in our people to ensure that skill proficiency remains at the forefront of technological and industry advancements.

## BENEFITS

SANDIS employees enjoy numerous benefits including medical, vision, dental, 401k matching, health savings accounts (HSA), transportation benefits, and educational reimbursement. We do more than the benefits you see on paper though, this year employees were treated to motorcycle rides, a family trip to Great America, and multiple ski trips.



## OPEN POSITIONS

**Project Surveyor** | 3+ Years of experience | Manteca, CA

**Project Surveyor** | 3+ Years of experience | Selma, CA

**CAD Technician** | 3+ Years of experience | Manteca, CA

**CAD Technician** | 3+ Years of experience | Selma, CA

**Field Party Chief** | 5+ Years of experience | Selma, CA (multiple positions open)

**Field Chainmen** | 2+ Years of experience | Selma, CA (multiple positions open)

1640 W. YOSEMITE WAY, MANTECA, CA 95337  
209.820.5380 | WWW.SANDIS.NET



**SANDIS**

CIVIL ENGINEERS  
SURVEYORS  
PLANNERS

## State News

### Who Owns Your Monuments?

By Michael J. Pallamary, PLS

Since the fabled rope pullers in Egypt laid out parcels of land alongside the Nile River, to modern Land Surveyors with GPS marking out boundary lines, surveyors have been placing markers in the ground for centuries. Those set by government employees are protected under federal law and are owned by the federal government. Title 18 U.S.C. 1858, provides a penalty for the unauthorized alteration or removal of any Government survey monument or marked trees: "Whoever willfully destroys, defaces, changes, or removes to another place any section corner, quarter-section corner, or meander post, on any Government line of survey, or willfully cuts down any witness tree or any tree blazed to mark the line of a Government survey, or willfully defaces, changes or removes any monument or bench mark of any Government survey, shall be fined under this title or imprisoned not more than six months, or both."

When a private Land Surveyor creates a subdivision map and sets lot corners and the lots are sold, who owns those monuments? If in the street, perhaps the city or county but, if in the back yard, who owns those? When a Land Surveyor is hired to reestablish a boundary line and sets monuments, who owns them? Perhaps the survey of a metes and bounds description is the first time anything was set in the ground? What rights, exactly, does a Land Surveyor have to place objects in the ground of private property? Does it matter if the surveyor is a private employee or government employee? A recent case in California sheds some light on this topic, although in ways no one expected.

The conflict involves land located along the 196-mile long Santa Ana River, the largest waterway located entirely within Southern California. Beginning high atop the San Bernardino Mountains, the oak-lined waterway flows through Riverside and San Bernardino Counties before reaching Orange County where it drains into the Pacific Ocean, south of Huntington Beach at the legendary shores of Surf City USA.

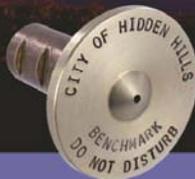
Following an influx of Americans after the turn of the last century, the properties adjacent to the river began to develop, and the sinewy watercourse drew the attention of the Army Corps of Engineers. In 1936, the United States government built a massive earthen dam to both store water and to prevent flooding. Two years later, and as if on cue, the river breached its banks and killed fifty people and countless livestock, leaving in its wake, a vast reservoir. In 1941, the federal government erected a more substantial structure and named it The Prado Dam, an appellation derived from the days of Spanish occupation when the countryside was known as a "prado" or

**Continued on page 11**

# SURVEY

## MARKING PRODUCTS

- SURVEY MARKERS & MONUMENTS
- CONCRETE MARKERS & DRILL BITS
- SURVEY NAILS & WASHERS
- REFLECTIVE TARGETS & PRISMS
- FLAGGING & WITNESS POSTS



**REQUEST A CATALOG**

877.686.8561



**FIND US ONLINE**

[www.berntsen.com](http://www.berntsen.com)

# Berntsen®

**MARKING THE INFRASTRUCTURE OF THE WORLD™ | WWW.BERNTSEN.COM**

## 4th Dimension, cont. from [page 3](#)

I would have to do this in each room on each floor, in each doorway, stairwell, basement, outside, on the roof and anywhere else that I needed. By the end of the day I probably made a couple of mistakes like kicking the tripod legs, mislabeling an image file, or keeping the shutter open too long while looking toward a bright window. I wouldn't even realize I'd made these mistakes until I got back in the office and was up to my neck in image processing.

The processing was another fun journey. The images needed to be stitched together into a panorama. I had a good software for that called PTGui, but back then it wasn't half as easy as it is now. Often I couldn't get an image to stitch correctly and had to throw that setup out completely. The ones that did work, though, had to be done three different times for each separate exposure. The three panoramas then were merged into an HDR image using another piece of software such as Photoshop or Photomatix.

Once that image was complete, I would then bring it into another program called Pano2VR that would turn it into an actual 360° file that could be moved around with the mouse like in Google Street View. I could create hot spots that give information about an object in the picture and advance to another camera location.

The final result was pretty impressive back then, and we were proud of it, but boy oh boy was it a process to get there!

### TODAY'S SIMPLE CAMERAS

Capturing and viewing 360° environments nowadays is so dang easy there's no excuse not to, and there are many camera choices for implementing some kind of 360° imaging in our work projects. There is something for every budget, too. You could spend \$10,000 on a camera rig or just use the 360° feature in your new smartphone's camera. I've had to use this in a pinch, and it works quite well.

Many companies offer simple dedicated cameras, like Samsung's 360° camera called the Gear 360°, which is a couple hundred bucks and can capture 4K-resolution 360° videos. If you need just something to get the job done, you could pick up one of these on Amazon and mount it onto your hardhat, then walk around your job site once a week. Upload the videos to YouTube and use their 360° video feature to look around the video in all directions while it's playing. Pretty neat stuff.

### DOCUMENT CHANGES

For someone a little more serious, I would recommend looking into a set of tools that are dedicated to documenting site changes. One example is a camera unit called the iStar Fusion. It's a little pricy, but man is it cool! I got to play with one at a conference in Las Vegas and have been bugging my boss for one ever since. A camera like this will be more than enough to easily document a construction site in amazing resolution and full 360° field of view.

Case in point is a project that went up in Vancouver, BC, Canada. The site is a massive 640,000 sq-ft children's/women's hospital housing center that cost \$350 million to build and opened at the end of 2017. The construction contract was given to a partnership of Balfour Beatty Construction and Ledcor.

On a construction project of this size it's common to photo-document every step of the construction process. The photos are used as a way for all the various teams to view the progress of the build and analyze any risk items that may arise, as well as to see and discuss the various as-built conditions.

The cameras also help progress audits tremendously with their ability to time-stamp every photo taken. The photos can be used to make sure contract requirements are being met as well as to help make ensure that local jurisdiction compliance is being followed.

[Click here for complete article](#)

Reprinted with the permission of  
xyHt Magazine



# Monument Obituaries

By Mike Quartaroli, PLS



## CLSA CENTRAL VALLEY CHAPTER



## WHAT HAVE YOU DONE TODAY TO SAVE A MONUMENT?

Ask about the "Adopt A Monument" program. Make a lasting contribution to the Land Surveying Profession.

Paid for by the Survey Monument Conservation Committee

# Pictures of the Issue

Dust Bowl Brewing Company, December 6, 2017

By Rich Brown

## DUST BOWL BREWING CO



Central Valley Chapter's 1st Annual Holiday Social, held at the Dust Bowl Brewing Co., Turlock on December 6, 2017

## Just for Laughs

	2			7	5	3	4	1
	4	7						8
		8	9		4			
8			3	1				2
		3	4			6		
2				5	6			3
			6		1	8		
4						1	3	
6	1	2	5	3			9	

### Sudoku:

The objective is to fill a 9×9 grid with digits so that each column, each row, and each of the nine 3×3 sub-grids that compose the grid (also called "boxes", "blocks", "regions", or "sub-squares") contains all of the digits from 1 to 9

## Shop at AmazonSmile

and Amazon will make a donation to:

California Land Surveyors Association

Education Foundation

Or another Charity of your choice.

Get started

amazon smile

## Classifieds

### LAND SURVEYOR and ASSISTANT LAND SURVEYOR

NorthStar Engineering Group, Inc. is a successful Land Surveying/Civil Engineering Company founded in 2002 is seeking a Land Surveyor and Assistant Land Surveyor to join our team. Qualified individual will assist in the preparation of ALTA Surveys, Topographic Surveys, Parcel Maps, Tract Maps, Tentative Maps, Easements, Construction Staking Calculations, Construction Staking, and Boundary Surveying.

- Professional Land Surveyor or Land Surveyor in Training Registration in California.
  - Must possess AutoCAD skills.
  - 2 years of survey experience.
  - Survey boundary analysis and computations of topography and utility surveys.
  - Prepare and review CAD work, plats, and final surveys.
  - Perform quality control of all survey documents, including survey plans and record plats.
  - Assist in directing field and office staff.
- Knowledge of engineering design, land development, and construction practices.
  - Knowledge of standard surveying methods and procedures.
  - Leadership and strong communication skills.
  - Experience with conventional, GPS, and data collection equipment.

NorthStar provides a great team environment, and we are always focused on employee development and advancement. Our total compensation package is VERY competitive and includes full benefits for Employee and Dependents, 401k Plan with Company Matching, and vacation/sick pay. We are a stable and successful firm driven by talented and passionate professionals and led by strong leadership. Come join our team!

Please send resume to [mellis@nseng.net](mailto:mellis@nseng.net)

### SEVERAL SURVEY POSITIONS AVAILABLE

O'Dell Engineering has several survey positions available, including Surveyor Project Manager, Survey Technician/Draftsperson, and Party Chief.

If you are interested in joining our amazing team, please submit a completed application (available for download at <http://www.odellengineering.com/profile/employment/>) and your resume to [careers@odellengineering.com](mailto:careers@odellengineering.com).

### QUINCY ENGINEERING SEARCHING FOR SURVEY TECHNICIAN

Quincy Engineering is seeking a Survey Technician with a minimum of 5 years of progressively increasing responsibility to support a wide variety of projects with a focus on transportation improvement projects. The preferred candidate will have field experience in conducting topographic maps, construction staking, monitoring surveys and boundary surveys in the capacity of either a Party Chief, Instrument Man or Chainman. The Survey Technician will be responsible for the timely and accurate completion of assigned projects and will work under the direct supervision of the Survey Department Manager.

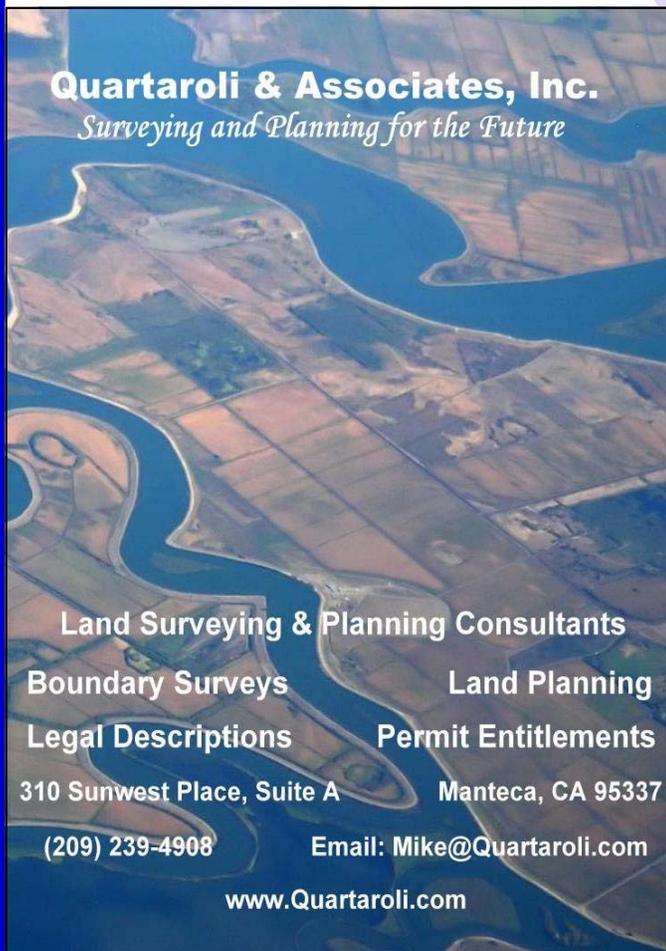
Minimum Qualifications: Five years of land surveying experience. Possession of an LSIT is preferred, but is not required.

To be considered for the position you are applying for, please visit our website <http://www.quincyeng.com>, to download and complete the Employment Application, Disabled Self-ID form, Pre-Offer Veterans Self-ID form, and Self-ID form and send it along with your resume to [mycareerqe@quincyeng.com](mailto:mycareerqe@quincyeng.com). Quincy Engineering is an AA/EEO/Veterans/Disabled employer.

Know of an available job.

Please submit the position information to:

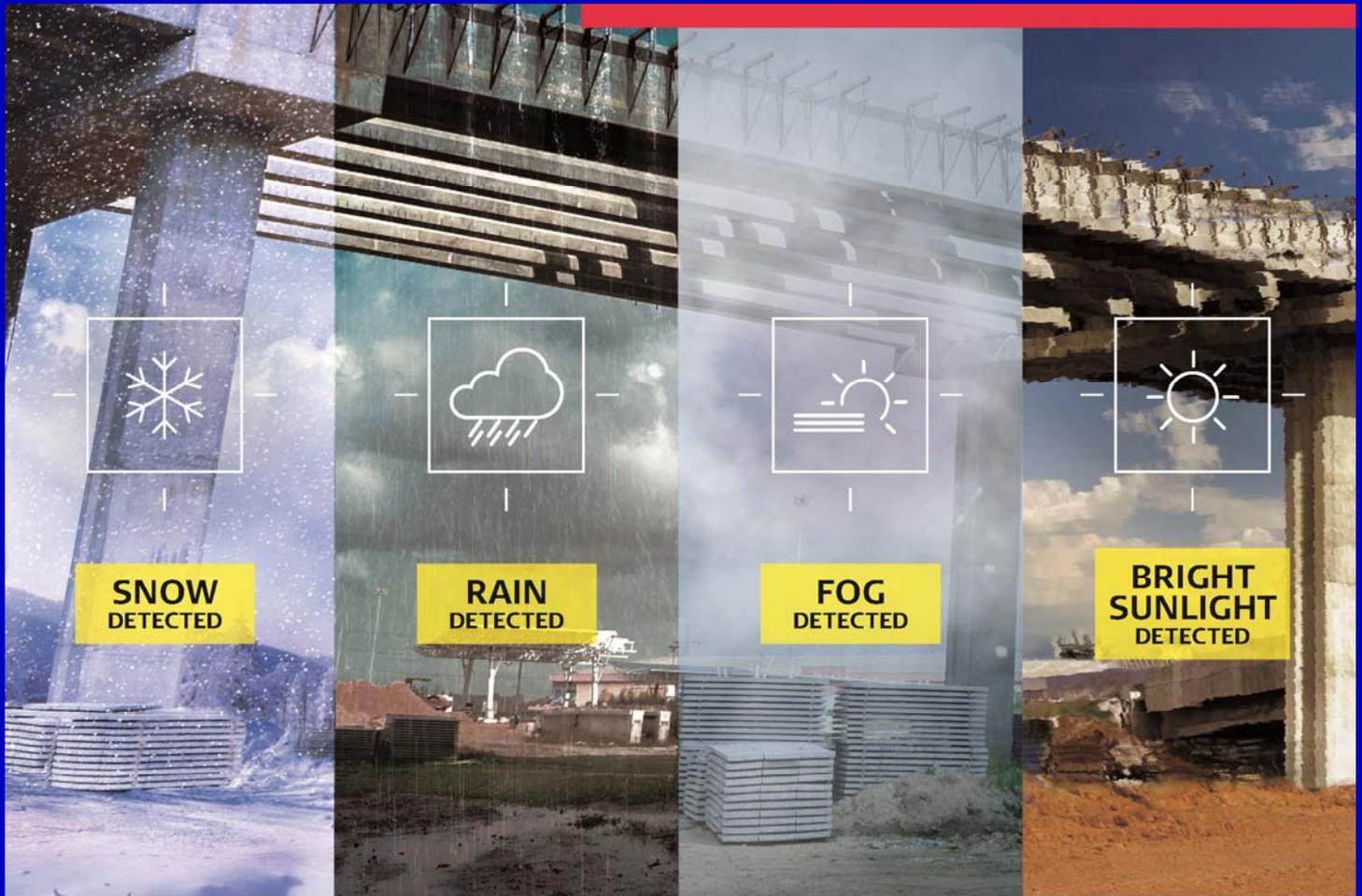
[editor@californiacentralvalleysurveyors.org](mailto:editor@californiacentralvalleysurveyors.org)



**Quartaroli & Associates, Inc.**  
*Surveying and Planning for the Future*

Land Surveying & Planning Consultants  
Boundary Surveys      Land Planning  
Legal Descriptions      Permit Entitlements

310 Sunwest Place, Suite A      Manteca, CA 95337  
(209) 239-4908      Email: [Mike@Quartaroli.com](mailto:Mike@Quartaroli.com)  
[www.Quartaroli.com](http://www.Quartaroli.com)



# World's First Self-Learning System

As the industry's only solution with intelligent environmental awareness, the NEW Leica TS16, TS60, an MS60 bring the field of surveying a step closer to artificial intelligence. Incorporating groundbreaking technologies, these instruments adapt to more than 200 challenging environmental conditions, ignoring all distractions in the field and remaining locked onto the sole target – yours. Along with an immersive 3D experience from our Captivate Software, you are empowered to do what you never thought possible and what others only wish they could do.

**NORTHERN CALIFORNIA**  
**Contact Jason Paris:**  
 jason.paris@leicaus.com  
 831-247-1881

**SOUTHERN CALIFORNIA:**  
**Contact James Yaccino:**  
 james.yaccino@leicaus.com  
 714-308-3889



**Be Captivated.**



Visit Us: [www.leica-geosystems.com/becaptivated](http://www.leica-geosystems.com/becaptivated)

- when it has to be **right**



### Message from Who Owns Your Monument?, cont. from [page 5](#)

meadow. The mammoth edifice was one of six government dams built in Southern California during the Great Depression. Upon completion, the structure gave birth to the Prado Dam Flood Control Basin, fixing the lines of inundation at an elevation of 556 feet above mean sea level.

In order to secure the land necessary to accommodate the new boundaries, the federal government filed a condemnation action. A second action was brought in 1945, expanding the area, resulting in the recordation of a new and expansive easement. Under the terms of the burden, the government acquired "[a] flowage easement consisting of flowage rights, to the right to prohibit human habitation and a permanent easement vested in the United States of America, to flood and inundate the property... whenever and wherever the control of storm water runoff in the Prado Flood Control Basin required such flooding and inundation..."

As part of the ongoing efforts to further control the river and conserve water, in 1980, the Army Corps of Engineers and Orange County decided to raise the inundation line from 556-feet to 566-feet by constructing new levees and dikes necessitating the acquisition of more than 2,300 acres of property rights for reservoir expansion increasing the reservoir area from 6,695 acres to 10,256 acres while increasing impoundment from 217,000 acre-feet to 362,000 acre-feet. The project was estimated at a cost of \$880 million which included raising the existing embankment 28 feet to an elevation of 595 feet. As part of the deal, the federal government assumed the responsibility to acquire the land either by purchase or condemnation.

Over the years, the area continued developing as fertile agricultural land and eventually, portions of it were acquired by the Steuve Brothers Farms and others including the Land O Lakes Dairy and Alta Dena Dairy, purveyors of fine milk, cream, cheese, butter, and eggs. Despite the location of the properties in a designated flood basin, none of them ever flooded. In 1991,

*Reprinted with permission from American Surveyor Magazine*



**58 Counties. 13 Million Parcels.**  
**All of California. Updated Daily.**



**PARCELQUEST**

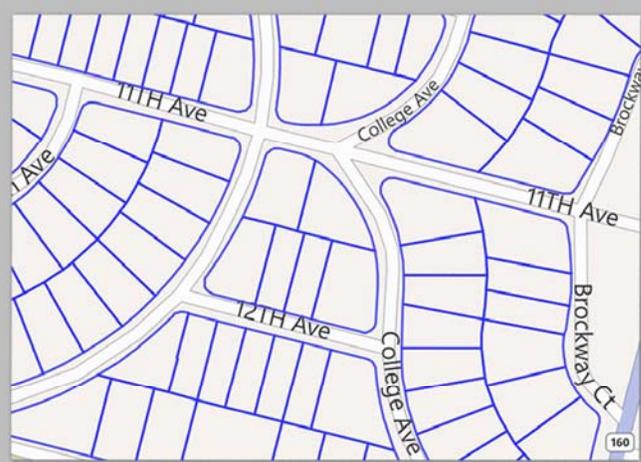
**LOCATE**  
ANY PROPERTY



(SAC) 912-0493-002-0000  
**WILLIAMS JUSTIN & SHEILA**  
3600 COLLEGE AVE  
SACRAMENTO, CA 95818-4232

[APN MAP](#)

**DOWNLOAD**  
GIS SHAPE FILES

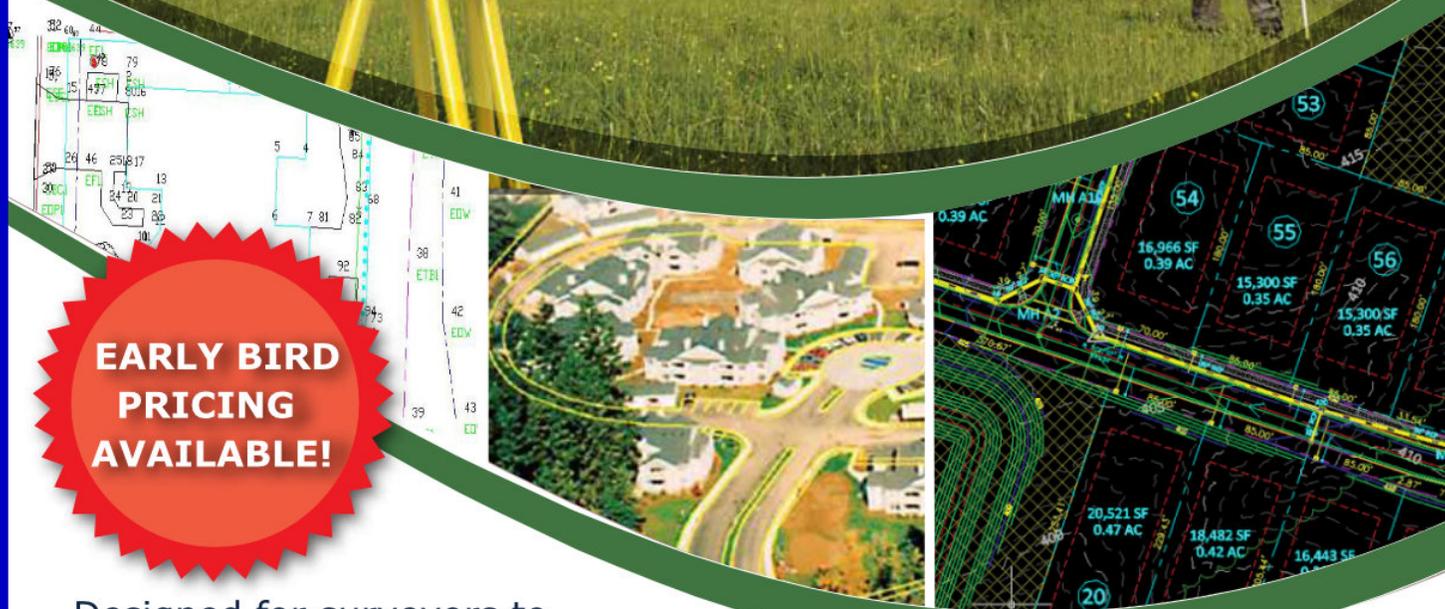
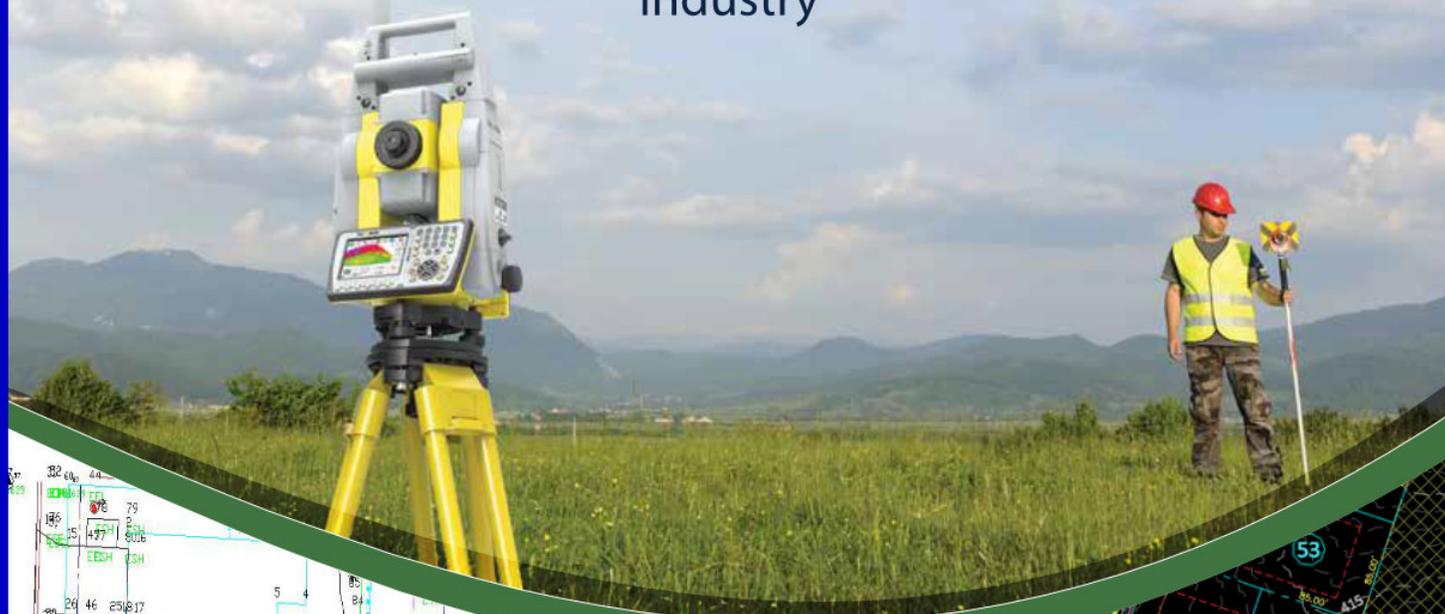


Call us today to begin your **FREE 2-day trial!**

888.217.8999  
[www.ParcelQuest.com](http://www.ParcelQuest.com)

# A Viable Alternative

Learn about the best alternative Survey & Civil software in the industry



**EARLY BIRD  
PRICING  
AVAILABLE!**

- Designed for surveyors to increase productivity and save money
- Receive a free 30-day trial of Carlson SW
- Learn to better utilize your existing equipment and software
- OR & WA Classes Qualify for 8hrs C.E. Credit

**LOCATIONS:**

Anaheim	11/14
Fresno	11/15
Sacramento	11/16
Redding	11/17
Klamath Falls	12/4
Portland	12/5
Tukwila	12/6

**US SURVEY SUPPLY**  
*Precision Measurement & Control Solutions*  
— Your source for premium land surveying instrumentation, accessories, data collection, and software —



PRICE: \$75 (lunch and refreshments included) \*student discounts available

[www.ussurveysupply.com/events](http://www.ussurveysupply.com/events)  
**(866) 877-8783**

**CLICK HERE TO REGISTER**

# Sponsors

## CALIFORNIA LAND SURVEYORS ASSOCIATION CENTRAL VALLEY CHAPTER

c/o: Rich Brown  
 2809 Carmella Way  
 Modesto, CA 95355



**VISTA INTERNATIONAL**  
 Insurance Brokers Ltd., LLC

1318 Redwood Way, Suite 250  
 Petaluma, CA 94954  
 (707) 796-7180 • (800) 819-8808  
 Fax (707) 796-7190



**ODELL ENGINEERING**

1165 Scenic Dr., Ste. B  
 Modesto, CA 95350  
 Main: 209.571.1765  
 Fax: 209.571.2466  
 info@odellengineering.com  
 www.odellengineering.com

MODESTO | FRESNO | PALO ALTO | PLEASANTON

Gary Ochsner  
 Sales and Support

**ESC**

**ENGINEERING SUPPLY COMPANY**  
 Precision Positioning Solutions Since 1985  
 BIM - Survey - Construction - UAV



Factory Authorized  
 Factory Certified  
 Sales, Repairs, Rentals

4208 N. Freeway Blvd, Suite 1B  
 Sacramento, Ca 95834  
 Phone: 800.788.3307  
 Fax: 925.680.2504  
**Cell: 209.483.6969**  
 email: gary@escsurvey.net  
 www.escsurvey.com

**AERIAL PHOTOMAPPING SERVICES**

Precision Aerial Photography • Topographic Mapping • Digital Orthophotos



2921 Larkin Ave. • Clovis, CA. 93612 • 559-291-0147 • www.photomapping.com



*North Star*  
**Engineering Group, Inc.**

Want to be noticed? Advertise in the next edition of The Prism. [Click for Current Rates](#)



### CLSA EDUCATION FOUNDATION

## Land Surveying Photo Gallery



California Land Surveyors Association Education Foundation would like to thank Bryant Sturgess for generously donating his collection of historic images.

The proceeds from the photos sold on this website will be used to fund scholarships for land surveying students.

# Sponsors



## HAWKINS & ASSOCIATES ENGINEERING, INC.

Civil Engineering • Land Surveying • Land Planning

436 Mitchell Road Modesto, California 95354  
Phone 209.575.4295 Fax 209.578.4295



## GARY POLAND GSP Consulting

2050 Longley Lane, #1603  
Reno, NV 89502

Office: (775) 857-1362  
Cell: (775) 240-5880

[garypoland@sbcglobal.net](mailto:garypoland@sbcglobal.net)

### Full Service Aerial Surveying & Mapping

• Digital Imagery • Digital Topographic Mapping • Digital Planimetric Mapping  
Digital Terrain Models • Digital Orthophotos • LiDAR • Airborne GPS

Customer Service & Satisfaction Is Our Number 1 Goal



**1st Call**  
utility locating

1st Call Utility Locating

1st in Safety, 1st in Client Satisfaction

Serdar Tas  
Sr. Utility Surveyor  
PO Box 1543  
El Cerrito, CA 94530

(415) 235-8410

[info@1stcallutilitylocating.com](mailto:info@1stcallutilitylocating.com)

[www.1stcallutilitylocating.com](http://www.1stcallutilitylocating.com)



## BENCHMARK ENGINEERING, INC. CIVIL ENGINEERING & LAND SURVEYING

1121 Oakdale Road, Suite 1 Modesto, CA 95355  
(209) 548-9300 Fax (209) 548-9305

Get Linked In



or find us on Facebook

