Becky Roland PLSC, Inc PD Box 441069 Aurora, CO 80044

Prst std U.S. Postage PAID Denver, CO Permit No. 1222

NSPS MEETING, ALEXANDRIA, VIRGINIA AND WASHINGTON, D.C. APRIL 9-13, 2019



August 2019 SIDE SHOTS Professional Land Surveyors of Colorado Volume 50, Issue 3



Ap without limits

Ken Perry 303.694.0012

Shannon Hixon 970.482.0111

Hixon Mfg. & Supply Co.



PROFESSIONAL LAND SURVEYORS OF COLORADO, INC.

AFFILIATE—NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS MEMBER—COLORADO ENGINEERING COUNCIL MEMBER—WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

OFFICERS (2019)

STEVE PARKER President land_surveyist@hotmail.com O: 719-590-9194

> DON HULSEY Vice President don@csamllc.com M: 720-209-2029

SHAUN LEE Secretary/Treasurer sdl051@yahoo.com O: 570-499-8073

BECKY ROLAND Executive Director PO Box 441069, Aurora, CO 80044 • broland@plsc.net Phoenix AMC O: (303) 551-3266 F: (720) 230-4846

2018 PLSC CHAPTER ORGANIZATION

CENTRAL COLORADO PROFESSIONAL SURVEYORS President, Shawn Clarke Vice President, Robert Boehm; Secretary, Shaun Lee Treasurer, Scott Throm Directors: Devon Arnold, Brian Socia, Randy Fortuin, Julia Keilman, Gavin Puckett, Derek Brown, Daniel Davis, Dustin Hoaglin

NORTHERN CHAPTER - PLSC, INC. President: Tony Fendick

President-elect: Laine Landau; Secretary/Treasurer, Heather Lassner Directors: Steve Parks, Michael DeDecker, Pete Paulus, James Snow President Emeritus: Steve Parks

NORTHWEST 1/4 COLORADO LAND SURVEYORS President: Brian T. Kelly

Vice President, William Whelan; Secretary/Treasurer, Jeff Gustafson Directors: Thomas H. Effinger, Skidge Moon, Walter Magill, Lloyd Powers, Peter Epp President Emeritus: Gordon Dowling

SOUTHERN COLORADO PROFESSIONAL LAND SURVEYORS President: Don R. Hulsey

Vice President: Spencer Barron, Secretary: Steve Parker Treasurer: Dan Hanten Directors: Jon Tessin, Steve Rutzen, Mark Johannes, Eric White, Joseph Alessi, III, Kenneth Gould, Jr., Dennis Craig President Emeritus: Steve Parker Honorable Lifetime: Nathan Lira, PLS

SOUTHWESTERN CHAPTER - PLSC, INC.

President: Parker Newby Vice President: Todd Johnson; Secretary: Josh Casselberry; Treasurer: Dave Seiler

WESTERN COLORADO LAND SURVEYORS President: Alec Thomas

Vice President: Chris Ransier; Secretary-Treasurer: Alex Lheritier Directors: Brian Bowker, Scott Thompson, Peter Krick, Tom Sylvester, Les Doehling, Sean Mullen, Kurt Shepherd

SIDE SHOTS

AUGUST JOURNAL 2019

NUMBER 3

VOLUME 50

President's Letter	4
From the Editor	5
First Graduate in Land Surveying and Geomatics Degree Program	7
The Impossible Task	8
AES Board Proposed Rule Changes	11
Private Property v. Public Purpose	15
Bureau of Land Management	19
Dedication of the New 6th PM Initial Point Donor Plaque	20
Treasurer's Report	22
PLSC Board Meeting Minutes – April 22	23
PLSC Board Meeting Minutes – June 25	25
Chapter News	27
Sustaining Members	30

On the Cover: From left, Todd Beers, JB Guyton, Becky Roland, Pat Guyton and Steve Parker in front of the the Capitol building.

Side Shots is the official publication of the Professional Land Surveyors of Colorado, Inc. and is published quarterly for the betterment of the surveying profession. Steve Parker Don Hulsey President Vice President

For Editorial Correspondence, contact: John B, Guyton Editor: Side Shots 5385 Centennial Trail, Boulder, CO 80303 303-443-7001 • jguyton@fatironsinc.com This publication is not copyrighted and articles may be reprinted with due credit. Statements made and opinions expressed are from the contributors and do not necessarily express the official views of the Professional Land Surveyors of Colorado, Inc. Deadlines for editorials, articles, pictures and advertising are January 1, April 1, July 1 and October 1. All material received after the current deadline will appear in the next fissue of Side Shots.

We would like to invite anyone who is interested to advertise in Side Shots. Do you have something you want to sell, trade or buy? Why not use Side Shots for your next ad? We can also reproduce business cards for advertising. Ad space reservation must be arranged with Becky Roland, PO Box 441069, Aurora, CO 80044; 303-551-3266. (Deadlines: January 1, April 1, July 1 and October 1).

Current Advertising Rates:

Business card size or less - Member \$25.00; Non-member \$30.00 One-Half Page - Member \$115.00; Non-member \$150.00 Full Page - Member \$225.00; Non-member \$300.00 Color advertisements — add 33 percent



DON HULSEY VICE PRESIDENT M: (720) 209-2029 don@csamllc.com

PROFESSIONAL LAND SURVEYORS OF COLORADO, INC. PO Box 441069, Aurora, CO 80044 AFFILIATE – NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS MEMBER- WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

OFFICERS (2019-2020)

TODD BEERS PAST PRESIDENT O: (303) 353-3528 todd.beers@merrick.com STEVE PARKER PRESIDENT O: (719) 590-9194 land_surveyist@hotmail.com BECKY ROLAND EXECUTIVE DIRECTOR O: (303) 551-3266 broland@plsc.net

SHAUN LEE SECRETARY-TREASURER O: (570) 499-8073 sdl051@yahoo.com

DIRECTORS (2017-2020) Hel

BRIAN DENNIS O: (719) 337-1262

LEIF JOY O: (970) 878-5292

TOM SYLVESTER O: (970) 255-7386

MIKE GREER O: (303) 271-8787

DIRECTORS (2019-2022)

PAUL BACUS O: (720) 890-0182

ERIC CARSON O: (303) 980-9104

SCOTT THOMPSON O: (970) 244-1821

ERIC WHITE O: (719) 268-8500

WFPS DELEGATES (2019-2020)

ROGER NELSON O: (720) 587-2657

TODD BEERS (O): 303-353-3528

NSPS DIRECTOR (2019-2020)

JOHN B. GUYTON O: (303) 443-7001 Hello PLSC,

Back-filling recent vacancies, I'd like to introduce and welcome the new members to our PLSC board of directors. Don Hulsey PLS, Operations Manager at Compass Surveying & Mapping, is our new Vice President (2019-2020). Mike Greer PLS, Jefferson County Planning & Zoning, Director (2017-2020) and Scott Thompson PLS, Mesa County Surveyor, Director (2019-2022). Thank you very much for your willingness to serve.



Presently, the PLSC is working together with The American Council of Engineering Companies (ACEC), the American Society of Civil Engineers (ASCE), the National Society of Professional Engineers (NSPE), and the Department of Regulatory Agencies (DORA) to ensure that the Colorado surveying community is represented while The State Board of Licensure for Architects, Professional Engineers and Professional Land Surveyors (AES Board) is accepting input regarding the proposed amendments to Rules 4.6.5 (Short-Term Duration Employment Not Counted) and 4.8.1 (Applicants Must Receive Board Approval to Take an Examination). Since we have this window of opportunity, the PLSC plans to ensure that the contract between DORA and The National Council of Examiners for Engineering and Surveying (NCEES) represents professional surveyors' interests, including the applicants' appeal processes.

Be sure and attend your local chapter meeting this month, and don't miss out on Dr. Dru Smith's National Geodetic Survey (NGS) Blueprint for 2022 presentations.

We all have busy schedules, but I encourage you to enjoy the benefits of your PLSC membership, log into the NSPS site (www.nsps.us.com) and read your News & Views emails. There is so much going on in our profession and this is one of the best ways to stay current and informed.

Sincerely, Steven Parker, PLS CFM CFedS PLSC President

FROM THE EDITOR



This issue includes the significant milestone in the PLSC-sponsored surveying degree program at Western Colorado Community College, the very first graduate, Cody Van Winkle. Tom Sylvester wrote a very thoughtful article about it, and also contributed an important development in

proposed rule changes by the AES Board concerning short term experience and new procedures for qualifying for the exam. Gaby Neunzert has a wonderful article titled "The Impossible Task" about taking the curvature of the earth and expressing it in 2-dimensional flat planes for surveys. Alan Blair writes about the "taking" of private property for public purposes and the controversies surrounding the practice. Jerry Penry reports on the dedication of a new donor plaque at the 6th PM Initial Point in Kansas. PLSC board minutes for both April 22nd and June 25th are presented along with an interim budget, and we conclude with news from the chapters.

Pam Fromhertz recently retired from NOAA as the Rocky Mountain Regional Geodetic Advisor. Pam has been a good friend, a contributor of numerous advancements to our profession for the past 15 years, and an ardent supporter of the PLSC, having been a frequent instructor at the Surveyor's Summit conferences. On behalf of the Colorado surveyor community, our heartfelt thanks go out to Pam, and we extend our best wishes for her new life.

I attended the semi-annual Directors meeting of the NSPS in Alexandria, Virginia on April 9th through the 13th with Steve Parker, Todd Beers and Becky Roland, representing Colorado at the Board of Directors meeting and at various committee meetings. The agenda also included the annual "Hill Day," when I met with members of Congress to discuss issues of importance to our profession.

I had been experiencing sharp pains in my abdominal area that became more severe on this trip, and decided to wait until my return to Boulder for a diagnosis, and carry on with the NSPS events. I went to the ER in Boulder on the day I returned, and the diagnosis was dire – stage IV metastatic peritoneal cancer. With tumors so advanced, I was given weeks or even days to live. I went from meeting with Senators to being in a cancer hospital within a single day. Life can definitely throw you a curve from time to time; this is one of those. I am now on medical leave from my company, receiving chemotherapy and doing correspondence. Contrary to that initial diagnosis, the chemo seems to be helping, but the future is unknown. I have accepted this reality, and am making plans to help my wife, my professional colleagues, my family and friends with this transition.

As land surveyors, we "follow in the footsteps" of our predecessors as a matter of routine in the reestablishment of boundaries. It has been my great honor and privilege to follow in the footsteps of the Side Shots editors who came before me, Warren Andrews and Art Hipp. While the PLSC has embraced the introductions of websites, email blasts, social media and other forms of electronic communication, it has been gratifying to see that a substantial portion of our membership still enjoys receiving our quarterly magazine in the mail (or reading it on line, of course). It is my sincere hope that Side Shots, in whatever delivery format evolves over time, continues to be a source of information and learning, and a forum that helps to hold the PLSC membership together and advance the goals and ambitions of our honorable profession.

For now, my friend and colleague, Chris Power, is going to keep performing the editorial and production duties of this magazine, which he has been doing "behind the scenes" for several years. Any articles, announcements, or news can be sent to him directly at <u>cpower@</u> <u>flatironsinc.com</u>. I will, of course, continue to be involved for as long as I am able. The PLSC leadership will decide the future of *Side Shots*, but I am confident that it will continue to be in good hands.

Todd Beers will be the acting NSPS Director for my remaining term. I learned so much in that role, from men and women of great rectitude, including Curt Sumner, and prior to that, WestFed with Dave DiFulvio.

My communications are limited to periods between chemo treatments when I am strong enough, only by email. One of the silver linings during this period of reflection is my appreciation for every new day. I wish you all great success, a great life, and an appreciation for every new day of your own.

JB Guyton, PLS, Editor

UNDERGROUND UTILITY LOCATING



Diversified Underground is a Denver Based DBE-certified Company providing Subsurface Utility Engineering (SUE), Utility Locating, Hydro Vacuum Excavation throughout Colorado and the surrounding states.



SUBSURFACE UTILITY ENGINEERING (SUE)

Diversified Underground combines utility locating, hydro vacuum excavating and data research / management to produce an accurate map depiction of existing underground utilities.

UTILITY LOCATING

Diversified Underground offers complete utility locating services for the identification and marking of privately and publicly owned underground utilities.



Phone: (303) 636-9999 • Fax: (303) 671-8728 • www.diversifiedunderground.com



WESTERN COLORADO COMMUNITY COLLEGE

A Division of Colorado Mesa University

CHANGE YOUR LIFE WITH COLORADO'S ONLY LAND SURVEYING DEGREE PROGRAM

Sponsored by the PLSC, the Land Surveying and Geomatics programs at Western Colorado Community College are designed for students on a career pathway toward becoming a licensed Professional Land Surveyor.

ſ

WCCC OFFERS TWO PROGRAMS:

- Associates in Applied Science Degree in Land Surveying and Geomatics for those without prior college coursework. This program is designed to be completed within two years.
- Post-baccalaureate Technical Certificate for those with a minimum of a Bachelor of Science or Bachelor of Arts degree who need the required surveying curriculum to meet the education requirements to sit for the PLS exams. The Technical Certificate program is designed to be completed in one year.



Learn more at coloradomesa.edu/wccc/programs/land-surveying-geomatics

Contact WCCC Students Services at 970.255.2600 for admissions, registration and financial aid information.

Land Surveying and Geomatics Degree Program at Western Colorado Community College, a division of Colorado Mesa University, Grand Junction, Colorado

Cody D. VanWinkle

Congratulations to our First Graduate with an Associate of Applied Science Degree in Land Surveying and Geomatics

By Thomas W. Sylvester, P. E. and P. L. S.

A hearty Congratulations to Cody D. VanWinkle, our first graduate with an Associate of Applied Science degree in Land Surveying and Geomatics.

Cody finished up the last of his course work in May 2019 to qualify for his degree. Like many of our students, Cody has worked his way through school. He whetted his whistle on surveying by working the summer of 2016 for the City of Grand Junction under the tutelage of Peter Krick, P. L. S., City Real Estate Specialist in charge of the City's surveying. This experience intrigued him enough to seek an education in the profession.

He was able to get a Western Colorado Land Surveyors/ Professional Land Surveyors of Colorado, Inc. (WCLS/ PLSC) scholarship and attended the surveying program in Wyoming for his first semester in 2016. Because of questions on whether Wyoming's program would meet Colorado's requirements for licensure, he transferred back to Colorado attending Colorado Mesa University, initially majoring in business, until our Land Surveying and Geomatics program was started in the fall of 2017.

He jumped at the first opportunity to enter our AAS program at Western Colorado Community College, a division of Colorado Mesa University. He was awarded another joint WCLS/PLSC scholarship to help defray his ongoing educational expenses.

While in school, Cody worked outside jobs to help meet his living and educational expenses. Although not all of his jobs were in surveying, he was fortunate to land a position with the BLM Cadastral Survey for the summer of 2018, working under the direction of Sean Mullen, Cadastral Surveyor, surveying in the White River National Forest and other areas in Western and Southwestern Colorado.

In the spring of 2019, as he was finishing his last two requirements for his degree, Cody was hired as a survey

intern by River City Consultants, an engineering and surveying company in the Grand Valley. He is now a Survey Technician working under Alec Thomas, P. L. S., CFedS, Survey Manager with River City Consultants. Alec is also the President of the Western Colorado Land Surveyors chapter of the PLSC.

Throughout his tenure at WCCC, Cody always demonstrated an excellent aptitude for the profession and pursued his studies with passion.

Please join me in welcoming Cody to our profession and encourage him as he gains his required levels of experience for LSI and ultimately for his PLS license.

Way To Go, Cody!!!



From left: Tom Sylvester, PLS, WCCC instructor; Cody Van Winkle, graduate; and Alec Thomas, PLS, WCLS President.

The Impossible Task

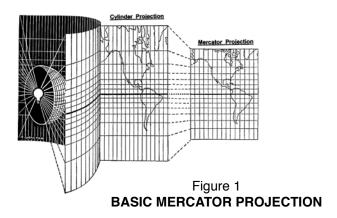
By Gaby Neunzert, PLS

Most people have accepted the 3-dimensional model of a "spherical earth"; by difference, surveyors, with but very few exceptions, work in a 2-dimensional "flat earth" environment. Thus, the difficulty of flattening the curvature of the earth onto a flat plane. Conceptually and despite many failed attempts, it is impossible to flatten the curvature of the earth onto a flat plane without distortions! For surveyors, the physical and mathematical compromise is to either retain the angular relationships and distort distances (conformal projections - preferred) or retain the shape of the area and distort the angles (equal area projections). Underlaying every measurement, calculation and plotting, is the fundamental question of "how much distortion am I willing to accept" and thus, until recently all conventional surveying work was considered to be on a plane, clearly a contradiction of fact. The distortions are directly proportional to the size of the project and in case of the entire earth can affect entire continents; with present GPS equipment, the curvature of the earth is measurable for lines longer than about a 1/2 mile. Thus, the shape of the earth has to be considered in the calculations and plotting, with rectangular cartesian coordinates, so fundamental for surveying as well as with CAD and GIS.

Since the earth has an "undefined" physical shape, it first is necessary to select an ellipsoid for the bestfit mathematical model. Next, for the transformation from the curvature of the earth (ellipsoid) to the plane (coordinates or map), a critical decision has to be made. Historically, a conformal projection has been preferred, which preserves angular relationships and distorts distances and thus shapes. Most common are the Mercator and Lambert conformal projections, either selected by company preference for small areas or by a government agency for a large area. The only true undistorted model of the earth is a globe.

The Ptolemy Map

Knowing that the earth was "round", Greek and later Arabic philosophers and mathematicians postulated that it was necessary to flatten the curved surface before it could be shown on a plane, i.e. a map. Most notable of the many individuals involved, was Claudius Ptolemy (ca.100-170), a librarian in Alexandria, Egypt. In geography, his contributions are twofold: a map of the Roman Empire, centered mostly around the Mediterranean and a listing of about 2000 cities by geographical coordinates.



The Ptolemy map is unique in that it remained in use for about 1300 years and that a copy was used by Christopher Columbus on his voyages to the Americas. Unfortunately, it depicted the earth at about 2/3 its actual size, thus requiring an extra 30 days of sailing. The Ptolemy map had all the attributes of a modern map, i.e. the equivalent lines of longitude converging at the poles, an equator and latitude lines parallel to it, as well as a prime meridian in the Canary Islands, as far west as was known at the time. Listed in his book "Geographia" are the modern equivalent of latitude and longitude of about 2000 cities. Latitude was determined without instruments from the highest rise of the sun and perhaps with the geometry of the solar shadow. Longitude was probably estimated by dead reckoning, either so much to the east or west from a known reference city.

Mercator Projection

Gerardus Mercator (1512-1594) a Flemish cartographer in 1569 produced probably the best known world map for visual illustration and navigation still used today. As originally conceived, the earth's features are projected onto a cylinder, who's axis coincides with the rotational axis of the earth, i.e. north-south and is then unrolled; the coverage is from about 82° north to about 80° south with the Arctic and Antarctic completely omitted. Over the years there have been many modifications to this basic design.

For surveying, there are two fundamental Mercator projections (also known as Gauss-Kruger projection):

- · State Plane Coordinate Systems, and
- Universal Transverse Coordinates (UTM) State Plane Coordinate Systems (Transverse

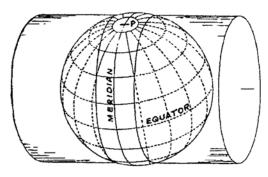


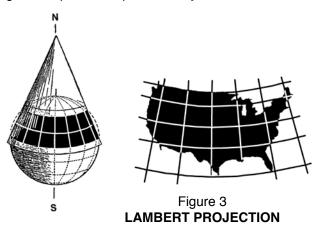
Figure 2 TRAVERSE MERCATOR

Mercator projection): with the cooperation of the state's professional surveying organizations, about ½ of the US states elected to divide their state into N-S zones with the cylinder transverse and secant to the surface. Initially based on NAD'27 and later on the NAD'83 configuration. Caution: the change in defining parameters from NAD'27 to NAD'83 results in different coordinates for the same point. There are no simple multipliers to make the conversion. Coordinate data of geodetic points are published by NGS.

Universal Transverse Mercator Coordinates (UTM): a global rectangular coordinate system developed by US government agencies, with the cylinder axis in an E-W orientation and secant to the surface. Each zone is 6° wide stretching from 84° north to 80°south, with the polar regions excluded and based on several ellipsoids. Coordinate data of geodetic points are published by NGS in meters.

Lambert Conic Projection

Johann Heinrich Lambert (1728-1777) was an Alsatian mathematician who conceived the idea of placing a cone with its axis coincident with the rotational axis of the earth, i.e. N-S, and then unrolling it into a plane. The skirt of the cone can either be tangent or secant to the earth's surface. It is frequently used for showing areas the size of the US or smaller. State Plane Coordinate Systems (Lambert projection): with the cooperation of the state's professional surveying organizations, about ½ of the US states elected to divide their state into E-W zones with the cone secant to the surface. Initially based on NAD'27 and later on the NAD'83 configuration. Caution: the change in defining parameters from NAD'27 to NAD'83 results in different coordinates for the same point. There are no simple multipliers to make the conversion. Coordinate data of geodetic points are published by NGS.



<u>The near future</u> – State Plane Coordinate System 2022 (SPCS 2022). NGS is currently planning to update the SPCS with a projected date of 2022. As was the case previously, the states surveying societies are asked for input and it anticipated that the same basic projection concepts augmented by new data will be used. NGS will make a "Coordinate Conversion and Transformation Tool (NCAT)" available to the user.

Bibliography

B. John Hunter; 2022 Colorado State Plane Coordinate Systems; PLSC, *Side Shots*, May 2019

Ghilani, Charles D. & Wolf, Paul R. 2008; Elementary Surveying; Pearson Prentice Hall, Upper Saddle River NJ 07458

Greenhood, David, 1964; Mapping; University of Chicago Press, Chicago, III.

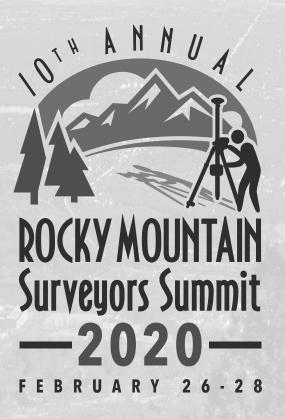
Snyder, John P. 2012; Map projections – a working manual; USGS Professional Paper 1395

SAVE THE DATE

WHEN February 26-28, 2020

WHERE **Denver Marriott West**

1717 Denver West Blvd., Golden, CO 80401



CH FOR MORE DE HIS FALL

JEFF LUCAS, JD, PLS



HEADLINE SPEAKER

PRESENTATIONS **INCLUDE:**

How to Make a Boundary **Determination That Will Win in** Court

Relevancy in the 21st Century

AES Board Proposed Rule Changes! And How it Might Affect You or Your Employees

By Thomas W. Sylvester, P. E. and P. L. S.

The PLSC Board of Directors received notice on May 31, 2019 of an AES Board Stakeholders meeting on June 7, 2019 regarding some proposed AES Board Rule Changes. Because of the short notice we've been scrambling to try to get up to speed and offer meaningful input to the AES Board.

In summary the AES Board passed emergency AES Board Rule changes in April to go into effect on May 15, 2019 for Board Rule 4.6.5 titled "Short Term Duration Employment", and Rule 4.8.1 titled "Applicants Must Receive Board Approval to Take an Examination". The Stakeholders meeting of June 7 was for input before the AES Board finalized the rule changes at their June 14 meeting.

Because of the short notice, Shaun Lee and I were the only PLSC Board members able to attend the June 7 meeting and since we did not have enough time to hold a full PLSC Board meeting to discuss the issues, we could only testify on our own behalf. We were able to ask the AES Board for more time for the PLSC to review the changes for proper input. Since the meeting was a formal meeting, they could not respond to our request for more time at the hearing. However, due to notification mix ups as discussed below, the PLSC has had more time to respond.

In essence, the change to AES Board Rule 4.6.5 is to change the minimum amount of time that the Board will accept for short term employment experience from six months to three months. I haven't heard any objections to this and plenty of support.

The change to AES Board Rule 4.8.1 is a bit more complicated. In essence, the AES Board is teaming up with NCEES for the application process. Individuals will apply for the testing directly with NCEES. As part of that application, the applicants will "Self-attest" that they have met the requirements for the Fundamentals of Surveying exam for their LSI, and for the Principles and Practices exam as one of the exams necessary for their PLS. They then send the NCEES their education qualifications (transcripts, etc.), and their work experience qualifications to build an NCEES Record. If they pass the respective exams, the NCEES, (under contract with our AES Board), will review that the applicants have in fact met the requirements. Once confirmed the applicants then apply to the AES Board for either enrollment as an LSI or to sit for the State specific test for their PLS, and request NCEES send the AES Board their test scores and NCEES Record. The AES Board then rules on whether they meet the qualifications for enrollment as LSIs or for qualification to sit for the State specific test for PLS. After passing the State specific test, the AES Board rules on their licensure as a PLS.

The full AES Board Rule Changes are at the end of this article with a flow diagram showing the process.

Obviously, there is a lot to digest here. In the testimony we provided on June 7, we expressed our dissatisfaction of the short notice and that a change of this scope was dropped on us so suddenly. We asked the AES Board to consider more time to allow the PLSC Board to review the changes with all of their ramifications and then be able to comment on them positively, negatively, or neutrally as the situations dictated. Since the PLSC Board had not had the opportunity to meet for a unified response, I then expressed some of my concerns on why these rules were being changed as "emergency" rule changes, i.e. why the haste; my discomfort that someone outside of gualified Colorado licensed PLSs would be reviewing the work experience; guestioned why the tests were being given first while the evaluation of education and experience was being done after the test; whether this process was in fact contrary to their companion CRS law on the methods to become licensed; and whether the purpose of the changes "to expedite and facilitate the licensure process as set forth in sections 12-25-110 through 12-25-114, C.R.S. (for engineers) and sections 12-25-210 through 12-25-214 C.R.S., and to ensure a competitive marketplace, increase the number of persons contributing to the state's economy, reduce barriers to timely licensure of gualified individuals, and improve mobility of the profession in regards to engineer and land surveyor application for enrollment and licensure...." were consistent with Board Rule 3.1.1, Primary Obligation of Licensees. "Licensees shall at all times recognize that their primary obligation is to protect the safety, health, property, and welfare of the public."

Shaun Lee added some more questions and concerns.

After the hearing, the members present were able to give us a little more background of the rule change.



Aibot X6 Flexible surveying & geo-mapping

- Safely go where conventional equipment can't reach
- Point cloud generation, volumetrics, GM creation
- Creation of location & inventory plans, topographic images, planning fundamentals, and aerial photos

Call 1-800-545-0932 for your demo

<image>



Some of this discussion included:

- 1. The reason for the "emergency" rulemaking hearing was that the AES Board had been contracting PEs and PLSs to review the education and work experience of applicants and the contract was just about to expire.
- 2. The AES Board had been discussing the changes for 18 months or so and felt it was time to change the contracts to NCEES at that time.
- 3. These individuals will be contracted by the AES Board.
- 4. The NCEES works for and are subordinate to all of the various state PE and PLS boards.
- 5. Since the chart show the testing is one of the first steps, there will be something put into place for applicants to "self-verify" that they have met the state law to sit for the tests.
- 6. The NCEES will then be the repository of all of the education, experience, and testing results, whereby an applicant will then ask the NCEES to forward the application material to the AES Board for final determination for enrollment. as an LSI or able to sit for the State specific test for licensure as a PLS.

The PLSC Board had an emergency meeting on June 13 to discuss the issues to present to the AES Board for the full Board meeting on June 14. Shawn Clarke, a PLSC member from the Central Chapter was able to present a list of additional questions from our PLSC Board at the June 14 meeting consisting of:

- 1. Why does the AES Board feel it is necessary to make these changes?
- 2. What are the costs vs. savings for application review for DORA?
- 3. What are the cost changes to applicants for applying to be licensed, review process, maintaining records, or request a copy of the record? Is this an increase?
- 4. Are there measures to prevent non-qualified applicants from being approved to take the exam? and what the AES Board approves?
- 5. How do we maintain the quality and integrity of the process of application?
- 6. Is there a way that this process can be slowed long enough to get input from current PLSs in the State?
- 7. What are the timeframes for stake holders to give input prior to the final decision?

Joyce Young with DORA did call Shaun Lee and me to inform us that there had been a glitch in the email blast that was supposed to have gone out in that only a small fraction of people were sent the notice vs all that were supposed to get it to the tune of about one thousand received notice while forty thousand did not. As a result, the AES Board is backing up and seeking stake holder input again. They had to enact the emergency measure again at the June 14 meeting since there are time limits on emergency rule making before they either expire or are voted to become permanent. The Board indicated there would be more input accepted at their July 12 meeting and there was a Notice to Stakeholder for another Stakeholder hearing on Tuesday, July 16, 2019. I have since received that notice and some others from DORA so it appears the communication notice problem has been fixed.

In the meantime, Shaun Lee was able to use the Colorado Open Records Act to acquire a copy the contract with NCEES. Our PLSC Board met again on June 25 to discuss these changes and to develop questions from our PLSC Board at these next AES Board meetings. After reviewing the 50-page contract, it appears the changes were in the Amendment #2 to the contract with the amendments signed in April. The NCEES is listed as the Contractor in the document. Some of its key elements which help alleviate some of our concerns or for which we still have questions are:

 Under section 1.2 Contractor shall offer these examinations subject to all applicable policies and procedures set forth in their (i) Candidate Handbook; (ii) Administrative Procedures Manual; and (iii) Manual of Policy and Position Statements.
 Our question is where are these documents so that

Our question is where are these documents so that they can be reviewed?

2. Under section 2.2 Contractor shall select and train licensed Professional Engineers and Professional Land Surveyor, as applicable to the applicant's license type, to complete candidate experience review.

This gives us some comfort that qualified people will be doing the review.

3. Contractor will have trained coordinators to answer questions about the State's exam administration process and will have toll-free numbers to call between 7:30 am and 5:30 pm Monday through Friday except Holidays.

This gives us some assurance that applicants will have a place to go to get answers.

4. Section 6 verifies that the candidates will attest that they have met the qualifications for the examination as specified in Colorado laws.

This confirms the self-attesting statements portion of the process.

5. The State will receive and process the applications for licensure subsequent to candidate passing the examination and the receipt of the candidates NCEES Record.

This will cut down on the AES Boards review process in that they only will need to review those that have passed the tests.

6. Under the contracts section 10, NCEES Record/ Experience Review:

a. Candidates will send in their transcripts. Our question is that where our law and Board Rules state "Board Approved" schools or programs, who makes the determination of what schools are approved and how is this conveyed to NCEES. Our concern is, will our new AAS in Land Surveying and Geomatics program at WCCC be properly recognized at NCEES.

b. NCEES will review progressive experience in accordance with NCEES Model Rule. It goes on to state that they will directly engage with the applicants and provide feedback to the applicants during this review process.

Our question is that if there is a disagreement on what experience counts between the candidate and NCEES, to whom can the candidate appeal? And who has the final say? NCEES or our own AES Board? There is no language that states the process.

7. Section 12.3 states that the Examination data is the States and that the Contractor will maintain each examinees records for three years.

Our question is that we were under the understanding that part of the reason to use NCEES is the ease of reciprocity. Why is the time frame only three years?

8. Section 13 speaks to Contractor Performance. Our concern is that all of the subsections refer to the testing and that there is nothing on Contractor Performance regarding review and evaluation of education and experience.

However, the news is not all bad!

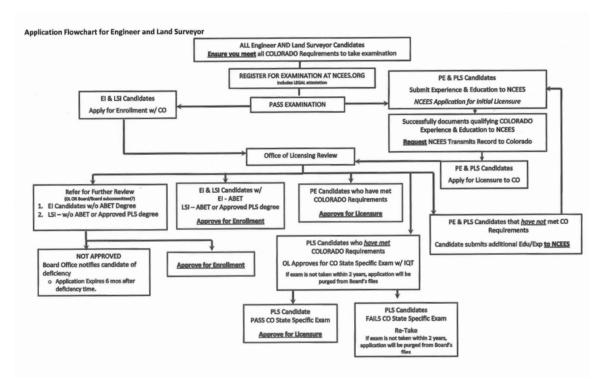
Roger Nelson, our Western Federation of Professional Surveyors representative has received feedback from Nevada and California that the NCEES process is working very well for them. Some other PLSC members have expressed that they think it should work well especially when trying to get licensed in multiple states.

This rule change may be a good thing. It may make the application process easier. We can't say that we, as a PLSC Board, are opposed to it, but there needs to be more clarification and communication of the process from the AES Board as we move forward before we can support it.

This rule change may be finalized by the time *Side Shots* is printed. If you have input, and time to meet their deadlines, please do so. Also keep in mind the short fuse for some of these rule making changes. We, your PLSC Board of Directors will try to stay on top of these changes, but as you can see from this example, things can move quickly. Take it upon yourself to also stay vigilant. My understanding is that all licensees are supposed to receive these DORA notifications. You can sign up to be placed on DORA's Stakeholder list as well.

> Bylaws and Rules of The State Board of Licensure for Architects, Professional Engineers and Professional Land Surveyors

- 4.6.5 Short-Term Duration Employment Not Counted. No engineering or land surveying experience of less than <u>six-THREE</u> months continuous duration with one employer shall be credited. <u>EFFECTIVE 5/15/19</u>
- 4.8.1 Applicants Must Receive Board Approval to Take an Examination. No applicant may take the Architect Registration Examination, the Fundamentals of Engineering Examination, the Principles and Practice of Engineering Examination, the Fundamentals of Surveying Examination, the Principles and Practice of Surveying Examination, or the State Specific Land Surveying Examination until the Board has established that the applicant is eligible for the examination. An applicant may be disallowed from taking or re-taking any of the licensing exams if there is evidence of socially unacceptable behavior (e.g. cheating, violence, or threats of violence or other disruptive behavior), in an exam setting. EFFECTIVE 5/15/19



Private Property v. Public Purpose

By Alan Blair, PLS

I want to suggest a sacrilege. I have written an article that has a connection with surveying, but will not discuss history, real property descriptions, mathematics, datums, ethics, continuing education, mentoring v. formal education or the future of surveying (you are welcome). Maybe next time.

I think you will find the topic of interest as the subject of taking private property for a public purpose rises in the area of current affairs episodically. A recent case decided this session by the Supreme Court, Knick v. Township of Scott, Pennsylvania, ET AL streamlines a process for landowners to appeal a "taking". The exercise of Eminent Domain is seldom viewed favorably by the general public and is the subject of lots of activity for courts. A famous case of Kelo v. the City of New London, Connecticut (2005) was extremely unpopular when the Supreme Court decided to allow eminent domain proceedings to be used for a type of Urban Renewal project and the public purpose was questioned. Public sentiment was clearly on the side of the private landowners who would lose their homes. A number of state statutes and rules were passed in response to the ruling. A landowner subject to giving up some real property rights has far more leverage than is generally known.

At the end of my career with the Federal Highway Administration, I was provided an opportunity that I would not have chosen for myself. I was given the title and duties of Right of Way Manager.

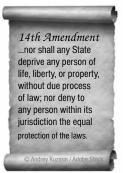
Part of the job required boundary analysis, writing land descriptions, preparing exhibits, plats and plans. The duties of explaining why it costs so much and takes so long to come up with a plausible and defensible determination of: who has title to what parcel, where the parcel is relative to all the other parcels, who is actually possessing the parcel and why, in some instances, the possessor and the holder of the title are not the same entity. Standard stuff of surveying for which I was substantially suited.

I was assigned the additional duties of advising engineers, rural county officials and landowners on what is allowed procedurally, under federal law, to acquire private property for a public purpose. My agency did not acquire right of way as we did not own the roads, but provided assistance to local counties which would take on maintenance of the roads after construction. I was, at best, fundamentally functional for this. I came to realize that ignorance and prejudice abound regarding the process of acquiring right of way when federal money is used.

A few basics. At the end of the 5th amendment to the US constitution is



the unambiguous statement that a person shall not be deprived of life, liberty, or property, without due process of law; *nor shall private property be taken for public use, without just compensation.* The ambiguities lie in the areas of: What's a person, what's property, and what's just compensation. These questions are the stuff of lawyers, legislators and government bureaucrats.



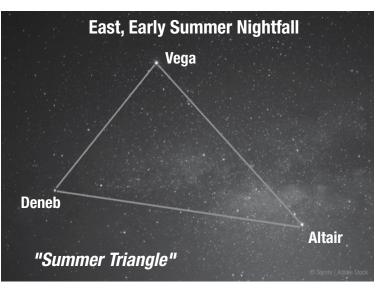
There is also the clause in the 14th amendment: "...nor shall any State deprive any person of life, liberty, *or property, without due process of law*; nor deny to any person within its jurisdiction the equal protection of the laws."

Both of these amendments to the US Constitution are more well known for securing other rights that may be a bit more

controversial than the clauses that I have italicized. I believe most us can agree that owners of private property have the right to just compensation and due process when a government entity seeks to take their property from them. There are few negotiations upon which we embark for which the US Constitution provides us protections.

There are plenty of nuances related to the determination of "Just Compensation" and "Due Process". I was both frustrated and pleased at the complexities as my job required me to learn more about them. I cannot speak to these topics as well as many other rightof-way professionals. The projects with which I was involved were relatively uncomplicated negotiations for little slivers of rights of way along rural highways from relatively large parcels. Most of the "takings" were not very adversarial and involved mostly amicable agreements. It is almost universal (we completed projects in 14 states) that no one readily hands over their rights in real property, but most people also recognize the need, at times, for advancing a public project. Due process and methods for determining just compensation are outlined in the Uniform **Relocation Assistance and Real Property** Acquisition Act which was codified into federal law in 1971. This Act was passed to assure fair treatment of those displaced by federally funded programs or any state and local program where federal money is used for any phase of a project. The intent is to make efforts to compensate persons that may be subject to eminent domain efforts standard and uniform. The statute has since been amended over the years. It is typically and predictably referred to as, simply, The Uniform Act. The provisions are not applicable for takings that do not involve federal funds, but the applicable provisions in the constitution still hold.

Should you or a client be faced with negotiating with a public entity in a possible eminent domain proceeding, there are a couple of paths. Accept that you are receiving just compensation and accept that the public need outweighs that of the individual. Or, use the approach recommended when encountering a puma: Try to make yourself look bigger, don't try to run away and, if it comes to it, stand your ground and fight back.



Backyard astronomy note for the quarter. The summer triangle is dominating the evening sky. Jupiter comes out in the southeastern sky and can be seen in early evening before the stars become visible. Saturn follows Jupiter rising a little later in the evening. There are some great free apps available to help figure out what's what up there. My two favorites are Sky Map and SkyView.

Complete Photogrammetric Services

MAP WORKS

Contact: Ralph Vomaske, Certified Photogrammetist, ASPRS

7625 W. 5th Ave. #110D • Lakewood, CO 80226

Phone: 303-667-3540

E-mail: gmapworks@gmail.com

Need to get Utilities located?



Don't let these guys scare you..

Call UCS for Utility Locating

We will tell you what they are hiding under those boxes...



Underground Consulting Solutions



<u>We'll get the job done right -</u> <u>the first time</u>



Underground Consulting Solutions



Private and Engineering Utility Locates

UCS@totalspeed.net

Call (303) 904-7422



We Have Everything You Need!

If you're looking for great deals on equipment then call our experts or stop by one of our many locations and see for yourself what products and services GeoShack has to offer. We have everything you need to get the job done accurately and right the first time.

Don't forget to ask us about our **GeoShack Advantage** programs – where you can get support, training, and other services along with your equipment purchase.

GeoShack Denver

5385 Quebec Street Commerce City CO 80022

For More Information Visit Us At: www.GeoShack.com

©2017 GeoShack. All Rights Reserved.

7.31_GS_AOLS_Ad_Denver



United States Department of the Interior

BUREAU OF LAND MANAGEMENT Colorado State Office 2850 Youngfield Street Lakewood, Colorado 80215 <u>www.co.blm.gov</u>



CO-956 9650

June 25, 2019

Mr. John B. Guyton, Editor Side Shots 3825 Iris Ave. Boulder, Colorado 80301

Dear Mr. Guyton:

This letter informs you of official BLM cadastral surveys in Colorado that have been accepted from February 12, 2019, through, March 15, 2019, officially filed, and are now available in the Public Room, Bureau of Land Management, Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado 80215. The surveys will also be available at https://glorecords.blm.gov.

The accepted surveys are listed below by township, range, meridian, group number, type, approval date and number of plats.

<u>Township</u>	<u>Range</u>	<u>Meridian</u>	<u>Group No.</u>	Type	Approved	<u>Plats</u>
T. 9 N.	R. 83 W.	Sixth	1702	APD	02/12/19	1
T. 12 S.	R. 72 W.	Sixth	1673	Plat Only	03/04/19	7
T. 2 S.	R. 73 W.	Sixth	1683	Plat Only	03/07/19	5
T. 36 N.	R. 1 W.	NMPM	1699	Plat Only	03/15/19	1

As other surveys are completed, I will advise you of their acceptance. You may circulate this letter among the membership of the Professional Land Surveyors of Colorado.

Sincerely yours,

Down Randy Bloom

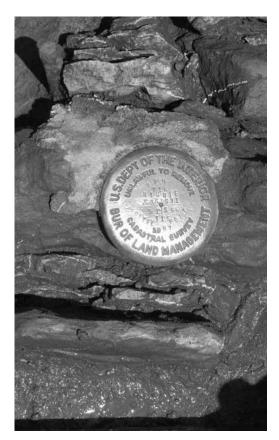
Chief Cadastral Surveyor for Colorado

Dedication of the New 6th PM Initial Point Donor Plaque

By Jerry F. Penry, PLS

The dedication for the replacement bronze donor plaque at the 6th PM Initial Point was held on June 22, 2019. This monument can be found approximately one mile West and one mile North of Mahaska, Kansas. Surveyors in attendance represented three of the five 6th Principal Meridian states. There were around 25 people at one time who came to the site. The forecast of rain along with uncertain road conditions prevented many others from attending. When the manhole lid was removed, nearly the entire hole containing the stone and brass disk was full of water which had to be bailed out. The concrete pad surrounding the monument was cleaned off and the cracks were sealed. Concrete joints in the areas around the donor plaque and obelisk were also sealed. Attention was given to the 1935 triangulation station and its associated marks since they had been neglected. Those attending discussed the future needs at the site which will be made known when cost estimates are secured.







THE INITIAL POINT OF THE PUBLIC LAND SURVEYS OF THE SIXTH PRINCIPAL MERIDIAN

The Kansas Nebraska Act of May 30, 1854 created the territories of Nebraska and Kansas, which had to be surveyed before settlement of the prairies could proceed. On May 8, 1855 Charles A. Manners set a cast iron monument on the bluff west of the Missouri River at 40 north latitude. In 1855-56 Manners surveyed westward from the cast iron monument 108 miles establishing

1855-56 Manners surveyed westward from cast iron monument 108 miles establishing base line. the boundary between Kansas d Nebraska and the Initial Point of the Sixth incipal Meridian. This Initial Point. a red ndstone which lies under the manhole cover hind you. controls the system of sections. wiships and ranges of the public land surveys Nebraska. Kansas, and parts of Colorado. Nebraska Kansas, and parts of Colorado. Yoming and South Dakota. This initial Point referenced in all ownership records through it the system.

n June II. 1987 the Professional Surveyors the 5th P.M. dedicated the memorial on your it. The memorial is made of Colorado.red antice with Wyoming and Nebraseka rubble one. Each side of the cap contains a state one, date of statehood and the logo of each ate's professional surveying association.



Treasurer's Report

Incomo	Actual as of 5/31/19	2019 Budget	
Income Scholarship	2.465.96	58,500.00	
Silent Auction	657.00	750.00	
Summit Income	84,125.00	100,000.00	
Publication (books)	0.00		Bacus Book, Supreme Court Book and Initial Point
Refresher Course Income	9,075.00		18 students all classes; 11 single class regs
Refresher DVD	1,500.00	900.00	
GIS in the Rockies	0.00	1,500.00	
Total Membership Dues	42,130.00	41,640.00	
Miscellaneous	0.00	50.00	
Side Shots Ads	1,980.00	4,000.00	
Fotal Income	149,212.96	219,040.00	
Expense			
BOD/Chapter Summit Meetings	1,674.00	1,800.00	
Side Shots	6,847.44	12,000.00	
Awards	660.33	1,000.00	
Scholarship	2,465.96	58,500.00	
Refresher Course	2,703.20	50,500.00	
Speaker honorariums/planni	727.92	2,400.00	
Online Course Development	0.00	1,500.00	
Copies/Printing	0.00	500.00	
DVD Sales	0.00		moving to online posting
Supplies, Bus	722.24	250.00	
Storage	900.00		moved to climate control unit
Special Projects		2,000.00	
???	0.00	0.00	
Merchandise	0.00		need new logo gear
Publication (books)	0.00	0.00	
Outreach			Building Sandbox
High School/Middle School	464.02		Colorado Guidance Counselor/County Career Fairs
Scouting	27.98	250.00	
Legislative	408.60		Breakfast with Legislators, Capitol Hill Day
Trigstar	0.00	400.00	
6PM Plaque Renovation			\$1056.25 fee in 2018
Tax prep	0.00	750.00	
Web Site	400.00		Design/Web Tool work
Web Site - Don Lambert	1,000.00	1,000.00	
Lobbyist	6,250.00	15,000.00	
Travel, Bus	1,139.17	2 000 00	
BOD Travel	0.00	2,000.00	
WFPS Travel	0.00	3,000.00	
NSPS State Directors	0.00	0.00	
NSPS Travel	4,902.51 4,184.01		DC in April, Wisconsin in Fall 2019
Credit card/Bank Expense		3,852.96	
Insurance Miscellaneous, Bus	549.00 10.00	600.00 150.00	
Phoenix AMC	11,048.45	25,000.00	
Phoenix AMC Postage	61.10	25,000.00	
Membership Packets	01.10	500.00	
Books	0.00	3,000.00	
Decals	0.00	250.00	
Postage	0.00	500.00	
Dues	0.00	500.00	
NSPS Dues	7,280.00	8,440.00	
Chapter Disbursements	0.00	6,180.00	
RMSS Chapter Distribution	0.00	0,100.00	
NCPLSC	0.00	3,500.00	
SCPLSC	0.00		additional \$1000 towards sandbox
CCPS	0.00	9,500.00	
RMSS Meeting Expense		-	
Promotion	0.00	2,500.00	
Supplies	1,040.91	1,000.00	
Copies/Printing	557.28	2,000.00	
Attendee Food/Beverage	24,484.46	25,000.00	
Speaker Travel/Expense	5,258.24	7,000.00	
PLSC Meeting Expense - Oth	900.00	1,500.00	
Total PLSC Meeting Expense	32,240.89	39,000.00	
Fotal Expense	83,963.62	218,172.96	
	65,249.34	867.04	

Meeting Minutes April 22, 2019 • 4:30PM

1. Call to Order: Parker

Name	Position	Chapter	Attending?
Steve Parker	President	Southern	Х
Ralph Pettit	Vice President	Central	
Shaun Lee	Secretary/ Treasurer	Central	х
Becky Roland	Executive Director	n/a	x
Paul Bacus	Director	Northern	
Teresa Smithson	Director	Central/Western	
Eric Carson	Director	Central	
Brian Dennis	Director	Southern	
Leif Joy	Director	NW 1⁄4	Х
Don Hulsey	Director	Southern	х
Eric White	Director	Southern	Х
Tom Sylvester	Director	Western	х
Todd Beers	Ex-Officio	Central	Х
Parker Newby	Non-Voting	Southwest	
Roger Nelson	Non-Voting	WFPS Delegate	
J.B. Guyton	Non-Voting	NSPS Representative	х
Guests:			
Kayce Keane	RMS Summit		х
Pam Fromhertz	NOAA/NGS		х
Peggy Streicher	GIS in the Rockies		x
Heather Lassner	TrigStar		х

- 2. Determination of Quorum (6 voting): Confirmed
- 3. Approval of Minutes from January 2019 Meeting: Parker

MOTION: To approve the January 2019 Meeting Minutes as presented.

Approved unanimously

- 4. Motions approved via email since January Meeting
 - a. To approve a \$1500 scholarship to Tyler Henderson.
 To increase the standard scholarship amount to \$1500.
 - i. No requirement for completion of scholarship
 - b. To approve the expenditure of funds up to \$1200.00 to be reimbursed to Tom Breitnauer for travel and food expenses related to attending the NGS 2019 Geospatial Summit in the DC area.
 - i. Ask him, Joey or John to present at PLSC CCPS Meeting.

- Introduction of Young Surveyors Committee or Chapter of PLSC
 - a. Need to get a younger member to take charge of this issue and develop a PLSC Young Surveyors Committee
 - b. These groups include technicians, etc.
 - c. Focus would be on outreach and networking for retention within the profession
 - d. Discuss at future meeting Board encouraged to think of possible young members
 - e. Shaun Lee and Steve Parker will look into the program and report back to the Board on expectations/focus of the group
- 6. Scout Show
 - a. Need volunteers
- 7. Review of Action Items from Last Meeting: Parker
- 8. Financial Items: Parker/Lee/Roland
 - a. 2019 Financials presented
 - b. Investment Update from Key Bank (Savings, Earnings, Performance)
 - i. \$45,780 in checking and \$100,734 in savings
 - ii. Need to set up Key Bank Investment appointment to change signers and set up sign in
- 9. Website Tools
 - a. Access to documents on FTP folders
 - i. Find a way to network with Board Members through Google Drive/website
 - ii. Need photos
 - iii. Would like to start e-newsletters/articles to share
 - iv. Format for naming/searching
 - b. Facebook, social media content need material
- 10. Colorado Coordinator Activities: Hunter/Fromhertz
 - a. GPS on Benchmarks
 - i. Still need help collecting in the Denver Area
 - NGS is looking into getting rid of US Survey Foot and replacing with International Foot – webinar upcoming
 - b. State Plane Coordinates
 - i. Pam will submit a report to the Board
 - ii. Preliminary outreach by May 31 would like to identify Champions in each of the PLSC Chapters (PLSC to reach out to Chapter officers)
 - i. Input back to Coordinator Group by July 31
 - iv. Plan for Colorado by Aug 31
 - v. Submit plan to NGS by Jan 1

- 11. NGS Update: Fromhertz
 - a. Geospatial Summit May 6-7 Colorado Group will be attending (also available as a webinar)
- 12. WCCC Requests/Update: Sylvester
 - a. 18 of 21 students currently most through distance learning
- 13. Summit Update: Hulsey/Keane
 - a. Venue change, pricing change, social event, keynote speaker
 - b. Board consensus is a two-year contract is acceptable
- 14. Review Course Update: Beers/Hulsey

MOTION: To pay \$300 per instructor per class. Approved unanimously with one abstention

- 15. WFPS/NSPS Update: Beers/Nelson
 - a. CFedS NSPS is treasurer only; third party is in charge of the program and material development
 - b. Successful with NSPS Congressional visits

 PLSC mentioned on Senate floor when introducing a letter for funding support of 3DEP Program
- 16. QBS Eric White
 - a. Becky will send contact to ACEC
 - b. Eric to call Alan Blair for more information
- 17. New events to consider
 - a. Party Chief Social
 - b. Mentoring
 - c. Business Development (RMSS)
- 18. Reports
 - a. Executive Director: No additional report
 - b. Scholarship Committee: No additional report
 - c. Lobbyist/Legislative Committee
 - i. Capitol Day last month good traffic
 - d. Membership Committee: No report
 - e. Outreach Committee
 - i. Peaceful Valley Camporee September
 - ii. Career Counselor Conference October
 - iii. Just finished a Girl Scout Geocache Course (Parker/Dennis)
 - f. Education Committee: No additional report
 - i. Need more information
- g. Rocky Mountain Surveyors Summit: Keane **MOTION:** To approve a budgeted expense of \$85,000 for the 2020 Summit. (Dennis/Bacus)
- Approved unanimously
 - h. QBS Ethics and Fair Practices Committee: White i. Need more information
 - i. Trig Star Committee: Lassner
 - i. Waiting for any last minute exams
 - ii. Will mail out plaques and gift cards

- j. CST Committee: Blair
 - i. May 18 written exam in Colorado Springs
- k. GIS in the Rockies Liaison
 - i. Abstracts due July 19
 - iii. Get any ideas for topics/speakers to Peggy Streicher
- I Side Shots Report: no report
- m. NSPS Representative Report: see above
- n. WSPS Delegates' Report: see above
- 19. Chapter Reports
 - a. Southern: Hulsey
 - i. Trigstar Pine Creek only school that entered
 - ii. One scholarship application
 - iii. Golf Tournament upcoming
 - b. Central
 - i. Developing presentation topics for Summit
 - ii. Working on location for summer social
 - iii. Railroad Museum trying to set up meeting
 - c. Northern:
 - i. May meeting then hiatus over summer (Hunter presenting on 2022 Model)
 - d. NW 1/4: no report
 - e. Western
 - i. Need to send in Trigstar scores
 - ii. Spring Seminar 5/3 WCCC students attend for free
 - f. Southwestern: no report
- 20. Next Meeting Date and Location
 - a. Meet monthly:
 - b. BOD business work group: TBD through email
 - i. Report to Board for those who can't attend.
 - ii. Consider remote meeting in conjunction with Front Range meeting.
- 21. Adjourned

Meeting Minutes June 25, 2019 • 4:30PM

1. Call to Order:

Name	Position	Chapter	Attending?
Steve Parker	President	Southern	x
Don Hulsey	Vice President	Southern	
Shaun Lee	Secretary/ Treasurer	Central	Х
Becky Roland	Executive Director	n/a	x
Paul Bacus	Director	Northern	х
Eric Carson	Director	Central	х
Brian Dennis	Director	Southern	
Leif Joy	Director	NW 1⁄4	
Eric White	Director	Southern	
Tom Sylvester	Director	Western	х
Todd Beers	Ex-Officio	Central, NSPS Rep.	х
Parker Newby	Non-Voting	Southwest	
Roger Nelson	Non-Voting	WFPS Delegate	х
Guests:			
Kayce Keane	RMS Summit		
John Hunter	Geo-Coordinator		
Peggy Streicher	GIS in the Rockies		
Heather Lassner	TrigStar		

- 2. Determination of Quorum (6 voting): none yet
- 3. Any changes to the Agenda?: Parker
 - a. Legislative Committee Chair
 - i. Standing Committee needs Chair that is current Director
 - Steve will contact new Directors to serve as co-chairs, and Shaun Lee is interested in serving as co-chair
 - b. Membership Committee
 - i. Eric Carson volunteered.
 - c. Executive Committee need two Directors
 - i. Tom Sylvester volunteered.
 - d. Monumentation Committee
 - i. Committee is dormant at the moment
 - ii. Consider rolling this committee into the Legislative Committee. This is in the Bylaws and will require a Bylaw update.
 - e. Communication Working Group
 - i. Began identifying roles and responsibilities of leadership positions.
 - ii. Draft will be edited by group by end of week

and sent to the Board for comment from there.

- f. Website Working Group
 - i. Adding County Surveyor contact page
 - ii. Beginning definition of types of surveys for general public
 - iii. Removing email links/consider secondary verification before emailing
- 4. New Director Election tie for 2nd Director: Roland
 - a. Approve Don Hulsey as Vice President
 - b. Scott Thompson approved by 9 votes
 - c. Mike Greer approved by 5 votes
 - d. Brian Bowker approved by 4 votes
 - i. Tom Sylvester will email contact info to Steve for relaying results
 - ii. Send an email for final Motion on Hulsey and new Directors
- 5. Approval of Minutes from April 2019 Meeting: Parker
- 6. Motions approved via email
 - a. To approve payment of the CFedS continuing education for CFedS attending RMSS.
- 7. Review of Action Items from Last Meeting: Parker
- 8. Financial Items: Parker/Lee/Roland a. 2019 Financials
 - \$43,977 in checking with payment to chapters to be wired. Setting up system with Key Bank. Fee is \$40/month, but saves \$70 in time for Becky to get checks to Shaun to sign. Savings is \$100,751.
 - ii. Working on adding Shaun as signer on Investment accounts.
 - iii. Inventory list was sent to Shaun and Steve.
 - b. Investment Update from Key Bank (Savings, Earnings, Performance)
- 9. Colorado Coordinator Activities: not on call
 - a. GPS on Benchmarks
 - b. State Plane Coordinates
- 10. WCCC Update/Scholarship Committee: Sylvester
 - a. Have our 1st graduate Cody VanWinkle
 - b. Tom to send draft letter for Steve to send, SideShots article and posting on website
 - c. Need to highlight 2020 changes for licensing requirements
 - d. Multiple scholarship requests from one applicant in a year

- Scholarship Committee to review applications and the Board will decide (case by case)
- 11.Summit Update
 - a. Jeff Lucas main speaker
 - b. Hotel contracts signed for next two years
 - c. May have a four tracks
 - d. Becky will send meeting minutes/Google drive information
 - e. Shaun noted he is recording meetings and has set up Google drive to host links to recordings
- 12. WFPS Update: Beers/Nelson
 - a. Shared AES Board change to NCEES and asked for input from other states that have made this change and relayed information to PLSC Board
 - b. Waiting on minutes from last meeting
- 13. NSPS Update: Beers/Roland a. Meeting in September in Orlando
- 14. QBS Update: no report
- 15. New events to consider
 - a. Party Chief Social/BBQ Membership Recruitment
 - i. Eric Carson/Shaun Lee to explore and make Chapter function with PLSC support/ partnership. PLSC could partner with each Chapter for one social event per year. Need to make sure there is a presentation on PLSC and its membership benefits and a way to capture attendee information (beer voucher at end of info sheet).
 - b. Mentoring table for now
 - i. Annual CBL equipment check with food, etc. with instruction/Q&A
 - c. Business Development (RMSS) working on through RMSS Committee
- 16. Reports
 - a. Executive Director: Roland
 - i. Update on JB/Editor's Letter
 - b. Lobbyist/Legislative Committee
 - i. AES Board activities
 - 1. Emails have been sent to PLSC Board members
 - 2. Major change is 6-month experience being lessened to 3-month for applications
 - 3. Application/Approval process including NCEES
 - Email notification has not been sent to all stakeholders so schedule has changed. Final meeting is August 9 at 9:15AM. Important for PLSC to be present to review changes.
 - 5. Shaun Lee sent the link to the PLSC

Board on the new contract between DORA and NCEES. New process needs to define how an appeal on application decisions is handled.

- 6. Need to know what the volume of applications is
- 7. Shaun Lee proposed that PLSC Board develop and email/survey for the membership to send out by next Tuesday. We also need to confirm if there is a meeting with DORA in July. Finally, the Board needs to finalize any questions to add to what was presented by Shawn Clarke to DORA.
- 8. Need to schedule another call to discuss the items above. Shaun and Tom to determine a date for a call next week. Shaun sent a link to the Board for documents relating to this subject.
- c. Membership Committee
- d. Outreach Committee: Dennis
- e. Education Committee: Hulsey
- f. Trig Star Committee: Lassner
- g. CST Committee
 - i. Three certified last month in Southern Chapter for Level I
- h. GIS in the Rockies Liaison: no report i. Need presentations
- i. Side Shots Report: no additional report
- j. NSPS Representative Report: see above
- k. WSPS Delegates' Report: see above
- 17. Chapter Reports
 - a. Southern
 - i. Meeting July 17 with John Hunter presenting
 - b. Central
 - i. Scanning documents from the Railroad Museum – goal is reports monthly and donating drives
 - ii. August 10th BBQ at Arapahoe and University park
 - iii. Board is losing 50% of Directors due to moving, etc.
 - c. Northern: no report
 - d. NW 1/4: no report
 - e. Western: Sylvester
 - i. John Hunter and Pam Fromhertz presented in May at Spring Seminar – great GLO presentation
 - f. Southwestern: no report
- 18. Next Meeting Date and Location
 - a. Call re: AES/DORA activities: July 3 at 9AM
 - b. Meet monthly: July 23rd at 4:30
 - c. BOD business work group: July 18th at 3:30
- 19. Meeting adjourned

C H A P T E R N E W S

CCPS

Hello to all our Members. I hope that everyone is well and that you are finding the time to enjoy the summer activities that make living in Colorado second to none.

Our last two general meetings have been centered around the NGS State Plane Coordinates 2022 campaign. Our NGS representative John Hunter has graciously given his time to explain our options and we have had some interesting discussions. Much thanks to our members who have submitted the survey to the working group.

Work is ongoing with the effort to assist the Railroad Museum with archiving of all their documents. We are currently working through some issues and formalizing our procedures. If you would like to assist with this project, please reach out to any members of the CCPS board.

For our summer social event this year, we are planning to have a barbeque on August 10 at the DeKoevend Park in Centennial. The barbeque is family-friendly so plan on bringing the wife and kids and spending a few hours socializing with your fellow surveyors, our vendors and their families. The address of the park is 6421 S University Blvd, Centennial, Colorado 80121. We will be sending out the formal invitation in early July but please save the date and plan on attending.

On a serious note, on behalf of the CCPS board of directors and our members, I would like to express our best wishes and thoughts to JB Guyton as he deals with his health issue.

Please everyone be safe and enjoy what Colorado has to offer and we look forward to seeing you throughout the summer.

Shawn Clarke, PLS CCPS President

NC - PLSC

The Northern Chapter wrapped up the spring season with a presentation by John Hunter covering the SPCS 2022. We were happy to host over twenty surveyors and other professionals in the industry for our May meeting at the PVREA in Fort Collins. John spoke in depth about the new SPCS 2022 and how surveyors can get involved with deciding on a layer 3 with low distortion projections and other possibilities regarding the new coordinate system.

The Northern Chapter traditionally takes a break during the summer months due to the overload of work we all tend to get this time of year. We have played with the idea of hosting a social picnic on a weekend or a happy hour at a brewery and invite all surveyors from the Front Range to join us! We will be regrouping on the first Wednesday in September and welcome any ideas for educational meetings in our future. Enjoy the summer and stay hydrated!

Tony Fendick, PLS President, NC-PLSC

NW 1/4 PLSC

The PLSC has for years relied on the unselfish dedication of one JB Guyton, who not only served years ago as its President, but has also faithfully been the Editor of its quarterly magazine, Side Shots. And that thought generates the topic of volunteerism and how important it is. Not only is the PLSC reliant upon its members to volunteer their time for different local and state events to promote the profession of surveying, but every community, city and county has Planning Commissions, Boards of Adjustment, City Councils, School Boards, Parks and Recreation Commissions, Hospital Boards...and this is just a partial list!

I am proud to say that our local chapter, the NW1/4, has more than its fair share of volunteers. Our members have served as county surveyors, past and present, school board members and presidents, city council members and presidents, city and Routt County Board of Adjustment and Planning Commissions and all of this while working full time in their surveying businesses. As a small group in an isolated portion of the state, the volunteerism of the NW1/4 PLSC is impressive. It is also vitally important to the communities that we serve.

It is very easy to get cynical when viewing the events at the federal level and wonder how the spirit of volunteerism got so lost in the insider trading and self-benefitting actions of so many of our Congressmen/ women and Senators. Yet it all starts at the local level. Volunteerism creates better schools, hospitals and city and county governments. It makes wherever you live better.

That is what JB Guyton has represented to so many of us - a spirit of volunteerism to benefit something bigger than ourselves as individuals.

Brian T. Kelly, PLS Vice-President, NW 1/4

SWC - PLSC

The SW Chapter continues to host local speakers and chapter member presentations this year. At our April meeting, Daryl Crites, PLS presented his findings and research on the north and east boundary of La Plata County.

The south and west boundaries of the county are defined by the state lines, but the north and east boundaries are basically lines of latitude and longitude located mostly in very remote areas. Large portions of the lines are difficult to access and require long 4WD approaches and even days of hiking within the Weminuche Wilderness. Over the years Daryl, Steve McCormack, current La Plata County surveyor, and myself have undertaken the sporting task of locating the original monuments along these lines.

Daryl's presentation started at the northeast corner of the county with an intriguing tale of misidentification of a distant peak by the original surveyor. From there it was south towards the New Mexico border through one of the largest undeveloped areas of the state. Numerous original stones and bearing trees were found and Daryl

C H A P T E R N E W S

had great pictures showing the markings and blazes that the original surveyors created. Monument records of these original stones were filed so check them out if you get a chance. Many thanks go out to Daryl for creating this presentation for the chapter.

The SW Chapter of the PLSC will be having our next meeting on July 16th from 6:00 - 8:30 PM at the Durango Rec Center Windom Room, 2700 Main St. Our speaker will be John Hunter, PLS - Colorado NGS Geodetic Coordinator. John will be giving a short presentation on the various Colorado SPC2022 State Plane options that are being considered by the Colorado Geomatics Coordinator Working Group and the NGS. Questions and a lively geodetic group discussion will follow!

Parker S. Newby, PLS President – SW Chapter PLSC

WCLS

The Western Colorado Land Surveyors recently hosted the annual WCLS Spring Seminar at the Grande Vista Hotel on Friday, May 3rd. Our primary speaker was Richard Norejko who spoke on the history and evolution of land surveying leading up to the public land surveying system we know today. We also heard John Hunter and Pamela Fromhertz speak on the upcoming 2022 changes to state plane coordinate systems and modernization of the National Spatial Reference System. Input is encouraged and should be directed to Mesa County Surveyor Scott Thompson who volunteered to be our sponsor for the western slope.

The conference was well attended and offered vendors including: Vectors Inc, Frontier Precision and Grand Valley Reprographics who generously donated door prizes. Plaza Reprographics also sponsored the food and beverage provided during the event.

Following the conference, the WCLS held a bi-monthly meeting during which county plat language was discussed along with continued concerns regarding the Fruita calibration baseline.

The next WCLS meeting will be held on Wednesday, September 11 from 7:00 to 8:00 A.M. at Main Street Bagels, located at 559 Main Street, Grand Junction. You don't have to be a surveyor to attend, and bagels and coffee will be provided.

Alec Thomas, PLS President, WCLS

JOIN US FOR THE 32ND ANNUAL GIS IN THE ROCKIES CONFERENCE!



Premier Geospatial Conference 2019 of the Rocky Mountain West

SEPTEMBER 17-18 DENVER, CO

EXCEPTIONAL CONTENT-RICH CONFERENCE:

- Outstanding Professional Workshops & Presentations
- Presentation Opportunities: Sessions & Posters
- Networking
- Exhibitors
- Career Development Academy
- Social Events

gisintherockies.org

Digital Terrain Models

Digital Elevation Models

Orthometric Photos



Topographic Mapping 3-D As-Builts Contour Maps

State-of-the-art LiDAR & Digital Imaging

High Accuracy LiDAR

Maximum rate of 200,000 KHz which translates to a point cloud as high as 150 points/m².

• High Definition Digital Images

Our Leica 39 megapixel RCD 105 Digital Camera produces images at two inches per pixel or higher.

Real-time Decision-making

Our field & flight crews are staffed with Professional Engineers & Land Surveyors who truly understand data collection in real-time.

Reliable Topographic Mapping

The helicopter flies at low altitudes and is capable of providing elevations at two-tenths of a foot or less.



Tel (307) 632-5656

5908 Yellowstone Rd, Cheyenne, WY

www.wrd-ltd.com







Dreaming of incorporating UAS into your business?

Wanting to get FAA Remote Pilot Certified?

Let the FAASTeam help you build YOUR professional UAS team.

This UAS Certification Training course gives you the tools you need to pass your FAA Remote Pilot written exam. This one-day course will cover the key main elements of the 107 exam and provides you with additional at home study materials, including Air Craft's proprietary study guide, FAA manuals, practice exams, log book, and even flight exercises.

What you get:

- Eight hours ground school
- Proprietary study guide saves study time.
- Practice Exams
- All FAA Exam Study Materials
- Flight Exercises
- Bonus flying techniques

Our Instructors:

FAA Certified (Commercial & UAS)

FAA Safety Team Representatives

Hundreds of hours of real – world UAS flight operation experience.

Join us for our next UAS Certification Class in Denver Saturday, May 19th Email <u>bryan@air-craft.us</u> for more info or to register.

SUSTAINING MEMBERS

ALTURA LAND CONSULTANTS, LLC

Jesus Lugo 6950 S Tucson Way Unit C Centennial, CO 80112 720-488-1303 marissa@alturaland.com

ASSURANCE RISK MANAGERS, INC.

Lisa Isom 10651 E. Bethany Drive, Suite 300 Aurora, CO 80014 303-454-9562 Iisom@arm-i.com

AZTEC CONSULTANTS

Rey Tenney 8000 S Lincoln St, #201 Littleton, CO 80122 303-713-1898 rtenney@aztecconsultants.com

CARDNO, INC.

Andrew Sylvest Branch Manager 14142 Denver West Parkway Suite 280 Lakewood, C0 80401 720-556-5245 andrew.sylvest@cardno.com

CARLSON SOFTWARE

Jim Reinbold Regional Sales Director 12161 W. Layton Ave Morrison, CO 80465 303-979-3519 jreinbold@carlsonsw.com

COMM-TECH Douglas Howell 5398 Manhattan Circle Boulder, CO 80303 3035304976 Iori.a@ctcivil.com

DIVERSIFIED UNDERGROUND INC.

Richard Chuapoco 2851 S. County Rd. 137 Bennett, CO 80102 720-490-1321 richard@diversifiedunderground.com

ECAD

Kelly Marrill 12130 N. Pennsylvania St. Thornton, CO 80241 303-427-2231 Kmarrill@cad-1.com

FARNSWORTH GROUP

Christopher Brooks 5613 DTC Pkwy., Ste. 1100 Greenwood Village, CO 80111 303-692-8838 cbrooks@f-w.com

FLATIRONS SURVEYING, INC.

John B. Guyton 3825 Iris Ave., Ste. 395 Boulder, CO 80301 303-443-7001 jguyton@flatironsinc.com

FRONTIER PRECISION INC.

Mel Philbrook 5480 W 60th Ave., Unit A Arvada, CO 80003 720-214-3500 mel@frontierprecision.com

GEOSHACK 7000 E. 47th Avenue, Suite 900 Denver, C0 80216 303-853-0311 jhouse@geoshack.com

HIXON MFG. & SUPPLY CO. Ken Perry 1001 Smithfield Dr. Fort Collins, C0 80524 303-694-0012 ken@hixonmfg.com

HOLMANS USA LLC

Annette Bumbarger 6201 Jefferson St. NE Albuquerque, NM 87109 abumbarg@holmans.com

INFINITY SOLUTIONS INC. Joe Jimenez 10465 Melody Dr., Ste. 225 Northglenn, C0 80234 303-229-6885 jjimenez@infinitysurvey.net

JACOBS Robert Boehm, 707 17th St, Ste. 2400 Denver, C0 80202 720.286.2914 robert.boehm@jacobs.com

JUNIPER UNMANNED

Jeff Cozart 15000 W 6th Ave. Golden, CO 80401 720-440-9960 X 102 jeff.cozart@juniperunmanned.com

KINETIC ENERGY SERVICES, LLC

Dustin Muir PO Box 530 Milliken, CO 80543 720-442-1162 dustin.muir@kineticindustry.com

MERRICK & COMPANY

Todd Beers Survey Project Manager 5970 Greenwood Plaza Blvd. Greenwood Village, CO 80111 303-751-0741 todd.beers@merrick.com

POWER SURVEYING COMPANY INC.

Richard Gabriel Survey Manager 120 W. 84th Ave Thornton, CO 80260 303-702-1617 rgabriel@powersurveying.com

TOM RICHARDSON LLC

2771 S Pagosa St. Aurora, CO 80013 303-699-3524 Gwen@TomRichardsonLLC.com

SKLD INFORMATION SERVICES

Kelly Mulé Sales Representative 9540 East Jewell Ave Suite A Denver, CO 80247 (303)695-3850 kmule@skld.com

SURVEYING AND MAPPING, LLC (SAM)

Ronald Ilk 8697 Zircon Way Arvada, CO 80007 303-988-5852 rilk@sam.biz

TERRAMETRA RESOURCES

Lynn Patten 2919 Bryn Mawr Place Longmont, CO 80503 303-709-2903 Iynn.r.patten@gmail.com

UNDERGROUND CONSULTING SOLUTIONS

Kelly Goff 2701 W. Oxford Ave., Suite 6 Englewood, CO 80110 303-904-7422 ucs@totalspeed.net

VECTORS, INC

Chuck Hutchins Sales 10670 E Bethany Dr. Bldg. 4 Aurora, CO 80014 303-283-0343 chuckh@vectorsinc.com

These firms support our organization. Please show them your appreciation with your patronage. To become a Sustaining Member, please contact Becky Roland at broland@plsc.net, or 303-551-3266. Custom Survey Markers & Monuments • Signs & Witness Posts • Flagging & Targets • Nails & Washers

urvey Marker

Custom Survey Markers & Monuments • Signs & Witness Posts • Flagging & Targets • Nails & Washers

877-686-8561 www.berntsen.com/colorado

SURV-KAP°

of the World

REBAR & PIPE CAPS

ern

Marking the Infrastructure

- CONCRETE MARKERS
- SURVEY MONUMENTS
- SECTIONAL ROD MONUMENTS
- ACCESS COVERS
- WASHERS & NAILS
- SUBSURFACE MAGNETICS
- STAMPING TOOLS
- SURVEY TOOLS & ACCESSORIES

THE LANDMARK NAME IN SURVEY PRODUCTS Exceptional Customer Service

mark Na

CALL OR ORDER ONLINE!

520-622-6011 • 800-445-5320 • FAX 520-792-2030 • SURV-KAP.COM



The Trimble SX10 Scanning Total Station effortlessly expands your capabilities. This versatile solution collects any combination of high-density 3D scan data, enhanced Trimble VISION imaging, and high-accuracy total station data — so you capture exactly what you need — saving you time while increasing productivity. At Frontier Precision, we believe the most important measurement is your bottom line. To learn how Frontier Precision can help your business run smarter, visit www.frontierprecision.com.



Designed to redefine surveying, imaging, high-speed 3D scanning, and how efficient you work.

Frontier Precision | 5480 West 60th Avenue, Unit A | Arvada, CO 80003



Jason Dysthe Geospatial Sales Representative jasond@frontierprecision.com 720.214.3500 or 800.652.1522 [Toll Free] 720.214.3503 [Fax]

> The TRIMBLE® SX10 High-Density 3D Scan Data Enhanced Trimble VISION Imaging High-Accuracy Total Station Data



PRODUCTS | TRAINING | REPAIR | RENTALS

LEARN MORE www.frontierprecision.com/SX10