The Trimble MX9 - Now at AllTerra!

AllTerra, the leader in the latest Geospatial Technology, now has the Trimble MX9, a complete field-to-finish mobile mapping solution that collects up to 2 million points a second, has the highest grade IMU on the market, and uses Trimble Business Center as the registration software. Sign up for more info at allterracentral.com/mx9
The Texas Surveyor (ISSN 1546-4164) is the official publication of the Texas Society of Professional Surveyors, published bimonthly for the betterment of the surveying profession. Articles may be reprinted with credit. TSPS assumes no responsibility for statements made or expressed in this publication. Copyright 2021, The Texas Surveyor.

Standards for Submission of Articles
The Texas Surveyor welcomes contributions from members. Submit original articles in Word doc form to communications@tsps.org. Copy all quoted material exactly as it appears in the original, indicating omissions by ellipses. Use quotation marks for quotes and give credit to the source from which you are quoting. Hi-res photos in .jpg format preferred. Include your name and identify the picture and all persons in photo. Email submissions to communications@tsps.org.

Deadline for Advertising and Articles
The Texas Surveyor is published bimonthly. Copy and ad deadline is the 5th of the month preceding publication.

Advertising Rates/Placement Information
Please visit www.tsps.org/mediakit to view the TSPS Media Kit or request a media kit by emailing communications@tsps.org.

Professional Listings
Send a digital copy of your business card to communications@tsps.org, or call 512-327-7871 for more details.

2020 - 2021 TSPS Officers
President ............................................................... Bill O’Hara
Bill O’Hara Land Surveyor, Cedar Creek, Texas
President-Elect ....................................................... Heather Sides
LJA Surveying, Houston, Texas
Vice President ....................................................... Robby Christopher
Hugo Reed & Associates, Inc., Lubbock, Texas
Secretary/Treasurer ............................................... Josh W. Leamons
Searchers Surveying & Engineering LLC, Fredericksburg, Texas
Past President ....................................................... Trisha Lund
Encompass Energy Services, LLC, Houston, Texas

TSPS Directors
(2021)
Connor Brown, E.L.S. Surveying & Mapping, Inc., Tyler, Texas
Kenneth Yazel, Yazel Peebles & Associates, LLC, Bedford, Texas

(2022)
Eric Baze, Topographic Land Surveyors, Fort Worth, Texas
John DeHan, TGD Surveying, LLC, Garden Ridge, Texas
J.S. “Stan” Piper, Piper Surveying Company, Inc., Midland, Texas
Travis Tabor, Landesign Services, Inc., Liberty Hill, Texas

(2023)
Shawn Billings, Pendulum Surveying, Kilgore, Texas
Isidro Garza, Gratia Geomatics, LLC, Spring, Texas
Desiree Hurst, Landesign Services, Inc., North Richland Hills, Texas
Nick Vann, BGE, Inc., Houston, Texas

Table of Contents
From the President .................................................. 5
New Members .......................................................... 5
Benchmark .................................................................. 7
Sustaining Members .................................................. 7
Featured Member ..................................................... 9
Symposium Postponed ............................................. 9
TSPS Membership Value ......................................... 10
An Attorney’s Angle ................................................ 12
Texas Young Surveyors ........................................... 13
Leading Causes of Workplace Injuries - Housekeeping for Safety....... 16
Professional Listings ............................................... 18
Coming Events ....................................................... 18

Executive Director
DJ Kyle
2525 Wallingwood Dr., Bldg. 3 Suite 300
Austin, TX 78746
Phone: 512-327-7871
FAX: 512-327-7872

Legal Counsel
Mark Hanna, P.C.
2414 Exposition Boulevard Suite A-1
Austin, Texas 78703
Phone: 512-477-6200
FAX: 512-477-1188
Piper Surveying Co., Inc. has been in business for over 30 years and had always used insurance companies in the Permian Basin for our commercial insurance. The cost continued to rise, and the service was slow. I had known Gina O’Hara and decided to get a quote from ANCO Insurance. Her quote was less and for more coverage.

J. Stan Piper, RPLS, LSLS
Piper Surveying Co. | Midland, Texas

ANCO has provided insurance for our company for many years...the prices are very competitive, and they are always attentive to our needs.

Jon E. Hodde, RPLS/Consultant
Hodde & Hodde Land Surveying, Inc. | Brenham, Texas

Get the right insurance from professionals who know surveyors. ANCO has been a TSPS-endorsed agency since 2001.

Apply online at: InsuranceforSurveyors.com or call (888) 275-2626, ext. 6324.

“Gina is by far the ‘Best in the West.’ When renewal time comes, ANCO continues to save our business money. ‘We use this savings to assist in purchasing the latest technology equipment.’

Robert A. (Bob) Lupher, RPLS
Lupher, LLC
Texas Professional Land Surveyors
Houston, Texas

“My agent at ANCO, Gina O’Hara, always does a great job of being knowledgeable and educating me about the various types of insurance required by my land surveying company. She is a great asset!”

Jon P. Hoebelheinrich, RPLS/PS, EMR
JPH Land Surveying, Inc.
Dallas-Fort Worth | Austin | Abilene

“ANCO has provided insurance for our company for many years...the prices are very competitive, and they are always attentive to our needs.”

J. Stan Piper, RPLS, LSLS
Piper Surveying Co. | Midland, Texas

You do surveying. We do insurance.

We go the extra 5,280 feet for you!
From The President

Bill O’Hara, RPLS, LSLS

Friends – I really want to write this column without mentioning COVID-19 or the impacts of the pandemic, but that is too tall of an order. I think we can all agree that the Coronavirus pandemic has really made a mess of how we lived our lives in 2020. There is hope that the promised vaccines will arrive soon and begin to restore the normalcy we all crave but the reality is that it is going to take some time and the early parts of 2021 may look much like 2020. As I write this article, we are in the worst phase yet of the pandemic. Thanksgiving Day was just a week ago and the experts predict another surge in COVID-19 cases following the family gatherings that took place. Now the December holidays are upon us and we all want to be with our families again. I sincerely hope your holidays were joyful and the new year brings you peace, love, and good health.

The Texas Society of Professional Surveyors experienced a number of canceled events in 2020. The second quarterly board meeting, the final course of the Heart of Texas Boundary Retracement seminar in Brady, the High Plains Experience seminar, the Original Corners seminar, countless chapter meetings all canceled. Fortunately, our Symposium was successfully delivered in February before the lockdowns started and our Annual Convention and Tech Expo in October was a moderate success.

Due to the numerous cancelations mentioned above it was somewhat of a challenge to obtain the continuing education units required to renew our professional RPLS license for the year 2021. The TBPELS has not suspended the continuing education requirement nor reduced the number of hours required for annual license renewal. The good news though is that TSPS has ample, quality, online courses available to obtain all your CEUs. Check out the impressive list of courses and speakers on the TSPS website under the Education tab. I want to thank the Education Committee, TSPS staff, and the various speakers for their dedication toward the goal of ensuring our members have access to the education opportunities.

Looking ahead into 2021, TSPS has decided to hold the first quarterly meeting along with the committee meeting in a virtual, GoToMeetings, format. In addition, the Executive Committee made the very difficult decision to postpone the 2021 TSPS Symposium scheduled to be held in February in Odessa until February 2022, at the same venue in Odessa.

The 87th session of the Texas Legislature will begin January 12, 2021 and legislators from both chambers have already begun filing bills. I suspect (because of the pandemic) this session will “look” much different than every previous session. As of this writing we have not been made aware of how the legislature will conduct its business, but certainly movement around the Capitol will be limited. Members of the TSPS Executive Committee along with our Legislative Counsel Mark Hanna and Governmental Affairs Committee Chair Steven Freeman met December 1st to discuss the coming session and strategize on meeting our goals. We have a bill drafted to address needed changes to HB 1523 which last session consolidated the Texas Board of Professional Land Surveying with the Texas Board of Professional Engineering to form our current regulatory board the Texas Board of Professional Engineering and Land Surveying (TBPELS). The focus of the proposed TPS bill is to clarify the education and experience required to qualify to sit for the RPLS exam and to clear up the waiver option written into HB 1523.

For the most part, our TSPS Chapters have been unable to have in-person meetings since March. The one exception that I know of is the Permian Basin Chapter 10 which held an outdoor meeting in a location which allowed space for distanced consumption of barbeque and beverages. Having six feet of space between you and the next guy while enjoying some smoked meats and the aforementioned beverages is probably about right anyway. My hat’s off to Chapter 10. I encourage all chapters to organize monthly meetings whether in an online virtual format or at an outdoor location with plenty of space for social distancing. Please let me know when, where and how you are meeting and I will be there to participate in the chapter event.

In closing, I want to thank you for your continued membership and support of our professional association. I also want to thank the members who serve as officers and committee members at the chapter and state level. You all deserve a lot of credit for the work that gets done to benefit TSPS, its members and our profession.

New Members

Registered
Jeffrey Barron #6515 - Chapter 9
Percheron, LLC

Stephanie James #5950 - Chapter 11
MTR Engineers

Associate/SIT
Jonathan Fry - Chapter 3
City of San Angelo

Joseph Molidor - Chapter 9
AEI Engineering, a Baxter & Woodman Company

Luis Ocampo - Chapter 11
Moy Tarin Ramirez Engineers, LLC

Taylor Smith - Chapter 13
Crichton and Associates

Charles Young - Chapter 13
Landesign Services, Inc.

Affiliate
David Poole - Chapter 11
Surveying and Mapping, LLC (SAM)

Welcome!

Bradley Schuster - Chapter 9
Klein Collins High School

Robert White Jr. - Chapter 6
WhiteStar Corporation

Geospatial
Angela Livingston - Chapter 3
Pape-Dawson Engineers

Student
Christian Lindahl - Chapter 9
Parker Smith - Chapter 9
Due to the increase in COVID-19 cases, Symposium 2021 has been postponed to 2022. The two-day educational conference will be held at the same location, the Odessa Marriott Hotel & Conference Center on February 25-26, 2022. The Executive Committee felt the risk was still too high to move forward with an in-person meeting this year. Heart of Texas in Brady has also been cancelled for 2021. TSPS will focus on virtual education throughout the winter and spring. Webinars are being developed and added to the TSPS website so keep an eye on the calendar for new educational opportunities.

Throughout this article I have mentioned the TSPS calendar at various times. I hope you noticed that too. The calendar along with Latest News are two of the most important links to stay informed on the latest TSPS news and events. We ask that you check them regularly to stay up-to-date especially during the legislative session when quick action is sometimes needed.

Happy New Year and wishing all a healthy and prosperous 2021!
LAND SURVEYING
3D LASER SCANNING
DRONE SERVICES
UTILITY LOCATING SERVICES

Certifications:
 Minority Business Enterprise (MBE)
 Small Business Enterprise (SBE)
 Historically Underutilized Business (HUB)
 TxDOT HUB Certified
 Hire Houston First

Isidro X. Garza, RPLS
Isidro.Garza@GratiaGeomatics.com
832.562.7621 | gratiageomatics.com

22928 Kuykendahl Road
Suite B
Spring, Texas 77389

TBPELS Firm No. 10194563
TSPS: How/why did you get into surveying?
Ruben: I’m the youngest of three and both of my older brothers were surveyors which made me a cheap source of labor. My first surveying instrument was a machete. By the time I was 17, I had worked my way up the chain and to the rod and eventually graduated to an I-man. I started working on my degree in Agronomy, but after one of the livestock sciences labs courses (I’ll leave that one to your imagination) I decided Agronomy was not for me. By time I turned 18 I made Party Chief and decided that surveying was a cool career, so I then pursued my Bachelors degree in Land Surveying and Mapping at the Polytechnic University of Puerto Rico. After graduating and getting licensed, I decided to start a small practice, but after a few years the economy crashed and I needed to close down my practice. I soon flirted with the idea of going to law school, took the LSAT and got accepted to a few colleges. At the time of discovering the hefty cost of law school, I was presented with the opportunity of completing my Masters in Civil Engineering (Geomatics Engineering) at Purdue University at a fraction of the cost of law school, by becoming a teaching assistant. I then decided to move to Indiana were I would continue studying land surveying.

After a few terrible midwestern winters I decided it was time to head south, so I applied to a company in Austin. I got registered about eight months later and almost 14 years later I still reside in Austin. For the past 10 years I’ve been working mostly on merging conventional surveying technology with geospatial technologies to produce high accuracy design survey data.

TSPS: Why did you join TSPS?
Ruben: I was encouraged to join by my first employer in Texas. Thanks to TSPS I’ve built very good relationships with other surveyors. I also believe that having a professional association that advocates for the professionals, sets standards of practice, and offers high quality educational opportunities for everyone is paramount to our success. I do look forward to taking a more active role in the society in the coming years and hopefully help continue to move our profession forward.

TSPS: What is your most memorable surveying moment?
Ruben: The first one that comes to mind is the time I was surveying in the middle of a pasture back home and came across a bull who didn’t feel I should be messing with his grazing time. I have never run so fast and wasn’t aware I could climb trees with such efficiency. Also, cell phones weren’t a thing back then so there was a lot of waiting around until the bull left. Getting down from a tree you don’t know how you climbed can present its own challenges too.

TSPS: What are some of your favorites:
Color: Red and black.
Food: Yes.
Animal: Dogs (I am a volunteer dog walker at Austin Pets Alive!)
Singer/band/group: Too many to name but right now Gary Clark Jr., Black Pumas, Foo Fighters are at the top of my Spotify playlist.
Hobby: Photography, snowboarding, fly fishing and flying.
**TSPS Membership Value**

**Angela Navarro, Communications & Marketing Coordinator**

In this digital age where our family and friends are just a text or click away, the benefits of joining a membership are often in question. Why would you join an organization when you can simply reach out to a professional via your online network? Well, memberships offer an array of different opportunities and the unique synergy of working with many like-minded professionals for a collective outcome.

Now more than ever, the way TSPS functions and membership benefits work have had to pivot significantly. From working in the office every day to now working from home; from sending a few eblasts a month to now sending a couple of eblasts a week, we have had to update the way we work and communicate with our members. Joining an association like TSPS provides members with competitive advantage as they become more active and informed in their industry. TSPS dedicates itself to the interest of our members and our members are often bonded together as they advocate for their peers and share challenges and triumphs with one another. As holds true, many of our members who lead busy lives depend on us to brief them on important industry trends, legislative rulings and much more!

I myself am a member of a few professional associations and organizations. Getting involved can benefit you in many ways - from networking, career advancements, even finding professional relationships, the possibilities are endless.

Despite events being canceled, this year has been a fruitful one and we are forever grateful and thankful to our loyal members for renewing for 2021. We hope that you will all show your continued support for TSPS by proudly displaying your membership stickers, proving that you are part of an organization that is committed to you. To secure your sticker, contact angela@tsps.org.

As we continue to move forward during this uncertain time, I encourage you to make the most of your membership with TSPS, by utilizing a few updates TSPS has had to make to better serve our members: **Online Courses and Fun New Webinars**

We have updated our roster of online classes and will continually upload with the latest videos. These webinars are now available “OnDemand” to view where you can earn CEUs at any time and any place. Recently a few members came together to create a unique talk show experience, The Shane & Connor Talk Show, where they interview sustaining members, featured guests, social media minute and more. These videos are located on our website under the “Education” tab. Not to mention, Professor Nico Marina, Program Director of the Land Surveying Technology Department at Lone Star Community College hosted a live “Programming Your HP-35S” course which is on our website for those looking to program their calculators for future exams.

**New Career Center**

We recently updated our online career center. The new and improved career center now allows for resume uploads, job postings, banner advertisements, job alerts and offers an array of resources to anyone looking for a job or employers looking to recruit. Visit the career center: www.jobs.tsps.org.

Besides the new career center and updated roster of webinars, TSPS offers a variety of benefits to our members: **Education**

Continuing education is imperative to your career as new technologies are introduced, rules are changed in the licensing act or you find yourself managing a surveying business. Members have a variety of educational offerings to choose from throughout the year at discounted pricing for CEUs. CEUs are tracked through personal member profiles and certificates can be printed at any time.

**Publications**

Stay in touch with the latest trends and topics through TSPS publication: The Texas Surveyor magazine, a bimonthly member only publication which is written by surveyors for surveyors.

**Chapters**

More than 20 chapter are available around each state, each providing a variety of educational offerings to choose from throughout the year at discounted pricing for CEUs. CEUs are tracked through personal member profiles and certificates can be printed at any time.

**TSPS Chapters**

Chapter 1 - South Plains
Chapter 2 - North Central Texas
Chapter 3 - Central Texas
Chapter 4 - East Texas
Chapter 5 - Dallas
Chapter 6 - Deep East Texas
Chapter 7 - North Texas
Chapter 8 - Central East Texas
Chapter 9 - Gulf Coast
Chapter 10 - Permian Basin
Chapter 11 - Alamo
Chapter 12 - Coastal Bend
Chapter 13 - Capital Area
Chapter 14 - Guadalupe Valley
Chapter 16 - Panhandle
Chapter 17 - Paso Del Norte
Chapter 18 - West Central Texas
Chapter 19 - Rio Grande Valley
Chapter 20 - Brazos Valley
Chapter 21 - Heart of Texas
Chapter 22 - Chaparral
Chapter 23 - North East Texas
Chapter 24 - Gateway
Networking
TSPS takes great pride in connecting surveyors across the state via the annual convention, chapter meetings, online educational opportunities, an online news feed via member profiles, and other virtual meetings and events. Current members have stated the greatest benefit of being a member of TSPS is the collegiality that comes with being an active member of a profession.

Communication
The TSPS website provides user-friendly communication opportunities. The 'Latest News' section of our website is constantly updated with the most recent surveying news. In an ever-changing environment, TSPS also actively communicates with its members through various social media channels.

TSFI
The Texas Surveyors Foundation, Inc. (TSFI) was formed to ensure the future of the surveying profession through scholarship awards, support for education programs, and dissemination of beneficial information to the interested public.

Legislative Representation
TSPS works closely with members of the Texas Legislature to keep them informed on issues that affect you, the Texas Surveyor. Additionally, the political action committee, SurPAC, provides members with an avenue to donate towards maintaining a strong presence in the legislative process.

Affinity Partners
Business Insurance, Education, Medical Insurance, Legal Services & ID Protection, and Records/Documents are just a few of the partner relationships established by TSPS. Members can feel confident when engaging the services of a TSPS Affinity Partner. Visit www.tsps.org/affinity for more information.

Public Relations
Building awareness and promoting the surveying profession are a vital role of TSPS. Members have access to marketing materials to aid in Awareness as well in Recruitment all in one location under the Resources tab on the TSPS website.

Join TSPS Today:
www.tsps.org/join.

“When I joined some thirty years ago it was all about education. What I have come to realize over the years is how TSPS works to protect the profession.”
Chester Varner Jr., RPLS #4812
An Attorney’s Angle

Mark Hanna – TSPS Legal Counsel

Texas Real Estate Law Recent Cases

The following is a summary of the recent Texas real estate law cases as prepared by the Real Estate Section of the State Bar of Texas. For more information regarding these cases or other legal issues of significance to the surveying profession, contact TSPS Legal Counsel, Mark J. Hanna, 2414 Exposition Boulevard, Suite A-1, Austin, Texas 78703; telephone: (512) 477-6200.

Mark J. Hanna practices law in Austin and has served as TSPS Legal Counsel since 1992. In addition to providing legal and legislative representation for the Society, Mr. Hanna specializes in representing the interests of individual business and professional clients located throughout the State.

1.1 Zoning

Town of Annetta S. v. Seadrift Dev., L.P.,
446 S.W.3d 823 (Tex. App.—Fort Worth 2014, pet. filed).

“[T]he Town denied Seadrift’s preliminary subdivision plat for an approximately 106-acre tract. A large portion of Seadrift’s platted subdivision was located in the ninety-five acres of the Town’s ETJ. While Seadrift’s proposed subdivision lots within the Town’s boundaries were two acres in size, the lots in the Town’s ETJ were not. At the time of Seadrift’s plat application, the only Town ordinance provisions addressing density in the Town’s ETJ were located in Town Ordinance 011. Ordinance 011 contains a provision requiring that all lots in the Town’s ETJ be at least two acres in size.” Id. at 2.

The Town certified “that the reason for its denial of Seadrift’s plat was that ‘the density of the development is excessive.’ After receiving this certification, Seadrift filed suit against the Town seeking a declaratory judgment that Ordinance 011’s provision requiring that all lots within the Town’s ETJ must be at least two acres in size violates Texas Local Government Code section 212.003(a)(4). Seadrift also sought a writ of mandamus to compel the Town to engage in the ministerial act of approving the subdivision plat.” Id. at 3 (citation omitted).

“A city’s authority to regulate land development in its ETJ is wholly derived from a legislative grant of authority. . . . A city is authorized to apply municipal ordinances ‘governing plats and subdivisions of land . . . to promote the health, safety, morals, or general welfare of the municipality and the safe, orderly, and healthful development of the municipality’ to property within its ETJ. The municipality is also authorized to apply in its ETJ other city ordinances relating to access to public roads or the pumping, extraction, and use of groundwater by persons other than retail public utilities.” Id. at 6-7 (citations omitted). But, unless otherwise authorized by state law, a municipality may not regulate a number of activities and uses within the municipality’s ETJ, among which is that a city may not regulate the number of residential units that can be built per acre of land.

“[T]he Town argues [that the] minimum lot size only regulates how small a resulting lot can be. It does not expressly mandate the number of residential units that can be built on the resulting lots. A resulting two-acre lot can logically be the site for one or multiple duplexes, triplexes or apartment buildings and thus, can contain one, twenty, or more residential units.” Id. at 8.

The court did not buy this argument. Ordinance 011 actually does control or regulate the number of residential units that can be built, which appears on its face to violate Local Government Code § 212.003(a)(4).

The court did not buy this argument. Ordinance 011 actually does control or regulate the number of residential units that can be built, which appears on its face to violate Local Government Code § 212.003(a)(4).

1.2 Mortgages and Foreclosures

Saravia v. Benson,
433 S.W.3d 658 (Tex. App.—Houston [14th Dist.] 2014, no pet.).

“Tender of the sum owed on a mortgage debt is a condition precedent to the mortgagor’s recovery of title from a mortgagee who is in possession and claims title under a void foreclosure sale. A tender is an unconditional offer by a debtor to pay another a sum not less in amount than that due on a specified debt or obligation. A valid and legal tender of money consists of the actual production of the funds. A debtor must relinquish possession of the funds for a sufficient time and under such circumstances as to enable a creditor, without special effort on his part, to acquire possession. The party asserting valid tender bears the burden of proving it.” Id. at 7-8 (citations omitted). [NOTE: Page numbers throughout refer to page numbers in the link provided.]
2020 was a very strange year to say the least. We had so many event and things planned that were disrupted due to COVID-19 and other issues related to the pandemic. I want to thank everyone for their support of TYS throughout the year. The unwavering support from our industry has been so refreshing to see and experience.

We started 2020 with a great career fair in the Houston area, where we were able to connect with over 1,000 high school students and inform them about surveying as a profession. Shortly after the lockdowns and restrictions started, other similar events were canceled. We were able to have a couple of virtual events with young surveyors from all over the state. Ultimately, the Young Surveyors Social at convention was the highlight of the year. We are really looking forward to getting back to our “normal” events as soon as possible.

I am optimistic about this coming year. I really hope we can continue to spread the word about surveying as a profession and schedule more career fairs, school visits, and outreach events. Many of us are fortunate that our “essential” industry has been keeping many of us busy this year. It is nice to still be connected with other young surveyors through work, despite not getting to attend social events and see each other in person.

This year we plan to host some virtual meetings and happy hours. The Young Surveyors Social at the 2021 Convention will be our signature event for the year. The social is scheduled for Thursday, October 7, 2021. All of this planning is tentative and dependent on how the year will progress.

Lastly, I’d like to congratulate all of the young surveyors who recently passed their RPLS exam this past October. I’m hoping we can all have a busy and blessed 2021.

Texas Young Surveyors’ Officer Team

Region Coordinators

Stuart Warnock - North (DFW Area)
Jose Pedraza - East (Houston/Beaumont Area)
Richard Neubauer, III - South (San Antonio Area)
Cole Strevey - Central (Austin/Waco Area)
Brady Stanford - West (Midland/Odessa/Abilene Area)
Bryan Gillis - Coastal (Corpus Christi Area)
Jerrod Stapleton - Panhandle (Amarillo/Lubbock Area)

Social Media Coordinator

Hollie Swoger

The TYS Mission

• **Promote** - Ensure young surveyors are working together with NSPS/TSPS to promote the surveying profession to the public by sharing materials, ideas and opportunities.

• **Connect** - Ensure young surveyors are connected with local and national surveying organizations and associations.

• **Represent** - Ensure young surveyors are present and represented at local and national surveying organizations and associations.

• **Participate** - Ensure young surveyors are engaged, active and have the opportunity to get a voice at local and national surveying organizations and associations.

Follow Texas Young Surveyors on social media:

- facebook.com/TexasYoungSurveyors
- twitter.com/TXYoungSurveyor
- linkedin.com/groups/8300367
Made2Measure

TEXAS’ MOST TRUSTED NAME IN GEOSPATIAL TECHNOLOGIES AND CONSULTING!

At G4 Spatial Technologies and Geomatic Resources, we have a proven reputation for offering the best support and service in TEXAS. With a professional staff, we are able to offer our clients the latest surveying equipment and techniques and the largest selection of field supplies in Texas. We provide thousands of products from many quality manufacturers that help us build a custom solution for your business.
SMART NET TEXAS

HxGN SmartNet is the largest and most reliable RTK network on the planet. You can count on reliable service and great precision to keep you productive and competitive. You can rely on the most modern network of hardware and software available, providing multi-constellation GNSS corrections. Open to any brand.
The business of surveying obviously has its dangers. We often hear of the dangers and sometimes fatal results of driving, and surveyors drive a lot. Field work can be extremely dangerous, especially when working on or near a roadway with high volume and/or fast-moving traffic. Simply stopping on the side of the road momentarily, to check a text, observe a field crew or view a unique boundary monument situation can be risky, depending where one parks. Performing field work where snakes are prevalent is obviously a dangerous setting. And then, there are all those sharp pointed objects and sharp tools necessary for field work, like nails and spikes, hammers, picks, prism rods, GPS rods, machetes, chain saws, and other cutting tools. All of these must be handled safely, used safely with proper PPE, and properly transported and stored.

What about around the office? There are plenty of opportunities that can become unsafe situations in and around an office, too. Electronics like computers and monitors, battery charging setups, overloaded power strips, flammable items stacked too close to portable heaters in winter, and more. If not handled properly, any of these will pose a danger to workers or create a fire hazard for many. Improper placement of power cords, inattention to wet floors, or poorly placed floor mats, torn or loose carpeting can create a slipping or tripping hazard to mitigate your risk.

The list of factors that lead to workplace injuries is long and contains many possible factors that cause or contribute to workplace injuries. The primary cause of most workplace injuries is unsafe conditions and unsafe acts. Both can almost always be mitigated and protected against to reduce risk of injury to the least amount possible, especially unsafe acts. If you are going to jump out of a perfectly good airplane while flying, you probably want to have a good parachute and know how to use it to mitigate your risk.

What are the most common causes of workplace injuries? The most common causes of workplace injuries are Distractions, Complacency, Poor Housekeeping, Poor Preplanning and Taking Shortcuts.

Distractions that compromise safety and interfere with one’s focus on the task at hand, including distracted driving, are many. In today’s world inattention or mental distraction can be caused by multi-tasking, noise, being too engrossed in conversation, clutter, poor habits such as eating and performing work and so on. Especially when driving, one should always devote all their attention to this task. Distracted driving not only involves the driver, but it affects passengers, drivers of other vehicles, and pedestrians.

“On a typical day, more than 700 people are injured in distracted driving crashes. Talking on a cell phone – even hands-free – or texting or programming an in-vehicle infotainment system diverts your attention away from driving.”

Complacency is another form of inattention. It results from one becoming so accustomed to performing a task or becoming overly comfortable with a task that the person loses focus and begins to take shortcuts or not follow best practices. Things that may be overlooked could pose a threat to safety. For example, consider someone who must continually work near traffic and the roadway while performing surveying tasks. After a while, this person may begin to tune out the traffic and focus on expediency while collecting data or making sure that a shot is as good as it must be. Lack of attention to these dangers can be fatal.

Poor Preplanning can easily create opportunities for unsafe actions or conditions. When the hazards of a new task or a new work location, or when sufficient time is not allowed, conditions and variables may not be properly analyzed prior to beginning work. Hazards may be left uncontrolled. Or if proper safety equipment, PPE or proper tools are not provided, yet work is expected to continue, a disastrous situation may result. In such a case, a time-out should be called, and the situation evaluated before continuing and risking an incident or injury.

Taking Shortcuts or cutting corners is usually a bad idea, especially when safety is compromised. Various reasons are often given for taking a shortcut, but when injury can result, there is no justifiable reason.

Poor Housekeeping contributes to safety issues both in the field and in the office. It can be a major issue in some workplaces and could be a sign of larger safety issues. The bad habit of poor housekeeping can be changed and by so doing, many potential incidents and injuries can be eliminated as well as lost time.

The most common workplace injuries are slips, trips, and falls. Recent traumatic injury data show:

- According to the Bureau of Labor Statistics in 2018, 27 percent of the 900,380 nonfatal work injuries resulting in days away from work were related to slips, trips and falls.
- Per the U.S. Census Bureau’s Current Population Survey the number three leading cause of work-related injuries treated in an emergency department was falls, slips, and trips without a fall.

A leading reason for such high numbers and lost time is poor housekeeping. We know that field work involves continuous exposure to the potential for slipping, tripping, or falling, but what about in the office?
Fortunately, hazards which can cause slips, trips or falls are also some of the easiest issues to eliminate. Slipping occurs when one experiences a loss of traction due to slippery floors that are wet due to bad weather, tracking in water and debris, spilled drink liquids not cleaned up and overwatering plants. If a floor is wet or slippery, clean it immediately before someone unknowingly discovers it by slipping. If you spill something clean up your spill immediately. Be responsible and proactive, do not wait for others.

 Loose carpets and improperly placed carpet runners or floor mats are common causes of tripping hazards. High traffic areas such as entry and exit areas are especially vulnerable. Always ensure that carpeting is properly attached and not ripped or torn. Ensure that runners are properly placed and any torn or worn carpets are repaired before someone trips and is injured.

 Improperly placed extension cords are a common tripping hazard. Those laid across hallways or in or near walking pathways can all too easily become a tripping hazard, too. If an extension or electric wiring must be laid in or near where employees walk, enclose them in a wire tray that is specifically made to protect the cord and keep it covered and in place.

 Clutter is not only unsightly, but also a deterrent to efficiency and can create an unsafe obstacle course leading to potential injury. Remove clutter to eliminate potential slipping and tripping hazards.

 Tripping hazards occur when files, boxes or objects are carelessly stacked on the floor near walking paths or stacked too high or inappropriately stacked on top of file cabinets. Heavy objects, stacks of books, files, boxes, and similar objects placed on top of cubicle bookshelves and file cabinets can also be a dangerous tipping situation. If the delicate balance is upset, the falling objects can hit or trip someone.

 Open drawers are also a tripping hazard. File drawers near the floor create a tripping hazard while other file drawers at higher levels create a laceration hazard if someone does not see the drawer. File drawers that are opened to access contents should always be closed immediately after accessed to remove the hazard.

 Large objects carelessly laid around or stacked randomly in open storage areas also becomes a tripping hazard. Store large items in an orderly fashion against walls or on shelves designed to carry the load.

 Never stack or store anything in front of an emergency exit or in such a way so that it impedes a quick exit in the event of an emergency. Always keep emergency exits completely clear.

 Also, never stack or store items where they impair access to a fire extinguisher. Fire extinguishers must be easily accessible. Improper wiring and setups, overloaded power strips, worn or frayed wiring and improperly sized extension cords for office machines, computer and monitor setups, battery charging stations or other electronic devices creates a shock hazard and a fire hazard. Never overload extension cords, power cords or power strips. Always replace these items when they become worn, frayed, or faulty.

 Survey Truck housekeeping is a safety concern, too. Survey crews must carry a variety of tools, objects that are sharp and that hammer, pierce, cut and prick hard surfaces. Items such as nails and spikes, hammers, picks, punches, chisels, sharp pointed prism rods and GPS rods, machetes, chain saws, and other cutting tools are a must for a well prepared field crew. If these types of tools and objects are carried without proper compartments for safe storage, they can pose a danger to the crew. Reaching for a cutting blade that is not in a proper sheath can quickly cut and cause serious injury.

 Maintaining good organization is good housekeeping. Keep equipment, tools, and supplies safely stored in compartments or toolboxes in the truck bed, safely away from the passenger compartment. A wreck could turn loose objects into flying hazards. Even instrument cases, lunch bags or other daily items carried inside of a truck cab could become a flying object in a traffic incident. Always keep them low and secure.

 The above mentioned are five of the most common reasons for workplace injuries. Our focus was mainly on housekeeping for safety. Housekeeping includes removing all opportunities for slips, trips, and falls, cuts and lacerations. Keep floors clean, do not track debris, excess dirt, or water into a work area. Clean up spills immediately, do not wait for the next person to find it, unexpectedly. Excess clutter, improper stacking of storage boxes, file boxes, supplies or any items in or near walkways or stairs can pose tripping hazards. Improper storage of boxes or objects on top of file cabinets or storing heavy objects high on upper shelves can create tipping over hazards. Most of the injuries that result from poor housekeeping are avoidable by being proactive and not allowing the situation to develop in the first place.

1 https://www.nsc.org/road/distracted-driving-awareness-month
2 Bureau of Labor Statistics (2020). TABLE R4. Number of nonfatal occupational injuries and illnesses involving days away from work by industry and selected events or exposures leading to injury or illness, private industry, 2018
3 U.S. Census Bureau’s Current Population Survey labor force denominator estimates were used to calculate annual rates.
Coming Events

View more details and register for coming events at www.tsps.org/calendar.

**January**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Hosted By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 20</td>
<td>LLSLS Forum</td>
<td>Mike Hoover</td>
</tr>
<tr>
<td>Jan 20</td>
<td>Education Committee Meeting</td>
<td>Stan Piper</td>
</tr>
<tr>
<td>Jan 21</td>
<td>Chapter Presidents Forum</td>
<td>Connor Brown</td>
</tr>
<tr>
<td>Jan 22</td>
<td>Governmental Affairs Committee Meeting</td>
<td>Steven Freeman</td>
</tr>
<tr>
<td>Jan 23</td>
<td>First Quarterly Board Of Directors Meeting</td>
<td>Preston Manfield</td>
</tr>
</tbody>
</table>

**October**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 6-9</td>
<td>2021 Convention &amp; Tech Expo</td>
<td>The Westin Galleria Houston</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5060 W Alabama Street</td>
</tr>
</tbody>
</table>

**February 2022**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 25-26</td>
<td>2022 Symposium</td>
<td>Odessa Marriott Hotel and Conference Center</td>
</tr>
<tr>
<td></td>
<td></td>
<td>305 East 5th Street</td>
</tr>
</tbody>
</table>
A Service Department scaled for fast turnarounds!

AllTerra Central’s Service Team is one of the biggest in the industry, with 13 Trimble Certified Technicians and 5 locations.

Why trust AllTerra Central for your service & repair?
• 13 Trimble Certified Technicians on site
• 5 Service Centers
• Easy online Service Request Form at allterracentral.com
• Fastest average turnaround in the industry
• Authorized Trimble Service Centers
• Level 3 Service Provider
• Certificate of Calibration with every instrument repair
AllTerra - Mapping & GIS Specialists

Offering sales, rentals, support and training of handhelds with GNSS, receivers, antennas, data collectors, software and accessories.

AllTerra carries the full line of Laser Tech's TruPulse Rangefinders!

Visit allterracentral.com/trupulse