



The
Interior
angle

2020:
A Clear
Vision
for the Decade

Kentucky Association of Professional Surveyors

Winter 2019, Issue 4



Interior

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angle

The Interior Angle is the official publication of the Kentucky Association of Professional Surveyors (KAPS). It is published quarterly to communicate with the professional surveying community as well as those in related professions and others with an interest in surveying. The Interior Angle is financed primarily by membership dues, although advertisements are welcome from service and product industries relating to the needs and activities of the profession. The Interior Angle is provided to KAPS members and similar organizations on a complimentary basis.

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Editor — The Interior Angle
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Letters must be signed and include a daytime telephone number. The name of the letter's author may be withheld if requested. Letters may be edited for clarity and length.

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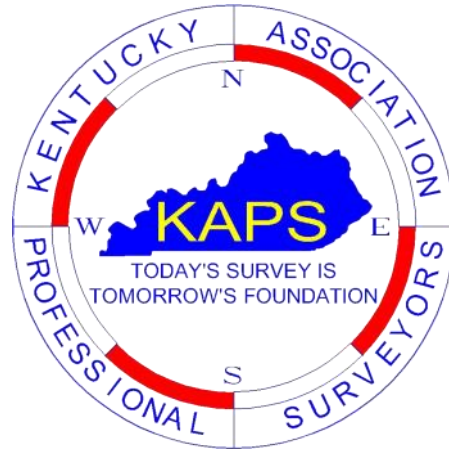
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PLEASE NOTE: Due to limited office hours, email is the best way to reach us! Jackie@KAPS1.com
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Boundary Stone	Mike Ladnier, PLS
Board of Licensure Nominations	Jason Graves, PLS
Continuing Education Hours	Nick Jerdon, PLS

Page 23 for Details!

2020 KAPS Conference 2/5—2/8

At the Clarion in Lexington, Kentucky



Greg Barker, PLS

2019 President, Gbarker@vioxinc.com, 859-727-4500

From the President's Desk



Wowie kazowie do we have news for you survey pros and wannabes!

First, I hope this letter finds you well, happy, and full of hope looking toward 2020. For most of us the holidays were a tremendous blessing with family and friends. For others they came with new challenges and hills to climb. Let us remember to continue to show support for each other in 2020.

2020 KAPS CONFERENCE

February 5 – 8, 2020 in Lexington, KY

at the Clarion Hotel Conference Center North, 1950 Newtown Pike, Lexington, KY 40511

The Annual KAPS Conference is up on our website. You have got to check out the line up! Early registration is encouraged to reserve your seat. We are fortunate to have so many talented individuals who are willing to step up, put themselves through the arduous task of organizing course work, and sharing their knowledge with all of us. Please join us in February.

John St Clair has done a remarkable job reviewing the applications for scholarships.

John continues to be the steady hand with our applicants. He takes each application and applies our standard and rating system to them without prejudice. Thank you, John for your diligence.

THE GOLF OUTING IS COMING.

My Old KY Home State Park is the place to be on *Friday June 12th*. The official Tee Off is 9:30 eastern time (**tee off**, Golf. to strike the ball from a **tee**. **Slang**. to reprimand severely; scold) Get ready to verbally abuse your.... we'll let

that go. The fun packed annual, picnic will follow.

More details will be available soon. Keep your eyes on that KAPS web page (www.kaps1.com). Side note, if you haven't liked our Facebook page now is a great time to do it.

Here goes my mostly plagiarized winter safety tip! (From the Orthopedic Institute of Pennsylvania)

Prevention is always the best method to avoid a slip or fall on icy days, and there are a few things you can try to keep you and your family safer:

- Wear proper footwear made for icy and snowy conditions. For you armchair surveyors, don't wear dress shoes in ice. Geez.
- Keep your stride shorter and avoid long steps. Walk like a penguin (to the tune of "Walk Like An Egyptian" and be happy.
- Slow things down — try not to rush or run outdoors. Unless you're a field guy, then hurry the heck up.
- Keep de-icer or sand on hand for when things get slippery around your house. For the accident prone, fill your pockets before leaving the house.
- In case of injury, always have your cell phone handy. Peel your eyes off of the text and call 911.
- If you need to do outdoor chores, take your time and don't hurry. Field crews ignore this rule. Armchair surveyors, you are not 21 anymore, you've put on 50 pounds since moving into the office, call the neighbor kid to shovel that snow.

In all seriousness, slow down, be cautious and live to see another day.

Peace to you and yours, see you in February.

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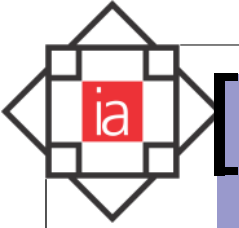


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The Long Goodbye: Fate of the US Survey Foot

The time of the US Survey Foot, is coming to an end. In conjunction with the upcoming change from North American Datum 83, to North American Terrestrial Reference Frame of 2022 (NATRF2022), we can also expect to see the International Foot, become the one foot to rule them all. Only Lord of the Rings fans will appreciate the previous reference, but I think all surveyors can agree, this might cause some stir in the community. In a nutshell, NGS believes 2022 is the time to eliminate our current dual definition of the foot. The US Survey Foot is not universally accepted in all 50 states and territories, and especially when applied to large coordinate values, has been a source of confusion and inconsistency. Please see the link below to a webinar by Dr. Michael Dennis, of the National Geodetic Survey, for a more expansive history and some of the reasoning behind why this change is needed. You can also reference an article by Jeff Jalbrzikowski, (Appalachian Regional Advisor with the National Geodetic Survey) on the 2022 datum change, in the 2019 Summer issue of the Interior Angle. Back issues are available on the KAPS website.

After watching the above-mentioned webinar, I was surprised to learn (might not be a surprise to some), that Congress authorized the use of the metric system all the way back in 1866. In 1893, metric standards were adopted as the fundamental standards for length and mass in the United States. Our customary measurements -- the foot, pound, quart, etc. -- have been defined in relation to the meter and the kilogram ever since. The foot (not called Survey Foot yet), was recognized as 1200/3937 of a meter. In the following years, the Federal Government made several legislative attempts at the "metrication" of the American public. The application and enforcement of these efforts of course never really stuck. Road signs are still in miles, the thermometer still reads in Fahrenheit, and milk is still in gallons. However, in 1959 there was an official split in the definition of what the relationship of foot is to the meter. National Bureau of Standards adopted the "new" foot as exactly 0.3048 meters. Doesn't sound so bad, right? Well they made an exception for "geodetic survey" measurements, that would retain the old definition of 1200/3937 of a meter, that comes out to be a difference of 2 parts per million, or approximately 0.01 feet per mile.

In his webinar, Dr. Michael Dennis contends there is language built into the 1959 regulation that allows the US Survey Foot definition to be readjusted in the future, "when desired and expedient." One can argue if the adjustment is desired or expedient, but there is little doubt it's coming. When put side by side with the overall spectrum of changes the 2022 datum will bring, the termination of the US Survey Foot does pale in comparison. NGS's mantra of "this is about the future" is hard to dispute. Of course (as my daughter would attest) I'm a count to three and rip that Band-Aide off all at once kind of person.

State legislation regarding State Plane Coordinate systems would have to be changed to adopt the International Foot Definition. It is no surprise that there is variability from state to state when it comes to what they define as a foot in said legislation. Some do not define it at all. It is Dr. Michael Dennis's opinion that NGS has the constitutional authority to set the standards of the foot, and he very well may be right. There are already six states that have International Foot definitions. Kentucky is not one of them. Kentucky was however, the first state in the US to hand over their design for the new low distortion zones and revised single zone. Legislation to enact the 2022 Datum is already being drafted. We should ask ourselves, "doesn't makes sense to fall in step and correct the dual definition issue now, while laws regarding the State Plane Coordinate System will be changing anyway?"

So, what would this exactly mean to our everyday survey operations? The most important point to consider, is that this is not a distance issue, it's a coordinate issue. Yes, there are deed records, and plat records in countless depositories, referenced to US Survey Feet. The question that must be asked though, is "when was the last time you ran a line from a deed or plat that was over a mile long?" The fact is, the difference over a single measurement for a parcel of property is imperceptible. What is very much real though, is the occurrence of coordinate transformations gone awry due to confusion over the current competing definitions of International Foot verse US Survey Foot. Just look at any message board pertaining to software that does not have a definition of the US Survey Foot built in. Especially

(Continued on page 7)



3D based software like Revit for example. Survey data sets that are based on large State Plane Coordinates, must be either scaled by 2 ppm or reduced to assumed small coordinate systems, to make the difference negligible. If we want transfer survey and mapping data across software platforms, sharing data from state to state, and even internationally in our ever-increasingly virtual world, a single standard of measure could eliminate possible miscalculations that cost time and money. Hopefully, as the 2022 Datum draws closer, NGS will offer beta testing for some of the reverse compatibility software they are promising. Decades of data needing to be converted, is a daunting idea, but one of the earliest and most honed skills of any good surveyor is to be adaptable and a problem solver. The consistency that will result will be worth the effort.



[Link to Dr. Michael Dennis webinar:](https://www.ngs.noaa.gov/web/science_edu/webinar_series/fate-of-us-survey-foot.shtml)
https://www.ngs.noaa.gov/web/science_edu/webinar_series/fate-of-us-survey-foot.shtml

(click the link to open the webinar)

Justin Drury, PLS, TIA Editor & Contributor, teaches surveying seminars on cemetery law.



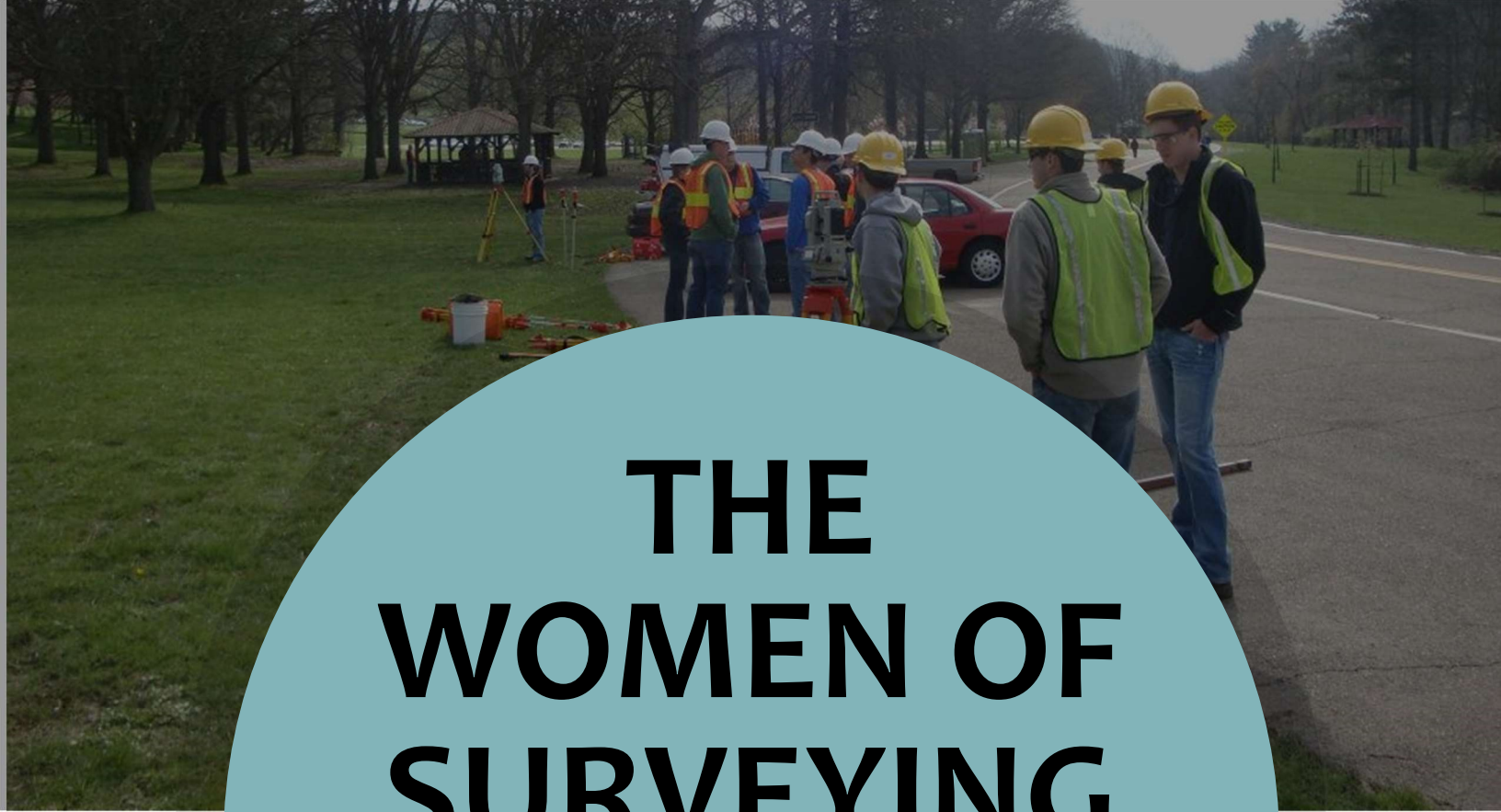
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THE WOMEN OF SURVEYING

You're invited to be part of a promotional effort to get women into land surveying. This will be held at the KAPS Annual Conference February 6th & 7th, 2020 in Lexington, Kentucky!

To schedule a time to participate or if you have any questions, please contact Cara Morman at cmmorman@cincinnatiastate.edu.

Interviews will last no more than 30 minutes.

Please be willing to share information about yourself in a video recorded interview, take part in group pictures, and encourage our future generations to join our field.

2019 KY State Board of Licensure Board of Directors

The Kentucky State Board of Licensure for Professional Engineers and Land Surveyors (KYBOELS) was established by the General Assembly in 1938 to protect the public health, safety and welfare. This is accomplished through the licensing and monitoring of individuals and firms deemed qualified to practice.

Among the services KYBOELS provides to engineers and surveyors and the public are licensure, reciprocity, examinations, and investigations and regulatory compliance. KYBOELS is not associated with the Kentucky Society of Professional Engineers; however, KYBOELS resides in the Kentucky Engineering Center as a leasee of KSPE.

Statutes and regulations regarding engineering and surveying law in Kentucky are available on the KYBOELS website, <http://kyboels.ky.gov>. If you have specific questions not addressed here, please contact the board office at 800-573-2680 or 502-573-2680.

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Kentucky State Board of Licensure Calendar of Events 2019

April 5	PE, STR Vertical Exams	Louisville
April 6	STR Horizontal Exam	Louisville
April 25	Committee Meetings	Frankfort
April 26	Board Meeting	Frankfort
May 16-18	NCEES Joint Western/Southern Zone Mtg.	Boise Idaho
July 25	Committee Meetings	Frankfort
July 26	Board Meeting	Frankfort
August 14-17	NCEES Annual Meeting	Washington D.C.
October 24	Committee Meetings	Frankfort
October 25	Board Meeting	Frankfort
October 24	PE, STR Vertical Exams	Louisville
October 25	STR Horizontal Exam	Louisville

2019 Chapter Chairs

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Mike Ladnier, PLS
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Barren River



Chris Higgins, PLS
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Bluegrass-Capital



Tim Tong, PLS
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Falls of the Ohio



Mike Billings, PLS
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Green River



Bob Smith, PLS
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Highlands



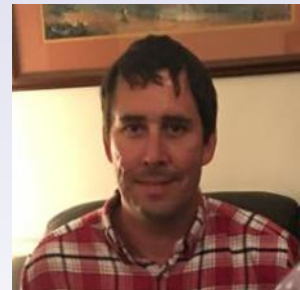
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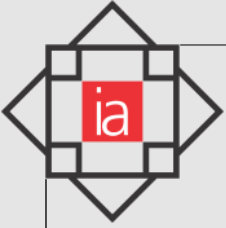
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Follow & "like" KAPS on Facebook to see KAPS Chapter meetings, events, reminders, job opportunities & more! <https://www.facebook.com/68KAPS>



James Ed Manning, Executive Director

Kentucky State Board of Licensure for Professional Engineers and Land Surveyors
Kentucky Engineering Center, 160 Democrat Drive, Frankfort, Kentucky 40601

The Board of Licensure Report

October 2019

Firm Renewals

All Firm Permits (also known as Business Entity Permits) expire December 31, 2019. The online firm renewal system is open and accepting renewal payments at:

<https://kyboels.ky.gov/Renewals/Pages/default.aspx>

Be sure to select the “**Online Firm Renewal**” option; not the individual renewal option. Renewal takes only a few minutes and you can pay the renewal fee online with a credit card. Renewal Notices were mailed in late October.

Firms which renew after December 31 will be assessed a 10% per month late payment penalty. Firms which remain expired for more than one year must file an application for reinstatement of the firm’s permit.

Late Individual Renewals

If you missed the June 30 renewal deadline for renewal of your individual PE license (odd number years for A-K and even number years for L-Z), you have up to one year to renew using the online renewal system. The system will automatically calculate a 10% per month late renewal penalty. Please be aware that anyone who renews on or after September 1 of his or her renewal year is subject to an automatic continuing education audit.

The late renewal provision notwithstanding, practice on an expired license is prohibited. While your license is expired, you cannot practice, offer to practice, or represent to the public that you are a professional engineer or professional land surveyor. Each of these acts constitutes unlicensed practice and can result in disciplinary action.

Any licensee whose license remains in expired status

for more than one year must apply for reinstatement before returning to active practice.

For all these reason, please renew timely. Be sure to check your address in our system using the searchable roster at: <http://elsweb.kyboels.ky.gov/kboels-web/Searchable-Roster.aspx>

Also, please mark your own calendar so you know when your firm and/or individual renewals are due. Even though we send a Renewal Notice in the mail, you are solely responsible for ensuring that your license(s) and permit(s) are renewed in a timely manner.

Wallet Cards Discontinued

We continue to receive inquiries from time to time regarding wallet cards. We no longer issue wallet cards for renewed permits or licenses and have not done so for several years. You can check and print information regarding the status of permits and licenses using our online searchable roster, which is updated nightly.

<http://elsweb.kyboels.ky.gov/kboels-web/Searchable-Roster.aspx>

Continuing Education Audits and NCEES Continuing Education Tracking System

Random Continuing Professional Development (CPD) audits went out in early September. If you have received an audit notice and have not yet replied to it, please contact Tamra Chesser at the Board office immediately. Failure to respond to a CPD audit within 30 days can result in disciplinary action.

The National Council of Examiners for Engineering

(Continued on page 14)



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and Surveying (NCEES) offers a free continuing education tracking system where you can enter your continuing education courses, scan and store documents such as completion certificates, and transmit them electronically to us if you are selected for audit. The link to the free tracking system is available on our website at:

<http://kyboels.ky.gov/Already-Licensed/Pages/Continuing-Education.aspx>

Please take advantage of this free service.

Multi-State Licensure and the NCEES Record

For a variety of reasons, many licensed professional engineers and professional land surveyors find it necessary to obtain a license in more than one state. The NCEES Records program was developed in response to this need. It provides an easier and faster way to complete the licensure process in multiple jurisdictions, including all 50 states, the District of Columbia, Guam, Puerto Rico, Northern Mariana Islands, and the U.S. Virgin Islands. An established NCEES Record will include most—if not all—of the materials you need to apply for comity licensure in additional states and territories.

I recently checked the current requirements for licensure and found that of the approximately 74 PE and PLS licensing jurisdictions across the US and its territories, 50 of them now accept the NCEES Record in satisfaction of all or nearly all of the information required to apply for a PE or PLS license. In these states, the NCEES Record lets you eliminate having to resubmit your college transcripts, exam results, employment verifications, and professional references every time you apply.

If you were licensed in Kentucky in the last few years, you already have an NCEES record. If you don't have an NCEES Record and want to apply for licensure in an additional U.S. state or territory, consider applying for an NCEES Record. NCEES will review your materials and, after your Record is

established, electronically submit them directly to the licensing board on your behalf. This saves time and simplifies the application process when you need to practice in multiple states and territories. **BOL**

Calendar of Events 2020

- ◆ January 30 Committee Meetings Frankfort KY
- ◆ January 31 Board Meeting Frankfort KY
- ◆ April 17 PE, SE Vertical Exams Louisville KY
- ◆ April 18 SE Lateral Exam Louisville KY
- ◆ April 16 Committee Meetings Frankfort KY
- ◆ April 17 Board Meeting Frankfort KY
- ◆ April 23-25 NCEES Southern Zone Meeting Houston TX
- ◆ July 30 Committee Meetings Frankfort KY
- ◆ July 31 Board Meeting Frankfort KY
- ◆ August 26-29 NCEES Annual Meeting Chicago IL
- ◆ October 22 Committee Meetings Frankfort KY
- ◆ October 23 Board Meeting Frankfort KY
- ◆ October 23 PE, SE Vertical Exams Louisville KY
- ◆ October 24 SE Lateral Exam Louisville KY

ENFORCEMENT ACTIONS SUMMARY

For The Period

July 27, 2019– October 25, 2019

Kyle Elliott, Director of Enforcement

ERNEST H. RUCKERT, III

In 2018, the Board of Licensure discovered that Mr. Ruckert, who is a licensed professional engineer in the state of New York, had in 2017 submitted conceptual building design plans, including outline specifications and structural detail drawings for a commercial building project in Campbellsburg, KY, for a fee. Mr. Ruckert does not now, nor has he ever held a professional engineering license in the Commonwealth of Kentucky. The actions of Mr.

(Continued on page 15)

...Ruckert constituted a violation of KRS Chapter 322, the unlicensed practice of engineering. To resolve the Board's investigation, Ernest H. Ruckert, III, entered into an Agreed Injunction, which enjoins him from engaging in the unauthorized practice of engineering, or offering to practice engineering in Kentucky, until and unless he should become licensed in Kentucky. No penalty was assessed for the current violations, however, the Agreed Injunction calls for a \$1,000 fine and seven (7) days in jail for any future violations. The Agreed Injunction was entered into Franklin Circuit Court on September 11, 2019.

HOWARD BRENT WILSON, PLS

In March of 2016, the Board received a written complaint regarding Mr. Wilson's surveying practice and alleging standards of practice violations. A subsequent investigation found that Mr. Wilson failed to meet the standards of practice for boundary surveys in Kentucky on three surveys from 2006, 2008 and 2013. Mr. Wilson also failed to retain permanent copies of some of his survey work product for the

three surveys reviewed. An expanded review of six recent plats by Mr. Wilson also found systemic failures in him meeting the standards of practice. In addition, Mr. Wilson identified himself on his surveying plats as "Brent Wilson Surveying", a business entity, for which he did not hold a land surveying permit. Mr. Wilson agreed to end the Board's investigation and enter into a consent decree. In that Consent Decree, Mr. Wilson elected to surrender his license as a professional land surveyor in Kentucky.

DANIEL A. HERRON, PE

In early September of 2019, Mr. Herron was notified by mail that he had been selected at random for an audit of his continuing professional development. Mr. Herron was unable to provide any proof of continuing education credit for calendar years 2009 - 2018. In addition, Mr. Herron failed to notify the Board of his deficient professional development hours. To resolve the Board disciplinary matter, Mr. Herron agreed to enter into a consent decree with the Board. In that Consent Decree, Mr. Herron elected to surrender his professional engineering license in Kentucky.

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February is American Heart Month

Join Together To Protect Your Heart and Celebrate #OurHearts During American Heart Month

Did you know that people who have close relationships at home, work, or in their community tend to be healthier and live longer? One reason, according to the National Heart, Lung, and Blood Institute (NHLBI), is that we're more successful meeting our health goals when we join forces with others. To underscore this point and mark American Heart Month this February, NHLBI is launching the #OurHearts movement, to inspire people to protect and strengthen their hearts with the support of others.

Here are some facts, how-to tips, and resources to inspire you to join with others to improve your heart health.

Heart disease is a leading cause of death in the United States. Most middle aged people (90 to 95 percent) and young adults (75 to 80 percent) have one or more risk factors for heart disease, such as diabetes, high blood pressure, or high blood cholesterol, or being a smoker or overweight. Having more than one risk factor increases your risk for heart disease much more than having just one.

Why Reaching Out Is Good

Having positive, close relationships and feeling connected with others benefits our overall health, including our blood pressure and weight. Having people in our lives who will motivate and care for us helps, but having feelings of closeness and companionship helps our health too.

Making the following [heart healthy lifestyle changes](#) will be easier and more [successful if you work with other motivated people](#):

- Get physically active.
- Achieve a healthy weight and maintain it.
- Eat heart healthy foods.
- Quit smoking.

Remember, you don't have to make big changes all at once. Small steps will get you where you want to go. Here are some tips to get you going.

Move More

Invite family, friends, colleagues, or members of your community to join you in your efforts to be more [physically active](#):

- Ask a colleague to walk with you on a regular basis, put the date on both your calendars, and text or call to make sure you both show up.
- Join an exercise class at your local community center and bring a neighbor along. Carpool to make it a regular date.
- Grab your kids, put on some music, and do jumping jacks, skip rope, or just dance.
- Make your social time active and encourage everyone—family and friends alike—to think of fun things that get you off the couch and moving.

If you have a health condition, including heart disease or high blood pressure, talk with your doctor before increasing your activity.

How much is enough? Aim for at least 2½ hours of physical activity each week—that's just 30 minutes a day, 5 days a week. In addition, do muscle strengthening exercises 2 days a week. Can't carve out a lot of time in your day? Don't chuck your goal, chunk it! Try 10 or 15 minutes a few times a day. NHLBI's [Move More fact sheet](#) provides ideas to get and keep you moving.

Aim for a Healthy Weight

If you're [overweight](#), find someone in your friend group, at work, or in your family who also wants to lose weight. (Every little bit can help!) Check in with them regularly to stay motivated or join a weight loss program together. Do healthy activities together, like walking or playing on a neighborhood sports team, and share low-calorie, low-sodium meals or recipes. (Pregnant women should not try to lose weight, but they can exercise.)

Eating Heart Healthy

We tend to eat like our friends and family, so ask others close to you to join you in your effort to eat healthier. Need healthy eating ideas? Try NHLBI's [Dietary Approaches to Stop Hypertension \(DASH\)](#) eating plan. It's free and scientifically proven to lower blood pressure and improve blood cholesterol levels.

Quit Smoking

To help you quit, ask others for support or join a support group. Research has shown that people are much more likely to quit if their spouse, friend, or sibling does. Social support online can also help you quit. All states have quit lines with trained counselors—call 1-800-QUIT-NOW (1-800-784-8669). You'll find many free resources to help you quit, such as apps, a motivational text service, and a chat line at the websites [BeTobaccoFree.hhs.gov](#) and [Smokefree.gov](#).

If you need extra motivation to quit, consider the health of your friends and family: Being around other people's smoke, called secondhand smoke, is dangerous. Thousands of adult *nonsmokers* die of stroke, heart disease, and lung cancer caused by secondhand smoke.

Visit [#OurHearts](#) for inspiration on what others around the country are doing together for their heart health. Then join the #OurHearts movement and let NHLBI know what you're doing with friends, family, or others to have a healthy heart. Tag #OurHearts to share how you're being heart healthy together.

For more information, visit <https://www.nhlbi.nih.gov/health-topics/education-and-awareness/heart-month>

About

345,000

people in Kentucky
have coronary heart disease.



This is the most common form of heart disease and can often be prevented. **#OurHearts** are healthier when we move more, eat healthier, get enough sleep, reduce stress, and quit smoking—together!

Learn more at hearttruth.gov.

Source: CDC Behavioral Risk Factor Surveillance System (BRFSS) Survey Data, 2016.

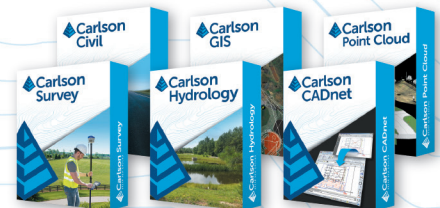
Show Specials!

For Carlson Software and Hardware*

Carlson Pick 4 Suite

Pick Any 4 Modules: Survey, Civil, GIS, Hydro, CADnet, or Point Cloud Basic Maintenance to September 1, 2020

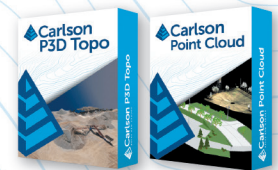
\$3,125*
Save \$1,220



PhotoCapture, P3D Topo, Point Cloud

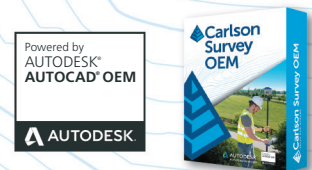
CPC 50GB + P3D Topo + Point Cloud Basic + Maintenance for **\$3,500. Save \$1,495**
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*Offers expire 2/29/20 or while supplies last. Valid in the United States & Canada only. All pricing shown in USD.

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Carlson Software Inc.
33 East 2nd Street ■ Maysville, KY 41056
www.carlsonsw.com



JA Inspire 2019

November 14, 2019

Mr. Jason Graves

Kentucky Association of Professional Surveyors

P.O. Box 211418

Louisville, KY 40221

Dear Jason:

We at Junior Achievement are in awe of your commitment of both funds and mentoring at this year's JA Inspire. The interactive exhibits along with your caring words allowed students insight into your world of work. You gave them new dreams that, hopefully, will become reality in the not so distant future.

We received thank you notes from the students and have enclosed some for you to share with your colleagues. Your guidance is "the secret sauce" in a students' career exploration process. JA Inspire is not just a career fair, it is a life fair.

Also enclosed is an evaluation of JA Inspire commissioned by Junior Achievement USA from the Cicero Group. We think you will find it interesting as it is evidence that your time and commitment are making a difference!

Finally, we hope you will save the dates October 27-29, 2020 for next year's JA Inspire! Thank you so very much for all you do for the kids!

Sincerely,



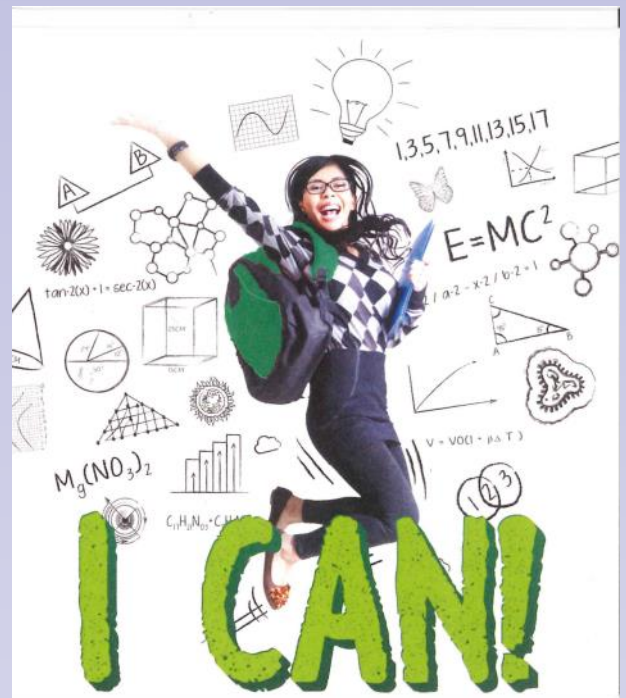
Debra H. Hoffer President

Thank you for offering this opportunity to learn more about careers and talk to actual people that are invested in the job. The drone really interested me!

Thank you notes received from the students who visited the KAPS booth.

To be honest I see you on the highway and did not know what you were doing. Thank you for explaining to me and letting me look at your equipment. It is an interesting job that I could do.

oliver





JA Inspire



JA Inspire

Evaluation: May 2019

The *JA Inspire* program seeks to help 8th and 9th graders map out a plan for success in their careers, furthering JA's mission to inspire and prepare young people to succeed in a global economy.

Student Attitudes

80% agreed they felt better prepared to make informed decisions about high school plans after participating in *JA Inspire*.



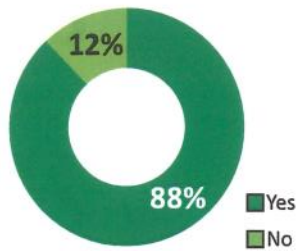
Sixty-eight percent of students felt that they were able to get their questions about their careers of interests answered at *JA Inspire*.

79% agreed the things they learned in *JA Inspire* will help them be successful in life.

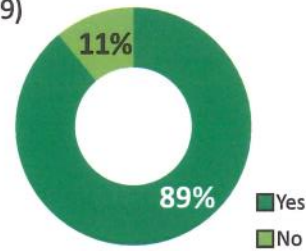


Seventy-nine percent of students felt they benefitted from participating in *JA Inspire*.

I felt prepared for *JA Inspire* experience. (n=159)

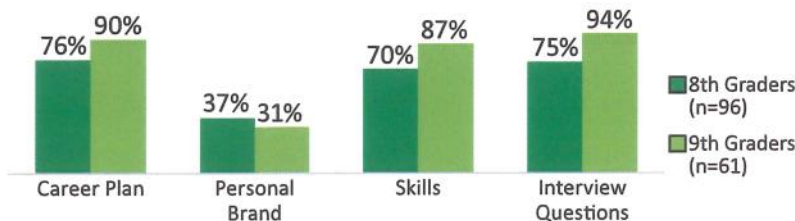


Today I learned about a new career, or more about a career of interest. (n=159)



Student Knowledge

Student Performance by Grade



Students reported after the program that they learned new skills or information at *JA Inspire*, including how to make a strong first impression and ask good interview questions. Students also indicated that *JA Inspire* made them realize the importance of staying in school.

EXCELLENCE IN VERSATILITY

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SP85

The new Spectra Geospatial® SP85 is a next-generation GNSS receiver combining decades of GNSS RTK technology with revolutionary GNSS processing. 600-channel "7G" chipset coupled with patented Z-Blade™ technology, it's optimized for tracking and processing signals from all GNSS constellations in challenging environments.

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The Spectra Geospatial® SP60 GNSS receiver has been designed to meet a multitude of needs of surveyors or location professionals. Extremely scalable and versatile, the SP60 can be used for virtually any task from simple GIS workflows to the most demanding surveying jobs.



FOCUS 35

The FOCUS 35 robotic total station delivers high speed, accuracy and precision measurement for improved efficiency. The speed of observation and precise positioning results from patented StepDrive™ motion technology that controls the horizontal and vertical motion of the motors, eliminating the need for traditional motion locks. Combined with Survey Pro software, the FOCUS 35 provides a world-class solution for any surveying application.



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adam@yourprecision.com



Saturday, September 14, 2019 at 10 a.m.

Kentucky Engineering Center, 160 Democrat Drive, Frankfort, KY 40601

KAPS Board of Directors

CALL TO ORDER

KAPS 2019 President

PROXY VOTES:

Mike Billings to Jason Graves (rcv'd May 21, 2019)

MEMBERS PRESENT

Greg Barker – President, Josh Calico – Past-President, Jason Graves – Director/Secretary, Tom Bushelman – Director, Jonathan Payne – Director, Justin Drury – Director, Chris Higgins – Barren River Chair, Matthew Clark – Jackson Purchase Chair, Curtis Felts – South-East Chair, Mike Ladnier – Audubon Chair, Kevin Phillips – Vice-President of Internal Affairs, James Mayo – Director/Treasurer, Mike Billings – Falls of the Ohio Chair, Tim Tong – Bluegrass/Capital Chair, Johnny Justice – Highlands Chapter Chair

STAFF PRESENT

none

GUESTS PRESENT

Kyle Elliont – KYBOELS Director of Enforcement

MEMBERS ABSENT

Craig Palmer – NSPS Director/KAMP Liaison, Randy Long – Northern Kentucky Chair, John St. Clair – Scholarship Committee Chair, Bob Smith – Vice-President of External Affairs, Rich Murphy – Director,

PRESIDENT'S WELCOME

President Greg Barker welcomed everyone to the meeting and thanked them for making their effort to make the meeting. Introductions were made. Special thanks were made to Jon Payne for his efforts on getting together the online Minimum Standards & Ethics and Jason Graves for his help in keeping things moving forward.

ADDITIONS OR REVISIONS TO THE AGENDA

Kyle Elliott Speaking

With the recent adding of online courses to the KAPS continuing education offerings, the use/allocation of funds from said seminars needs to be discussed since no chapters will be offering these courses. Jon Payne made a motion to the following: First use the funds to cover any and all costs (as a percentage) associated with presenting the course (website fees, paying course developer, certificates, mailing, etc.); Second use of funds is to cover any deficit which may exist in KAPS general fund; Third use of funds is to pay for the raffle item used for the scholarship fund (\$2500.00); and Lastly place any remaining funds into the annual scholarship fund. Jason Graves seconded. Motion carried.

REVIEW AND APPROVAL OF BOARD MEETING MINUTES

The minutes of the June 14, 2019 meeting were reviewed. Josh Calico made a motion to approve the minutes. Mike Ladnier seconded. Motion carried.

KAPS OFFICER REPORTS

President's Report – No Report

President Elect's Report – No Report

Treasurer's Report – Jackie has attached a Balance sheet and Profit/Loss report.

Administrative Assistant's Report – Submitted

OLD BUSINESS

a) Next KAPS Board Meeting, September 14, 2019 at Kentucky Engineering Center

b) KAPS Giving a \$500. Award to TRIG-STAR winner. Damien Schwarber was the winner.

c) Striking ByLaws that state that KAPS will set aside \$1000.00 or 10%, whichever is greater, in the scholarship account. This is based on the idea of all of the additional work that KAPS now does to contribute to the scholarship fund (i.e. golf outing, silent auctions, etc.) – Will need to be voted on by general membership.

d) NSPS MOA – Vote was made, at prior meeting, to not do anything and let it stay “as-is”

e) Creating a Board for 501c3 (Scholarship chair as acting President, KAPS President as Secretary and a KAPS member at large as Treasurer)

f) Yearly financial oversight of chapters

g) Agreement to maintain current membership distribution formula to chapters

NEW BUSINESS

a) Next KAPS Board meeting – Saturday, December 7th 2019 Frankfort, KY

b) Need volunteers for Kentucky Construction Days – September 24 & 25, 2019

c) Need volunteers for Junior Achievements INSPIRE – October 22-24, 2019

(Continued on page 22)

d) Pre-Approval of courses – Jon Payne wanted KAPS to consider stop getting pre-approval for courses. Jason Graves suggested an internal review and potentially offer “KAPS Approved” courses.

EX-OFFICIO DIRECTORS REPORTS

GIAC Liaison – no written report. The GIAC will take the lead on the 2022 NGS adjustment to State Plane Coordinate Systems and the area divisions of Kentucky. Goal is to create low distortion projections. NGS is considering doing away with the US Survey Foot (1m = 3.280833333 ft.).

KAMP Liaison – no report

KY State Board of Licensure Liaison – report submitted

KSPE Liaison – no report

NSPS Director – no report

Professional Development Chair – no report.

CHAPTER REPORTS

Audubon – no report

Barren River – no report

Bluegrass-Capital – no report

Falls of the Ohio – Report submitted

Green River – no report

Highlands – no report

Northeast (inactive) – no report

Northern Kentucky – no report

Purchase – no report

Southeast – Report submitted

COMMITTEE REPORTS

Annual Conference – No written report

Annual Golf Outing and Picnic – no report

By-Laws – no report

County Surveyors – no report

Education – no report

Ethics and Professional Practice – no report

Finance – no report

Legislative – no report – Jon Payne recommended requiring a Boundary Surveying course for licensing in the core curriculum.

Membership – no report

Nominating – no report

Past Presidents – no report

Policy Manual – no report

Public Relations – no report

Publications / Newsletter – no report

Scholarship – no report

SPECIAL COMMITTEE REPORT

KY / TN State Line Monument – no report

Board of Licensure Nominations – no report

State Plane Coordinate Committee – no report

ADJOURNMENT

Tom Bushelman made a motion to adjourn. James Mayo seconded. Motion carried. Meeting adjourned.

Submitted by Jason Graves, PLS, Secretary

KAPS Annual Conference Friday Banquet Entertainment

Tim McClendon

Tim McClendon was born a preacher's kid in a Southern California beach town. Growing up on his dad's Christian summer camp in the San Bernardino Mountains gave him a unique outlook on life. Tim has always been funny. When his youth pastor let 14-year-old Tim teach a lesson it resembled more of a stand-up act than a sermon.

After graduating from college, Tim got married, started a family and moved to the Midwest. After only a short time working in comedy clubs, a booking agency noticed Tim's clean funny act and began offering him paying gigs regularly. Tim's act revolves around his family, and is a champion for all the other "good enough" husbands, fathers and the wives that put up with them.

Since those beginning years, Tim has appeared on the nationally syndicated "The BOB & TOM Show" and Sirius XM Satellite Radio. He headlines some of the premiere clubs in the country, and worked many corporate and private events. Tim traveled with the Midwest Clean Comedy All Stars for five years.

Don't miss this fun evening of delicious food, camaraderie, and hilarious fun!



2020: A Clear Vision for the Decade

WHEN

February 6-8, 2020

WHERE

Clarion Hotel
Conference Center

1950 Newtown Pike, Lexington, KY 40511

FEATURING CLASSES ON • Boundaries from Research to Resolution • Easements and Access Issues • Riparian Rights • Professional Liability & Drones • Trimble Least Squares Adjustment • BIM • MTS • Agricultural Exemption • Elevation Certificates • And More!

WWW.KAPS1.COM



KAPS ANNUAL CONFERENCE

KAPS MEMBER PRICES

\$350 Full Registration
\$220 One Day Registration

NON-MEMBER PRICES

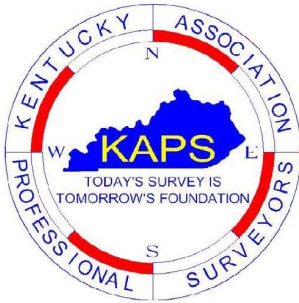
\$625 Full Registration
\$320 One Day Registration

FRIDAY BANQUET ENTERTAINMENT

Tim McClendon
from the
Midwest Clean Comedy
All-Stars

RAFFLE PRIZES

Yeti Cooler
Machete
Camping Gear
Go Pro
& much more!



Kentucky Association of Professional Surveyors

P.O. Box 211418 * Louisville, Kentucky 40221 * (502) 695-2349 * www.kaps1.com

December 12, 2019

Dear Surveyors, Vendors, and Guests:

I would like to extend an invitation for you to join KAPS at our annual conference to be held on Thursday, February 6 through Saturday, February 8, 2020. Early registration will begin on Wednesday with seminars being held on Thursday, Friday and Saturday. The 2020 KAPS Conference will be at the Clarion Hotel Conference Center in Lexington, Kentucky.

I encourage each of you to take advantage of this opportunity to join in fellowship with your colleagues from across the state. Attending the conference offers an excellent opportunity to discuss surveying with a group of people who understand and experience your interests and concerns about our profession.

In addition to the camaraderie with fellow surveyors, you also have the opportunity to attend continuing professional development courses covering subjects such as boundary law, new technologies, ethics, and more. We have a great set of presenters arranged for the year and they have really put together some useful information for those in attendance to learn from.

If you plan to attend the conference and are not currently a KAPS member, please consider joining. KAPS presents a very strong voice for the entire surveying profession within Kentucky. Your membership in KAPS also includes membership in the National Society of Professional Surveyors. With this dual membership, you can stay informed and voice your opinion concerning issues affecting surveying locally and nationally. KAPS also hosts fall seminars for continuing professional development courses, monthly or bi-monthly meetings throughout Kentucky, education outreach to middle and high school students, and discounts on most KAPS functions.

I would like to extend a huge THANK YOU to the KAPS conference committee; Mike Ladnier, Kevin Phillips, Jon Payne, James Mayo, Rich Murphy, Jason Graves, and especially Jackie Hawkins for arranging the conference. The work performed behind the scenes in order to put on a conference is IMMENSE. I do not think anyone can fully appreciate how much effort it takes to get everything lined up until they help make these arrangements. We could not do this without our volunteers on the Conference Committee!

I hope you will join me at our 2020 conference themed "2020: A Clear Vision for the Decade." I am confident this year's conference will be an excellent opportunity to shape that vision with our fellow surveyors.

Sincerely,

Greg Barker, PLS
KAPS President
President@KAPS1.com



Schedule at a Glance

Wednesday, February 5

3:00 - 7:00 P.M. EST	Exhibitor Setup
6:00 P.M. EST	2019 KAPS Board of Directors Meeting

Thursday, February 6

7:00 A.M. EST	Registration Opens
7:00 A.M. - 6:00 P.M. EST	*EXHIBITS OPEN*
8:00 A.M. - 12:00 P.M. EST	Technical Sessions
12:00 P.M. - 2:00 P.M. EST	Luncheon & Installation of Officers
2:00 P.M. - 6:00 P.M. EST	Technical Sessions
6:00 P.M. - 7:30 P.M. EST	Exhibitors Reception & Door prizes
7:30 P.M. - 8:00 P.M. EST	2020 KAPS Board of Directors Meeting
6:30 P.M. - 12:00 A.M.	Hospitality Suite

Friday, February 7

7:00 A.M. EST	Registration Opens
7:00 A.M. - 3:00 P.M. EST	*EXHIBITS OPEN*
8:00 A.M. - 12:00 P.M. EST	Technical Sessions
12:00 P.M. - 2:00 P.M. EST	Luncheon & General Membership Meeting
2:00 P.M. - 6:00 P.M. EST	Technical Sessions
6:30 P.M. - 7:00 P.M. EST	Photo Sessions
7:00 P.M. - 9:30 P.M. EST	Awards Banquet
9:30 P.M. - 12:00 A.M. EST	Hospitality Suite

Saturday, February 8

7:00 A.M. EST	Past-President's Breakfast
8:00 A.M. - 5:00 P.M. EST	Technical Sessions
12:00 P.M. - 1:00 P.M. EST	Lunch Included

2020 KAPS CONFERENCE REGISTRATION FORM

CANCELLATION REFUNDS: 30 days prior to event: 100% • 15-29 days prior to event: 50% • 0-14 days prior to event: 0%

***MUST MARK THE TECHNICAL SESSIONS YOU WISH TO ATTEND ON REVERSE
OR ONLINE REGISTRATION IS AVAILABLE AT www.kaps1.com**

No printed handouts will be distributed. All available course material will be available at www.kaps1.com.

NAME _____ NAME FOR BADGE _____

LAST FIRST MI

COMPANY NAME _____ BUSINESS PHONE _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

EMAIL _____ CELL PHONE _____

SPOUSE ATTENDING? Yes No (circle one) NAME OF SPOUSE _____

2020 KAPS MEMBER? Yes No (circle one) LIKE TO JOIN KAPS? Yes No (circle one; *form will be emailed)

REGISTRATION TYPE	MEMBER	NON-MEMBER	AMOUNT
FULL REGISTRATION Includes Thursday, Friday & Saturday Lunch, Friday Banquet, Admission to Exhibits, Saturday Technical Sessions; lodging NOT included Friday Banquet (select one) <input type="checkbox"/> Prime Rib <input type="checkbox"/> Grilled Salmon <input type="checkbox"/> Vegetarian Saturday Lunch (select one) <input type="checkbox"/> Club Croissant <input type="checkbox"/> Roast Beef Sandwich <input type="checkbox"/> Vegetarian	\$350.00	\$625.00 <i>(*includes option to become a member; NOT for current members)</i>	
ONE DAY REGISTRATION Please mark which day you will attend: <input type="checkbox"/> Thursday includes lunch, sessions, & exhibits <input type="checkbox"/> Vegetarian <input type="checkbox"/> Friday includes lunch, sessions, & exhibits <input type="checkbox"/> Vegetarian	\$220.00	\$320.00	
SATURDAY ETHICS, CODE OF CONDUCT, & STANDARDS SESSION ONLY Saturday Lunch (select one) <input type="checkbox"/> Club Croissant <input type="checkbox"/> Roast Beef Sandwich <input type="checkbox"/> Vegetarian	\$185.00	\$185.00	
FULL-TIME STUDENT REGISTRATION Thursday & Friday only (does not include meals)	\$0.00	per day \$25.00	
EXHIBIT PASS ONLY & TECHNICIAN CLASSES no credit, no meals	\$30.00	\$40.00	
EXTRA LUNCH for THURSDAY Please select: <input type="checkbox"/> Buffet <input type="checkbox"/> Vegetarian	\$35.00	\$40.00	
EXTRA LUNCH for FRIDAY Please select: <input type="checkbox"/> Buffet <input type="checkbox"/> Vegetarian	\$35.00	\$40.00	
EXTRA BANQUET for FRIDAY (coat & tie event) (select one) <input type="checkbox"/> Slow-Roasted Prime Rib <input type="checkbox"/> Grilled Salmon <input type="checkbox"/> Vegetarian	\$55.00	\$60.00	
PAST-PRESIDENT'S BREAKFAST <input type="checkbox"/> Yes, I am a past-president & will attend at 7 a.m. <input type="checkbox"/> No	\$0.00	\$0.00	
EXTRA LUNCH for SATURDAY (select one): <input type="checkbox"/> Club Croissant Sandwich <input type="checkbox"/> Roast Beef Sandwich <input type="checkbox"/> Vegetarian	\$35.00	\$40.00	
TOTAL REGISTRATION AND EXTRAS			\$
ADD LATE FEE (if postmarked after January 17, 2020)	\$30.00	\$50.00	
GRAND TOTAL DUE TO KAPS			\$

CHECK PAYABLE TO KAPS ENCLOSED (mail to KAPS, P.O. Box 211418, Louisville, KY 40221)

EMAIL ADDRESS _____ for CREDIT CARD and/or PAYPAL (email to Jackie@kaps1.com)

***CLEARLY MARK THE TECHNICAL SESSIONS YOU WISH TO ATTEND
OR REGISTER ONLINE AT www.kaps1.com**

No printed handouts will be distributed. All available course material will be available at www.kaps1.com.

Thursday, February 6, 2020 ☐ 8:00 A.M. - 12:00 P.M. EST	<i>3-D Bridge Surveys</i> 4 PDH; Presenter - Ben Shinabery, PLS
Thursday, February 6, 2020 ☐ 8:00 A.M. - 9:00 A.M. EST	<i>Professional Liability, Cyber Liability, Employment Practices, Drones, & Equipment</i> 1 PDH; Presenter - Laura Ledbetter, CIC
Thursday, February 6, 2020 ☐ 8:00 A.M. - 10:00 A.M. EST	<i>Agriculture Exemption to Subdivision Regulations</i> 2 PDH; BOL Course #19-07-078; Presenter - Matthew Clark, PLS
Thursday, February 6, 2020 ☐ 9:00 A.M. - 10:00 A.M. EST	<i>History in Land Surveying</i> 1 PDH; Presenter - Jason Graves, PLS
Thursday, February 6, 2020 ☐ 10:00 A.M. - 12:00 P.M. EST	<i>Cemetery Identification</i> 2 PDH; BOL Course #19-07-080 ; Presenter - Al Matherly, PLS
Thursday, February 6, 2020 ☐ 10:00 A.M. - 12:00 P.M. EST	<i>Closing the LIDAR Gap</i> 2 PDH; Presenters - David Carter, PE, PLS
Thursday, February 6, 2020 ☐ 2:00 P.M. - 4:00 P.M. EST	<i>Licensure Board Panel Discussion</i> 2 PDH; BOL Course #18-01-008; Presenter - various BOL members and staff
Thursday, February 6, 2020 ☐ 2:00 P.M. - 6:00 P.M. EST	<i>Retracing Linear Monuments</i> 4 PDH; Presenter - Bud Salyer, EsQ
Thursday, February 6, 2020 ☐ 4:00 P.M. - 6:00 P.M. EST	<i>The Surveyor's role in 3D Scanning and Building Information Modeling</i> 2 PDH; Presenters - Justin Drury, PLS & Josh Ayoroa, Assoc. AIA
Friday, February 7, 2020 ☐ 8:00 A.M. - 10:00 A.M. EST	<i>The Times They are a Changing</i> 2 PDH; Presenter - David Carter, PE, PLS
Friday, February 7, 2020 ☐ 8:00 A.M. - 12:00 P.M. EST	<i>Boundaries from Research to Resolution</i> 4 PDH; Presenter - Barry Savage, PLS
Friday, February 7, 2020 ☐ 8:00 A.M. - 12:00 P.M. EST	<i>Standards of Practice, Ethics, & Code of Conduct</i> 4 PDH; BOL Course #19-07-075; Presenter - Nick Jerdon, PLS
Friday, February 7, 2020 ☐ 10:00 A.M. - 12:00 P.M. EST	<i>Surveying Apps</i> 2 PDH; Presenter - Steven Chino, PLS
Friday, February 7, 2020 ☐ 2:00 P.M. - 6:00 P.M. EST	<i>Elevation Certificates and the Community Rating System: What to Know and Expect</i> 4 PDH; BOL Course #19-01-014; Presenter - Christina Groves
Friday, February 7, 2020 ☐ 2:00 P.M. - 4:00 P.M. EST	<i>Easements and Access Issues</i> 2 PDH; Presenter - Barry Savage, PLS
Friday, February 7, 2020 ☐ 2:00 P.M. - 4:00 P.M. EST	<i>Least Squares Adjustment using Trimble</i> 2 PDH; Presenter - Tim Tong, PLS
Friday, February 7, 2020 ☐ 4:00 P.M. - 6:00 P.M. EST	<i>Riparian Rights</i> 2 PDH; Presenter - Barry Savage, PLS
Friday, February 7, 2020 ☐ 4:00 P.M. - 6:00 P.M. EST	<i>GPS Best Practices For Professional Surveyors</i> 2 PDH; Presenter - Mike Wilson, PLS
Saturday, February 9, 2019 ☐ 8:00 A.M. - 5:00 P.M. EST	<i>Ethics, Code of Conduct, & Standards of Practice</i> 8 PDH; BOL Course #18-10-064; Presenter - Jonathan Payne, PLS

2020: A Clear Vision for the Decade

THURSDAY SESSIONS

No printed handouts will be distributed. All available course material will be available at www.kaps1.com.

3-D Bridge Surveys

8:00 A.M. - 12:00 P.M.; 4 PDH; Presenter - Ben Shinabery, PLS

The daunting task of repairing or replacing over one thousand bridges in the Bridging Kentucky program starts at the point of data collection. How fast and accurate can you survey the terrain, substructure, piers, substructure and hydraulic opening of a bridge for design engineering construction plans? Will you form a land survey team to field collect and model close to a hundred bridges per month? Qk4 has LiDAR; why don't you just scan all the bridges at a high resolution and throw the point clouds into a drawing?

Beginning in May 2018, the Bridging Kentucky project consulting team was awarded the largest compiled bridge contract in the history of the Kentucky Transportation Cabinet. The objective was to develop and implement a program to address the needs of Kentucky's rural infrastructure improving safety, access and mobility for all Kentuckians. Land survey, one of the key disciplines in the program charter, has rewritten the standards to field collect and 3D model these bridges using every tool in the land survey toolbox including: GPS, 3D Laser Scanning, UAS, Conventional Surveying and 360 Photo & Video Capture. Learn the details proposed to the program administration and how the process has moved the survey task ahead of schedule and under budget.

Learning Objectives:

- 1) Learn the field collection method and 3D modeling survey approach for 3D Bridge Surveys
- 2) Gain perspective on using LiDAR for small format bridge surveys
- 3) Problem solving in reality capturing terrain, bridge and hydraulic opening

Professional Liability, Cyber Liability, Employment Practices, Drones, & Equipment

8:00 A.M. - 9:00 A.M.; 1 PDH; Presenter - Laura Ledbetter, CIC

Description Coming Soon

Agriculture Exemption to Subdivision Regulations

8:00 A.M. - 10:00 A.M.; 2 PDH; BOL Course #19-07-078; Presenter - Matthew Clark, PLS

AGRICULTURE EXEMPTION TO SUBDIVISION REGULATIONS; A look at 2009-SC-000152-DG; Nash V/S Campbell County
This course will explore the "agricultural supremacy clause," a doctrine or thread that is woven throughout KRS Chapter 100, through a look at a Kentucky Supreme Court case. It has been developed to take 2 hours of CPD time. To gain credit, it is necessary to attend all 2 hours. The course will cover limited definitions found in KRS 100, and materials from 2009-SC-000152-DG Nash V/S Campbell County. Attendees are encouraged to arrive with a professional scenario (real or contrived) concerning agriculture divisions in mind for discussion.

History in Land Surveying

9:00 A.M. - 10:00 A.M.; 1 PDH; Presenter - Jason Graves, PLS

This course will begin to explain the importance of knowing the history in the area that you are surveying. It will document why it is imperative to inquire to the standards of practice at a given time and how surveyors conducted their field work. We will briefly review/discuss some examples of this importance.

Cemetery Identification

10:00 A.M. - 12:00 P.M.; 2 PDH; BOL Course #19-07-080 ; Presenter - Al Matherly, PLS

INTRODUCTION: 5 MINUTES

DEFINITIONS: 7-10 MINUTES

FAMILY CEMETRIES: 5 MINUTES

ABANDONED CEMETERIES IDENTIFICATION: 5 MINUTES

ABANDONED CEMETERIES SCOPE OF WORK: 45-50 MINUTES

KENTUCKY STATUTES / FILING FORMS: 15 MINUTES

QUESTIONS AND ANSWERS: 10-15 MINUTES; Q&A

Closing the LIDAR Gap

10:00 A.M. - 12:00 P.M.; 2 PDH; Presenters - David Carter, PE, PLS

High quality LIDAR data is available for the entire commonwealth. Finding, downloading, processing and efficient utilizing this data is challenging. This seminar will provide a detailed description of the Kentucky data and provide real world examples and strategies for effectively incorporating LIDAR data into everyday survey work processes – closing the LIDAR gap.

Licensure Board Panel Discussion

2:00 P.M. - 4:00 P.M.; 2 PDH; Course #18-01-008; Presenter - various BOL members and staff

Questions and answer panel with various members and staff of the Kentucky Board of Licensure for Engineers and Land Surveyors.

Retracing Linear Monuments

2:00 P.M. - 6:00 P.M.; 4 PDH; Presenter - Bud Salyer, EsQ

will cover the development of the doctrine of monuments in the 1700's and 1800's, and then discuss the application of the doctrine to

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THURSDAY SESSIONS

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boundary location for deed retracements, with a special emphasis on linear monuments, such as waterways, roads, railroads, ridges and points, marked lines and other linear features which are identified as boundary monuments.

The Surveyor's role in 3D Scanning and Building Information Modeling

4:00 P.M. - 6:00 P.M.; 2 PDH; Presenters - Justin Drury, PLS & Josh Ayoroa, Assoc. AIA

During this course, you will become familiar with laser based and non-laser-based scanning, used to generate 3D point clouds. Discussion will include factors that affect the quality, accuracy, and reliability of point cloud data. Along with the traditional survey methods used to validate and quantify scan networks. As well as defining Building Information Modeling, and the part accurate data capture plays in the multidisciplinary product.



The Kentucky Association of Professional Surveyors is a proud affiliate of NSPS.



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FRIDAY SESSIONS

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The Times They are a Changing

8:00 A.M. - 10:00 A.M.; 2 PDH; Presenter - David Carter, PE, PLS

throughout history surveyors have had to adapt to and incorporate new technologies into their professional work. New 3D and cloud technologies are changing surveying workflows and blurring the lines between surveying and other types of mapping and measurement work like never before. This seminar will look backward to learn from past technology changes and will outline with examples some of the present and future challenges brought on by 3D and cloud technologies.

Boundaries from Research to Resolution

8:00 A.M. - 12:00 P.M.; 4 PDH; Presenter - Barry Savage, PLS

A significant number of retracement surveys are straightforward but many are complex, confusing and can lead to costly lawsuits. An accurate survey involves much more than just the ability to measure. Historic research, a basic understanding of boundary law principles and the ability to communicate are all equally important. Although technology has made gathering boundary evidence much more efficient, proper analysis of that data is often key to resolving disputes before they even begin.

- Standing on the Shoulders of Giants and Learning from the Past
- Meeting Client Expectations
- Research, Resolve Disputes Before They Begin

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FRIDAY SESSIONS

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- Measurements, The Good, The Bad and The Ugly
- Dealing with Conflicts in Survey Evidence
- Writing Land Descriptions

Standards of Practice, Ethics, & Code of Conduct

8:00 A.M. - 12:00 P.M.; 4 PDH; BOL Course #19-07-075; Presenter - Nick Jerdon, PLS

Seminar Topics: focus on the Standards of Practice - KRS & KAR, our responsibility to protect the public; KRS Chapter 322 - definitions, exceptions, licensure requirements, investigation / complaints, makeup of the board & qualifications; Code of Professional Practice and Conduct - definitions, conflict of interest, records retention, qualifications / competence, direct supervision; Standards of Practice - history of the Standards, five most common Standards of Practice deficiencies, definitions, classifications of surveys, measurement specifications, monumentation, Section 13 non-boundary survey work; Q&A

Surveying Apps

10:00 A.M. - 12:00 P.M.; 2 PDH; Presenter - Steven Chino, PLS

Description Coming Soon

Elevation Certificates and the Community Rating System: What to Know and Expect

2:00 P.M. - 6:00 P.M.; 4 PDH; BOL Course #19-01-014; Presenter - Christina Groves

Communities participating in the Community Rating System (CRS) are subject to higher standards of review and regulation in order to receive discounts on flood insurance premiums paid into the NFIP. The 2013 and subsequently the 2017 CRS Coordinator's Manual changed Elevation Certificate (EC) requirements considerably for CRS communities. As a result, communities and surveyors should pay special attention to ensure completed ECs comply with the new requirements. This workshop will provide an opportunity to see and discuss what is required of CRS participating communities on the Finished Construction EC.

Easements and Access Issues

2:00 P.M. - 4:00 P.M.; 2 PDH; Presenter - Barry Savage, PLS

Easements and land access issues cause a significant number of disputes. This problem is often compounded when descriptions are written without consideration of what the true intent is. Often these descriptions are written in such a way that conflicting conditions are inadvertently created. A surveyor needs to have an understanding of how easements are created and how they are terminated.

- Easements Appurtenant and in Gross
- How Easements are Created
- How Easements are Terminated
- Understand the Intent of the Easement
- Utility and Access Easements
- Words Matter, Accuracy Vs. Precision

Least Squares Adjustment using Trimble

2:00 P.M. - 4:00 P.M.; 2 PDH; Presenter - Tim Tong, PLS

Description coming soon.

Riparian Rights

4:00 P.M. - 6:00 P.M.; 2 PDH; Presenter - Barry Savage, PLS

Water boundaries can be a contentious issue. Who owns the riverbed and how that is determined dates by to the founding of our country. It involves both federal and state law. The history and evolution of riparian boundary issues can be as confusing as it is interesting.

- The Equal Footing Doctrine
- The Public Trust Doctrine
- The Daniel Ball and the Montello
- Type of Navigability

Banquet Entertainment by

Tim McClendon

a Midwest Clean Comedy All Star who has also been featured on the Bob & Tom show.

Don't miss this fun evening of delicious food, camaraderie, and hilarious fun!

Don't forget that your full conference registration includes a ticket to Friday's Banquet. RSVP Today!



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SATURDAY SESSIONS

No printed handouts will be distributed. All available course material will be available at www.kaps1.com.

Ethics, Code of Conduct, & Standards of Practice

8:00 A.M. - 6:00 P.M.; 8 PDH; BOL Course #18-10-064; Presenter - Jonathan Payne, PLS

This course will fulfill the mandatory 4 hours CPD but give 8 total credit hours (must attend the whole 8 hours). Instruction will include concepts; ethics; code of professional practice and conduct; standards of practice for professional land surveyors; minimum standards of practice for mortgage inspections in Kentucky

2020: A Clear Vision for the Decade

MEET THE SPEAKERS

Josh Ayoroa, Assoc. AIA is an experienced industry professional with a solid foundation in information driven approaches to project delivery within the AEC realm. From 2011 through 2014, Josh worked for one of the top 10 manufacturing design-build firms in the country. During that time he worked with multidisciplinary teams of design and construction professionals from around the country on some of the most complex projects in the company's portfolio. These included projects for companies like Siemens, Caterpillar, Nestle, and Michelin. Today he strives to provide cost effective Building Information Modeling and 3D laser scanning solutions to leading design professionals, contractors and owners. **Education:** Master of Architecture, University of Kentucky

David Carter, PE, PLS is a co-founder of CDP Engineers and currently serves as its President and CEO. He is a registered professional engineer and professional land surveyor with over 30 years of experience in the areas of infrastructure design and planning, surveying, and geospatial data management. Since 1996, he has been the primary software / system architect for GeoSync GIS software products including the GeoSync GO Cloud Service which is targeted toward mobile GIS for asset management and includes applications for IOS, Android and Windows devices. David's most recent area of interest has been the development of 3-D tools and GIS workflows to better utilize and integrate Lidar data sets.

Matthew Clark, PLS attended Murray State University and received his Bachelor of Science in Agriculture in 2005. He worked as a Summer Intern VL Associates in Murray Kentucky in 2001, joined JD & James Knoth from 2005 to 2008, went on to work for Jack Williams from 2008 to 2010, and has been in private practice since 2010.

Matthew is a long standing member of the Kentucky Association of Professional Surveyors. He is currently the Chair of the Jackson Purchase Chapter, and has been the Secretary and Treasurer of the Jackson Purchase Chapter in previous years. Matthew's professional practice focuses on boundary retracement and divisions, with a particular interest in farm land.

2020: A Clear Vision for the Decade

MEET THE SPEAKERS

Stephen C. Chino, Jr., PLS is the Director of Information Technology for the city of Paducah and has been involved with GIS/GPS work and projects since 1997. He graduated from Grayson County High School in 1994 and received his Bachelor of Science in Geography from Western Kentucky University in 1999. While there his major emphasis was in GIS/GPS technology with a minor in City and Regional Planning. He began interning with the Barren River Area Development District in Bowling Green, Kentucky in 1998 in the GIS/GPS department and in 2000 he accepted a full time position with the BRADD as their Public Administration Specialist. In July 2001 he accepted a surveying technician position with Hunter Martin & Associates in Paducah, Kentucky. While with HMA, Inc. Mr. Chino successfully obtained his Professional Surveying license for the state of Kentucky in 2008. In December of 2011, Mr. Chino accepted the GIS Specialist position with the City of Paducah and was promoted to GIS Manager in the fall of 2016. In July of 2018 he was named Director of the Information Technology Department. He has practiced in the GIS/Geomatics field for 19 years and has been a licensed Kentucky land surveyor for 9 years and a licensed UAV pilot for 1 year. Mr. Chino resides in McCracken County, Kentucky with his wife Sheryl, son Aiden (10) and daughter Olivia (4).

Justin Drury, PLS has worked as a professional surveyor since 2005. His experience includes as built location surveys, construction and layout staking, topographic/site surveys, legal boundary surveys, ALTA/ACSM, as well as a variety of other certified deliverables. He has experience with control networks for 3D laser scanning and drone-based aerial photography. Justin teaches several continuing education courses for survey professionals including Fundamentals of GPS, and Best Practices for Topographic Surveying: LIDAR, Drones and GPS. He is a licensed professional surveyor and is a member of the Board of Directors of the Bluegrass Chapter of the Kentucky Association of Professional Surveyors. **Education:** Bachelor of Arts, University of Kentucky

Jason Graves, PLS is a Professional Land Surveyor with Century Land Surveying, LLC. His daily duties include developing work flow strategies, business growth strategies, training and other duties typical for a land surveyor. Jason began his surveying career in 2001 and obtained his license in 2011. He is fluent with most surveying technologies and enjoys learning whenever he can. The thing that Jason enjoys most about land surveying is retracing boundaries in the older areas of Louisville Kentucky. Jason has amassed historic survey records, for Louisville, dating back to at least 1850. These records have provided Jason with an intimate knowledge of how land surveyors in Louisville would break down city blocks and the monuments typically used for by company during certain time frames. In his free time Jason enjoys spending time behind his boat wake-surfing, in the woods hiking or on bike, but mostly he enjoys spending time with his wife, their three children, and their three dogs.

Christina Groves, CFM works with communities in FEMA Regions 3, 4, 5, 6 and 7 to join, maintain and improve their participation in the Community Rating System. Specifically working with communities in the States of Alabama, Kentucky, Tennessee, Virginia, and West Virginia to improve their commitment to a sound floodplain management program through participation in the CRS. Prior to joining the ISO/CRS team Ms. Groves was the Director of Development Services for a nine jurisdiction planning commission. During her tenure with the planning office some of her responsibilities included: management of construction on the Special Flood Hazard Area (SFHA), plat review, drafting zoning ordinances and enforcement, comprehensive planning and the review and adoption of new Flood Insurance Rate Maps (FIRMs)

Laura Ledbetter bio coming soon

Al Matherly, PLS is the President/Owner of Matherly Cemetery Planning Services (a Veteran-owned business), Matherly Land Consultants in Louisville, Kentucky. Mr. Matherly has 49 years experience in land boundary analysis, design and construction. 30 years of which relate to cemetery feasibility studies; location (mapping) and design of new and expansion (infill) cemeteries. Past Trustee for Worthington Cemetery, Louisville, KY. Multiple design and mapping projects in Florida, Indiana, Kentucky and Ohio. Additional site designs in Alabama, Kansas, New Mexico, Tennessee and Texas. In-fill projects in cemeteries ranging in size from one-half acre to 250-acres. Clients include churches; municipalities; and for-profit historic cemeteries such as Cave Hill Cemetery in Louisville. Related professional memberships:

- International Cemetery and Funeral Association
- Southern Cemetery and Funeral Association
- Kentucky Cemetery Association (Past President)
- Kentucky Association of Professional Surveyors (Past President)
- American Congress on Surveying and Mapping (Fellow)
- National Society of Professional Surveyors (KY Governor 8 years) Fellow
- KY State Board of Licensure for Professional Engineers and Land Surveyors (Member 2000-2004)

Lecturer at Kentucky Cemetery Association; Kentucky Association of Professional Surveyors and Kentucky Historical Society (Cemetery) seminars. Articles published in both cemetery and surveying trade publications. Past Chairman of Ethics Committee for the National Society of Professional Surveyors. Presented seminars on cemetery design considerations and maintenance issues for the Kentucky Cemetery Association's annual meetings and periodic seminars.

2020: A Clear Vision for the Decade

MEET THE SPEAKERS

Jonathan Payne, PLS runs a private surveying consulting firm in Trigg County Kentucky. He has been licensed as a Professional Land Surveyor since June of 2000. His journey to becoming licensed began while working on a BS degree in Civil Engineering Technology and a MS degree in Engineering Technology from Murray State University. This was followed by several years working, in a supervised capacity, for firms in Western Kentucky in areas of boundary, transportation, and subdivision surveys. After achieving licensure, Jonathan began his own small surveying firm. In private practice, he has concentrated on boundary retracement and subdivision surveys. Having taken a brief break from private practice, Jonathan served as the instructor of record for the surveying courses at Murray State University from August 2013 until May 2017. Back in private practice, Jonathan is pursuing a PhD in Education from the University of Kentucky. Jonathan has served KAPS in a variety of positions ranging from committee member to President over the past years and present seminars when needed for the organization.

Bud Salyer, PLS is from Salyersville, KY, and currently lives in Morehead where he serves as the Master Commissioner of the Rowan Circuit Court. Mr. Salyer has a BA in English from Union College, an MA in English from UK, and received his JD from UK College of Law. He started private law practice in 1973, and retired in 2005. Mr. Salyer served 10 years as the General Counsel for the Board of Licensure for Engineers & Land Surveyors. His last 15 years of practice was devoted strictly to boundary disputes and road disputes. Mr. Salyer has lectured extensively for KAPS, and contributed to the Interior Angle.

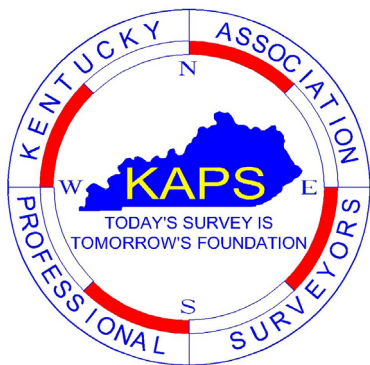
Barry Savage, PLS is currently manager of the Survey Products group at the Tennessee Valley Authority in Chattanooga, Tennessee. He manages the office operations for the survey work TVA does in a seven state region. He is often called upon to provide expert testimony for various land issues for TVA. Prior to his service at TVA he was in private survey practice for 10 years specializing in dispute resolution and expert witness services. He has surveyed several disputed state boundaries to resolve jurisdictional conflicts. Mr. Savage is an adjunct professor at Cleveland State Community College. He teaches basic survey courses along with boundary law, geodesy and GPS classes. He has also researched and retraced the historical surveys of Henry David Thoreau at Walden Pond. Mr. Savage teaches exam review and continuing education seminars at various state and local conferences across the country. Mr. Savage received his B.S. degree, with high honors, in Civil Engineering Technology from the University of Tennessee at Martin.

Ben Shinabery, PLS is a land survey project manager at Qk4, Inc. where he specializes in high definition digital terrain modeling through traditional survey, 3D Laser Scanning and Aerial Drone Mapping. He grew up helping his dad survey through the corn fields of Michigan and later ran a survey field crew in the swamps of Florida – Full spectrum land surveying: cold and frozen to hot and humid. His experience ranges from pulling chain to creating high resolution VR environments. Now, Ben would rather pick a nice day and program his drone to do the mapping for him. He prides himself on helping others visualize geographic data in an engaging and understandable way. He lives with his bride and three kids in Simpsonville, Kentucky.

Educational Background: BA Graduate from Pensacola Christian College in Foreign Missions with a Minor in Graphic Design, Ben's education in Land Survey started when he was young working during the summers with his father surveying in Michigan. Ben achieved eligibility to sit for the Kentucky PLS exam based on experience alone. He has been a Professional Land Surveyor for more than 10 years working on multi-million dollar projects as project surveyor.

Tim Tong, PLS Having gained the experience necessary for qualification for professional examination, and passing said exam, I have been licensed as a Professional Land Surveyor in the Commonwealth of Kentucky since May of 2012. I began my surveying career for a local surveyor in Owensboro, KY in the winter of 2001. I fell in love with surveying and never looked back. I have since worked at several different local and national surveying firms located in Evansville, IN and Austin, TX. I studied Land Surveying & Geomatics at Austin Community College in Austin, TX. I moved back to Kentucky to work at GRW's corporate headquarters in Lexington, KY where I now am the Survey Division Manager. My vast experience includes many types of surveying and clientele. I have worked on everything from small retracement surveys, to pipelines that have stretched hundreds of miles all across the US, to construction staking for building gridlines on high-rises. I have been a member of the Kentucky Association of Professional Surveyors since 2012. I have served as a Director on the Board (2017-2018) as well as the Chair of the Bluegrass/Capital Chapter of KAPS (2018-present).

Michael Wilson, PLS is a second-generation surveyor who started his career working for Beal's & Wilson, a family owned surveying and engineering firm in the late 1970's. Michael has fulfilled many roles in the surveying profession. He started his career as a Chainman on a four-man crew and worked up to a Survey Group Manager managing surveying activities in a multi office organization. Michael's experience includes boundary surveys from projects as small as residential lots, to retracing and monumenting county lines. He has performed numerous ALTA/NSPS Land Title Surveys, topographic surveys, control, hydrographic surveys, 3D laser scanning, and has an extensive construction staking background. He has an Associates of Arts degree in Business Administration from the University of Cincinnati, has been past Southwestern Chapter President of the Professional Land Surveyors of Ohio, and is licensed as a Professional Land Surveyor in the Commonwealth of Kentucky and the State of Ohio.



KAPS 2020 MEMBERSHIP APPLICATION

Please send completed form to: Email - jackie@kaps1.com
 USPS - KAPS • P.O. Box 211418, Louisville, KY 40221
 Register online at www.kaps1.com

Name _____ Spouse _____

KY County _____ Chapter _____ KY PLS # _____ Birthdate _____

Home Address _____ City _____ State _____ Zip Code _____

Email Address _____ Highest Degree _____

Home Phone _____ Cell Phone _____

If you are NOT a resident of Kentucky, are you a member of your state survey association? YES NO

Business Name _____

Address _____ City _____ State _____ Zip Code _____

Business Website _____ Business Phone _____

Notification Preference: Email USPS to Home USPS to Business

Information to be included in the KAPS directory: Email Cell Address Business Info Name only
 All of your information will be included in the KAPS directory if nothing is checked.

I HEREBY CERTIFY THE STATEMENTS MADE ON THIS APPLICATION ARE CORRECT AND THAT, IF ELECTED, I AGREE TO BE BOUND BY THE CONSTITUTION AND BY-LAWS OF THE ASSOCIATION.

Signature _____ Date _____

CLASSIFICATION OF MEMBERSHIP

- Associate Member \$ 97.50
- Business Member \$ 390.00
- Corporate Member* \$ 390.00
- First Licensed Year Mbr \$ 0.00
- Full Member (Jan – Dec) \$ 220.00
- Lifetime Full Member \$4,400.00
- Student Member \$ 0.00
- Other: _____ \$ _____

<input type="checkbox"/> Check Enclosed or <input type="checkbox"/> Invoice Me at _____	
Email Address (Please do not include your credit card number on this form) _____	
<small>There is an order fee added to all credit card and PayPal payments. Save money by sending a check!</small>	
For Office Use Only	
Check # _____	Amount Paid: \$ _____
Date Paid: _____	Staff Rcvd: _____
Name if different than Registrant: _____	



“FULL” AND “LIFETIME FULL” KAPS MEMBERS WILL AUTOMATICALLY BE MEMBERS OF NSPS (National Society of Professional Surveyors).

***Descriptions taken from the KAPS By-Laws / Article III / Section 2 Classifications and Qualifications**

FULL MEMBER: Full Membership shall be granted, upon application to the Board, to any person licensed to practice land surveying in the Commonwealth of Kentucky. Except as otherwise hereinafter provided, such membership shall continue, as long as the person’s rights to practice land surveying is maintained. A Full Member shall enjoy all rights and privileges of membership in KAPS.

- **LIFETIME FULL MEMBER:** Lifetime Full Membership shall be granted upon conditions listed above with one lump sum payment equal to 20 years of the current Full Member dues rate.
- **FIRST LICENSED YEAR:** KAPS offers Full Membership free of charge to newly licensed individuals.

ASSOCIATE MEMBER: Any person who is non-licensed but has an interest in land surveying shall be eligible for Associate Membership in KAPS. Associate Membership shall be granted upon recommendation by a Full Member and application to the Board. An Associate Member shall have all rights of Full Membership except the rights to vote and hold office.

CORPORATE MEMBER: Any firm or organization engaged in the practice of land surveying shall be eligible for Corporate Membership provided that either a principal of the firm or a person in responsible management position of surveying for the firm is a Full Member of KAPS. Corporate Membership shall be granted upon application to and majority approval by the Board. Corporate Members shall only have such rights or privileges as may hereinafter be provided or which may be accorded at the discretion of the Board. Corporate Members may enroll full-time employees as KAPS members under the appropriate category at a 20% discount from the full price.

BUSINESS MEMBER: Any firm or organization who is non-licensed but has an interest in land surveying shall be eligible for Business Membership in KAPS. Business Membership shall be granted upon recommendation by a Full Member and application to the Board. A Business Member shall only have such rights or privileges as may hereinafter be provided or which may be accorded at the discretion of the Board. Business Members may enroll full-time employees as KAPS members under the appropriate category at a 20% discount from the full price.

STUDENT MEMBER: Any full-time student with an interest in the profession of land surveying shall be eligible for Student Membership. Membership shall be granted upon application and approval of the Board of Directors. Student Members shall have all rights of membership except the rights to vote and hold office, except within a Student Chapter.