

THE

INTERIOR ANGLE

KAPS 2016
Conference Information

Kentucky Association of Professional Surveyors

Winter 2015-16, Issue 4

Photo by Diane Comer



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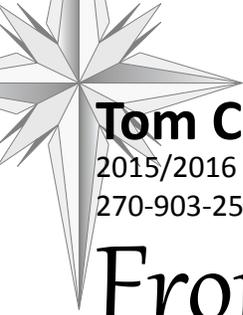
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On the Cover:
Old and new converge in
Louisville's Cherokee Triangle



Tom Clayborn, PLS

2015/2016 KAPS President

270-903-2505 - tomc@morleyandassociates.com

From the President's Desk

I hope everyone had a Happy Holiday season and a successful 2015. Also, my hope is that the upcoming year will be a blessed year for you as well. The KAPS Conference Committee has been working hard to place the finishing touches on the 2016 conference.

Construction Career Days went well for us. The event saw approximately 2,800 high school students attending this year. We had many students stop by the KAPS booth to learn about land surveying. The KAPS booth was manned by Jason Graves, Dan Farrell and I. We informed the students on the surveying and geospatial profession and gave out KAPS stickers for their hard hats. Educating young adults on the surveying profession is a step in developing future surveying professionals.

KAPS presented a seminar at the KAMP GIS Conference in Owensboro in October of this year. I thank Jon Payne for organizing the speakers for this seminar. Thank you to Dr. Andrew Kelly, Jeff Clark, Eric Muncy and Jon for speaking at our Surveying 101 seminar. KAPS also had a booth at the GIS conference. Thank you to Jim Riney and Tom Crabtree for manning the booth for us.

The conference committee has lined up a great group of speakers presenting a wide range of topics, and I am grateful for their efforts. I assure you this will be an informative conference for everyone who participates. Thank you to the committee members for working hard in planning our 2016 conference and thank you to Molly for keeping the committee organized and focused.

I am pleased to announce that Mr. Jeff Lucas will be presenting four classes at the 2016 conference in Louisville. Jeff is a regular columnist in POB magazine and has taught numerous seminars throughout the United States. I personally look forward to Jeff's presentation as well as all the events and

activities, and I hope to see you there.

The KAPS nominating committee has submitted a letter to the Governor's Office for the surveying seat on the Board of Licensure held by Mr. Jim Riney. Jim expressed interest in serving a second term on the Board. The three names given to the Governor are Jim Riney, Dan Farrell and William Bowie. I know any of these three gentlemen will do a great job representing the surveying profession on the Board of Licensure.

Please accept my many thanks for those who serve and have volunteered to serve KAPS in various capacities. As your president, I appreciate your support and hope you will not hesitate to contact me with questions, comments, suggestions or concerns. Together we will strive to successfully resolve issues faced by our profession. Again, I am honored to serve with all of you.

Tom Clayborn, PLS
2015 KAPS President
270-903-2505
tomc@morleyandassociates.com

Mark Your Calendars:

2016 KAPS Annual Conference

February 17-20, 2016
Ramada Plaza
9700 Bluegrass Parkway
Louisville, KY 40299

NEXT:

A new feature is being added to *The Interior Angle*, what we're calling "Questions With..." We hope you will find this a fun way to learn more about your colleagues. For the first segment we are profiling Tom Clayborn as a thank-you for his dedicated service.



Questions With... Tom Clayborn, PLS

What sparked your interest in surveying?

I started out as a draftsman out of high school for a firm in Indianapolis. One day I was asked if I could help the survey department out and go out in the field. I was hooked, I enjoyed being outdoors and loved that it was a different job and location each day for the most part.

What do you like most about the profession?

The history; as a surveyor you must be part historian, mathematician, archaeologist and law student. Having knowledge in these areas makes a better professional.

Everyone has horror stories from the field.

What's one of yours?

It was late one day and my boss asked if we could go out and survey a small parcel before we left for the day to go home. Arriving at the site first thing we noticed that line of sight would become a problem with this survey being heavily vegetated. This was a small site – something like 80 feet wide by 300 feet deep. Good fortune was we found markers at all four corners and we found markers on the section line for checks. I set up our total station and we located the front corner and the section corner along the road fronting the property.

I sent my helper, Dave, to the back to try and locate the back pins on the property. I warned him to be careful of the power line running along the back of the property. Once he got to the back line, one of the corners was easily sighted and located. Great, one more to go, he proceeded 80 feet north and occupied the point and raised the prism pole one section. I was having no luck in sighting him through the instrument. I radioed him and asked him to wave the rod, no answer from the radio and I was still not seeing him. Finally I got fed up and suggested we switch positions.

Dave came to the instrument and I took the prism pole and went stomping to the back of the property. I was ready to go home it was late and I was tired. Arriving at the iron pipe, I stuck the prism pole on the pipe and began raising the rod up. Suddenly I felt my body starting to contract and a jolt of electricity shot through me. Yes, I had raised the pole right into the overhead electric line that I had warned Dave of not 15 minutes ago.



Dave yelled through the radio asking if I was okay. After I picked myself up, I radioed back to him yes, I was fine, but he needed to start packing the instrument up and we would finish this job tomorrow. After I got back to the truck I noticed a burning smell; I happened to look at the bottom of my shoes and noticed a hole in them. Apparently a jolt of electricity traveled through my body and exited through the bottom of my foot. I was very blessed that no major damage was done to me. One thing I learned – make sure you are always aware of your surroundings and never be in such a big hurry you forget to place safety first.

Proudest professional accomplishment?

Serving as 2013 and 2015 president of KAPS and being named 2014 KAPS Surveyor of the Year.

Where do you see the surveying profession in 10-20 years? What are our biggest challenges?

The surveying profession will get away from being expert measurers, as technology will make this where just about anyone will be capable of measuring as well as we can. I believe surveyors will have to become better experts in property rights and the law, in order to serve the public. Our expertise of reading, analyzing and understanding property descriptions and field data will become paramount in our profession. Communications skills will become more important than ever.

How do you spend time when not on the job?

I love spending time with my family, I have six wonderful grandchildren. I also love playing tennis.

Tell something about yourself that your professional colleagues may not know.

I am an assistant pastor at my church.



B. David Cox, Executive Director

Kentucky State Board of Licensure for Professional Engineers and Land Surveyors
Kentucky Engineering Center, 160 DEMOCRAT DRIVE • Frankfort, Kentucky 40601

The Board Report

Recent Questions

In this new feature of The Board Report, I will share questions posed to us that may be of interest to other licensees.

Question - May I self-certify a Spill Prevention, Control and Countermeasure (SPCC) Plan in Kentucky as allowed by the U.S. EPA without using a PE?

Answer - You may not. In Kentucky, the certification of an SPCC Plan is considered the practice of engineering and therefore requires a PE licensed in our state. The federal regulation only allows this option in states that do not prohibit self-certification.

Board and Committee Meetings Agendas

Agendas for upcoming and past Board and committee meetings can be viewed at:

<https://v3.boardbook.org/Public/PublicHome.aspx?ak=1001362>

This link is also available on our website at:

<http://kyboels.ky.gov/Pages/Whats-New.aspx>

Exams

April 2016 will be the last “paper and pencil” exam for the Principles of Surveying (PS). After that date it will be part of the Computer Based Testing (CBT) system which already includes the Fundamentals of Engineering (FE) and the Fundamentals of Surveying (FS) exams. The PS exam will be given year round at PearsonVue testing centers and applicants will be able to choose their own date and location.

NCEES is working on converting the 24 existing PE exams to CBT. This is a slower process and will result in several years where some PE exams are CBT and some paper and pencil. The estimated date for the first PE exam conversion is late 2017.

ENFORCEMENT ACTIONS SUMMARY

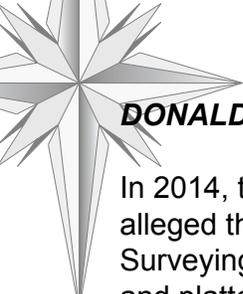
For The Period
July 25, 2015 – October 10, 2015

TIMOTHY L. JORDON, PE

In October 2013, Mr. Timothy Lee Jordan, PE, of Hope, Indiana entered into a Consent Decree in settlement of a disciplinary action. Among other things, the agreement called for Mr. Jordan to submit proof of completing thirty (30) professional development hours of Continuing Professional Development activities for the 2013/2014 reporting period. The Board did not receive the required documentation by the date specified in the agreement. In accordance with the terms of the Consent Decree, the Board suspended Mr. Jordan’s professional engineer’s license. Under the terms of the Consent Decree, Mr. Jordan had an additional six (6) months in which to submit the required documentation or his license would be revoked. When the Board did not receive the required documentation by the end of the six (6) months period, and after serving notice to Mr. Jordan, the Board revoked Mr. Jordan’s professional engineer’s license. The letter of revocation was issued on July 29, 2015.

WILL JACOB HUBER, PE

Will Jacob Huber, PE, of Frankfort, Kentucky was disciplined for operating the engineering business entity “Hubers Building & Land Development”, also known as “Hubers”, on a lapsed business entity permit. The matter was resolved by a Consent Decree wherein Mr. Huber acknowledged the violation and agreed to accept a Letter of Reprimand, and pay a \$1,000 fine. Additionally, Mr. Huber agreed not to offer or provide engineering services in any name other than the name listed on his individual license certificate unless and until he has obtained a Business Entity Permit from the Board in the appropriate business entity name. The Board of Licensure approved the Consent Decree on October 10, 2015.



DONALD W. DABNEY, PE, PLS

In 2014, the Board received a complaint which alleged that Dabney Engineering and Land Surveying of Campbellsville, Kentucky surveyed and platted an access easement; and failed to discover or disclose that an existing brick apartment building encroached upon, and effectively rendered the proposed easement unusable for its intended purpose. During an investigation of the complaint, Mr. Donald W. Dabney, PE, PLS accepted responsibility for the survey. Mr. Dabney acknowledged that he failed to discover the encroachment of the existing building onto the proposed easement, and failed to depict the encroachment on the plat of survey. The matter was resolved by Consent Decree wherein Mr. Dabney acknowledged that his actions constitute violations of the Code of Professional Practice and Conduct, Section 2, as well as the surveying Standards of Practice. Mr. Dabney agreed to the following sanctions: (1) Letter of Reprimand, (2) a \$1,000 fine, (3) probation of his land surveying license for two years, during which time he will make a

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quarterly report of all surveying projects undertaken by himself or his firm and will upon request provide project documents for Board review, and (4) in addition to his regular Continuing Professional Development obligation, Mr. Dabney will attend an additional class on the surveying Standards of Practice. The Board of Licensure approved the Consent Decree on October 10, 2015.

GET NOTICED

CERTIFY YOUR SKILLS AND ABILITIES

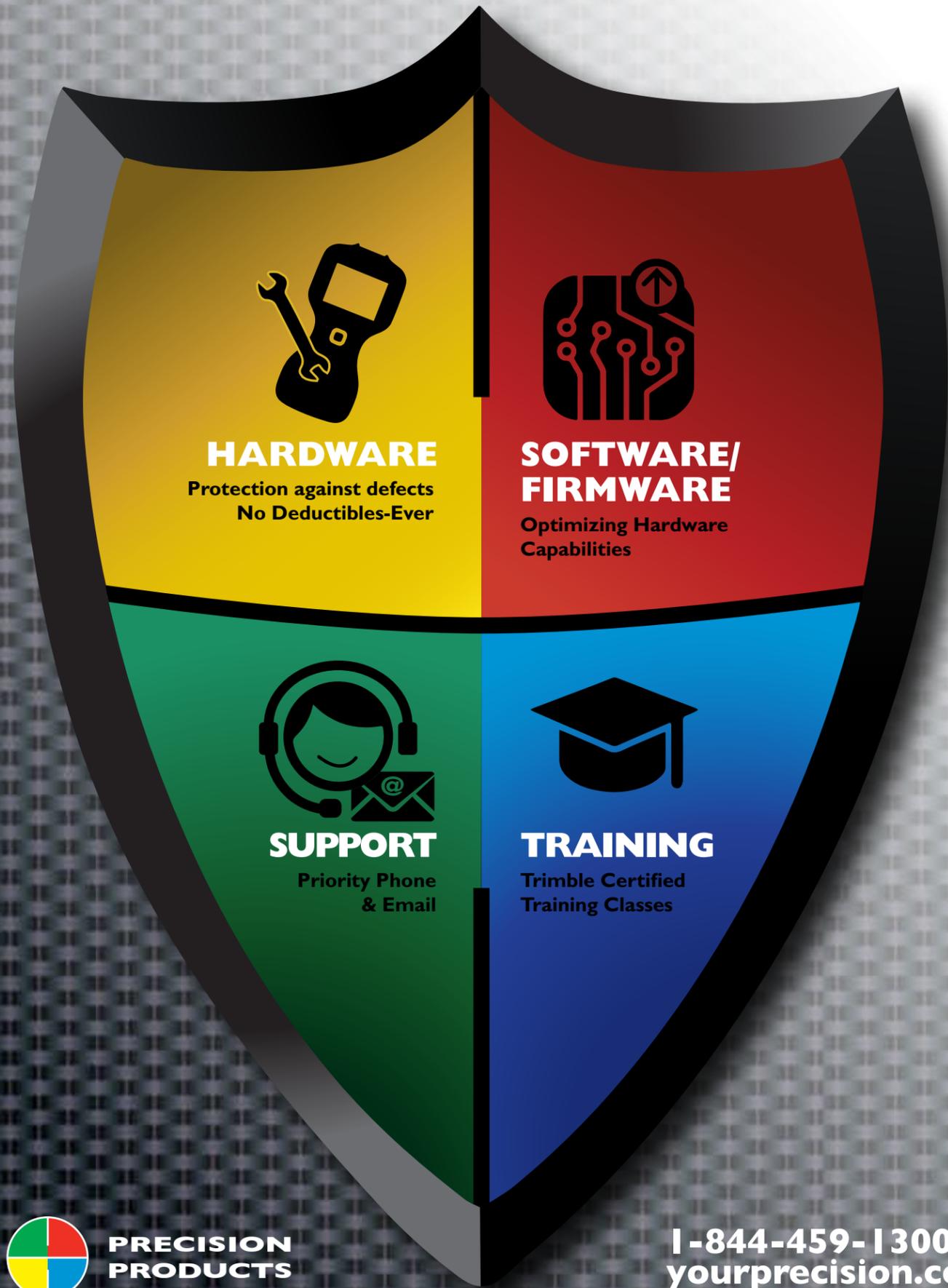
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Tom Bushelman, PLS

The Boone County Standard Line

Typed and annotated by James Duvall, M.A., Boone County Archives

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The Boone County Standard Line

W. R. Terrill.

Boone County Recorder.

24 July 1879. p. 1. col. 7

To the Editor of the Recorder:

I have been called upon to give an explanation of the Boone County Standard Line in the columns of the Boone County Recorder; I therefore write the following:

Many of the readers of the Recorder know that the needle of the magnetic compass has a variation; they also know that said variation has caused many disputes and much difficulty between the farmers of Boone County concerning the lines between their farms. Now, since there is a variation and since it causes difficulty, it is the duty of the Surveyor to overcome that difficulty, if he can provide a way to do so; therefore I say to you that, because the people of Boone have been so kind as to give me this office for this term, I will do all that is in my power to improve and build up said office.

The Boone County Standard Line is composed of two stones planted in the ground at a distance of 52 poles from each other, thuc marking out a north and south line. They also have the date 1879 inscribed upon each, showing that it is a north and south line. according to the way the magnetic needle pointed at said date. Should a Surveyor go to the Boone County Standard Line twenty years from now and set his compass at the south stone, he would find that the needle had varied 15 feet to the left, or west, of the north stone. Now, it is evident that if a surveyor goes to the Boone County Standard Line to test his compass, he will soon see how much the compas has varied. He can then go to any line that has been run by said Standard and stated so, and he will know exactly what the variation is, because he took it at the Standard.

Standard Line is this: Let the Surveyor set his compass so that he can see the north stone through the sights when looking from the south stone; then, if the compass has a vernier, he can turn it until the north of the compass card, or face of the compass is directly under the needle, then fix it tight and he will have his compass set by the Standard. Then it is evident that if the sights point with the Standard the card is changed the same amount that the needle varied; that is, the needle reads the same and the sights point the same that they did when the Standard was established.

Now, since we have shown the uses of the Boone County Standard Line, we will also show the disadvantages of surveying without it:

Suppose, for instance, that a Surveyor ran a line in the year 1819, and took its bearing and distance and found them to be n. 30 w. 320 poles; in 1839 it was n. 29 w. 320 poles; in 1859 it was n. 28 w. 320 poles; in 1879 it is n. 27 w. 320 poles.

Suppose again that the bearing of 1819 was to be recorded in a new deed of 1879; then, in running the 320 poles, the surveyor would run 276 feet to the left of the true corner. But if the bearing of 1839 was to be recorded in a new deed, then he would miss the same corner 184 feet. Also the bearing of 1859, he would miss the corner 92 feet. From the above data we see that a line one mile long varies 92 feet in 20 years; that is, 55 inches every year. Now, from the above date, it is evident that an old deed should not be copied to make a new deed of a later date, neither ought the people of Boone County to tolerate such.

Should the needle continue to vary at the same rate that it does at present, it would take 1,800 years for the north end of the needle to point west; but, instead of continuing its variation in the same course, it will change to go in the opposite course. the interval of time between the two changes is called a vibration, which will probably last 300 years.

The Standard Line, can, then, be of no benefit to a Surveyor to run an old line by, but it will be of great

But the best way to use the Boone County



great benefit to the Surveyors in time to come; that is, to run all lines by that have been run by said Standard. Thus, we say of a line that it is n. 27 w. 320 poles by the Boone County Standard Line, it could at once establish a particular course, for the standard is established.

This is all that I wish to say about the Boone County Standard Line of 1879 at present. But I hope that you will hear from me again this fall upon the subject of what it necessary for the people of Boone to do that they may establish a perfect system of that which pertains to this office. W. R. Terrill.

Notes.

William R. Terrill was county surveyor from 1878 to 1882. He signed his General Official Bond 3 Sep 1878. His successor W. E. Vest signed his bond Bond 4 Sep 1882. Here is a short biography of him abstracted from Perrin's History of Kentucky:

William Robert Terrill was born in Boone County, Ky., near Dry Run (about three miles below Florence), 20 April 1854, and was the fourth of ten children born to George W. Terrill and Amanda M. Terrill. George W. Terrill, his father, was also born in Boone County, and was a farmer and trader all his life, and a captain in Gen. John Hunt Morgan's command. He was in the State Legislature in 1870 and 1871.

William R. Terrill was raised on the farm, and attended school in Boone County. He went to school to Miss Ida Lloyd, and Lloyd (the civil engineer) [see note below], Miss Kate Willis, John Walton, Capt. Elliott, John Brown, Prof. Holton, John Woodford, Prof. Cregg Peck, who is now surveyor in Trimble County, also J. Frank Grant and Alonzo Vorball, all of whom were the best of teachers. In 1870 Terrill entered college at Eminence, Ky. The next year he went to Prof. Lowery, a graduate of Virginia University, who taught at Petersburg. In 1872 he returned to Eminence College, and continued there till 1874.

In 1875 he took the teacher's examination, and taught one term at Morgan Academy, in Burlington, and he also taught at Petersburg. He also taught mathematics and philosophy at Ghent College, in in Carroll County, in 1877. He was elected surveyor of Boone County in 1878 and served one term of four years. In 1880 he became a mail carrier and carried the U. S. mail from Burlington to Erlanger, which he did until 1884. He was constantly engaged in surveying and civil engineering, and did the greater

part of the surveying in Boone County. He owned valuable property in Florence, and also runs a livery stable. He is a member of the Christian Church, and is a Democrat.

Note. His early teacher, Nelson M. Lloyd, came from New York to survey for a railroad planned between Covington and Louisville. After the railroad project collapsed, Nelson and his wife Sophia had a school in Petersburg for several years. (Probably Terrill did not accurately remember his teacher's name after so many years, having heard it very rarely and used it even less as a youngster.) Nelson would have been very interested in teaching mathematics and surveying to inquiring minds like that of William Terrill. His son, John, who became Boone County's most famous citizen, was apprenticed by his father to a pharmacist at an early age, and went on to memorize the entire pharmacopia, in Latin, before he was 14.

For more information see my paper "The World is My University" on John Uri Lloyd. (A paper presented before The Boone County Historical Society Boone County, Kentucky 18 May 2000) available at: <http://www.oocities.org/lloyddelectic/WorldisMyUniversity.html>. An old site, but now republished at <http://johnurilloid.blogspot.com/>

Vernier scale. A small, movable, graduated scale running parallel to the fixed graduated scale of a sextant, theodolite, barometer, etc., and used for measuring a fractional part of one of the divisions of the fixed scale.

Magnetic variation and the curvature of earth are two of the surveyor's big problems. Under the old methods a surveyor could survey a line for nine miles before having to resort to using spherical geometry and trigonometry to correct for the earth's curvature. If the line was longer than nine miles it was necessary for the surveyor to stop and make corrections from astronomical observations if he wanted the line to be accurate.

*Typed and annotated by James Duvall, M. A.
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15 Sep 2015.*

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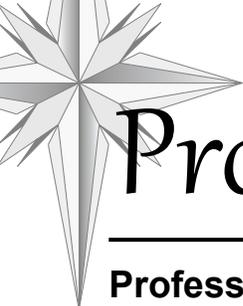
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- Assist in the preparation of descriptive narratives and tables on surveys to be used in project scopes of work and bid documents on construction and land projects.
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2016 Calendar of Events

Jan. 14	Committee Meetings	Frankfort
Jan. 15	Board Meeting	Frankfort
March 31	Committee Meetings	Frankfort
April 1	Board Meeting	Frankfort
April 7-9	NCEES Southern Zone Mtg	Nashville
April 15	PE, PS, STR Vertical Exams	Louisville
April 16	STR Horizontal Exam	Louisville
July 21	Committee Meetings	Frankfort
July 22	Board Meeting	Frankfort
Aug. 24-27	NCEES Annual Meeting	Indianapolis
Oct. 6	Committee Meetings	Frankfort
Oct. 7	Board Meeting	Frankfort
Oct. 28	PE, STR Vertical Exams	Louisville
Oct. 29	STR Horizontal Exam	Louisville

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Bud Salyer, Esq.

Watercourses as Boundaries

Much confusion has arisen among Kentucky surveyors about watercourses as boundaries. I often receive a question like this: “When a navigable stream is the boundary, does the boundary go to [the high water mark] [low water mark] [the thread of the stream] [the middle of the stream]” or variations on this theme. And, the questions are as frequent when a boundary is at a stream that is perceived as “non-navigable.” Giving a description to a dozen surveyors will result in a dozen different opinions as to the location of the boundary.

In fact, the rules for watercourses as boundaries are quite simple. It is first necessary to dispense with some misconceptions.

In Kentucky, whether a stream is considered navigable or non-navigable is irrelevant to the question of where the boundary is located.

At Common Law in England, a *legally* navigable stream was (and is) defined as one that (a) empties directly into the sea, (b) is subject to the ebb and flow of the tide, and (c) is used for commercial transportation. Furthermore, only that portion of the stream that is affected by the tide is considered navigable in a legal sense. England has few natural watercourses that are *factually* navigable as opposed to *legally* navigable. The Thames River above the tidal influence, for example, is ideal for pleasure boating, but does not easily support commercial traffic. Therefore, in England, to a great extent, *factually* navigable and *legally* navigable” are synonymous.

At Common Law, boundaries on navigable streams go to the high water mark. On non-navigable streams (i.e., the portion of a river above the ebb and flow of the tides), boundaries go to the center of the stream.

On the other hand, in America, there are numerous rivers, such as the St. Lawrence, Missouri, and Mississippi, that are *factually* navigable for hundreds or thousands of miles but are not subject to the ebb and flow of the tide.

They are capable of supporting substantial amounts of commercial traffic. Examples in Kentucky would be the Ohio, the Tennessee and the Cumberland. All carry significant amounts of commercial traffic. They are *factually*, as opposed to *legally*, navigable.

Kentucky defines a navigable stream as one which is capable of carrying a significant amount of commercial traffic. As it pertains to property rights, however, the courts do not recognize any distinction between “navigable” and “non-navigable” for purposes of locating boundaries. It makes no difference whether land bounds on a navigable or non-navigable stream; the boundary goes to the center, with some very rare exceptions.

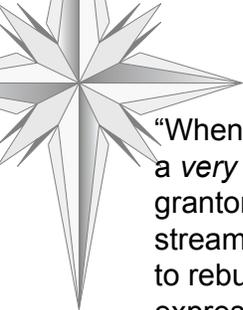
I REPEAT: FOR PURPOSES OF PROPERTY LOCATION, KENTUCKY HAS NO NAVIGABLE STREAMS. PERIOD

To clarify that rule, we will look at what the courts have said.

“... grants of land, bounded on rivers carry the exclusive right and title of the grantee to the center of the stream, unless the terms of the grant clearly denote the intention to stop at the edge of the river. It would require an *express exception in the grant, or some clear and unequivocal declaration* to limit the title of the owner to the edge of the river.” (*emphasis added*).

For a deed to limit the boundary to the bank of the stream, the language must be so absolutely clear about the intent that it leaves no room for debate or conjecture. If a reading of the entire instrument leaves an uncertainty about the intent, then the boundary goes to the center of the stream.

The surveyor should start a retracement with the assumption that the boundary will be at the middle of the stream. One case stated:



“When land bordering on a stream is conveyed, a *very strong presumption exists* that the grantor intended to convey the bed of the stream toward the center as far as he owns, and to rebut this presumption there must be an express exception or a clear and unequivocal declaration of the intent to limit the grant.” (*emphasis added*).

Confusion has arisen from some opinions about the term “*thread* of the stream.” The question arises whether the “thread” of a stream is different from the “middle” or “center” of the stream. For all practical purposes, the thread is the center of the stream. In Kentucky, the rule is stated like this:

“The thread of a stream is the line midway between the opposite shorelines, when the water is in its natural and ordinary stage, at medium height, and neither swollen by freshets nor shrunken by droughts...”

[Note: This definition does not apply to the Ohio River, where the thread means the middle line of the river as measured from the state’s northern boundary (the low watermark on the northern shore), to the corresponding low watermark on the southern shore.]

When deciding where the boundary lies in relation to a watercourse, careful consideration must be given to the words chosen by the parties. When a description runs to or near a stream, and then turns up or down the stream with a series of bearings and distances running between physical identified monuments, the boundary, in all probability, will follow the calls and not the middle of the stream. However, a series of bearings and distances without identified monuments would most likely be a “meander line.” A meander line is a line run in a survey, not as boundaries of the tract, but for the purpose of defining the sinuosities of the banks of a stream, and as a means of ascertaining the quantity of land to be sold.

Descriptions of tracts bounding on streams are as varied as the mind of man is creative. Consider the following possibilities:

1. “...running to an oak on the bank of Lick Creek and then up the creek to a sycamore...”
2. “...to Dry Branch and then with the meanders...”

3. “...to the low water mark of Triplett Creek and then following the creek to a drain...”
4. “...to Cow Creek and then following the bank of the creek to a ...”

In each case, the boundary would run with the center of the stream. In analyzing these deeds, the court has remarked, “The mere mention of a monument on the bank of a stream as the place of beginning or the end of a line *is not of itself* sufficient to control the ordinary presumption that the grantee will hold to the thread of the stream...”

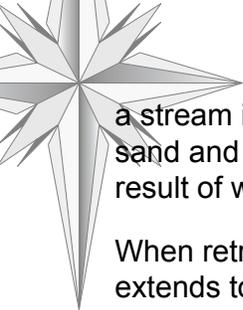
When one owns land bounding on a stream that contains islands or sandbars on his side of the middle of the stream, his title includes the islands and sandbars, as well as any islands or sandbars that form during his ownership.

When one owns land on a stream, his lateral lines from the bank to the middle of the stream will lie at right angles to the course of the stream, regardless of the direction of the lateral lines approaching the stream.

Some unusual situations can exist which require analysis before a determination of the boundary can be made. In one case, a party had a patent to an island in the Ohio River, while the riparian owners on the south side of the river could not trace their title to the Commonwealth, thus giving the patentee of the island superior title to the island. The Court held that, as between the two contending parties, the thread of the stream was in the channel between the island and the mainland.

A surveyor has to carefully analyze the language of a description to insure that he/she understands the intent of the parties. In one case, the common grantor owned both sides of a creek. In the first off-sale, he sold the land on the west side of the creek by a description that ran to the *east* side of the creek, and then with its meanders. In the second sale, the description began at a tree on the *east* bank and then ran with the meanders. The court held that the first sale conveyed the entire bed of the stream, and that the second grantee’s line ran with the east bank of the creek. In this case, the intent was indisputable.

Another case has held that the thread or middle of



a stream is unaffected by the changing location of sand and gravel bars that frequently move as a result of water flow.

When retracing the boundaries of a tract that extends to the center of the stream, it is proper, but not required, to show the center of the stream on the resulting plat and to include the acreage under water in the total acreage of the tract. In one case, the grantees purchased a described 7½ acres on the Rockcastle River for development of a tourist camp and bathing beach. In later litigation, the grantees attempted to set the sale aside on the grounds that they had received only 5 acres. Two surveys were performed. The grantee's survey ran to the bank of the stream and contained about five acres. The grantor's survey ran to the center of the stream. In its opinion, the court wrote:

According to the later survey made of this abutting and intervening space between the bank and the thread of the stream, it contains something over 2 acres, which, when added to the 5 acres embraced within the calls and surveyed only to the bank of the stream, makes a total of over 7 acres, thus satisfying the amount of acreage called for by the deed.

In the end, while riparian landowners own the bed of the river to the center of the stream. The Commonwealth owns the waters, and the public have something in the nature of an easement to the use of the water for transportation, recreation and so on. The court has written:

Riparian owners are permitted to build wharves or make other improvements between high and low water marks, on soil in which they have proprietary rights, if they do not materially interfere with the right of navigation common to all citizens...

To illustrate this point, the Licking River is well adapted to leisure boat traffic from the Ohio River all the way into Magoffin County (well, kind of). Adjoining land owners cannot prevent individuals from boating and fishing the Licking as long as they stay in their boats. If the owner so chose, however, he could legitimately complain if someone tied his boat up and fished from the bank. He could also complain if the person decided to wade and fish or seine for bait on his side of the river.

particularly watercourses, are referred to as *riparian owners*. Riparian owners have common law rights associated with the fact that their land borders on a stream. One of those rights, of course, is the presumed ownership of the bed of the stream to thread of the river. Other rights are related to the concept of *accretion* and *reliction*.

Streams change their courses, sometimes over a long period of time, and sometimes suddenly. The natural flow of water along river banks causes erosion, and in curves, there is a tendency for the soil to be washed from one side of the stream and deposited on the opposite bank. The loss of soil from one bank is known in the law as *reliction*, and the addition of soil to the opposite bank is known as *accretion*.

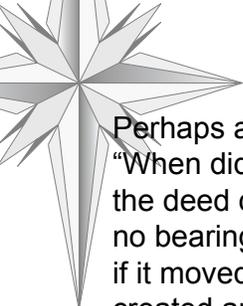
When soil is slowly deposited on one bank and adds area to the tract bordering the stream, the common law rule is that the boundary continues to be at the thread of the stream, and therefore the boundary moves with the thread of the stream, measured from the low water mark of the banks of the river.

However, when the course of a stream is changed suddenly by any means, whether a major flood or use of earth moving equipment, the boundary remains in the original location.

The surveyor is confronted with several questions when attempting to retrace a riparian title, and the questions are generally prompted by the client and the adjoining land owner. The questions are; "Has the stream moved? If so, what caused it to move? If it resulted from a major event, where was the thread of the stream before it moved?"

Obviously, these issues are matters of evidence, and frequently a client and the adjoiner will have contradictory explanations—once they become aware of the significance of the answers. It therefore becomes the surveyor's task of amassing all the evidence bearing on the issue and coming to an objective and reasonable conclusion. In the end, his conclusion may be tested in court.

When streams have moved suddenly, the location of the stream before the event is seldom, if ever, completely erased; the old channel is there to see. And when a stream has moved slowly, there is seldom, if ever, evidence of a previous channel.



Perhaps a more pertinent question would be, "When did the stream move?" If it moved before the deed descriptions were created, then it has no bearing on the location of the boundary. But if it moved after the deed descriptions were created and rights were already vested, it may have everything to do with the boundary.

In many instances, heavy flooding has resulted in the movement of a stream when a wagon or log road ran close to the low bank of a stream, particularly on the outside curve of the stream. Location of the remains of the road may verify this.

In many instances, a thorough study of the various editions of topographical maps or government aerial photos may show the possible "before and after" dates of a stream movement. Particularly in the Daniel Boone National Forest, the Forestry Service has tons of wonderful and well-documented surveys performed during the 1930s that will show the location of streams.



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Matthew Clark

Andy Kellie and Bill Whitaker Scholarship

I have come to realize, that like many of you out there, I fell into the greatest Profession possible. When I was in high school I had no idea there was such a thing as a Professional Land Surveyor. I grew up on a western Kentucky farm and from an early age I helped my family grow dark fired tobacco and cattle. My father worked in a factory until it went out of business, and then became a real estate salesman. Sometime in high school, dad became a broker and opened his own real estate office where he works to this day.

After enrolling in Murray State University in fall 2000, I had no real idea what I wanted to do. I was a farm kid so naturally I settled in the agriculture program. In my intro to Ag Systems Technology course, we had a few days of level rod measurements and calculations - as they dealt with pond and waterway construction. I was a "math" person, and the applied addition and subtraction used in the real world was natural to me. I questioned my professor, Dr. Dwayne Driskill, about what kind of jobs used these skills. I was thinking soil conversation oriented because my sister works for the soil conversation offices in western Kentucky. Luckily for me, Dr. Driskill had performed summer road survey stakeout in the past for his family in Missouri. He referred me to Professor Andrew Kellie. Within the first semester, I was hooked.

I was not Professor Kellie's model student. I had a few too many extracurricular activities that interfered with my studies. They were of my own choosing, and against the then overlooked advice of my parents. I lived in a frat house, and my parents would not support this choice, so I had a part time job at Briggs and Stratton to pay for my choices. Still, Professor Kellie invested his time and talents into someone who, at the time, probably appeared to be a "knuckle head." I continued my Ag degree, because with my farm background, it was the simplest diploma for me to obtain. I devoted all of my electives into what was really interesting to me; the board required minimum hours in the survey core curriculum.

I was a dropout of calculus because it made no sense to me. Honestly, my math in high school was more complex than what was required for my college Ag degree. That did not affect me when Professor Kellie explained the complex equations in calculating your precise position with GPS, which we did by hand on at least one test.

After graduation, I was very fortunate to work under the direct supervision of two of Western Kentucky's finest professional land surveyors, JD Knoth and Jack Williams. Today, I own my own office and generally work alone. Summer 2014, I was fortunate enough to have a fine summer intern and hope to employ one each summer if one is available.

I have told you a short version of my story of how I became a Professional Land Surveyor in order to relate to you more personally. I know there are a few sons of past surveyors out there. In western Kentucky I can name at least four without thinking, and I worked for two of them. But the majority of you reading this piece are like me. Most of us probably had little to no idea what a Professional Land Surveyor was or did before we, by blind luck, fate, or the Grace of God, fell into the greatest Profession on the face of the earth. Now I ask you all what it means to be a Professional Land Surveyor. Sure, we do complicated legal research, precisely measure property, and produce exact and complete plats and descriptions, but that is what we do, NOT what it means. To me, being a Professional means to give back to your profession. NOT always money, although I am specifically writing to get in your checkbooks. But mostly I mean your time, effort, and leadership.

Back to my story, Professor Andy Kellie led me into the Profession. He has touched the lives of most of the currently practicing surveyors in Western Kentucky and probably a majority of surveyors statewide. You may have had him in class at Murray State, read his engaging and thought provoking articles in *The Interior Angle*, or sat in one of his continuing education lectures around the state.



Now here comes the part about your checkbook. Murray State University has dedicated a joint scholarship to Professor Emeritus Andy Kellie and Professor Emeritus Bill Whitaker, and I for one would like to see this scholarship funded in honor of Andy Kellie. The required money to have a viable scholarship is \$25,000. Currently, MSU holds \$12,000 in this fund leaving a deficit of \$13,000. There are now 287 KAPS members on the website roll. Captain Math says that if half of such members would personally donate \$90.59, we could see this scholarship awarded in honor of all the work Andy Kellie has done for the surveying profession.

Here are directions Jon Payne sent me on how to make a donation:

- Go to: <http://www.raceralumni.com> to make your donation online.
- Select the "Giving" tab.
- Select "Give Now." Fill in information.
- When you get to the "Gift Designation" section, select "other."
- Then in the "Comments" section type in "Whitaker-Kellie Scholarship."

If you would prefer to give offline, please let me know and I will get you in touch with the right person to help you donate.

Western Kentucky CONSTRUCTOR

SPRING 2012

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In 2012, Andy and Bill were honored by the Western Kentucky chapter of the Associated General Contractors of America

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Andy Kellie and Bill Whitaker, MSU

Carlson Software Tip of the Day...

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Drawing Inspector

Carlson's Drawing Inspector is a transparent command that can be toggled on and off as needed. The command is available in all Carlson desktop software programs under the Inquiry menu.

Drawing Inspector can be configured to display object properties at the cursor location simply by hovering your mouse over objects.

Some of the properties that can be displayed are: Layer Name, Elevation, Azimuth-Distance, Bearing-Distance, Point Data, Text Data, Curve Data, Polyline Data or Polyline Direction. One of the cool things is that properties like Bearing-Distance and Curve Data will report on individual arc or line segments even if they're part of a polyline.

After toggling Drawing Inspector ON, right-click in the drawing area to change the properties that are displayed.

Visit www.thatcadgirl.com for more helpful tips

<input type="checkbox"/>	Keyboard Enter
<input type="checkbox"/>	Exit Menu
<input type="checkbox"/>	Turn Off Drawing Inspector
<input checked="" type="checkbox"/>	Display Layer Name
<input type="checkbox"/>	Display Entity Type
<input checked="" type="checkbox"/>	Display Elevation
<input type="checkbox"/>	Display Angle-Distance
<input type="checkbox"/>	Display Point Data
<input type="checkbox"/>	Display Text Data
<input type="checkbox"/>	Display Curve Data
<input type="checkbox"/>	Display Polyline Data
<input type="checkbox"/>	Display 3DFace Data
<input type="checkbox"/>	Display Polyline Blips
<input type="checkbox"/>	Display Polyline Direction
<input checked="" type="checkbox"/>	Enable Highlighting
<input checked="" type="checkbox"/>	Enable Tag Display
<input type="checkbox"/>	Show Data On Status Bar
<input type="checkbox"/>	Use Default Cursor
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Jennifer DiBona is an independent consultant doing business as That CAD Girl. She is a Carlson Software reseller and provides CAD training, technical support, and other CAD-related services.

"That CAD Girl will help you buy what you'll use & use what you buy"

NSPS FOUNDATION NEEDS A LOGO

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*The winning design will be featured online
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Old Logo

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nspsfoundationlogocontest@gmail.com

Deadline:
January 29, 2016

No Plumb Bobs
No Transits
No Ancient Equipment

Eligibility and rules apply check out our Facebook page for more information

NSPS Logo Contest Guidelines, Rules and Eligibility

The National Society of Professional Surveyors Foundation, Inc. is a multipurpose, non-profit corporation which provides an avenue to preserve the past and invest in the future of surveying, mapping, geographic and land information systems.

The NSPS Foundation needs help designing a logo and will be awarding an iPad to the chosen winner. To the right is the current logo. The NSPS Foundation seeks an updated look with updated survey equipment, methods or graphical depictions.



Eligibility

- Must be over the age of 18
- Must reside in the United States of America or US territories

Rules

- Has to be survey specific
- Try to abstain from using "classic" surveying equipment in design
- All entries must be submitted by January 29, 2016
- Logo will become property of the NSPS Foundation
- **Submit entries in a zipped file to nspsfoundationlogocontest@gmail.com**

Submission Requirements and Formats

- Raster images must be 300 dpi/ppi (dots per inch/pixels per inch) minimum.
- If available provide a scalable, vector, EPS or PDF format file.
- Full sized logo print should be submitted as a PDF to fill an 8.5"x11" size sheet of paper at 300 dpi/ppi minimum or vector format.
- All text shall be clearly readable when the logo is scaled down to 2"x2".
- Name of organization may or may not be included in the logo.
- No width to height ratio requirement.
- Sized appropriately to be used with letterhead, newsletter, promotional material, print ads, and banners.

Check out our Facebook Page for more information or email nspsfoundationlogocontest@gmail.com



Saturday, September 12, 2015, 10:00 a.m. EST

Kentucky Engineering Center, 160 Democrat Drive, Frankfort, KY

KAPS Board of Directors

CALL TO ORDER

KAPS 2015 President, Tom Clayborn, called the September 12, 2015 KAPS Board of Directors Meeting to order.

PROXY VOTES

A total of four proxies were submitted. Two timely proxies were: Greg Barker assigned his proxy to Steve Lilly on August 14, 2015 and Bob Neuhaus assigned his proxy to Chris Higgins on August 31, 2015. Jason Graves made a motion to accept these proxies. Mike Ladnier seconded. Motion carried. One proxy was submitted past the due date; Kevin Phillips assigned his proxy to Josh Calico on September 10, 2015. Mike Ladnier moved to accept this proxy. Chris Gephart seconded. Motion carried. Another timely proxy was later accepted when the recipient arrived; Jonathan Payne assigned his proxy to Matthew Clark on August 31, 2015. Chris Gephart moved to accept. James Mayo seconded. Motion carried.

MEMBERS PRESENT: Thomas Clayborn – President; Jason Graves – President Elect / Falls of the Ohio Chapter Chair; Dan Farrell – Vice President of External Affairs; Richard Montgomery – Director / Secretary; Tom Crabtree – Director / Treasurer; John Ledington – Director; James Mayo – Director; Josh Calico – Director; Chris Gephart – Kentucky Board of Licensure Liaison; William Bowie – KSPE Liaison; Steve Lilly – KAMP Liaison; Michael Ladnier – Audubon Chapter Chair; Johnny Justice – Highlands Chapter Chair; Matthew Clark – Jackson Purchase Chapter Chair; Curtis Felts – Southeast Chapter Chair.

STAFF PRESENT: Molly Forrest – Administrative Assistant.

GUESTS PRESENT: Chris Higgins – Barren River Chapter; Rachel Phelps – Government Strategies.

MEMBERS ABSENT: Jonathan Payne – Past President; Kevin Phillips – Vice President of Internal Affairs / Bluegrass Capital Chapter Chair; Greg Barker – Director; Craig Palmer – NSPS Governor; Paul Schrader – GIAC Liaison; Bob Neuhaus – Barren River Chapter Chair; Robert

Smith – Green River Chapter Chair; Earl Strater – Northern Kentucky Chapter Chair; Tom Bushelman – By-Laws & Policy Manual Chair.

PRESIDENT'S WELCOME

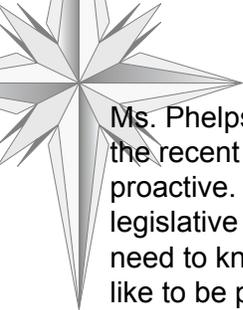
President Tom Clayborn welcomed everyone to the meeting.

ADDITIONS OR REVISIONS TO THE AGENDA

President Clayborn moved Rachel Phelps' Government Strategies presentation to this point in the agenda so she could move on with her day. Ms. Phelps expressed her appreciation for the relationship between Government Strategies and KAPS. She extended well wishes from Mike Helton. Ms. Phelps discussed the Kentucky Governor's race between Jack Conway (D) and Matt Bevin (R) to take place November 3rd. Regardless of the outcome in the Governor's race, we will still have Speaker Stumbo presiding over the House (54 Democrats; 46 Republicans) and President Stivers leading the Senate (26 Republicans; 12 Democrats). The budget will most likely be the main issue before the Legislature in 2016. The economy has turned and somewhat of a surplus is expected; although the State Employee Pension and the Teachers Retirement Fund could take the majority of the surplus. Due to the deficit in the last several years, many state agencies and interest groups will be requesting a piece of the surplus.

Ms. Phelps also reported Speaker Stumbo has indicated the gaming issue will be his #1 issue in 2016. However, Ms. Phelps is not sure gaming will have the support of the Senate. Legislative elections will take place in the Commonwealth in November 2016. All 100 members of the House and 19 members of the Senate will be up for re-election, so every issue brought forward in 2016 will be dealt with through the lens of their re-election.

Dan Farrell expressed his concern that the KYCORS Network could be cut off as was done by Ohio's newly elected governor to their state's version of the network. He urged everyone to call their representatives if that were to happen in Kentucky. Ms. Phelps offered to put together a "Briefing Document" to both gubernatorial campaigns regarding this concern. The Board asked Rachel to move forward and create a draft.



Ms. Phelps moved on to KAPS specific issues. In the recent past, we've been more defensive than proactive. As we plan for the 2016 and 2017 legislative sessions, Government Strategies will need to know if there are any issues KAPS would like to be proactive in. In turn, Government Strategies will continue to let KAPS know when there is an issue KAPS may want to get involved with.

Two regulations have been filed by the Kentucky Board of Engineers and Land Surveyors (KYBOELS): 1) changes regarding wording from "electronic" to "digital" signatures; 2) amendment dealing with conflict of interest enabling a licensee to present to KYBOELS to get their opinion regarding conflict of interest without being prosecuted. These regulations should be in place by the end of 2015 depending on any objections KYBOELS would have to deal with. Ms. Phelps does not expect a delay.

Several on the board expressed concern regarding the amount of funds the government has taken from the licensing board. To date, state government has taken approximately two million dollars from the licensing board. Ms. Phelps stated this is one way the legislature likes to balance the budget without raising taxes. She suggested possibly sending a "for the record" letter to the legislature from KAPS regarding their concerns.

Further, Ms. Phelps doesn't expect tax reform to be introduced until at least 2017. A newly elected governor usually will not begin his term with tax reform.

The board expressed their appreciation for Ms. Phelps presentation and Government Strategies work on our behalf.

**President Clayborn also added Plat Law discussion to New Business.

REVIEW AND APPROVAL OF BOARD MEETING MINUTES

The minutes of the June 19, 2015 Board meeting were reviewed. Mike Ladnier made a motion to approve the minutes. Dan Farrell seconded. Motion carried.

KAPS OFFICER REPORTS

President's Report – submitted in the Board Packet.

Treasurer's Report – The 08.31.15 Balance Sheet / Profit & Loss Statement was submitted in the Board Packet.

President Clayborn pointed out that fifteen thousand dollars was recently transferred from the KAPS investments at Morgan Stanley to cover expenses per the Executive Committee. He expressed the need to look at ways to cut expenses and/or bring in more funds. Johnny Justice suggested online courses may be a good way to generate more funds. President Clayborn reminded the board that online courses have been considered by the Board in the past. Chris Gephart suggested possibly hiring a consultant to move forward on online courses. Mr. Justice volunteered to look into the possibilities and bring a report back to the Board in December. Mr. Gephart suggested looking at the ratio between KAPS members and non-members that attend our seminars.

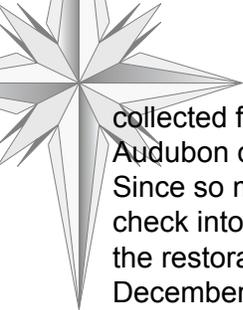
Steve Lilly wondered if coordinating an annual event with KAMP would increase KAPS membership. KAMP is very interested in collaboration. President Clayborn also mentioned Kevin Phillips had previously suggested looking at moving the KAPS Annual Conference to the fall of the year to cut expenses and increase participation. President Clayborn stated the Executive Committee would look into solutions to the financial dilemma.

Following review, Tom Crabtree moved to accept the financial statements. Jason Graves seconded. Statement accepted.

Administrative Assistant's Report – submitted in Board Packet. Molly Forrest reminded everyone to keep Richey Newton in their prayers. Richard Montgomery had spoken with Mr. Newton the night prior to the board meeting and reported Mr. Newton stayed in Markey Cancer Center for 6 or 7 days. He is now home. His hemoglobin count is low; white cells are up; red cell count needs to increase. He is on a chemotherapy regimen. Every other day he travels to Markey Cancer Center for chemo or blood transfusion. His spirits are good and he is fighting the cancer. The family has requested no visitors so as to not compromise his immune system.

OLD BUSINESS

Mason & Dixon Surveying Instrument Restoration Chapter Challenge – The KAPS goal is to raise \$2,500.00 association-wide for this restoration project. The following chapters have pledged \$250.00 each: Barren River, Falls of the Ohio, and Bluegrass-Capital. The following chapters have pledged \$100.00 each: Audubon and Jackson Purchase. As of this meeting, \$600.00 has been



collected from Barren River, Falls of the Ohio, and Audubon combined; \$350.00 remains outstanding. Since so much time has lapsed, Molly Forrest will check into whether the funds are still needed for the restoration project or not. She will report at the December meeting.

Kentucky State Fair – Jason Graves reported the KAPS booth was well received. We had good placement and exposure. Visitors to the booth asked good questions and enjoyed the instruments. Mr. Graves believes it was money well spent.

NEW BUSINESS

Next KAPS Board Meeting – Saturday, December 5, 2015, 10:00 A.M. EST at the Ramada Plaza Conference Center, 9700 Bluegrass Parkway, Louisville, KY 40299.

Government Strategies Presentation (Rachel Phelps) – moved to the beginning of meeting

KAPS Membership Certificates and Cards – Molly Forrest informed the Board of a member requesting a certificate of membership. The Executive Committee has discussed the issue but Mrs. Forrest needs a clear directive from the Board as to how to proceed with membership certificates and/or cards. President Clayborn reminded the Board the by-laws state we must issue certificates. James Mayo made a motion to make membership certificates and cards available on the KAPS website. Johnny Justice seconded. Motion carried. Mrs. Forrest will get in touch with Andrew Dodson regarding adding this to our website.

Construction Career Days: September 29 & 30, 9 a.m.-1 p.m., Shelbyville Fairgrounds – President Clayborn introduced an opportunity to the Board for KAPS to participate in this no-cost event. The event is attended by more than 2,300 students. The booth needs to be interactive for the students to be interested. Jason Graves volunteered to man the booth on September 29th; Tom Clayborn and Dan Farrell stepped up for September 30th. It was decided to make the booth interactive and hand out brochures as well as cards with college surveying program information.

KAMP Conference Booth: October 12-14, Owensboro – Steve Lilly will put together a schedule of those interested in manning the KAPS booth.

****Plat Law (addition to agenda)** – President Clayborn and Richard Montgomery are interested

in bringing plat law legislation back into the forefront. Mr. Montgomery wants as much input as possible regarding this issue. A database needs to be developed of people that have personal connections with legislators. Chapter Chairs were encouraged to talk to their membership and identify who their legislators are and who may have a personal connection to those legislators. Developing these contacts and the legislation in 2016 will help KAPS be ready to move forward in 2017.

EX-OFFICIO DIRECTORS REPORTS

KAMP Liaison – no written report; Steve Lilly reported all talk at KAMP is about the conference for now. They are happy for KAPS participation.

KY State Board of Licensure Liaison – written report submitted; Chris Gephart reported four new members have been seated including Don Pedigo. As discussed earlier with Rachel Phelps, KYBOELS has submitted two regulations.

Regarding the status of the mapping sciences language that was developed by KYBOELS, KAPS, and KAMP, KYBOELS voted to make the language an “Advisory Opinion” on Exclusions to the Practice of Surveying. The language can currently be found on the KYBOELS website. Mr. Gephart made a motion for the KAPS President to submit a letter of support of said language. Tom Crabtree seconded. Motion carried. President Clayborn will submit the letter to KYBOELS.

KSPE Liaison – no written report; William Bowie reported KSPE has the same concerns KAPS has regarding licensing and membership in their respective state association. He suggested early education would be crucial. Having college professors be licensed professionals as well as association members is important.

Professional Development Chair – Mike Ladnier announced that registration is OPEN for KAPS Fall Seminars. The seminar schedule was included in the board packet.

CHAPTER REPORTS

Audubon – no written report; Mike Ladnier reported the chapter is working on putting their fall seminar together. Their September meeting is next week and they hope to have a Leica representative at their October meeting.



Barren River – no written report; Chris Higgins reported the chapter met in August. They are discussing some ways to increase chapter involvement such as offering a PDH for participation.

Green River – no written report; Richard Montgomery reported the chapter had met once this year.

Highlands – no written report; Johnny Justice reported the chapter is to meet in October.

Purchase – no written report; Matthew Clark reported six members were at their last chapter meeting. They are expecting ten to twelve at their next meeting since it will be near Murray State University and the college students usually attend. The Chapter is already planning to have Larry Phipps do a fall seminar in their area in 2016. Mr. Clark also submitted an article announcing a scholarship in Andrew Kellie's name. The article has the Purchase Chapter's support. The Board suggested he submit it to Doug Comer for insertion in *The Interior Angle*.

Southeast – written report submitted; Curtis Felts reported their chapter is working on an upcoming fall seminar in their area.

COMMITTEE REPORTS

Annual Conference – President Clayborn said the Conference Committee would be meeting following today's Board meeting. He also announced the featured speaker for the 2016 Conference would be Jeff Lucas.

Annual Golf Outing and Picnic – President Clayborn reported the picnic was cancelled due to rain.

Finance – written report submitted; James Mayo reported a meeting is scheduled with Michael Cheek of Cook & Cheek CPAs and the Finance Committee for October 31st at the KAPS office.

ADJOURNMENT

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

Respectfully submitted by

Molly M. Forrest for Richard Montgomery, PE, PLS,
Secretary
Edited for content by Doug Comer, PE, PLS, Editor

David Atwell



David A. Atwell age 71 of Horse Cave passed away Friday, December 4, 2015 at The Medical Center at Bowling Green. He was a native of Park, KY and a Professional Land Surveyor and Professional Engineer. He was a member of Munfordville United Methodist Church, where he served as President of The Methodist Men's Club. He was a veteran of the United States Army, having served with the 535 Engineering Company. David graduated as a member of the 1962 class of Hiseville High School. He received his engineering degrees when he graduated from Western Kentucky University.

David lived life to the fullest and expressed himself with the playing of music and in earlier years flying his private plane. He also loved traveling around the world.

He was preceded in death by his loving wife, Bonnie Sue Atwell, on August 14, 1994 and his father, Elzie Atwell, on April 11, 1963. His mother, Louise Wilcoxson Atwell of Park, passed away shortly after David's death, on December 18, 2015.

He leaves to mourn his loss his brother, Danny Atwell, and his wife, Patricia, of Legrande, KY; two nieces, Marcie Atwell of Horse Cave and Danyel Morrison & her husband, Todd, of Hiseville, Ky; two great-nieces, Hannah and Emma Morrison, both of Hiseville; and two very close and special friends, Jan Phillips of Horse Cave and Les Strawn of Miramar Beach, Florida.

He was buried next to his late wife, Bonnie Sue, at Houk Cemetery in Metcalfe County. In addition to flowers expressions of sympathy in his memory may be made to The American Cancer Society.

The cemetery location is
N 37°10'11.63"
W 085°42 21.67"



Frank Lenik, PLS

Bridging the Gap; Filling the Ranks of Surveyors in the Next Decade

Lately, each time I get together with a group of surveyors, the discussion moves towards the shortage of available candidates for employment, the dearth of applicants for the land surveyor exam, and the aging of the population of existing surveyors. With a long face someone inevitably predicts the eventual death of our profession. We recognize the symptoms, but can't identify a cure. As Walt Kelly's Pogo would say, "we have met the enemy, and he is us."

The progression from a field crew composed of three people to two to one person over the last 20 years has reduced and in most cases eliminated our usual method of training employees. We can no longer depend on the old model of the master apprentice program. We lament about the quality of candidates but have little time to properly train our field crews. A qualified candidate often becomes one who is familiar with the type of instruments we own, or one who is adept enough to learn quickly and begin production.

Over the last 10 years the list of surveyor candidates who were looking for work or who were under employed has evaporated. The larger firms have realized this and have gone after university co-op students and graduates in a big way. Those firms understand the need to fill their ranks with the best candidates they can find. It is good for the long-term health of their company programs and they are not afraid to pay for these individuals. The result is that many of our university programs had their seniors placed before the final term last year.

This may be the beginning of a new age of land surveying education. The law of supply and demand should put pressure on universities, colleges and technical schools to satisfy our needs. The schools will need to create new surveying, survey engineering or geomatics engineering programs or support the existing ones, which will in time result in more qualified candidates for our profession and a better experience for the public overall.

The obvious dilemma will be how long it will take for this cycle to generate enough candidates to satisfy our attrition rate; and what should we do in the mean time? Land surveyors who want to be a part of the solution need to be working today with our institutions of higher learning and providing them with feedback on market conditions and manpower needs. With a determined effort, we could effect change in the survey education system and increase the number of students coming out of existing programs in a few years and hopefully start some new programs along the way.

Understanding that this will take time to come to fruition, we will need to institute some stop-gap measures like the one proposed by a colleague of mine. He suggested if you "give me a person with a college degree, I can teach them to survey." Yes, it would be preferable to hire survey graduates today, but what do we do if they aren't available? Why not hire a graduate and shorten the learning curve for new employees.

Environmental studies and forestry majors have already committed themselves to working outdoors. One university in the Philadelphia region is currently teaching "Introduction to Environmental Surveying," where their students are taught the use of GNSS hardware and software, digital levels, total stations and robotic instruments. They are learning about hydrography and UAVs and are applying these tools to ground water studies, flora and fauna studies, as well as lake, river and ocean hydrology and sedimentation studies.

If we are looking for potential employee candidates today we should explore all possible solutions. We, as a profession, need to identify them wherever they are and teach them about the rewarding futures in land surveying.

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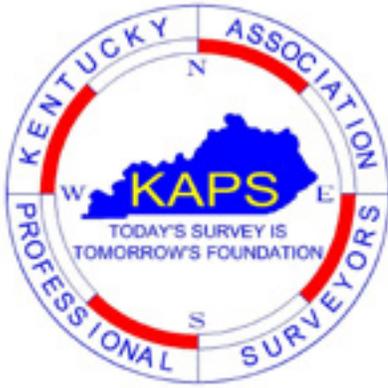
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LON: 83°47'00.59" +

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Register online at www.kaps1.com

NAME _____ SPOUSE _____

KY COUNTY _____ CHAPTER _____ KY PLS # _____

RESIDENCE ADDRESS _____

CITY _____ STATE _____ ZIP _____

IF NOT RESIDENT OF KY, ARE YOU A MEMBER OF YOUR STATE SURVEY ASSOCIATION? YES NO

BUSINESS NAME & ADDRESS _____

CITY _____ STATE _____ ZIP _____

DO YOU PREFER: EMAIL USPS / IF USPS, DO YOU PREFER: RESIDENCE BUSINESS

EMAIL ADDRESS _____ BUSINESS WEBSITE _____

HOME PHONE _____ CELL PHONE _____

BUSINESS PHONE _____ FAX _____

BIRTHDAY _____ HIGHEST DEGREE _____

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

- FULL MEMBER \$ 195.00
- LIFETIME FULL \$3,900.00
- FIRST LICENSED YEAR \$ 0.00
- ASSOCIATE MEMBER \$ 97.50
- CORPORATE MEMBER* \$ 390.00
- BUSINESS MEMBER \$ 390.00
- STUDENT MEMBER \$ 0.00

CHECK ENCLOSED CREDIT CARD

MC / VISA # _____

3-DIGIT V-CODE (on back of card) _____

EXPIRATION DATE _____

SIGNATURE _____

REFERRED BY _____



“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.

100% Annual Dues January – June; 75% Annual Dues July – December (proration according to date of application)

FOR KAPS OFFICE USE ONLY:

PAYMENT REC'D / RECEIPT / WEBSITE / EXCEL / CHAPTER / POST NSPS

kentucky association of professional surveyors

 **conference**

2016

FEBRUARY 18-20

Ramada Plaza Hotel & Conference Center, Louisville, KY

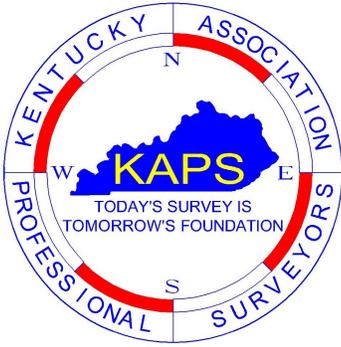
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KAPS

Kentucky Association of Professional Surveyors

124 Walnut Street

Frankfort, Kentucky 40601

Ph.; 800.866.3029, Fax: 502.695.2667

Email: mforrest@kaps1.com

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 18, 2016 through Saturday, February 20, 2016. Early registration will begin on Wednesday with seminars being held on Thursday, Friday and Saturday. For 2016, we will be in Louisville, Kentucky at the Ramada Plaza Hotel and Conference Center in Louisville, 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 same concerns about the profession.

Beyond the interaction with fellow surveyors, you will 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 look into 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.

I extend a huge THANK YOU to Molly Forrest and the KAPS conference committee for arranging the conference. The work performed behind the scenes in order to put on a conference is IMMENSE. I did not fully appreciate how much effort it takes to get everything lined up until I participated (in a small amount) with arrangements.

I hope you will join me at our 2016 conference themed "Surveyors with a Unified Voice." I am confident that there is an excellent opportunity to accomplish the stated goal with the seminars we have lined up.

Professionally,

A handwritten signature in black ink that reads 'Thomas W. Clayborn II'.

Thomas W. Clayborn II
2015 KAPS President

Kentucky Association of Professional Surveyors

conference

2016

FEBRUARY 18-20

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KAPS discounted rate ends January 26, 2016

Schedule at a Glance

Wednesday, February 17

- 3:00 - 7:00 P.M. Exhibitor Setup
- 6:00 P.M. 2015 KAPS Board of Directors Meeting

Thursday, February 18

- 7:00 A.M. Registration Opens
- 7:00 A.M. - 6:00 P.M. *EXHIBITS OPEN*
- 8:00 A.M. - 12:00 P.M. Technical Sessions
- 12:00 P.M. - 1:30 P.M. Luncheon & Installation of Officers
- 1:30 P.M. - 5:30 P.M. Technical Sessions
- 5:00 P.M. - 7:00 P.M. Exhibitors Reception & Door prizes
- 7:00 P.M. - 8:00 P.M. 2016 KAPS Board of Directors Meeting

Friday, February 19

- 7:00 A.M. Registration Opens
- 7:00 A.M. - 3:00 P.M. *EXHIBITS OPEN*
- 8:00 A.M. - 12:00 P.M. Technical Sessions
- 12:00 P.M. - 1:30 P.M. Luncheon & General Membership Meeting
- 1:30 P.M. - 5:30 P.M. Technical Sessions
- 6:30 P.M. - 7:00 P.M. Photo Sessions
- 7:00 P.M. - 9:30 P.M. Awards Banquet

Saturday, February 20

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

2016 KAPS CONFERENCE REGISTRATION FORM

CANCELLATION REFUNDS: 30 days prior to event: 100% ▪ 10-29 days prior to event: 50% ▪ 0-9 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 _____
 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	\$325.00	\$525.00 <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"/> Friday includes lunch, sessions, & exhibits	\$195.00	\$295.00	
SATURDAY ETHICS, CODE OF CONDUCT & STANDARDS SESSION ONLY	\$85.00	\$85.00	
SATURDAY THE COUNTY SURVEYOR IN KENTUCKY SESSION ONLY	\$85.00	\$85.00	
SATURDAY FS (LSIT) EXAM REVIEW ONLY	\$125.00	\$125.00	
FULL-TIME STUDENT REGISTRATION Thursday & Friday only	\$0.00	per day \$25.00	
EXHIBIT PASS ONLY & TECHNICIAN CLASSES no credit	\$30.00	\$40.00	
EXTRA MEALS Please mark below the # of extra meals needed: <input type="checkbox"/> Thursday Lunch / <input type="checkbox"/> Friday Lunch / <input type="checkbox"/> Saturday Lunch <input type="checkbox"/> Friday Evening Banquet (coat & tie event)	\$30.00 \$55.00	\$35.00 \$60.00	
TOTAL REGISTRATION AND EXTRAS			\$
ADD LATE FEE (if postmarked after February 1, 2016)	\$30.00	\$50.00	
GRAND TOTAL DUE TO KAPS			\$

CHECK PAYABLE TO KAPS ENCLOSED (mail to KAPS, 124 Walnut Street, Frankfort, KY 40601)
 VISA / MASTERCARD / DISCOVER # _____ (email to mforrest@kaps1.com or fax 502.695.2667)
 EXP DATE _____ 3-DIGIT V-CODE (on back of card) _____ SIGNATURE _____

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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 18, 2016 <input type="checkbox"/> 8:00 A.M. - 12:00 P.M.	<i>Property Rights & the Land Surveyor</i> 4 PDH; Course #15-10-083; Presenter - Jeffery N. Lucas, PLS
Thursday, February 18, 2016 <input type="checkbox"/> 8:00 A.M. - 12:00 P.M.	<i>Introduction to Dendrology</i> 4 PDH; Course #15-10-087; Presenter - Curtis Middaugh
Thursday, February 18, 2016 <input type="checkbox"/> 8:00 A.M. - 12:00 P.M.	<i>Land Survey LiDAR Applications</i> 4 PDH; Course #15-07-049; Presenter - Ben Shinabery
Thursday, February 18, 2016 <input type="checkbox"/> 8:00 A.M. - 10:00 A.M.	<i>3D Modeling</i> 2 PDH; Course #15-10-090; Presenter - Andrew C. Kellie, PLS
Thursday, February 18, 2016 <input type="checkbox"/> 1:30 A.M. - 5:30 P.M.	<i>Drafting Survey Descriptions</i> 4 PDH; Course #14-07-047; Presenter - Andrew C. Kellie, PLS
Thursday, February 18, 2016 <input type="checkbox"/> 1:30 P.M. - 5:30 P.M.	<i>Ethics for the Land Surveyor</i> 4 PDH; Course #15-10-084; Presenter - Jeffery N. Lucas, PLS
Thursday, February 18, 2016 <input type="checkbox"/> 1:30 P.M. - 4:30 P.M.	<i>Elevation Certificates & the Community Rating Systems: What to Know & Expect</i> 3 PDH; Course #14-07-051; Presenter - Christina Groves
Thursday, February 18, 2016 <input type="checkbox"/> 1:30 P.M. - 3:30 P.M.	<i>Online Mapping Data Sources</i> 2 PDH; Course #15-10-081; Presenter - Jonathan Payne, PLS
Thursday, February 18, 2016 <input type="checkbox"/> 3:30 P.M. - 5:30 P.M.	<i>Licensure Board Panel Discussion</i> 2 PDH; Course # 14-10-059; Presenter - various BOL members and staff
Thursday, February 18, 2016 <input type="checkbox"/> 4:30 P.M. - 5:30 P.M.	<i>KYTC Surveying & R/W Standards</i> 1 PDH; Course # 15-07-035; Presenter - Brian Cox, PLS
Friday, February 19, 2016 <input type="checkbox"/> 8:00 A.M. - 12:00 P.M.	<i>Engineer & Land Surveyor Liability</i> 4 PDH; Course #15-10-085; Presenter - Jeffery N. Lucas, PLS
Friday, February 19, 2016 <input type="checkbox"/> 8:00 A.M. - 10:00 A.M.	<i>Law of Easements: Legal Issues & Practical Considerations in Kentucky</i> 2 PDH; Course #15-01-005; Presenter - Christopher C. Wischer
Friday, February 19, 2016 <input type="checkbox"/> 8:00 A.M. - 12:00 P.M.	<i>Least Squares Adjustment Demystified</i> 4 PDH; Course # pending re-approval; Presenter - Bruce Carlson & Dean Goodman
Friday, February 19, 2016 <input type="checkbox"/> 8:00 A.M. - 5:30 P.M.	<i>Ethics, Code of Conduct, & Standards of Practice</i> 8 PDH; Course #15-07-050; Presenter - Jonathan Payne, PLS
Friday, February 19, 2016 <input type="checkbox"/> 10:00 A.M. - 12:00 P.M.	<i>Introduction to Civil 3D for Surveyors</i> 2 PDH; Course #15-10-082; Presenter - Heather Adams, PE
Friday, February 19, 2016 <input type="checkbox"/> 1:30 P.M. - 5:30 P.M.	<i>The Boundary Surveyor</i> 4 PDH; Course #15-10-086; Presenter - Jeffery N. Lucas, PLS
Friday, February 19, 2016 <input type="checkbox"/> 1:30 P.M. - 5:30 P.M.	<i>Excel 2007 Training</i> 4 PDH; Course #15-10-088; Presenter - Debra Clayborn, CRCM, CFIRS
Friday, February 19, 2016 <input type="checkbox"/> 1:30 P.M. - 5:30 P.M.	<i>Field to Finish</i> 4 PDH; Course # pending approval; Presenter - Bruce Carlson
Saturday, February 20, 2016 <input type="checkbox"/> 8:00 A.M. - 12:00 P.M.	<i>Standards of Practice, Ethics, & Code of Conduct</i> 4 PDH; Course #15-07-033; Presenter - Chris Gephart, PLS
Saturday, February 20, 2016 <input type="checkbox"/> 1:00 P.M. - 5:00 P.M.	<i>The County Surveyor in Kentucky</i> 4 PDH; Course #13-10-023; Presenter - William Ralph Paris, PLS
Saturday, February 20, 2016 <input type="checkbox"/> 8:00 A.M. - 5:00 P.M.	<i>FS (LSIT) Exam Review</i> Presenter - James Decker, PS; Carol Morman, PE, PS

Surveyors with a Unified Voice

THURSDAY SESSIONS

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

Property Rights & the Land Surveyor

8:00 A.M. - 12:00 P.M.; 4 PDH; Course #15-10-083; Presenter - Jeffery N. Lucas, PLS

What are real property rights and where do they come from? Should the land surveyor concern himself/herself with property rights? How have the courts reacted to the issue of property rights and the land surveyor? This seminar will examine these questions and many other related topics. Subjects to be covered include: Torts that can impact property rights, written conveyances, deed interpretation, unwritten rights, junior & senior rights, adverse possession, estoppel, and more. These issues will be covered through court opinions from across the country. In addition to examining the problems associated with property rights, common solutions for the most common problems will be explored. Resolving conflicts in boundaries should be a high priority for any practicing boundary surveyor concerned with the property rights of the client and adjoining property owners. Power Point presentation.

Introduction to Dendrology

8:00 A.M. - 12:00 P.M.; 4 PDH; Course #15-10-087; Presenter - Curtis Middaugh

This seminar provides basic introduction to dendrology, tree identification, terminology, and keys to identification. Other features: opposite branching species; ridgetop, dry site species; mid-slope, moist site species; lower-slope, bottom land species; limestone site species; generalist species; Q&A.

Land Survey LiDAR Applications

8:00 A.M. - 12:00 P.M.; Course #15-07-049; Presenter - Ben Shinabery

LiDAR point clouds can seem overwhelming because of the file size and wealth of information gathered. Through this land survey presentation, we will give step-by-step instructions on various ways of isolating important information critical to project modeling which include: LiDAR collection platforms and their associated accuracies; using the right data for the right applications; high resolution LiDAR; isolating points with clipping boxes; rendering point clouds visually; DTM feature creation; merging data sets.

3D Modeling

8:00 A.M. - 10:00 A.M.; 2 PDH; Course #15-10-090; Presenter - Andrew C. Kellie, PLS

A two hour workshop on the use of field survey data, archival data, and GIS techniques for 3D modeling and analysis in both the surface and subsurface.

Drafting Survey Descriptions

1:30 P.M. - 5:30 P.M.; 4 PDH; Course #14-07-047; Presenter - Andrew C. Kellie, PLS

Instruction will include: basic principles of a basic part of survey practice; descriptions known & loved (bring your favorite to the session); types; parts; drafting in the King's (!) English; descriptions to examine & criticize; (documents provided, discussion expected, conclusions on your own); on and beyond (the basics); highways and geometry; riparian boundaries; how I would do it—writing survey descriptions with friends.

Ethics for the Land Surveyor

1:30 P.M. - 5:30 P.M.; 4 PDH; Course #15-10-084; Presenter - Jeffery N. Lucas, PLS

Utilizing the *Surveyor's Creed and Canons* adopted by the National Society of Professional Surveyors as a basis for discussion, this seminar will study ethical consideration in everyday practice. Real cases involving real surveyors will be discussed and explored for the ethical issues that they contain. Some hypothetical situations are also discussed. This seminar usually generates plenty of discussion over the case scenarios and the actions of the surveyors involved.

Elevation Certificates & the Community Rating Systems: What to Know & Expect

1:30 P.M. - 4:30 P.M.; 3 PDH; Course #14-07-051; Presenter - Christina Groves, CRS Specialist

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 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.

Online Mapping Data Sources

1:30 P.M. - 3:30 P.M.; 2 PDH; Course #15-10-081; Presenter - Jonathan Payne, PLS

An exploration of online sources of information for aerial photography, topographic quad sheets, digital elevation models, county road maps, and other spatial data.

Licensure Board Panel Discussion

3:30 P.M. - 5:30 P.M.; 2 PDH; Course #14-10-059; 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.

KYTC Surveying & R/W Standards

4:30 P.M. - 5:30 P.M.; 1 PDH; Course # 15-07-035; Presenter - Brian Cox, PLS

KYTC highway design, purpose, philosophy, and organization will be discussed. Other topics include: surveying control; photogrammetry; data collection; other surveying activities; right-of-way monumentation; surveying exhibits; general information; right-of-way plans, considerations, and deed descriptions; examples.

FRIDAY SESSIONS

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

Engineer & Land Surveyor Liability

8:00 A.M. - 12:00 P.M.; 4 PDH; Course #15-10-085; Presenter - Jeffery N. Lucas, PLS

What is your liability as a professional land surveyor or engineer? Do you have protection because you work for a large corporation? What if you are a solo-practitioner? Are you liable to third parties with whom you have no contractual relationship? Will you have to take your liability to your grave? These and other issues will be the subject of this seminar, designed to give the professional land surveyor and engineer answers to these and other important liability questions. Important doctrines of the law and courts cases will be discussed to provide these answers. Some easy steps that you can take as a professional to limit your liability will be explored.

Law of Easements: Legal Issues & Practical Considerations in Kentucky

8:00 A.M. - 10:00 A.M.; 2 PDH; Course #15-01-005; Presenter - Christopher C. Wischer

Instruction will include: types of easements; creation of easements; termination of easements; title insurance issues; easements as exceptions to coverage; easements as insurable interests; eminent domain process.

Least Squares Adjustment Demystified

8:00 A.M. - 12:00 P.M.; 4 PDH; Course # pending re-approval; Presenter - Bruce Carlson

Data adjustment is an integral part of most survey projects. Modern computers have allowed surveyors to use adjustment techniques that were all but impossible in the past. Least Squares adjustment provides the best and most informative adjustment technique possible. It allows more control and flexibility over the adjustment process than traditional methods and provides the surveyor with a powerful data analysis tool. We will be using Carlson SurvNET as the processing software in our presentation. There will be a brief discussion of measurement errors, error propagation, and traditional error adjustment techniques. We will then create and process several survey projects. This will include the analysis of the data and statistical reports.

Ethics, Code of Conduct, & Standards of Practice

8:00 A.M. - 5:30 P.M.; 8 PDH; Course #15-07-050; 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

Introduction to Civil 3D for Surveyors

10:00 A.M. - 12:00 P.M.; 2 PDH; Course #15-10-082; Presenter - Heather Adams, PE

Seminar topics include: why civil 3D; field to finish; points overview; survey tools pace; analysis tools; creating surfaces; working with parcel data; volume calculations; map 3D and GIS data; Q&A

The Boundary Surveyor

1:30 P.M. - 5:30 P.M.; 4 PDH; Course #15-10-086; Presenter - Jeffery N. Lucas, PLS

This seminar is designed to take a look at the duties and responsibilities of the boundary surveyor. How those duties and responsibilities have been described in the past, and are they different today and will they be different in the future. Recent court cases indicate that the boundary surveyor's duties and responsibilities, like the law, are ever changing and evolving. Along with these changes has come increased liability for the boundary surveyor. Today, surveyors are being sued and held liable for incorrect boundary determinations. In addition, surveyors are being sued for torts that they commit along the way. Once it was considered good practice to stake the clients deed and "let the chips fall where they may." In the modern day boundary dispute case, this practice is more likely to start a boundary dispute as resolve one and when the chips fall the surveyor is quite likely to have to account for his fair share of them.

Excel 2007 Training

1:30 P.M. - 5:30 P.M.; 4 PDH; Course #15-10-088; Presenter - Debra Clayborn, CRCM, CFIRS

This is a more extensive course than the 2 hour course we've offered in the past. Instruction will include basic terminology; navigation of tool bar; build a basic spreadsheet; using formulas; short cuts and tricks.

Field to Finish

1:30 P.M. - 5:30 P.M.; 4 PDH; Course # pending approval; Presenter - Bruce Carlson

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SATURDAY SESSIONS

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

Standards of Practice, Ethics, & Code of Conduct

8:00 A.M. - 12:00 P.M.; 4 PDH; Course #15-07-033; Presenter - Chris Gephart, 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

The County Surveyor in Kentucky

1:00 P.M. - 5:00 P.M.; 4 PDH; Course #13-10-023; Presenter - William Ralph Paris, PLS

Seminar Topics: Qualifications for Office; Installation (KRS 73.020); The Surveyor (Scope of Duties); Compensation; The Surveyor & Original Surveys (KRS 56); The Surveyor & Processions (KRS 73); The Surveyor & Divisions; The Surveyor (Possibilities); The Surveyor in Other States (examples)

FS (LSIT) Exam Review

8:00 A.M. - 5:00 P.M.; Presenter - James Decker, PS; Carol Morman, PE, PS

Comprehensive review for the FS exam.



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KAPS PRESENTS



Friday evening,
February 19, at the
Conference Banquet



KEYNOTE SPEAKER
Thursday, February 18
Luncheon

Jeffery N. Lucas

Jeffery N. Lucas is in private practice in Birmingham, Alabama. Lucas has been in the surveying business since 1976. He is a licensed land surveyor registered in Alabama, Florida, Georgia, Mississippi and Tennessee. Lucas is a licensed attorney and was admitted to the Alabama State Bar in 2003. Lucas is the author of "Alabama Boundary Law," "The Pincushion Effect, The Multiple Monument Dilemma in American Land Surveying" and "Illinois Boundary Law." He has also authored over 100 articles on surveying and boundary issues and writes a regular column for P.O.B. Magazine since 2004. He is currently the Alabama Division Manager for ESP Associates, P.A.

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MEET THE SPEAKERS

Heather Adams, PE is the Education Specialist Manager for Advanced Solutions, Inc. Along with managing the Education team she also an Instructor with a focus on the Civil Software Solutions. At Advanced Solutions, Heather provides training and consulting services to our customers by helping them get the most out of their design software. She specializes in teaching Autodesk Civil 3d, Map 3D, Infracore, and AutoCAD. Prior to joining Advanced Solutions, Heather attended the University of Tennessee where she received her bachelor's degree in Civil Engineering and was inducted into Chi Epsilon Honors Society. She recently received her Professional License, as well as ACI (Autodesk Certified Instructor) status through Autodesk. She has held positions in firms specializing in a variety of disciplines

Bruce Carlson is the President and driving force behind Carlson Software (1983 – Present), which specializes in software for engineering, surveying, construction and mining applications. Bruce has a degree in Mathematics from Dartmouth College and is a Civil Engineer and Land Surveyor. He specializes in Software Design, Training and Large-Customer Support.

Debra A. Clayborn, CRCM, CFIRS has worked in the banking industry since 1972 and in the compliance field since 1997. She is currently the Vice President, Head of Compliance at Independence Bank of Kentucky in Owensboro, KY. Debbie graduated Magna Cum Laude in Business Administration from the University of Southern Indiana. In performing her responsibilities, Debbie has spent numerous hours building and perfecting Excel spreadsheets and is proficient in the basic functions of Microsoft Excel.

Brian Cox, PLS earned an Associate Degree in Civil Engineering and Surveying from Cincinnati State Technical College. He serves as the Survey Coordinator for KYTC District 6. Mr. Cox has performed 500 plus private land surveys with Cox Land Surveying. He has participated in ALTA surveys for Northern Kentucky Water District, Delhi Pike Widening Project Construction Staking, Air space surveys for Rumpke Land Fill, U.S. 27 Widening Project Construction Staking, and Greater Cincinnati Northern Kentucky International Airport – Delta Hanger / Tunnel project. Further, Mr. Cox has served KAPS in the following capacities: Past President 2010; Secretary / Treasurer; Northern Kentucky Chapter 2003-2013.

James Decker, PS is a full-time civil engineering technology and land surveying professor for Cincinnati State Technical and Community College. He is a graduate of Cincinnati State's Civil Engineering Technology Surveying program and the University of Cincinnati's Civil Engineering program. Jim is licensed as a Professional Land Surveyor in Ohio. To stay current in the profession and to remain an expert in computer technology, Jim works as a consultant on CAD projects and is a botany specialist for the State of Ohio. In addition to academics, Jim served as the Cincinnati State PLSO faculty advisor.

Chris Gephart, PLS has been involved in the surveying industry since 1989 and has experience in a variety of applications including: boundary location/retracement, ALTA/ACSM, topographic, aerial mapping, control and construction layout/staking. Chris is the Vice President of Land Surveying Services and oversees all aspects of the survey work at the Ft. Mitchell office of Bayer Becker from initial client contact and site reconnaissance to the finished record maps or plats. He has extensive experience in boundary survey work including records research, field data acquisition, resolution, property descriptions and platting. Chris has completed surveys for residential subdivisions, industrial parks, retail and commercial centers, utility corridors, and roadway alignments. He has also worked as an expert witness in boundary dispute cases. Chris is a Licensed Professional Surveyor in the Commonwealth of Kentucky. He was President of the KAPS in 2004 and currently serves as Liaison to the Kentucky Board of Licensure for Engineers and Land Surveyors. He received the "Surveyor of the Year" award in 2000 and was an integral part of the team that had legislation passed in early 2005 that would require all future Kentucky surveyors to have a bachelor's degree in order to become licensed. Chris is also a 2007 graduate of Leadership Northern Kentucky. He holds a Bachelor of Science in Construction Technology from Northern Kentucky University.

Dean Goodman is a senior software engineer at Carlson Software. He specializes in the Carlson Land Surveying products and his duties include software programming, technical support, product testing and training. He has a degree in Civil Engineering from the Georgia Institute of Technology. Dean was co-owner of C&G Software Systems from 1978 to 2001 which was purchased by Carlson Software in November of 2001. At C&G he was primarily head of software development for both Field and Office Surveying Products. Dean is a licensed Land Surveyor in the State of Georgia.

Christina Groves, CFM works with communities in FEMA Regions 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 Arkansas, Indiana, Iowa, Kansas, Kentucky, Missouri, Nebraska and Tennessee to improve their commitment to a sound floodplain management program through participation in the CRS.

Andrew C. Kellie, PLS is Professor Emeritus of Engineering Technology at Murray State University. He is licensed surveyor in Kentucky and Virginia and has worked as a surveyor in private practice. In addition to Murray State, Professor Kellie has taught surveying at the Department of Civil Engineering, Virginia Tech, Blacksburg, Virginia, and the School of Engineering, University of Southern Queensland, Australia. His research interests are in the areas of 3D mapping and modeling.

Jeffery N. Lucas, PLS is in private practice in Birmingham, Alabama. Lucas has been in the surveying business since 1976. He is a licensed land surveyor registered in Alabama, Florida, Georgia, Mississippi and Tennessee. Lucas is a licensed attorney and was admitted to the Alabama State Bar in 2003. Lucas is the author of "Alabama Boundary Law," "The Pincushion Effect, The Multiple

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MEET THE SPEAKERS

Monument Dilemma in American Land Surveying” and “Illinois Boundary Law.” He has also authored over 100 articles on surveying and boundary issues and writes a regular column for P.O.B. Magazine since 2004. He is currently the Alabama Division Manager for ESP Associates, P.A.

Curtis Middaugh began his career in Forestry with enrollment in the Forest Management program at Hocking College in 2009. While in attendance at Hocking College he gained valuable experience working two summers as a field technician for the United States Forest Service at the Vinton Furnace State Experimental Forest. Research work at this Forest Service station was aimed heavily at harvesting and treatment methods favoring regeneration of oak/hickory stands in the central Appalachian region. Upon graduation from Hocking College with an Associate’s Degree in 2011, Mr. Middaugh enrolled at West Virginia University in Forest Resources Management in pursuit of his Bachelors of Science. During his enrollment at West Virginia University he interned with Landmark Forestry LLC. Work with Landmark Forestry included the marking of timber sales, timber inventory on gas well sites, and logging operations inspections. Mr. Middaugh graduated with a Bachelors of Science in Forest Resources Management from West Virginia University in 2013. Following graduation he worked as a field technician for Landmark Forestry at their Monticello, Kentucky office for 2 years. He currently manages nearly 30,000 acres of mostly forested land located in Wayne, Pulaski, Casey, and Cumberland counties owned by Cumberland Forestlands and Heartwood Forestlands. Both are investment groups with their properties managed by The Forestland Group and Landmark Forestry. His duties involve the marking, setup, and harvesting supervision of timber sales, management plan development, contracting road maintenance/construction in connection to timber sales, identifying and contracting boundary surveys, tract security, gate installations, management of recreational leases, and timber inventories.

Carol Morman, PE, PS is a full-time civil engineering technology and land surveying professor for Cincinnati State Technical and Community College. She is a graduate of Cincinnati State's Civil Engineering Technology Surveying program, Purdue University's dual degree program in Civil Engineering and Land Surveying, and a graduate of the Masters of Science program in Civil Engineering - Geomatics (Land Surveying) at California State University, Fresno. Carol is licensed as a Professional Land Surveyor in Indiana and Ohio and as a Professional Engineer in Indiana, Ohio and Kentucky. To stay current in the profession, Carol also owns and operates CLM Surveying and Engineering in Lawrenceburg, Indiana. In addition to academics and industry, Carol is an active member of ISPLS and ASCE. She served as member, secretary, vice chairman and chairman of the Dearborn County Plan Commission from 1994 to 2003, was the 2004 Vice President and 2005, 2006, 2008 and 2009 President of the Greenville Treaty Chapter of ISPLS, a member of the ISPLS Board of Directors in 2009, 2010 Chairman of the ISPLS Education Committee and is currently serving as ISPLS Education Committee member. Carol is also the Faculty Advisor for the Cincinnati State ASCE Student Chapter and Program Chair for Civil Engineering Technologies.

William Ralph Paris, PLS has a Private Land Surveying Practice (1977 to present). He was Caldwell County Surveyor (1977 to 2002). Mr. Paris has an AB in English from Centre College of Kentucky and a BS in Land Surveying Engineering from Purdue University. He is a member of ACSM/NSPS (1975 to present); member of KY Section ACSM and KAPS (1975 to present); Chairman, County Surveyors Committee KAPS (1995 to 1998); founding member, KY Assoc. of County Surveyors (KACS’ 1998 to 2002); President KACS (1999 to 2002); member of Surveyors Historical Society (1998 to present).

Jonathan Payne, PLS has served as a full time lecturer at Murray State University’s Jesse D. Jones College of Science, Engineering, and Technology within the recently formed Institute of Engineering since 2013. He teaches the surveying courses within the various engineering technology programs available. Courses taught by Jonathan include Plane Surveying, Geodetic Surveying, Route Surveying, Boundary Surveying, and Special Projects. In order to remain rooted in the profession, Jonathan also continues his private practice specializing in Boundary Surveying; which has been in Cadiz Kentucky since 2000. Jonathan holds a Master’s of Science degree in Engineering Technology (1995) and a Bachelor of Science degree in Civil Engineering Technology (1994) from Murray State University. In past years, he has served KAPS at a chapter level as the Jackson Purchase Chapter’s vice-chair and chair. At the state level, Jonathan has served as KAPS President Elect (2013) and KAPS President (2014) and has also volunteered on the conference committee and the BOL nominating committee.

Ben Shinabery, PLS is a land survey project manager at Qk4, Inc. where he specializes in digital terrain modeling and subsurface utility location. His land survey experience includes field work in Michigan, Indiana, Kentucky, Tennessee, Alabama, and Florida. Ben has been licensed in Kentucky since 2007 and has worked on notable projects such as: the Ohio River Bridges project, I-69 Purchase Parkway Upgrade, Interstate 64, 65, & 71 widening projects, and US 460 Reconstruction in West Liberty. In his spare time, he enjoys cycling, golf, woodworking, and collecting historic maps and axes.

Christopher C. Wischer is a partner at Bamberger, Foreman, Oswald and Hahn, LLP in Evansville, Indiana where he is the chair of the firm's Commercial Real Estate Section. He graduated from Transylvania University with the B.A. in Finance and Computer Science in 1993. He graduated from the University of Kentucky College of Law in 1996. He was admitted to the Kentucky Bar Association in 1996 and the Indiana Bar Association in 1997. He is also admitted to practice in the United States Circuit Court, Seventh Circuit, and the United States Districts Courts in Kentucky and Indiana. His practice areas include commercial real estate development, land use and zoning, right of way acquisition, and municipal law. He is currently the Vice President of the Indiana Chapter of the International Right of Way Association. He has given numerous presentations and speeches on a wide variety of real estate and government topics, most recently presenting a seminar on ALTA surveys to the Evansville Bar Association.