

OLD DOMINION SURVEYOR

*The Monthly Newsletter of the Virginia
Association of Surveyors*



A Letter from the President

Alison Hanson, LS



First and foremost, I would like to thank the members of VAS for the trust they have placed in me to humbly serve as your president in the coming year. I know this year's elections and swearing in ceremony were not met with the "pomp and circumstance" of years past, but I assure you that those of us serving as officers of the VAS still hold our positions in the highest regard and understand the importance of the positions we hold. While the ceremony was not the same and took place during a Zoom Meeting, our goals remain the same and that is to represent the profession and this association the best way possible.

I personally have some lofty goals for 2021-2022, but my priority will be to lead VAS and its members out of the COVID -19 pandemic and transition back to normalcy as soon as allowable. I believe this association and its members need in-person interaction and in person meetings to sustain its membership and participation. Through our member participation, education efforts, public relations events and workforce development endeavors, VAS will emerge post-pandemic as the association we all miss and deserve.

Over the past weeks I have finalized committees and chairs, as well as worked on a presentation for all chapter presidents with hopes for a meeting in May. I truly believe VAS needs for our chapters to re-energize for the overall health of the association and I would like to work with the chapter presidents, executive board and regional directors to make this a reality. Along these lines, I also intend to finalize the 2022 seminar and board meeting locations so planning for these events can begin.

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UPCOMING EVENTS

JUNE 24 : BOARD MEETING
Virtual

JUNE 25 : VAS SUMMER SEMINAR
Virtual

SEPTEMBER 14-18, 2021
73RD ANNUAL CONVENTION &
GENERAL MEMBERSHIP MEETING
Williamsburg, Virginia

Letter from the President- CONTINUED

I also continue my planning for the 2021 Convention in September, which was rescheduled. I admit, planning a convention and serving as your president presents challenges, but with the support of our staff I am confident this can be done effectively and efficiently.

I would also like to express my sincere thanks and appreciation to my family, coworkers, fellow surveyors and board members for the support and cooperation received in these early days of my tenure as your president. I look forward to a GREAT year and am truly blessed to serve.

Last but definitely not least, I want to thank Kevin Wood for his service as president of VAS through what surely had to be the most difficult time for VAS. He had no playbook to follow and made the very best of the situation with great flexibility and unwavering character.

The success of VAS and its ability to withstand a pandemic rested squarely on his shoulders and he stood tall and strong through it all. Thank you, Kevin, for your guidance and leadership.

Stay safe everyone and I look forward to seeing you in person soon.

Respectfully,



Alison W. Hanson, LS

President

Virginia Association of Surveyors



2021 PLAT CONTEST OPEN



REMINDER

Deadline to Submit is June 1

In order to meet the NSPS Map Plat Design Competition deadline of June 30, 2021, VAS is pleased to announce that this year's VAS Plat Contest is open. The categories are the same as the 2020 NSPS Map Plat Design Competition: Subdivision Plats, Topographical Maps, ALTA/NSPS Survey Maps, Miscellaneous Maps, Boundary/Cadastral Maps.

Entries will only be accepted electronically in a PDF format. Contest rules and entry forms can be found here. The entry fee of \$40 (for one to six plats) and completed entry form(s) are due no later than June 1, 2021. You may mail the entry fee to Virginia Association of Surveyors, 10340 Democracy Lane, Suite 300, Fairfax, VA 22030 or to pay by credit card, [click here](#). Please make checks payable to Virginia Association of Surveyors and note in the memo section it is for the Plat Contest.

The winners will be announced at the 73rd Annual Convention in Williamsburg in September.

If you have any questions, please contact Khea Adams (Khea@vasurveyors.org) or Chris Jensen (Christopher.Jensen@fairfaxcounty.gov).

DRONE OPERATORS CHALLENGE SURVEYORS' TURF OVER MAPPING



Michael Jones with his drone in Goldsboro, N.C. After a couple of years of shooting drone photos and videos for clients, the state ordered him to ground the craft. Gerry Broome/AP

BY: BRYAN ANDERSON, ASSOCIATED PRESS

[Editor's Note: This article first appeared in Hampton Roads Daily Press]

RALEIGH, N.C. — When Michael Jones started a side hustle shooting drone photos and videos for real estate agents, his clients wanted more: images with property lines on them, to better understand where their fences should be.

It seemed like a good use of emerging technology that met an obvious demand, and Jones was careful to add a disclaimer: His maps weren't meant to replace the proper surveys that are often needed for such things as mortgages, title insurance and land use applications.

But after two years of steady business, Jones was slapped by the state of North Carolina in 2018 with an order that grounded his drone. The Board of Examiners for Engineers and Surveyors said he faced criminal prosecution for surveying without a license.

Drone Operators Challenge Surveyors' Turf Over Mapping - CONTINUED

Eager to deploy a technology that's disrupting the staid practice of surveying nationwide, Jones sued last month, accusing the board of violating his First Amendment rights.

"I would just like to have the right back to fly," Jones said.

Jones is one of many drone pilots coming into conflict with regulations designed to protect surveying professionals, whose exclusive roles are being disrupted now that it's possible to nearly precisely combine line drawings with images to better resolve property disputes.

Jones' lawsuit represents the cutting edge of this coming disruption, according to David Benowitz, head of research at Drone Analyst and a former employee at DJI, the world's largest commercial drone manufacturer. "This has been rumored about and talked about for years now. Drones have really changed the game in surveying."

The challenge goes both ways: Surveyors would need Federal Aviation Administration approval to professionally fly drones, and drone operators would need to pass state licensing exams to produce legal surveys. Neither side wants to take on the training and expenses.

But Kurt Carraway, executive director of the Applied Aviation Research Center at Kansas State University, said licensing boards should do more to embrace partnerships by researching the accuracy of drone mapping and encouraging the use of drones, particularly in places where a surveyor can't safely do the work.

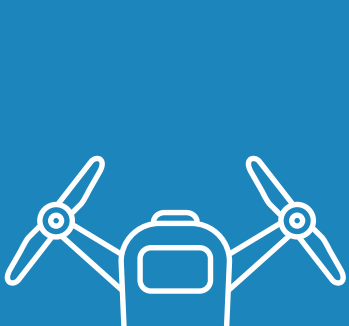
"I would think that with the continued development of technologies and positional accuracy that it's likely that drone data can be captured in a way that is compliant with those surveying standards," Carraway said.

A final notice Jones got from the board in 2019 ordered him to stop engaging in "mapping, surveying and photogrammetry, stating accuracy, providing location and dimension data and producing orthomosaic maps, quantities and topographic information."

The board declined to comment to The Associated Press, but said it will file a formal response to the lawsuit. Jones, 44, of Goldsboro, said he couldn't afford a lawyer, so he abandoned drone mapping, resulting in over \$10,000 in lost business. This January, a libertarian law firm offered to represent him.

Sam Gedge, an attorney at the Institute for Justice, plans to argue that Jones has the right to freedom of speech by taking photos and videos and producing artwork for clients.

"Many states have enforced their laws in a way that is under the radar," Gedge said. "They just send warning letters to people ... and for most people who receive that letter . Michael did, you're gonna knock it off because nobody wants to be the target of a government enforcement proceeding



ARTICLE FEEDBACK



BY: ROBERT MANN

The preceding article appeared in my local newspaper a week ago. It would have been easy enough to mumble under my breath and toss the paper in the recycling bin, but I felt strongly that this deserved a response. So I sat down and penned a letter to the editor of the paper. My principle concern was that the reporter seemed to have relied solely on the information provided by the drone operator. As such there were a few misstatements that needed addressing.

The article provided very little information about the operator's experience or qualifications beyond being a certified drone pilot, but clearly he is not licensed to practice land surveying. Submissions were limited to 250 words so I couldn't say everything I wanted to say. In fact, when I finally looked to see how many words I had I was at 450. It took me a while to edit the response in a way that conveyed what I felt where the most important points.

In reference to the article, "Drone Operators Challenge Surveyors' Turf Over Mapping" (April 28), As a surveyor licensed to practice in Virginia and North Carolina, I read this article with great interest. However, I would like to shed a little more light on this issue and hopefully give the layperson a better understanding of the issues at hand.

The article states that drone pilots are increasingly coming into conflict with regulations designed to protect surveying professionals. In truth surveying is regulated to protect the public. If errors are made involving real property it can result in significant monetary damage to the property owner. There is more to determining the location of a property line than downloading digital data from a municipal website and overlaying it onto data collected by drone. Title and interest to real property are legal matters. Education and experience are required to read and interpret these legal documents and to collect boundary evidence, take measurements, and prepare maps or plats that accurately depict the location of property lines, physical improvements and topographical information.

Contrary to statements made in the article, land surveyors have embraced changes in technology including drones. Drones are sophisticated tools that collect data and apply complex algorithms to produce imagery and point data useful in mapping surface features and topography. Drones cannot collect the information and measurements necessary to determine the location of property boundaries. This requires professional judgement by a licensed land surveyor with the necessary education, experience, and knowledge .

73RD ANNUAL

CONVENTION & GENERAL MEMBERSHIP MEETING

SEPTEMBER 14-18, 2021

DOUBLETREE BY HILTON
50 KINGSMILL RD WILLIAMSBURG, VA 23185



VAS

Tell us about yourself

I did my first survey field work when I was 17 years old outside of my home town Chambersburg, PA. That was about 40 years ago and I have remained in the surveying for my entire career. For about 5-6 years, I did a lot of engineering hand-drafting and design mostly because I was particularly adept at the hand-drafting part of the work. My father was an architect and taught me how to draw when I was a kid, so it was always something I could do well. I was always attracted to surveying because I loved to be outdoors in the elements, and I also loved math. And besides that, surveyor's don't need to learn calculus, which is a plus!

What drew you towards surveying?

In 1999, I enrolled in the surveyor's apprenticeship program in Fairfax and am a proud graduate of that 5-year program. I eventually went on to give back by teaching classes for VAS at the John Foster School for about 6 years. Even though I do not have a college degree, it was the apprenticeship program and a couple of valuable mentors that guided my career. I spent 14 years working with John L. Marshall, LS(B) at Land Design Consultants (LDC). John taught me more about surveying, engineering, and more importantly how to deal with people, than any other mentor. I must also give a shout out to Jack Coldwell, PE, LS, with whom I worked at PHR&A and then again at LDC. Jack spent a lot of time with me over the years explaining the correlation between engineering and surveying, why it's so important that these two disciplines work together, and how they need each other.

What is the greatest accomplishment of your career?

To date my greatest accomplishment is being president of VAS. This was, without a doubt, the most humbling and rewarding experience in my professional career. The friends, acquaintances, and contacts I made have been invaluable to me.

I learned a lot about how to run and manage an organization and also how difficult it can be to please everyone. I am now employed at Draper Aden Associates as the Survey Division Manager. This position is certainly a major accomplishment in my career as well. I look forward to the challenges this will bring and look forward to learning more about others and myself.

What do you see as your biggest accomplishment?

When I have an opportunity to do so, I love to encourage young people to get involved with surveying. This business is different every day. You are partly an outdoorsman or outdoorswoman, math expert, problem solver, detective and historian. Surveying is an extremely rewarding job that offers a way to be independent and still use your people skills.

*Kevin D. Shreiner,
LS, PS*

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INFORMATION





HOW SURVEYORS CAN SUPPORT ARCHITECTS

BY: SHAWN BEALL, S.I.T

In my opinion, no other profession has been more conspicuous in the struggle between conceptual design and construction realities than surveying. Because of this, forming valuable relationships with other disciplines makes a positive impact, not just on a personal level, but for successful project completion and for our profession.

Architects go through numerous processes to obtain information. The role of the surveyor, and our interactions with architects can encompass, not only traditional survey practices, but terrestrial scanning for scan-to-BIM, aerial reality capture techniques, thermography, structural surveying, and more. So how can we add value to our existing role and relationship with architects?

The simplest improvement we can make is increasing our knowledge of other disciplines and their goals.

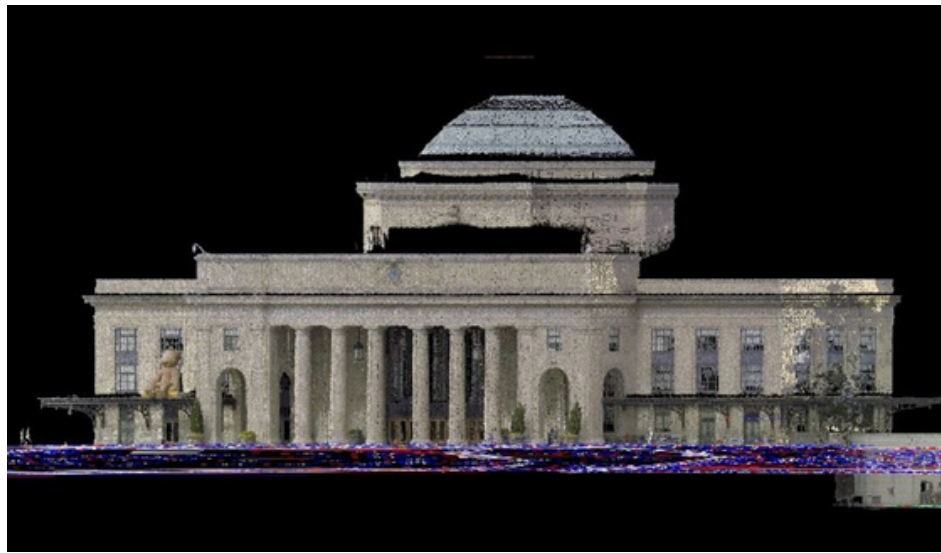
Keep in mind that understanding something doesn't mean you have a right to it, but, it helps to inform our decisions and highlight questions which need to be asked.

In aiding an architectural firm, the overlap of tasks in project management may have us work in conjunction not just with architects, but structural engineers, mechanical, electrical and plumbing (MEP) engineers, geotechnical engineers, environmental scientists, general contractors, and others who will benefit from the documentation we collect. Caring about how various stakeholders will use and interpret our data should inform our standards in the field and office. Inversely, neglecting engagement and poor communication could cause oversights and harm the quality of a project.

HOW SURVEYORS CAN SUPPORT ARCHITECTS - CONTINUED

Do we know why something is being asked of us?

- We can follow the project narrative and look for ways to enhance our services by:
 - Knowing the level-of-detail necessary:
 - Do we need finished floors?
 - What are the contour intervals we need?
 - What is the building information modeling (BIM) level of development (LOD)?
 - If we were to locate a door, what is a door? Is it the opening? Is the transom part of the door? What about the hardware?
 - What's the true diameter of an object? What about insulation or fireproofing?
 - Frames around a window could be a big deal, what are the extents of the historic window set up?
 - When we talk about historic existing level of detail it could be a unique object in the model-to model to graphic.
- Reviewing the overall concept and practical constraints.
- Adjusting workflows, when possible, to gather critical data:
 - Can we easily locate any additional structural elements?
 - Is there something to locate slightly outside the project limits which may be beneficial? (I'm not talking about looking for new evidence of Noah's flood but only to review our surroundings).
- Knowing limitations:
 - Technological limitations.
 - What is the architect's native software using our data?
 - Site limitations.



Courtesy of Draper Aden

We may not need to know what's the best rendering add-on to Revit, but we should know the greater aspects of architectural design and how we can supplement a creative and technologically evolving process. Beyond the relationships of line, form, and material there are many organizational levels which inform the design process. There are challenges to architectural design even when everything is perpendicular, parallel, and flat. Adaptive reuse projects, historic buildings, or complicated existing conditions will present different issues but also opportunities for creative solutions. We can't model straight lines where walls are leaning, pipes are sagging, and floors are out of level. And, as Mies van der Rohe stated, "God is in the details", from tie-in points and line-of-sight limitations to breaking elements and best-fit techniques. Every situation is different and there's no magic bullet. Therefore, communication and a basic understanding of shared goals are important. Even in the BIM world it's still "contractor to verify" and the information we provide, whether it's a single point, or millions of points, supports the overarching plan.



SURVEYING APPRENTICESHIP INSTRUCTOR WANTED!

The Fairfax County Adult Community Education (ACE) program is seeking an instructor for Year 5 of the Surveying Apprenticeship class, beginning in the fall of 2021. Without an instructor, the survey portion of the apprenticeship program is in jeopardy of not being offered this fall.

THE YEAR 5 INSTRUCTOR TEACHES THE LEGAL ASPECTS OF LAND SURVEYING, INCLUDING LAW AND CASE RESEARCH, DILLON RULE, ORDINANCES, BYRD ACT, AND MANY OTHER TOPICS. INSTRUCTORS WILL BE PROVIDED WITH A CURRICULUM AND ARE COMPENSATED FOR THEIR TIME.

THE CLASSES ARE HELD EVERY THURSDAY EVENING FROM 6:30 TO 9:30 PM AT WOODSON HIGH SCHOOL IN FAIRFAX AND RUN CONCURRENT WITH THE CALENDAR FOR THE FAIRFAX COUNTY PUBLIC SCHOOLS.

For more information, please contact Yeoanny Venetsanos (yeoanny@hotmail.com) or Brent Evans (bevans@bowman.com).



WELCOME OUR NEWEST
TEAM MEMBER

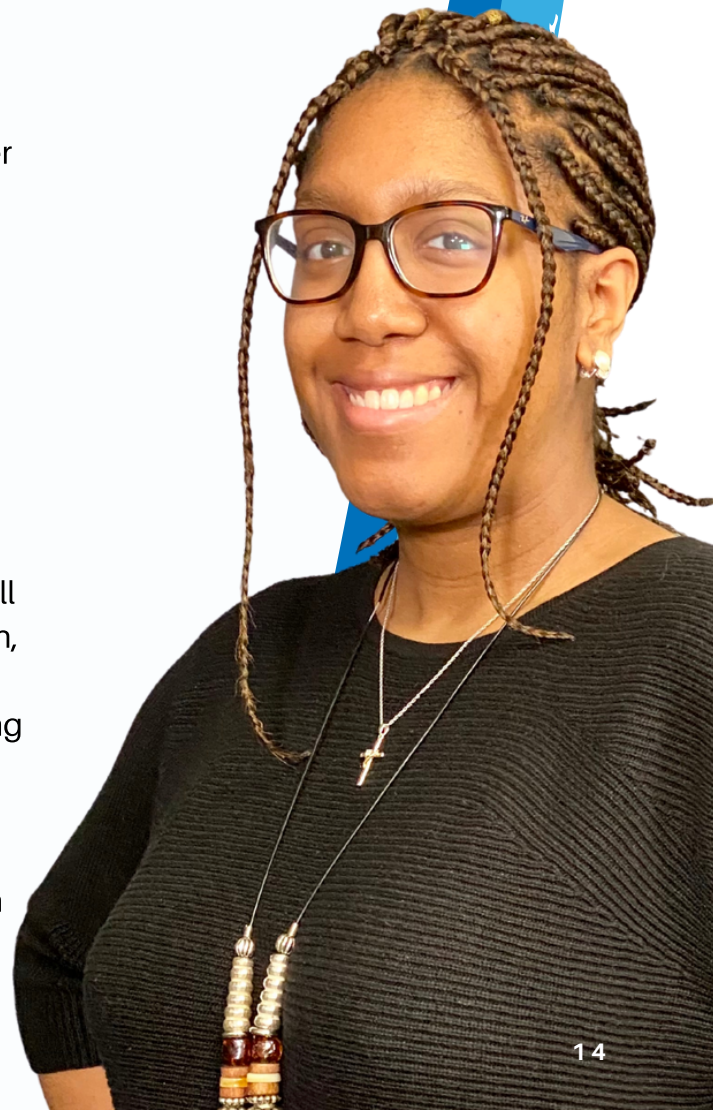
MEGHANN PATTERSON

ACCOUNT COORDINATOR

Meghann is an Account Coordinator with Miller Wenhold Association Management, the firm that manages VAS. She will be working with VAS. She brings event planning, social media, and customer service experience at both the corporate and nonprofit levels. She began her career as a journalist for the George Mason University newspaper and was an active member of GMU's event planning committee, the Patriots Activities Council. During her internship at the American Film Institute Silver Theatre and various corporate jobs, she managed logistics for conferences with at least 1,000 attendees, created websites and monitored social media, and assisted with maintaining lasting relationships with her clients and co-workers.

Meghann was born and raised in Jackson, Mississippi. She attended George Mason University where she received her bachelor's degree in Communication and Film Studies. She looks forward to starting classes this fall towards a master's degree in Public Relations. In addition, Meghann spends her free time writing short stories and screenplays. She has experience with video editing, using the computer software Final Cut Pro and Adobe.

Among her accomplishments, Meghann successfully managed logistics and registration for a conference with 35,000 attendees.



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I would like to start by thanking all those who came before me. I am pleased, and somewhat intimidated, to be the new editor of the ODS. There is not much in a surveyor's career that prepares you for a position like this, so I thank you in advance for your patience and forgiveness. I am told the biggest challenge is getting members to provide enough content to keep the publication interesting to all members. I have some topics that I would like to focus on and will be soliciting input and content from you as we move forward. Likewise, please share any topics you would like to see presented in ODS and I will do my best to make sure we address them.

Many of you know me, but for those who don't, I offer this brief introduction. I began my career in 1984 as rod man on a 3-man crew at John Serine & Associates in Virginia Beach. I had started college the year before, studying biology, but had no clear desire or direction as to what I wanted to do with my life. That summer I was encouraged by a friend to apply for an open position as rod man. I had no idea what surveying was, but I needed a job and working outside appealed to me, especially at the beach. I was paid minimum wage which at that time I believe was \$2.65/hour. I immediately took a strong interest in the work and started keeping notes in a spiral bound notebook. I was fortunate to have been placed with a Party Chief that was patient and did not mind teaching me and answering questions. This really made all the difference as there were party chiefs that were not willing to teach you anything. They simply barked orders and complained when you didn't do something right or were too slow.

My interest was recognized and I was given opportunities to advance. This included time in the office learning to board draft with pencil on vellum or ink on mylar and do computations on an early version of the 'PC'. This would eventually lead to a B.S. degree in Civil Engineering Technology from Old Dominion University in Norfolk. While I did practice engineering for a while, my true interest remained in surveying. I had planned to pursue my P.E., but never seemed to get around to it. I have been surveying now for 37 years. I have worked for a few companies over the years, both large and small. Each experience has taught me something new. Like most of you I have seen a lot of change over the years, such as moving from theodolite and steel tape to GPS and drones. These technologies have posed challenges and opportunities to surveyors. But as you will see in the article that follows, we are always reminded that qualified, educated, experienced, and knowledgeable professionals are needed to ensure these new technologies are used appropriately and the deliverables meet the standards of practice for land surveying to ensure the public is protected. As I move toward my fifth decade in this profession, I look now for opportunities to pass my knowledge on to others and help them learn and advance their careers. Surveying has been good to me and has provided me and my family a good living. This is perhaps the best kept secret that should be better known. We all need to work a little harder to educate young people about what surveying is and the opportunities it provides. And like those who mentored me, take time to teach and encourage those that work for or with us.

Sincerely,



Robert D. Mann, LS
Second Vice President of Virginia
Association of Surveyors

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More than 400 members of the surveying profession in Virginia read The Old Dominion Newsletter. Advertising in the magazine is a great way to reach that audience! Our online publication allows us to link your ad to your website.

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