

June 2024

Formerly Arkansas Professional Engineer

Building Arkansas

Official Magazine of the American Council of Engineering Companies of Arkansas & the Arkansas Society of Professional Engineers



Fair leadership

Garver's Mary Fair, P.E., becomes ASPE's new president, and first female one, at a time of change in the profession and the Society. The Society is still getting back into gear after the disruptions caused by the pandemic, so it's changing its approach. This year's Annual Conference was one day instead of two, and it cost half as much to attend. Attendance this year was higher than it's been in recent years. For the profession, there's plenty of work but not enough workers, so today's professionals must recruit the next generation of engineers. Meanwhile, Fair's day job keeps her busy enough. Her latest project is leading a multi-phase taxiway reconstruction project at the Clinton National Airport.

-Also inside: A recap of the ASPE Annual Conference.

Emerging Leaders II a 2024-25 highlight

It's hard to believe, but the ACEC/A's 2023-24 year has come to a close, and the 2024-25 fiscal year is underway.

We are currently recruiting volunteers for our committees. If you want to get more involved, now is the perfect opportunity. We have openings in Government Affairs, Membership, and Programs and Events, to name a few. Contact me for more information on how to sign up!

Are you aware of all the benefits of your membership? Our business and life/health insurance trusts, coalitions tailored to your business, webinars to improve your bottom line, and a resource library are just a few of the resources available. There are too many benefits to list here, but I'd love to visit your office and brief you and your staff on what's happening both at the state and national levels. Call or email me to set up a time!

I'm excited to share some updates and upcoming events that are sure to interest our engineering community.

ACEC Deep South Conference. If you haven't registered, please consider joining us from July 18-20 for the ACEC Deep South Conference. Engineers from Alabama, Arkansas, Louisiana, and Mississippi will gather in a family-oriented environment at the Hilton Sandestin in Miramar Beach, Florida. This is a fantastic opportunity to connect with fellow engineers, share insights, and learn about



Angie W. Cooper
Executive Director

the latest advancements in our field. Don't miss it!

Emerging Leaders 2024-25. Registration has begun for the Emerging Leaders program. The program features instruction in public speaking, conflict resolution, and networking in the Leadership Development Series. Other sessions include Contracts and Risk Reduction, Business 101, State Government, and our Senior Leadership Roundtable. Candidates are considered on a first-come, first-served basis, so don't delay!

Emerging Leaders II. You spoke and we listened! We are currently developing the "Emerging Leaders II: Executive Leadership" program. This will build on topics from the original Emerging Leaders program, such as business development, advocacy, and accounting/overhead. You must be a graduate of the

original Emerging Leaders program to participate. This program will run from January through March, with graduation during our annual awards luncheon in April 2025. Watch for the announcement.

Central and Northwest Arkansas Trap Shoot. On November 6, we'll be heading to the Arkansas Game and Fish Commission Shooting Sports Complex in Jacksonville for the Central Arkansas Trap Shoot. Our Northwest Arkansas shoot will be in April. This is a great chance to unwind and engage in some friendly competition with colleagues.

Engineering Excellence Awards. ACEC National will be releasing the call for entries soon, and we won't be far behind. Projects will be honored at the Engineering Excellence Awards on March 6, 2025, in Little Rock. This prestigious event celebrates outstanding work and achievements within our community.

We are developing other events for 2024-25, so please watch for the announcements. To register for any of our events, please visit our website at www.arkansasengineers.org. You can also find a complete calendar of events there. It allows you to export events directly into your calendar, so you won't miss a thing!

Thank you for your continued dedication and contributions to the engineering profession. I look forward to seeing you at these events.

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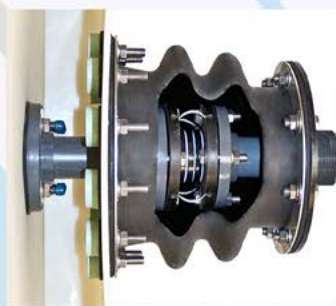
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18 Mary Fair, P.E., of Garver is the first female ASPE president. She takes over the Society's leadership at a time when the traditionally male-dominated profession has been welcoming more women into the field. "I like to look at it in a positive light," she said. "Typically, when you're the only person in the room that doesn't look like everyone else, it stands out in people's memories. I also think that, over the decade that I've been in professional engineering, I've seen the profession grow more diverse."

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Garver's Mary Fair, P.E., has been part of a leadership team making changes to the ASPE, including reducing the Annual Conference from two days to one. She says people are ready to reconnect face to face instead of training and gathering through screens.

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A tightened and technical ASPE Annual Conference attracted the biggest crowd in years as speakers discussed the Arkansas Department of Transportation's organizational changes, a study about extending navigation on the Red River, the potential south Arkansas lithium boom, and other topics.

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The 100% employee-owned firm is the lead design firm for the 30 Crossing project connecting Little Rock and North Little Rock.

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The benefits of ACEC/A

Throughout my tenure on the ACEC/Arkansas board, I have been asked what the benefits are of being part of ACEC. There are many, including educational resources; the ACEC Business Insurance, Retirement, and Life/Health Trusts; and advocacy for our industry.

The educational resources the organization offers are vast. Members and non-members can attend in-person and webinar courses on a variety of subjects through ACEC National as well as through our state organization (e.g., Emerging Leaders). I recommend you visit ACEC National's website at www.acec.org/education-events/education for more information on the opportunities for both in-person and virtual courses. Based on the success of the national and state courses, our state board is considering adding opportunities for our state members.

The ACEC Business Insurance, Retirement, and Life/Health Trusts are offered to member firms and their employees. The programs are managed by ACEC National, and due to the size of participation, it can provide these services for reasonable costs to both large and small firms. Again, the ACEC National website has information on these programs at www.acec.org/resources/acec-trusts.

The advocacy that ACEC provides for our industry and members is one of its lesser known resources. ACEC advocates at the national and state levels. It has a great staff in Washington, D.C., that is in constant contact with Congress regarding issues related to our industry. Those include transportation and infrastructure funding, research and development tax credits, workforce development, and assisting member firms with educating state legislators about laws that can be problematic for our industry. Those include qualifications-based selection, indemnification and duty-to-defend contracts, and elimination of licenses. More information about ACEC's advocacy efforts can be found at www.acec.org/advocacy.



Paul Crawford, P.E., P.G.
ACEC/A President

ACEC's spring Annual Convention and Legislative Summit and its fall conference offer great opportunities to see these benefits firsthand. Both provide educational sessions and great speakers with thought-provoking subjects. National staff members provide information about the organization and its various services.

Another great event is the ACEC Deep South Conference hosted annually in Florida, by the Alabama, Mississippi, Louisiana, and Arkansas state chapters. Our annual ACEC/Arkansas organization meeting is held during the conference.

Another benefit of ACEC is the many ways it promotes our industry to others. Through publicity in national and local media, podcasts, and its website, it explains how our industry is vital for our economy, environment, and making our world livable. In addition, the annual Engineering Excellence Awards is a great venue for the engineering community to highlight the many projects that are completed here in Arkansas. Projects can also be submitted for the national Engineering Excellence Awards held during the spring conference.

The benefits of our organization are many, but to reap those benefits, you need to participate. The strength of any professional organization depends on the participation of its members. If you haven't attended any of the conferences or events that ACEC/Arkansas or ACEC National conducts, I encourage you to do so. Besides the benefits mentioned, these events also are a great opportunity to network with your peers. If you don't want to attend a conference or educational event, our state chapter also conducts several fun events each year (e.g., trap shoots), and we are considering adding more. Come join us and have fun competing against other firms.

ACEC is a great organization for our industry. Use its resources, attend its events, and help it continue to advocate for all of us.

ACEC

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A step in the right direction

By all measures of the word, the 2024 ASPE Annual Conference in Little Rock on April 25 was a success.

As last quarter's column outlined, the ASPE board sought to revamp this year's conference with a few needed changes. Looking back on the event after a few months have passed, I can confidently say that the conference will be a significant building block in ensuring ASPE's future growth. We saw record sponsorship contributions, and even without the Emerging Leaders luncheon of year's past, registration numbers were stronger than expected. This, coupled with cost reductions, resulted in a record net profit from the event. Presentations offered an informative blend of topics appealing to engineers across multiple disciplines. The social event the evening before the conference was well attended. The one-day format and Little Rock location seemed beneficial as well.

We truly hope those who attended feel their time and money were well spent by attending the conference. A successful conference would not have been possible without the generosity of our sponsors: Garver, Michael Baker International, Freese and Nichols, C.R. Crawford Construction, Triton Design Builders, Jurni Design Group, Keller, Contech Engineered Solutions, Simpson Strongtie, McGeorge, Cadence Insurance, Terracon, Olsson FTN, and Crafton Tull.

There is certainly lots of positive momentum from the success of the conference, but we must leverage that momentum into further action steps to ensure the positive trend continues. The funds raised from this year's conference will be used to bolster the financial position of the organization so we can resume outreach and support initiatives such as local and state level scholarships. We will also use funds to increase our marketing efforts to hopefully improve exposure to all engineers and engineering companies statewide.

So, what can you do to help? The best answer is to get involved at the local chapter level. As positive as this year's conference was, the general lack of activity at the



**Tyler Avery, P.E.
ASPE President**

local level is the greatest threat facing ASPE today. It is critical that local chapters begin meeting regularly again. One of the main benefits of membership to ASPE is the networking and continuing education opportunities offered by the local chapters. But we have created a vicious cycle of irregular meetings which

leads to decreased attendance and involvement, which leads to increasingly irregular meetings, and this continues to a point where chapters stop meeting altogether.

The ASPE calendar restarts in July, at which time all local chapters will be in need of volunteers to fill incoming officer roles. If you have never served at the local level, or even if you have but it has been a while, I strongly encourage you to consider serving as an officer. It cannot be understated that if ASPE is to continue to exist, the local chapters must begin meeting regularly again. The state board is available to provide resources and guidance on getting local chapters re-established and meeting again, but it takes willing volunteers to make it happen. If you are a manager at your firm, particularly if you represent an ACEC firm, encourage your younger staff engineers to get involved in ASPE, and support them in spending some company time participating in the organization. It is likely that you started your involvement with ASPE as a staff engineer, and hopefully you can use your experience with ASPE to explain the value it has had for you in your career to those under your mentorship.

It has been an honor to serve you as ASPE president this year, and I am grateful to have had the opportunity to leave my mark on the organization.

Here are some contacts for you to get involved:

Mary Fair, incoming president: mkfair@garverusa.com

Landon Miller, incoming president-elect: landon.miller@mbakerintl.com

Angie Cooper, ACEC/A executive director: awcooper@arkansasengineers.org

Tyler Avery, incoming past president: tavery@jurnidesign.com

In the News

Olsson finalizes acquisition of FTN Associates in April

Olsson's acquisition of FTN Associates Ltd., a water and environmental engineering consultant based in Little Rock, has been completed.

The firm announced acquisition plans in March, and the deal was finalized in April. Terms of the acquisition will not be released.

"We're excited to welcome FTN's employees to Olsson," said Brad Hammond, P.E., local area leader for Olsson in Fayetteville. "Our firm is gaining outstanding technical experts, and we're hoping to provide them with opportunities to serve clients and grow in their careers."



Hammond

A total of 44 FTN employees are joining Olsson. Most of the new employees will work from offices in Little Rock and Fayetteville, with smaller numbers working in Louisiana, Missouri, and Mississippi.

Olsson offers design and consulting services in planning and design, engineering, field services, environmental and technology. FTN specialized in project solutions for water, wastewater, natural resources, solid waste, and Clean Water Act compliance.

FTN now becomes Olsson FTN through January 1, 2025, when it will take on the Olsson name.

Crafton Tull earns ACEC National Recognition Award

Crafton Tull earned a National Recognition Award for exemplary engineering achievement in the American Council of Engineering Companies' 57th annual Engineering Excellence Awards



NATIONAL RECOGNITION. Crafton Tull earned a National Recognition Award at the ACEC's Engineering Excellence Awards gala for its Central Arkansas Regional Greenways Plan for Metroplan. Pictured are Aaron Schlosser, Dave Roberts, ASLA, and Julie Kelso, AICP, ASLA, Crafton Tull; Daniel Holland, Metroplan; and Brad Peterson, P.E., and Isaac Sims, PCED, Crafton Tull. The photo was taken at the ACEC/A Awards dinner March 7.

The firm won the award for its role in developing the Central Arkansas Regional Greenways Plan for Metroplan, the region's federally designated metropolitan planning organization.

The project, led by Julie Luther Kelso, AICP, ASLA, and the Crafton Tull planning team, was among 203 entries this year from throughout the nation and the world.

The Central Arkansas Regional Greenways Plan maps roughly 222 miles of trail network at an estimated cost of nearly \$280 million. The project team identified routes, established design criteria, prepared estimates of probable cost, and prioritized investments based on public input. Metroplan adopted the 279-page final report in May 2023.

The project won the statewide Engineering Excellence Award at the ACEC/A's awards dinner March 7 in Category A: Studies, Research and Consulting, Large Project.



PRISM DESIGN STUDIO. Pictured from left are landscape architects Fallon Henry, PLA, ASLA; Jenny Burbidge, PLA, ASLA, CLARB; and Barry Williams, PLA, ASLA, along with Matt Crafton, P.E., LEED AP, Crafton Tull president and CEO.

Crafton Tull acquires Prism landscape firm, keeps name

Crafton Tull has expanded its landscape architecture team, which will now operate under the name Prism Design Studio.

Jenny Burbidge, PLA, ASLA, CLARB, who founded Prism Design Studio as an independent company in 2022, joins Crafton Tull as vice president. Burbidge leads the new group, which combines the landscape design staff of the two firms and will operate as an extension of Crafton Tull.

"Prism Design Studio was created out of passion and vision for designing community spaces with landscape architects at the forefront of project planning and development," Burbidge said. "The Crafton Tull leadership team shares that vision, and with this expansion, we have an opportunity to provide a full spectrum of development services, including landscape architecture as a leading design discipline."

Burbidge is a licensed landscape architect and an Arkansas native. Her more than 14 years of experience includes multi-family housing, mixed-use projects, urban design and park design. She is president of the board of directors for the Northwest Arkansas Land Trust and past-president of the Arkansas chapter of the American Society of Landscape Architects.

The Prism Design Studio expansion consists of eight people, including

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— In the News —

licensed landscape architects Barry Williams, PLA, ASLA, and Fallon Henry, PLA, ASLA. The group will offer specialized expertise, including site master planning, parks and recreation development, outdoor recreation facilities, and urban design, including hardscape design and streetscape design.



Crafton Tull named NWA Outstanding Biz by magazine

Crafton Tull won the Northwest Arkansas Outstanding Business Award in the Large Business category, presented by the Northwest Arkansas Business Journal.

The inaugural Northwest Arkansas Outstanding Business Awards recognize extraordinary businesses and the opportunities and positive impacts they create. An independent panel selected 16 finalists across four categories (Non-Profit, Startup, Small Business, and Large Business) and the winners were revealed at a luncheon in April.

Walton Family cites Crafton Tull for design excellence

Crafton Tull is one of 14 firms recently selected to join the Walton Family Foundation's Northwest Arkansas Design Excellence Program.

Crafton Tull joins the exclusive list of top firms from across the country providing specialized planning expertise through the program.

The Northwest Arkansas Design Excellence Program was established in 2015

and promotes high-level design in the development of public buildings and spaces in Benton and Washington counties.

Crafton Tull's Vaughan earns PE, Killer earns PLA



Vaughan

Christian Vaughan, P.E., project engineer for Crafton Tull, recently became a licensed professional engineer.

Vaughan is a 2019 graduate of the University of Arkansas at Fayetteville with a biological and agricultural engineering degree. He has worked as a civil engineer in the Hot Springs office since graduating. His notable projects include campus improvements at Lakeside School District and Centerpoint School, and numerous commercial site developments.

Logan Killer, PLA, survey project manager and team lead in Crafton Tull's Russellville office, earned his professional land surveyor license. Killer earned associate degrees in surveying, drafting, and general education from the University of Arkansas Community College at Morrilton. He began his surveying career at Crafton Tull in 2018 after graduating college.



Killer

Garver's Allison named to NWA Biz Journal's Fast 15

Garver Process Mechanical Engineer Kenzie Allison, 26, recently was named to Northwest Arkansas Business Jour-

nal's latest Fast 15 class.

The list celebrates young professionals across industries within the region.

Part of Garver's Water Team in Fayetteville, Allison plays an instrumental role in supplying communities in Northwest Arkansas – and across the country – with safe, reliable water. Allison's resume includes critical Arkansas water and wastewater projects from Mountain Home to Springdale, including her work on the Northwest Arkansas Conservation Authority's Wastewater Treatment Plant expansion project.



Allison



Martin



Bennett

Three Garver PEs join AR Academy of Civil Engineers



Canterbury

Three Garver engineers are in the Arkansas Academy of Civil Engineering's 2024 class, the University of Arkansas Department of Civil Engineering announced.

Garver's inductees were South Central Region Transportation Director John Canterbury, P.E.; Construction Services Team Leader Blake Martin, P.E., S.I., MBA; and Geotechnical and Pavement Specialist Kyle Bennett, P.E.

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DESIGNING ARKANSAS

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Crafton Tull

In the News (Cont'd)

A hands-on supporter of civil engineering students at the university, the AACE helps members mentor current students by hosting events that provide firsthand information on the industry as well as networking opportunities.

Benchmark Group creates BG Quality Consulting division

Benchmark Group, Inc. has created a new division, BG Quality Consulting, LLC, which will offer a broad range of advisory services, support, and professional talent.

Division staff members will develop and recommend strategies to optimize the efficiency of building projects for A&E firms, developers, owners, and others. Services include 3D scanning, commissioning, energy services, and permitting.

Benchmark Group's Fiegel is firm's fourth this year to become PE

Benchmark Group's Aaron M. Fiegel, P.E., passed his P.E. exam last fall and became a licensed professional engineer in Arkansas.



Fiegel

Fiegel holds a B.S.E.E. in Electrical Engineering from the University of Arkansas at Fayetteville. He started his career at Benchmark Group in 2017 as an entry level designer and worked his way up the designer levels to be an electrical lead and quality controller for the team. As a P.E., he will also review and sign documents. Types of projects he's designed include big box retail, hospitality, food and beverage, and wellness facilities. He also trains new hires.

Benchmark Group has 26 professionals with more than 522 state licenses and

a combined total of more than 287 years of experience among them. Twenty-three new state licenses have been issued to professionals to date in 2024. Four staff members have passed the P.E. exam so far this year. Also, four staff members passed the F.E. exam so far this year, are registered in Arkansas, and are now EITs (Engineers in Training).



Turner



Thompson

Turner, Thompson join Crist Engineers

Christian Turner, E.I., and Spencer Thompson, surveyor technician, have joined the staff of Crist Engineers.

Turner is an engineer intern with five years of experience in structural engineering design, construction management, and field supervision. His experience includes heavy steel design, project management, and field supervision of large new scale steel erection projects and building renovations. His projects have included Texas Rangers Stadium in Arlington; New York University; Benton Elementary School in Benton, and the Porsche Little Rock dealership.

Prior to working for Crist Engineers, Turner served as project manager for AFCO Steel for five years in Little Rock, where he was responsible for overseeing projects from bidding to completion. He graduated from the University of Arkansas at Little Rock in 2019 with a degree in civil engineering and construction management.

Thompson is a 2024 graduate of the University of Arkansas Community College at Morrilton, where he received an associate of applied science surveying degree. Prior to working for Crist Engineers, he served four years in the United States Marine Corps.

Founded in 1938, Crist Engineers, Inc. is one of the oldest consulting engineering firms in Arkansas. The firm offers specialized experience in water treatment and distribution, wastewater collection and treatment as well as various other engineering services including planning and construction management to clients throughout Arkansas and surrounding states.

Crist Engineers survey chief earns surveying degree

Crist Engineers' Patrick Bennett, S.I., received his associate of applied science surveying degree from University of Arkansas Community College at Morrilton.

Bennett has worked for Crist Engineers since 2016 as a survey party chief and recently passed his F.S. exam. He has led surveying projects for Crist Engineers throughout Arkansas and eastern Oklahoma.

Prior to working for Crist, he served six years on active duty in the U.S. Navy Seabees as an engineering aid performing surveys across the globe. Those included construction surveys aiding efforts in Operation Enduring Freedom in Afghanistan, along with bathymetric surveys in the Pacific furthering American infrastructure and foreign relations. His training there led directly to his career in surveying with Crist.

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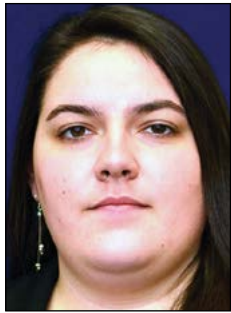


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In the News (Cont'd)

Three engineers with Michael Baker pass P.E. exam

Megan Land, P.E., Alan Caster, P.E., and Stephane Bossio, with Michael Baker International recently passed the professional engineer exam. Land and Caster have subsequently received their P.E. licenses in Arkansas, and Bossio is expected to receive his Arkansas P.E. license soon as well.



Land

Land is a civil engineer in Michael Baker's Little Rock Bridge Design Team. She joined Michael Baker in 2017 following her graduation from Arkansas State University. Her

projects have included inspecting the Highway 49 Helena Bridge, De Roche Creek Lateral Bridge Slides, and multiple inspection cycles of the Hernando de Soto Bridge over the Mississippi River. She is also actively involved in the American Society of Civil Engineers –Arkansas Younger Member Group.



Caster

Caster is a civil engineer in the Bentonville office. He joined Michael Baker in 2023 with several years of survey and design experience. He graduated from the University of Arkansas, Fayetteville in 2018. He supports a variety of disciplines, including roadway, municipal transportation and trails, drainage and airports.



Bossio

Bossio is an assistant project manager in the Little Rock Roadway Design Team. He joined Michael

Baker in 2019 after graduating from the University of Arkansas, Fayetteville. His experience is in roadway design on Arkansas Department of Transportation projects, including rural and urban primary highway design. He is an expert in MicroStation and InRoads design softwares, and in producing complete plan sets. He has been the lead designer on several Highway 82 widening projects in Southeast Arkansas.



Carden



Qirjaqi

Michael Baker hires six as staff and three as interns

Michael Baker International has hired two engineering associates, four construction inspectors, and three interns.

Luke Carden joined the Little Rock Bridge Design Team as a civil associate. He graduated in May 2024 from Arkansas State University with a bachelor of science degree in civil engineering.

Sheila Qirjaqi joined the Little Rock Roadway Design Team as a civil associate. She is a May 2024 graduate from Harding University with a bachelor's of science degree in civil engineering. While at Harding, she was an officer of AISC and ASCE and made the Dean's List seven times.

Jarrod Miller, Steven Wheeler, Nathan Clifton, and J.C. Lewis recently joined Michael Baker's Arkansas Construction Services team. They bring extensive construction inspection and materials testing experience in Arkansas and other states. They will provide inspection support for large roadway corridor projects in northwest and northeast Arkansas. Three have initially been assigned to support the Arkansas Department of Transportation's



Miller



Wheeler



Clifton



Lewis



Perry



Smith



Filat

District 4, and one to support ARDOT's District 10.

In addition, three students will be working with Michael Baker as civil interns.

Sophia Perry and Jonathan Smith are working

with the Bentonville team. Both are expected to graduate in May 2026 with a bachelor's degree in civil engineering from the University of Arkansas. They both were hired as full-time interns for summer 2024 but elected to work part time during the spring 2024 semester. They both will be supporting the Roadway Design Team in Bentonville.

Kary Filat joined the Little Rock office. He is currently enrolled at the University

of Arkansas, Fayetteville in the civil engineering program and is expected to obtain his degree in May 2026.

Michael Baker's Baker publishes on bridge seismic analysis



Baker

Ethan Baker, P.E., a project manager in Michael Baker's Little Rock bridge team, contributed to the MIDASoft-Bridge Library with his article on "Validation of Bridge Seismic Analysis Model Results" published in April 2024.

In his article, he outlined simple ways to verify and check seismic analysis models using hand calculations and simpler analysis methods.

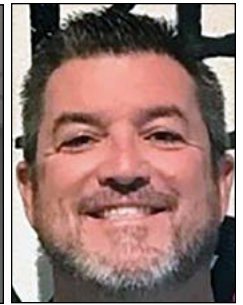
The article can be read at https://www.midasoft.com.cdn.ampproject.org/c/s/www.midasoft.com/bridge-library/expert-tip-validation-of-bridge-seismic-analysis-model-results?hs_amp=true



MICHAEL BAKER INTERNATIONAL was a sponsor and exhibitor at the Women in STEM Conference in Little Rock April 12. Left to right are Raiyan Chowdhury, E.I., Emma Presley, Christine Wilson, and Linda Gunn, P.E. They spoke with high school students about civil engineering and technical specialties. The event was presented by the Arkansas Department of Transportation and Arkansas On-the-job Training and Supportive Services Programs.



Crouch



Sullivan

MCE adds seven to staff in three offices

McClelland Consulting Engineers has added seven staff members to its Fayetteville, Little Rock and Fort Smith offices.

Three employees joined the staff in the Fayetteville office: Nathan Crouch, project manager; Joey Sullivan, construction observer; and Terry Nguyen, CAD technician.

Crouch joined the staff in the Land Development Department. He is approaching 13 years of experience, primarily in

In the News continues on page 16



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Nguyen



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Campbell

the municipal planning field, where he has held positions with the University of Arkansas, Washington County Planning, and Blew & Associates. He graduated from the University of Arkansas, Fayetteville with a bachelor's degree in landscape architecture and a master's degree in applied geography.

Sullivan recently joined MCE's Fayetteville office as a construction observer. He is originally from Rancho Cucamonga, California, but moved to Bella Vista in 2024. For years he served as an AWS/LA welder certified in D1.1, D1.4, and D1.5, and specializing in foundation systems for high-rise buildings and roadways. In 2022, he transitioned to inspection work. He currently holds the following certifications: AWS CWI-QC1; ICCS1 Structural Steel and Bolting; ICC S2 Welding; and ICC Spray-applied Fireproofing.

Nguyen, a CAD technician and Northwest Arkansas native, joined MCE's Transportation Department with five years of experience in land development, roadway and trail design.

MCE's Little Rock office added three staff members. Crystal Nations, CAD designer, joined MCE this year and has nine years of engineering experience. She moved to Arkansas from Paris, Texas. Her background spans from pipe fabrication to excavating with a focus on surveying/takeoff data. In her spare time, she enjoys walking in the beautiful state of Arkansas.

Savannah Nichols is now human resources/payroll manager. Originally from Bentonville, she now lives in the Central Arkansas area. She graduated from Arkansas State University with her bachelor's degree in business administration in 2021.

Ellie Martin will serve as accounting clerk. Her skills and experience range from food manufacturing to logistics. Based in the Little Rock office, she is also the initial point of contact regarding billing for the Fort Smith and Fayetteville offices. Her passions include water sports and her two dogs.

MCE's Fort Smith office added Helen Campbell as office administrator. She has more than 14 years of experience in administrative assistance and specification preparation for professional engineers.

In addition, David Orozco has been promoted to geotechnical driller in MCE's Geotechnical Engineering Department in Fayetteville. He previously served as a geotechnical drilling assistant.



Halff does design work on Cabot sports complex

On May 2, Halff's design team members attended the ribbon-cutting ceremony to help celebrate the opening of the highly anticipated new sports complex, Game Time at the Grounds, in Cabot.

Halff provided expertise in civil engineering, landscape architecture, surveying, mapping, GIS, and public engagement.

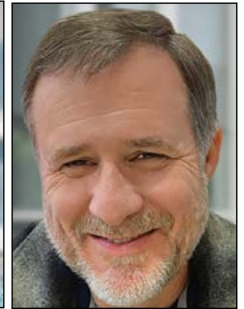
The 164-plus acre park will feature various indoor and outdoor recreation and leisure attractions. It is one of the largest parks in central Arkansas and was voted in by Cabot residents in 2021.

Its 128,000-square-foot indoor recreation facility is a haven for sports enthusiasts. It boasts six basketball courts that transition into 12 full-sized volleyball or 18 pickleball courts, a 46,000-square-foot, multi-use indoor turf area with two soccer fields and four batting cages.

The project's future phases promise many outdoor attractions, including an outdoor skate park, running and walking trails, a pump track, and mountain bike trails.



Clemons



Aunspaugh



St. Amant



Mahan



Wetzel



Sikes

Six Halff staffers earn professional licenses, degrees

Six Halff staff members have recently earned licenses or attained educational degrees.

Among those are Civil Project Manager Jonathan Clemons, P.E., who works in Halff's Bentonville office. He received

his Arkansas professional engineering license in May 2024.

Two staff members have passed state surveying exams. Halff Survey Team Leader James Aunspaugh, P.S., PLS, RLS, who works in the Bentonville office, has passed the Missouri state surveyor exam. Geospatial Team Leader Aaron St. Amant, P.S., PLS, who works in the Fort Smith office, has passed the Arkansas state surveying exam.

Three Halff staff members have reached significant educational milestones. Brett Mahan, a graduate civil engineer who works in the Little Rock office, has earned a master's degree in engineering management from Arkansas State University. Nate Wetzel, a graduate engineer who works in the Little Rock office, has earned a master's degree in civil engineering from Colorado State University. Survey Project Manager Zachary Sikes, who works in the North Little Rock office, received his associate of applied science for surveying from the University

of Arkansas Community College at Morilton.

Applications for Emerging Leaders are due Aug. 30

Applications are due Aug. 30 for the ACEC/A's 2024-25 Emerging Leaders program.

Emerging Leaders is a six-session program that features curriculum focused on right-brain thinking – the people skills associated with business management and the creative, visionary skills required of effective leaders. Graduates will be well-rounded professional and community leaders.

As part of the program, accomplished presenters will provide personal insights, timely information and useful tools. The program will help participants expand their leadership skills and contribute to

the advancement of their engineering career, their employer, the engineering industry and the quality of life in Arkansas.

The program is open to anyone over 25 who is a member of ASPE and/or an employee of an ACEC/A member firm.

For more information, go to www.arkansasengineers.org or contact ACEC/A Executive Director Angie W. Cooper at awcooper@arkansasengineers.org

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Fair the first female ASPE president

Garver's Mary Fair, P.E., has been part of an ASPE leadership team making changes to the Society. She says people are ready to reconnect face to face instead of training and gathering through screens.

By Melissa Brawner
Contributing writer

Mary Fair's maternal grandfather was a petroleum engineer. Her paternal grandfather was an architect. Growing up in Little Rock, she wanted to be an architect, too.

Instead, she became an engineer – and, now, the ASPE's first female president.

Fair, P.E., an aviation leader at Garver, accepted the leadership role from current president Tyler Avery, P.E., at the ASPE Annual Conference April 25. She officially became ASPE's president July 1.

The exchange occurred at a conference she helped organize as this past year's vice president. ASPE leaders decided the conference needed to change to meet the evolving needs of the engineering community.

"We took a look at ourselves and how we function in the changing world that we're in, post-pandemic, everything in general," she said at her office. "And we thought, 'What are we here to do? What is our mission? How does that meet with what our members want?'"

Like many organizations, ASPE saw a decrease in participation during and after the COVID pandemic. Prior to the pandemic, online professional development hours were expensive, so many engineers attended training in person. Post-pandemic, online training became less expensive than in-person training, and in some cases free. Many people opted to stay home and take inexpensive courses online.

Trends change. Today, Fair said, more professionals are looking to make personal connections with others in the field. They are wanting to reconnect, benefiting themselves personally as well as their companies, their owners and their clients.

"People are getting tired of sitting behind their screens," Fair said.



MARY FAIR, P.E., an aviation engineer at Garver, is leading a multi-phase taxiway reconstruction program at the Clinton National Airport in addition to her duties as the incoming ASPE president.

However, it still must be convenient. With Fair serving as vice president, ASPE reached out to members, listened, and made changes. Members wanted more technical content, opportunities for socializing, and a shorter conference. This year's ASPE Annual Conference was one day instead of two – reducing both time and expense while still allowing engineers to make those needed in-person connections. The result was the conference's highest attendance numbers since before the pandemic.

"People are really busy," Fair said. "There's a lot of money being pumped into engineering and construction right now. So our engineers, project managers, across the board ... owners are really busy. Agencies are busy trying to get that funding out. When everyone's really busy, it's hard to take that time to step out to attend a meeting when you could just log on at night or on your own time."

Fair noted that ASPE's success is directly connected to each engineer's

success. The organization advocates for individual engineers and encourages them to get their professional engineer, or P.E., license. ASPE also helps them obtain leadership and networking experience. As Fair noted, the more an engineer puts into the organization, the more they will get out of it.

"If we don't have professional engineers, we can't build. And that's what generates our economy," she said. "There's a lot of work here in Arkansas, through ARDOT (Arkansas Department of Transportation) and across the state, for professional engineers. ... We need every person we can get."

Inspiring the next generation

Thanks to the federal Infrastructure Investment and Jobs Act and the half-cent sales tax for highways in Arkansas, there is plenty of work for engineers to do.

The problem is, there aren't enough engineers.

To inspire the next generation, Garver is going into schools at the upper elementary level and encouraging students to study math. It also does fun activities with students to encourage them to take STEM (science, technology, engineering, math) classes. Engineering benefits, as do the students.

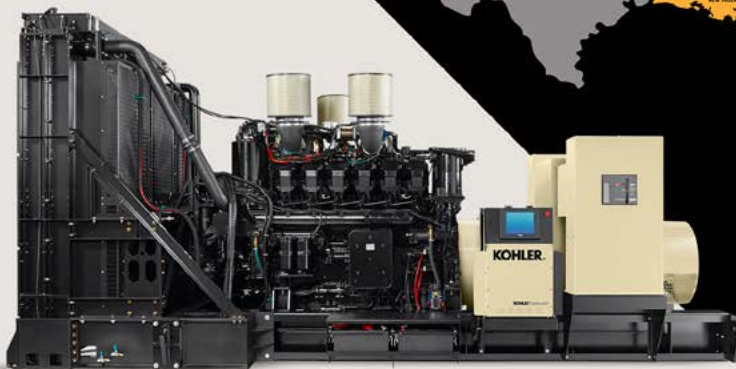
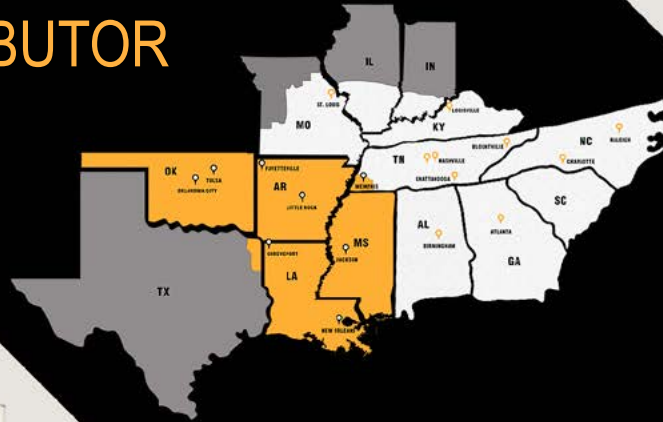
"They just need to be shown what that opportunity is," Fair said. "It's not just boring math. You're building an airport. Or one day, you're designing a bridge that thousands of cars traverse across every day."

Fair was given that encouragement growing up – just not directly in engineering. As a student at Gibbs Elementary, she visited the school's "sister school" in Europe where she saw beautiful architecture in Spain and France. It was at Central High School that she realized her love for math, taking advanced courses younger than other students, and completing every math course the school offered.

Continues on next page

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“Growing up, it was always architecture,” Fair said, “until I realized that I really didn’t have the creative, artistic side necessary for that.”

After graduating Central High School in 2008, Fair attended the University of Arkansas, Fayetteville, where she searched for a degree that would fit. She started as a business major but realized the first day of orientation that business wasn’t the right one: few math courses and lots of language, arts. “Non-technical things,” she noted. The second day, she attended orientation as a math major, but the opportunities spotlighted were mostly teaching.

“So then I came home and changed it to engineering,” Fair said. “That was what I had wanted to do, but since it’s such a difficult field that’s mostly male dominated, I think I didn’t believe that I could do it. People were telling me that it was going to be very hard, so I didn’t have that confidence. But then, seeing what I didn’t want to do in those two different majors somewhat gave me the confidence that, ‘No, I want to do this.’”

Coming to Garver

Fair had a friend whose father, Mike Griffin, worked at Garver, so she was familiar with the company. After former Garver vice president Bert Parker, P.E., did a presentation, Fair thanked him for a scholarship she had received from the company, and he introduced her to a contact. She interviewed at Garver’s Fayetteville office for an internship in the transportation department. What came available was aviation. Fair remembers being fascinated by designs of runways and airport projects in his office. She took the internship in aviation, “And I never looked back.”

She interned the summer between her junior and senior year, and Garver offered her a job the following spring semester.



NEW PRESIDENT. Incoming ASPE President Mary Fair, P.E., addressed the ASPE Annual Conference April 25. She talked about the changes that ASPE has been making to “get out of the lull from the pandemic that we were somehow still in.” She and other ASPE leaders cut the conference from two days to one and cut the price in half. The result was the best attended conference in years.

Her first project would be helping convert farmland into the new Conway Regional Airport. When she started, the project was still in the early stages. During the second phase, Fair was assigned project manager and did a lot of the design for the taxiway. It eventually would have a parallel taxiway, full runway and multiple hangars.

“While the airport grew up, so did I,” Fair said.

Fair’s current projects include the Bill and Hillary Clinton National Airport in Little Rock and the Monroe Regional Airport in northern Louisiana. She’s working on a multi-phase taxiway reconstruction project at the Clinton National Airport. Starting in 2018, the project includes relocating taxiways to make them more efficient and safer.

Now in its third phase, Fair leads the project’s design and construction, heading up a team of civil and electrical engineers.

The project is special to Fair.

“I’ve seen it from conception until now through design and construction,” she said.

She’s also managed a project expanding the airport’s terminal apron. Originally scheduled to take two years to complete, the airport was able to close multiple gates simultaneously due to the pandemic, allowing construction workers to finish the project six months to a year ahead of schedule.

Juggling the relationships among contractors, FAA regulators, the airport, airlines, and engineers, as well as managing through the pandemic, made the project “an interesting one to look back on,” Fair said.

Aviation engineering is different from other engineering in that you are working “inside the airport fence,” as Fair put it. It doesn’t require the numerous permit requirements or ordinances, but there are FAA regulations to consider.

“What sets it apart but makes it so interesting, is that they (airports) never

shut down,” Fair said. “On a roadway, they may set up some cones and work beside where the cars are driving. At an airport, you can’t do that. You have to shut down larger areas.”

Finding ways to manage all of the details, along with finding the balance between efficiency and safety, is like a giant puzzle. Fair loves it.

“I really enjoy figuring out how to do it where everyone benefits,” Fair said. “It’s going to be a project that contractors are interested in. It’s not going to be too cumbersome for them. And by that, also getting a project that the owner can afford and also trust it’s being constructed safely.”

Fair’s been at Garver 12 years, and she will be the ASPE’s first female president. What is it like being a female engineer in a male-dominated industry?

“I like to look at it in a positive light,” she said. “Typically, when you’re the only person in the room that doesn’t look like everyone else, it stands out in people’s



SECOND COVER APPEARANCE. Fair’s first appearance on this magazine’s cover occurred in December 2015 when she was still Mary Kennedy, E.I., and the magazine was still Arkansas Professional Engineer.

memories. I also think that, over the decade that I’ve been in professional engineering, I’ve seen the profession grow

more diverse. ... And because of that, it’s strengthening the field and giving different perspectives and different ways to solve problems. You’re seeing that across the board from consultants to owners to agencies.”

There were a few small challenges. Fair laughs with a light in her eyes at her first official meeting with a contractor after graduating with her degree. Entering the meeting with other engineers, all male, the contractor asked Fair to get some coffee.

She doesn’t remember her response, but, she said with a smile, “I never got him coffee.” She’s now worked with that same contractor for more than a decade, and the two of them have a great working relationship.

In addition to being ASPE president, a P.E., and project manager at Garver, Fair is also a wife and mother. She and husband Jake Fair married in 2017. They have two children: Emily, age three years, and Jacob, age three months.



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Numbers up at revamped ASPE event

Less turns out to be more as attendance increases at one-day, affordable Annual Conference.

By Steve Brawner
Editor

A tightened and technical-focused ASPE Annual Conference attracted the biggest crowd in years as speakers discussed the Arkansas Department of Transportation's organizational changes, extending navigation on the Red River, the potential south Arkansas lithium boom, and other topics.

To make it easier for members to attend, ASPE officers shortened the program to one day on April 25, moved the conference to Little Rock, and cut the price in half. Included in the registration fee was a pre-conference outing the night before at Top Golf.

Then-ASPE President Tyler Avery, P.E., of Jurni Design Group said the society has been reducing costs by increasing board member responsibilities.

Garver's Mary Fair, P.E., the incoming ASPE president, praised Avery.

"About a year and a half or two years ago, we decided to do all those changes to keep our organization moving forward and kind of get out of the lull from the pandemic that we were somehow still in," she said. "And it took an effort to look at ourselves and look at what we were doing and figuring out what do our members want and what is in line with our mission, and that's what we've been doing under Tyler's leadership. And he's been working very hard behind the scenes, not only to make things like this happen, but a lot of other things that you're not aware of, which is a great thing because Tyler's been taking care of it."

The Arkansas Department of Transportation (ARDOT), Arkansas' largest employer of civil engineers with about 300 on staff, has been making structural changes. Daniel Siskowski, P.E., assistant division head for program management, said it opened a satellite office a year ago in Bentonville and will be opening one in Jonesboro. Those will assist the agency with employee recruitment and retention. ARDOT is increasing its number of districts from 10



TWO PRESIDENTS. Incoming ASPE President Mary Fair, P.E., of Garver presents a plaque to then-President Tyler Avery, P.E., of Jurni Design Group. The two leaders were part of a board that decided to shorten the conference from two days to one while reducing the cost to attend.

to 11, the first such change in 61 years, though it will take a few years for District 11 to be operational. ARDOT is reducing the sizes of District 4 in northwest Arkansas and District 6 in central Arkansas to improve its service to those densely populated areas. The agency also has changed pre-construction, operations and administration workflows. Those three chiefs work as a team and report to the director. Their assistant chiefs also work together and with their districts to combat the "silo effect" that can happen in a state agency. ARDOT has a new assistant chief engineer for program delivery and has created a new division for local programs. It later will have a division for traffic safety-related issues.

Siskowski said ARDOT relies on consulting firms to expand its offerings. As of earlier that month, it had more than 500 active task order independent contracts with more than 60 firms ranging from roadway design to web-based training support and data collection. Those contracts were worth more than \$250 million and covered about 10 years

of work. Most are associated with on-call contracts. The department has on-call design contract agreements with 18 firms. From these, it has issued 202 task orders averaging about \$410,000. It also has on-call construction/engineering/inspection contracts with six firms. From these, it has issued 29 task orders that average about \$375,000, not including very large projects like the 30 Crossing project in Little Rock and North Little Rock. It has agreements with nine firms for on-call planning services. It has only issued one task order since it updated its procurement last year but has had a total of 33 averaging \$310,000 including its previous group. It has surveying agreements with 12 firms with 93 task orders averaging about \$100,000 each.

Siskowski said ARDOT has more than a \$1.7 billion annual budget which includes about \$1 billion a year for highway construction projects. Its Renew Arkansas 10-year construction plan includes more than 7,000 miles of pavement preservation, the replacement or repair of 1,100 bridges, and another



ANNUAL CONFERENCE SPEAKERS. From left are Anthony Risko, P.E., with Freese and Nichols; Jay Hansen, a geologist with the Arkansas Oil & Natural Gas Commission; Michael Baker International's Julia Ryan, AICP; and Daniel Siskowski, P.E., with ARDOT.

\$2 billion for capital and capacity needs. Arkansas is working with Tennessee to plan replacing the I-55 bridge across the Mississippi River. The department is planning for \$250 million-plus for its 50-50 share of that project.

The department uses its Statewide Transportation Improvement Program (STIP) to identify construction projects over the next four years. Federal funds cannot be used for any project not in the STIP, which includes the I-55 bridge. The agency is updating its STIP as part of a two-year process. A draft STIP was submitted to the Highway Commission in June, followed by a period of public comment. When it achieves final approval, it will be sent to the Federal Highway Administration and the Federal Transit Administration in October. From that point, ARDOT immediately will start working on the next STIP.

As part of the STIP process, ARDOT officials determine how much money the agency will have and then what projects to prioritize. For the 2025-28 STIP, the department estimates it will receive \$452 million annually through the half-cent sales tax, \$555 million annually through motor fuel taxes, and \$178 million from registration fees. Casino revenues will provide a minimum of \$35 million, while natural gas will provide \$14 million a year in 2027-28. It has decreased significantly over the last decade. Other funding sources will provide about \$85 million. The total would be about \$1.3 billion annually in 2027-28. After the cities and counties receive their portions, the state would have \$948 million annually in

state funds. The department estimates it will receive \$843 million annually in federal funds in 2027-28. Combined, the state would have about \$1.8 billion a year total, with about \$1 billion for projects. That would break down to \$404 million for capital and congestion relief projects, \$467 million for system preservation, \$100 million for interstates, and \$53 million for safety.

Suggested projects come from many sources, including citizens, legislators, and department personnel. ARDOT personnel rely on data collected by staff including asset condition information, safety data collected by law enforcement officers, traffic count information, and other sources. The department prioritizes projects using a standard set of criteria related to safety, infrastructure condition, mobility, economic competitiveness and performance measures. Decision Lens software helps the department rank each project. Also taken into account is whether the project is part of the Arkansas Primary Highway Network. The Highway Commission established that network in 2004 to concentrate revenues on the 50% of state highway miles that carry 90% of the traffic.

Not surprisingly, the needs outweigh the money.

"Our universe of projects that were submitted for 2027-2028 was 953 projects for \$24.3 billion," he said. "We have about \$2.1 billion for 2027-2028, so our needs far exceed our funding available."

Siskowski said costs have doubled in the last 10 years. A two-inch overlay cost \$88,000 per lane mile in 2013. Last year

it was \$160,000. A two-lane new location collector type road was \$1.7 million in 2013 but was \$3.5 million last year.

Extending Red River channel

Also at the conference, Anthony Risko, P.E., with Freese and Nichols described his firm's work on a three-year, \$3 million study to extend navigation on the Red River's J. Bennett Johnson Waterway from its westernmost location at Shreveport to a point 134 river miles inland at Index, Arkansas. The waterway is about 200 feet wide and has a nine-foot channel depth.

The current navigation channel from Shreveport to the Mississippi River involves five lock and dam locations. Two or three more locations would be needed to reach Index. Perhaps these could operate through a public-private partnership where private interests own the facilities and invoke tolls. Two railroad bridges in Shreveport would have to be modified for barge traffic.

A previous study in 2005 recommended two locks and dams that would have extended navigation from Shreveport to Garland, Arkansas, with a nine-foot channel. The project would have cost \$623 million but wouldn't have provided enough return on investment. This time costs would be higher.

Risko described how barges are an efficient way to move commodities. One barge equals 35 railroad hopper cars or 134 trucks. A barge can move a ton of commodities 514 miles on one gallon of fuel, compared to 59 miles in a truck. Furthermore, extending the navigation

Continues on next page



MORE CONFERENCE SPEAKERS. From left are Dr. Lawrence Whitman, who at the time was dean of the University of Arkansas at Little Rock Donaghey College of Science, Technology, Engineering, and Mathematics; Dr. Norm Pumphrey, dean of the Ouachita Baptist University engineering program; Ken Estes with Cadence Insurance; and Rick Geraci, P.E.

channel would offer ancillary benefits that can help get a project approved over competing projects. It would improve transportation efficiency and highway safety by diverting truck traffic from the roadways. There would be economic development benefits. It would save and restore lost habitat and stabilize the river banks. It also would increase recreation activities by creating navigation pools.

The project is still in the scoping phase. Garver is a subcontractor assisting with stakeholder engagement. Freese and Nichols plans to turn the study over to the U.S. Army Corps of Engineers by November 2026. From there the plan would go to the Office of Management and Budget before moving to congressional authorization. Then it still would need a congressional appropriation.

Risko said a potential future study would consider extending Red River navigation from Index to Denison, Texas, in the Dallas metroplex. First, however, the middle portion to Index would have to be authorized.

South Arkansas lithium boom

In another presentation, Jay Hansen, a geologist with the Arkansas Oil & Natural Gas Commission, described the lithium extraction industry in the Smackover Formation. Hansen said companies are using oil and gas technology to extract lithium from the brine in south Arkansas. Lithium is a critical ingredient in batteries, including those used in electric cars. South Arkansas has the element in abundance, and it's comparatively easy to extract it. A Standard Lithium

demonstration plant was built in Canada, disassembled into 18 modules, and reassembled in south Arkansas. The company was studying whether the operations would last for 25 years and whether it would be economically feasible.

"You bet, because according to this, in year two, they're basically doubling U.S. production, so that's pretty substantially," he said. "And then they said, well, can we go out 40 years? According to their feasibility study, yes, they can."

Hansen said the study found the formation contained 208,000 tons of lithium, which could be extracted at an annual production rate of 5,400 tons.

He said the Oil and Gas Commission is currently writing a brine rule. It has had oversight over bromine production for decades but has never had a rule because everyone acted responsibly.

Two engineering programs

Attendees also heard presentations by two college engineering deans – one with an established program, and one helping start a new one.

The dean of the established program was Dr. Lawrence Whitman, who at the time headed the University of Arkansas at Little Rock Donaghey College of Science, Technology, Engineering, and Mathematics. He had recently been named the incoming dean of Southern Polytechnic College of Engineering and Engineering Technology at Kennesaw State University in Kennesaw, Georgia.

Whitman said the Donaghey College saw a 23% student enrollment

increase from 2022 to 2023. It now has 1,162 students, with about 1,000 of them undergrads. In the fall of 2023, 77 students were studying civil and construction engineering while 80 were studying construction management. It was the world's first program to accredit geology and one of seven universities worldwide to have programs accredited in all four ABET areas – engineering, engineering technology, computing, and natural sciences.

He said many UALR students are working in the industry. He once polled his industry advisory board composed of 20 companies of all disciplines. All had hired students as interns, not graduates.

"The reason why these programs exist is because industries said we wanted this in central Arkansas," he said. "And so that's why it happened. And the reason why it's still successful is because of industry engagement."

In contrast to UALR's established program, Ouachita Baptist University's is in its beginning stages. Dr. Norm Pumphrey, dean of the engineering program, started working at the college in 2022. The school is offering a general program with emphasis areas in mechanical and civil engineering. The program's start traces to when the college's president, Dr. Ben Sells, was looking for ways to increase enrollment. A committee led by two physicists created a plan for an engineering program, but COVID put it on hold. The plan eventually rekindled. The school is now offering general engineering with an emphasis on mechanical and civil engineering. It's still

looking to hire a mechanical engineering professor. It will submit an accreditation readiness report this fall, followed by a self-study report and a visit. It should have accreditation in late spring or early summer of 2026.

Complete streets not just sidewalks

In another session, attendees were told that building successful and complete streets is a process involving sensitivity to context and to surrounding land use.

That message came from Michael Baker International's Julia Ryan, AICP, former chief planning officer and director of the Dallas Planning and Urban Design department. She also worked for the city of Fort Worth.

"The way that I approach this is that complete streets is a policy. It's the thing that says how we're going to treat people as we're designing roadways," she said.

Land use, she said, is "where everything begins and ends." That includes existing land use, future land use, and planned land use. Streets that are single-family-oriented will look different than other streets. Access management is the most impactful aspect of design. Too many driveways create conflict, congestion and wasted roadway space. She said that when designers are scoping projects, they should work from the outside in rather than the inside out. Narrower travel lanes and a narrower median might allow for more elements on the outside.

Designers should consider from the beginning how they will include sidewalks, but a complete streets policy need not require sidewalks and bike lanes or optimize travel for every mode. Bike lanes don't work if they are too narrow, and sidewalks shouldn't be too close to a curb. She noted that the Americans with Disabilities Act doesn't require sidewalks, but if they exist, they must be maintained and accessible. She said some in the disabled community refer to non-disabled individuals as "TABs," as in "temporarily able-bodieds."

Public engagement is an important tool, but it needs to be done correctly. Ryan said planners should speak to members of the public using their language, not jargon. She would tell her staff to consider how they would explain concepts to their mom.



TOP GOLFER. Brad Peterson, P.E., of Crafton Tull takes a swing at the Top Golf attraction in Little Rock April 24.

"Public meetings are always important, but meeting people where they are is even more important, especially in these days, and then just making it easier for people to be engaged," she said. "Public meetings are very bland. I don't even go to public meetings when I'm asked to go as a participant, so how do we ensure that regular people want to go?"

Ryan said much of the concern expressed by skeptics of a project is based on a lack of understanding. As with other members of the public, planners and designers should speak plainly and tailor the message to the benefits. Explain to a non-biker that the design will create a bigger buffer between the sidewalk and traffic, make it easier to cross streets, and reduce road noise. Ultimately, she said, planners should seek to do the right thing even if some vocally oppose.

"This is something that has taken me a really long time to learn, that public interest is not public opinion, and there's a big difference," she said. "And so as professionals, it's really important for us to understand public opinion, but we're here for the public interest."

Risk management case study

Also presenting was Ken Estes, a Cadence Insurance risk management specialist who annually presents case studies at the conference. This year, he described an actual event involving an \$80 million county courthouse that was well-designed by a good multidisciplinary firm. The work scope clearly placed job site safety responsibility on the contractor. In fact, whenever a job site meeting turned to safety, the project manager would leave the room. During the construction phase, a firm representative signed off on the addition of a temporary clip angle and issued supplemental design documents showing the change.

Then the project collapsed, killing one construction worker and injuring four. The project manager convened an immediate meeting of the firm's crisis management team. The firm had a good quality control program in place. It contacted its insurer, attorney, and the county. A damage control plan was created within hours of the collapse. The firm preserved and documented evidence quickly. It cooperated fully with all parties.

Preliminary investigations showed the firm was blameless. A forensic expert demonstrated that the clip angle was not secured with a nutted bolt. Had it been, the angle would not have failed. But investigators found more than 20 shop drawings tied to the firm. Everyone, including the firm, was sued for \$30 million.

The firm decided not to participate in a settlement meeting. Days before the settlement deadline, OSHA announced it was citing only the steel erector. The construction manager, general contractor and steel erector negotiated a settlement and then sued the engineering firm saying it had a substantial responsibility. A jury found in favor of the firm after a seven-week trial.

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ACEC/A Member Spotlight

Burns & McDonnell is local and global

The 100% employee-owned firm is lead designer for 30 Crossing project connecting LR, NLR

Burns & McDonnell has come a long way since 1898, when Clinton Burns and Robert McDonnell decided to locate an office in Kansas City, Missouri, because it would be a day's train ride from many communities.

Today it's a \$7.4 billion firm with more than 75 offices worldwide and 14,000 professionals working across the country.

But some things haven't changed. It's a 100% employee-owned firm, just as it was when Burns and McDonnell were their own bosses. And it's still working with its first client, the city of Iola, Kansas.

Today, its services have expanded to include engineering, business and technology consulting, architecture, commissioning, construction, operations and maintenance, program management, and project management.

The company has a strong presence in Arkansas with an office in Springdale that is supported by more than 400 municipal engineering professionals in surrounding offices. Arkansas projects include road widenings, utility relocations, safety improvements, signal evaluations and water/sewer services. The firm has five on-call contracts with the Arkansas Department of Transportation for planning, safety studies, NEPA studies, noise studies and design.

The 30 Crossing project is one of the firm's high profile projects in Arkansas. Burns & McDonnell is the lead designer for the design-build project led by Kiewit-Massman. The 3,360-foot Arkansas River Bridge connecting Little Rock and North Little Rock is being reconstructed to include two three-lanes along with two collector-distributor lanes and an auxiliary lane in both directions. The project also includes the widening of roughly three miles of Interstate 30 from six lanes to eight lanes. Among the other project highlights will be the reconfiguration of the Highway 10 interchange in downtown Little Rock from a complex loop ramp and viaduct system to a split-



WITH 14,000 PROFESSIONALS across the country and a local office in Springdale, Burns & McDonnell can handle a variety of projects. Top, the firm has been providing design services improving Bentonville's 8th Street from Southwest I Street to Moberly Lane. Above, it provided design work and construction services for a design-build project upgrading the Siloam Springs Water Treatment Plant.

diamond interchange. Burns & McDonnell also developed traffic maintenance and staged bridge construction plans that have minimized disruptions to the traffic flow for the 130,000 vehicles that travel through the project area each day.

Another Burns & McDonnell project has been one improving Bentonville's 8th Street from Southwest I Street to Moberly Lane. For the 8th Street interchange, Burns & McDonnell secured clearance to widen 2.5 miles of 8th Street from SW I Street east to I-49. Burns & McDonnell team members are now delivering the 1.5-mile segment from SW I Street to SE J Street, with the other section being integrated into Walmart's home office design and construction.

Burns & McDonnell also did design work and construction services for a design-build project upgrading the Siloam Springs Water Treatment Plant. It was the

first upgrade in nearly three decades for a city whose population has nearly doubled in that time. Major equipment was reaching the end of its useful life, and the plant was served by only a single 65-year-old raw water line. Burns & McDonnell did a full design of the raw water piping and plant upgrades and also managed construction activities. Improvements included a parallel raw water pipeline, rehabilitating and expanding the plant, and improving the pump station.

The company has a strong philanthropic focus. Each year, a company-wide cause is selected, and each office identifies a local organization to address the need. In 2022, the Burns & McDonnell Foundation donated \$11 million to worthy causes, while employees donated more than 20,000 volunteer hours. The company gave \$1.1 million to support science museums and centers in 2023.

ASPE

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Estes said engineers must ensure their involvement does not demonstrate control. He advised against engineers doing anything dealing with means and methods that are the contractor's responsibility. Anything a firm does on site that makes it appear it is responsible for safety can be used against it. The firm had a well-written contract that defined its responsibilities, and it followed the terms. However, it made itself vulnerable by falling into the "redesign trap" where it made design changes that benefited the contractor but were not related to the design. It was risky to show temporary erection devices on design documents.

"You guys are dealing with the end results," Estes said.

As always, the conference featured an ethics presentation by Rick Geraci, P.E. Geraci took attendees through a series of scenarios. He asked what responsibilities an engineer would have when moonlighting with their own personal business. For example, he said, if they are providing outside design services under their own stamp, what would be the right thing to do regarding products that the engineer's full-time employer might supply?



OTHER SPEAKERS were Aaron Clauson, P.E., with Contech Engineered Solutions, and Roy Doumet, P.E., with Keller North America.

"If there's anything that I want to leave you with is be constantly aware of perception," he said. "How are the public and other parties out there, but particularly the public, how are they going to perceive what you're doing? Because you can be doing something straight up legal, everything's fine and good, and the public could see that as really bad."

Other speakers were Aaron Clauson, P.E., with Contech Engineered Solutions, who spoke about drainage pipe industry costs, and Roy Doumet, P.E., a project manager with Keller North America, who spoke about ground improvement systems.

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Keeping Communities Connected

Lawren Wilcox, PE, is Garver's Bridge Practice Leader, but he knows his job goes beyond linking communities together. It's about keeping commerce flowing and making people's lives just a little bit easier. And by delivering critical transportation projects across the state, he's helping to improve safety and create better connectivity in Arkansas.

Lawren Wilcox, PE
Bridge Practice Leader

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