

Arkansas Professional

ENGINEER

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



Profession Protectors

Alan Pugh, P.E., left, an engineer with the city of Fayetteville, is this year's ASPE president. Andy Dibble, P.E., right, a vice president with Mickie Wagner Coleman, is this year's ACEC/A chairman. While they lead different organizations, they share the same goal: to build engineering and improve the organizations they lead.

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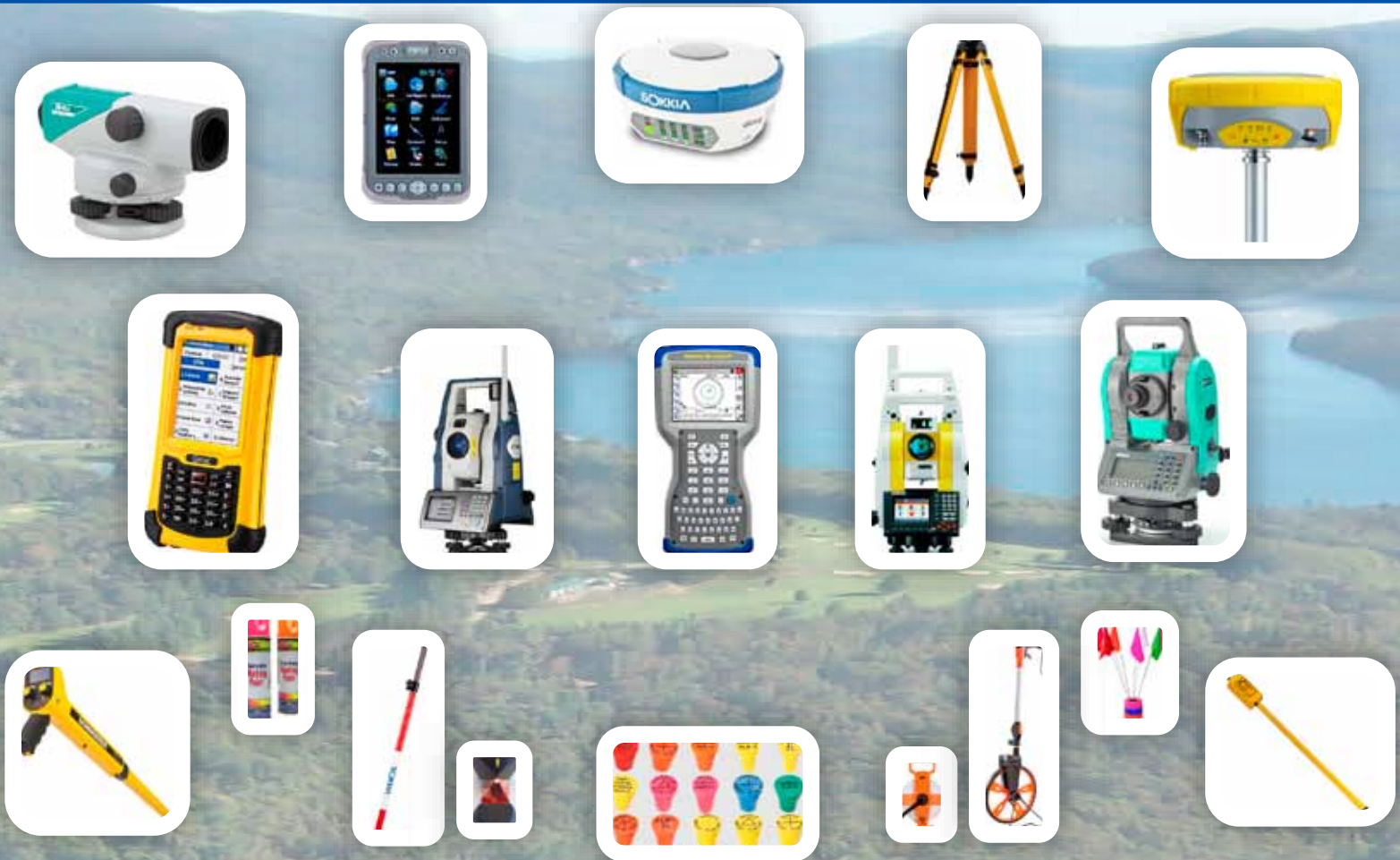
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14 Alan Pugh, P.E., top, a staff engineer with the city of Fayetteville, is the new ASPE president, and Andy Dibble, P.E., Mickie Wagner Coleman engineering manager, is the new ACEC/A president.

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Advocacy the theme for a second straight year



Andy Dibble, P.E.
ACEC President

A new fiscal year is upon us as members of the ACEC/A Board of Directors. It is somewhat daunting to step into the shoes of Dee Brown, P.E., our immediate past president, and the other dedicated professionals who have filled the presidency of our board during my years of serving. They have all imparted nuggets of wisdom, and I value their leadership and friendship. As the new president, I don't have any bold new initiatives to spring upon the membership, but I do want to continue what I believe is a bold vision put forth by Dee and embraced by the board.

The theme this year will continue to encompass advocacy in the areas of government affairs, public relations and membership. With the upcoming elections, advocacy through the ballot box is an important way to positively affect our profession. Get to know the people who are running for office and research the positions they take on issues that impact our ability to perform our jobs. Research the votes of incumbents and determine if their votes on issues agrees with your beliefs and ethics. Communicate with them and work to become a trusted source of information that they can use when they

are considering legislation that could affect engineering – whether negatively or positively.

As always, public relations is important so the public and other engineers can see what we are doing. Our website (ArkansasEngineers.com) continues to be improved and is a great place to keep tabs on the activities of the board and to stay abreast of issues that could affect engineers across all of the disciplines. ACEC/A also has a presence on Twitter (@ACECArkansas) that is used to communicate to followers in real time. Our Facebook page (American Council of Engineering Companies of Arkansas) also has information about Council events and the member firms.

Lastly, and maybe most importantly, membership is the third leg of the triangle that sets forth our continued theme. It has been eye-opening to me to see how much influence ACEC/A has at both the state and national levels with our elected representatives. That is due to the membership that we represent. Increased membership allows us an even stronger voice and also, through dues, allows the board the opportunity to provide more quality programs and benefits to the member firms. Membership and participation in the organization provides a great opportunity to serve the profession in which we work, but it also allows someone like me to expand my knowledge of other firms and to make lasting relationships that would not have been possible otherwise.

The year ahead is exciting and will probably throw challenges our way. Let the board know what we can do to help you with the business of engineering. Thank you for the opportunity to serve.



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Arkansas Professional Engineer is published quarterly by the
Arkansas Society of Professional Engineers and the
American Council of Engineering Companies of Arkansas.
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Communications. All rights reserved.

Defining engineering

I recently had the opportunity to attend the 2016 Professional Engineers Conference in Dallas. Although there were many excellent presentations including a discussion from NASA Principal Engineer Dr. Nancy Curry Gregg, one of the presentations tied directly into the topic of protecting licensure. In 2015 and 2016, the states of Indiana, Kansas and Minnesota all worked through successful efforts to support or oppose legislative matters that would have impacted the licensees in those states.

Perhaps the most egregious of these was in Indiana, where the governor appointed a Job Creation Committee (JCC) to “assess the efficiency and effectiveness of all professional licenses regulated by the Indiana Professional Licensing Agency.”

The committee was tasked with developing recommendations that would remove roadblocks to job creation and ease the burden on those seeking employment. On its surface, this is certainly not a bad initiative and not one of great concern to the engineering community. However, the draft report from the committee recommended eliminating the P.E. license in Indiana. The Indiana Society of Professional Engineers worked with NSPE to organize a response and urge the governor to reverse the recommendation. After a long process and testimony from the Indiana and national societies before the JCC, the recommendation for the engineering profession was finally rescinded.

There have been bills introduced into the Arkansas Legislature that, while they did not completely do away with professional licensure, certainly began to chip away at licensure for engineers and other professions. These efforts were ultimately defeated thanks in part to a coordinated efforts from the affected professions.

In Kansas, an outside auditing firm was employed to help find ways for the state to save money due to massive budget shortfalls. Again, this appears to be a good initiative and does not appear to be of great concern to the engineering community.



Alan Pugh, P.E.
ASPE President

However, one of the findings was that eliminating qualifications-based selection (QBS) could save the Kansas Department of Transportation a considerable amount of money. The report stated that the state could save 10 percent by using “non-federal contract evaluation standards.” However, this was challenged by the Kansas and national societies as there was little merit behind the savings being reported, and the proposal did not uphold

the fundamental canons of engineering to hold paramount public safety by selecting those most qualified to perform the work. Because of the efforts to educate the people about QBS and the potential effect of its elimination, the Legislature ultimately decided not to pursue that recommendation.

The Minnesota Society with the help of NSPE supported a measure that allows professional engineers to practice without the need for additional licenses or certifications. The state society was seeing a growing trend for local communities and other regulatory agencies to require certifications in addition to licensure in order to practice in particular areas. The bill that passed indicated that a licensed P.E. will be required to obtain additional license or certification only if it has been determined to be necessary to protect life, health and property and promote public welfare. NSPE's position was as follows: “NSPE believes that professional engineering licensure is the only qualification for engineering practice. The Society and its state societies will actively oppose attempts to enact any local, state or federal legislation or rule that would mandate certification in lieu of or beyond licensure as a legal requirement for the performance of engineering services.” NSPE goes on to state that voluntary certification to enhance expertise is certainly encouraged.

Whether we like it or not, there are individuals, organizations, regulators and others outside of the engineering community that are attempting to redefine our profession. This is one of the main reasons I chose to get involved in ASPE/NSPE. We must all ask ourselves, what have I done to define, promote and protect the profession of engineering? If we don't, who will?

In the News

Garver named top firm to work for by Zweig

Garver was named by The Zweig Group as its #1 "Best Firm to Work For" in its latest multidiscipline category.

The consulting and publishing firm's "Best Firm" list honors engineering, architecture and environmental consulting firms based on benefits offered and employee satisfaction. Garver has been ranked in the top three the previous two years.

"By definition, a corporation has to be profitable," said President and CEO Dan Williams in a Garver press release, "but at Garver we believe profitability is a by-

product of providing generous benefits and creating a culture within our organization that attracts and retains world-class talent. Being named the Best Firm to Work For is evidence that we're succeeding in our mission to do that."

North Little Rock-based Garver has more than 400 employees in 18 offices in 10 states. It offers 401(k) matching, paid overtime, health care, a full-time personal trainer on staff, a gym or a gym fee reimbursement program at every office, a flexible work schedule, and many professional development resources.

"Our leadership has prioritized a healthy work-life balance and that's something employees – especially this generation – value in their workplace," said Corporate Recruiter Wren Ward in the press release.

ENR names Garver Aviation to its top 25

Engineering News-Record this year named Garver a top 25 firm for airport work in its annual ranking of the top 500 design firms nationwide.

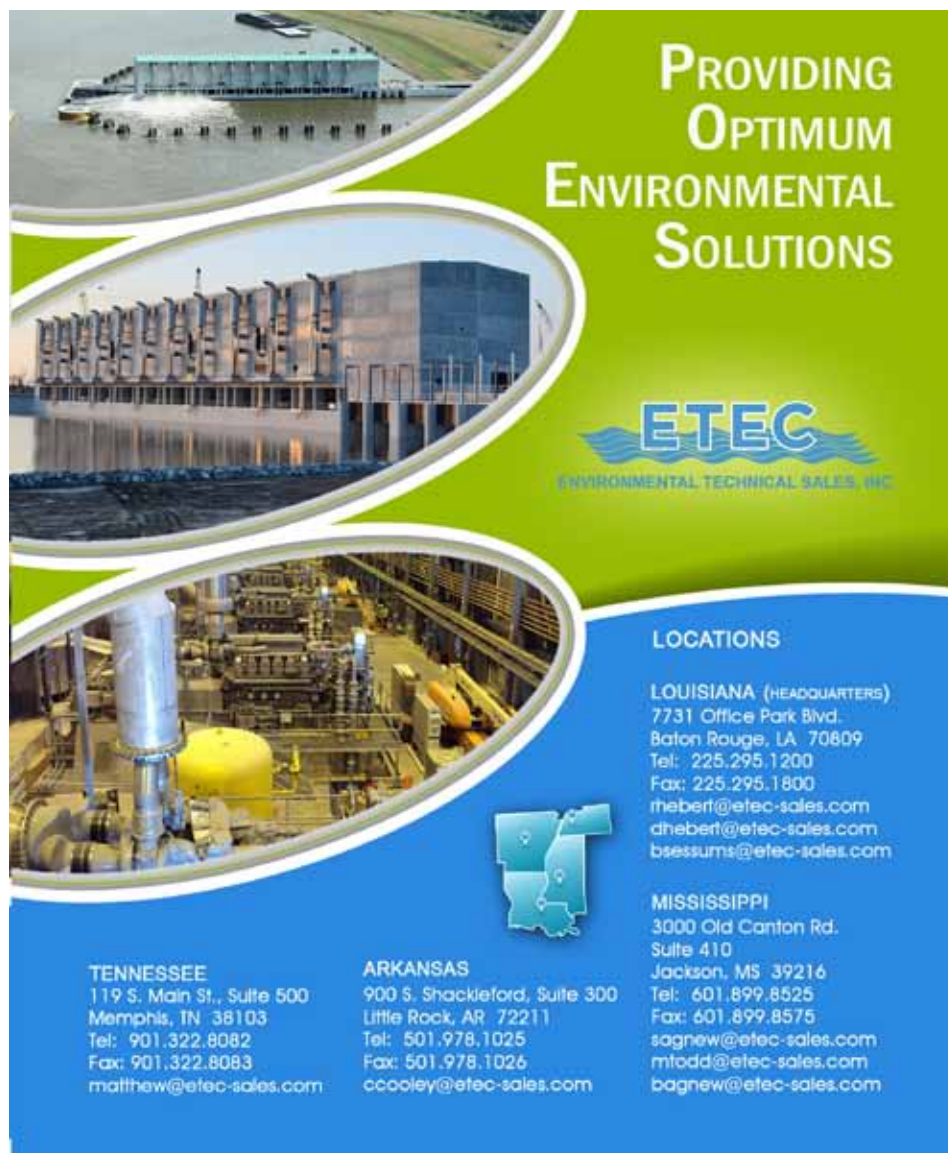
This was the first time the firm was recognized in a particular sector in the magazine's rankings.

"I've never worked with a more talented and dedicated staff than our current Aviation Team," said Director of Aviation Mike Griffin in a Garver press release. "They're committed to the quality of their work and they're committed to the vision of our clients. That's never going to change with this crew and I think the industry is starting to recognize that."

Overall, Garver was ranked 174 on the Top 500 list, 18 spots higher than last year and the firm's highest ranking so far.

Russellville water has best taste; Garver is its firm

Russellville City Corporation (RCC) won the 2016 People's Choice Award for "Best-Tasting Water" at the American



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SOME OF THE EQUIPMENT that made Russellville's water some of the country's best tasting.

Water Works Association (AWWA) in Chicago.

Conference attendees judged 23 winning samples from across the country. RCC had previously won the award for Arkansas and for a three-state region of Arkansas, Louisiana and Oklahoma that qualified it for the national competition.

Garver has been City Corp's water treatment plant consulting engineer for more than 30 years. It has designed nu-

merous projects at the plant and the six-billion-gallon water supply reservoir.

"The infrastructure City Corp. is using provides them with an outstanding water source and the means to deliver extremely high-quality drinking water to the people of Russellville and surrounding communities," said Project Manager Aaron Stallmann, P.E.

MCE moves its Little Rock office to new location

McClelland Consulting Engineers' Little Rock office has moved to a new location at 7302 Kanis Road south of I-630 at the intersection of Kanis and South Rodney Parham.

"For the past few years we have had our staff working out of three separate buildings in downtown Little Rock," said Byron Hicks, chief executive officer of McClelland Consulting Engineers in a press

release. "We realized if we wanted to have a collaborative working environment and still continue to grow, we needed to find a larger facility that would allow us to consolidate the three locations into one".

The firm will host an open house following a ribbon cutting ceremony from 5-7 p.m. Oct. 27. Clients, peers, friends and family are invited to join the firm for hors d'oeuvres, fellowship and door prizes. For additional information, contact Karen Bonvillain, marketing coordinator, at 501.371.0272.

MCE engineers proceeding with Magazine fix-up

MCE engineers met with Arkansas Department of Parks and Tourism and VEI General Contractors in September to issue a notice to proceed for the reno-

Continued on next page



In the News (Cont'd)



SCENIC VIEW. Project managers from McClelland Consulting Engineers, the Department of Parks and Tourism and VEI General Contractors look over the final construction documents for the Cameron Bluff Amphitheater project.

vation of the historic Cameron Bluff Amphitheater located at Mt. Magazine State Park.

The Works Progress Administration built the amphitheater in 1939, but it became weathered and deteriorated and was abandoned by the 1970s. In 2013, the Arkansas Historic Preservation Program assessed its National Register of Historic Places status as "ineligible" due to deterioration. Archival research resulted in the recovery of the original October 1938 blueprint of the amphitheater and 1939-1954 historic photos of the facility.

MCE designed the reconstruction plans by referencing the original blueprints and historic data. Panamerican Consultants from Memphis assisted with the historical assessment and archeological documentation.

Built around the existing retaining wall, the new amphitheater and stage floor will be reconstructed using salvaged original stones and materials along with new material chosen to mimic and/or blend with the historic material.



November 9

ACEC/A Arkansas Industry Update
North Little Rock
Arkansas Regional Innovation Hub

January 9

91st General Assembly begins
Arkansas State Capitol

February 2-3

ASPE Annual Conference
Hot Springs
The Hotel Hot Springs

March 30

Engineering Excellence Awards
Little Rock

April 23-26, 2017

ACEC Annual Legislative Conference
Washington, D.C.

MCE providing designs for NWA Children's

Arkansas Children's Hospital's Northwest Arkansas campus is under construction in Springdale, with McClelland Con-

sulting Engineers providing the survey, geotechnical engineering, materials testing, civil design (including stormwater design, utility design, pedestrian circulation design and helipad design and permitting), and construction observation.

According to an MCE press release, underground utility construction is nearly complete, and work on the central energy plant is well underway. Structural steel was expected to be completed by the end of September. The hospital is reaching its final five-story height and is now visible from I-49. It is expected to open by January 2018.

The 233,000-square-foot hospital will offer inpatient beds, emergency care, clinical space, and diagnostic services. Outside of the hospital structure, development of the 36-acre campus includes a helipad and refueling station, sensory gardens, and a walking trail.

Hawkins-Weir's Huckelbury is grad of program

Lisa Huckelbury, business manager of Hawkins-Weir Engineers, Inc. was among 31 individuals awarded graduation certificates during the 30th annual Community Development



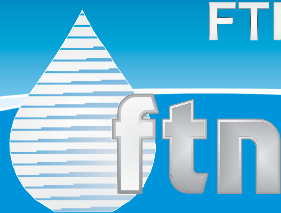
Huckelbury

Institute - Central (CDI) at the University of Central Arkansas Aug. 5.

The three-year program trains community leaders and economic development professionals to strengthen their local economies and build communities. Participants learn to identify community assets, set goals, encourage collaboration and partnerships with stakeholders, and bring communities, organizations and businesses together to respond to a broad range of economic and quality of life issues. More information can be found at www.uca.edu/cdi.

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Brett Peters, CEO of Hawkins-Weir Engineers, said in a press release, "We have been proud to sponsor Lisa and her participation with the CDI. Her graduation reflects a commitment to Hawkins-Weir Engineers and our area community regarding the importance of economic development initiatives."

Save the date: Industry Update will be Nov. 9

The ACEC/A Agency Forum, the annual event held in December and featuring speakers from state and federal departments, is being replaced with two events: one economics related, the other focused on policy and politics.

The first, the Arkansas Industry Update, will be Nov. 9 at the Arkansas Regional Innovation Hub in North Little Rock.

Speakers include Dr. Michael Pakko, the state economic forecaster, who will offer a forecast related to the engineering industry. Also speaking are Dr. Lawrence Whitman, dean of the UALR Donaghey College of Engineering. The lunch speaker will be a representative from Massman Construction, the contractor replacing Little Rock's Broadway Bridge.

As has been the case with the Agency Forum, other speakers include representatives from state and federal agen-



Hall

neers. Speakers are being given specific topics to discuss.

A second event focused on politics and policy will occur in January after the dust has settled from the election and just as the Arkansas Legislature is going into regular session and new officials are taking office in Washington. Steve Hall, the ACEC's vice president of government affairs, will speak along with federal and state elected officials.

cies, including the Arkansas Highway and Transportation Department, the Health Department, the Arkansas Department of Environmental Quality, and the U.S. Army Corps of Engi-

the Engineering Excellence Awards will be March 30, and the ACEC Annual Legislative Conference will be April 23-26 in Washington, D.C.

The move is not the event's only change. Angie Cooper, ASPE and ACEC/A executive director, and Alan Pugh, P.E., ASPE president, said the lineup of speakers will be planned by the time registration forms are sent to members.

Among the speakers are John Coleman, Northwest Arkansas regional manager for Viridian, a consulting firm specializing in LEED consulting energy services and building testing. Other speakers are Heather Richardson with the Arkansas State Board of Licensure for Professional Engineers and Professional Surveyors, Ken Estes with BancorpSouth Insurance Services, and Rick Geraci, P.E., of Brown Engineers, who as usual will give a presentation on ethics.

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ASPE annual meeting Feb. 2-3 in Hot Springs

The ASPE Annual Conference will be Feb. 2-3 in Hot Springs, rather than its usual spot in April.

The change was made to space out what in the past has been a busy part of the year. After the Annual Conference,

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50
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Yates celebrates 60 as MWY turns 70

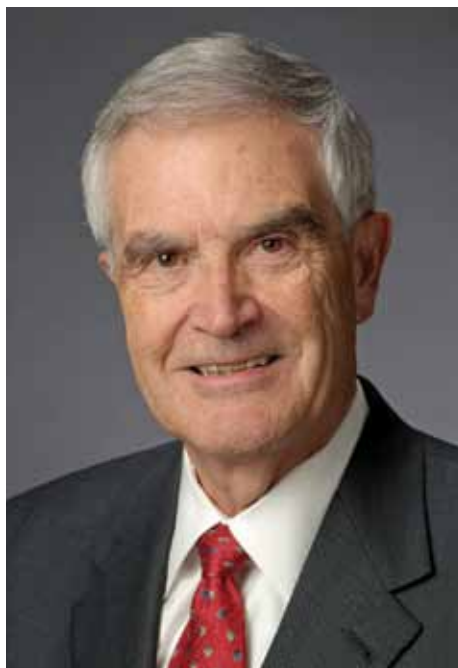
By Rebecca Wood
McGoodwin, Williams and Yates
Special to Arkansas Professional Engineer

What makes for a successful career is defined in countless ways, but what makes a career extraordinary is a unique balance of leadership, intelligence and genuine love of purpose. These are the attributes that make the 60-year career of Carl Yates, P.E., BCEE, FACEC, chief executive officer of McGoodwin, Williams and Yates, Inc. (MWY), more than just successful, but an extraordinary one that has improved the quality of life of hundreds of thousands of Arkansas residents over generations past and yet to come.

What makes Yates' 60 years as a civil engineer with MWY even more notable is that the company is currently celebrating 70 years of working with municipal clients, quite literally having developed infrastructure within every community in the immediate Northwest Arkansas area and numerous other communities throughout Arkansas and Oklahoma.

Yates reflects that though there have been many changes in environmental regulations, techniques and overall industry demands since the company's origination in 1946, MWY has adapted to these changes with one exception.

"Our main focus has always been to put ourselves in our clients' shoes so that we can work side-by-side with them to develop solutions," said Yates. "We don't always know all the answers, but over the years we've developed relationships nationally and even internationally with professionals who do know, and in that way we are equipped to find the right answer for each client."



THEN AND NOW. Carl Yates, P.E., is celebrating 60 years with McGoodwin, Williams and Yates. He learned leadership at Engineer Officer Candidate School and was assigned as a Special Category of the Army with the Air Force engineer.

To some degree, Yates' time in the military honed his leadership skills and his ability to facilitate teamwork and communication. Yates completed Engineer Officer Candidate School, and was assigned as a SCARWAF engineer (Special Category of the Army with the Air Force).

"At the time I really didn't recognize it as leadership training. I just knew I had a job to do, and I found a way to do it and learned how to work with people to get it done right," Yates said. Stationed in Korea, he was assigned to form a special group to construct fuel facilities for various air bases there.

Yates' leadership has been a catalyst for MWY being a pioneer in the state for unique technologies such as the use of ozone as a disinfectant. MWY was the first to utilize this process in Arkansas.

"I'd been reading about this technology being used in other parts of the world and really wanted to know how to apply it here," Yates said. "One name kept popping up, Rip Rice, so I called him." That call led to MWY pioneering the use of Arkansas River water as a drinking water source in 1993 with the construction of the Clarksville Water Treatment Plant.

Most recently, MWY has applied that pioneering spirit with the use of two new technologies on projects completed within the past year, including being the first in the state to use ozone for the disinfection of cryptosporidium at the expansion of the Clarksville Water Treatment Plant; and a project for the Batesville Wastewater Treatment Plant, which is the first in Arkansas and largest in the country to utilize a moving bed bio-reactor system.

Among his most notable accomplishments is serving as a key engineer in the development of both the Beaver Water District (BWD) and Carroll-Boone Water District (CBWD).

"Both of these districts were developed as a result of very forward-thinking, intelligent community members," Yates said. "Being on the ground level of this kind of development with such capable people was a privilege." Combined, these districts serve more than 300,000 residents.

Perhaps one of Yates' most far-reaching accomplishments dates back to the 1970s, when he served on the Region Six Engineering Advisory Committee of the then-fledgling Environmental Protection Agency. At the time, the EPA was not funding wastewater projects. Yates' willingness to challenge discrepancies in the EPA's funding approach led to a more



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GOING TO BATTLE. Jim Ulmer, P.E., BCEE, chief operating officer of MCE, drew this cartoon after Yates challenged the EPA's funding approach in the 1970s.

In 1981, on behalf of the ACEC, he testified before the Water Resources Subcommittee of the U.S. House Public Works and Transportation Committee concerning revising the Clean Water Act.

If there is one thing that Yates wants MWY to be known for, it is for always doing everything possible to champion water quality.

"I think our clients value honesty above all else, and my goal, the company's goal, has always been to provide calm, assured guidance and a willingness to do whatever it takes to get the job done right for them and the environment," Yates said.

defined application method and the release of funding throughout the region. Yates also served on the Arkansas Policy Advisory Committee for Water Quality Management and Planning, for which, as chairman of the Standards Subcommittee, he helped develop initial water quality management plans for Arkansas.

New and improved

You know how TV commercials have long claimed a product is "new and improved." That's what we're doing this year with two of our long-standing events, the ACEC/A Agency Forum and the ASPE Annual Conference.

The Agency Forum has long been held in December and featured a lineup of speakers from state and federal departments who provided updates on their activities. It was good information, but it lacked a punch. By the time Steve Hall, the ACEC's vice president of government affairs, made his appearance, everybody was kind of ready for lunch.

So we're replacing it this year with two events. One, the Arkansas Industry Update, will be Nov. 9 at the Arkansas Regional Innovation Hub in North Little Rock. Agency speakers are being given specific topics to discuss rather than simply invited to give an update. Dr. Michael Pakko, the state economic forecaster, will offer a forecast tailored to our industry. Also speaking are Dr. Lawrence Whitman, dean of the UALR Donaghey Col-



Angie W. Cooper
Executive Director

lege of Engineering, as well as a representative from Massman Construction, the contractor replacing Little Rock's Broadway Bridge.

Then we'll have a more politically oriented event in January where Hall will speak along with state and federal elected officials. By then, we'll all have had a chance to decompress from this crazy election and will be ready to look

ahead to the state legislative session and the upcoming events in Washington.

The ASPE Annual Conference, meanwhile, is being moved from its usual spot in April to Feb. 2-3 in Hot Springs. This is being done to balance the calendar a little bit and offer a little space between it and the Engineering Excellence Awards, which will be March 30, and the ACEC Annual Legislative Conference, which will be April 23-26 in Washington, D.C.

In addition to having the event earlier, we also will be more prepared. We plan to have the agenda set before sending out registration forms so engineers can see the speaker lineup – which, by the way, is phenomenal. See you there!

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Pugh: Make members the focus

Ideas solicited, heard for improving Annual Conference

By Steve Brawner

Editor

Members are the reason ASPE exists, and the Society's new president wants to make sure the focus is on them.

To do that, Alan Pugh, P.E., a staff engineer for the city of Fayetteville, is working with the leadership to listen to members and take their ideas into account. The results of a member survey have helped guide plans for the 2017 Annual Conference, which will be Feb. 2-3 in Hot Springs. Meanwhile, Pugh wants the program's contents to be communicated to members sooner. He wants participation, not just attendance.

"I want to help shape a meeting that engineers see value in, that they want to attend, not necessarily think that they have to attend just because they're a member," he said.

Among his other goals: Pugh hopes to build up the Society's membership. He'll continue to emphasize the NSPE's "define, promote, protect" campaign, a focus of ASPE's past president, Brad Peterson, P.E., of Crafton Tull. As the 2017 General Assembly approaches, he wants to ensure the Society is paying attention to any legislation that could degrade the profession.

"We've seen some states in the U.S. unfortunately look to do away with professional engineering licensure, which certainly we're opposed to," he said.

Pugh has been a staff engineer for Fayetteville since August 2014. He's in charge of flood plain administration, which means much of his time is spent helping citizens work through Federal Emergency Management Agency requirements, working with consulting engineers, and doing projects himself in-house. He's responsible for the city's compliance with its MS4 permit for municipal separate storm sewer systems. He also works with the Watershed Conservation Resource Center in Fayetteville to administer Clean Water Act 319(h) grants for stream restoration projects. Many of those projects affect Beaver Lake, the area's drinking water source.



CLEAN STREAM. Alan Pugh, P.E., a staff engineer with the city of Fayetteville, stands beside a stream the city is restoring using federal Clean Water Act 319 (h) grants.

Pugh came to Fayetteville from Springdale, where he was hired in February 2010 as engineering coordinator and then became engineering director when the mayor made engineering its own division.

When he arrived, the Don Tyson Parkway Interchange was midway through completion. Pugh found himself not only in the middle of a major project but also in the middle of a learning curve – he had no experience with the federal aid process. But the consulting firm, Garver, educated him on the project's progress.

"That was certainly an interesting few weeks at the beginning of that, just kind

of drinking from a fire hose, if you will," he said with a laugh.

Pugh could offer a fresh perspective on the project, but he didn't try to turn around a ship that was already well on its way out of the harbor, and the interchange was completed by the time he left for Fayetteville. Meanwhile, shortly after the mayor split the city's divisions, the city undertook a large municipal bond program for its parks system, fire department and streets. His team was responsible, in a short amount of time, for hiring consultants, coordinating and reviewing designs, and starting construction. The bond process required some projects to

be completed or well into construction within three years of the bonds being sold. "From start to finish, that's a very expedited time frame as far as a municipality is concerned with all of the regulations that we had in place," he said.

A love for design

Pugh left Springdale in August 2014 to be a staff engineer in Fayetteville. Professionally, giving up a management slot would not seem to be an advancement up the career ladder, but it enabled him to spend more time designing projects, analyzing problems and developing solutions.

"I've always loved the design aspect of it, had been away from it for quite a few years in the management roles that I'd had," he said, "so it afforded me that opportunity, and just another opportunity to do different things – interact with the public, do more flood studies, physically doing them myself and some other things. ...

"The decision-making process for me was, what ultimately do I think is going to make you a better engineer? Ultimately, what fits best with your life goals and where you're at in life? And I felt this position fit, at least at this time."

The move also cut out some after-hours meetings and let him work closer to his home in Fayetteville where he and his wife, Gail, are raising two daughters, 4 and 2. Outside of engineering, he is a member of First Baptist Church – Fay-

etteville and enjoys outdoors activities such as kayaking, cycling and mountain biking.

Pugh had grown up in Paris, Arkansas, and enrolled at Arkansas Tech University not knowing what he wanted to do as an adult. He began considering engineering after talking to his brother-in-law, who worked for the Arkansas State Highway Department, about his work. He spent a couple of summers as an intern in the department's materials lab out of Fort Smith and a couple of summers interning in a resident engineer's office out of Springdale. After about two years of basic courses at Arkansas Tech, he transferred to the University of Arkansas to earn a bachelor of science in civil engineering degree.

Pugh took his first engineering job with CEI Engineering in Bentonville in early 2001 doing mostly commercial land development as a project engineer on the Walmart team. He helped develop plans and manuals for projects such as Supercenters ranging from a few acres to 40 acres. He worked his way up to project manager and then department leader. The job took him to Pennsylvania, North Dakota, Iowa and elsewhere and meant he was working for a broad spectrum of regions and municipalities. Walmart's in-house design team managed the projects, but CEI took them from cradle to grave.

"They expected high-quality products, and I could respect that," he said. "I think it makes you a better consultant, a better engineer at the end of the day if your cli-

ent does have those high expectations. They were great in that they had a very specific set of requirements. Some of the other clients that we worked for may not know exactly what they wanted. They could see it in their head, if you will, but couldn't really verbalize that. Walmart was very specific in their design standard and laid out exactly what they wanted."

Pugh was with CEI for about 9.5 years. With his firm's encouragement, he became involved in the ASPE and the Northwest Arkansas chapter. During that time, the profession went from paper to electronic. Meanwhile, Walmart's design expectations changed, too – for example, it became more energy efficient and green. Pugh performed many of the reviews nationwide for Walmart's stormwater permitting efforts, giving him a deeper understanding of the differing state requirements. At times, he was present for the grand opening of a Supercenter he helped design.

As an engineer, you're looking, 'O.K., do the driveway locations work? Does the signalization out front work? Do the roadway improvements work? So I'm probably less focused on probably the big picture," he said. "Was it a good design? Are there things that we need to change moving down the road?"

"Obviously, no design is ever perfect, in my opinion. There are always things you could do better. As long as you learn from those and move forward, you'll always kind of grow as an engineer."

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MAN OF MANY HATS. Andy Dibble, P.E., of Mickle Wagner Coleman is the firm's engineering manager and human resources manager, and he still is actively involved in design work – his favorite part of the job.

Dibble still on the field, in the game

A two-time all-conference college football player, the new ACEC/A president now referees high school games, where his crewmates say he thinks like an engineer.

By Steve Brawner
Editor

Andy Dibble, P.E., spends his Friday nights on the same place he used to spend his Saturday afternoons: the football field. The difference? Then, he wore a helmet. Today, he wears stripes.

Mickle Wagner Coleman's engineering manager and human resources manager played football on scholarship for the University of Evansville in Indiana as a "way undersized" center, earning all-conference honors two years and lettering three years. He's been refereeing high school football games for 20 years.

Asked if playing center is like being an engineer, Dibble wasn't sure. Maybe the fact that the center calls the blocking schemes and must keep a lot of information straight while making decisions and collaborating as part of a team, he said.

The connection between refereeing and engineering is a little easier to make. In fact, his longtime crewmates jokingly say he thinks like an engineer in games.

"You've got to concentrate on the things that you are supposed to concentrate on," he said. "You cannot watch the ball. ... In football, if you're watching the ball, you're not seeing stuff that shouldn't happen, happen. So it's being able to focus on the things that you're supposed to focus on, and then being able to think clearly when everything's falling apart."

Leading ACEC/A

Dibble is part of another team: ACEC/A, where he's serving this year as president. He said the organization needs to increase its membership to give it a greater voice and provide more of its valuable program offerings.

"There's a lot of things that ACEC offers firms in how to be better businessmen," he said. "Most engineers did not start with much of a business background or business knowledge. You kind of learn it on the fly. We're taught how to be engineers. ACEC has ways to help, especially

small firms, be better businessmen, or the principals be better businessmen."

A 10 percent increase in members – just four firms – would be a big first step, he said. And it can start with educating others about ACEC/A's value. He became involved when Barry McCormick, P.E., of Hawkins-Weir called him asking him to serve. Before then, he hadn't given the association much thought.

"I knew what ACEC stood for back then, but that was about it, and it's amazing, I think, the things we do. I think we're very good for advocating for engineering, and it goes across the disciplines," he said.

He expects this to be an important year in politics. Whoever is elected at the national and state levels will affect engineering. Some policymakers across the country have tried to end qualifications-based selection. In the 2015 Arkansas legislative session, a bill would have required certain types of pipe materials to be included in water and sewer projects – a decision best left to engineers, not legislators.

"Whether it's Arkansas or nationally, it's very important for us to stay engaged," he said.

From Indiana to Arkansas

Dibble took a circular route to Arkansas but not to engineering. Raised in Fort Wayne, Indiana, in the eighth grade he watched a bridge being built and thought it was cool that someone had designed it.

"And when you design it, you think it up here, put it on paper, someone builds it, and you can see something that you designed used by other people," he said. "I thought the thought of saying, 'I designed that' was really neat, and so from about eighth grade on, I planned to be an engineer."

He graduated from the University of Evansville in 1983. Meanwhile, his father, a semi-retired firefighter, had moved with Dibble's mother to the Hot Springs area. He was visiting them on Christmas break his freshman year when he met his future wife, Janet, on a blind date. They carried on a long-distance romance writing letters, making phone calls and dating when he was home. His parents sometimes brought her to Evansville for games.

When he graduated with a degree in civil engineering, he looked for a job in Arkansas, landing in 1984 at Blaylock Threet Phillips, a civil and mechanical firm in Little Rock, where he was an on-site resident engineer.

"That really helped – seeing other people's designs built but seeing sometimes what doesn't work. Stuff looked great on paper, and you start doing it, and you had to tweak it to make it work more elegantly," he said.

In October 1987, he became a project engineer at Mickel Wagner Coleman, a general civil engineering firm that designs water and wastewater projects, municipal streets and drainage, and land development. He does mostly water and wastewater projects. Among his signature projects are two major plant water expansions for the city of Ozark and water supply improvement projects for the Chaffee Crossing area in Fort Smith, including a finished pump station to supply a 2.5-million-gallon reservoir for fire

protection. He's helped design a fluoride feed addition in Booneville and helped Charleston address manganese issues.

"I love the design part," he said. "I know the older you get, most engineers, the less of that they do. There's a lot of stuff that pulls at my time to stay away from that, but no, I've got water treatment plant projects I'm trying to get finished up. I've got several projects that just bid within the last month that are ready to start, some projects that are just finishing being built, so I've got projects at all stages of their life cycle here in this office."

He enjoys water projects and appreciates how they have benefited mankind. "The number of lives that have been saved, just disinfection and filtration of our water supplies, I think is tremendously discounted," he said.

As engineering manager and human resources manager, Dibble manages projects and a staff that currently has about 18 employees, including four engineers after

Continued on next page

Congratulations Andy Dibble, PE

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the recent retirement of Randy Coleman, P.E. The other principles, Pat Mickle, P.E., and Neal Wagner, who is in his mid-80s, still work there. The firm was founded in 1956 by Pat's father, Jim Mickle, P.E.

Dibble and Janet have three children, including a son, James, who works for

CEI as a CAD tech. Daughter Nicole is a psychologist in the Dallas area, and daughter Amy is a teacher in Benton.

In his spare time, Dibble enjoys long-distance road cycling. A couple of years ago, he and his son, James, participated in the 50-mile True Grit ride through town,

and he's ridden as far as 60 miles. And of course, he enjoys refereeing football games.

"I played football all my life until I graduated college, and it's an opportunity to stay hooked up with the game. I really enjoy it," he said.

The case for professional licensure

As mine disaster showed, federal government should have same standards as states

In more than 20 years as an engineer, I have maintained professional licensure in order to provide services to clients. Licensing not only gives clients assurance that I can do the job, but it provides assurances to the public that any work performed in my name will be high quality, safe, and by the letter of the law. In fact, the Code of Ethics for engineers states in its preamble and reaffirms as its number one fundamental canon that engineers shall "hold paramount the safety, health, and welfare of the public."

Engineering is not the only field that requires licensure in order to provide professional services. Medical doctors are required to be licensed before providing care to patients, and attorneys are required to pass the bar in each state in which they practice before providing legal advice and services.

With state laws requiring licensure for professional engineers to hold paramount the safety, health, and welfare of the public, one would assume employees and contractors of the federal government would follow the same procedures before embarking on projects using our tax dollars. But it is not so.

The result of the federal government not abiding by licensure requirements has been disastrous in some cases. Perhaps the most recently notable is the Gold King Mine disaster. It was caused after workers for the Environmental Protection Agency at the site near Silverton, Colorado, unearthed an underground chamber sending toxic waste into nearby waterways. Three million gallons were spilled as a result, polluting rivers in Colorado and New Mexico.

Through investigation and numerous congressional hearings, it was discovered



By U.S. Rep. Bruce Westerman, P.E.

that the EPA had not demonstrated a Colorado licensed professional engineer was engaged during the planning and design stages, nor part of the site removal team that was responsible for the Gold King Mine spill. The EPA also could not produce any drawings or engineering documents to demonstrate that planning, or much less engineering, was used. Further, in testimony under oath, EPA Administrator Gena McCarthy could not tell me whether a professional engineer was in responsible charge or even engaged in the Gold King Mine project.

The simple truth is the federal government does not play by the same rules as you and me, putting the safety, health, and welfare of the public at risk. It cuts corners and tries to be above the law even when it is proven to have polluted rivers and caused real, lasting damage. While engineers and other professionals are held accountable through licensing boards, the EPA proved with the Gold King Mine Disaster that it:

1. Was not competent to perform the work it was attempting;
2. Damaged the public welfare and potentially created safety and health issues; and

3. Has failed to hold anyone accountable to date.

I believe the spill could have been prevented, or at the very least, significantly mitigated, if the EPA had engaged a professional engineer. The EPA's own review affirms my belief that those conducting the work had not adequately designed a reclamation plan that safeguarded property, causing significant damage to public resources. A licensed professional engineer would have reviewed risk factors and carefully designed an appropriate solution in order to avoid such an incident. It's a sad irony that an agency named the "Environmental Protection Agency" would exhibit such negligence resulting in so much environmental damage to a public resource.

As a result of the EPA's actions, I not only filed a complaint with the Colorado Department of Regulatory Agencies, Division of Professions and Occupations, but I also encouraged the agency to engage professional engineers in their future projects.

As you and I know, individuals participating in the practice of engineering should meet the highest standards to prevent the environmental contamination that took place in Colorado. But the standards we are held to also protect the lives of individuals impacted by our work, from the men and women constructing our latest project to those utilizing a new building, bridge, or other project.

The next time you are up for licensure, I urge you to remember why we go through the demands of licensure and take the responsibility of our profession seriously. We have dedicated our careers to engineering, and we should count it an honor to be professional engineers. I know I do.

Editor's note: Rep. Bruce Westerman, a licensed professional engineer, represents Arkansas' 4th District in Congress.

Order of Engineer induction at conference

As mentioned in our previous issue, a new Order of the Engineer Link is coming to Arkansas. It will be called "ACEC/A - ASPE" and should be active later this year. Our first induction ceremony is planned as part of the ASPE State Conference scheduled for February 9-10.

Anyone with an EAC or ABET accredited degree in engineering, or who holds a P.E. or E.I. license, or who is within one year of receiving an accredited engineering degree, may join the Order.

Initiates vow to honor the Obligation of the Engineer, sealing their commitment with a steel ring worn on the little finger of their dominant hand: a reminder to themselves and the public of their ethical and professional duty. There are no dues or meetings, other than for the initial pledge ceremony. The Order exists solely to foster a sense of honor, unity of purpose and lifelong commitment to one's pledge.



By Rick Geraci, P.E.
Brown Engineers

The ceremony is both simple and solemn, yet surprisingly moving. After opening remarks and a brief history of the Order are read, initiates recite the pledge in unison with the presenter. Initiates are called forward to place their working hand through the ceremonial ring as the presenter places a steel ring on their little finger. Initiates sign a personal pledge certificate to complete the ritual.



The ring ceremony. of the pledge suitable for framing. To join, email me at rgeraci@brownengineers.net with your name, email address, business affiliation, phone number, and ring size for the little finger of your dominant hand. Any local jeweler should be able to determine your "pinkie ring" size at no charge. Once the new link is established and ceremony details are finalized, we'll email you instructions for remitting the one-time \$25 fee.

I look forward to hearing from you. Let's make our first pledge ceremony memorable!

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LENDING A HAND. Jerry Martin, E.I., Garver, helps Bradley Bridges, E.I., Crafton Tull, make it to the next rung in the “Dangle Duo” challenge, below. The two helped each other up the exhausting challenge one rung at a time until they reached the top, right. They didn’t know each other until the day of the challenge.



Program helps leaders emerge

Emerging Leaders, a joint program of the ACEC/A and ASPE, teaches young professionals creative and management skills

By Steve Brawner
Editor

Jerry Martin, E.I., with Garver and Bradley Bridges, E.I., with Crafton Tull didn’t know each other before Sept. 22. A few hours after meeting, they were helping each other scale a 40-foot obstacle.

The two are among 10 employees of ACEC/A firms participating in Emerging Leaders, the annual class offered by ACEC/A and the ASPE that teaches creative, visionary and management skills required of effective leaders.

The eight-session program includes classes in contracts and risk reduction,

public speaking, conflict resolution, business and state government. A senior leadership roundtable gives participants a chance to learn with experienced members of the profession.

Other participants are Chris Gatling, P.E., Garver; Dustin Tackett, P.E., Garver; Caroline Gardner, E.I., Crafton Tull; Steven Head, P.E., McClelland Consulting Engineers; Danny Boyett, P.S., B&F Engineering; Tom Burry, P.E., CEI Engineering; Byron Lawrence, P.E., LEED AP, Michael Baker International; and Sammy Evans, E.I., McGeorge Contracting.

Emerging Leaders always begins with a leadership and team-building exercise organized by Challenge Quest Design on the campus of Northwest Arkansas Community College. The event’s purpose is to introduce the participants to each other and to the concepts they’ll be learning while participating in the class.

Among the day’s activities was “The Mountaintops,” where the participants started on one “peak” – a platform a foot off the ground – and told they had to get everybody across to another peak and then another using only two boards, one shorter than the other and neither long enough to reach across. Meanwhile, a storm was approaching. The participants quickly settled on a strategy of stretching the long board as far as possible across the “valley” and then anchoring it by placing the short board on top, like a “T,” with participants standing on both ends. A few engineers would cross and the boards would be handed to them across the valley.

Using that strategy, the participants succeeded relatively quickly, requiring only one do-over. Afterwards, the Challenge Quest facilitators pointed out some of the ways they could have done better.



One engineer had tried to offer suggestions but was ignored. Facilitator Daniel Walker showed how it was possible to stretch each board across the valley from a neighboring peak and rest one board atop the other. Using that method, one person could balance in the middle with only one participant providing weight on each board. Walker even bounced up and down in the middle.

Walker told the group that, increasingly, work is accomplished by groups that come together quickly for a project and then disband quickly.

He later said the group was communicating well. He's worked with engineering groups in the past and said they are intelligent but sometimes miss simple solutions. One engineering group took two hours to cross because they were "trying to build these massive bridges, and it wasn't going anywhere," he said. Facilitator Matt Hardwick said engineers are hands-on people that typically quickly settle on a solution and then test it rather than brainstorming at the beginning.

"We've got a saying that there are two types of people: There are the 'think-do-thinkers' and the do-think-doers.' ... I think for the most part, there tend to be more do-think-doers in groups like this," he said, adding that both groups have their strengths.

After lunch, the participants were handed helmets and a harness and introduced to an activity, "Dangle Duo," where groups of two had to help each other scale a six-rung, 40-foot ladder whose rungs were five and six feet apart. Meanwhile, the other participants held the rope for safety. The only way to realistically make it to the top – unless you are an Olympic gymnast – is to work together. Martin and Bridges were first. Rung by rung, they slowly began making their way up the ladder by offering each other a hand, a knee, the end of their harness or whatever

SUCCESS AWAITS. Danny Boyett, P.S., B&F Engineering; prepares to be the last participant to cross to the last peak on "The Mountaintops" challenge as the rest of the Emerging Leaders participants await him.

it took. It was exhausting work, but eventually they made it to the top.

It was not Martin's first experience with a physical challenge. Before completing his education and going to work for Garver, the 31-year-old water and wastewater engineer finished a stint in the Navy as a machinist mate working on propulsion systems. Garver has done these kinds of activities internally in the past – even employing Challenge Quest Design. However, this was his first time to participate in a challenge with professionals working with competing firms.

"This really helps us understand that communication is the key to a lot of what we do and making sure we're keying in with everybody on our team and motivating everybody to keep going," he said.



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ACEC/A Member Spotlight

Myers-Beatty's specialty? Gravity

Award-winning structural design firm's varied clientele has sharpened its skills

For Jason Myers, P.E., the mission of Myers-Beatty is simple.

"Anything involving gravity," he said. "Nothing but structures. ... If it needs to stand up, we'll make it stand up. There's no specific type of structure that we specialize in, whether it's banks or churches or schools or industrial or anything like that. We run the gamut."

Myers-Beatty does about \$150 million in construction costs annually, is licensed in about 25 states, and has projects under construction in 10-15 of them at any given time. It does a lot of commercial retail work as well as work for colleges and other clients. It recently completed a library expansion at the University of Arkansas at Fort Smith and is currently working on an addition to Kimpel Hall on the University of Arkansas campus. Tyson Foods has been one of its industrial clients, as is Tenaris, an Argentine company that is building a \$2 billion pipe plant south of Houston. Myers-Beatty has worked on and off again on that project for about four years.

Meanwhile, the firm has done structural engineering design work for several chapels for Maurice Jennings, a former architectural partner of Fay Jones. Among its notable projects was the Rio Roca on the Brazos in Palo Pinto, Texas, a steel, glass, stone and wood chapel resting on a bluff overlooking the Brazos River. Built on a steep slope that exposes it to high winds, the structure is supported by steel columns and cross bracing concealed in the stone walls to the south. The chapel won a 2011 American Institute of Steel Construction Innovative Design in Engineering and Architecture with Structural Steel award for projects under \$15 million. Another project, Agnes Scott College's Julia Thompson Smith Chapel in Decatur, Georgia, won the Brick Industry Association's 2009 Brick in Architecture Award.

Myers said working on a project like a chapel helps the firm in other areas of de-



FORM AND FUNCTION. Top, the Rio Roca on the Brazos chapel won a 2011 American Institute of Steel Construction Innovative Design in Engineering and Architecture with Structural Steel award. The award was for projects under \$15 million. Left, a Tenaris heat treatment plant in Blytheville structurally designed by Myers-Beatty.

sign and gives him a "more well-rounded professional education."

"Gravity's gravity," he said. "Doesn't matter what it is. (When) you do a chapel, something a little out of the ordinary, by the time you get through with it, you've more than likely learned something new that can be applied to your industrial projects, and something you do in your industrial projects can be applied to a school, and something you've done in a school can be applied to a church, and all the way around."

The firm is composed of six staff members including Myers, who works out of the company's Van Buren office, and Jim Beatty, P.E., who works from home in Fayetteville. The firm recently hired

a third engineer, Tim Wank, P.E.. Myers, who graduated from the University of Arkansas with a degree in civil engineering, started the company in 2003 at a coffee table in his living room. At the time, he was doing design-build work for a contractor and wanted to be independent and able to make his own decisions. He works in the town where he grew up, where he says his family is "five generations deep."

"I don't have a set schedule when it comes to business," he said. "Every day is different, and I adapt. I adapt to whatever the client's needs are every single day. Makes my clients very appreciative. ...

"It keeps me very flexible on a continuous basis."

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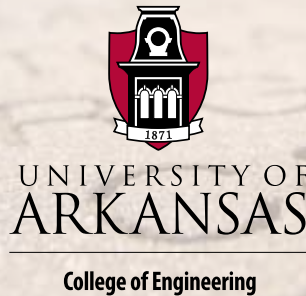
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"The MSE program at the University of Arkansas far surpassed my expectations! All of the classes were delivered seamlessly through organized content and an easy to follow structure. The staff and professors were all supportive of my success while challenging me through real life scenarios and graduate level engineering theory. Perhaps the greatest value came from the flexibility of the program to be tailored to a student's specific need - I was able to design a program that fit my goals and touched topics I encounter daily." - Dan B., MSE 2015

"The online program at the University of Arkansas offered me the flexibility to pursue a well-respected graduate education while working full-time. The instructors provided a world class educational experience with individual attention. I would highly recommend this program to prospective students." - Michael R., MSEE 2015

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