



THIRD QUARTER
2019 EDITION



51

YEARS OF STATE SERVICE

For more than half a century Denise Hooper has dedicated herself to service of the State of Alabama and celebrated her anniversary on June 26. She has been a BELS' fixture for the past 47 years. Prior to that, Denise began her career of state service with the Real Estate Commission in 1968.

From there, she moved over to Conservation and worked in the Water Department before ultimately finding her home with the Board of Engineers and Land Surveyors.

In her 47-year career with the Board, she has been responsible for processing Certificates of Authorization applications, converting thousands of paper documents to an electronic format and license verifications.

She performed her job so well that the Board was recognized by NCEES as being in the top 3 agencies that verify licensure for applicants wishing to become licensed in other states the fastest. The BELS staff and Board would like to take a moment and thank and recognize Denise for her 51 years of dedicated service.

BELS BULLETIN



To Better Protect the Public

Protected Terms?

Boards walk a fine line between state law and individual rights

By Griffin Pritchard |

BELS Public Information Specialist

Regulatory boards across the United States have the power to create rules and laws aimed to ultimately safeguard the health and welfare of the country. Part of this public buffering comes from the protection of certain titles. No one is going to seek medical treatment from a “doctor” that hasn’t graduated medical school or from a “psychiatrist” who hasn’t the requisite training. For boards that are part of the National Council of Examiners for Engineers and Surveyors (NCEES), two common protected terms are: “professional engineer” and “engineer.”

James Valenti, a P.E., wrote: “While boards focus on controlling the use of this term to ensure that the public is not misled, they must also consider freedom of speech protections.”

Valenti, a member of the New Jersey State Board of Professional Engineers and Land Surveyors, authored an article for the *Enforcement Beat* section of the *NCEES Licensure Exchange* publication focusing on a pair of cases where the word “engineering” was challenged.

For reference, the terms “Professional Engineer” and “engineer” are also co

See **ENGINEERS** PAGES 2 & 3

PLEASE SEE PAGE 16 FOR INFORMATION ABOUT
THE RENEWAL AND AUDIT PROCESS.

ENGINEERS

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protected in Alabama. The section discussing this protection is 34-11-2 (C): "... It shall be unlawful for any person to practice or offer to practice professional engineering in this state, to hold himself or herself out or refer to himself or herself by any title or description stating or implying the person is licensed to engage in the practice of engineering, or to use in connection with his or her name or otherwise assume, use, or advertise any title or description including, but not limited to, the terms engineer, engineers, engineering, professional engineer, professional engineers, professional engineering, P.E., or any modification or derivative thereof, tending to convey the impression that he or she is a professional engineer unless the person has been duly licensed or is exempt from licensure under this chapter. A person whose firm name shall have contained the word "engineer," "engineers," or "engineering," or words of like import, for more than 15 years before September 12, 1966, shall not be prohibited from continuing the use of such word or words in his or her firm name."

In Valenti's article, he brings forth two cases that gained national attention when protected language and free speech met at a crossroads. The first case he references is *Mats Jarlstrom v. Oregon State Board of Examiners for Engineering and Land Surveying (Jarlstrom v. OSBEELS)*.

This case brought regulation to the forefront of national discussion for a time and ultimately (along with an investigation into other mitigating factors as reported by the

Portland Tribune) led to the dismissal of Board Administrator Mari Lopez.

Jarlstrom v. OSBEELS focuses on "an individual who has the equivalent of a Bachelor of Science degree in electrical engineering from a university in Sweden and had spent his career working in the electronics field but was not a licensed professional engineer in any U.S. jurisdiction. Jarlstrom challenged the technical aspects of the state's procedures for redlight cameras."

According to the *Washington Post*, Jarlstrom – who served as an airplane-camera mechanic in the Swedish Air Force and spent time working in research and development – became interested in Beaverton (Oregon) redlight cameras after his wife was mailed a \$150 ticket for running through one.

Jarlstrom went to work and "his research showed that the mathematical formula used in the timing of yellow lights was outdated and unfair to drivers."

Valenti writes: "Jarlstrom corresponded with the Oregon board to present his ideas, and in response, the board informed Jarlstrom that he was violating the state licensing laws by referring to himself as electronics engineer and stating, 'I'm an engineer.'"

The Board advised him to stop using that title until properly licensed. Jarlstrom continued to discuss his ideas with the public and, in at least one of those communications, continued to describe himself as an engineer."

See **ENGINEERS PAGES 3**



- **So, you want to have a hearing...**
In this quarter's Greyscale, Marc Barter discusses the ins and outs of the Board's investigative and hearing process
(Pages 4 & 5)
- **As education moves outside the classroom,**
universities looking for ways to harness the learning potential, and possibly build an engineering dynasty in the process.
(Pages 6, 7 & 8)
- **The board is growing following a 2018 law change,**
and the subsequent changes to the Administrative Code, from seven members to nine; adding two public members.
(Pages 10, 11 & 12)

our MISSION

The Alabama Board of Licensure for Professional Engineers and Land Surveyors was established by legislative action in 1935. Its charter is to protect the public by helping to safeguard life, health, and property, and to promote the public welfare by providing for the licensing and regulation of persons in the practices of engineering and land surveying. This purpose is achieved through the establishment of minimum qualifications for entry into the professions of engineering and land surveying, through the adoption of rules defining and delineating unlawful or unethical conduct, and through swift and effective discipline for those individuals or entities who violate the applicable laws or rules.

ENGINEERS

From Page 2

OSBEELS responded to this continued infraction by opening an enforcement case and, two years later, imposing a \$500 fine for violating the state's licensing laws.

And thus, we have arrived at the crossroad: Protected language v. Free speech.

Jarlstrom – referring back to coverage from the *Washington Post* and *The Portland Tribune* – reached out to the Institute for Justice and filed a lawsuit against OSBEELS and the individual members that comprise it alleging the restrictive language within OSBEELS practice and title laws were in violation of his rights to free speech.

Valenti: “The Oregon Attorney General directed the board to refund the \$500 and concluded that Oregon law as applied against Jarlstrom in a non-commercial setting violated his First Amendment rights. That left the court to decide the merits of Jarlstrom's remaining challenges to the licensing laws. On December 28, 2018, the federal court found in Jarlstrom's favor, concluding Oregon's laws ‘threaten a substantial amount of protected activity.’

The decision reads in part: “First the statutes prohibit truthfully describing oneself as an ‘engineer’ in any context. This restriction clearly controls and suppresses protected speech ... Second, while a state may regulate misleading commercial speech, the term ‘engineer’ standing alone, is neither actually nor inherently misleading.”

Jarlstrom and his attorneys have hailed this as a great victory.

“The court's ruling what should already be obvious,” said Wesley Hotot, senior attorney for the Virginia-based Institute for Justice.

“In a free society, government agencies do not have the authority to re-

write the dictionary. Oregon cannot declare the word ‘engineer’ off-limits to thousands of Oregonians, who like Mats (Jarlstrom), are engineers.”

In the aftermath of the decision, the court ordered the restrictive language be removed.

The court also ordered “the removal of the term ‘engineer’ from other sections of the Oregon statute leaving protections for ‘professional engineer’ and ‘registered professional engineer’ in place.”

The second case Valenti discusses *Express Oil Change, LLC vs. Mississippi Board of Licensure for Professional Engineers and Surveyors*.

In the BELS office, the investigators answer calls on a somewhat regular basis regarding this company – Express Oil Change – who advertises their business as having “Tire Engineers” on staff.

In Valenti's article, he explains that: “The Mississippi Board concluded that the name ‘tire engineers’ violated the state's licensing laws and directed the company to stop using it.”

The Institute for Justice summed the case up this way: “Company runs auto services centers across the southeast U.S. under the name ‘Tire Engineers.’ Mississippi Board of Licensure for Professional Engineers and Surveyors: Change your name: Consumers might think licensed Professional Engineers are changing their tires.”

The two sides went into negotiations, to the extent that Valenti referred to them as “extensive” and “unsuccessful.”

As a result, Express Oil Change, LLC sued the Mississippi Board (en masse) and it's members (individually) claiming that their position was a violation of Express's First Amendment right in terms of commercial free speech.

Just like the Jarlstrom case, it ap-

pears that regulatory law and the First Amendment have arrived at a crossroads.

Now, unlike the Jarlstrom case, according to Valenti, “the U.S. District Court ruled in favor of the board.”

That decision was overturned upon appeal by the U.S. Court of Appeals: Fifth Circuit.

In it's ruling the court says: “Evidence offered by both parties, particularly when viewed most favorable to Express as the non-moving party, demonstrates that other states with similar statutes have not challenged the use of the trademark ... The Board thereby fails to satisfy the required burden of demonstrating a reasonable fit between its regulation and the constitutionally-protected speech. Accordingly, the district court erred in ruling for the Board. The Summary judgment is REVERSED and judgment is RENDERED for Express.”

The states referenced by the court are: Alabama, Georgia, Florida, Tennessee, Virginia and the Carolinas. Texas, according to the ruling, permitted Express to use the Tire Engineers name and mark provided it “affixes a physical disclaimer on each Texas location indicating it neither offers nor provides engineering services in the state of Texas.”

According to the Institute for Justice: “Most people who don't work for engineering licensure boards probably realize that the word ‘engineer’ can mean lots of different things. And under the First Amendment, the board can't use speech bans to impose its ‘preferred definition’ of words on the public at large.”

As a regulatory body, state boards have to walk the sometimes razor-thin lines between protecting the public – it's health, safety and welfare – and maintaining the individual's First Amendment rights.

GREYSSCALE

So, You Want a Hearing ...



Marc Barter
Professional Engineer

Every individual is entitled to be heard

On more than one occasion I have seen a defendant, usually a licensee, come to a hearing and defend himself or herself.

Every individual, licensee, applicant, or any other person who is the subject of board action is entitled to a hearing with the board. These hearings are generated by the denial of applications, disciplinary action or, sometimes, just a topic of interest to the individual. However, there are two primary reasons the board has hearings: denial of an application and disciplinary action.

When an application is denied for any reason, the applicant has the right to make his or her case before the board. When the request is made, a time for the hearing is placed on the agenda for the next regular board meeting.

Individuals may bring witnesses to bolster their position and they often bring current supervisors or even former supervisors to help make their case, especially if they have been denied licensure due to inadequate experience. Upon occasion, after his or her presentation and questioning by board members, the applicant is granted additional credit for experience. Sometimes it is enough to allow a license to be issued.

The hearing is a fact-finding exercise by the board, and the board votes that same day on the petitioner's request. For the applicant, it is a nothing-ventured-nothing-gained situation with very little, if any, downside.

Disciplinary hearings, on the other hand, are very different. They are adversarial proceedings, with both the board and the accused presenting their positions. Hearings are similar to

trials overseen by an administrative law judge.

The "jury" is composed of the board members. Also present are a court reporter, the defendant, and defendant's counsel, if one is retained.

The administrative law judge is there to assure legal protection of the process and rule on objections very much in the same manner as in a court.

Following the hearing, the administrative law judge reviews the transcript and provides an opinion as to guilt or innocence. If warranted, the judge recommends a punishment, which must fall within the board's lawful authority.

Prior to reaching the stage of a disciplinary hearing, there is an investigation by the board.

The investigative committee is composed of one board member, the executive director of the board, and the board attorney.

An investigator, almost always a former police detective, investigates the complaint by interviewing people who are likely to have knowledge of the matter. The investigator completes a report and submits it, along with all of the documents obtained during the course of the investigation, to the investigative committee for review.

The investigative committee reviews the report and the evidence to determine if there is probable cause to recommend that the board act.

If there is probable cause, the investigative committee, much like a prosecuting attorney, will offer a "plea deal" or, as



HEARING

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termed by the board, a “consent order.”

The offer is based on the severity of the infraction and the nature of penalties that have been assessed in the past for similar infractions. If the offer is accepted by the subject of the complaint, a consent order is composed and sent to the individual for signature.

If a monetary fine is part of the consent order, payment is forwarded to the board along with the signed consent order.

Upon receipt of payment and the signed order, the case is brought to the board during a board meeting and the board votes on whether or not to accept the consent order. It is extremely rare for the board not to accept the consent order.

If there is no agreement on a consent order, the matter is set for a hearing.

While every individual is entitled to be heard, it does not always work to the benefit of the defendant.

Consent orders are often a better deal than what a guilty party can expect from a hearing.

For example, the investigative committee might recommend a stayed suspension, meaning the license is suspended but the suspension is delayed provided the defendant completes certain requirements. With a hearing, the suspension could be immediate or the time period could be longer. Innocent defendants should always seek to exonerate themselves but should be mindful of their degree of innocence and the ability to articulate and convince, which brings me to the real purpose of this article.

On more than one occasion I have seen a defendant, usually a licensee, come to a hearing and defend himself or herself.

The board’s case is always presented

by a seasoned attorney from the Attorney General’s office.

Their attorney knows the law, knows the case, and understands how to present the case so that it is understood not only by the board but by the judge.

The attorney is schooled in the art of courtroom etiquette, and he or she maneuvers through the proceeding like he or she has done this 100 times before, which he or she has. Without counsel, it could be said that the applicant has come to a gun fight with a water gun.

It’s a sad spectacle to witness.

To make matters worse, board members may ask questions; so any advantage the applicant may have thought he or she would have, due to an attorney’s lack of technical knowledge, evaporates.

Typically, the poor applicant/defendant doesn’t have a list of questions to ask the witnesses, which is always the executive director of the board, the investigator, and possibly a technical advisor, which is the equivalent of an expert witness. The defendant rarely brings his own witness, even though he could.

The defendant is outmatched and the outcome is bleak. So why does anyone subject themselves to such a one-sided process?

Money.

It costs money to hire an attorney. For the most minor offenses, attorney’s fees can run \$1,500 or more.

A complicated case could move the needle well above five figures between meetings, document reviews, and the hearing. However, to match wits with a seasoned attorney in a trial, a defendant needs an attorney.

No matter how self-confident and articulate, and no matter how many Law and Order episodes you’ve seen, you are no match for an Assistant Attorney General with expertise in administrative law.

He or she will eat your lunch.

It’s not a matter of if, it’s a matter of how long it will take.

Very little is gained by your appearance and participation. It just prolongs the inevitable.

The judge listens attentively and the board weighs the evidence and the testimony, but the pro se defendant doesn’t have the expertise to ask the right questions, present the right evidence, make the correct objections, or even testify in a convincing manner.

As for the subject of money and attorney’s fees, if you have been charged with a violation of the law or code of conduct, and if you believe you are innocent or the consent order offered is too severe, and if you believe a hearing is in your best interest, hire an attorney.

It is foolish to risk your professional reputation to save a few thousand dollars, or even \$10,000.

All of the hearings are held in Montgomery, where there is an abundance of attorneys.

You do not need a \$500/hr. attorney, just someone who can understand your case and has courtroom experience. The attorney can also set the stage for an appeal, should you not prevail in the hearing.

The real question you must ask yourself is, am I really innocent, and if I believe so, what’s my professional reputation, and even my ability to earn a living as an engineer or land surveyor, worth?

A group of soon-to-be engineers watch as their creation digs into a sand pit.

Pictured are members of the University of Alabama's Astrobotics team as they compete for automated supremacy.

The team - combined of students from throughout the Capstone's engineering program - recently wrapped up their fifth straight victory in the event hosted by NASA.



Mining for NASA Trophies

Alabama Astronautics combine engineering with innovation to build AI dynasty

By Griffin Pritchard |
BELS Public Information Specialist

While the future of engineering remains balanced on the technological horizon, college students from throughout the country are doing their part to make automation, robotics and artificial intelligence an ever-growing piece of their professional futures.

At the IEEE Southeastern Conference in Huntsville, Alabama, students hailing from states that college football fans would describe as the Atlantic Coast and Southeastern conferences, along with a handful of Cadets from West Point and Virginia Military and Jamaica, turned the floor space at the Von Braun Center into electronic battlefields. Robotics teams perfected their machines before putting them through the automated ringer. At the other end of the arena floor, students tested their drone-driving skills as they manipulated the temperamental crafts through different obstacles in an airborne race for remote-controlled supremacy.

The need for that knowledge is merited. Drones have been on the rise as a tool of the land surveying industry as well as the construction industry.

According to the job-search website Indeed.com: "Growth of AI-Related jobs far outpaces the increase in the number of capable job seekers. Almost half of enterprises cited a skill shortage as a barrier to AI adoption.

The Indeed point is further solidified with the statement: Demand for workers

- Engineering jobs in AI-Related fields far out-paces the increase in the number of capable job seekers. (Indeed.Com).
- Students are finding new and creative outlets to sharpen their much needed AI skills prior to joining the work force.

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See **TROPHIES** PAGES 7 & 8



Pictured are scenes from the robotics competition held as part of the IEEE Southeastern Conference held in Huntsville in April. The event featured a mixture of high school students displaying their champion robot to college students from throughout the eastern portion of the U.S. competing for the title of Top Bot. According to Indeed.com, demand for workers with AI talent has more than doubled.

TROPHIES

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with AI talent has more than doubled over the past three years, with the number of AI-Related job posting up about 119 percent. While Indeed focuses on employment and professional issues from a national point-of-view, a shift of perspective to the education end of engineering and students across the board working to meet that demand.

Enter the University of Alabama Robotics team, Alabama Astrobotics, and their burgeoning mechanical dynasty.

Just like their gridiron counterparts, the Tide’s engineering students have rolled through competitors winning NASA’s Joe Kosmo Award for Excellence five times. The College of Engineering won it first in 2012 and then have had their name etched on the trophy consistently from 2015 through 2019.

“Competition in general can either make you better or worse,” said Dr. Kenneth Ricks, Astrobotics Adviser and resident associate professor of electrical and computer engineering. “It adds an element of stress, urgency and sig-

nificance. Those involved can either knuckle under or stand up and work hard to be successful. There’s also team-related lessons to learn, such as not letting your teammates down, productively interacting with teammates, taking direction, etc. So, there are lots of life lessons the competition aspect creates that are very difficult to integrate into the traditional classroom setting.”

Essentially – paraphrasing Ricks – the students, through competition, have the opportunity to learn more outside the classroom than inside, and it shows as the Astrobotics team have won a total six times in the NASA competition’s 10 years of existence.

“No school has won this competition more than once,” said Ricks. “This is absolutely a recruiting story for the University of Alabama and for the College of Engineering. We compete against some of the top engineering programs in the nation and we are, at least, holding our own. Our students don’t take a backseat to anyone on any other

TROPHIES

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campus. They should never feel that way.”

The students are not shy about putting the work in either. Just ask Team Captain Max Eastep: “Competition is a lot of fun for us, despite all the stress. We get to see how all these other teams approached the problem and our solutions compare to theirs. We’re also able to see how the project that we’ve devoted so much time and energy to actually performs. When the system runs the way we designed it to, its an incredible feeling. I was told this year, the way we celebrated after our win reminded some of the judges of NASA mission control after Curiosity landed on Mars.”

That’s high praise for a group of students.

“UA has the students and the resources to be the best, and this team is proof of that,” said Ricks. “We are very proud that the University considers our performance worthy of recognition. And, speaking of fun, the students have lots of fun filming for various commercials on the SEC Network, being invited guest to various athletic events, filming news interviews, performing robot demos for VIP campus visitors, etc. This helps me deliver my message as well: There is fun in doing a good job.”

There are also life lessons learned during competition.

“Our project is actually a really good introduction into the AI (Artificial Intelligence) field,” Eastep said. “We actually utilized AI for the first time this year by using a machine learning algorithm to identify obstacles within the arena. So we’re getting a good introduction into this field through this competition, something that we’re not taught in our core engineering classes. We taught ourselves how to do it and were able to dive right into the world of AI.”



Engineering a Team

Disciplines overlap as projects grow in complexity

By Griffin Pritchard |
Public Information Specialist

- As systems become more complex, the number of engineers needed has grown. The profession seems to be trending in a direction that encourages teamwork in lieu of the individual.

The idea of working as a team has become commonplace in today’s culture from movies, to sports and (as part of a growing trend) in the field of engineering. Projects are becoming more and more complex forcing multiple disciplines to join forces.

Angie Keller, senior vice president of Randstad’s engineering division in the United States, wrote in the May IEEE Spectrum: “Today’s market is all about machine learning, robots, controls, embedded systems. All companies across all industries are looking at ways to make things more efficient. For that you need engineers – lots of them.”

A collaborative workplace isn’t something new engineers are thrust into. According to the results of a study conducted by professors at Arizona State and Indiana University – Purdue University: Fort Wayne: “traditional engineering educational strategies such as lecture, lab experiences and homework have been criticized because they inadequately prepare engineering students to engage in the collaborative partnerships that are essential for the practicing engineer.”

Now for some, the phrase “collaborative engineering,” may be a new term. It’s defined by Robert Briggs (University of Alaska – Fairbanks, Center for Distance Education) as: “...an approach to designing collaborative work practices for high-value recurring tasks.”

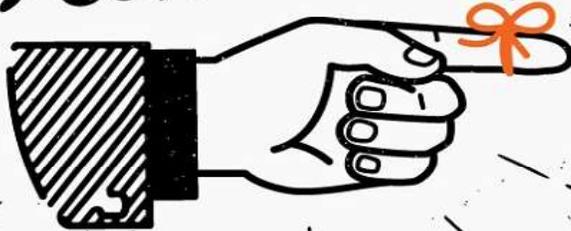
So, what does that mean in English? Well, think of building a car in the 1980’s. The systems needed to make it move forward and back were simple and didn’t overlap. Fast-forward to 2019.

Cars rolling off the production lines now are vastly different featuring an engineer-designed safety program, Blue Tooth capabilities, in-car GPS, heating and air conditioning, a quieter and more efficient motor and the ability to drive itself and parallel park. The ability to speak, fly and understand sarcasm are expected in the future.

One engineer did not design those features. Multiple disciplines are needed to create it. The term collaboration comes from the Latin word “collaborare” which means “to work with.” And when different engineers collaborate on a project, that’s what they are doing, working with, to see that project through to competi-

See **TEAM PAGE 9**

Reminder



PROFESSIONAL LAND SURVEYORS MUST COMPLETE A ONE-HOUR ETHICS COURSE EVERY YEAR AND A FOUR-HOUR COURSE ON THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN ALABAMA EVERY TWO YEARS.

BELS, in May, hosted a webinar using WebEx focusing on changes to the law and code to a then-record audience of nearly 950 licensees. The number was topped and the a new attendance record was set during the live July webinar focusing on professional ethics as more than 1,300 people joined the 1 PDH presentation.

TEAM

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tion, along with it having all the needed mechanisms in place for it to be a success.

In researching this article, it's not lost that collaboration can take different forms and be successful. But, what follows are the most common tips associated with bringing a group together for a project and it being a success once finished.

The first, and most common, trait amongst engineers and professionals working in groups is trust.

According to the University of Nebraska's Graduate Student Career and Professional Development Center: "be honest; work to eliminate conflicts of interest; avoid talking behind each other's back; trust your teammates and give them the benefit of the doubt."

Forbes Contributor Jacob Morgan added: "We are always so adamant about listening to the voice of the customer, what about the voice of the employee? When going down the collaboration road within your organization it's important to make employees a part of the decision-making process from step one. Listen to their ideas, their needs and their suggestions to integrate their feedback in your technology and strategy."

To aid in building trust within a collaborative group, it's also recommended that roles be clarified before the project gets underway. Successful collaboration also demands clear and effective communication. By establishing direct and clear lines of communication, misunderstandings are often cleared up before they could ever grow into something detrimental to the project. By communicating the goals and the different

paths of the projects, it allows the engineers an opportunity to be direct and all on the same page.

Andrew Karan, cofounder and a vice president of an app development company, wrote: "Having people with good problem-solving skills is in fact key to cross-team collaboration. Studies have shown that if someone is a good problem solver in one area, oftentimes, they are most likely just as successful in others."

But what happens when cultures clash as projects have grown from localized to global.

According to Engineering.com: "Globalization, outsourcing, modularization of components and customer feedback are four factors requiring greater collaboration to ensure proper quality management. But that's where having the right tools to communicate and collaborate cannot be overestimated.

Morgan, in his Forbes' article highlighted the importance of evolution.

"It's important to remember that collaboration is perpetual. It's a never-ending evolution as new tools and strategies for the workplace continue to emerge. This means that it's important for your organization to be able to adapt and evolve as things change. Keep a pulse on what's going on in the [profession] and inside of your organization. This will allow you to innovate and anticipate."

As innovation continues to drive the business, engineering is a field that is no longer static. It will continue to shift and change and the line of demarcation between the disciplines will blur from project to project.

ENFORCEMENT ACTIONS

May 7 Meeting

2019-16: Daniel Smith, P.E.

An investigation determined that Mr. Daniel Smith, P.E., reviewed a portion of the electrical work at a project site, but left the site knowing the job was not complete with the plan to return later that day. While at his office Mr. Smith forwarded an email along with an inspection report that contained his professional seal and signature to the City Building Inspector advising that the work was complete and requested the power be restored to the building. During his return trip to the job site he was notified that a portion of the wiring would not reach one of the electrical panels, and the job was not complete.

Also, a review of the project design plans submitted by Mr. Smith revealed that they contained the business name Cornerstone Facilities Engineering Inc. A review of Board records determined that Cornerstone Facilities Engineering Inc., did not possess a certificate of authorization for engineering that would authorize it to provide or offer to provide engineering services in the State of Alabama.

Mr. Smith agreed to a Consent Order that required him to pay a \$1,500 fine to the Board, his license to practice engineering in the state of Alabama to be suspended (with the suspension stayed) for one year, he must complete the 30 professional development hour ethics course provided by the Murdough Center for Engineering Ethics located at Texas Tech University within 90 days, and the Consent Order and Final Order be public records.

2019-17: Freeland & Kauffman Inc.

An investigation determined that Mr. Charles Garcia, professional engineer, submitted engineering design plans dated January 22, 2019, bearing the firm name Freeland & Kauffman Inc., to the city of Mobile for the Gulf Coast Auto project during a time when the firm did not have a certificate of authorization for engineering. Mr. Garcia also submitted a sidewalk waiver document dated 11/01/2018 to the City of Mobile regarding this project. Mr. Garcia agreed to a consent order that required the firm to pay \$125 to the Board for the cost of the investigation, to pay a \$1,500 civil penalty to the State of Alabama General Fund, and the Consent Order and Final Order would be a public record.

- As part of the 2018 law change (Act 550-2018), the Board of Licensure for Professional Engineers and Land Surveyors will now be comprised of five Professional Engineers, two Professional Land Surveyors and two Public Members.

- This was done as a way to better fulfill the BELS mantra of protecting the public health, safety and welfare.

- The Public Member Nominating Committee is comprised of six agencies disconnected from the engineering / surveying profession, but brought together to best represent the citizens of the state of Alabama.

Speaking for the Public

Stakeholders gather to nominate BELS Public Members

By Griffin Pritchard |

BELS Public Information Specialist

Working to better fulfill the BELS mantra of protecting the state's health, safety and welfare, BELS, as part of the 2018 law change, is preparing to expand the Board from seven to nine members. Those two members, unlike their seven board contemporaries, will be chosen from the public and will have no ties to the professions of engineering or surveying.

"It offers outside-the-industry eyes and mindsets, as well as increases the opportunity for diversity and inclusion of the board," wrote Jerry Mitchell, who represents one of the six business groups chosen to form the first Public Member Nominating committee. Mitchell, who currently serves as the President/CEO of the Alabama State Black Chamber of Commerce, is joined by representatives from the NFIB, Society of Women in Business, ALFA, Chamber of Commerce and the Economic Development Association of Alabama.

See **PUBLIC MEMBERS** PAGES 11 & 12

PUBLIC MEMBERS

From Page 10

“Board members, representing the public, gives context to the Board’s actions,” wrote Jim Searcy, executive director of the state’s Economic Development Association.

“Too often, boards consisting of only professionals can lose perspective on how broad the scope of the regulatory and investigative actions taken are, and the impact those actions have on the communities. Additionally, as the erosion of trust in public bodies continues, it is vital to demonstrate a commitment to public input and transparency on any board that has a public service mission.”

The more board members are involved with the process, the more they learn from each other. Spirited discussions upon the seven appointees has helped instill confidence in the Board by its stakeholders.

BELS, who according to Searcy is recognizable as a “national standard of excellence,” has made public outreach part of its ongoing mission.

“The small role EDAA can play will have far reaching benefit,” wrote Searcy.

Chamber of Commerce Association of Alabama President and CEO Jeremy Arthur agrees: “As a representative of a business association that serves local chambers of commerce across the entire State of Alabama I have a keen interest in working cooperatively to help both organizations partner together to achieve our missions.

“Hearing about and learning from different stakeholder groups further instills the process that Alabama is establishing the most appropriate qualifications for the regulation of engineering and land surveying.”

The Public Member Nominating Committee met for the first time April 30 in the Montgomery BELS’ office and met again June 18 in Montgomery.

While the group is new, their task is not.

Just like the engineer committee and the group that gathers to nominate land surveyors, nominees are vetted and debated until a list of three is compiled and then sent off to the Governor’s office where one of the names will be selected as the appointment.

For the first time, the Public Member Nominating Committee will nominate six individuals for two appointments.

The first will serve five years.

The second will serve two.

When the second member’s term is up, the next appointment will serve five years and be in rotation with the professional appointments.

“Being engaged in the nomination of individuals in our state who will oversee the licensing of professional engineers and land surveyors operating in state, gives me a feeling of helping to enhance the quality of life in Alabama,” wrote Mitchell.

According to a paper written for the Federation of State Boards of Physical Therapy in 2018, bringing public members onto regulatory boards can prove dividends for the stakeholders and licensees: “Public members can be a powerful voice on regulatory boards by bringing in fresh perspectives and oftentimes a perspective the board would not grasp on its own.”

While boards opening their conference room doors to have public members has only been in practice on a national scale since the 1970s, during the 2019 Sunset process several Alabama boards having public members seated were renewed.

The Board of Cosmetology and Barbering, the Historical Commission, Athletic Commission and the Board of Massage Therapy, in some form of guiding language whether it be as part of law or administrative code, feature appointments from the state at large.

The two BELS public appointments, who will more than

See **PUBLIC MEMBERS PAGE 12**

Conversation with the Architects



BELS and the Board of Architects broke from their May meetings to share a meal and ideas. The two licensure boards typically gather twice a year to break bread and discuss issues facing both professions.

BELS THIRD QUARTER OUTREACH EVENTS



Outreach efforts are of paramount importance as a way to better interact with the BELS licensee community and this summer, the staff has been up and down the highways doing just that. Special Investigators Bob Herbert, Bruce Thornell and Public Info Specialist Griffin Pritchard have traveled from the top of Alabama to the bottom and even into Mississippi to discuss issues regarding licensure laws and ethics. Thornell attended the Alabama Sheriff's Association (top left) for the first time. He also speaks with licensees from Louisiana as part of the Gulf States Conference (top right). Pritchard speaks at the Disaster Conference in Prattville (center left). Pritchard and Herbert attended the ASPE / MES Conference in Biloxi where they took part in the Order of the Engineer ceremony (bottom left) and served as presenter. Herbert (bottom right) speaks to a group of PE's about the Roddy Fitzgerald case.

PUBLIC MEMBERS

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likely join the board before the end of 2019, will be new faces on a board undergoing transition as Liz Hyde (PE), Nathan Johnson (PLS/PE) and Richard Grace (PE/PLS) are all scheduled to rotate off before 2020. (Johnson has been nominated for reappointment.)

According to the Harvard Business Review: "It's difficult to tease out the factors that make one group of people an effective team and another, equally talented group of people a dysfunctional one; well-functioning, successful teams usually have chemistry that can't be

quantified.

"They seem to get into a virtuous cycle in which one good quality builds on another. Team members develop mutual respect; because they respect one another, they develop trust; because they trust one another, they share difficult information; because they all have the same, reasonably complete information, they can challenge one another's conclusions coherently; because a spirited give-and-take becomes the norm,"

"Serving on this committee provides an opportunity to have input, into the

quality of board members, from an economic development perspective," Searcy notes, is one of the benefits of being a part of the nomination process.

"As Alabama communities continue to prepare themselves to compete for economic development projects they rely on quality engineering (and surveying) services.

This critical component of the process can directly impact whether a community is successful in recruiting new industry and accommodating the expansion of existing companies."

our NEW LICENSEES

• PE LICENSEES

AARON BLAKE HEBERT
 AARON RAY FRAHM
 ANDRE DIAN HOWARD
 ANDRE LEANDRO MILLA ADAMS
 ANDREW MICHAEL LANSDALL
 AUGUST HERNANDEZ
 AUSTIN RYAN PIERCE
 BARBARA T. KOTECKI
 BARRETT CAMERON CROOK
 BENJAMIN EARLE ENTREKIN
 BRADLEY JOHN GERLICK
 BRADLEY WADE FOUST
 BRANDON KEITH SCHARN
 BRANDON MICHAEL GRODI
 BRENT MATTHEW ZERN
 BRENTON M. MCCREA
 BRETT DEXTER
 BRITTON L. LUTHER
 CAMBRIA MARIE FLOWERS
 CARLOS F. GONZALEZ
 CARMELO EMMANUEL AYALA AGOSTO
 CHANGJIANG SHEN
 CHARLES LEE THARP III
 CHARLES ROBERT HOWARD
 CHARLES TODD MAJORS
 CHRIS BRINKMAN FLEMING
 CHRISTINA BOLEY BROWN
 CHRISTOPHER DOUGLAS ROBERTS
 CHRISTOPHER J. WORTMANN
 CHRISTOPHER MICHAEL THOMPSON
 CORBIN DAY SWAIN

COREY NICHOLAS BARBER
 CRAIG M. MERCHANT
 DALE AARON PHILLIPS
 DANIEL BENJAMIN SHRATTER
 DANIEL EGON BERNER CAMPBELL
 DANIEL MARK SCHAFFRAN
 DANIEL MICHAEL DUNN
 DANIEL PATRICK HAMM
 DARREN WAYNE EYRE
 DAVID J. EVERS
 DAVID L. GARRETT II
 DAVID REAN OLDHAM
 DONALD GERARD
 ARSENAULT-FLACHMEIER
 DONALD MICHAEL DOWDALL
 DONALD WILLIAM CARTWRIGHT
 DOUGLAS BARRY MOON
 DURAK EVRIM ERCAN
 ERIN ELYSE KEENEY
 FRANK LEVINS WILLIS
 GREGORY LEE BOSO
 GRIFFIN SAMUEL WADDIN
 HEATH QUENTIN MCKEE
 JACOB HOLT BATES
 JACOB PHILIP HEMKE
 JAMES JOSEPH TATONE II
 JAMEY LEE BROWN
 JARED MARK BORDELON
 JASON CABE JOHNSTON
 JASON GERALD SANTERS
 JASON MATTHEW CAMP
 JASON PETER GERHART
 JAVIER BALMA

JEFF CORCORAN
 JEFFRY LYNN MEADOW
 JEROME J. DIMERCURIO
 JESSE BABB
 JOEL A. NELSON
 JOEL ROBERT GRUBBS
 JOHN BURKE BOSCO
 JOHN CLAIBORNE THORNTON III
 JOHN D. YURCHEVICH
 JOHN JOSEPH EVANS
 JONATHAN CHARLES WHITE
 JORGE OSVALDO FLORES-DAVILA JR
 JOSE J. DIAZ-VELAZQUEZ
 JOSEPH BRUCE WARD JR
 JOSEPH M. VIOLA
 JOSEPH VINCENT MCELVANEY JR
 JOSHUA LEE WILTSHIRE
 JULIAN COSTA
 JULIE LEBER OLIPHANT
 JUSTIN CLAUDE WATSON
 JUSTIN THOMAS JOHNSON
 JUSTIN TYLER HUBER
 KATHLEEN L. SMITH
 KATHRYN LEA MCCOY
 KEITH ALAN CONRAD
 KEITH ALLAN JOHNSON
 KENNETH A. HIGHTOWER
 KENNETH MONROE BERRY
 KEVIN FITZPATRICK DASCALL
 KEVIN JOHN FELDMAN
 KYLE THOMAS BONTREGER
 LOGAN SCOTT CHRISTENSEN
 LOURDES ENEIDA FOSTER



Fire Marshall's Office asks BELS to help shape class

By Griffin Pritchard |

BELS Public Information Specialist

A change in legislative language following the 2018 session has led to a partnership between the Alabama Fire Marshall's Office, BELS and multiple other agencies. The stakeholders have combined to form a curriculum that will be used to educate Master Plumbers on the in's and out's of installing Potable Water Systems (home sprinkler systems) to new, single-family detached homes.

"Prior to 2017, if you were going to have a sprinkler system in your home, the only avenue you had was to go through a commercial contractor," said Alabama Fire Marshall Scott Pilgreen. "There was not a big market for in-home sprinkler systems, so the commercial contractor was going to charge you an arm and a couple of legs to do

- The Alabama Fire Marshall's Office is working with stakeholder agencies including BELS to create a curriculum that will be used to train Master Plumbers on the installation of residential fire sprinkler systems.
- The systems have to be designed by a professional engineer before they can be installed.

See **CLASS** PAGES 15 & 16

OUR NEW LICENSEES

M. DREW RIMMER
 M. SCOTT POLIGONE
 MARK ALAN TOWNER
 MARK RICHARD KENNEDY
 MARK WESLEY ELLARD
 MARYANN KAPEZYNSKI CURTIN
 MATTHEW SIPIORSKI
 MATTHEW BENJAMIN REGENOLD
 MATTHEW EDWARD DEEKE
 MATTHEW L. WEBER
 MATTHEW THOMAS SELLERS
 MICHAEL PETER BREITBACH
 MOHAMED SALEH A. M. GALLOW
 MOUSSA DIAWOYE SISSOKO
 NAKIA WINDELL ADDISON
 NATHAN PAUL COCKFIELD
 NATHAN RICHARD MULLER
 NATHAN WALKER SCARBROUGH
 NEIL JOSEPH BROWN
 NICHOLAS RYAN HERSHBERGER
 OLIVER WARREN WILLIAMS JR
 PATRICK JOSEPH ROSE
 PAUL MICHAEL WELCH
 PERCY JOSEPH FREEMAN JR
 PHILLIP ANDREW OVERCASH
 PRIYANKA PRAKASH VALLETTA
 RACHEL MARIE HENRY
 RAJESH TOLIKONDA
 RAMIN MOHABATI-ARANI

REBECCA LYNN CALVERT
 RICARDO L. SEPULVEDA JAQUE
 RICHARD GAETANO MACINO
 RICHARD WARD LONG III
 RION BEITH HALL
 ROBERT BLAKE SMITH
 ROBERT BRYAN REED
 ROBERT DOUGLAS WARD
 ROBERT E. BURLE JR
 ROBERT HARRY MCLENON JR
 ROBERT LUKE BRAGG
 ROLAND EDWARD MCPHERSON
 RONALD ALAN ZURLINDEN
 RYAN KEITH TATE
 SCOTT MICHAEL CLAYTON
 SEAN PATRICK COCHRAN
 SHANE HUNTER TODD
 STEVEN ARMENDAREZ RYAN
 TAMARA DIANE VOSS
 THOMAS KAMON HUTLEY
 THOMAS MICHAEL KOSANDA
 TODD ARTHUR FORD
 TYSON JAMES THOMAS
 WEI LI
 WESLEY JOHN BURGHARDT
 WHITNEY REAGAN WALKER
 WILLIAM ANDREW COLE
 WILLIAM E. PEDERSEN
 WILLIAM JARRELL EVANS

WILLIAM LEE HILL
 WILLIAM NATHANIEL FELT
 ZACHARY THOMPSON SHEPHERD

• ENGINEER INTERNS

AARON RAYCE TARLETON
 BLAKE JOSEPH DIGGS
 CALLIE MICHELLE FREEMAN
 COLIN DAVIS STATKEWICZ
 COLLIN JAY ROSSON
 JACOB RILEY HOLMES
 JEANNE REIKO CAPLICE
 JORDAN O'BRIEN MIDDLETON
 JOSEPH HENRY JAMES
 JOSHUA ALEX RUSSELL
 KELSEY RAE DOAN
 KYLE JUSTIN NELSON
 MARIA ALICIA DOLZ AMOR
 PAUL BRYANT MCQUEEN
 ROBERT ANDREW SMITH
 RYAN TAYLOR GRADLE
 SYDNEY MARIE CULBRETH
 TYLER REX DANIEL
 WILLIAM CHARLES SPIKES JR

• PLS LICENSEES

BILLY JOHN ELAM
 MATTHEW JACKSON MCKEEGAN



CLASS

From Page 14

it. It wasn't cost effective for them."

Single family, detached homes are just that, detached.

They are not apartments or townhouses, according to Pilgreen.

Also – in terms of definitions – Potable Water Systems are defined as: "systems that use water safe to drink or use for food preparation," or "water that's already in the home."

While the demand for in-home sprinkler systems – prior to 2017 – wasn't that great, having an in-home fire sprinkler system could be beneficial. According to the National Fire Protection Agency's "U.S. Experience with Sprinkler" report:

- The civilian death rate was 81 percent lower in home with fire sprinklers than in homes without them.
- The average firefighter injury rate was nearly 80 percent lower when fire sprinklers were present during fires.
- When sprinklers were present, fires were kept to the room of origin 97 percent of the time.
- The home fire death rate was 90 percent lower when fire sprinklers and hardwired smoke alarms were present. By comparison, this death rate is only 18 percent lower when battery-powered smoke alarms are present but automatic extinguishing systems weren't.

In 2018, the law changed to say that a Master Plumber, with proper training, can install home sprinkler systems in single-family detached homes.

"We are trying to develop a curriculum that's going to get these Master Plumbers trained to install these residential

sprinkler systems for those who want them. BELS is one of the many agencies that has a critical voice in getting this done the right way."

According to Pilgreen – the way the certification will work is thus: The Master Plumber will sit through the class, Pilgreen said it will be between 32 and 40 hours, will then be tested. Upon passage, the plumber will earn a certificate which will then be filed with Pilgreen's office.

Education, above all, is the key. During the inaugural meeting, a roundtable discussion was had

To that end, Pilgreen reached out to BELS Special Investigator Bob Herbert (greater than 10 years' experience investigating law and code) and Board Member Randy Whorton (also a Professional Engineer) to help shape the engineering portion of the curriculum. Fire Sprinkler Systems, according to state law, must be designed by a professional engineer.

"The National Fire Sprinkler Association will teach the class, but when it comes to the engineering portion, someone from BELS – whether it be Bob or Randy – will be in the room to teach the engineering," Pilgreen said. "When it comes to the plumbing part, someone from the plumbing board will be in the room teaching that. I want these individuals to know exactly what is to be expected of them. We are probably going to throw a lot at them in that first class."

But it won't just be plumbers taking the class. According to Pilgreen, members of his staff and office will be involved. The goal is for them to have the same understanding of what they are supposed to investigate and check when they go on site.

"I'm going to make it clear on that first day that I'm going

ONSITE WASTEWATER BOARD



The Onsite Wastewater Board has asked BELS to make licensees aware of a revision to its Administrative Code section 628-X-3.01.

The revised language will state the following: “An Advanced Level II Installers License to allow for all work done under the Basic and Advanced Level I Installers License and for the installation, service, replacing lids, repairing or maintaining all onsite and clustered wastewater systems permitted by the Alabama Department of Public Health, including the large flow systems as designed by the current State Board of Health Onsite Sewage and Disposal Rules 420-3-1, to include, multiple pump systems with timed dosing requirements and other advanced technology systems; this shall include decentralized wastewater systems permitted by the State Board of Health Onsite Sewage and Disposal Rules 420-3-1 and decentralized wastewater systems with Underground Injection Control (UIC) permits issued by the Alabama Department of Environmental Management.”



A new licensing management system is under development for the Board and should be in place by October 2019. We'll provide more information about how this will impact renewals and your interactions with our website in the October edition of the [BELS Bulletin](#).

CPC AUDIT PROCESS

Also, there is a change in how the Continuing Professional Competency audit is performed. Individuals will be notified of their selection for audit prior to October 2019. The selected individuals will be required to submit certificates showing their completed courses prior to, or during, the license renewal process.

CLASS

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to be coming behind them checking and making sure everything is done right. If it's not, I'm going to pull that certificate.

What we are trying to prevent is someone purchasing the system for their home and then having an event (fire) because some part of that process has been left off,” said Pilgreen. “Some part doesn't work and then we have a catastrophe.”

He added that he plans to have a system installed in his home in the coming months.

He continued: “Through this whole process, I've reached

out to BELS and had many conversations with Bob and Randy. Words cannot convey how helpful they've been. Everytime I've asked something of them, to be at a meeting or to have a conversation, they've been there.”

The goal, Pilgreen added, is for the curriculum to be ready by this fall and the inaugural class to launch shortly thereafter.

“That's how close we are,” Pilgreen said.

As the class comes together, additional information will be provided.