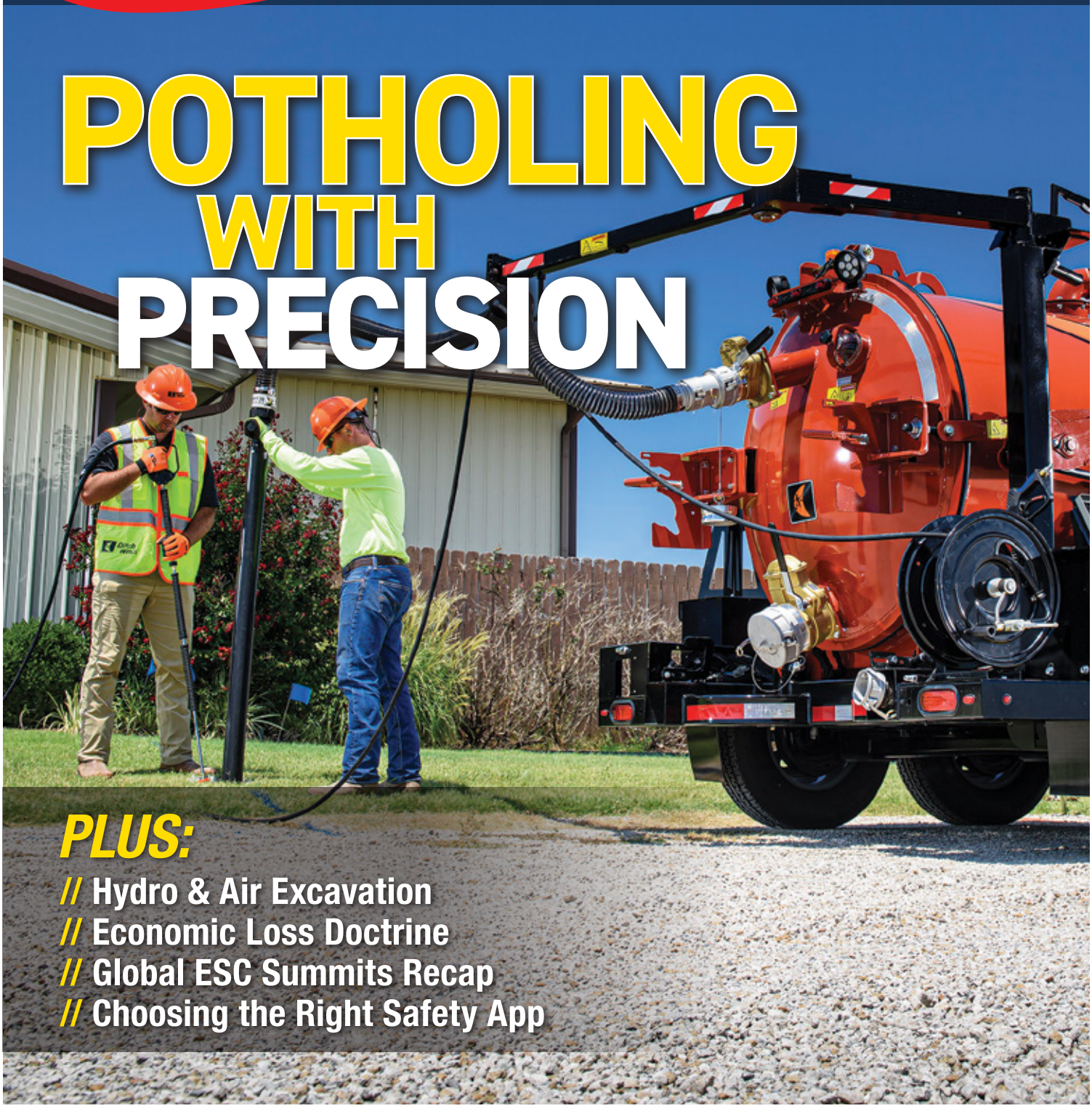
VOLUME 14
ISSUE 2
2023

Excavation SAFETY MAGAZINE™

GLOBAL Excavation SAFETY CONFERENCE ~ Est. 2004 ~

2024 GLOBAL ESC
SEE PAGE 22

POTHOLING WITH PRECISION



PLUS:

// Hydro & Air Excavation
// Economic Loss Doctrine
// Global ESC Summits Recap
// Choosing the Right Safety App

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SCAN TO LEARN MORE

USIC

THE LEADER IN UNDERGROUND UTILITY DAMAGE PREVENTION

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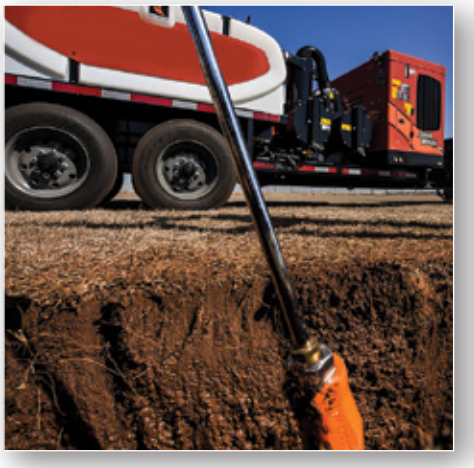
/// SPOTLIGHT / Water & Vacuum Excavation



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Supporting Global Excavation Safety

Excavation SAFETY MAGAZINE

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SUMMER 2023

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FROM THE
PUBLISHER

BY SCOTT LANDES

Water doesn't explode, burn, or electrocute people.

It is rare anyone is killed due to hitting a water line, but it does happen. While injuries are unusual, hitting water or sewer lines can cause very significant damage and the public impact can be very high. One great example of the damage and costs that occur when a water main is hit is an accident that took place here in Minnesota. Although this damage was years ago, the ripples (pardon the pun) this damage caused were huge as 14 million gallons (about 52995740 L) of water flooded a corridor of downtown Minneapolis. The hard costs and societal costs were staggering:

- Repair costs alone were estimated to be $325,000.
- Multiple vehicles within a nearby parking garage were submerged, including 30 postal trucks. Replacing only 20 of those trucks was estimated at over $500,000.
- Dozens of businesses were forced to close, forfeiting thousands in lost revenue, due to lack of water.
- The Federal Reserve Back was reduced to essential staff only; other employees were sent home with no pay.
- Over 20 businesses were required to have their water tested for bacterial infection and toxins like pesticides & metals.
- Traffic was a nightmare due to the flooded state of the streets and the frigid January temperatures.

According to Michael Grinnell, Senior Engineering Technician with Gewalt Hamilton Associates, "When you must shut water off in an emergency, and you are affecting daycares, schools, doctor's offices, and residences with children and the elderly, the cost of the repair is not a factor compared to the impact you are having on these customers. Regardless of fault, the burden of the damage falls back on the utility."

Robert Edwards, Water Operation Supervisor, Planning and Inspection with Citizen's Energy Group, has a thought-provoking perspective: "I realize when a gas line is damaged there is the potential threat of a spark and explosion with fire, but when a water line is damaged, there is the threat of extreme property damage, flooding, possible drowning and bacteria and toxins entering the potable water lines and being consumed – resulting in sickness or death. It's important to remember that water utility pipes are the only underground utility carrying a product people put into their bodies!"

"Water delivery systems are pressurized," Edwards continues. "But when a damage occurs, in most cases the pipe is destroyed and the pressure is flowing in one direction forcing sand, rock, and other debris into the pipe. Not every water main is subject to bacteria and toxins, but there is a 'threat' if a water main is not shut down by a competent, trained utility representative."

Less Bottom-Line Incentive

Without pressure to make a profit, it can be hard for a public utility to justify investing money in damage prevention to avoid future damages. Even if the contractor or locator is 100% at fault (and keep in mind, many times it is neither the locator nor the contractor's fault), you never recover all the true costs. (Check out the Water & Sewer Repair Cost Checklist on page 10 or at ExcavationSafetyAlliance.com for a look at the costs you may not be considering.)

The good news is we are seeing more and more water & wastewater professionals participating in our monthly Excavation Safety Alliance virtual Town Halls and attending our Global Excavation Safety Conference. At the 2023 Global ESC in Tampa, our 18th Conference, we hosted water and sewer professionals from 12 different states. Their passion for damage prevention & excavation safety will help the ball keep rolling. ESM

CHAMPION

North American Telecommunications Damage Prevention Council

The NTDPC is a non-competitive forum dedicated to promoting the awareness and protection of tele-communications facilities and the use of One Call notification systems. Our goal is to prevent damage to the aerial & buried facilities that form the tele-communications infrastructure.

KorTerra

KorTerra is the leading provider of damage prevention software, protecting billions of dollars in underground infrastructure. For over 30 years, KorTerra has helped mitigate risk and ensured personnel safety by providing secure platforms for processing 811 locate tickets, tracking damages, and more.

UTILITY SAFETY PARTNERS

Alberta One-Call, Alberta Common Ground Alliance & the Joint Utility Safety Team have united under one name: Utility Safety Partners; Alberta's trusted resource for utility safety, education & awareness to prevent contact with overhead and underground energy & utility assets. #ClickBeforeYouDig.

Pennsylvania 811

Pennsylvania One Call System Inc. is a non-profit service company dedicated to minimizing utility service interruptions, reducing on-the-job injuries and deaths, promoting a higher level of public safety and protecting the environment, available 24 hours per day, every day of the year.

MISS DIG 811

As the country's first state-wide notification center, MISS DIG 811 has helped keep Michigan safe for over 50 years. Looking forward, we will continue to reach our communities by utilizing advancing technologies, grassroots efforts, and consistent engagement to decrease damages across the state.

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Indiana 811
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Our mission is to lead Indiana in promoting safety and preventing damage to underground facilities by providing excellent coordination and notification services at a reasonable cost.

LEADER

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FNCA Facility Notification Centers Association

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Call Before You Dig JULIE ILLINOIS ONE-CALL SYSTEM

811

CMR Claims Management Resources

Tennessee 811

STAKE CENTER LOCATING

Raymond Sonnier

#EatSleepDamagePreventionRepeat

RAYMOND SONNIER HAS SPENT THE PAST SEVEN-PLUS YEARS AS A DAMAGE PREVENTION SPECIALIST/COORDINATOR FOR ATMOS ENERGY CORPORATION IN LAFAYETTE, LOUISIANA. PRIOR TO THAT, HE WORKED FOR THE UNITED STATES INFRASTRUCTURE GROUP, AND BEFORE THAT HE SPENT 10 YEARS AS A SUPERVISOR WITH UTILIQUEST, LLC.

Raymond is a veteran of the industry with experience in public relations, customer service, leadership, project planning and project management. It was no surprise when Louisiana 811 One Call honored him as their "Locator of the Year" in 2019!

Brent Saltzman, Executive Director with Louisiana 811, refers to Raymond as extremely passionate about damage prevention. "He works daily to promote safe digging practices and contacting 811 in advance of any excavation or demolition activity," Saltzman said. "He frequently stops to visit excavators in his territory. He applauds the efforts of those who are digging safely and legally, and strongly encourages those who aren't to abide by the State's Dig Law."

"Ray is actively involved in local, state and national damage prevention initiatives. If there is an event going on related to damage prevention, you can bet Raymond will be there participating in some facet."

According to David Raymond, Operations Manager with Atmos Energy, Raymond is curious, knowledgeable, connected and a promoter. "Raymond makes damage prevention presentations to excavators across the country, and he educates locators, excavators and the general public on 811 and safe digging," he said. "Raymond has made over 2,400 documented Atmos Energy Damage Prevention Ambassador stops since 2019, educating excavators on their job sites across Louisiana."

Another industry veteran who thinks Louisiana is a better and safer place because of Raymond Sonnier is Cole Vanderlick, Manager – Damage Prevention with Louisiana 811. "Raymond is one of the pioneers in helping create a locator training course with a college/trade school. He is a proactive member of local Utility Coordinating Councils and a leader in creating positive momentum and bringing people together," Vanderlick said. "He is responsible for rejuvenating stagnant Utility Coordinating Councils and has also helped start new ones in needed areas."

"Ray is actively involved in local, state and national damage prevention initiatives. If there is an event going on related to damage prevention, you can bet Raymond will be there participating in some facet," added Saltzman. According to David Raymond, he also finds time to work with local community colleges in Louisiana to develop line locating and damage prevention curriculum. And he volunteers large blocks of his "free" time to Acadian Baptist Center and to non-profit organizations.

"I sincerely appreciate Raymond's passion for his job. He always seems to have a smile on his face and is genuinely driven to educate excavators and the general public about 811's core values," Brent Saltzman said.

"I am truly blessed to be a part of Raymond's damage prevention team and witness his never-ending passion as he spreads the damage prevention message to everyone he comes in contact with," added David Raymond.

All of us in the industry are grateful for Raymond Sonnier's time, energy, passion and dedication… qualities that truly make him a Damage Prevention Hero! ESM

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The TRUE Cost of Water Damages Checklist

The cost of damaged water pipes can easily be underestimated when only repair costs are tracked and documented.

Improve your understanding of the real costs of a damage with this checklist, based on insight from experienced professionals who have spent years working in the water industry.

What percent of hard and soft costs does your company collect? How do damages affect your brand?

May or May Not Be Collected

- External Collection Costs/Agency Commissions
- Barricades/Traffic Control
- Permits (city/county/state/provincial) to install replacement cables
- Legal fees and litigation costs
- Exposing the damage for repair
- Materials used in repair
- Restoration of the area
- Actual cost of internal labor
- Heavy Equipment used
- Generator/Power Equipment
- Food, lodging, travel expense
- Emergency mobilization (Contractor/Locator)

Time

- Damage site investigator
- Collection efforts
- Out of service complaints
- Insurance resolution discussions
- Overtime for unexpected increases in workloads
- Employee time/travel for deposition and trial

Overlooked / Difficult to Track

- Customer loss of use (refunds/credits)
- Resolution of customer complaints
- Engineering/re-engineering due to the cut
- Workload delays
- Damage data capture and submission (software and/or manual)
- Emergency One Call ticket notifications
- Facility owner records updates

Soft Costs

- Negative public feedback
- Difficulty maintaining customer relationships, especially large businesses with inconsistent services

Societal Costs

- Businesses closing
- Employee down time
- Road closures/traffic delays

Investing in damage prevention improves your bottom line and keeps your workforce continuously focused on proactive work.

BONUS CONTENT:

WEB EXCLUSIVE

SUMMER 2023

Visit ExcavationSafetymagazine.com to enjoy these additional articles.

BY JAMIE BONNEMA, SAFETY WRITER AT MAGID

LIGHTWEIGHT & COOL PPE YOU SHOULD CONSIDER THIS SUMMER

SUMMER IS HERE, which means heat safety is likely back at the top of your priority list. With OSHA continuing to raise fines (this year by seven percent), and the National Emphasis Program (NEP) for Outdoor and Indoor Heat-Related Hazards still in effect, it's more important than ever to continue thinking about ways to protect workers from heat stress.

Lightweight and cool PPE is critical. Selecting your PPE with heat in mind can help keep workers protected from job-specific hazards, comfortable, and safe in the heat. The good news is that plenty of new technologies make finding and choosing PPE easier than ever.

Ease into summer and get the coolest, lightest, and most comfortable PPE by searching for these three things:

1. Light & Cool Gloves with High Cut Protection

PPE manufacturers are offering new technologies that provide breathable protection for even the most dangerous job.

- Gloves made of materials specially engineered to make your skin feel cooler are available all the way up to ANSI Cut Level A9 and are more than 50% lighter compared to HPPE of an equal cut level.
- Impact gloves now feature venting systems and mesh construction that improve airflow by up to 60%. Select ANSI Impact Level 3 gloves provide heavy-duty, back-of-hand protection in a unique honeycomb ventilated design for maximum flexibility, along with nine times more airflow than a standard impact glove.
- For workers who suffer from skin irritation and contact dermatitis, cool-to-the-touch coreless technologies are available to provide relief. Infused with strength-enhancing microparticles, these materials are 30% lighter and achieve cut protection up to ANSI Level A6 without the weight and irritation caused by core materials such as fiberglass and steel.

2. Lightweight & Comfortable Sleeves

Keep workers protected above the wrist while also helping them stay cool with sleeves that are lighter weight than ever before. Manufacturers are now making sleeves with materials that make them 50% lighter than traditional HPPE of the same cut level and are available all the way up to ANSI Cut Level A9 for extreme cut protection. Many sleeves also come with a thumb slot, a hook-and-loop closure, and a gusset bicep treatment which can help keep sleeves securely in place and allow for sleeves to easily be flexed and adjusted to fit most arms.

3. Body Cooling PPE

New PPE technologies can help keep workers cool throughout the day. Look for portable cooling PPE that can be reactivated and will keep workers cool without getting in the way of their job. For example, manufacturers have created chemical-free cooling PPE that can be activated and re-activated with water (even hot water!), cools up to 30 degrees below average body temperature in just seconds, and stays cool for up to two hours! ESM

Jamie Bonnema is a safety writer at Magid – a U.S. manufacturer, innovator, and distributor of head-to-toe PPE since 1946. Magid recommends a simple 8-step process to create a heat safety program which can be accessed for free at www.magidglove.com. For more information about Magid's safety products and expertise, visit their website or call 800-203-0417.

BY DOUG BECK

REMEMBERING D.I.Y. DAVE

CALL 811 BEFORE YOU DIG OR YOU MAY BE CALLING 911!

Everybody knows "DIY Dave". He is the neighborhood guy who takes on projects at his home and is always reluctant to hire contractors to do the work. Dave has skills with carpentry, plumbing, electrical and landscaping. What Dave does not know is the proper and safe way to perform the work he does.

During the spring of 2022, Dave decided to give his property a facelift by redesigning his landscape and installing a sprinkler system. So, Dave gets out his handy sketch pad, measuring tape, and pencil and starts to create his newest project.

After completing all his drawings and sketches, he decides what is the best "look" for his house. He begins by installing the sprinkler system. Dave runs to the hardware store and gathers all the piping, glue, sprinkler heads, and tools needed for this task. Next, he stops at the local rental center to rent a trencher for ditching the areas for the sprinkler system.

It is a beautiful spring day and he begins trenching the area. Unbeknownst to Dave, there is a 4-inch gas pipeline that runs through his property. Trencher in hand, hat on head and beer in the cooler, off he goes. His neighbors are watching him through their windows and amazed at the pace he was working. As Dave was trenching the front property along the road he got a quick glance of yellow plastic, like material coming up with the tines. That was the last moment of DIY Dave's projects as he had struck the 4-inch poly gas line and the engine of the trencher ignited it. Neighbors witnessed the horror of Dave being burned and called for emergency responders.

Dave was taken to the local hospital where they stabilized his condition for transport to a burn unit in a neighboring town. While being treated with third degree burns on his chest and face, the investigators came to investigate the incident. Dave did his best to explain what happened but since he was on a respirator, he could only write a few sentences on a whiteboard.

The investigation ended the day Dave died from his injuries, but it was clear that Dave did not follow all the safety rules for his work. He never called 811 to have the underground utilities marked on his property.

Dave's house sold a couple months later to a nice couple who had children and appreciated the size of the yard that came with the house. They proceeded to have upgrades performed on the house and landscape but the one thing that they did and required of their contractor was to call 811 at least two days prior to the work beginning. They had heard what happened to Dave and learned from his mistake.

One life lost for not calling 811 and his incident is still talked about in that neighborhood. The Home Owners Association requested someone from the gas company who explained to them what "811 Call Before You Dig" is, and amended the HOA rules to require an 811 call prior to any excavations in the neighborhood. ESM

DIRT FACTS | CGA

EXCERPTED FROM THE 2021 DIRT ANNUAL REPORT

DAMAGES BY ROOT CAUSE

- No Notification to 811 Center – 25.72%
- Facility Not Marked due to Locator Error – 14.37%
- Excavator Failed to Maintain Clearance – 13.95%
- Improper Excavation Practice – 9.05%
- Marked Inaccurately due to Locator Error – 8%
- Excavator Dug Prior to Verifying Marks – 5.27%

WANT TO KNOW MORE? THIS INFORMATION WAS EXCERPTED FROM THE 2021 DIRT ANNUAL REPORT. ACCESS THE ENTIRE REPORT AT CGA-DIRT.COM

George Bear Announces Retirement from Stake Center Locating

AFTER 25 YEARS of leading Stake Center Locating, CEO George Bear is retiring. The succession planning and transition will continue for a few months. Stake Center's board of directors recently selected Heath Martin, the company's current COO & CFO to succeed Bear. Bear will remain on the board as a non-executive Chairman through the end of October.

Baer joined the company in 1997 as CFO. He was promoted to COO & CFO in 2002 and then named CEO in 2018.

"The board of directors has a strong focus on succession planning, and Heath's election as our incoming CEO ensures a seamless transition in this important leadership position in our company," said Andrew Crouch, Stake Center's Chairman of the Board. "The board appreciates the tremendous progress the company has made under George's leadership, and we look forward to building on this progress with Heath."

"THE BOARD APPRECIATES THE TREMENDOUS PROGRESS THE COMPANY HAS MADE UNDER GEORGE'S LEADERSHIP, AND WE LOOK FORWARD TO BUILDING ON THIS PROGRESS WITH HEATH."

Stake Center, a leading utility locating company, operates nationwide in 48 states and is home to more than 1,200 employees and field personnel. ESM

Lenetta Lucas Highlighted During WIC Week

WOMEN IN CONSTRUCTION Week (WIC) celebrated the roles of women in the construction industry March 5-11. The National Association of Women in Construction (NAWIC) is the creator and sponsor of WIC Week, which was launched 25 years ago.

This year's WIC Week celebrated its anniversary with the theme "Many Paths. One Mission," which speaks to the goal of bringing more women to the industry at all levels. One person honored at WIC Week for working tirelessly to make this a great industry was Lenatta Lucas.

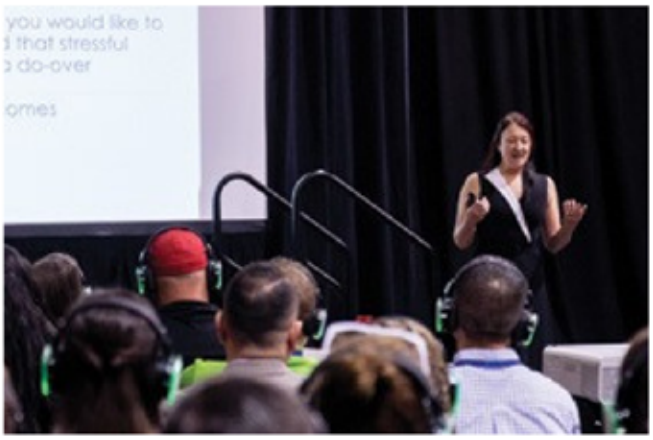
Lucas lost her job in 2019 and was unemployed for two years. She came across a job opening on the internet for a Utility Locator… and was hired by USIC. Lucas became a valuable employee for USIC locating buried underground utility lines. She received an award during her tenure at USIC for no damages, but her desire for growth led her to the Town of Clayton (North Carolina), where she currently works as a locator.

WHEN ASKED WHAT HER BIGGEST CHALLENGE AS A FEMALE IN THE INDUSTRY IS, SHE STATED, "WORKING AND BEING SCRUTINIZED AS A FEMALE IN A MALE-DOMINATED INDUSTRY."

When asked what her biggest challenge as a female in the industry is, she stated, "Working and being scrutinized as a female in a male-dominated industry." Her passion pushes her to gain knowledge on the ins and outs of locating and to not be afraid to ask for updated equipment to be successful. When asked where she sees herself in five years, she said without hesitation, "A locate supervisor!" ESM

Become a Speaker

Global Excavation Safety Conference is THE premier international event dedicated to providing educational content and resources to help protect buried assets. The largest event in the underground damage prevention industry since 2004, the Conference traditionally draws participants from around the world. With 50+ Conference sessions, comprehensive workshops, networking events, and exhibitors, Global ESC is THE place to be if you are committed to the mission of reducing damages.



SUBMITTING YOUR ABSTRACT

A successful abstract will tell an exceptional story, address a concern specific to one or more stakeholder group(s), provide distinctive training or education, and/or strongly promote the damage prevention message in a unique way. When two or more abstracts are submitted on the same topic, the abstract more fully meeting all criteria is likely to be more successful.

Abstracts should:
- Define the scope of the presentation
- Provide three take-aways
- Identify the main stakeholder group targeted as well as other stakeholder groups who would benefit
- Contain NO sales-related content
- May not speak to products or services specific to the presenting company

*Abstracts for 2024 Global ESC should be submitted to **Karin@IR-SavingLives.com** by Monday, August 7, 2023.*

Notifications of acceptance are scheduled to be sent by Friday, September 15.

Speaker Benefits

Infrastructure Resources, LLC does not compensate speakers monetarily or pay for expenses incurred. Participation is voluntary and speakers are responsible for all costs associated with attending the Global ESC.
- **Make a difference** by connecting with industry professionals to effect change
- Obtain **recognition** within the industry as a Subject Matter Expert
- **Network** with colleagues and other industry professionals
- Gain **public exposure** for you and your organization

Calendar of Events

June

5 – 7	SAFETY 2023 (San Antonio, TX)
9	2nd Annual Utah Golf Outing (Eden, UT) 3rd Annual Illinois Golf Outing in Memory of Richard 'Bird' Gaunt 2023 (Washington, IL)
11	American Water Works Association Conference and Expo: ACE 2023 (Toronto, Ontario)
19	Trench Safety Stand Down Week
27 - 29	Kentucky Damage Prevention Summit (Lexington, KY)

July

10	AGA Risk Management Committee Meeting (San Diego, CA)
18 & 19	AGA Executive Leadership Safety Summit (Washington DC)
20 - 22	NUCA of Florida Annual Conference (Sarasota, FL)

August

12	3rd Annual Arkansas 8.11 Run
12 - 16	UESI Pipelines 2023 Conference (San Antonio, TX)
12 - 17	NACAA 2023 (Des Moines, IA)
14 - 17	Louisiana Pipeline Safety Conference 2023 (New Orleans, LA)
20 - 23	Fiber Connect 2023 (Kissimmee, FL)
28	28th Annual Twinning, Inc. & United Contractors Golf Tournament (Huntington Beach, CA)
29 - 31	ISE Expo (Kansas City, MO)

September

26 - 28	The Utility Expo (Louisville, KY) ESM

READER*RESPONSE*

Feedback on the Spring 2023 *Excavation Safety Magazine* as a Whole

"Excellent version and lots of great content!!"

- *Jamie Andersen, CEO at First Alert Locating*

A BIG THANK YOU

Locator Safety & Appreciation Week

• STAFF REPORT •

WE EXPRESS OUR GRATITUDE to all industry partners who acknowledged the vital role of our nation's utility locators during Locator Safety & Appreciation Week (LSAW) this April. We at Infrastructure Resources were happy to supply all industry stakeholders with a variety of sample graphics to use. This is just a glimpse of what was shared on social media during #LSAW this year. Don't forget to save the date for #LSAW next year, April 22-28, 2024.

We recognize that one week of appreciation is simply not enough to truly honor the hard work and dedication of locators. It's crucial to keep their efforts top of mind throughout the year, as they play an indispensable role in ensuring the safety of our communities and our underground utilities. Let's continue to celebrate and support them beyond Locator Safety & Appreciation Week and make their well-being and recognition a year-round priority. ESM

TO ALL LOCATORS!

Top Rated Sessions

• KARIN STRUB •

THE GLOBAL EXCAVATION SAFETY CONFERENCE is the place to gain knowledge about safe digging and the damage prevention industry. For the past 18+ years, we have remained focused on providing a variety of learning opportunities always pushing for new topics relating to new technologies and industry advancements, innovative solutions, and potential solutions that will resonate with our delegates.

Featuring the best sessions in the industry, our speakers remain focused on teaching you something you can bring back to your company to improve your processes and help keep people safe.

Below are the 2023 Conference Sessions who rated a minimum of 3.5 / 4*. ***(*Only sessions with a minimum of 10% return rate on voluntary surveys were ranked.)***

Top Overall Session – Perfect Score Across the Board

Buried Alive: A Survivor's Story

Joe Tantarelli, Trinity Safety Solutions

Joe recalled what started out as a typical day at work where he was laying pipe in a trench when suddenly his day turned out not so typical when the trench collapsed on him, and he had to be dug out and rushed to the hospital. This session covered why Joe took risks on the job even though he knew the hazards. He also explored how your state of mind contributes to making serious mistakes and delegates learned strategies to help workers avoid these types of incidents in the future.

Causes of Utility Damages in North Carolina: Direct Causes vs Root Causes

Dr. Ahmed Al-Bayati, Lawrence Technical University
Louis Panzer, North Carolina 811

How does NC811 categorize the cause of damages? What are the differences between direct causes and root causes? How do we identify the areas where attention will bring the most benefit? This session presented the immediate causes of damages in North Carolina. Delegates learned how they can leverage data in their state to help direct activities to reduce damages.

Contractors and PSMS

Steve Allen, Energy WorldNet

"Pipeline Operators are only as good as their worst contractors!" This session provided a brief background on PSMS and discussed the realities faced by both operators and contractors in today's environment. This session also explored methods used by operators to engage contractors in their PSMS program and included a review of steps being taken by contractors to proactively address this important topic.

Damage Happens: What Comes Next?

Taylor Fudge, Claims Management Resources
Jonathon Musgrove, Claims Management Resources

Despite best efforts, accidents happen. It is inevitable underground assets will sustain damage at some point. An immediate response to these accidents and the information gathered are key to determining liability and resolving claims.

De-Escalating Volatile Situations in the Field

Jim Willis, In-Dev Tactical

Some handle verbal confrontations with ease, but for most, it's difficult and unpleasant. Utility workers are no exception, and de-escalation is seldom the go-to response. Utility work tends to attract type-A personalities, so backing down is rarely the first instinct. The good news is de-escalation is a learned skill. Personnel who deal with the public learned proactive skills that allow them to understand when and how to engage, when to disengage, and when to escape the situation.

Electric Safety Summit: What Are the Best Practices for Preventing Damage to Electric Cables Above and Below Ground?

Moderator: Cliff Meidl, Cliff Meidl Enterprises
Panelists: Glen "Cookie" Cook, Electrical Safety Consultant

Kelley Heinz, ComEd
Brandy Kitchel, Georgia Power
Lisa McKnight, City of Lawrenceville

Attendees joined this industry-focused summit with panel leaders discussing, "What are the best practices for preventing damage to electric cables above and below ground?"

ESA Town Hall Live: Are We at Peak Damage Prevention the Way it is Being Done? Are There Better Ways?

Moderator: Jemmie Wang, BizMetrix, LLC
Panelists: Itzik Malka, 4M Analytics
Steve Mumm, GPRS
Duane Rodgers, PelicanCorp
Lindsay Sander, Sander Resources
Rick Vincent, City of Tampa

It was shown that, using industry-wide damages data, increased spending by facility owners on damage prevention AS IT IS CURRENTLY BEING DONE almost certainly generates very negative ROIs. Beyond the current damage prevention paradigm, this session showed what new(er) methods and technologies are being used to increase the ROI on damage prevention spending?

Eyes Wide Open (EWO)

John Brix, Professional Speaker

Attendees learned how to set their new and young workers up for success. EWO discussed developing your training programs to allow maximum retention of information efficiently. EWO discussed the stress associated with being a new hire and integration process into a company's culture. Attendees also learned how stress affects the body so you can self-identify issues as well as recognize stress related responses to those around you to help mitigate their long-term stress effects.

How Can a Good BBS Observation and Feedback Help with Damage Prevention

Joe Tantarelli, Trinity Safety Consulting

Mark Twain states in a letter, "The report of my death was an exaggeration." So goes BBS (Behavior Based Safety) / Observation / Feedback. This session took a deeper dive into why some of these valuable BBS / Observation / Feedback processes die-off? The speaker shared steps that can help revive or build a useful BBS / Observation / Feedback process to improve Human Factors Management in, not only safety, but also another valuable asset, damage prevention.

How Will Next Technology Improve Locating Accuracy and Efficiency?

Moderator: Bob Nighswonger, Utility Training Academy
Panelists: Pat Burk, Honeywell
Alan Haddy, UTTO
Matthew Wolf, ImpulseRadar USA, Inc.

This roundtable discussion covered the capabilities of current technology for both electromagnetic and GPR locating equipment, as well as what we can expect down the road. The panel also talked about what a locator's wish list is for the future in order to make their job easier and even more precise. Another big topic of discussion was how new locate technology may shape the future.

Improving Design Plans through Mobile Mapping

Michael Twohig, DGT Associates

This presentation highlighted a recent DGT project that required 61 miles of mapping throughout metro Boston, and how project planners and designers are using data to shape future design plans. Additionally, the session showcased data gathered from radar tomography and the benefits of mobile mapping technology.

Minnesota Projects for GPS Enabled Locating and a Process to View Facility Operator Maps

Travis Beran, Subsurface Solutions
Barbara Cederberg, Gopher State One Call

In August 2020, Minnesota began two projects addressing the need for higher quality utility maps and access to those maps by various stakeholders. Success will allow locators to help improve map quality by recording GPS data of a locate and transmit it back to the utility company. Stakeholders will also be able to access the utility maps within the one-call ticket excavation area via a web-based viewing process. This session discussed existing technology and issues that need to be addressed for industry adoption.

Natural Disasters and Damage Prevention – After the Disaster

Debbie Clyne, Canada Energy Regulator
Marie-Eve Latour, Canada Energy Regulator

Climate change has led to more extreme weather events. As we all know, these events can cause billions of dollars in property damage. For landowners, natural disasters are harrowing and can be really frightening when they impact their family, property, and livelihood. You can't assume your damage

prevention and public awareness activities take human behavioral factors into account. This session discussed some of the ways you can improve your damage prevention program to respond after the disaster.

Operational Efficiencies with Locate Management Software

Andy Hamilton, Grafton Technologies, Inc.
Chris Napoletano, Norfield

Grafton Technologies used to manage tickets processed by the 811 Center with an antiquated system of emails, paper maps, unorganized data, and pictures. They began a search to bring their locate management system into the 21st century. Their new software solution now provides operational efficiencies, time savings, and a web-based, modern digital experience. The team at Grafton Technologies shared their story of the process to find the right solution for their organization.

Overcoming Resistance to Change

Dr. Kathy Gruver, Professional Speaker

No one likes change, but it is a part of life. Delegates explored common reasons we are resistant to change. The speaker addressed the hidden reasons we want to stay unchanged and ways we can shift to a growth mindset and be more open and willing to inevitable changes in this life. This interactive presentation offered usable solutions to get your psyche ready to accept those changes in your life. Perhaps you'll even start to instigate changes previously shied away from.

Part 1: Power Line Safety Initiative

Michelle Brannon, Power Line Safety Initiative
Stan Brannon, Power Line Safety Initiative

Michelle and Stan Brannon, a Manufacturing Engineer and Utility Accountant, shared their unimaginable experience when their son was electrocuted in a power line contact. They have since dedicated their careers and lives to power line safety awareness and safety. Their work in Texas has led to new laws for line inspection and maintenance, increased regulatory oversight, and utility partnerships for public education. Delegates learned how electric utilities can share their expertise and exert their influence to make power line public safety a priority.

Pipeline Safety Trust

Amanda McKay, Pipeline Safety Trust

The Pipeline Safety Trust promotes pipeline safety through education and advocacy, increased access to information, and partnership with residents, safety advocates, government, and industry, resulting in safer communities and a healthier environment. Excavation damage prevention is one of the many ways in which industry, regulators, and the public can work together to create safer communities.

RAS System

John Brix, Professional Speaker

What is your Reticular Activating System (RAS) and what if you are not using it properly? What if you are preventing yourself from being successful, happy, and innovative? Delegates learned how the RAS System works, how to align this filter with their desires, and how to become much more successful and productive. Tools were shared allowing delegates to start to reprogram their RAS System preventing valuable external data from being filtered out while preventing negative, less desirable information from accessing your subconscious mind.

RP1162

Sam Minifie, API

In this session, delegates got an update on API RP1162, 3rd Edition. They learned how it has changed compared to the 1st Edition and what it means for operator public awareness programs.

State of Emergency: Cybersecurity Awareness

Sam Bloedow, Thriveon

Cybercrime is at an all-time high. How can you protect your business from an inevitable attack? Prevention starts with awareness and understanding of how an attack occurs. Whether your staff and data are centralized or remote and cloud-based, there are tried and true methods to protect your data and your business. Delegates learned more about the state of cybersecurity, anatomy of a cyberattack, basic security protections, and the business leader's role.

Strategies to Consider for Reducing Update Tickets

Susan Bohl, OKIE811
Jerrell Welch, OKIE811

Are you seeing an increase in update rickets in your state? Are tickets being updated but there's no excavation taking place? In Oklahoma, we've seen a major increase in update tickets and we're receiving complaints from locators that no one is working at the remarked site. So, what can we do about it and why would we look at reducing ticket volume? This session

focused on what we did, why we did it, and what other states are considering to help cut out what might be considered waste in the 811 system.

The Power of Safety First

Cliff Meidl, Cliff Meidl Enterprises

From electrical construction accident survivor to Olympian, Cliff Meidl's dynamic story shares his incredible journey of resilience, vision, and perseverance. Hear his remarkable story of how he overcame a near-death electrical accident and the vital tools he used to move beyond obstacles. Cliff demonstrated how worksite accidents affect both our employees and families. He discussed the steps he believes are most important in creating a safety culture of excellence.

Two Confined Space Standards – Which one is for you?

Bruce Magee, United Rentals

Although OSHA's construction industry-based confined space regulations were related in 2014, there is still confusion to which Standard should be followed. This session helped clarify misunderstandings between General Industry Standard, 1910.146, and Construction Industry Standard, 1926 Subpart AA. Keeping that in mind, the session addressed the importance of training your workers on the proper standard and provided ways to ensure everyone is compliant and safe.

Water & Sewer Infrastructure Protection Summit: Establishing Communication Between Locators and Excavators

Moderator: John Neilson, Waterworks District #1
Panelists: Daniel Bigman, Bigman Geophysical
Robert Edwards, Citizens Energy Group
Jay Hemley, City of Tacoma
Rick Vincent, City of Tampa

Delegates joined this industry-focused summit with a panel of leaders discussing the importance of establishing communication between locators and excavators.

What Will They Say About You?

Wylie Davidson, Legacy Safety Solutions

This session explored the core values of how to effectively leave a lasting legacy, knowing the difference and setting the right course for you to succeed. Leaving a legacy is something we all have in common, good or bad, and it's how we use the tools provided that allow us the ability to rise or fall.

Workflows to Make GPR Useful in Damage Prevention

Daniel Bigman, Bigman Geophysical

This presentation focused on varied workflows available for completing projects successfully. Old techniques of locate and mark are not outdated, but part of the larger tool. Mapping integrations, vehicle deployed multi-channel systems, rapid data processing, and augmented reality can supplement older methods depending on project scopes. This session presented the variety of options available to professionals today and evaluate what workflows are appropriate for a given scope.

You the Jury: Trial of an Underground Utility Damage Claim

Anthony Jorgenson, Jorgenson PLLC
Rich Nelson, Zayo Communications
James Proszek, Hall Estill
Tammy Wilfong, Verizon

Question the witnesses, view the evidence, be the jury, and decide the case. Practicing trial attorneys and expert witnesses presented a trial based on an actual underground damage case. The audience participated by asking questions of the judge, the lawyers, and the witnesses before rendering a verdict based on the evidence, testimony, and arguments they heared during the trial. ESM

If these topics could help you increase your industry knowledge and advance your career, then you belong in New Orleans at the 2024 Global Excavation Safety Conference, March 19-21! With content addressing issues and concerns of the different facets of the industry, there is something for everyone.

Learn more at GlobalExcavationSafetyConference.com. Registration is OPEN!

Potholing with Precision: Minimize Damage with Expert Vacuum Excavator Techniques

BY CHRIS THOMPSON, DITCH WITCH VACUUM EXCAVATION PRODUCT MANAGER

When it comes to uncovering underground utilities, there is no room for error. Even a small mistake can have serious and expensive consequences. With modern underground networks becoming more complex and congested, contractors are well aware of the risks that come with damaging existing utilities. To keep crews safe and minimize costly downtime, many contractors are turning to vacuum excavators to assist in damage mitigation. Vacuum excavators have become a popular tool in the arsenal of utility contractors, allowing them to work more accurately and with greater precision. They offer an efficient, effective and safe solution to the challenge of uncovering utilities through a process known as "potholing."

To aid in damage mitigation and keep jobsites efficient, it is vital to follow proper potholing techniques. From choosing the right nozzle to ensuring the proper water pressure, adhering to best practices in potholing can help underground construction professionals improve efficiency, increase productivity and enhance jobsite safety.

EXPOSING UTILITIES TO SUPPORT DAMAGE MITIGATION

Potholing is a technique that involves using a soft excavation method – a vacuum excavator – instead of a shovel or backhoe to create a hole and remove debris. Contractors use either air or high-pressure water (hydro) to safely dig underground to expose an existing utility. It is essential to excavate to the depth of the bore, particularly when going under utilities, so that operators can physically see the drill bit and pipe safely passing under the utility. This step is crucial for preventing damage to existing utilities and ensuring jobsite success.

As a best practice, contractors should start small, utilizing air or water excavating method, and expand as needed. This ensures that contractors won't make a bigger hole than what is needed, streamlining efficiency and keeping operators productive. If contractors are struggling to expose utilities in hard soil or heavy clay, hot water heater packages are an option with most vacuum excavators. Using hot water can help break down clay without applying additional water pressure. However, operators should keep the temperature below 130 degrees Fahrenheit for best results.

• **QUICK TIP**: The recommended pressure for potholing is no greater than 2,800 psi. Although many vacuum excavators offer higher psi capabilities, too much pressure can damage utilities. The pressure should be reduced even further if using heated water.

EXCAVATING IN A VARIETY OF GROUND CONDITIONS

Today, most equipment manufacturers design vacuum excavators with both air- and hydro-excavation capabilities, so operators don't have to choose between the two. For example, contractors can start excavating the ground surface with air and switch to hydro once they reach harder soil formations. The water will cut through the clay and be sucked into the spoils tank to mix with the dry spoils from the air excavation. With the ability to switch from hydro to air, operators can better adapt to changing jobsite conditions and stay productive in a variety of ground conditions.

When choosing between hydro or air excavation, contractors should consider the jobsite and soil conditions. For example, pressurized water typically exposes utilities faster than air. However, air is the better choice when working in areas where contractors are worried about an overcut, next to a highway or transportation work. This is because air typically displaces less soil and reduces the worry of washouts near roadbeds.

Hydro excavation uses pressurized water to do the hard work. For example, rock, cobble, clay and sandstone are a few of the most difficult soil types to excavate and, as a result, they take the most time. Operators facing rocky or sandstone conditions should use hydro excavation with hot water as it more effectively cuts through difficult soil. Because hydro excavation requires operators to dispose of liquid spoils and replenish water sources while on the jobsite, following best practices for water conservation is important. However, the ability to conquer various soil conditions quickly and efficiently makes hydro excavation the preferred method for many contractors.

• **QUICK TIP**: If operators are not getting enough pressure from their vacuum excavator, they should check their filters, as clogs can cause issues with water pressure.

Air excavation allows operators to break up soil with compressed air and vacuum dry spoils,

which can be reused onsite as backfill. This method works best on softer soils such as topsoil, sand and some clay formations. Unlike hydro excavation, which requires access to water, air excavation keeps machines running and operators on the jobsite without having to make trips to acquire water or dispose of liquid spoils. Additionally, many operators are turning to air excavation on jobsites as liquid spoils disposal restrictions tighten and certified disposal sites become more difficult to find.

Additionally, air excavation doesn't create a slurry, it keeps more of the soil together and limits the chance of the hole caving in on itself. Contractors who are looking to ensure a clean hole or who are working on an extra sensitive jobsite – like a golf course – should opt for air excavation.

• **QUICK TIP**: Some municipalities even require air excavation to be the first option in sandy ground conditions.

TIPS FOR NOZZLE OPERATION

Operators should constantly keep the nozzle moving within the excavation and not focus the water in one specific area. One way to ensure that operators keep the water moving and efficiently digging is by using the proper nozzle. For example, when hydroexcavating, operators should use a rotating or oscillating nozzle to deliver a stream of circulating water. A stream of circulating water will help keep the water moving through and prevent excessive pressure from consistently hitting a specific area, aiding in utility damage prevention and maintaining jobsite productivity.

As another best practice, operators should keep the nozzle six to eight inches away from the utility and out of the dirt. Holding the nozzle too close to the utility increases the risk of damage. To prevent the nozzle from clogging and avoid costly downtime, the nozzle should never impact the soil or be used as a shovel to dig. When using an air excavator, it's even more important to avoid putting the nozzle in the ground, as cleaning dirt out of the nozzle can be more challenging with air excavators.

• **QUICK TIP**: If the water pressure is low, operators should check the nozzle to ensure nothing is hindering the nozzle's flow.

PREVENTING UNDERGROUND UTILITY DAMAGE

Contractors can prevent underground utility damage effectively and efficiently by correctly exposing utilities at the job site. By implementing potholing techniques and adhering to best practices, operators can optimize efficiency and guarantee job site safety. As the demand for underground construction projects has increased, vacuum excavators have become essential tools that assist in preventing damage and enhancing job site productivity. Understanding the distinctions between hydro and air excavation and utilizing the appropriate nozzle and PSI will ensure operators are well-equipped for success. ESM

Hydro- and Air-Powered Vacuum Excavation

BY SCOTT PLUMB


Large capacity hydro vac truck with hose boom

There are many uses for manual excavation and hydro or air excavation (frequently called "vac systems"). The main use in the underground utility industry is to expose existing utilities to keep workers safe while installing other utilities with boring or trenching methods. Other uses of these vac systems can be to clean out manholes, sewers, culverts, excavations full of water or mud; or to install posts or poles, tunnel under walls and sidewalks, slot trench short distances, pothole for engineering purposes, pre-design, and other uses.

Underground rights-of-way and utility easements are becoming increasingly crowded, especially with fiber optic buildouts from multiple vendors. Potholing of existing utility crossings and closely parallel installation is the only safe way to verify the location of these utilities in order to avoid them while installing new facilities in the ground. We have used these positive verification methods since our founding, saving us untold thousands of dollars in damages and crew downtime while repairs are made, far offsetting the costs of potholing. Plus, there is increased goodwill shown by municipalities and utility companies.

Potholing with shovels or backhoes to find existing utilities used to be the norm and is still an accepted practice. Manual excavation is labor intensive, time consuming, and leaves an area for landscape restoration reflecting the size of equipment used. Weather and soil conditions also play a large role in the damage to the surrounding area while excavating.

In the late 1960's, the first hydro excavation system was produced. As designs and technology improved over time, air-vac and hydro excavation systems became more compact and powerful excavation systems. Today, they are both in widespread use, with hydro excavation being used more often. Both air and hydro are effective systems depending on soil content and the specific use of the systems. Both also have a high degree of safety concerning the existing utilities. The high-pressure air or water pulverizes or liquifies the soil respectively while not damaging underground pipes or cables. These exposed utilities are then identified, measured for depth, and direction verified so installation of new utilities can be done safely.


Pothole in grass

Potholing of existing utilities can be done in almost any environment. Potholes are typically started with small holes at the surface, then enlarged and deepened as needed to find the existing utility. Some are quite large and deep before the successful completion of the hole. The size greatly depends on the accuracy of the initial One Call utility locate done to find the areas that need to be potholed. Potholing in grassy areas is the easiest. However, sidewalk, parking lot, and street potholes are also common. Concrete or asphalt potholes are more complicated. First, a core is cut in the concrete or asphalt, typically 6-12" in diameter, using a water-cooled, diamond-tipped core drill. These cores are saved for later restoration. The pothole is then made with the vac system to find the utility, which is then identified, measured, and directionally verified. When ready for restoration, most municipalities and building owners require flowable fill (thin concrete) to be poured back in these holes up to the depth of the core to adequately fill all the voids. The saved cores are then placed back in the hole and expanding grout is used to cement them permanently in place. Codes can differ for this procedure between municipalities.

Both hydro and air systems can typically be run by one operator. These units can each be skid-mounted for placement in truck beds, trailer-mounted for towing behind vehicles, or truck-mounted permanent complete systems. There are advantages to each of these units. Skid-mounting makes the units portable between vehicles and trailers and easily removable for repairs. Trailer-mounting is useful because you can haul them with many vehicles, so the unit is not shut down for truck repairs. However, the added length of truck and trailer can make it more cumbersome in some situations. Truck-mounted units are more compact and have a shorter footprint for smaller space requirements (like city streets). The downside to these units is if the truck breaks down, the system is also out of service. Typically, the larger the unit, the more suction created and the easier it is to move more spoils into the tank. Air-vac excavation systems are especially effective

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ISSUESPOTLIGHT

SUMMER 2023

Compact hydro vac truck with gas engine

in sandy or loose type soils, but are less effective in hard clay soils or frozen ground. These air-vac systems are comprised of a high-pressure air pump with a small hose and an air lance (wand) with a nozzle designed to cut and pulverize the soil as much as possible. The results are then sucked through a large hose, typically 3-12" in diameter, then into a large tank. After the pothole is complete and ready for restoration, a large door on the back of the tank can be opened and the tank tilted to dump the spoils back into the hole for compaction where this type of backfill is appropriate. If the spoils cannot be used for backfilling, they must be hauled away to a dump site.

Hydro excavation systems are more common due to the types of soil they can excavate. These "vac systems" are comprised of a water tank with a high-pressure water pump, a small hose, a wand, and a high-pressure tip to cut and liquify the soil. The results are then sucked through a large hose, typically 3-12" in diameter, through a filter system into a large tank. These spoils must be hauled off for disposal at a public or private dump site. Private sites can be expensive places to dump over time. Large pools, length of drying time, and the consistency of the hydro vac spoils are part of the reason for the high cost. In the Kansas City area, it can cost up to $90 to dump one tank load. At K & W Underground, we save money by dumping the spoils on a company land plot. After allowing the liquified mud to dry, it is pulverized and used for top soil and backfill when appropriate.

The more utilities placed in the ground, the more crowded this environment will become. In the future, these vac systems will be necessary to maintain the integrity of existing utilities and to protect the public. ESM

(This article previously ran in the 2019 *dp-PRO* Summer Issue.)

Scott Plumb is Consulting & Design Engineer for K & W Underground Inc. He has been in the aerial and underground utility contracting business for over 38 years. He can be reached at splumb@kwunderground.com.

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The Economic Loss Doctrine and Why it Matters in Utility Damage Cases

BY ANTHONY JORGENSON

SETTING THE STAGE

ACME Excavation has a problem. Earlier this year, ACME contracted with XYC Telecommunications to install a new buried fiber optic cable between two existing handholes along the south side of Highway 1. In accordance with State law and safe excavation practices, ACME notifies 811 of its intent to excavate. The following day, Gas Company responds to the locate request and marks Gas Company's buried pipeline in the proposed excavation area. Unbeknownst to ACME, Gas Company's locator mismarked the pipeline and ACME damages the mismarked utility during the course of its excavation.

Fortunately, none of ACME's equipment or employees were injured. However, ACME's work was delayed for three days while Gas Company performed repairs. During this period, ACME could not use its equipment, paid idle employees, and incurred overtime expenses to timely complete the project when it was finally able to go back to work.

Adding insult to injury, six months later, ACME received an invoice from Gas Company for the cost of its repairs. ACME does not believe it is responsible for the damage to the pipeline because Gas Company's locator failed to accurately mark the pipeline. In addition, ACME believes it should be able to offset Gas Company's claim by the amount of downtime costs ACME incurred while Gas Company repaired the pipeline.

Is ACME entitled to credit its downtime costs against Gas Company's claim? The answer, which should come as no surprise, is: Maybe.

THE ECONOMIC LOSS DOCTRINE

Black's Law Dictionary defines a tort as "a legal wrong committed upon the person or property independent of contract." Negligence, the most common tort claim, is the failure to exercise the care that a reasonably prudent person would exercise in similar circumstances.

The Economic Loss Doctrine (ELD) is a court-developed doctrine that has been adopted by the majority of states. The ELD generally bars recovery in tort when the negligence of others results in purely economic losses, such as delay or downtime costs.

THE MAJORITY VIEW

A majority of jurisdictions interpret the ELD to mean, "that a plaintiff who has suffered only economic loss, such as downtime, due to another's negligence has not been injured in a manner that is legally cognizable or compensable." These jurisdictions do not permit recovery in tort for purely economic losses. According to a recent state law survey, 27 states follow this majority view, including: Alabama, Delaware, Hawaii, Idaho, Indiana, Kentucky, Maine, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Vermont, Wisconsin, and Wyoming.

For example, in a case decided under Texas Law, Coastal Conduit & Ditching, Inc. v. Noram Energy Corp., Coastal, an excavator, sued Noram, a gas line operator. Coastal claimed Noram's failure to mark, or to accurately mark, its lines caused Coastal to incur additional expenses (20 to 30 minutes on each job) to use hand tools to locate the gas lines. Noram claimed Coastal should not recover any damages because Coastal had alleged only economic loss and did not allege any property damage or personal injuries, and the ELD barred Coastal's claims. The Court agreed, holding that in the absence of a contract, personal injury or property damage (to Coastal's own property), Coastal was not entitled to purely economic damages (i.e., downtime).

Simarly, in the Pennsylvania case Excavation Technologies, Inc. v. Columbia Gas Co. Of Penn., Excavation Technologies, Inc. ("ETI") requested Columbia Gas to mark the locations of its gas lines around the work sites pursuant to the Pennsylvania One Call Act (the "Act"). Columbia improperly marked some lines and failed to mark others. ETI struck various gas lines. This hampered ETI's work

and resulted in economic damages. ETI, however, did not sustain any physical injury or property damage. ETI sued Columbia, claiming Columbia failed to comply with its statutory duties under the Act. Columbia argued the ELD precluded liability to ETI. The Pennsylvania Court agreed, finding that "the legislature did not intend utility companies to be liable for economic harm caused by an inaccurate response under the Act, because it did not provide a private cause of action for economic losses." The Court further reasoned that the purpose of the Act was to protect against physical harm to individuals working on construction sites, and to avoid property damage to utilities and surrounding property. The Court observed that under the Act, excavators, not utility owners, retain the duty to identify the precise location of buried facilities and opined that permitting recovery for economic losses would shift the burden of excavators who are in the best position to employ safe excavation practices to prevent utility damages to utility operators, the cost of which would inevitably be passed on to consumers. The Court concluded that until the legislature expressly permits excavators to recover purely economic losses under the Act, "we decline to afford heightened protection to the private interests of entities who are fully capable of protecting themselves, at the public's expense."

Thus, in states following the majority view, an excavator who damages an unmarked or mismarked buried utility may not recover downtime or delay damages against a utility operator in the absence of some personal injury to its employees or actual physical damage to its equipment.

THE MINORITY VIEW

In a minority of jurisdictions, recovery in tort is permitted for purely economic losses notwithstanding lack of privity among the parties. Courts applying this minority view allow tort recovery for economic loss in limited circumstances. A recent survey of state laws concluded that this view of the ELD has been applied in varying degrees is at least 18 states, including: Alaska, California, Colorado, Florida Georgia, Illinois, Iowa, Kansas, Maryland, Massachusetts, Michigan, Montana, New Hampshire, Oregon, Rhode Island, Utah, Washington, and West Virginia.

In the utility damage context, courts that permit excavators to recover purely economic losses in tort have typically done so in reliance upon the "Independent Duty Rule" exception to the ELD. In states like Illinois and Florida, this rule allows for the recovery of economic loss damages in tort when an independent duty exists, such as a duty imposed by state excavation damage prevention statutes.

For example, in Illinois Bell Tel. Co. v. Plote, Inc., Plote, a highway contractor, filed a counterclaim alleging that Bell's failure to mark, and/or to adequately mark, the location of its facilities, caused delays in the construction resulting in downtime damages to Plote. The trial court dismissed Plote's claims based on the ELD. On appeal, the Court of Appeals held that the Illinois Underground Facilities Damage Prevention Act imposed upon Bell a duty to mark the location of its underground facilities and that the ELD therefore did not bar Plote's downtime claim.

Similarly, in A&L Underground, Inc. v. City of Port Richey, A&L was excavating in the City of Port Richey. The City failed to accurately locate and mark its underground utilities as required by Florida's Underground Facility Damage Prevention and Safety Act (the "Act"). As a result, A&L hit the City's underground lines, which caused A&L to incur delay and repair costs. When A&L sued the City for violation of the Act, the trial court held that because A&L had not suffered any physical injury or damage to its own property, A&L's claim was purely for economic losses, and that A&L could therefore not recover damages from the City. The Florida Court of Appeals reversed the trial court and concluded that the clear language of the Act allowed recovery for purely economic losses. The Act permits an excavator, such as A & L, to recover "for the total cost of any loss."

CONCLUSION

The ELD is widely misunderstood and often misapplied in the context of utility damage claims. In the majority of jurisdictions, the ELD precludes excavators from recovering delay, downtime, and other purely economic losses from utility owners who fail to mark, or mismark buried utilities in response to locate requests. However, in some jurisdictions, downtime claims may be recoverable.

Generally, the viability of downtime claims depends upon whether the applicable damage prevention statute imposes an independent duty upon utility owners, the breach of which creates a cause of action in favor of the excavator for purely economic losses. Proposed legislation in "majority view" states such as Oklahoma and others, if passed, may soon change the landscape for excavators like ACME. For example, in Oklahoma a recent bill would, if passed, permit "an excavator to recover damages from an operator for the cost of: . . . [d]elays associated with an operator not locating underground facilities within a maximum of three (3) business days, unless a documented agreement is in place to delay the locate.". Because the recoverability of economic losses in utility damage cases may significantly impact utility operators, contract locators, excavators, insurers, and consumers alike, all stakeholders would be well served to stay abreast of One Call legislation in the jurisdictions in which they operate. ESM

Utility Mapping and Hydro Excavation

BY JONNIE PANGERL

Being a hydro excavator for over nine years, I have worked with and alongside numerous utility facility owners, installers and maintenance companies. I have noticed a greater demand for hydro excavation than ever before, and the need is ever expanding. Over the 11 years my company has been in business in Minnesota, we have increased the number of trucks we send out every day from one truck in 2009 to over 50 trucks in our region. With the current population rising and the availability of new technology growing more rapidly than ever, there are more utilities going into the ground than anyone knows what to do with! So, what are the hardships we see daily in the underground utility world?

Sometimes utilities are installed into a joint trench with multiple sets installed together, making the locator's job complicated and leaving the contractor to decipher where each utility is.

UNLOCATABLE UTILITIES

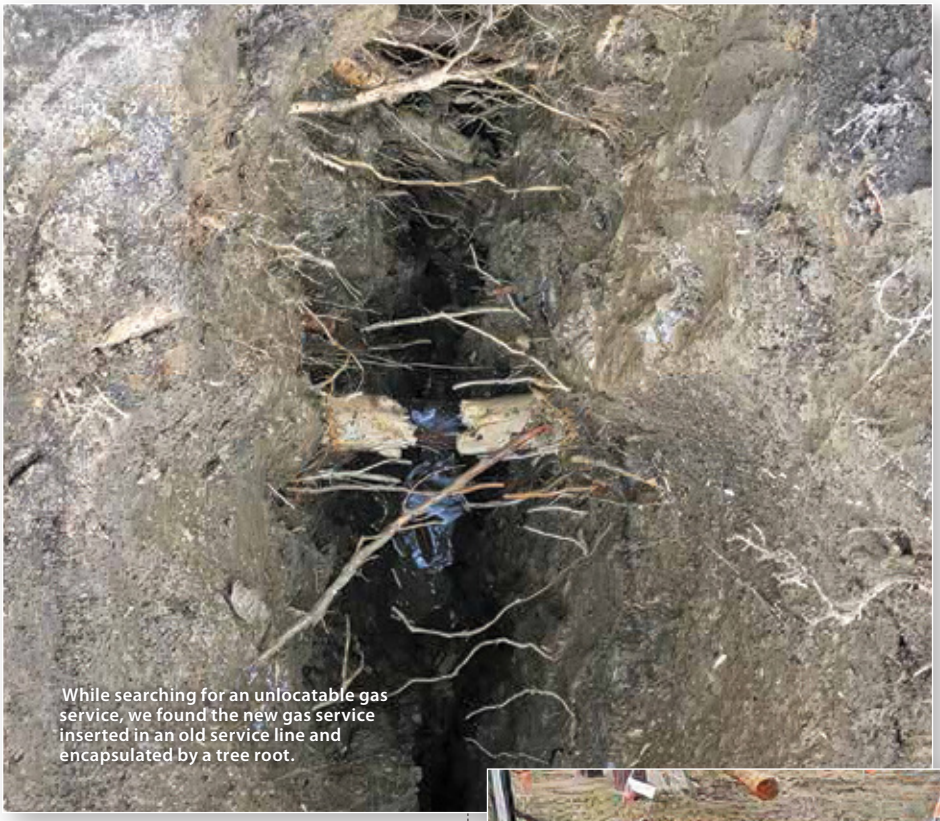
What are they, and how can we find them? An unlocatable utility is any utility or structure that exists underground where the location is not known and cannot be detected. Ground Penetrating Radar (GPR) is one of the first options available to try to locate the utility. However, GPR is usually more effective on shallower utilities, especially ones that are more conductive. Utilities such as terracotta pipe, also known as clay tile, is typically installed deeper and is non-conductive. A tracer wire is typically installed alongside non-conductive pipe and cable. An issue with tracer wire is that it becomes more brittle with age and there are opportunities for it to break or short out. It is in situations like these that hydro excavation comes in handy. As industry professionals, we utilize our past experiences on how these utilities are typically installed and use exploratory-safe digging techniques to locate and mark the utility. We work with the contractor to develop a plan on where to start digging, eliminate potential vacant areas and maximize our time on the job to find the utility.

ABANDONED UTILITIES

Abandoned utilities become more common every day because facility owners are having a hard time keeping up with the growth and maintenance of their utilities. There is so much demand to get newer and larger pipe and cable into the ground to keep the world moving and safe that they often do not have the time to remove existing cable or pipe that is being replaced. This can wreak havoc for contractors working on or around the utilities. Typically, there are no marks on the ground for these abandoned utilities and the contractor may find multiple sets when only one set is marked. In this circumstance, there is a stop work plan; sometimes it can take days to figure out how to proceed. Other times, the locator picks up the abandoned utility, assumes it is live, and unknowingly fails to mark the live utility. This is another way hydro excavation adds value. We can dig safely around these utilities to create a large enough hole for the facility owner to get

While digging a bell hole, unmarked power was found on the back side of the pit.

"With the current population rising and the availability of new technology growing more rapidly than ever, there are more utilities going into the ground than anyone knows what to do with! So, what are the hardships we see daily in the underground utility world?"



While searching for an unlocatable gas service, we found the new gas service inserted in an old service line and encapsulated by a tree root.

down close enough to identify what the utilities are and which ones are live.

BENEFITS OF HYDRO EXCAVATION

Using a GPR locating device is a great ways to get a ballpark idea of where the utilities are located. Unfortunately, contractors are often in a very restricted and/or small area and their window of error is minimal. Often, locators can be off with their marks, sometimes 10-15 feet. This can happen for multiple reasons. This can put contractors in a very dangerous position and could cause utility damage, injury, or even death to workers. Having the locate company mark the utility and following up with verification potholing by a hydro vac can be the safest play out there.

Contractors use hydro vac to safely dig around congested areas. This instance was a pole hole and a trench for a power company.

There are several benefits for using hydro excavation in both pre-planning and during your project. Our contractors have found the most accurate way to get locations on the utility is by having us physically spot the utility. We can develop a plan with the engineers, project managers, and designers on how often to locate the utility laterally for the specific project. This gives everyone a concrete plan of the room they must work within for a damage-free excavation. In some instances, we have had to completely expose a utility to shift it out of the way so the project can be completed safely and efficiently.

The mapping of utilities is a big problem for all contractors. Mapping has been around since the beginning, but with the addition of so many utilities in the right-of-way, it has become a struggle just to find them or interpret them correctly. New resources to our utility industry have now allowed these maps to go digital, which has helped. The downside is that roads are still being built, widened, raised, and lowered regularly.

A lot of past mapping has been recorded off road centerlines, street intersections and multiple other reference points that are ever changing. Homeowners deciding to redo landscaping and changing the configuration of the lay of their land is another huge hurdle. Often there is no update to the records that exist when this happens, For the smart contractor, hydro excavation is becoming the go-to for working on and around utilities! ESM

(This article previously ran in the 2021 *dp-PRO* Summer Issue.)

Jonnie Pangerl is Project Manager for Davids Hydro Vac (DHV) and a member of the Minnesota Underground Utilities Mapping Project Team chaired by Gopher State One Call.

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"I enjoyed the classes, fellowship and built a few lasting relationships."

David J Coiteux,
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NW Natural

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75% of attendees surveyed stated that there is a very good or excellent chance that their company will further explore products or services found at this year's event.

"It's just a fantastic event...It's certainly worth the opportunity to spend a few days with your industry colleagues and friends and learn a lot about how to improve the state of the industry."

- Jim Plasynski, CRO of KorTerra

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Global ESC Summits

STAFF REPORT

Fiber Optic Asset Protection Summit: Infrastructure Bill - Discussing the Unknowns

Moderator: **Christopher McDermott, AT&T**

Panelists:

- **Shane Bryan, Ritter Communications**
- **George Kemp, MetroNet**
- **Andrea Stainback, Lumen**

One of the main issues discussed during the summit was the increased strain on notification centers due to an influx of tickets. In 2022, a center in the northern United States saw an increase of 25,000 tickets in one month compared to the same month the year prior. Damages have also seen a spike in some areas. Christopher expressed surprise at the magnitude of fiber cuts, stating, "I truly did not expect a 110% increase in the amount of fiber cuts on my long-haul network." The backlog of tickets has also led to some communication challenges between locators and contractors. In the midst of these challenges, there is an opportunity to upgrade the nation's aging infrastructure. As Shane noted, "It's a race to get it into the ground as fast as possible before your competitor gets it in the ground right in front of you." Some fiber lines are nearly 40 years old, and the Infrastructure Bill provides a chance to modernize this critical aspect of our telecommunications networks.

To address the issue of demand peaks, more efficient ways of inputting tickets into the system were discussed by some members of the audience. Communication and coordination were identified as key factors in overcoming obstacles. George went beyond just “communication” and emphasized the need to "build empathy and be able to understand the other person's point of view." Micro-trenching has emerged as a popular solution for fiber deployment in metropolitan areas, but it presents its own set of challenges. While the upfront cost may be lower, maintenance can be both difficult and costly. The panelists also discussed the shift from aerial fiber to underground deployment going forward. The majority of poles in the United States are at max capacity, prompting a transition from 60-70% aerial and 30-40% underground to the inverse in the near future.

Andrea reminded attendees, "We need to continue to think about safety first, we never want to put people in harm." As the industry races to expand and modernize fiber networks, it is crucial not to overlook safety considerations. The Fiber Optic Asset Protection Summit provided valuable insights into the challenges and opportunities presented by the Infrastructure Bill. As the industry moves forward, it must prioritize communication, coordination, and safety to capitalize on the potential for growth and modernization.

Water & Sewer Infrastructure Protection Summit: Establishing Communication Between Locators and Excavators

Moderator: **John Neilson, Waterworks District #1**

Panelists:

- **Dan Bigman, Bigman Geophysical**
- **Robert Edwards, Citizens Energy Group**
- **Jay Hemley, City of Tacoma**
- **Rick Vincent, City of Tampa**

John opened the summit by highlighting the importance of water and sewer infrastructure, stating, "Damaged water and sewer lines might not grab the headlines as much as other utilities, but water is the only thing we cannot live without." The panel discussed the potential "perfect storm" of the fiber optic boom combined with aging water and sewer infrastructure, which could lead to a dramatic spike in damages. A key theme of the summit was the value of communication between all parties involved. Situations have occurred where crews were sent out to excavate where no lines were ever marked. This delays projects and wastes excavators’ time. However, Rick acknowledged the need for excavators to improve their practices as well, stating, "I don’t want to blame it all on the locators, because we can do better too." He noted that sometimes excavators call in locates but don't complete projects within the allotted time, causing locators to return multiple times.

Jay shared his experience of working closely with locators, explaining that he is on a first-name basis with many of them. Jay also emphasized that this close relationship creates a safer workplace and helps avoid damages. Dan suggested that project site surface conditions should dictate the markings used, but beyond just effective communication via paint and/or flags, it was reiterated that having firsthand institutional knowledge from locators and utility representatives by keeping the line of communication open is the true difference maker. The panelists agreed that open communication is essential to prevent accidents and ensure the safe execution of projects. They also reinforced that important communications are already being triggered by the notification system itself, such as if the proposed project is within close proximity to high-profile utility assets.

Robert shared his approach to education, stating, "Each year I send damage prevention training information to contractors that have damaged our water lines." This practice helps educate contractors and reinforces the importance of following proper procedures. They discussed various strategies to foster better communication, such as having toolbox talks with out-of-state contractors, and providing multiple contacts to locators so that there is always someone they can reach. The Water & Sewer Infrastructure Protection Summit emphasized the critical role of communication between locators and excavators. As John aptly put it, "What we have is a failure to communicate." By fostering open communication, providing appropriate training, and sharing knowledge, the industry can mitigate risks and protect our essential water and sewer systems.

Notification Center Summit: What Makes a One Call Law Fair and Effective?

Moderator: **Susan Bohl, OKIE811**

Panelists:

- **Sandy Holmes, Arizona 811**
- **John Sparks, Texas811**
- **Mike Sullivan, Utility Safety Partners**

Building on the Excavation Safety Alliance Town Hall held on July 14, 2022, the discussion focused on the importance of enforcement, fairness, and communication among stakeholders involved in the One Call process. Mike emphasized that "legislation has to be logical," while Sandy stated that "if there is going to be a requirement on an excavator, there should be an equal, contrasting requirement for the facility owner." The panelists agreed that enforcement of One Call laws varies across states and that laws without enforcement are merely guidelines. A key aspect of effective legislation is the equality of reciprocity, as Mike highlighted.

The panelists discussed several aspects of fairness, such as facility owners being obligated to notify excavators if marks are delayed and that excavators should be able to bill for their downtime. They also touched upon the importance of not overburdening the system with unnecessary marks or requesting emergency tickets when they are not truly needed. Arizona's Locate Resolution Partnership was cited as an example of a successful initiative that brings together stakeholders, including excavators, facility owners, contract locators, engineers, and enforcement agencies, for open dialogue and problem-solving. John pointed out that One Call centers do not create laws but play a vital role in educating lawmakers. Sandy indicated that there has been a national shift away from a single source of enforcement towards enforcement boards, composed of cross-sections of stakeholders, to better meet the expectations of federal agencies.

The panelists also discussed the potential benefits of allowing excavators to perform their own locates, which could help alleviate the problem of late locates. This approach may require more flexible legislation that doesn't demand specific locating and marking practices. A significant theme in the conversation was the importance of communication between excavators and facility owners. Building positive responses or two-way communication can lead to better outcomes and improved relationships among stakeholders. Emergency locate tickets were described as a "handshake agreement" that don't receive much vetting. Repeated abuse of calling in emergency locates when they are not warranted can result in facility owners charging excavators for the cost of the locate, an area identified as ripe for improvement. Overall, the summit emphasized the need for fair and effective One Call laws that promote equality and reciprocity. Improved enforcement, open communication among stakeholders, and flexible legislation that allows for innovative solutions are key to ensuring the safety and efficiency of the One Call process.

Electric Safety Summit: What Are the Best Practices for Preventing Damage to Electric Cables Above and Below Ground?

Moderator: **Cliff Meidl, Cliff Meidl Enterprises, LLC**

Panelists:

- **Glen "Cookie" Cook, Electrical Safety Consultant**
- **Kelley Heinz, ComEd**
- **Brandy Kitchel, Georgia Power/Georgia 811 Board**
- **Lisa McKnight, City of Lawrenceville**

Cliff began the summit by highlighting the significance of electric

accidents in the United States, pointing out that they remain one of the leading causes of workplace fatalities, according to OSHA. Lisa added that “we don’t have many electrical damages, but when we do, they are major." Kelley emphasized the role of public outreach and education in reducing damages, stating, "Public outreach and education play a big factor in reducing those damages." Brandy stressed the importance of broad awareness of overhead lines, praising the 811 system for its success in increasing safety awareness related to underground utilities and noting, "We need to have similar broad awareness of overhead lines because they are just as dangerous."

Glen stressed the importance of visually verifying cable locations before digging, asserting, "You have to lay eyes on the cable before you can use machinery." Discussing international perspectives was also a big focus; the panel cited Australia as an example where the ratio of overhead to underground electrical contacts is 25 to 1, largely due to the agricultural sector’s trucks encountering powerlines. Australia has started using ROTAMARKA Power Line Markers, which offer an effective visual warning to alert drivers of surrounding power lines. Public awareness campaigns, such as Los Angeles' "Look Up, Look Out" and informative applications, such as Australia's "Look Up and Live," have focused on overhead line safety as well. Australia's "Look Up and Live" app specifically helps to promote adequate planning and safe working requirements near powerlines. The panel stressed the importance of situational awareness, particularly when people contact overhead powerlines with their vehicles. In such cases, the safest course of action is to stay in the vehicle and call for emergency services. Glen reiterated that point by providing these steps, “STAY in the vehicle, CALL emergency services, and WAIT for help.”

In conclusion, the Electric Safety Summit highlighted the importance of public education, situational awareness, and international cooperation in developing best practices. The panelists also agreed that the key to their damage prevention programs is promoting safe work practices and behaviors, as well as auditing those safety programs already in place. Actively observing compliance with those plans is crucial. By learning from each other and implementing robust safety measures, stakeholders can work together to minimize the risk of accidents and fatalities involving electric cables.

Global Locate Summit: How Can Every Role, Including Yours, Influence On-Time Locates?

Moderator: **Scott Landes, Infrastructure Resources**

Panelists:

- **Hannibal Dennis, Vannguard Utility Partners, Inc.**
- **Jess Miller, Northern Lights Locating**
- **Matthew Wolf, ImpulseRadar**

A significant topic during the panel discussion was the importance of communication between all parties involved in the locating process. Scott emphasized that open dialogue between stakeholders leads to better outcomes, stating, "There is no loser when everybody talks. Everybody comes out ahead." Jess noted, "There has been a level of distrust over the years between locators and contractors." The panelists emphasized that fostering better communication and collaboration could help alleviate this mistrust. Effective communication includes early notice for large projects, which allows locating companies to increase staffing and ramp up training accordingly. The panelists mentioned that pre-construction meetings, involving coordination between municipalities, utility owners, locators, and contractors, are beneficial for having everyone on the same page before the project starts.

Efficient workflows also play a crucial role in achieving on-time locates. Matthew highlighted the significance by stating, "The key is training and building efficiency into the day that the technician is out there." Hannibal proposed an approach to improve efficiency: "The best thing any One Call center can do is a midnight ticket." This would allow utility locators to route themselves efficiently without chasing incoming tickets during the day. Streamlining the process with ticket management software, locating devices, and making GIS platforms accessible to utility locators can contribute to increased efficiency as well. The panelists addressed the need for updated technology, such as increasing the utilization of ground-penetrating radar and the implementation of augmented reality. They also briefly discussed the misconception that ground penetrating radar is too complicated or time-consuming.

In addition, the panelists highlighted the challenges posed by staffing issues, finding qualified personnel, and addressing profit incentives that might bog down the system. Some utilities have even begun taking locating back in-house due to contract locating companies being unable to keep up with demand. The panelists agreed that while communication is vital, it should not be the sole answer. Instead, they argued for a combination of efficient workflows, advanced technology, and streamlined processes to achieve on-time locates and improve the overall system. Scott also mentioned that reaching C-suite level executives would be essential to make a difference in the industry. By fostering collaboration between stakeholders and addressing the challenges faced by the industry, it is possible to improve the locating process and contribute to a safer and more efficient system.

Pipeline Safety & Awareness Summit: Where Are You in the Evolution of PSMS?

Moderator: **Kesley Tweed, Pipeline Association for Public Awareness (PAPA)**

Panelists:

- **Tina Beach, CHS**
- **Scotty Davis, Colonial Pipeline**
- **Jim Francis, ENTRUST Solutions**
- **Tim Teel, Summit Utilities**

Pipeline Safety Management Systems (PSMS) are a systematic and deliberate approach to improving the safety of workforce assets and the public through a focus on risk management and mitigation. The panelists

The vLoc3 Utility Locators introduces new innovative tools for locating buried utilities assuring damage prevention while gathering information for analysis. Signal distortion is easily detected and displayed on the bright full-color display. The vLoc3 series contains eight passive modes, fault-find and a range of frequencies from 16Hz to 200 kHz. **www.vxmt.com**

The Pipeline Ag Safety Alliance is a unique public awareness initiative that has educated the agricultural community by teaming up with the National Association of County Agricultural Agents to help deliver safe digging messages to farmers and ranchers around the nation. Get involved at PipelineAgSafetyAlliance.com.

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- **94.13% found value in attending the Town Hall**
- **97.07% plan on attending future Town Halls**

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emphasized the importance of executing the process effectively and applying quality management principles. Jim advised companies starting with PSMS to "start with risk management and figure out where your risks are." The panelists addressed questions such as how to improve safety, assess the effectiveness of measures, and ensure meaningful changes are taking place. A common theme throughout the discussion was continuous improvement. Tim stressed the significance of building relationships and direct communication to prevent complacency around hitting gas lines: "It's impactful to make people ambassadors for 811 and the damage prevention process." Scotty shared examples of continuous improvement at Colonial Pipeline, including implementing weekly fixed-wing aerial patrols, AI software-assisted photo analysis, and overhauling numerous procedures to enhance the program's effectiveness.

Tina highlighted the importance of engaging stakeholders at all levels and in all communities: "It's not just about the compliance component, but am I connecting with those people who work and live near our pipeline." The panelists underscored the importance of progress over perfection, emphasizing that incremental improvements are crucial in PSMS implementation. They also acknowledged the growing trend of utility operators engaging contractors as partners in PSMS, fostering a culture of safety through tailgate talks and safety meetings. As Tim pointed out, "You are only as good as your worst contractor."

In terms of technology, the panelists discussed the role of AI in risk models and how its continuous development will help predict and minimize risks more effectively in the future. They also stressed the importance of keeping the PSMS process simple and not overly complicated, especially for smaller organizations. The panelists highlighted the voluntary nature of PSMS and how demonstrating the effectiveness of a system in maintaining safety and reliability can help gain buy-in from upper management. Tina emphasized the critical role of data in this process: "You don't manage what you are not tracking, so you have to know your data. Data is critical to getting buy-in and moving forward." By implementing the principles of risk management, continuous improvement, effective communication and fostering collaboration between stakeholders, the industry can work towards a safer and more reliable future.

Excavator Perspective Summit: How Are Contractors Having Success in Preventing Utility Damage?

Moderator: **Wayne Jensen, Stahl & Associates**

Panelists:

- **Sharon Beck, TECO Peoples Gas**
- **Don Campbell, The Kearney Companies**
- **Joe Grosklos, USIC**
- **Kevin McLaughlin, Rowland, Inc.**

The summit discussed the challenges and best practices in preventing utility damages during excavation projects. Wayne explained the importance of collaboration and communication from the start by saying, "We've been running a damage prevention partnership where we gather together on a monthly basis talking about what we can do to work together with the utilities and contractors to make sure both of us get what we need." Our panelists emphasized the role of communication in reducing frustration, which Wayne identified as a leading cause of damages. Establishing open lines of communication from the beginning can greatly decrease frustration and help avert utility damages.

Kevin shared a recent experience where his crew encountered an unmarked utility, which caused a three-day delay in the project. Quick solutions to such situations are crucial to maintain productivity and positive relationships between contractors and facility owners. Joe illustrated the impact of individual actions with a story about a utility locator, on his way home from work, who helped a contractor who was struggling to find a line. This simple act of kindness and cooperation can make a significant difference in preventing utility damages. Don described how involving the safety department in the ticketing process at The Kearney Companies has improved their approach to damage prevention. By recognizing that damage prevention is inherently a safety issue, they have been able to create a more effective and integrated strategy. Sharon explained that TECO's damage prevention coordinators now operate in the field instead of the office. Their primary objective is to ensure proper locating and safe excavation practices around their gas lines. She shared an example of an excavator who hit a gas line and how the focus on education and safety helped the traumatized worker learn from the experience.

The discussion highlighted the fact that 99% of One Call tickets are performed without any damages. The panelists agreed that standard toolbox meetings may not be as effective as they could be and that engagement with field crews is essential. Acknowledging and celebrating positive outcomes, such as successful excavations without damages, can encourage better practices and communication. Don further emphasized the importance of safety by stating, "Everybody needs to go home the way they came." By fostering a culture of open communication, ongoing education, and safety awareness, contractors can achieve greater success in preventing utility damages during excavation projects. ESM

ESA Town Hall LIVE:

ARE WE AT PEAK DAMAGE PREVENTION THE WAY IT IS BEING DONE? ARE THERE BETTER WAYS?

STAFF REPORT

Moderator: Jemmie Wang, Partner, acretivPartners Consulting
Panelists:

- **Duane Rodgers, CEO, PelicanCorp**
- **Lindsay Sander, CEO, Sander Resources**
- **Itzik Malka, CEO, 4M Analytics**
- **Steve Mumm, Executive Vice President of Sales, GPRS**

The panel discussion addressing the question, **"Are We at Peak Damage Prevention the Way it is Being Done? Are There Better Ways?"**, took place on February 16th, 2023, at the 18th Annual Global Excavation Safety Conference in Tampa, Florida. It featured a group of innovative thinkers from the damage prevention industry who shared their insights on the current state of the industry and potential solutions for improvement in the future. Before we dig into the potential solutions proposed by our panelists, let's take a quick trip back to where it all began.

The damage prevention industry in the United States can trace its roots back to 1964, when Bell Telephone in upstate New York established the first One Call Center as a mechanism to allow contractors to call "Ma Bell" before digging so that telephone plants could be protected. In the 1970s, Bill Kiger formed PA One Call in the Pittsburgh area and before you know it, there were regional meetings popping up and bringing together utility owners, contractors, municipalities, and other project development agencies.

Tremendous progress has been made over the ensuing 50+ years, but the consensus from our panel is that we are not there yet. Our moderator, Jemmie Wang, made it pretty clear that blindly throwing more money at this problem is unlikely to drastically reduce the number of damages. Therefore, an array of potential solutions was offered by our panelists and audience members during this 90-minute discussion, and they broadly fell into these categories.

1. COLLABORATION AND COMMUNICATION: One of the key solutions discussed by our panelists was the need for better collaboration and communication between all stakeholders involved in damage prevention. This includes the utility companies, contractors, locators, and regulators. The panelists suggested that more open communication and sharing of information can help reduce errors, increase efficiency, and prevent damages.

- Lindsay emphasized the fact that safe excavation is not always a simple practice. The complexities are sometimes underestimated. We need to think about these procedures and how we can communicate with stakeholders in a more effective way.
- Steve drew on his military experience and stressed the importance of needing a clear vision and understanding of what we are trying to achieve.
- Itzik brought up the idea that perhaps we need to rebrand and reinvent "damage prevention" to encourage the next generation to get involved.

2. TECHNOLOGY AND INNOVATION: Our panelists emphasized the importance of technology and innovation in improving damage prevention practices. They discussed the need for advanced mapping, tracking tools, among other things.

- Itzik asserted that technology will be our access point to the world below us. We need a digital transformation. We can't solve digital problems with analog solutions.
- Duane referred to the bottleneck of late locates causing contractors to be delayed. An increase in trained locators would likely help, but the implementation of augmented reality like they are doing in certain parts of the world, such as in parts of France, will be important moving forward.

3. TRAINING AND EDUCATION: Another important solution discussed by our panelists was the need for better training and education for all stakeholders involved in damage prevention. The panelists suggested that more comprehensive training programs can help improve the skills and knowledge of workers, reduce errors, and prevent damages.

- According to the DIRT Report, "no notification made to 811 center" remains the top root cause with over a quarter of all damages still attributed to no notification. Duane questioned why that is the case. Are they not aware? Are they lazy? Is it too cumbersome?

(left to right) Jemmie Wang, Steve Mumm, Itzik Malka, Lindsay Sander, Duane Rodgers

- Duane and Lindsay both discussed that contractors having their own trained, internal locators can help relieve the aforementioned bottleneck issue.

4. STANDARDIZATION AND REGULATION: Our panelists also discussed the need for better standardization and regulation in the damage prevention industry. They suggested that more consistent guidelines and regulations can help ensure that all stakeholders are following best practices and working towards the same goals.

- Lindsay challenged the notion of best practices being the "best" we can do. Being that they are traditionally confirmed by consensus, perhaps they are slightly diluted and should more properly be viewed as minimums and not as the highest and best standard.
- Duane made note of the inefficiencies in the locating process in the United States compared to Australia, which is largely the result of antiquated legislation from the 1970's.
- Both Lindsay and Steve discussed the importance of processes. For Lindsay, the focus was on maximizing safety through the implementation of effective safety management systems, and for Steve, it was attempting to address "defects" that arise using the principles of Lean Six Sigma.

5. DATA SHARING AND TRANSPARENCY: Lastly, our panelists emphasized the importance of data sharing and transparency in the damage prevention industry. They suggested that more open access to data can help improve collaboration and communication, as well as provide better insights into the effectiveness of current damage prevention practices.

- Itzik challenged the status quo by asking why nobody has yet to set up a centralized place where all the utility info can be stored. Without this data being captured, locators continue to locate the same lines over and over again.
- According to Duane, one of the issues locators run into is that they are not always being given proper notice before a large batch of tickets are on the horizon. This can be the result of utility companies trying to preserve their competitive advantage in terms of upcoming large-scale projects.

This ESA Town Hall highlighted a wide variety of potential solutions for improving damage prevention practices in the United States and around the globe. Although we are not at peak damage prevention yet, we are certainly on the right track and will continue to improve if we implement some of the methods and technologies discussed during this Town Hall. Steve hammered home this point at the conclusion of the Town Hall by stating, "This is possible. It just takes commitment. We can create living maps. This is a combination of technology and process that exists today." To hear what solutions our audience members proposed and to view the entire Town Hall for yourself, please visit **www.ExcavationSafetyAlliance.com**. By becoming a free ESA member, you will have access to all previous Town Hall recordings as well as the opportunity to attend all future live, virtual Town Hall events which take place on the second Thursday of each month. ESM

Considering Using a SAFETY APP?

Here Are the Features to Look For

BY GEN HANDLEY

EVER SINCE APPLE opened the online App Store in 2008, our lives have been impacted in several major ways - commerce and business, our personal health and fitness. But equally as notable, occupational health and safety has benefitted in ways that protect workers from safety hazards not possible before, offering a growing range of safety features for almost every OHS need.

Safety applications can help protect people in almost any industry, however, we'll look at how healthcare workers, utility workers as well as agricultural workers, in particular, can benefit. Additionally, we have explored all the safety features available, narrowing them down to the top features you should be looking for in a worker safety app.

Develop Work Safety Policies

Before researching a safety app, make sure you have developed and updated all of your work safety policies including a "lone worker" policy, which helps protect employees performing their jobs alone and therefore, in more vulnerable circumstances. These policies can act as frameworks when determining the best safety app for your team.

Location Tracking

Regardless of which hazards threaten your team members, knowing their location can make a major difference in whether the employee is ok or not in an emergency. Many safety apps employ local cellular and wi-fi networks through your smartphone, but they can also leverage other devices to access powerful satellite and GPS-tracking capabilities for location tracking. There are an increasing number of healthcare workers going into the community to provide care in the patient's home; there's more than three million home health and personal care aides in the United States. Location tracking for these people is essential when responding to an emergency successfully. Likewise, people working in electrical utilities and agriculture will often work in remote areas, requiring location monitoring for their safety.

Automated Check-ins

Checking in with your employer can be a challenge when you're busy or your hands are full at work. Automated safety check-ins are a proactive measure that allows employees to easily confirm their safety with the simple press of a button; it will also usually notify the employer or monitor when an employee misses their check-in.

People in all industries can benefit from automated check-ins. Whether it's checking in after a visit to a client's residence or following several hours out in the field, this feature is a simple, but effective, safety practice for any organization that wants to monitor their team without being intrusive.

Panic Button

Especially when working around members of the public, the panic button feature is a valuable feature to have so that the employee can immediately request help by pushing the in-app button.

Those in healthcare work with the public, putting them at risk of potential violence and assault. In these cases, the panic button, especially a discreet in-app button, is something that could help protect these people.

Flexible and Innovative

While it is not so much a feature as it is a general characteristic, flexibility is something you need to look for so that the app can easily adapt to inevitable changes in the team, the operations and the work circumstances and environment. Employee turnover is inevitable so you want an app that allows you to easily edit and onboard new users so that they can begin experiencing the safety benefits immediately. Ultimately, look for a safety app that is not only adaptable, but innovative and constantly evolving into a better OHS tool. Like your organization, you want an app that is always moving forward and ready for whatever lies down the road. ESM

Louisiana Locator of the Year Awards

• COLE VANDERLICK •

CONGRATULATIONS TO the 2022 Louisiana Locator of the Year Award winners! Locators are the unsung heroes in our industry. They help keep everyone protected during construction projects. Locators mark underground facilities to keep the utility or pipeline protected, to keep workers safe and to protect communities from unplanned devastation. A lot of pressure and stress sit with a locator because of their busy schedule. Many companies are short-handed, so locators are constantly trying to keep up with the large ticket volume. The utility system is expanding each year. There are also road and bridge projects occurring in many areas and infrastructure projects are being granted nationwide. These projects will start being implemented within the next few years, resulting in even more dig tickets.

Utility locators are incredibly hard workers. Numerous locators nationwide hit the road early, work all day, most likely eating lunch in their car or on the go, and getting home late at night, unless they're spending the night out of town. Our industry is in high demand of more great locators to help spread the work load. It's extremely difficult for locators to keep up

with the large amount of ticket volume that they receive. Many companies are trying to hire more locators, so if anyone knows someone that may be interested in locating, the industry appreciates you encouraging them to look into it.

We hope that the new infrastructure bill will include supporting the damage prevention side of the industry to help keep up with the operations side. Excavators can help locators by complying with their state's dig laws on the timing of submitting tickets and the amount of area that is submitted at once. Also, providing correct contact and other quality information, as well as managing ticket quantity, helps to keep the 811 system running efficiently. Communication between stakeholders can also help positively impact a locator.

To our locators, thank you for your long days and hard work to mark underground facilities for excavation projects. You keep our state safe and progressing forward. We truly appreciate you!

The Louisiana Locator of the Year Awards are presented to a locator representing a large member company, small member company, and a contract locator:

- **Large Member Company:** David Alexius – Atmos Energy
- **Small Member Company:** Darrell Langley – Sempra Infrastructure/ Cameron Interstate Pipeline
- **Contract Locator:** Teddy Venable - USIC

These locators completed a large amount of dig tickets without any safety violations or at-fault damages. They also establish proactive relationships in the community and are damage prevention ambassadors. We are privileged to honor our valued locators! They work extremely hard to keep excavation projects safe and moving forward efficiently. Thank you to all locators for your incredible efforts! ESM

Nebraska Excavation Safety Summit

• MARK WOODWARD •

ON FEBRUARY 22, 2023, the volunteers of Common Ground Nebraska took over the 84,000 square-foot Lancaster Event Center in Lincoln to host the 2023 Nebraska Excavation Safety Summit. The event was provided completely free of charge to participants through the generosity of volunteers, sponsors, vendors, and donors.

The Nebraska Excavation Safety Summit grows each year and is always successful at spreading the safety and damage prevention message to a huge audience. Approximately 1,150 employees from excavation contractors, utilities, pipelines, municipalities, and construction companies attended an entire day of high-quality safety and damage prevention training. The Nebraska Excavation Safety Summit continues to be one of the leading excavation and damage prevention safety events in the United States.

The day-long event was packed with activity. Special guest speakers included Nebraska's State Fire Marshal Scott Cordes, and the 2023 Nebraska Excavation Safety Summit keynote speaker was Olympic Gold wrestling champion and University of Nebraska alumni Rulon Gardner.

Education throughout the day focused on topics like risk management, damage prevention, excavation safety, and employee safety. Sessions provided throughout the day included:

- **A damage prevention comedy sketch "Damage Prevention Ain't no Joke!" by Kris Covi**
- **CGA Best Practices National Data Research Trends**
- **GPS Enabled Locating Systems**
- **Natural Gas Safety for Excavators**
- **Partnering to Protect Against Telecom Damages**
- **Locator Workshop**
- **Ask Nebraska811**

Two major awards were presented at the 2023 Nebraska Excavation Safety Summit. The Outstanding Excavator & Locator Awards recognize the best damage prevention partners in the state of Nebraska. The 2023 award recipients received a plaque, embroidered jacket, and $150 gift card. Nebraska Excavation Safety Summit committee members, One Call board members, and Nebraska industry representatives selected the winners from the nominations received. The 2023 award winners were:

- **Mark Wrede of Black Hills Energy was awarded 2023 Excavator of the Year.**
- **Pete Suski of the Metropolitan Utilities District was awarded 2023 Locator of the Year.**

The 2023 Nebraska Excavation Safety Summit also included a locate rodeo! A team of expert locators volunteered throughout the day to train and coach locators. The 2023 Nebraska Excavation Safety Summit Locate Rodeo winners were as follows:

- **1st Place: Delsin Cary – Black Hills Energy**
- **2nd Place: Charles Klaus – MVP NexLevel**
- **3rd Place: Coray Bowling – Allo Fiber**

The winners of the 2023 Nebraska Excavation Safety Summit Locate Rodeo will move up to compete in the 2023 International Locate Rodeo (www.locaterodeo.net) on December 6 & 7, 2023 at Springfield, MO.

Make plans to attend or become a supporter in 2024! Keep an eye out for future Nebraska811 events and watch out for the release of the 2024 Excavation Safety Summit date in February 2024. See more about the annual Excavation Safety Summit at ne-cga.com or ne1call.com. ESM

Giddy Up for the Backhoe Rodeo

• HERMINIA JONES, NUCA LAS VEGAS •

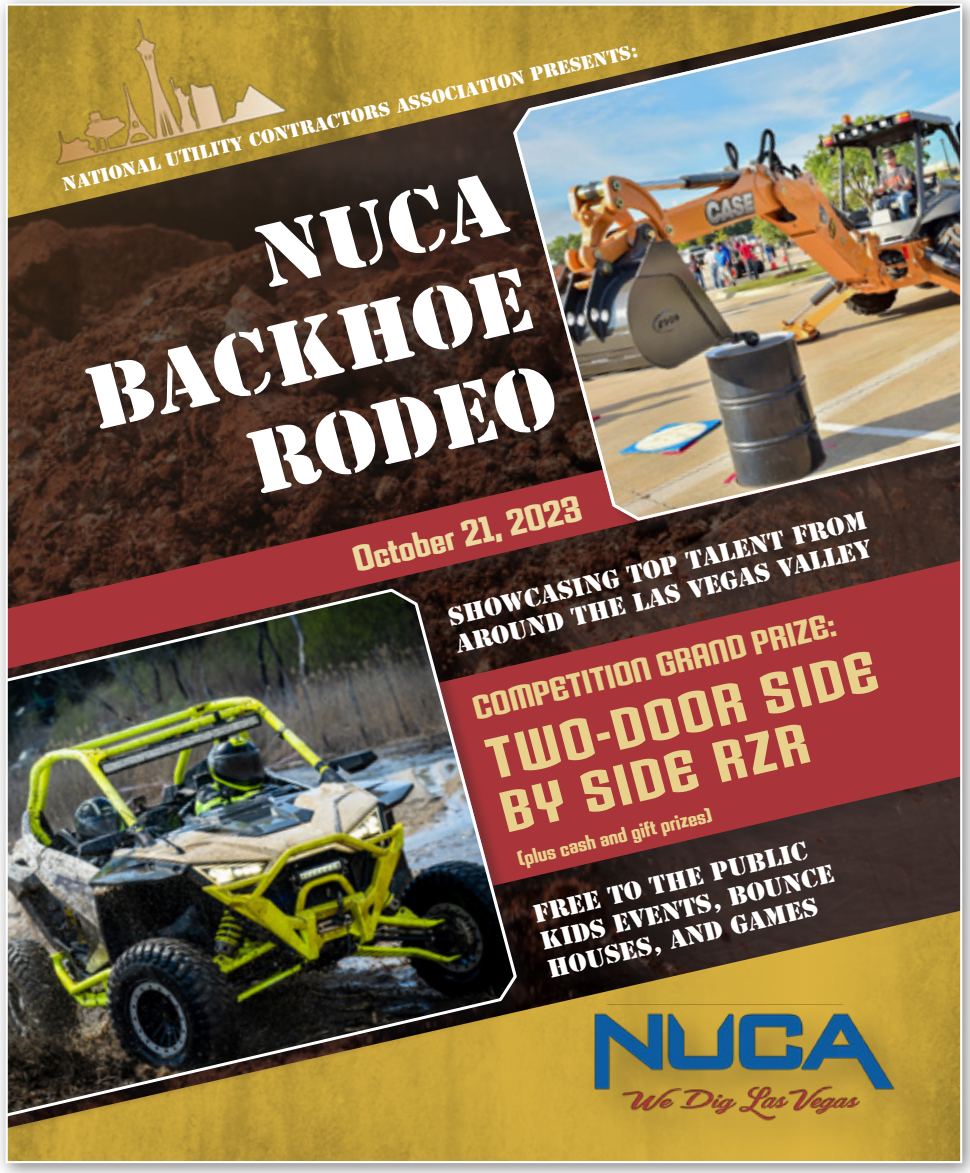
The Backhoe Rodeo is an event like no other. It is a day dedicated to the forgotten heroes of this country – the hardworking Americans who bring our homes to life by creating the magic which makes it possible to simply turn a tap, flip a switch, or surf the internet. It's time we help the youth of today recognize all the careers possible in construction! Are you wondering, how do we pull that off?

Fear not, through a fair-like atmosphere, food vendors, live music, and the energy and excitement only Las Vegas can bring, the Backhoe Rodeo is here!

NUCA Las Vegas is looking to help our industry by doing our best to reach a new audience. We will be advertising on radio to capture the families outside the industry looking to have a fun day out with the kids. We're talking bounce houses, games, and the reason we are here – the Backhoe Rodeo. Part of the event is to provide the next generation an opportunity to be exposed to, and operate, a piece of machinery.

The highlight and main event of the day will showcase the best operators in the Las Vegas Valley as they compete to see who's the "best of the best." This multi-stage competition will end with the winner being the proud owner of a Polaris RXR side-by-side.

While the event is guaranteed to be a good time, it's more than that. It is an ongoing endeavor from NUCA to promote the industry and shine a light on the future of infrastructure construction. Make plans to join us at the Backhoe Rodeo and be a part of showing the world what hardworking Americans are capable of doing.



Backhoe Rodeo is a good cause for a good reason; the event will also fund NUCA Las Vegas' ongoing community outreach program, which allows the next generation an opportunity to learn more about careers in the construction industry.

Together, We Dig America! ESM

For questions on sponsorship opportunities or participation, contact Herminia Jones with NUCA Las Vegas at herminia@nucalasvegas.com.

THE HIGHLIGHT AND MAIN EVENT OF THE DAY WILL SHOWCASE THE BEST OPERATORS IN THE LAS VEGAS VALLEY AS THEY COMPETE TO SEE WHO'S THE "BEST OF THE BEST."

Top Rated Speakers

• KARIN STRUB •

THE GLOBAL EXCAVATION SAFETY CONFERENCE is the place to gain knowledge about safe digging and the damage prevention industry. For the past 18+ years, we have remained focused on providing a variety of learning opportunities always pushing for new topics relating to new technologies and industry advancements, innovative solutions, and potential solutions that will resonate with our delegates.

Featuring the best experts in the industry, our speakers remain focused on teaching you something you can bring back to your company to improve your processes and help keep people safe.

We'd like to take the opportunity to recognize some of the speakers from our recent event in Tampa that emerged as leaders among all our considerable educational content. These speakers were chosen by delegates as the best* among an exemplary crowd. ***(*Only sessions with a minimum of 10% return rate on voluntary surveys were ranked.)***

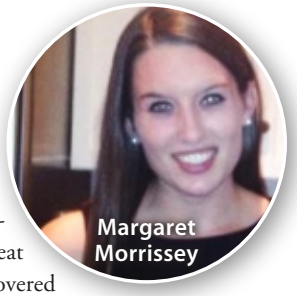
Top Overall Speakers – Perfect Score Across the Board

Believe in Safety

Speaker: Brandon Schroeder, Believe in Safety, LLC

Everyone makes decisions about safety and many of them in an instant. The wrong safety habits make it easier to make wrong decisions that are impossible to undo. Brandon survived a workplace accident that should have killed him. He recounted the tragedy and discussed the contributing factors and how it all could have been avoided. This presentation left delegates with a stronger understanding, and respect, for doing the job correctly and safely.

- "Amazing! Life changing!" – Maria White, Damage Prevention Liaison with Pennsylvania 811
- "Incredible story!!!" – Gerrad Godley, Construction Department Manager with Genesee County Road Commission
- "Great speaker. Thank you for sharing." – Nathalie Moreau, Executive Director with Info-Excavation
- "Fantastic speaker and was really great at delivering such bad information about his life experience and how to move forward to do better." – Elizabeth Pyles, Engineer / DPC Representative with Franklin County Engineer



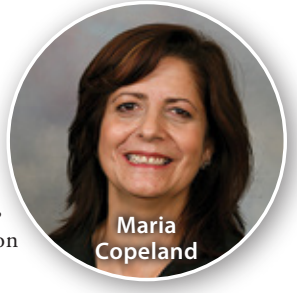
How to Prepare for Extreme Heat and OSHA's Federal Heat Stress Standard

Speaker: Margaret Morrissey, Korey Stringer Institute

This session educated attendees on evidence-based approaches to building an effective heat stress management plan. This session covered topics such as physiological monitoring for heat strain, environmental monitoring, heat safety education, and safety procedures for heat-related illnesses. It presented the latest information on OSHA's future heat stress standard, how to prepare this regulation, and why inaction will be detrimental to worker health, safety, and productivity.

- "Very good and informative for heat safety." – Kevin German, Risk Manager with Lehigh County Authority

Top Speakers – Scoring 3.9 / 4



Educating the Next Generation

Speaker: Maria Copeland, Georgia 811

Georgia 811 has been reaching out to the next generation of Georgians for over 15 years with their special safety ambassador, Digger Dog. Digger Dog and Education

Administrator, Maria Copeland, travel throughout the state promoting the message of safe digging to second and third graders at both public and private elementary schools. This presentation provided some tips on how you can reach out to the next generation of safe digging stakeholders in your state.

- "GA811 did a great job showing how youth education can work"– M.G. Govia, Education & Outreach Liaison with OKIE811
- "Great to hear the success Georgia 811 has had with the schools and future excavators." – Derek Brown, Board Member with CBYD
- "Great speakers. I hope we can replicate some ideas and improve our state's program." – Elizabeth Pyles, Engineer / DPC Representative with Franklin County Engineer

Fiber Builds with Damage Prevention as a High Priority: A Case Study of Effective Partnerships

Speaker: George Kemp, MetroNet

Struggling with how to keep damage prevention as a high priority? There is no reason for a fiber build to have a reputation of not being concerned with damage prevention. Fiber builds can and have had great reputations when it comes to damage prevention. Attendees learned and participated in a discussion about successful damage prevention focused fiber builds.

- "Wonderful session. Hit home that damage prevention is a partnership." – Sean Frech, Damage Prevention with Colorado Springs Utilities
- "Knowledgeable, insightful, enthusiastic. One of the best presentations of the Conference."– Chad Krueger, Manager with Diggers Hotline.
- "Great presentation!" – Steve Allen, Executive Director with Energy WorldNet

Part 2: Look Up and Live

Speaker: Glen "Cookie" Cook, Electrical Safety Consultant

In Queensland, an average of 750 accidental contacts occur with powerlines annually. All are avoidable, and mainly occur due to lack of planning and awareness of the hazard and "inattentional blindness." Put simply, we can plan to work near the powerlines we cannot see but, with overhead powerlines, we rely on workers to identify hazards onsite. Having a powerline safety tool to be able to effectively plan work near powerlines has assisted in reducing overall incidents by 25% in Queensland.

- "Good information. Will help me with my utility safety show." – Maria Copeland, Education Administrator with Georgia 811
- "Thought the presentation was great. Didn't realize overhead power lines were such a danger." – Austin Cooper, Damage Prevention Administrator with Southwest Gas
- "Great presentation!" – Steve Allen, Executive Director with Energy WorldNet

Power of Don't: Communication and Leadership Excellence

Speaker: John Brix, Professional Speaker

The mind is divided into two basic aspects – the conscious and subconscious. "Power of Don't" gave delegates a new understanding on how these two aspects work with each other and how to ensure training and mentorship are completed properly to ensure long-term memory recall. With the tools delegates gained, they will be able to relay information better and increase the success of learning while decreasing the time spent on training and information delivery.

- "Practical use of subconscious principles." – Jess Bangs, Marketing & Communications Administrator with Colorado 811
- "Great speaker. Always draws a crowd. Good information to think about."– Bob Edwards, Supervisor Water Operations with Citizens Energy Group
- "Very good real-world examples of the principles in action."– Steven Jackson

If these topics could help you increase your industry knowledge and advance your career, then you belong in New Orleans at the 2024 Global Excavation Safety Conference, March 19-21, 2024! With content addressing issues and concerns of the different facets of the industry, there is something for everyone. ESM

Learn more at GlobalExcavationSafetyConference.com. Registration is OPEN!

LEADING PEOPLE

BY MONICA WOFFORD, CSP

Who Sucked the Understanding Out of That Message?

If you've ever sent a text and received no response, but then proceeded to make up the reason for their silence, you've experienced digital miscommunication. If you've sent an email, used ALL CAPS on more than one word, and been annoyed at the reply that blasted you in return, you've likely experienced…well, perhaps this is where we insert a phrase such as "here's your sign" or "you might be miscommunicating."

In all work environments, digital messages are commonplace and all the rage. But, in the excavation and safety industry, digital communication has not only become increasingly important to streamline operations, handle emerging issues, and stay in touch with those in the field, but some key downsides can get overlooked. Yes, there is an element of increased efficiency and productivity, but what does one do about the giant sucking sound heard when messages lack clarity and real understanding? How does one prevent all, or nearly all, of the real understanding of a message getting completely sucked out of most transmissions?

When we communicate face-to-face, we have a wealth of information available to us that helps us to understand what the other person is saying. We can see their body language, hear their tone of voice, and respond in real-time. However, when we communicate digitally, many of these cues are lost. We are left with only words on a screen, and it can be much harder to understand the meaning behind them. Think of it like this: A newbie is working with the suction excavator and it starts making an odd noise. Everything looks okay to the newbie but doesn't sound quite right to those more seasoned. Experience with the equipment makes the difference. In communication, one's experience with the person will often determine understanding. Texting someone you've met once can result in mixed messages and damage control that feels disastrous. When working on a construction site or in a dangerous environment, it is crucial that everyone involved is on the same page and understands what is happening, real time most likely. Miscommunications or misunderstandings can have serious consequences, including injuries or far worse.

How it Happens

One of the main issues is the lack of context. When we communicate in person, we provide additional context that helps the other person understand what we're saying and in what manner. For example, if discussing a technical issue, we may use a diagram or point to a physical object to help explain it or demonstrate its functions and nuances. If we're annoyed, there's a look. This is much harder to do in a digital environment, where we are limited to text, images, gifs, shorthand slang, and stickers. That sounds like a lot of options, but they all lack real context. And IS there a "look" emoji?

Another problem is interpretation. Without the benefit of tone of voice or body language, it can be easy to misinterpret someone's words. For example, a message that was intended as a joke may be taken seriously, or a comment was meant to be helpful may come across as condescending. In today's more vigilant and aware environment, one word can set off a tone of offense that then leads to significant conflict and a visit to a human resource person's office.

> "The more visual context you can provide, the easier it will be for others to understand your message."

Lastly, there are practical concerns that make digital communication less effective. For example, many people communicate using instant messaging or email, which can be very convenient but also distracting. When we receive constant notifications and alerts, it can be difficult to focus on any one conversation or, in some cases, remembering what was even being said. The brain was not designed to handle the onslaught of constant notifications from three inboxes, two social media channels and your kid's latest TikTok post. When trying to see them all, important details get missed leading to missing understanding and unnecessary frustration. So, what do we do to avoid such dastardly outcomes in a world where this kind of communication is clearly no longer just a phase, fad, or temporary option? Three things that are fairly simple:

Show 'Em Your Face

One potential solution is to use video conferencing or other forms of real-time communication whenever possible. While this may not be practical in all situations, it can be a valuable tool for ensuring that everyone is on the same page. Seeing someone's face and hearing their voice can go a long way towards building understanding and trust. And yes, this one applies even if you're old school and don't like talking to someone while it feels as if they're looking up your nostrils.

Paint the Picture

Next up, provide additional context whenever possible using visuals. This might mean including diagrams, photos, manuals, or even drawings with crayons on top of somebody's work truck. Eighty

percent of American adults are visual in their learning preference. Painting the picture, so to speak, helps convey clear meaning and with retention. The more visual context you can provide, the easier it will be for others to understand your message.

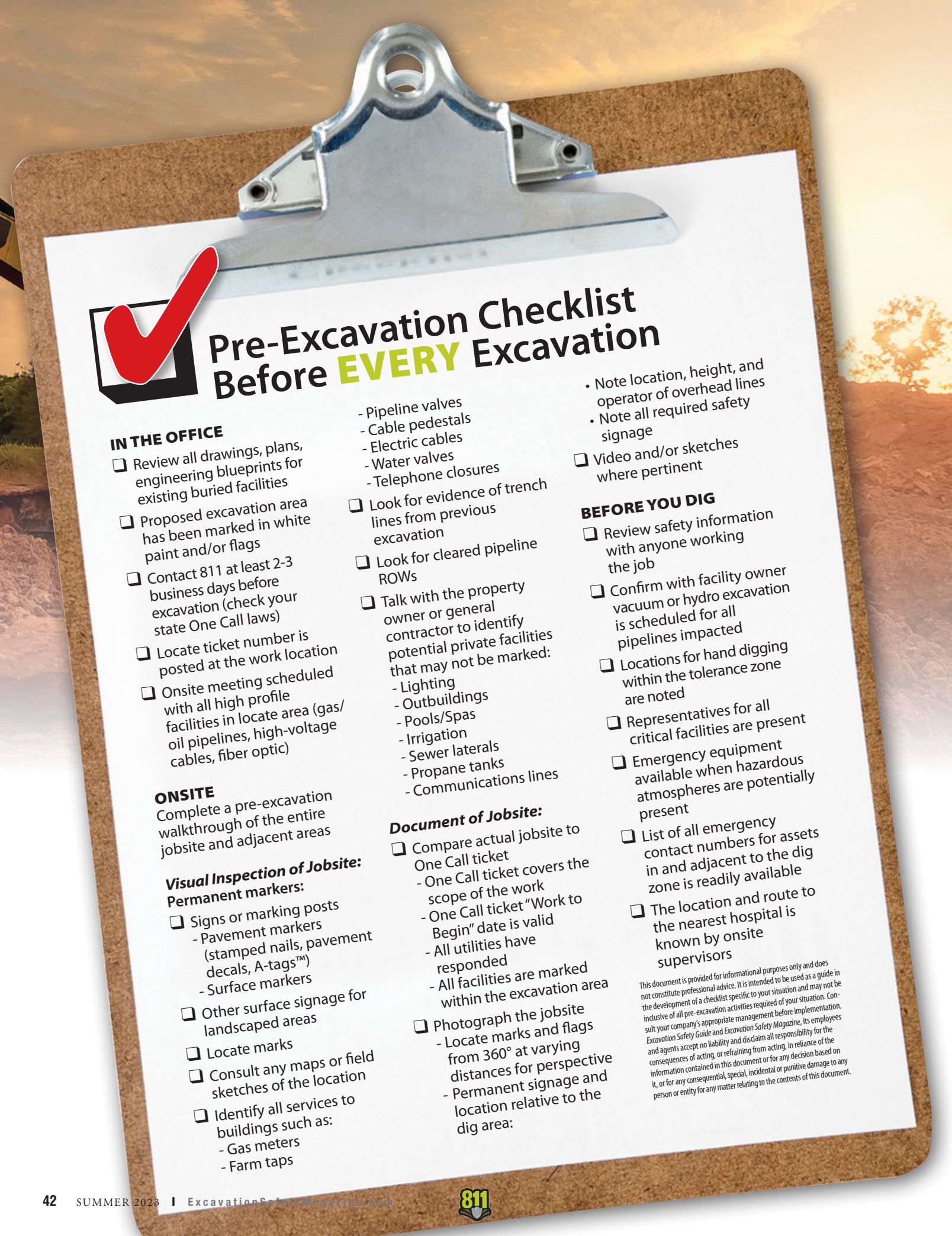
Watch Your Language

Lastly, while it's no secret some language might be more colorful on a job site, in this case paying attention to the language, or words that you're using, could have big benefits. Some profanity, while used as a noun, verb, pronoun, AND adjective, can add flavor but no greater clarity. Same with acronyms and texting shorthand. It's easy to fall into the trap of using letters instead of words in a text. The challenge is their meaning may not be familiar to everyone, outside your own teenagers. The same is true with acronyms, particularly in the excavation and safety industry, where technical terms and jargon are frequent. Take the time to explain any of these instead of assuming everyone is aware of their meaning.

Whether you're dashing off a quick text and misspelled two words or 10, be patient when others look at you with their head at a tilt, call you with questions, or admit they feel like they've missed something. Communication, digital or otherwise, is not an exact science. Digital communication leaves a lot out when it comes to full meaning and in this business, the last thing you need is to exacerbate the challenge by going about your merry way thinking others were tracking with you and are working on their tasks and assignments, only to find you've wasted a lot of time not realizing the understanding piece was almost completely sucked out of your message. In short, that sucks, but with these tips, it can easily be avoided. ESM

Monica Wofford, CSP is a leadership development specialist, keynote speaker, and executive coach. For more information on her books, training firm or coaching services, call 1-866-382-0121, or go to www.ContagiousCcompanies.com or www.LeadershipDevelopmentCenter.com.

THIS COLUMN EXPLORES TIPS AND TECHNIQUES TO IMPROVE YOUR ABILITY TO COMMUNICATE WITH CO-WORKERS, CUSTOMERS AND INDUSTRY STAKEHOLDERS.



Pre-Excavation Checklist Before EVERY Excavation

IN THE OFFICE

- ❑ Review all drawings, plans, engineering blueprints for existing buried facilities
- ❑ Proposed excavation area has been marked in white paint and/or flags
- ❑ Contact 811 at least 2-3 business days before excavation (check your state One Call laws)
- ❑ Locate ticket number is posted at the work location
- ❑ Onsite meeting scheduled with all high profile facilities in locate area (gas/oil pipelines, high-voltage cables, fiber optic)

ONSITE

Complete a pre-excavation walkthrough of the entire jobsite and adjacent areas

Visual Inspection of Jobsite:

Permanent markers:

- ❑ Signs or marking posts
  - Pavement markers (stamped nails, pavement decals, A-tags™)
  - Surface markers
- ❑ Other surface signage for landscaped areas
- ❑ Locate marks
- ❑ Consult any maps or field sketches of the location
- ❑ Identify all services to buildings such as:
  - Gas meters
  - Farm taps
  - Pipeline valves
  - Cable pedestals
  - Electric cables
  - Water valves
  - Telephone closures
- ❑ Look for evidence of trench lines from previous excavation
- ❑ Look for cleared pipeline ROWs
- ❑ Talk with the property owner or general contractor to identify potential private facilities that may not be marked:
  - Lighting
  - Outbuildings
  - Pools/Spas
  - Irrigation
  - Sewer laterals
  - Propane tanks
  - Communications lines

Document of Jobsite:

- ❑ Compare actual jobsite to One Call ticket
  - One Call ticket covers the scope of the work
  - One Call ticket "Work to Begin" date is valid
  - All utilities have responded
  - All facilities are marked within the excavation area
- ❑ Photograph the jobsite
  - Locate marks and flags from 360° at varying distances for perspective
  - Permanent signage and location relative to the dig area:
    - Note location, height, and operator of overhead lines
    - Note all required safety signage
- ❑ Video and/or sketches where pertinent

BEFORE YOU DIG

- ❑ Review safety information with anyone working the job
- ❑ Confirm with facility owner vacuum or hydro excavation is scheduled for all pipelines impacted
- ❑ Locations for hand digging within the tolerance zone are noted
- ❑ Representatives for all critical facilities are present
- ❑ Emergency equipment available when hazardous atmospheres are potentially present
- ❑ List of all emergency contact numbers for assets in and adjacent to the dig zone is readily available
- ❑ The location and route to the nearest hospital is known by onsite supervisors

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