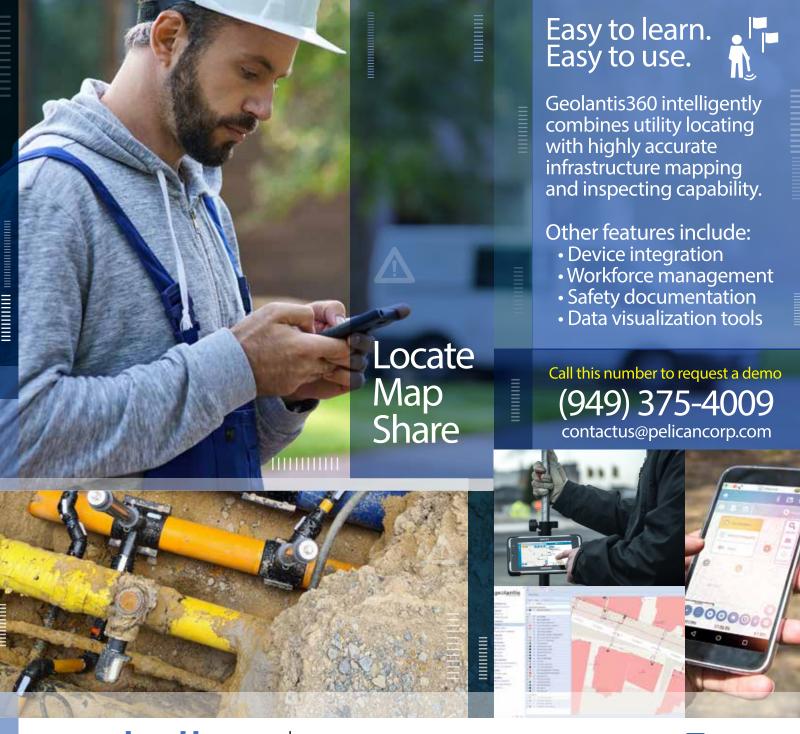




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A powerful geospatial asset collection and management platform.







DAMAGE PREVENTION IS NOT A ONE AND DONE

You're required by law to call 811 before you dig to have public utilities on site located, but there may also be privately owned utilities that 811 is not responsible for marking.

Make Blood Hound your second call. Using state-of-the-art technologies, including ground penetrating radar and concrete scanning, we locate private utilities, including those undetectable by traditional methods, to prevent costly damages and project delays and protect your crews and community from safety hazards.

ontents

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On The Cover: The Pipeline Ag Safety Alliance (PASA) has teamed up with the National Association of County Agricultural Agents to Provide Education on Safe Digging for the Ag Community. See Page 26

SPOTLIGHT | Water & Vacuum Excavation





Are Your Assets Protected? A Multi-Pronged Approach to Asset Preservation of Above and Underground Public Sewer and Water Systems.

/// STAKEHOLDER PERSPECTIVE



Town Hall Survey Excavation Safety Alliance (ESA) Virtual Town Halls allow all Stakeholders to Discuss Concerns and Present Potential Solutions to improve Damage Prevention and Excavation Safety.

Excavator Perspective Summit

During the 2022 Global Excavation Safety Conference, Four Excavator Industry Professionals Discuss the Question: What can be done to Improve Communication?

Water & Sewei **Water & Sewer Protection Summit**

During the 2022 Global Excavation Safety Conference, Industry Experts discuss potholing techniques, challenges and variables.

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Supporting Global Excavation Safety















Metrics Pros & Cons

2022 Town Hall

Excavation Safety Alliance (ESA) virtual Town Halls are an open forum for all stakeholders to discuss concerns and present potential solutions to improve damage prevention and excavation safety. The ESA Town Halls are free to attend and open to everyone.

The goal of each ESA Town Hall is to provide a forum for open discussion on key industry topics and to be a place where anyone can suggest solutions or improvements. There is rarely one solution that will work for others. While outlining the problems and causes is an important first step, the goal of the ESA Town Halls is to end up focused on solutions and improvements.

ESA Town Halls will be held monthly on the second Thursday of the month. Each ESA Town will be scheduled for an hour.

Did you attend the first ESA Town Hall – Late Locates: Partnering with Notification Centers? Yes No Do you find an industry focused ESA Town Hall a good way to share ideas? Yes No	 □ Positive Stories of Low Damages □ Positive Stories of Work Completed On Time □ Ransomware Attacks □ What should supervisors and upper management know about locating? □ Why Things Are the Way They Are 	
Have you ever implemented change at work based on what you learn from your industry peers? Yes No	CONTACT DETAILS	
Topics I would like to see discussed include: Choose all that apply 1st Amendment Audits Dealing with Protestors Dealing with Staffing Issues Infrastructure Bill Jargon Late Locates	Name: Job Title: Company: Contact me by: Phone: Email:	
 Leveraging Generational Differences with Staffing Mandatory Damage Reporting & Effective 	Send completed survey to Karin@IR-SavingLives.com or email her with your thoughts.	



FROM THE PUBLISHER





BY SCOTT LANDES

The Global Excavation Safety Conference was a big success as evidenced by the headline quote above from Calressia Clark, PE, MBA, Director of Field Operations & Logistics at Mobile Area Water and Sewer System (First-time attendee, United States). It was so awesome to be back face-to-face with everyone in the industry and to see so many new people. For the industry to keep the ball moving forward with our combined damage prevention effort we need new people to be educated and to join the national discussion. For that reason, we were ecstatic to see nearly 50% of our conference attendees in Phoenix were first-time attendees.

The Notification Centers (formerly called One Call centers) were well represented by both their internal teams and Board Members. In fact, the new Facility Notification Center Association (FNCA) held their winter meetings in conjunction with our event, and they will be joining us in Tampa for Global ESC 2023 as well. As of February, the FNCA had 29 members representing 30 centers including Utility Safety Partners, in Alberta. As usual, gas & oil stakeholders were also well represented.

Seeing industry staples was fantastic, but what was especially exciting was seeing stakeholders from companies that have not normally been active on the national level. This is a great sign for the damage prevention movement. A sampling of their quotes below really tell the story of where we're headed better than I ever could.

"The conference was phenomenal... I would definitely return to the conference. I would also encourage more of our employees to consider attending the conference. I benefited from the information. I think our safety coordinator as well as line locating folks could find the conference beneficial." – Calressia Clark, PE, MBA, Director of Field Operations & Logistics at Mobile Area Water and Sewer System (First-time attendee, United States)

"It was a great conference, filled with learning opportunities and engagement with other industry stakeholders who are passionate about damage prevention. The night at the Deuce was definitely one of the best networking events I've been to!" – **Kesley Tweed, Executive Director at PAPA (7-year attendee, United States)**

"It was a pleasure and extremely valuable being able to attend the conference this year in Phoenix. As an excavator for the City of Tacoma, it is the mission of myself and team to set the standards for all others that excavate, locate and protect the infrastructure located above and below ground owned by the City and other utility providers. This starts through education and that is something that is overwhelmingly available at the Global Excavation Safety Conference, whether it is being led through a history of how 811 has grown across the country, first-hand accounts of how not following safety protocols forever changed someone's life through injury or learning of the advancements of locating and excavating technologies." – Jay Hemley, Collection Systems Technician, City of Tacoma (First-time attendee, United States)

"It was awesome!! The Global Excavation Safety Conference was very productive. I was able to get my hands on the latest hardware, try out the latest software, and learn about cutting-edge products that I didn't even know existed. On top of all of that, I strengthened relationships with numerous peers, many of whom I had never met in person. I walked away with ideas for future revenue streams, plans for which hardware purchases to make next, and a feeling that I had my finger on the pulse of my industry." – Forrest Sim, Owner / Founder, Enhanced Scanning / GPR Consortium (2-year attendee, United States)

From the Publisher continued on Page 7



Volume 13, Number 2 SUMMER 2022

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From the Publisher continued from Page 6

"This is a great event. It's where I learn about equipment, new technology, everything industry related. I take what I learn back to my guys in the field." – Edd Anaya, Senior Locator, City of Surprise (5-year attendee, United States)

"Great event! We are happy! Even though our session was at the last time on Thursday, it was well attended." – **Jeremy Suard, CEO, Exodigo (First-time attendee and exhibitor, Israel)**

"I was very impressed with the total Conference and Exhibits. Both the technical sessions and the workshops (Cross-bore and EM Locator) were especially informative and will be helpful and utilized to enhance safety as we perform our utility (water and sewer) maintenance / work in Savannah, GA." – James Laplander, Conveyance & Distribution – Director, City of Savannah (First-time attendee, United States)

"Another great conference ..." – Courtney Jordt, Damage Prevention Specialist, Senior, PG&E (6-year attendee, United States)

"What a fantastic event!" – Jim Schauer, VP, EAM Services, Energy WorldNet (2-year attendee, United States)

This kind of industry passion is what keeps us all fired up at IR to pursue our mission of "Saving Lives through Education". It is also great to see that our exhibitor partners also thought the event was a success.

"We got at least 50 solid new leads." – Angela Obert, National Utility Business Development Manager, Perma Patch (First-time attendee and exhibitor, United States)

"Fantastic Show!" – Kathy Marston, Damage Prevention and Product Application Specialist, Rhino Marking & Protection Systems (5-year exhibitor, United States)

"The 2022 Global ESC provided strong results from numerous educational offerings and attendance by leading damage prevention decision makers. Exceeded expectations – very pleased to have attended." – Mark Bruce, EVP, Hydromax USA (6-year attendee and previous exhibitor, United States)

"Fantastic conference! It was great to see you and the team. Thank you so much for delivering such a positive week of interaction, fun and learning." – Jose Espino, VP Operations, Colorado 811 (8-year attendee, United States)

Registration is officially open for

Global ESC 2023 in Tampa

We hope to see you there!

Register now at

GlobalExcavationSafetyConference.com



The Causes of Underground Utility Damages in North Carolina in 2020

BY AHMED AL-BAYATI & LOUIS PANZER

Third-party damages to the subsurface infrastructure seem to be a persistent issue that negatively influences the integrity of underground utilities and its vital services to citizens of North Carolina. North Carolina 811 (NC 811) has been conducting research studies to identify causes and remedies of third-party damages. The studies solicited stakeholders' (i.e., excavators, locators, and utility owners) perceptions about the topic. Clearly, there are several factors contributing to third-party damages which reinforces the industry understanding that preventing damages is a shared responsibility. Overall, the direct causes of third-party damages could be grouped into four categories:

- 1) EXCAVATORS' INSUFFICIENT PRACTICES
- 2) LOCATORS' INSUFFICIENT PRACTICES
- 3) UTILITY OWNERS' INSUFFICIENT PRACTICES
- 4) GENERAL INDUSTRY PRACTICES

Excavators' insufficient practices (EIP) include damages resulting from no locate requests, invalid use of a locate request (e.g., wrong area was excavated), and failure to use hand tools to uncover subsurface utilities. In North Carolina, the following direct causes fall under this category:

- No notification made to the One Call center/811
- Excavator dug prior to valid start date/time
- Excavator failed to maintain clearance after verifying marks
- Excavator dug prior to verifying marks by test hole (pothole)
- Excavator provided incorrect notification information
- Excavator failed to protect/shore/support utilities
- Excavator dug outside area described on ticket

Locators' insufficient practices (LIP) include inaccurate marks and the absence of marks. In North Carolina, the following direct causes fall under this category:

- Unmarked or inaccurately marked due to locator error
- Incomplete locates

Utility owners' insufficient practices (UOIP) include the following:

- Inaccurate utility record/maps
- No response from operator/contract locator
- Unlocatable facilities

General industry practices may be a result of common industry practice or work conditions. In North Carolina, the following direct causes fall under this category:

Abandoned facilities:

Abandoned facilities do not belong to any utility owners/operators; they contribute to less accurate marks and more damages. They are not a result of a particular stakeholder practice. Rather, they are a result of a general industry lack of sustainable processes to keep records of abandoned facilities. Thus, this challenge should be addressed by a national effort to better manage these facilities.

Temporary nature of marks:

The temporary nature of marks was ranked second in the causes of damages as suggested by excavators (Al-Bayati and Panzer 2019). Marks can be faded or lost due to weather and work conditions, and marks are removed as soon the excavation starts.

- Previous damage
- Deteriorated facility
- Tracer wire issue:

Utility owners/operators often apply tracer wire to plastic facilities to help locate them. Damages to tracer wire could be perceived as low-risk damages by excavators (Al-Bayati and Panzer 2019). Largely, low-risk damages (e.g., telecommunication and television damages) have lower potential monetary impact on construction project schedules and

budgets, unless they involve fiber-optic telecommunication lines. Therefore, low-risk damages are often not reported. Broken tracers contribute significantly to inaccurate locates.

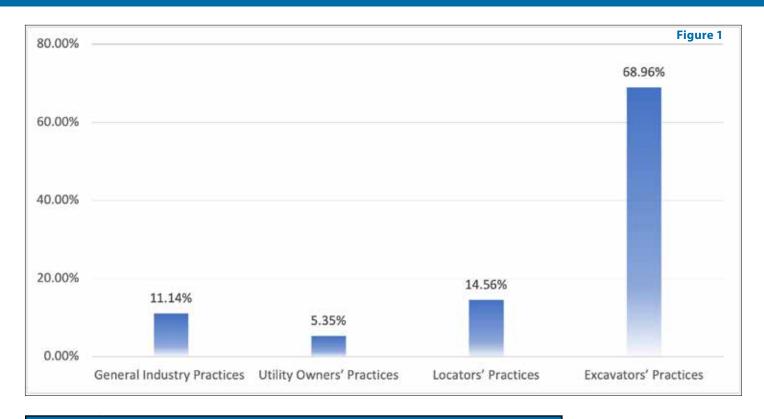
These insufficient practices not only cause damages but also compromise the entire One Call system, as has been discussed in a recently published article by Mr. Panzer and Dr. Al-Bayati, entitled "Reducing Damages to Underground Utilities: Importance of Stakeholders' Behaviors." It must be noted that this cause categorization differs from the CGA's categorization in two ways:

1) The DIRT report's cause categories include excavation practices, invalid use of request by excavator, locating practices, miscellaneous, no locate request, and unknown/other. As previously discussed, the NC 811's categorization classifies no locate requests and invalid use of request by excavator under excavators' practices. Furthermore, the NC 811 categorization utilizes utility owner practice and general industry practice categories. Finally, the NC 811 categorization only handles known data and totally ignores the unknown other category. For more information about the NC 811 categorization, see Al-Bayati and Panzer's book *Underground Utilities* for Construction Practitioners and Homeowners or other published reviewed articles by Al-Bayati and Panzer.

2) The NC 811 research team considers these causes direct causes, whereas CGA's DIRT Report considers them root causes. According to Al-Bayati et al. (2021), direct causes consist of unsafe acts (e.g., digging prior to a valid start date) and unsafe conditions (e.g., failing to protect/shore/support utilities), whereas root causes, which lead to direct causes, consist of human factors and workplace factors, such as inadequate training and lack of knowledge or skill.

Most of the damages were reported by locators 20,952 (66.0%) followed by excavators 7,214 (22.7%) and utility operators/owners such as natural gas and telecommunications 3,600 (11.3%). However, almost all excavators have indicated that the cause is not reported (i.e., unknown/other). The direct cause has been reported in only 16,937 (53.3%) reports, mostly by locators. The proportions of each case category are presented in **Figure 1** based on the known inputs.





Number (%)

153 (16.9)

1608 (85.2)

20 (2.2)

154 (8.2)

112 (5.9)

12 (0.6)

EIP	Falling to notify One-Call center / 811	6,296 (53.9)
	Digging prior to verifying marks by test-hole	2,561 (21.9)
	Failing to maintain clearance	772 (6.6)
	Digging prior to valid start date	772(6.6)
	Digging after valid ticket expired	543 (4.6)
	Others such as providing incorrect ticket information and failing to support uncovered activities.	735 (6.3)
LIP	Marked inaccurately due to Locator error	975 (39.5)
	Incomplete locates	931 (37.8)
	Not marked due to locator error	560 (22.7)
UOIP	No response from operator/contract locator	446 (49.2)
	Marked inaccurately due to incorrect facility record/maps	287 (31.7)

Table 1. Direct Causes Nature and Proportions within each Cause Category and Known Data

Direct Cause Description

Unlocatable facilities

Abandoned facility

Tracer wire issue

Previous damage

Cause

General

Industry

Practices

The data indicates that excavators' practices contribute to 68.96% of underground damages in North Carolina. To better understand the nature of the insufficient practices of locators and excavators, the actions of each category have been determined (see **Table 1**). Within the excavators' insufficient practices, failing to place a locate request through NC 811 contributed to 6,296 (53.9%) of the damages. The next two contributing factors are: (1) not verifying marks by test-holes 2,561 (21.9%), and (2) failing to maintain clearance 772 (6.6%). According to North Carolina damage prevention law, excavators must not use mechanized equipment until visually verifying the location of marked

Not marked due to incorrect facility records/maps

Marks faded, lost or not maintained

utilities [87-122 (C) (9) (a)]. Excavating prior to verifying the marks seems to be a widespread issue that represents the second cause of damages due to excavators' insufficient practices. In addition, maintaining clearance between a facility and the point of any mechanized equipment is required to reasonably avoid damages [87-122 (C) (9) (C) and (10)]. Failing to maintain the needed clearance was the third contributed factor to the damages in North Carolina. Thus, NC 811 education efforts should focus on these issues. Finally, digging prior to start data or after the ticket expiration represents the third and fourth causes within excavators' practices. It is anticipated that marks will be in place when digging within these circumstances.

Finally, abandoned facilities rep-

resent 85% of the general industry practices category. Damage prevention training programs must address this issue carefully. However, the challenge remains that abandoned facilities are not present in the maps provided to the locators and therefore the locator does not have knowledge of the presence of these abandoned lines.







The NASTT 2022 No-Dig Show is the largest trenchless technology conference in North America, where thousands of professionals attend to learn new methods and techniques that will save money and improve infrastructure. This trade show and conference provides attendees an opportunity to learn methods in technical sessions, network with peers and talk to vendors during exhibit hall hours.

The 2022 No-Dig Show took place in Minneapolis, MN on April 10 – 14 and was by all accounts a tremendous event. The next No-Dig Show will take place at The Oregon Convention Center in Portland, Oregon on April 30 – May 4, 2023. Learn more at NoDigShow.com.







WHAT'S TRENDING





Excavation Safety Alliance an Infrastructure Resources initiative, launched the first of many virtual ESA Town Hall discussions. The inaugural Town Hall, held on April 14, discussed late locates and how collaboration with Notification Centers could help. Over 200 people joined the hour-long discussion moderated by Georgia 811 President & CEO Meghan Wade. Panelists included:

- Louis Panzer, Executive Director of North Carolina 811
- James Moskal, Compliance Manager of CORBY ENERGY SERVICES, INC.
- Bruce Campbell, CEO of MISS DIG 811
- Kelley Heinz, Damage Prevention at ComEd
- Randy Bern, President & Owner at Vannguard Utility Partners, Inc.

The full recording of the Town Hall is available for free at ExcavationSafetyAlliance.com/ TownHall. Use the QR code to jump straight to the Town Halls landing page.





#safediggingmonth

April brought yet another successful and active Safe Digging Month. National Safe Digging Month encourages campaigns and activities focused on promoting safe digging to the general public and professionals nationwide.





WHAT DO YOU THINK?

Have an idea for an ESA Town Hall topic?

We want to hear from you! The topic can be as specific or as broad as you'd like, so long as you believe meaningful discussion could have a positive impact. Submit your idea to the ESA Town Hall Ideas form at the bottom of the page at ExcavationSafetyAlliance.com/TownHall.





NUCA: National Utility Contractors Association

NUCA is a national trade association representing utility construction and excavation companies and suppliers who install and maintain the nation's network of water, wastewater, gas, electric, and communications infrastructure. Founded in 1964 by a group of visionary men, today NUCA is a thriving organization with a strong advocacy program, exceptional safety services, and education and training programs tailored to the utility and excavation construction industry. Members have access to multiple benefits, including several publications, free damage prevention consulting, discount programs with companies such as UPS and Office Depot that save members thousands of dollars each year.

Learn more about NUCA at NUCA.com

Output

Description:



Calendar of Events

Industry Events are Live Unless Noted as a Virtual Event. Be sure to Verify the Status of all Events you are Planning to Attend.

Upcoming Events

(V) = Virtual Events

June 2022

5

5-8

Association (St. Louis, MO) 6-10 NAPSR Eastern Region (Dayton, OH) 9 (V) ESA Town Hall Are You Prepared for the Infrastructure Bill Impacts on the Damage Prevention Industry? 11-14 AWWA ACE (San Antonio, TX) 13-16 Telecommunications Association of the Southwest (Point Clear, AL) NUCA: 2022 Trench Safety Stand Down Week 20-24 American Public Power Association National 10-15 Conference (Nashville, TN) 25-28 AGC Executive Leadership Conference (La Jolla, CA)

Illinois Broadband & Telecommunications

Oklahoma Rural Broadband Association (Rogers, AR)

July 2022

11-15 NAPSR Central Region (Rosemont, IL)

14 (V) ESA Town Hall

17-20 APGA Annual Conference (Minneapolis, MN)

17-22 NACAA (National Association of County Agricultural Agents) (West Palm Beach, FL)

18 DCA 2022 Mid Year Meeting (Coeur d'Alene, ID)

August 2022

1-5 NAPSR Southwestern Region (Lexington, KY)
11 (V) ESA Town Hall

Abstract Submissions Now Being Accepted:

IR-SavingLives.com/submissions/

Global Excavation Safety Conference: IR-SavingLives.com/submissions

Global GPR Congress:

GPRcongress.com

Leading Practices on Cross Bore Safety:

Crossbore Safety Course.com

To include your event in an upcoming Calendar of Events schedule, email karin@IR-SavingLives.com.



27-29

Safety 2022 (Chicago, IL)

The following LinkedIn exchange between several industry professionals resulted from an article published in the *dp-PRO* Special Locate Issue (The Global Locate Summit, page 30):

"I like this magazine. See page 30 for serious issues in the utility locator industry, public and private. 25% of hires retained. 3 out of 4 people are leaving. We can't find help. What are we going to do? Ticket volume is increasing. Laborers are decreasing. Is this wonderful or terrible?"

- Tyler Bristow, GIS Professional at Centerline Mapping

"I've been meaning to comment on your post for a while. Here is what I think we should do:

- 1. Convince utility operators to map their underground assets with precision in a GIS. Use a Good, Better, Best approach. Good = new facilities are GPS'd when installed, before backfill. Existing assets are GPS'd whenever exposed, such as to repair, replace, relocate, exercise valves, etc. Better = Good plus using tech to map existing assets when locating, such as what high-end EM locating instruments are doing (like Radiodetection, Vivax-Metrotech, Ridgid, etc.). Best = Better plus accepting pothole data from third-party excavators who cross their facility while performing other excavation work, but GPS the pothole location and give it back to the operator, even though that operator is not their client. Develop a CGA Best Practice for GPSing potholing locations so the operator will accept the pothole data.
- 2. Facility operators give maps to trusted contractors. Perhaps these contractors are certified (Gold Shovel) or meet some other quality standard to prove to the facility operator that they can be trusted with the maps.
- 3. The same GIS system is used by the facility operator for all departments pre-construction, regular operations and locating. Proposed new assets are symbolized in the GIS with dashed lines, which change to solid lines once the asset has been installed. Second-party excavators installing these facilities upload work, which has been GPS'd over night into the GIS. Contract locator downloads the latest GIS data every morning before starting their locates for the day.
- 4. Once trusted contractors get maps from all facility operators, they can begin digging immediately instead of having to wait 2-3 business days... No markings and late markings cost contractors so much money that it's worth it for them to accept liability of locating and marking themselves because at least the timeframe is now under their control. A large percentage of tickets are related to utility work, so if the facility operators can give good maps to the contractors, the burden of tickets to be marked goes down dramatically and now they only have to mark tickets for non-utility work. I haven't fully elucidated this plan, but I think this could be the start of a great discussion of how to really solve the problem? Hiring more locators is not the answer.
- 5. The One Call center gathers the maps from the facility operators. Today, the operators are resistant to the idea of aggregating their GIS data into a central master database. They cite homeland security as the main reason for this, or competitive advantage, but the real reason why they don't want to share their asset data is because they don't trust their



own GIS data... If the positional accuracy issues can be solved, then the operators would concede that the homeland security and competition arguments can be overcome. The pros of sharing data, especially when projects are in the design phase, outweigh the cost of hoarding data.

6. Finally, instead of aggregating all of the data into one central GIS, which would be a nightmare to keep current with all operators uploading their changes every day, the One Call center's ticket software connects to each operator's GIS via an API, and snags only the data within the area of a specific ticket. This keeps the data decentralized, while requiring the operator to maintain stewardship over their own data, but while allowing the One Call center to be the neutral hub that collects the bite-sized pieces of data as each ticket is created and gives that data to the trusted excavator within a few minutes of the time the ticket is submitted."

– James Wingate, Executive Director at Underground Service Alert of Northern California

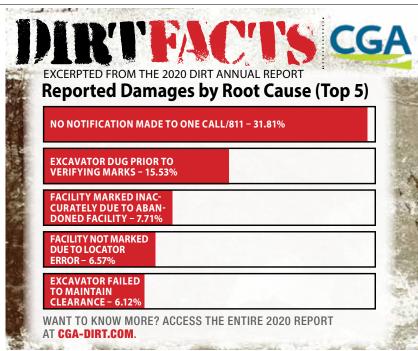
"Regarding your point number one, ASCE 75 might be your answer. Check it out when it is published in September."

- Jim Anspach

"James Wingate, I agree with you on all six points. We can do all the SUE, locating, GPR, scanning and potholing, but we need a way to manage this data for the utility operators, and use the information again in the future. Every time we subdivide parcels of land, it is required to survey, monument, describe, map and record this information in the county courthouse for future reference. Utilities have no such requirements. Everything you said makes complete sense to me and it is possible with accountability and leadership. And most counties and municipalities are turning towards GIS to help them map, manage and share this parcel information for public use."

- Tyler Bristow

Don't miss out on the conversation! Be sure to follow Infrastructure Resources on LinkedIn.





· · · · · CHAMPION · · · · · ·



Arizona 811 is a nonprofit communication center, which performs excavation notification services and stakeholder education that promote the safety and welfare of the community by protecting underground facilities from damage. Call 811 or click Arizona811.com at least two working days before you dig.



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



Claims Management Resources

Claims Management Resources (CMR) has provided thirdparty recovery services to utility companies and state transportation departments for over 30 years and understands the struggles utility companies experience when recovering the millions of dollars owed to them for property damages. Contact us to schedule a meeting to discuss how outsourcing your claims recovery can benefit your company.



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.



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.

METRUNET

MetroNet is the nation's largest, independently-owned, 100% fiber-optic provider of internet, television, and telephone services. MetroNet started in 2005 with one fiber-optic network in Greencastle, Indiana, and has since grown to serving and constructing networks in more than 120 communities across Indiana, Illinois, Iowa, Kentucky, Michigan, Minnesota, Ohio, Florida, North Carolina, Virginia, Texas, Wisconsin, and Missouri.

· · · · · · CHAMPION · · · · · ·



As the country's first statewide 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.



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.



Our mission is to protect the buried assets that power our everyday lives. Since 1990, Rhino Marking & Protection Systems has been the industry leader in damage prevention. We have over 30 million products installed across the globe protecting underground utilities.



OKIE811, Oklahoma's One-Call System, is the liaison between excavators and underground facility owners/operators in the state of Oklahoma. We are available 24/7/365. Excavators call 811 or visit our website to submit a web ticket prior to starting your excavation project. This is a FREE SERVICE!



Missouri One Call System is THE go-to source for all things damage prevention in Missouri. The mission of Missouri One Call is to enhance public safety and prevent damages to underground infrastructure. Using innovative approaches and time tested awareness and education strategies, Missouri One Call serves as a comprehensive resource for damage prevention stakeholders throughout Missouri and beyond.



North America's leader in underground utility damage prevention, USIC protects critical infrastructure and communities nationwide. Utilizing state-of-the-art technologies, we provide the highest quality, safest, and most accurate locating services, and the size and scope of our operations deliver significant cost savings for our customers.

· · · · · · · CHAMPION · · · · · ·



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



North American Telecommunications Damage Prevention Council

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

· · · · · LEADER · · · ·









····· ADVOCATE ·····



















Become a sponsor! Showcase your commitment to damage prevention and excavation safety, as well as your support for *dp-PRO* magazine, at the level that best meets your organizational needs and budget. Each level

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Advancements in mobile technology are driving innovation and transforming field operations. A mobile device with the right capabilities will transform the way your company gathers and uses data to drive operational effectiveness, increase field worker safety and complete work on time.

Increasing Safety and Productivity with Mobile Devices

Your field technicians drive operational effectiveness by accessing real-time information and gathering insights on their phones.

Capture Data

Technicians with a mobile device equipped with appropriate technology capture location data and asset data (pictures, videos), while performing audits, taking notes or filling out documents when they are out in the field.

Both current and historical data have unique benefits that can be applied to reduce risk and increase safety of your workers and protect critical assets.

Current data about location, assets and infrastructure, weather, traffic patterns and road conditions inform the worker in the field and boost technician efficiency. Details about weather, traffic patterns and road conditions, for example, can help techs better plan their days and optimize their routes so they can complete their work each day more efficiently.

Historical data plays a major role in day-to-day work that needs to be performed by the field technician. Historical data can be data about the contract company, locator and/or excavator, field technician information, previous locate details, and the trainings that the locator or excavator completed. Knowing a company's locate or excavation history guides the next best action to ensure digs are conducted properly.

With these insights, field workers have a greater awareness of all aspects of their dig sites and can drive safety efforts.

Store and Supplement Data

This data that's collected in the field (location, asset) is stored and supplemented with additional data (traffic, weather, road conditions) from other sources to provide accurate and detailed information to the technician when performing the work. This makes the technician more informed and aware.

Automate Workflow and Processes

Using workflow automation and process automation, utilities and energy companies are ensuring the technician follows stipulated procedures and guidelines as part of compliance and regulatory requirements. Another key advantage is in reducing human error. Using automation, the information needed is automatically populated thus reducing human intervention and substantially reducing human error. Automation helps with:

• Efficient ticket management

Ticket details can be pulled from existing databases and automatically filled in, saving workers time and effort.

Compliance-related concerns

When operating in highly regulated markets, automation can streamline workflow to ensure you follow the right steps in the right way.

• Automatically sending responses and notices

You can customize your solution to automatically send a response to utility companies, One Call centers or supervisors based on completion of work, or alert certain people if an action needs to be performed.

Incorporate Emerging Technology and Tools

In addition to process improvement, mobile devices have the capability to leverage the latest technology and tools, such as:

- Mobile applications: Apps like locate audits, damage investigation and pre-excavator checklists are making it easier for companies to use out-ofthe-box functionality right away.
- Augmented reality: Field workers can view and accurately identify – underground assets before the dig begins by using augmented reality resulting in increased locate accuracy and fewer damages.
- Analytics: Platforms are enhancing analytical capabilities by providing data integration and data processing to generate insights. For example, one can use the current and historical data combined with dig ticket information, to assign risk scores to dig sites, facilities, locators and excavators.
- Artificial intelligence: Use artificial intelligence in meter inspections to detect corrosion. By uploading a photo of the meter, field personnel can immediately get a result about the best course of action.

Digital transformation is changing the way field technicians work. Companies that collect, manage and analyze field data improve operational effectiveness and increase safety.



STAKEHOLDER | PERSPECTIVES

Excavator Perspective Summit

The 2022 Excavator Perspective Summit took place during The Global Excavation Safety Conference in Phoenix, AZ, at the beginning of March. Four excavation industry veterans, including moderator Larry Berwanger of Badger Daylighting, came together to discuss communication issues in the excavation process. More specifically, to point the panel towards solution-driven discussion, they ventured to answer the question, "What can be done to improve communication?"

Build Relationships

William Alex, Construction Manager at Henkels & McCoy, explained his company's emphasis on building genuine relationships with area locators. Project foremen make an effort to gather and use the phone numbers of locators working on the project and stay in active communication with them. This can relieve the tension that tends to build between locators and excavators who can both come into the situation feeling like the other is either delaying their work or unfairly increasing their workload. Opening a channel of communication above and beyond the standard ticket procedure helps build trust for both parties on top of improving efficiency. The result is safer, faster projects.

Sandi Garrick, Area Construction Manager as Markham Contracting, agreed.

"If you wait until there's an issue between excavators and locators, you're going to fail." - Sandi Garrick

As an example of established relationships positively impacting a project, Sandi relayed an experience Markham Construction had with Southwest Gas. Markham Construction discovered a shallow gas line located at an airport. Because of the established relationship with Southwest Gas, they were able to easily communicate the issue, expedite the process, and have the line lowered the very same day. Establishing a relationship did not cause either party to bypass any of the normal safety procedures, but the trust and communication built over time helped a difficult job get done faster.

Reduce/Unify Jargon

Larry Krummert, Director of Quality at Mears Group Inc, pointed to the fact that industry jargon varies geographically, between stakeholders, and even person to person.

"Each company has their own jargon. Even the same utility can have different jargon from state to state." - Larry Krummert

Moderator:

Larry Berwanger Upper Midwest Region Manager, Badger Daylighting

Panelists:

William Alex Construction Manager, Henkels & McCoy

Sandi Garrick

Area Construction Manager, Markham Contracting

Larry Krummert

Director of Quality, Mears Group, Inc.

The source of the jargon? Everything from regional preferences to the public utility commissions, which makes it a particularly tricky problem to solve in the short term. Individual states are trying to tackle it in their immediate areas, though. Sandi Garrick is a part of an Arizona Coalition to clarify the process. She emphasized that they're working on unifying jargon to eliminate communication issues within the state.

Improve Ticket Communication

One solution came from a summit audience member, who suggested that the excavator put as much detail about the project as possible on the ticket. Tickets that are too broad or are unclear can cause a cascading time waste across the system. You can do this a few ways:

- Clear communication between the project foreman and whoever is creating the ticket
- Train office staff in a consistent ticket creation process, starting with the basics and emphasizing clarity

Even with the extra ticket detail, it's important to also consider white lining. Ticket notes can get lost or disregarded as the project moves through a game of telephone. Despite that possibility, it was agreed upon that it's far better to air on the side of an overly detailed ticket than one with too little information.

"You can't go wrong with over-communication." – William Alex 📭



STAKEHOLDER | PERSPECTIVES

Water & Sewer Infrastructure Protection Summit

The 2022 Water & Sewer Infrastructure Summit took place March 2, during Global Excavation Safety Conference in Phoenix, AZ. This year's primary topic was, "What does responsible potholing look like?" Moderated by Erin Hayes, General Manager of Kingsbrook Rural Water, panelists Robert Edwards, Eric Larson, and Charles Bell led an engaging discussion on potholing techniques, variables, and challenges.

Bob Edwards, Supervisor of Water Operations at Citizens Energy Group, opened the discussion

with a clear summation of his view on potholing choices. Bob laid out three options:

- 1. No potholing
- 2. Potholing and backfilling
- 3. Potholing and leaving it open, which is the right way

He went on to outline Citizen Energy Group's guidelines for potholing. "For each utility, the vacuum excavator will know what they're looking to find. That could be steel pipe, iron pipe, stacked facilities, conduit, etc. Through vacuum excavation, they expose the tops, sides, and under the utility. If we're trenching, we'll backfill with peat gravel and mark it with depth. If it's directional drilling, we'll cover with a street plate and watch the boring rig go safely beneath, in the case of water, the facility. This is standard operating procedure for Citizen Energy Group and we hold our partners to that standard," Bob said.

Having a standard operating procedure is just one part of the process, though. The other is ensuring that operators follow it. On that, Eric Larsen, Senior Manager Western Division of Illinois American Water, sees two elements to achieving it: Internal and External.

"Internally, it's about our team having the right tools for the job as well as fully believing in doing it the right way. The first part is the physical stuff, tools like a vacuum excavator. The mental 'stuff' is the engagement. There's been a generational changeover and there's

Moderator:

Erin Hayes

General Manager, Kingsbrook Rural Water

Panelists:

Robert (Bob) Edwards

Supervisor Water Operations Citizens Energy Group

Eric Larson

Sr Manager Western Division, Illinois American Water

Charles Bell

Sales Manager, VacMasters

knowledge loss when that happens," Eric said.

To address that knowledge loss, Illinois American Water has found success in partnering with Ameren Illinois and their damage prevention specialist. Eric recommends building relationships with local gas and electric companies and their public outreach employees.

The second element is external, and Eric says that's "Putting our weight into it." Those actions include:

- An annual safety meeting every March with contractors. This meeting sets mutual expectations
- and goes a long way in building positive relationships.
- Writing safety elements into the contracts
- Promotion through physical banners and on social media

Charles Bell of VacMasters offered a unique perspective from the manufacturer side of things. Outside of best practices with their vacuum excavators, VacMasters puts an emphasis on the basic safety elements of a job site. Traffic safety, hearing protection, and awareness of your surroundings (like overhead powerlines) are pillars of safe excavation that are too easily forgotten when the bustle and noise of the job begins.

Charles also spoke about the safety benefits of air excavation on jobs that required more precision. Air flows around utilities, whereas hydroexcavation has the potential risk of damaging more fragile utilities. In Charles view, both air and hydro-excavation have solid use cases, but it's important to consider the benefits and deficiencies of both in the context of a specific project.

The summit panel also discussed a topic that has been at the forefront for everyone in the industry: Communicating workload and getting projects located. One step, they agreed, was communicating with other utilities on big projects. Coordinating, as much is practical or possible, on large locate requests could help alleviate backup. At the very least, projects could become more predictable for all sides.





BIDEN ADMINISTRATION

Denies Gas Industry Request

The Biden Administration has denied a request from the American Petroleum Institute and GPA Midstream to delay by 3-5 years what it says will be first-time, "meaningful safety requirements" for an estimated 90,000 miles of natural gas gathering lines. "The longer that gathering lines are not subject to federal standards, the greater the cumulative risk to public safety and the environment," the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) said in an April 1 letter denying the petition.

In the request for a delay, industry groups said PHMSA's 18-month compliance deadline for much of the rule was unnecessarily short and would pose high costs because of supply chain constraints. But PHMSA said industry has been aware of its plans for regulation for years.

The safety standards remain set to take effect on May 16, after which operators will have to begin reporting safety incidents along an estimated 400,000 miles of gas gathering lines. The operators of an estimated 90,000 miles of larger gathering lines have until May 16 to begin to comply with federal safety standards and submit annual reports.

PHMSA agreed to provide some clarifications in the rule, but it was unconvinced with industry arguments that compliance will cost operators \$28 billion over the next 15 years. PHMSA said the industry cost estimates were based on "severely flawed cost-benefit analysis."

Gathering lines were historically small enough that PHMSA exempted many of them from oversight. But over the past 15 years, many lines have been built with similar designs and pressures to long-haul transmission pipelines, PHMSA says. The U.S. Congress first told the agency to consider the rules back in 2011, but the safety rule was not finalized until last November.

Dig Safely New York Unveils New Name

Dig Safely New York, the nonprofit organization facilitating excavation safety through the 811



One Call Center and educational services in Upstate New York for more than 50 years, recently introduced its new name: UDig NY.

The name UDig NY, the new tagline "Safe Digging Starts Here," and a fully redesigned website (UDigNY.org) are an expression of the organization's updated mission, vision and leadership role in the damage prevention industry.

"Since we opened our doors in 1969, we have worked tirelessly to promote damage prevention and protect our community by facilitating quality communication between excavators and utility operators," said UDig NY Executive Director Kevin Hopper. "Our organization has truly grown into the place where all safe digging in Upstate New York starts, and now our brand has grown along with it."

UDig NY continues to be the 811 contact center serving all Upstate New York, the geographic area north of New York City and Long Island where excavators can place location requests 365 days a year, 24/7, or by placing a request online through Exactix. In addition to serving as the link between excavators and underground utility operators, UDig NY provides industry-leading damage prevention education through its Certified Excavator Program, and hosts dozens of educational events each year at its Center for Damage Prevention in East Syracuse.

JUSTIN SELL

NAMED EXECUTIVE DIRECTOR FOR UNDERGROUND SAFETY ALLIANCE

The Board of Directors of Underground Safety Alliance (USA), the umbrella non-profit organization for Indiana 811 and Kentucky 811, announced in late February that Justin Sell has been named the new Executive Director for the organization.

Sell has been with USA since 2011 and most recently served as Director of Operations and Technology for the past four years. In 2021, Sell led the organization's transition to a new software platform, Exactix. Prior to joining USA, Sell was a Senior Systems Engineer for three years at USIC. In his new role, Sell will lead all strategic planning, administration, program execution and staff management for the "Call 811 Before You Dig" centers in Indiana and Kentucky. In 2021, USA staff processed a combined 2.1 million inbound requests online and by phone from professional excavators and home owners, resulting in 12.5 million notifications to member facility operators.

"Justin Sell is the right person to lead the Underground Safety Alliance team in providing the best service to all members and everyone who digs in Indiana and Kentucky," said George Kemp, Chairman of the USA Board of Directors. "His deep experience in utility damage prevention and previous leadership roles in executing USA's mission made him the ideal candidate for the important public safety work this organization provides every day."

For more information about Underground Safety Alliance, visit usa811.org.



VIRGINIA NATURAL GAS Incorporates Artificial Intelligence to Protect Infrastructure

(Virginia Natural Gas) - Over the past decade, Virginia Natural Gas (VNG) has worked to modernize its pipeline infrastructure and has coordinated efforts with the Virginia State Corporation Commission, local governments, excavators and Virginia 811 (VA811) to promote safe digging.

By modernizing more than 400 miles of aging, older pipes through the Steps to Advance Virginia's Energy (SAVE) program, VNG is enhancing the safety and reliability of systems to meet current and future energy needs. VNG is now incorporating innovative technology to help predict and prevent damages to critical infrastructure. The technology uses artificial intelligence to predict which third-party dig requests are most at risk for potential damage.

Developed by Urbint, the technology predicts threats and enables VNG to stop incidents before they happen. The software assesses risk on VA811 dig requests daily, enabling the VNG asset protection team to focus efforts where damages may be more likely to occur.

"The program automatically imports information directly from VA811 and uses predictive analysis to identify and assign risk levels for third-party excavations," said David Gatling, VNG asset protection manager. "It can predict and pinpoint any areas of concern using artificial intelligence models to help prevent damages."

Minnesota Infrastructure Given "C" Grade

A recent report card from the American Society of Civil Engineers (ASCE) gave the state of Minnesota a "C" grading for the state of their roads, bridges, water and other public works. The grade of "C" is defined as "mediocre in need of attention."

The individual grades ranged from a "B" for aviation down to a "D+" for the state's roads. Bridges, dams, wastewater, and energy received a "C" grade, while drinking water, transit and ports received a "C-" mark. The report is published once every four years.

"Bridges in Minnesota need more than \$8 billion dollars in funding over the next 20 years for rehabilitation and repair needs," said Katie Zadrozny, a civil engineer who co-chaired the report card effort. The report also noted that the state has at least 100,000 lead pipe water service lines, including that these pipes have been buried under streets for more than a century.

"There are aging water infrastructure systems, many of which were built during the Depression in the 1930s or the 1940s," said John Linc Stine, former head of the Minnesota Pollution Control Agency, who now heads the clean water group Freshwater.

Lawmakers have said it's imperative for the legislature to pass a bonding bill to improve the aging infrastructure and improve the report card grade in four years, especially with the state looking at a projected \$9 billion surplus. Rep. Dean Urdahl said bonding is one of the best ways to raise the local match for federal dollars that will be flowing into Minnesota through the new Infrastructure and Jobs Act passed late last year. DP



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Are Your Assets Protected?

A Multi-Pronged Approach to Asset Preservation

BY TENO WEST & JILLIAN JAGLING

Sewer collection systems, water systems, and the operational plants that treat water and sewer flow are comprised of billions of dollars in above and underground assets. These assets are often times publicly owned and privately operated. One of the goals in that public/private relationship is for the assets to be returned to the owner in good condition, so that the owner can continue to provide reasonably priced and efficient services without significant overhaul or immediate replacements at the end of the relationship (or at the beginning of the next relationship). Whether publicly or privately operated, one method for preservation of above and underground public sewer and water system assets includes a multi-pronged approach, as discussed in this article.

Long-term operation, maintenance, repair and replacement agreements between the owner and operator are a means to establish such a multi-pronged approach, and achieve that goal of returning assets in good condition ("O&M Agreements"). O&M Agreements can ensure that the operator will spend money on asset preservation over the course of the relationship (oftentimes, 20+ years), and that all required maintenance, repairs and replacements are appropriately performed and monitored.

Sewer and water system assets must be regularly maintained, repaired and replaced in order to preserve their long-term reliability, durability and efficiency. If a long-term agreement is appropriately performed, monitored and administered, those maintenance, repairs and replacements will be kept up-to-date and, ideally, the owner will not have to pay the next operator to complete the work that it has already paid the incumbent operator to do.

One prong to asset preservation that can be included in an O&M Agreement is a repair and



replacement budget that may be modified throughout the term, as necessary. The O&M Agreement can require the operator to report to the owner on the budget monthly, which allows for real-time monitoring of required maintenance, repair, and replacement obligations. If money is not being spent, the owner can spot it early and determine why. Unspent money from the budget can roll forward each year of the agreement and the operator can be required to spend it only for repair and replacement expenses, and not to offset the operator's operation and maintenance responsibilities. The owner may also reserve the right to use such unexpended funds for capital expenditure(s) or other purposes as it sees fit and within its discretion.

In addition to the budget, another prong of the multi-pronged approach to asset preservation is a maintenance, repair and replacement plan. The maintenance, repair and replacement plan can establish the minimum standards for ongoing maintenance, repair, and replacement obligations. The plan can assure that no deferred or substandard maintenance, repair, and replacement occurs on material items. The plan can also help to establish clarity among the owner and the operator with regard to what is expected. In a public O&M Agreement, the plan is oftentimes presented by the operator as part of its proposal during the procurement process, and is further developed as any new assets come on line, and monitored throughout the term.

In addition to adhering to the maintenance, repair and replacement plan, the O&M Agreement will include requirements that the operator perform its obligations in compliance with applicable law, prudent industry practice, and specific agreed upon performance standards, all additional prongs in the multi-pronged approach to asset preservation.

Reporting and auditing are also crucial to asset preservation. Not only is timely and complete reporting from the operator to the owner crucial, but the owner's review and analysis of the reports are equally crucial. The O&M Agreement will likely require the operator to provide monthly and annual operations and maintenance reports that include a comprehensive performance evaluation of the assets. These reports allow the owner to evaluate the administrative, operational, and maintenance practices employed by the operator. In addition to monthly and annual operations and maintenance reports, full-scale reviews to audit and inspect the state of repair, working condition, and performance capability of the assets, every full third contract year or so, in long-term contracts, are also important to asset preservation.

Another prong in the multi-pronged approach to asset preservation might include an objective measurement intended to objectively test whether the operator is performing its obligations and properly preserving the assets. The O&M Agreement can establish the process for implementation and review of the objective measurement. First, the owner must evaluate the condition of the assets at commencement of the O&M Agreement to establish a baseline. Then, as discussed above, the owner will periodically



"The O&M Agreement can establish the process for implementation and review of the objective measurement."

check on that condition throughout the term (i.e., monthly and annual reports, as well as periodic full reviews). Finally, the owner will evaluate the condition of the assets upon termination of the O&M Agreement and compare the condition from the baseline to the current condition.

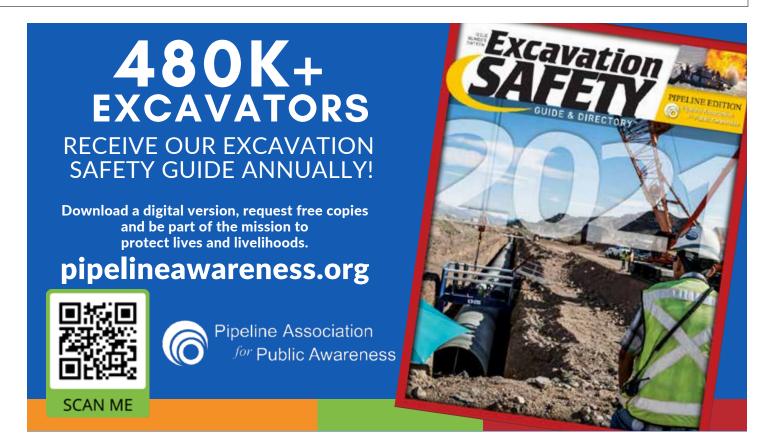
For example, to evaluate the condition at the beginning and end of the term, the owner, operator (or a third-party consultant) can calculate and utilize the weighted average rebuild/ replacement useful life of the assets. A formula may be used to indicate that the actual weighted average rebuild/replacement useful life of the assets at the end of the term must be equal to or greater than some percentage (e.g., 92.5%) of the projected weighted average rebuild/replacement useful life at the beginning of the term. While this can allow for an objective assessment, such formulas can also be complicated and therefore must be clear to

both parties, and including example calculations where necessary for clarification can be helpful. Also, many operators have their own, or license, software for this purpose that can be used to understand and analyze where an asset is in its lifecycle and to help owners and operators to know specifically where to invest funds on assets that are in poor condition at the end of their lifecycle.

A final prong in the multi-pronged approach to asset preservation is that the O&M Agreement should require that the assets and structures meet certain standards upon termination of the Agreement. For example, the O&M Agreement might require that assets must be returned to the owner at the end of the term in a condition which does not require the owner to undertake a significant overhaul or make immediate replacements in order to continue to provide reasonably priced and efficient services. If so,

the operator may be required to assume some of the responsibility of returning the assets to such a condition. Ideally, if the multi-pronged approach is followed throughout the term, such overhaul or replacements will not be necessary.

In sum, best practices in asset preservation for sewer collection systems, water systems, and the operational plants that treat water and sewer flow may consist of utilizing a long-term operation, maintenance, repair and replacement agreement to establish a multi-pronged approach that includes a repair and replacement budget; an operation, maintenance, repair and replacement plan; reporting, monitoring and auditing; and a formula for establishing a baseline and objectively measuring the condition of assets. This multi-pronged approach can help owners ensure that not only is money spent on preserving their assets, but that the owner does not pay for the same repairs more than once.



Town Hall: Late Locates CAN IMPROVED COMMUNICATION BE A "SILVER BULLET?"

BY SCOTT LANDES



Moderator: Meghan Wade, President & CEO, Georgia 811 Panelists:

- Louis Panzer, Executive Director, NC 811
- Bruce Campbell, CEO, MISS DIG 811
- James Moskal, Corporate Counsel, Corby Energy Services
- Kelley Heinz, Damage Prevention / Claims Investigator, ComEd
- Randy Bern, President/Owner, Vannguard Utility Partners Inc.

On April 14, Infrastructure Resources held our first Excavation Safety Alliance (ESA) virtual Town Hall titled Late Locates: Partnering with Notification Centers. The goal of our ESA Town Halls is to give everyone in the industry a voice and to provide a forum to work together towards solutions to common problems. The beauty of the ESA virtual Town Halls is that they allow people from all around the world to participate. There are tens of thousands of stakeholders in the damage prevention and excavation safety industry, but only a small percentage are regularly active in industry groups, and even fewer get to attend industry conferences where they get to exchange ideas and learn.

It was great to hear the many great ideas shared. It was also interesting to see that while some ideas were old hat to some people because of the state they were in, the same idea was an exciting new idea to someone else. In this article, I am simply sharing some of the ideas and discussions that took place in this hour-long Town Hall that came in via the chat and the follow-up survey. In order to see the full comments in their context you need to watch the Town Hall and read the Chat log, but this will cover the highlights. All the ideas may not work for everyone, but they will get the wheels rolling. You can watch the entire hour-long Town Hall and read the summarized chat log at ExcavationSafetyAlliance.com.

Here are the basic statistics:

- Over 300 stakeholders registered
- 93% of survey respondents rated the Town Hall as absolutely impartial or very impartial. Only one person rated it as *not at all impartial*.
- 65% of respondents rated the Town Hall as absolutely worth attending and not one person said it was not worth attending.
- 77% of attendees said they are *very likely* to attend future Town Halls and not one person said they were *not likely* to attend again.
- 69% said they were very likely to recommend ESA Town Halls to a peer and another 29% were likely to.

This is great news to me because it sounds like everyone, regardless of stakeholder group, is interested in talking about working together to improve the industry. Below are a few of the suggestions for reducing late locates both in the short term and in the long term. In order to cover more ideas, some of these comments are abbreviated. In the digital edition, and on the ESA Town Hall page, you will see expanded suggestions as well as more ideas and comments. ESA will not be recommending solutions, but we will be a place where all stakeholders can go to see solutions that do work for some people as well as new ideas, which you may find can help you.

Improving Communication: Many things fall into this category, but it was clear that improving communication and all stakeholders having clear expectations will go a long way to solving most problems:

- Randy Bern: We don't get to control the volume, nor do we get to control the start time. So, what we do on an annual basis is go out and shake the trees and figure out what utilities we are going to be doing, as far as the amount of work. And we also try to talk to the excavators in the field to see what kind of work they're going to do in the coming year. So, from that, then we try to figure out what the staffing is.
- Bill Kiger: PA provides "Coordinate PA" with over 16,000 active projects in the four year old system. The 34 regional Utility Coordinating Committees across the state meet to discuss the active projects. PennDOT has their projects in by county for the next 12 years with weighted indications of likelihood and priority code. There are 23,000 registered users.
- Louis Panzer: Some of this is a process problem with a disconnect between field and office entering tickets. We have seen some success with addressing process individually to try and bridge the gap, but it is an ongoing challenge
- Tracy Pursell: At JULIE in Illinois, we have a group that regularly meets called our Locate Summit group. They are provided a report that recognizes those excavators calling in requests when no work is being performed. Utilities' subs are at the top of this list consistently.

Improve Map Accuracy: Facility owners can use accurate maps and shrink the footprint. This reduces the number of tickets which lowers the burden on the system, making it easier for locators to keep up. Operations provide maps and then keep them up to date. Constantly updating the maps will reduce the number of locate request over time. Accurate maps also help the locator save time and improve accuracy. Include abandoned facilities on maps so contractors do not have to stop work and request verification that the facility is no longer in service.



Electronic White Lining: Michigan uses electronic white lining which allows the excavator to choose the exact location and tighten up their buffer. They are also working with their members to improve their maps so fewer locate tickets are issued. Per Bruce Campbell, this takes the "steam off the top of the pot" making it easier for locators to keep up.

Locate Demand Management Tool: Michigan uses this to allow excavators to enter their planned start date and see the likelihood of an on-time locate. This information may allow them to modify their start date.

Scope of Work: James Moskal says that they keep their scope of work as narrow as possible to ensure the locates will be completed on time and that the locates are not requested before they are actually needed. Kelley Heinz says ComEd does the same thing and in addition to spreading out the locate workload, if the scope of work changes during the project, this also ensures the locates are being requested for the correct area.

Midnight Tickets: According to Jim Sanders with Johnson Locating Services, their tickets are due at midnight on the due date not 48 hours (or whatever the time is for the specific state) from when the request was logged. This makes it easier for the locators to plan their work knowing they have the full day to complete the request rather than having to jump all over town trying to complete tickets in the order they were requested.

Longer Ticket Life: People expressed the belief that a longer ticket life would reduce requests to remark simply because the ticket expired. Per Arch York, in Kansas, they have a 15 day ticket life and about 22% of their ticket volume are renewals. In Georgia, they increased the ticket life from 21 to 30 days. Per Kemp Garcia, Project Manager at Linescape LLC, Washington State did not have a ticket expiration date until 2013, but now tickets have a 45 calendar day life.

Narrowing Remarking Requests: Tina Brownlee, a Transportation Specialist at Clayton County, GA, suggested that when you ask for a remark, only ask for the section you need, not the complete ticket.

"Piggy Back" Tickets: Kemp Garcia indicted that some states have "Piggy Back" tickets and we are looking at that system to reduce response to tickets. If the general contractor calls in the locate, subs can fall under that ticket as long as they are digging in the same area.

Permitting Analysis: Randy Bern (locator) said that CO811 does permitting analysis and uses the information to forecast workloads for the coming year.

Areas of Continuous Excavation (ACE) Tickets: Laura Simkus, Call Center Supervisor at Before You Dig, Inc., said that in CT they have an ACE ticket that is used for properties and that excavation is a part of their everyday operations, otherwise their Routine work tickets expire 30 calendar days from issue.

Uncontrolled Volumes with Unpredictable Spikes: Up-front information to the locators, both contract locators and facility owner locators, would be a big help on fiber projects. Kelley Heinz (electric utility) mentioned some pilot projects with some large fiber jobs starting at the design phase, and there is a pilot underway in Illinois. Louis Panzer said UCC preconstruction meetings and transparency are possible when large scale work is coming.

Geospatial Boards: Brenda V. Reigle, Executive Director, NUCA Pennsylvania, suggested each state have a Geospatial Board that can look at tying in the projects for mapping utilities.

Mark Once: James Wingate, Executive Director at Underground Service Alert of Northern California and Nevada (USA North 811), said he heard some buzz about the concept of "mark once" in which the utility operators would mark a ticket only once and the excavator is responsible to maintain and refresh the markings themselves for the duration of the project. Does anyone know if that is being done anywhere? And if yes, is it working? In his opinion, the operators would have to not only mark, but also provide their plans and photos of markings, etc., so the excavator has all of the tools to maintain & refresh accurate markings.

- Mark Bruce, Executive VP, Hydromax USA, said that "mark once" would be solved by creating accurate maps that can be served up time and time again, fast and low cost.
- Tabatha Waugh, Damage Prevention Specialist at Rogers Communications in Ontario, said that Bell Canada has implemented this here. If the marks cannot be maintained due to the excavation the contractor can request a remark but at a cost to them.
- James Moskal indicated that a maintain the marks program has been proposed in Michigan, but has not been implemented yet. The proposal calls for excavators to be vetted to ensure they are qualified/trained to locate facilities and would allow operators to opt into the program. Hopefully, this will be piloted later this year.
- Bruce Campbell said maintain the marks may not work for all Industries...we are partnering with ATT and Lumen primarily for the start of the program...Natural Gas and Petro have more concerns about the program, but they are interested.

Make Locating a Career: Roy Rogers, Utility Manager at Blount Construction Company, suggests that the industry should work towards making locators an actual career legacy type job with state licensing and certification. Labor crisis has hit contractors as well, but work is not stopping and we have to find a way to bring the labor to us. We are paying higher wages and more incentives.

Singapore System: Foo Zhi Rui from Singapore, said Singapore doesn't have an 811 system, or legislation that mandates SUE. Utility detection is the responsibility of the contractor, and typically clients hold contractors liable for any strikes (essentially, lots of fines and kicking the bucket down the road). As a contractor, we are definitely feeling the squeeze on our bottom line in the current situation. This is one of the key reasons why we're looking to SUE and SUM as guidelines/inspiration to flesh out a better system in Singapore. Coupled with adopting technology (GPR and 3D scanning to supplement the current standard of EMI/EML), we're trying to push for a more accurate, and critically, a common (under)ground truth. There's still a lot of groundwork to be done, but the system in America is a great reference of what could be.

Here is a quote from a participant in our first ESA Town Hall which really summarizes the feeling of what we hope the Town Halls will reflect: "As an excavator company, I would like to see what locators would like us to do that would help them with their work. I have a Locate Spreadsheet for updating, pausing and ending tickets, which I check every day. But can I do more? Keeping everyone safe is a team effort!"

Check out additional ideas and comments, along with future Town Hall Topics and how to register to participate, at ExcavationSafetyAlliance.com.



Tune into the June Excavation **Safety** Alliance (ESA) Town Hall

ESA Town Halls are changing the way the damage prevention industry shares ideas and collaborates on solutions. Bring your unique perspective to the conversation and help shape the future. ESA Town Halls occur on the second Thursday of every month at 10:30 AM CST.



Are you prepared for the Infrastructure Bill impacts on the damage prevention industry?

Every stakeholder group will be impacted by the construction projects included in the \$1.2 trillion Infrastructure Bill. This Town Hall will focus on the steps we can take to ensure we're prepared for the significant projected increase in 811 ticket submission. Do you have the right number of people on staff? Do you have mature/established operational processes in place? Can your critical technology scale with the



increases that are coming? Together, our goal is to ensure excavator safety and prevent an increase in damages. Moderator **Jim Plasynski, KorTerra CRO**, will moderate a panel of industry stakeholders while bringing forward the thoughts and ideas from the Town Hall participants. Sharing ideas and early preparation are essential to meeting the demands of the Infrastruc-

ture Bill. Register Now at ExcavationSafetyAlliance.com

Watch Previous Town Halls & Webinars

All previous ESA Town Halls and ESA Webinars are completely free and available at **ExcavationSafetyAlliance.com**.

Late Locates: Partnering with Notification Centers

Everyone wants the same outcome, on time locates with zero damages while keeping workers and the public safe.

Moderator: Meghan Wade, Georgia 811

Panelists: - Bruce Campbell, MISS DIG 811

- Louis Panzer, NC811
- James Moskal, Corby Energy Services
- Kelley Heinz, ComEd
- Randy Bern, Vannguard Utility Partners
- Andy Stone, UtiliQuest LLC

Survive the Attack and Win the Cyber War (An ESA Webinar)

We are in unprecedented times and many experts believe that the exponential increase in cyber-attacks is just the tip of the iceberg. **Speakers:** Steve Allen, Executive Vice President, Budco, Inc. & Sam Bloedow, Thriveon

How Can SUE and Accurate Maps Be Used to Reduce Both Damages and Costs?

SUE is a great tool for reducing costs on construction projects as well as being a big aid in damage prevention. In our April Town Hall on Late Locates, both SUE and the need for accurate maps were brought up repeatedly as long-term solutions to damage prevention problems.

Moderator: Daniel Bigman

Panelists: - Barbara Cederberg, Gopher State One Call

- Ron Peterson, Ron Peterson Consulting
- Brenda Reigle, NUCA Pennsylvania
- Lawrence Arcand, 4Sight Utility Engineers
- Jim Anspach, ProStar
- Nick Zembillis, Subsurface Utility Engineering, LLC



HOW MANY TIMES have you done a puzzle in your lifetime? 20? 50? 100? At least a few times I'm sure, and if you have children that number may even be higher!

Regardless of how large or how small that puzzle was, you probably started in the same way most of us do. Many of us start by creating the borders, finding the edges and corner pieces, and from there we worked our way towards completing the image. Often referring to the box top for guidance.

As safety professionals, we often approach our safety programs the same way: start with the basics and then focus on the rest. For many of us, we are at the tipping point. We have the corners and sides in place. We have most of the image figured out with our policies, procedures, guidelines, and our proper gear and equipment. What we are missing are the few last pieces of the puzzle to make it complete. Those missing pieces are what we personally bring to the puzzle: the pieces that define who we are and what is most important.

One of the toughest challenges that we face in attempting to create, grow, and sustain a positive safety culture is getting our employees to buy into the program, to comply and engage. Compliance and engagement are the standards we use to measure how well our safety programs track with employees, but a standard we often find more important is how much an employee wants to comply and engage. So how do we close the gap between asking them to be safe and them intrinsically wanting to be safe?

It's simple. We need to make safety personal. We need to help them determine who and what are most important to them. Placing those pieces in their own personal safety puzzle empowers them to create their own effective safety legacy.

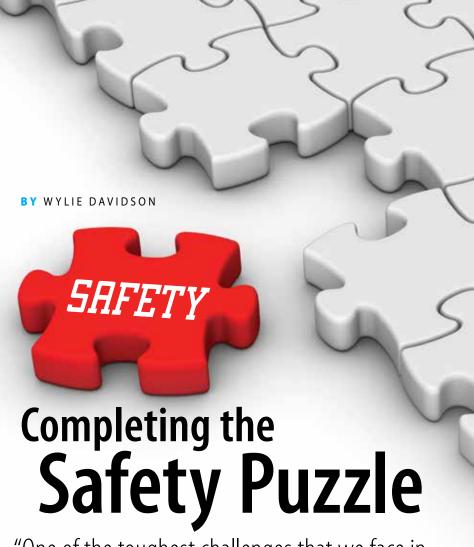
Let's face it, we will all leave a legacy, good or bad. We don't really have a choice in that fact. We do have a choice however in the type of legacy we leave. Making the choice to start creating a positive safety legacy is the first step. A lot of what will create that legacy is formed by our character, how we act and treat others — and our competence, what we bring to the table every day.

Now, no one likes to discuss dying, especially in a safety periodical. Many may find it counterintuitive, but recently I attended a service for a lifelong friend of mine whose father had passed away. At his service the pastor spoke of his life, his accomplishments, and his character. He said that it's not the dates on the tombstone that make a difference, but it's the "dash" in between. That dash represents everything that you've done in your life, your accomplishments, your character, and the impact you made on those around you. It's ironic because that dash is so small, but it means so much. He encouraged people to "live your life on the dash" because that's where you'll do your living, make your impressions, and ultimately where you will leave your legacy for others to follow.

The goal is not to live forever. We all know that's not going to happen. The goal is to create something that will live forever. A legacy for others to follow.

So how do we complete the puzzle?

We start by finding the passion to comply and engage. By determining who and what are most important to us and by placing them in our own personal safety puzzle, and by leaving a legacy that others will follow and look up to.



"One of the toughest challenges that we face in attempting to create, grow, and sustain a positive safety culture is getting our employees to buy into the program."

When you're not sure why you should work safely or you start to lose focus, take a step back and refer to the puzzle box top for clarification. Everything you need to know about leaving your own safety legacy is right there in between the corners and edges.

Wylie Davidson is the founder of Legacy Safety Solutions, a safety and leadership provider with a focus on personal behavior in and away from the workplace. As a motivational speaker and safety culture specialist, his ability to energize audiences while getting them to realign their personal values to better connect with company safety standards has been an effective resource with hundreds of companies and conferences all over the US. Canada. and Mexico.

For more information on how to contact Wylie or to read more about his content, please find him at https://leavingasafetylegacy.com.



You Spoke. We Listened.

Global ESC 2023 is Heading Back to Tampa.

Tampa, FL | February 14 - 16, 2023



Registration Now Open!

\$811 through August 11,2022

Global ESC is the conference built by the damage prevention industry for the damage prevention industry. Attend Global ESC 2023 in Tampa, Florida to see why thousands of damage prevention professionals have made the Excavation Safety Conference an annual tradition for the last 17 years.



2023: Building on a Tradition of Continuous Improvement

Since 2004, the Excavation Safety Conference has been the world's premier damage prevention conference. We firmly believe that's because of the attendees and exhibitors who have been, and continue to be, wholly invested in making it a great event. They're invested in diverse, quality education sessions and that's

reflected in the consistently top-rated Global ESC sessions. They're invested in unmatched networking opportunities, and the Wednesday Night Event is can't-miss because of it. They're invested in the common goal of saving lives, and that shared purpose shows in the open, honest conversations that are made possible.

Here's what Global ESC 2022 attendees had to say about the event

"This conference benefits all walks of life from
locators to 811 specialists, utility owners,
excavation equipment
specialists, municipalities, excavators (private
and public entities) and
so many more."

Jay Hemley, Collection Systems Technician, City of Tacoma "The Excavation Safety
Conference was very
productive. I was able
to get my hands on the
latest hardware, try out
the latest software, and
learn about cutting-edge
products that I didn't
even know existed."

Forrest Sim, Owner/Founder GPR
Consortium & Owner
Enhanced Scanning

"The 2022 GESC provided strong results from numerous educational offerings and attendance by leading damage prevention decision makers. Exceeded expectations - very pleased to have attended."

Mark Bruce, EVP, HydroMax USA

Global ESC is made great by the attendees and made possible by the partners that sponsor, exhibit and endorse the event.

Why Exhibit? The Damage Prevention industry is constantly evolving and improving -- Take advantage of three days of Exhibit Hall access to generate new leads, stay connected with decision makers, and have your finger on the pulse of industry changes.

The largest event of its kind, Global ESC is the place to showcase your company, products and services through an expo booth or by participating in exhibitor education opportunities.



























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ENDORSING













































Workshops & Education

Damage Investigation with an Expert Witness w/ Ron Peterson (\$255)

Tuesday, February 14, 2022 • 8:00 AM – 12:30 PM EST

Learn how to protect your company through proper documentation of damage incidents through photographic, interview, and investigative procedures. Ron will break the individual components of a quality root cause investigation into easily digestible segments.



Utility Locator Skills Enhancement w/ Bob Nighswonger (\$395)

Tuesday, February 14, 2022 • 8:30 AM – 3:30 PM EST

This workshop was designed to challenge and expand the knowledge base of even the most seasoned of pros on the art of underground line locating and marking.

Register for workshops taking place during Global ESC 2023 at GlobalExcavationSafetyConference.com/RegisterNow or by using the QR code.



2023 Education Preview

Believe in Safety

Brandon Shroeder, Believe in Safety, LLC

De Escalating Volatile Situations in the Field

Jim Willis, In-Dev Tactical

First Amendment Audits

Jim Willis, In-Dev Tactical

Two Confined Space Standards: Which one is for you?

Bruce Magee, United Rentals

RP1162

Terri Larson, Larson Communications

Power of Don't: Communication and Leadership Excellence

John Brix

PLUS:

Attend the CAMO (Coastal and Marine Operators) Meeting at Global ESC 2023!

Learn more about CAMO at CAMOGroup.org.

Learn more about sponsoring or exhibiting at Global ESC at:

magine the power of one action setting off a chain of similar actions. Domino effects are scattered throughout history. The Pipeline Ag Safety Alliance (PASA) was created several years ago to find a unique way to educate farmers and ranchers on safe digging. Find the audience, find the best ways to communicate, and spread the safe digging message in an unconventional way.

Extension professionals, also referred to as ag agents, were identified as one of the most trusted sources of education and information by agricultural professionals. Ag agents are employed by land-grant universities and work with individuals, families, businesses, and communities. They educate farmers and ranchers on business operations and modern ag science and technologies. PASA began its relationship with ex-

tension professionals by teaming up with the National Association of County Agricultural Agents (NACAA) in 2015. Currently, NACAA has over 3,000 members covering nearly 3,000 counties in 47 states. Extension professionals have over two million interactions with farmers and ranchers annually.

This is where the domino effect comes in. PASA educates the educator, and the educator shares this information with farmers and ranchers. Empowering agents to become safe digging advocates has



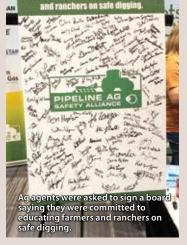
Every year, we ask agents questions in our annual luncheon at the NACAA Conference to gauge program effectiveness. Do they understand the topics we're presenting? What type of communication works best when it comes to sharing information with farmers and ranchers? What other audiences are out there, like Master Gar-

EDUCATING &

BY WHITNEY PRICE

EMPOWERING

Safe Digging Advocates for the Ag Community



transformed the way we share information to help protect rural communities from utility incidents.

Building relationships on a foundation of trust and open communication fosters a community of empowered individuals advocating for safety. Combining that with consistent engagement keeps an otherwise static topic dynamic and alive. PASA educates extension professionals on a monthly basis through educational e-newsletters, face-to-face at the annual NACAA AM/PIC Conference, and through



PASA t-shirt handed out to an ag agent during the

annual educational luncheon

safety tools, both digital and print. Agents have done everything from sharing safety information on their social media channels, in their print newsletters, in digital columns on their university websites, handing out PASA *Farm & Ranch Excavation Safety Guides* at meetings and trainings, and inviting speakers to different events happening around the country.

deners? Each year we have new PASA t-shirts created for anyone that shares a story, testimonial, or asks a question in our luncheon. It's a fun way to keep agents engaged, feel comfortable sharing in front of their peers, and another way to keep the conversation going and making it fun.

If you'd like more information on the Pipeline Ag Safety Alliance visit PipelineAgSafetyAlliance.com.





In 2018, MISS DIG 811 and Blood Hound Underground Utility Locators began discussing what the meaning of a "One Call system" entails. At the time, contact with MISS DIG 811 meant public facilities would be marked for an excavation area; however, issues remained on marking private facilities. First, do the contractors understand the need for a private locate? Second, when the contractor does know, it takes additional calls to get private utilities located. The lack of knowledge and awareness to make a second call to a private locating firm resulted in utility damages, injuries to homeowners and contractors.

To increase safety and awareness, MISS DIG 811 and Blood Hound partnered to make a true "One Call" for all utility locating. The goal was to incorporate an option with the MISS DIG 811 process that allowed excavators to be contacted regarding private locating options. The challenge? How to partner a for-profit company with the not-for-profit One Call while maintaining its integrity.

MISS DIG 811 Member Services then proposed creating a locator code for Blood Hound. This would allow transmissions be sent to Blood Hound based on their geographic coverage in Michigan. Next, it was recognized that not all locate requests have the need or that excavators wanted private utilities located. This issue was resolved by adding a button for the excavators to choose "yes/no" to requesting a private locate.

A pilot program was established in April 2020 to determine the success of this endeavor. For simplicity, it was decided MISS DIG 811 would only offer the option to request private locates to excavators who participated in their Remote Ticket Entry (RTE) program. This meant only users who underwent specific training and were approved by MISS DIG 811 staff to use the ticket entry system would be allowed to place private locate requests.

When an RTE user chose "yes", a transmission was initiated to Blood Hound through their locator code. Blood Hound would then contact the user (i.e. excavator) about private locating and educate them on the difference between public and private locates. When the user chose to proceed, they would schedule a time for Blood Hound to perform the private locate services and the user would pay them for their services. After contacting the user, Blood Hound would post in the Positive Response system.

The pilot initially included two of the 83 Michigan counties (Oakland and Macomb). After four months, Blood Hound requested to add an additional 16 counties. While the number of private locate requests appeared low (0.4% of all RTE requests), Blood Hound reported success due to the opportunity of educating callers of the differences between public and private locating. The conversations not only built relationships for potential future work, but ensured ALL utilities were located, making the dig sites safe!

When the pilot program ended in March 2021, the MISS DIG 811 Board of Directors approved moving the pilot to a statewide program, resulting in two additional private locating companies joining the program. MISS DIG 811 also sent out a survey pertaining to the private locate program. Over 60% of respondents, from a sample size of 2,045, said it would be helpful to request private locating services when contacting MISS DIG 811.

The Private Locate program success has led MISS DIG 811 to investigate the benefits of including other services to the industry such as Locate Now, vacuum excavation, surveying and subsurface utility engineering.

By moving in this direction, the notification system will not only become the hub for diverse services but also increase the safety and convenience of its users.







TOP RATED OF 2022

THE GLOBAL EXCAVATION SAFETY CONFERENCE is the place to gain knowledge about the damage prevention industry. Featuring the best speakers in the industry, you will learn 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 and sessions from our recent event in Phoenix that emerged as leaders among all our considerable educational content. These sessions and 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 Sessions – Perfect Score Across the Board

Paying Attention Makes All the Difference

Jim Willis, In-Dev Specialists, Inc.

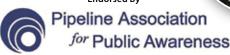
Improving your situational awareness skills depends entirely on you. You begin to improve your situational awareness the moment you decide to take a proactive step in paying attention. Situational awareness training can be a life saver. And good training can help you become more effective at your craft and will provide insights into subtle ways to increase awareness and assess situations.



What's on the Horizon for Public Awareness

Dr. Christie Murray, ROSEN USA Every day, more than two million miles of pipelines across the U.S. safely transport natural gas and petroleum products that fuel our daily lives. Did you know that pipeline operators are required to share information with the public and others to make sure they understand the potential hazards and how to identify and respond to help keep communities safe?

Endorsed By



Top Educational Sessions

IRS Interest in Good Corporate Governance Practices (IRS Form 990)

Kevin Moore, Hinshaw & Culbertson LLP This session will discuss certain "good governance" practices for non-profit boards in reviewing Form 990 as well as other ways to best abide by IRS guidelines.

Kevin Moore was also rated as a Top Speaker.

Fiber Optic Asset Protection Summit

Moderator: Christopher McDermott, AT&T Panelists: George Kemp, MetroNet Andrea Stainback, Lumen Tammy Wilfong, Verizon







eorge Kem

Join the industry-focused summit with a panel of industry leaders discussing, "Should we be looking up as well as looking down?"

This panel was also rated as Top Speakers.



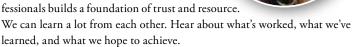




The Domino Effect

Whitney Price, Infrastructure Resources / Pipeline Ag Safety Alliance

What messages do farmers and ranchers relate to? Who do they trust? What communication mediums are most effective? Open communication between operators and ag professionals builds a foundation of trust and resou



Whitney Price was also rated as a Top Speaker.

Top Speakers Sessions

Two Confined Space Standards - Which one is for you?

Bruce Magee, United Rentals

Although OSHA's construction industry-focused confined space regulations were released in 2015, there is still confusion to which Standard should be followed. This session will help clarify misunderstood standings between when workers should follow General Industry Standard,

1910.146, and Construction Industry Standard, 1926 Sub-Part AA. Keeping those in mind, we will then address the importance of training your workers on the proper standard and provide ways to ensure everyone is compliant and safe.



Managing the Change

Jack Jackson, SafeStart

Understanding the attitude of management and their employees is important for any change initiative. As managers, we must understand what employees'

value, and tie those values to company initiatives. It is important management staff "walks the talk" during the implementation and throughout the change. Regardless of your safety culture, good, or bad ... it didn't happen overnight. If we are going to grow, we must be willing to change. We must make an impression if we want change to last.





If these topics could

help you increase your industry knowledge and advance your career, then you belong in Tampa at the 2023 Global Excavation Safety Conference, February 14-16! With content addressing issues

and concerns of the different facets of the industry, there is something for everyone. \blacksquare

Learn more at GlobalExcavationSafetyConference.com. Register now for best pricing.





Industry Increases Their Engagement in Locator Safety & Appreciation Week!



THANK YOU LOCATORS!

And thank you to all our industry partners who took time the time to recognize these important industry professionals as we celebrated Locator Safety & Appreciation Week in April. As always, Infrastructure Resources provides sample graphics for stakeholders to use and saw an over 230% increase in engagement! There's no denying it, locators are the heart of the industry. Be sure to mark #LSAW on your calendar now: April 23-29, 2023.

Here is a sampling of the engagement on social media.







BJSS BOSS Solutions

4.189 followers







Florida Public Utilities Company

Appreciation Wee

APRIL 24-30













√ Following

every day. We're honoring the heroes in

s. Thank you for working hard to protect ture and keeping us safe! We appreciate

cates are performed ver 68,000 potential ,000 projects enabled, ns to be thankful

Alan Meyer • 2nd

Damage Prevention Manager at Spire Inc.

As a former locator myself I can appreciate the hard work they do to protect the nations infrastructure. Not an easy job.



forward begins ery day steps of

11 - Apr 28

Following

cators play a

for the

and our





Gary Uftring • 3rd+ Owner, Uftring Ford

Thank You helping to keep us safe!









3w

6d ...



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
- ☐ Call 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

This document is provided for informational purposes only and does not constitute professional advice. It is intended to be used as a guide not constitute professional advice. It is intended to be used as a guide in the development of a checklist specific to your situation and may not be inclusive of all pre-excavation activities required of your situation. Consult your company's appropriate management before implementation. Excavation Safety Guide, its employees and agents accept no inclusive studies are propossibility for the consequences of acting, liability and isclaim all responsibility for the consequences of acting. nountry and עוסטאווון מוו ובסףטוטאווון או זה פווסטאעבורכב או מעווקן or refraining from acting, in reliance of the information contained in on remaining normal acting, in remains, or the information assuming of this document or for any decision based on it, or for any consequential, this document or for any decision based on it, or for any unsequent special, incidental or punitive damage to any person or entity for any matter relating to the contents of this document.



Texas811 Celebrates NSDM

• CHRISTI MCLAIN •

TEXAS 811 launched its 2022 National Safe Digging Month campaign, Some Accidents Can be Avoided in April. During the month of April, the campaign brought awareness of the potential for injuries, property damage, and outages if underground utilities are damaged.

According to the Pipeline and Hazardous Materials Safety Administration (PHMSA) website, if someone calls 8-1-1 before they dig, they have a 99 percent chance of avoiding an incident, injury, harm to the environment and even death. Calling 811 or visiting www. call811.com, has proven to be the foremost preventive measure in excavation safety and damage prevention.

As part of national Safe Digging month, Texas811 partnered with national One-Call centers to educate the community of the importance of calling 811. This included a partnership with Nascar's Martinsville Speedway. Fans were able to see the campaign theme: Some Accidents Can be Avoided as the Call Before You Dig 250 Race aired nationally April 8, 2022.

During the Call 811 Before You Dig 250 race, fans were exposed to 811 through track signage and an 811 themed trophy for the winner. Each One-Call center that partnered on this initiative also shared similar social media messages the month leading up to the race and during the month of April.

At a state level, we partnered with other stakeholders in the 811 industry during March and April at the Sam Houston Race Park in Houston, TX. Race fans saw 811 signage at the track and heard about the importance of 811 during track events.

In addition to the Call Before You Dig 250 race, Texas811 raised awareness about first responder safety by hosting a social media contest for fire stations in Texas. We asked firefighters across Texas to help share our messages about safe digging on their social media pages to be entered into a contest for a chance to win either a Traeger Pellet Smoker or a 75in Smart TV for their station.

You may be asking yourself, "How does this tie into safe digging?". That's





a great question. Many people don't think about the impact a damaged underground utility line has on first responders. When someone is digging and they damage a gas line, first responders are usually the first ones on scene to ensure public safety. First Responders are required to stay on scene until the utility operator can shut off and repair their line. While natural gas is a safe form of energy at the burner, there are certain dangers associated with gas leaking uncontrolled from a pipeline. A few common ignition sources include electrostatic discharge, starting a car engine, any open flame, turning electrical appliances on or off, or even flipping a light switch. A flash fire or explosion could potentially endanger our first responders and the general public that they serve.





11th Annual Nebraska Excavation Safety Summit

• BY JILL GEYER •

NEBRASKA SAW a record turnout for their Excavation Safety Summit after a year off due to COVID.

Hosted by Common Ground Nebraska (CGN) and Nebraska811, the free educational event brought together over 1,250 damage prevention stakeholders from across the state to the Lancaster Event Center in Lincoln. The event has seen a significant increase in attendance every year since its inception in 2011. After missing a year due to the pandemic, attendance came back strong and doubled the usual increase in attendees.

CGN President Nathan Stewart summed up the one-day conference by saying, "This year's event was a tremendous success. The event continues to grow every year with this year being our highest attendance yet. I think it speaks to the event being both fun and educational for participants while raising awareness for the need to dig safely. Our ultimate goal is for everyone to go home safely every day from work. We try to provide some tools at this event to help them do that."

The keynote speaker was burn survivor Spencer Beach. Years ago, Beach received third and fourth degree burns to his body but was able to escape; he now shares his fascinating story, along with a message about the power of change, with audiences all over the country. The audience showed their appreciation for his safety message with a standing ovation.

Educational sessions helped locators, excavators and others in the industry learn about everything from safe digging basics and damage investigation preparedness to a pilot GIS mapping project and tips for more effectively submitting One Call tickets.

There were also plenty of opportunities for fun throughout the day. In addition to a comedy sketch by the Master of Ceremonies, an excavator rodeo (complete with cash prizes) and a charity raffle benefitting Construction Angels, attendees could tour and try the simulators from a local community college as well as the New York 811 VR-X-SIM Vehicle, an immersive virtual reality safety training vehicle and demonstration of real-world scenarios and challenges that an excavator may face on the job. Some of the finer points of safe digging were brought about in a session titled "Ask Nebraska811" where attendees submitted questions throughout the morning and learned the answers later in an

interview with the board president. Other highlights of the day included interactive audience polling for a variety of questions and a game show that included volunteers from the audience and personalities from the State Fire Marshal's agency and the One Call Board of Directors.

The 811 Car, part of One Call Concepts' "811 Trio" fleet of vehicles, was also on hand. Designed by Paul Teutul Jr. of American Chopper and Paul Junior Designs fame, the eye-catching custom Corvette helps spread awareness of 811 and damage prevention throughout the country.

Event sponsors and exhibitors were an important part of the event and a big attraction for attendees. The showcasing of information and tools to utilize in the daily work of digging contributed greatly to the educational experience. Great support year after year helps in bringing a robust agenda of speakers and a variety of interesting elements, as well as allowing it to be a free event for the attendees.

Nebraskans can feel safer knowing there is such strong interest year after year for this event where attendees renew their commitment to create a safe work environment, increase their knowledge about safe digging practices and prevent damages to the underground utilities we rely on every day. We are already looking forward to next year when the event will be held February 22, 2023. For more information, visit ne-cga.com.





Nebraska Honors 2020 and 2021 Utility Locators and Excavators

BY TRAVIS BERAN .

CONGRATULATIONS TO two outstanding Utility Locators and two Excavators from the state of Nebraska. They were awarded the coveted Golden Spray Can trophy and Golden Shovel trophy at the 2022 Nebraska Safety Summit in front of 1,250 attendees. Awards for 2020 & 2021 were given this year since last year's event was cancelled by the pandemic.

In 2015, Nebraska wanted an alternative way of recognizing people that helped contribute the message of damage prevention. "Locate Rodeos and Excavator Rodeos help promote skill but don't promote communications between locators and excavators. We wanted excavators to nominate locators they appreciate and in return, locators tell us what excavators they appreciate. Communicating between both parties to work together as a team is a large piece of damage prevention," said

Travis Beran from Subsurface Solutions, awards proctor.

Written submissions include an essay from their nominee. All winners are encouraged to speak at the conference and give their real life message of damage prevention, which usually is the highlight of the conference.



Joe Stock – Metropolitan Utilities District, Omaha, NE, 25+ years locating

"Joe goes above and beyond his job description. He believes in communication and accuracy with every job he does!" - Chris Sacco

"Joe Stock has been accurately locating utilities since the late 1990s. He has located everything from water, gas, and electrical; he has also located with directional bore equipment. Joe has a professional attitude and has always taken pride in his job as a professional locator. Joe also shares his

skills and experience by teaching locating classes at MUD. Joe has been runner up for the award as locator of the year. It is now time to recognize Joe with the title that he deserves, Locator of the Year." – Steve Kovar

Best Locator 2021

Shawn Lankton, Magellan Pipeline, Omaha, NE, 25+ years locating

"Located for over 25 years now







and advocates for damage prevention 100% of the time."

- Brent Briley

Best Excavator 2020

Hugo Perez, LTU-Water, Lincoln, NE

"Hugo is very experienced in providing a safe excavation. He uses caution and patience when digging in congested areas to limit damage to property and nearby utilities. Hugo sets a great example when preparing the site for excavation as well as during the excavation and post excavation cleanup. His efforts



and the experience that he brings every day is very much appreciated." - Anonymous

Best Excavator 2021

Corey "CJ" Lind, General Excavating, Lincoln, NE

"CJ has shown great ability to operate an excavator. For the last year, he has been a lead foreman at a job site with extensive safety protocols and has had zero incidents. CJ hasn't had a safety issue or a hit utility for over five years with General Excavating and this just goes to show how great he is at his job. On top of his stellar performance as an operator, he also has the patience and ability to teach his skills and train up-



and-coming operators, paving the way for a new generation of operators for the underground construction industry." - Autumn Tate

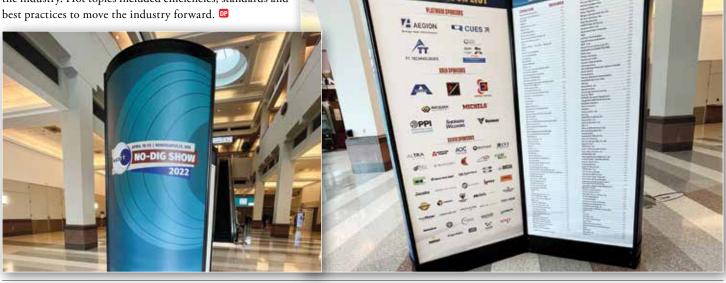
"CJ takes extraordinary care when doing any and all excavations. Will not dig until clear, will not dig if given no response and uses vacuum excavation when possible. Also takes the time to teach our young employees the importance of 811 and enforces the law!!" - J. Damico





NASTT's No-Dig Show

NASTT'S 2022 No-Dig Show brought design and engineering experts together for three days of diverse education on the planning, installation and maintenance of utility infrastructure. Discussions and demonstrations on new technologies encouraged and excited attendees to help advance the industry. Hot topics included efficiencies, standards and





Utility Training Academy (UTA) specializes in damage prevention training programs designed to build and advance the knowledge and skills needed for accurate line locating and excavation safety.



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The National Rural Water Association

Strengthening State Associations & Rural Communities

THE NATIONAL Rural Water Association (NRWA) is a non-profit organization dedicated to training, supporting, and promoting the water and wastewater professionals that serve small and rural communities across the country.

NRWA provides training and technical assistance through 49 state affiliated State Rural Water Associations that currently have more than 31,000 utility system members. Rural

Water training and technical assistance covers every aspect of operating, managing and financing water and wastewater utilities through multiple federally funded programs. NRWA programs generally focus on assisting small and rural communities that serve less than 10,000 people. However, State Associations work in different ways with all sized systems, with many large cities demonstrating their support for Rural Water as members.

The NRWA Circuit Rider Program is made up of 49 state Rural Water Associations (CT/RI are combined as one) and Puerto Rico, totaling 147 Circuit Riders in the U.S. These Circuit Riders provide hands-on training and technical assistance to small, rural water systems on an everyday basis, 24/7. Personal, professional assistance is at the heart of the Circuit Rider program. On-site help is delivered when and where a rural community needs it.

"Circuit Riders have provided technical assistance more than 700,000 times to help rural systems and communities since 2009," said Rita Clary, NRWA Circuit Rider Program Manager.

The purpose of the Wastewater Program is to protect that nation's multi-billion-dollar investment in rural and small municipal water/wastewater systems by providing on-site technical assistance, which ensures cost-effective operations and adequate income for both operations and debt service within each state. There are 65 dedicated and talented Wastewater Technicians throughout the country working through their State Rural Water Association. The primary goal of these technicians is to assist small, rural and economically challenged communities to enhance and maintain the financial stability of their wastewater systems through technical assistance and/or training.

The Apprenticeship Program provides standards and guidelines to State Associations so they can build their own program to hire and train apprentices in their state. Through these programs, apprentices can earn while they learn and emerge with a secure career as a water or wastewater operations specialist. With a declining workforce, this program has proved essential to provide future water and wastewater operators.

The NRWA Source Water Protection Program is built around small water utilities, local businesses, agriculture, government, and other groups working together to develop and implement strategies to protect their drinking water sources. This cooperative program has made significant progress in



reducing point source pollution from industrial, agricultural, municipal, and even household sources. The program has also made progress in the challenging area of nonpoint source pollution.

NRWA's Energy Efficiency Technical Assistance Program is designed to promote energy efficient practices in small water and wastewater systems. Funded through a grant from

the U.S. Department of Agriculture Rural Utilities Service, the program performs energy assessments, recommends energy efficient practices and technologies, and provides support following recommendations. Technical support includes assisting with presentations to governing boards, accessing financing, training, and developing documentation.

The USDA loan and grant program helps very small, financially distressed rural communities extend and improve water and waste treatment facilities that serve local households and businesses. This assistance supports infrastructure improvements, business development, housing, community services such as schools, public safety and health care, and high-speed internet access in rural areas. It can be used to finance drinking water, storm water drainage and waste disposal systems for rural communities with 10,000 or fewer residents.

The Safe Drinking Water Act Compliance Assistance Program is designed to strengthen the technical capacity in small water systems, ultimately resulting in the reduction of the number of systems out of compliance with health-based standards. The Training Specialists provide technical assistance in compliance with the Safe Drinking Water Act to small public water system personnel by working directly with them on-site at their system. Training Specialists use NRWA's nationwide pool of expertise to provide diagnostic and troubleshooting assistance for operational and compliance-related problems.

The National Rural Water Association also creates multiple public relations and outreach campaigns to promote a positive image of the water and wastewater industry to the public. Americans often take for granted that they have the highest quality, most affordable water, piped directly to their homes and businesses. This level of quality is accomplished because of dedicated professionals that take pride in their hard work, education, and service to the community. They also provide resources and information on current issues in the industry to our State Associations like the COVID-19 pandemic, PFAS, and Disaster Response during natural disasters.

Clean drinking water and safe wastewater treatment are vital to the health and safety of Americans. With the support of the State Associations, NRWA strives to protect the quality of life in America, while supporting the grassroots efforts required to help rural communities thrive. For more information, please visit www.nrwa.org.





Geoff Zeiss

A True Visionary in the Geospatial Sector

GEOFF ZEISS HAS MORE THAN 20 YEARS OF EXPERIENCE IN THE GEOSPATIAL SOFTWARE INDUSTRY AND MORE THAN 15 YEARS WORKING WITH UTILITIES. COMMUNICATIONS AND PUBLIC WORKS AROUND THE WORLD.

Working with "Between the Lines", Geoff is responsible for tracking the digitization of vertical and horizontal infrastructure in the energy and construction sectors.

The list of his accomplishments makes Geoff a no-brainer for dp-PRO's Damage Prevention Hero honor. Geoff is a frequent speaker at geospatial and utility events around the world, including Geospatial World Forum (where he received the Geospatial Ambassador Award in 2014), Where 2.0, MundoGeo Connect (Brazil), Middle East Spatial Geospatial Forum, Indian Geospatial Forum, Location Intelligence, Asia Geospatial Forum, and several GITA events in the U.S., Japan and Australia.

Geoff received the Speaker Excellence Award at GITA 2007-2009. In 2020, he coauthored the GITA White Paper: "Reducing Damage to Underground Utility Infrastructure during Excavation, Costs, Benefits, Technical Advances, Case Studies and Recommendations."

He was a founding member of the Minnesota Underground Utilities Mapping Project Team in 2020, and also the organizer and Chair of the Canadian Subsurface Utility Mapping Strategy Forum.

"The one word that best describes Geoff is passion," said Stephen D. Swazee Sr., Chair, MGAC Emergency Preparedness Committee. "He has a passion for geospatial and utility-related technologies. A passion for sharing what he knows. A passion for life-long learning. A passion for helping others. And a passion for building collabora-

tive working groups."

Geoff is constantly learning and sharing his knowledge with those in the geospatial and infrastructure sectors."

Geoff is constantly learning and sharing his knowledge with those in the geospatial and infrastructure sectors. "He is so active in sharing his knowledge through his media platforms and through speaking at events, both nationally and internationally," explained Ophir Wainer, Director of North American Business Development - 4M Analytics.

"I rate Geoff as one of a handful of visionaries in the geospatial sector. One of the things that distinguishes him from his peers is his unassuming manner. He has



an extensive knowledge of the IT sector, including spatial data management issues," said Steven Ramage, Chief Engagement Officer, Geoup on Earth Observations. "I would recommend him to anyone considering an investment in this sector, whether they are a small player entering the market to an organization planning a multi-million dollar project. I have collaborated with Geoff on a number of projects and he is one of those pivotal people that all IT projects need."

Those who know and have worked with Geoff praise him for his ability to think about "what is next" in damage prevention and his willingness to share those thoughts with others. He is genuinely dedicated to improving safety in the underground infrastructure community, not from the perspective of financial enrichment, but from the perspective of saving lives and making the world a better place to live.

"Geoff is one of my heroes because he exemplifies the person who always leads by example," Swazee adds. "Across the span of his blog, bringing together groups from around the word to tackle important utility issues, event organizing efforts, and willingness to share his immense knowledge, Geoff is a true leader."

And now a *dp-PRO* Damage Prevention Hero as well!







"I really enjoyed the webinar, and I was glad to speak. It's a big topic in our county and I just presented your farm and ranch guide to my county commission stating I'm going to be handing it out during future training and pesticide applicators renewals in the spring."

- Extension Agent, Dunn County, NDSU

"Thanks for a great presentation last week! It was very good, and as the Farm & Ranch Safety Coordinator for

-Extension Agent, Steele County, NDSU

staff across the state!"

NDSU Extension, I look forward to resources like this to help our Extension

Enhance your public awareness efforts with a unique, engaging approach to rural outreach. The Pipeline Ag Safety Alliance works closely with the National Association of County Agricultural Agents to help deliver safe digging education to farmers and ranchers across the nation. Tracking our "educate the educator" approach with annual documentation, we realize there is no one size fits all.

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Scholarship Enables New Engineers Focused on Roadway Safety to attend ATSSA's Convention & Traffic Expo

BY CATHY JETT, ATSSA WRITER

AN ICON in the roadway safety industry is paving the way for engineers new to that field.

Marty Weed, a former Washington State Department of Transportation work zone engineer, knew the value of the information he gained and contacts he made at the American Traffic Safety Services Association (ATSSA) Annual Convention & Traffic Expo.

Before his death due to cancer in 2018, he

worked with ATSSA, The American Traffic Safety Services (ATSS) Foundation and his friends and colleagues to establish the Marty Weed Engineering Scholarship. It provides up to \$1,500 to cover travel expenses to ATSSA's Annual Convention & Traffic Expo, which brings together 3,700 roadway safety infrastructure professionals from across the nation and globe.

Weed's actions inspired The Founda-

tion's Planned Giving program, which enables donors to designate the nonprofit as a beneficiary in their estate plans. After his death, Weed's children honored his vision by donating \$20,000 to cover ten years' worth of scholarships.

Marty Weed

"We will be forever grateful to Marty Weed for endowing this scholarship to assist engineers interested in the field of temporary traffic control and the highway safety industry," said ATSS Foundation Director Lori Diaz. "His commitment to the industry and the advancement of careers will have a lasting impact not only on the recipients of the scholarships but also on everyone who benefits from their work."

A longtime ATSSA member, Weed was involved in the roadway safety infrastructure industry for 33 years and received ATSSA's National Safety Award in 2015. He was committed to developing the next generation of roadway safety professionals and created the scholarship because he understood government agencies have minimal budgets for travel and professional development.

To qualify, applicants must work for a public agency as an engineer or professional engineer specializing in work zone safety and temporary traffic control, and have a maximum of seven years of work experience as an engineer.

The ATSS Foundation administers the scholarship and its review panel evaluates the applications. Two applicants are chosen each year. One scholarship







(TOP) Marty Lazanich, a work zone safety engineer at the Utah Department of Transportation (UDOT), was one of two recipients of the Marty Weed Engineering Scholarship in 2022.

(BOTTOM))Renas Barzanji is a work zone/Americans with Disabilities Act transportation monitor for the Tennessee Department of Transportation (TDOT). She was a 2022 recipient of the Marty Weed Engineering Scholarship, which was established to help engineers new in the roadway safety field attend ATSSA's Annual Convention & Traffic Expo.

is provided by The Foundation and the other is matched by ATSSA. The first two scholarships were awarded in 2020. None were awarded in 2021 as the Convention & Traffic Expo was held virtually due to the pandemic.

Matt Lazanich, Utah Department of Transportation (UDOT) work zone safety engineer, and Renas Barzanji, Tennessee Department of Transportation (TDOT) work zone/ Americans with Disabilities Act transportation monitor, were this year's recipients.

Lazanich said his main concern is reducing roadway fatalities in Utah, especially in construction projects. At the Convention he heard what other states are doing and planned to use that information to improve Utah's work zone safety program.

"The single most impactful thing from the conference was meeting professionals in similar roles as I am that I can reach out to and bounce ideas off, get feedback and have confidence when deploying new technologies and processes," he said.

Barzanji, who's been in TDOT's work zone section for over a year, said one of the issues her section works on is ensuring traffic control in a growing city minimizes congestion in work zones. Her main takeaway from the

> event was that small changes, such as adding bicycle and pedestrian paths, can create an alternative form of transportation and make roadway conditions safer.

> "I would definitely encourage newer engineers to apply for the Marty Weed Engineering Scholarship," Barzanji said. "The ATSSA Convention gives attendees the



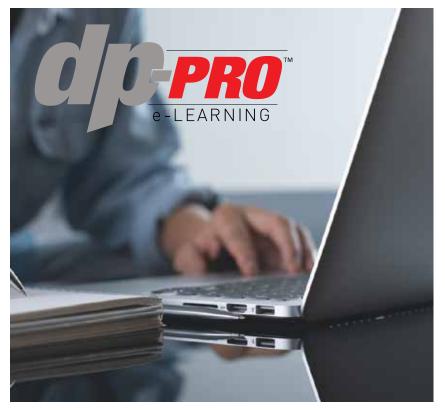
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LOCATING



BY CHRISTOPHER KOCH

The Great Outdoors

or me, it's always the chickadees that mark the coming of spring. After months of cold gray silence, the distinctive "hey, pretty" calls will be there all at once on some random

Tuesday morning when I'm taking out the garbage. A few weeks later, the frogs make themselves known likewise seeming to rise up out of nowhere to suddenly lull me to sleep in the evening.

The months that follow are marked by a long string of days when indoor workers gaze longingly outside, steal a few moments in the sun at lunchtime, and mark the hours until they can get home and finally enjoy the last moments of what was another fine day to be outdoors.

When I used to regularly interview new hires, I'd routinely hear from people who'd only ever worked inside say how much they were looking forward to a job where they could finally get outside. My company even put it in an ad one year, "Tired of flickering fluorescent lights?", we teased. "Come work for us."

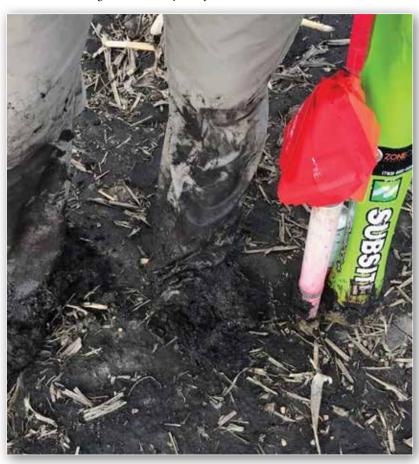
During the interview of course, I'd ask if they'd really thought about what it meant to work outdoors. Everyone longs to be outside when it's nice. Not everyone can stand a job that requires them to be out when it's not. It's like the line from that old Waylon Jennings song "be careful of something that's just what you want it to be."

The life of a locator is ruled by an ever-ticking clock, an unforgiving countdown timer that says you're breaking the law if you don't finish your work on

time. And that timer doesn't care if it's raining, or freezing, or if the heat is so bad the asphalt under your feet has gone gummy. In my first year of locating, I got sunburned, windburned, dehydrated, chafed, puckered, pinched, stung, soaked, and blistered. I also sprained my ankle (a near annual occurrence) and sunk my minivan up to the door sills in a thick brown mud the consistency of brownie batter (when the tow truck driver came to winch me free, he took one look at it and made me attach the cable myself).

The year after that I became a supervisor and had to fend off a mutiny after it rained every day for three weeks straight in the height of the spring rush. That was the year I got my first boot dryer. Although it was nice not to have to slip my feet into the previous day's cold clammy boots, there was little we could do to keep our receivers

from succumbing to the never-ending damp. In the end, we resorted to covering the display panels with clear packing tape every morning for an extra layer of protection.



As someone who's made their living outdoors for most of my life, there have been some days when an inside job looked pretty inviting, but not today. Not when the chickadees are singing and the spring sun is high in a clear blue sky. For now, the forecast looks pretty good!

Christopher Koch is a training consultant and President of ZoneOne Locating. He is past president of Nulca and worked on both the 2009 and 2015 revisions to the Nulca Professional Competency Standard. He can be reached by email at Christopherkoch@live.com or on Twitter @kochauthor.

THE OPINIONS EXPRESSED IN THIS ARTICLE ARE THOSE OF THE AUTHOR. dp-PRO WELCOMES AND ENCOURAGES ARTICLES AND CORRESPONDENCE FROM ALL POINTS OF VIEW.







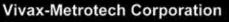
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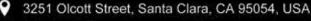


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